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Subject:

Pre-Design Investigation Summary Report  
Newark Former Manufactured Gas Plant Site  
Newark, New York  
Site No. 8-59-021

ENVIRONMENT

Dear Mr. Squire:

Date:

September 10, 2018

This letter summarizes the pre-design investigation (PDI) activities completed at the New York State Electric & Gas Corporation (NYSEG) Newark Former Manufactured Gas Plant (MGP) Site (the site) located in Newark, New York.

Contact:

Jason Golubski, P.E.

PDI Activities were completed from April 19, 2018 to April 30, 2018 (and on August 22, 2018) in accordance the New York State Department of Environmental Conservation- (NYSDEC-) approved August 2017 Remedial Design Work Plan (RDWP).

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A summary of the activities and associated results is presented below.

Our ref:

B0013094.0006 #10

### **Task 1 – Utility Identification**

As an initial step of the PDI, following utility identification activities were conducted to identify overhead and subsurface utilities at and in the immediate vicinity of the anticipated remedial limits:

- Arcadis conducted a detailed visual site inspection to identify utilities present at the site in comparison to the site survey and available utility plans.
- Personnel from utility owners and/or locators (on behalf of the owners) marked out their respective electric, natural gas, communication, sanitary and storm sewers, and water lines in response to Dig-Safely New York ticket requests issued by the geophysical survey and drilling subcontractors (TREC Environmental Inc. [TREC] of Spencerport, New York and Nothnagle Drilling, Inc. [Nothnagle] of Scottsville, New York).
- Arcadis retained a private utility locating service (TREC) to perform a geophysical survey using ground-penetrating radar (GPR) techniques to

identify and mark the location of underground utilities and obstructions at and in the immediate vicinity of anticipated remedial areas. TREC performed the utility clearance on April 19 and April 20, 2018, including marking subsurface utilities and performing soft digging (i.e., via air-knife) to confirm the utility locations. Utility survey information is included as Attachment 1.

Arcadis' survey subcontractor Fischer Associates (Fisher) of Rochester, New York surveyed and documented the locations of the identified utilities. Utility information will be incorporated into the forthcoming remedial design (including potential utility relocation requirements).

## **Task 2 – Soil Investigation**

Nothnagle completed 11 soil borings (SB-100 through SB-110) using conventional hollow-stem auger drilling techniques and two test pits (TP-100 and TP-101) using a track-mounted mini-excavator. Soil borings and test pits were completed, from April 23 to April 27, 2018, at the locations shown on Figure 1 to achieve the following objectives:

- Further delineating the extent of required soil removal.
- Evaluating the conditions of subsurface structures/foundations.
- Assessing handling requirements for soil to be removed as part of the remedy.
- Evaluating the geotechnical properties of soil within the excavation areas.

Prior to drilling, asphalt pavement was saw-cut and soil was removed from each boring by vacuum/manual excavation to a depth of approximately 5 feet bgs as an additional measure to identify/avoid subsurface utilities/obstructions. Soil borings were drilled to target depths of 17 to 23 feet below ground surface (bgs) in the eastern holder area and to 9 to 15 feet bgs in the northern area. Soil boring logs are included as Attachment 2.

Soil samples were collected continuously using 2-foot long, 2-inch-diameter split-spoon samplers. Arcadis' field geologist visually characterized each sample for soil type, texture, moisture content, compactness, plasticity, and the presence/absence of impacts (e.g., non-aqueous phase liquid [NAPL]). The field geologist also screened representative samples from each sampling interval for the presence of volatile organic vapors using a photoionization detector (PID). Following the completion of drilling, bore holes were filled with grout.

Prior to excavating the test pits, the existing asphalt surface was saw-cut to create a clean break-line. Test pit logs are included as Attachment 3. The excavated material was placed into roll-offs staged near the test pits and subsequently transported offsite for disposal (as discussed below). Following the completion of the excavation activities, the test pits were backfilled with crushed stone and the asphalt pavement was repaired (at soil boring and test pit locations) on May 29, 2018.

In accordance with the RDWP, air monitoring was completed during the soil investigation activities; no exceedances occurred. Additional PDI soil investigation details are presented below and a summary of the soil samples collected as part of the PDI is presented as Table 1.

## **Delineation**

Soil samples were collected from both soil borings and test pits to further refine the extent of required soil removal. Per the March 2013 Record of Decision [ROD], soil containing gross visual impacts and/or total

polycyclic aromatic hydrocarbons (PAHs) at concentrations greater than 500 milligrams per kilograms (mg/kg) requires removal.

In general, samples submitted for laboratory analysis were collected from the bottom of the boring/test pit (i.e., at the target depth or top of till) or where the most visually impacted material or highest PID field screening readings were noted. Arcadis field personnel did not encounter any gross visual impacts. Potential impacts (visual and odors) were limited to the following locations:

- SB-103 – A fuel-like odor at the 7 to 9 to 13 to 18 ft bgs. Although these observations were not gross visual impacts, as a conservative measure, “step-out/contingency” boring SB-109 was completed west of boring SB-103.
- SB-106 – NAPL blebs from 19 to 21 ft bgs.
- SB-107 – A slight MGP-like odor and slight sheen on water in the pore space at the 15 to 19 ft bgs.

“Step-out/contingency” borings were not required for soil borings SB-106 and SB-107; other PDI (and Remedial Investigation [RI]) borings were planned (or previously completed) to the north and east. At soil boring SB-101 (and at SB-100), soil samples contained slag/debris (consistent with RI samples collected in this area). As a conservative measure, “step-out/contingency” boring SB-110 was completed west of boring SB-101 (but samples were not analyzed based on the results of soil delineation samples from boring SB-101).

Per the RDWP, two test pits (TP-101 and TP-102) were to be excavated, with the objective of further evaluating a visual impact noted in RI soil boring SB-2 (i.e., isolated hard tar observed at 7.5 ft bgs) completed in the western holder area. However, no visual impacts were observed during excavation of the test pit TP-101. Therefore, in accordance with the RDWP, test pit TP-102 was not excavated.

Arcadis collected and submitted a total of 11 soil samples to SGS Accutest Laboratories (SGS) located in Dayton, New Jersey for analysis of semi-volatile organic compounds (SVOCs) for excavation delineation purposes. Note that analytical results for waste characterization sample were also considered when refining excavation limits. Analytical results indicated that total polycyclic aromatic hydrocarbons (PAHs) at concentrations greater than 500 milligrams per kilograms (mg/kg) were not present in any of the soil samples, including a sample collected from test pit TP-101. Soil delineation sample analytical results (as well as SVOC analytical results for waste characterization samples) are presented in Table 2 and laboratory reports are included in Attachment 4. Analytical results for delineation samples were validated and Data Usability Summary Reports (DUSRs) are included as Attachment 5.

Based on the results of the PDI, proposed revised soil excavation limits are presented on Figure 2. The rationale for the proposed modifications is as follows:

- Given the minor degree of observed visual impacts and low-level PAH concentrations, soil in the eastern holder area does not meet the ROD-required criteria for removal and therefore, the eastern holder area will not be excavated.
- The horizontal limits of excavation north of the hotel have been slightly expanded to “clean” locations (i.e., does not contain gross visual impacts and does not contain PAHs concentrations greater than 500 mg/kg).
- Similarly, the excavation north of the West Shore Boulevard has been slightly expanded to “clean” locations.

- Given the absence of visual impacts and low-level PAH concentrations, soil in the western holder area does not meet the ROD-required criteria for removal and therefore, the western holder area will not be excavated.

### **Subsurface Structure Evaluation**

Gas holder/MGP foundations structures were not encountered during test pit excavations. In addition to delineation and waste characterization sampling, test pits TP-100 and TP-101 were also used to assess hotel foundation construction/conditions. An approximately 22" curb was present approximately 2 to 3 feet off the hotel wall, with the area between the curb and hotel wall filled with topsoil/fill and covered with landscaping. The hotel wall/footing extends approximately 1.5' below ground surface (bgs) and consist of cast-in-place concrete. At test pit TP-100 (north side of the hotel), a 4-inch thick concrete slab is located below the cast-in-place concrete wall/footing. At test pit TP-101 (west side of the hotel), mortared stones/cobbles (12-inch thick) was located below the cast-in-place concrete wall/footer. Photographs of the subsurface structures/ foundation observed during the test pitting are included in Attachment 7.

The hotel foundation observations will be considered during the development of an excavation approach as part of the forthcoming remedial design.

### **Soil Waste Characterization Sampling**

Arcadis submitted a total of 22 soil samples, collected from both soil borings and test pits, to SGS to characterize material for waste characterization purposes. Waste characterization results will support profiling for offsite treatment/disposal and facilitate direct-loading of the excavated materials during remedial construction. Samples were analyzed per Seneca Meadows Landfill requirements (base parameters and additional parameters, to support non-hazardous waste disposal) and ESMI Fort Edward requirement (to support low-temperature thermal desorption [LTTD] treatment of conditionally-exempt material).

Waste characterization sample analytical results are presented in Table 3 and laboratory reports are included in Attachment 5, and will be used to develop waste handling/disposal requirements to be presented in the forthcoming remedial design and subsequently used to develop waste profiles prior to remedial construction.

### **Geotechnical Soil Sampling**

Arcadis submitted a total of six samples (from borings SB-100, SB-101; SB-105; SB-107; TP-100; TP-101) collected from the test pits and soil borings to Geotechnical & Geosynthetic Testing (Geotechnics) located in Pittsburgh, Pennsylvania for geotechnical testing (i.e., moisture content, grain size analysis and Atterberg limits). Geotechnical laboratory reports area included as Attachment 6. Geotechnical testing results will be used during the development of an excavation approach as part of the forthcoming remedial design.

### **Task 3 – Qualitative Structural Review**

Qualitative structural reviews of the two-story hotel (at 125 West Shore Boulevard) and the one-story building at 101 West Shore Boulevard were conducted on April 25 and August 22, 2018 (respectively) to

evaluate existing structure details. A photo log of representative conditions of the two structures is included as Attachment 7 and a summary of the structures is presented below.

Based on the proximity of the anticipated excavation limits relative to buildings, structural monitoring is anticipated to be completed during the remedial construction activities. Potential monitoring activities may include, but may not be limited to: pre- and post-construction structural inspections to document building conditions; vibration monitoring to assess ground vibrations; and structural monitoring to evaluate potential movement (e.g., tiltmeters, optical survey points, etc.). Structural monitoring requirements will be developed as part of the remedial design.

### **Hotel Building (125 West Shore Boulevard)**

The building at 125 North Main Street is currently operating as a hotel. The floor consists of a concrete slab on grade and there is no basement level. Test pits completed along the northern and western sides of the building (discussed above) indicated that the building is supported by shallow, cast-in-place concrete footings. Because of the stucco finish covering the exterior walls and columns, building wall construction details could not be determined. General construction of the building, given the size and visible exterior features, is assumed to be metal framing with concrete (or brick) masonry walls.

The façade of this two-story structure is mostly glass windows with metal paneling. Building columns along the façade are spaced at approximate 15 feet on center, typically defining the limits of the individual hotel rooms. The interior of two of the hotel rooms adjacent to the test pits was also reviewed. Both rooms contained carpeted flooring with plaster ceilings. The exterior wall of the rooms consisted of three large windows with metal paneling and the room's heating/cooling ventilation unit positioned below. Interior wall finishes were either plaster or wall paper. No cracks were observed in the walls. Cracks were observed in the ceiling panel joints in both rooms.

### **101 West Shore Boulevard**

The building at 101 West Shore Boulevard is currently occupied by a hair salon (front half) and a drywall company (rear half). The building is a single story, wood framed structure with exterior metal siding and roofing. The floor is concrete slab on grade and there is no basement level. Although the buildings foundations were not visible, they are assumed to be shallow, spread footing foundations.

The interior walls and ceilings are finished with drywall. Floor coverings include either linoleum tiles or wood. One area of the building's floor is not covered and the exposed slab on grade was visible. No cracks were observed in this portion of the floor. No cracks or deteriorated areas were observed in the walls or ceiling.

### **Task 4 – Groundwater Investigation**

Arcadis conducted groundwater sampling near potential excavation areas and site-wide water level measurements on April 23, 2018. Arcadis field personnel collected and submitted groundwater grab samples (using a bailer) from three monitoring wells (MW-3A, MW-10-02, MW-11-06) to SGS for analysis to support treatment/disposal requirements and/or the design of the temporary water treatment system (to be used to support remedial construction). Groundwater sampling logs are included as Attachment 8.

Water level measurements are summarized in Table 4. Groundwater sample analytical results are presented on Table 5 and the laboratory reports are included in Attachment 5. Groundwater analytical results will be used to evaluate potential water handling/disposal requirements as part of the remedial design.

### **Task 5 – Site Survey**

Fisher surveyed the project area to document the PDI soil borings and test pit locations, identified utilities, and generate one-foot topographic site contours. Survey information will be used to develop a new site base map for remedial design drawings. A copy of Fisher's survey is included as Attachment 9.

### **Investigation-Derived Waste**

Investigation-derived waste (IDW) generated during the PDI was containerized onsite. Material excavated from test pits (as well as soil cuttings, personal protective equipment, and spent disposable sampling materials) was placed into three lined and tarped roll-off containers. Generated water (groundwater sampling purge water and decontamination water) was placed into two 55-gallon steel drums.

NYSEG's waste disposal vendor, Clean Harbors, completed the waste characterization sampling and transported the IDW for off-site disposal. Clean Harbor disposal documentation is included as Attachment 10.

### **Conclusion**

As indicated previously, based on the results of the PDI, soil removal limits have been modified as shown on Figure 2 and as follows:

- The eastern and western holder areas do not require excavation (based on PAH analytical results and the absence of gross visual impacts).
- The remaining excavation north of the hotel and the excavation north of the West Shore Boulevard have been expanded slightly to terminate at "clean" locations (i.e., meet the requirements of the ROD).

Please note that Arcadis is currently preparing a Preliminary (50%) Remedial Design Report and anticipates providing the preliminary design to NYSDEC for review by November 2018.

Michael H. Squire  
September 10, 2018

Please contact NYSEG's project manager, Jeremy Wolf at 585.500.8392, if you have any questions or comments regarding the information presented here-in.

Sincerely,

Arcadis of New York, Inc.



Jason Golubski, P.E.

Copies:

Stephen Lawrence, NYSDOH  
Jeremy Wolf, RG&E  
Jason Brien, Arcadis

Enclosures:

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- 6 Geotechnical Laboratory Report
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# TABLES





**Table 1**  
**Soil Sample Summary**  
**NYSEG, Newark Former MGP Site, Newark, New York**

| Location ID         | Laboratory Analysis<br>(depth interval, ft) |  |  |  | Geotechnical Analysis<br>(depth interval, ft) |                     |                     |
|---------------------|---|--|--|--|---|---------------------|---------------------|
|                     | Delineation                                 | ESMI Waste<br>Characterization<br>Parameters | Seneca Meadows<br>Landfill Waste<br>Characterization | Seneca Meadows<br>Landfill Waste<br>Characterization | Sieve   | Moisture<br>Content | Atterberg<br>Limits |
|                     |   |  | Base Parameters                                      | Additional<br>Parameters                             |   |                     |                     |
| <b>Soil Borings</b> |   |  |  |  |   |                     |                     |
| SB-100              | --  | 0-8<br>8-11                                  | 0-8  | 0-8  |   | 8-11                |                     |
| SB-101              | 7-9   | 0-9  | 0-9  | --   |   | 9-11                |                     |
| SB-102              | 19-21                                       | 17-21  | 0-17   | --   |   | --                  |                     |
| SB-103              | 7-9   | 9-19   | 0-5  | --   |   | --                  |                     |
| SB-104              | --  | 5-9<br>13-17                                 | 2-13   | --   |   | --                  |                     |
| SB-105              | 13-15                                       | 8-15   | 0-5  | --   |   | 0-5                 |                     |
| SB-106 <sup>1</sup> | 17-20                                       | 17-21  | 3-15   | --   |   | --                  |                     |
| SB-107              | 15-17                                       | --   | --   | --   |   | 11-15               |                     |
| SB-108 <sup>1</sup> | 15-17                                       | --   | --   | --   |   | --                  |                     |
| SB-109              | 7-9<br>15-17                                | --   | --   | --   |   | --                  |                     |
| SB-110 <sup>2</sup> | --  | --   | --   | --   |   | --                  |                     |
| <b>Test Pits</b>    |   |  |  |  |   |                     |                     |
| TP-100              | 8-10  | 2-6<br>6-8<br>8-10                           | 2-6  | 2-6  |   | 4-8                 |                     |
| TP-101              | 7-8   | --   | --   | --   |   | 8-10                |                     |

**Notes:**

1. ESMI and Seneca Meadows waste characterization samples collected but not analyzed based on delineation sample analytical results.
2. Delineation sample collected from SB-110 but not analyzed based on analytical results for sample from SB-101.







**Table 2**  
**Soil Delineation Sample Analytical Results**  
**NYSEG, Newark Former MGP Site, Newark, New York**

**Notes:**

1. Samples collected by Arcadis on the dates indicated.
2. Samples analyzed by SGS Accutest Laboratories in Dayton, NJ
3. J = an estimated value.
4. U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
5. ND = None Detected.
6. NA = Not Analyzed.
7. "A" and "B" ID/depth indicates various waste characterization analyses.
8. Data results have been validated.









Table 3  
Soil Waste Characterization Sample Analytical Results  
NYSEG, Newark Former MGP Site, Newark, New York

| Location ID:<br>Sample Depth(feet):<br>Date Collected:<br>Sample Name: |       | SB-100<br>0 - 8<br>04/27/18<br>SB-100 (0-8)A | SB-100<br>0 - 8<br>04/27/18<br>SB-100 (0-8)B | SB-100<br>8 - 11<br>04/27/18<br>SB-100 (8-11) | SB-101<br>0 - 9<br>04/27/18<br>SB-101 (0-9)A | SB-101<br>0 - 9<br>04/27/18<br>SB-101 (0-9)B | SB-102<br>0 - 17<br>04/24/18<br>SB-102 (0-17) | SB-102<br>17 - 21<br>04/24/18<br>SB-102 (17-21) | SB-103<br>0 - 5<br>04/26/18<br>SB-103 (0-5) | SB-103<br>9 - 19<br>04/26/18<br>SB-103 (9-19) | SB-104<br>2 - 13<br>04/25/18<br>SB-104 (2-5) (9-13) | SB-104<br>5 - 9<br>04/25/18<br>SB-104 (5-9) | SB-104<br>13 - 17<br>04/25/18<br>SB-104 (13-17) |
|--|-------|--|--|---|--|--|---|---|---|---|---|---|---|
| <b>Pesticides</b>  |       |  |  |   |  |  |   |   |   |   |   |   |   |
| 4,4'-DDD   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| 4,4'-DDE   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.0037                                       | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| 4,4'-DDT   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.0077                                       | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Aldrin   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| alpha-BHC  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| alpha-Chlordane  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| beta-BHC   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| delta-BHC  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Dieldrin   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endosulfan I   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endosulfan II  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endosulfan sulfate   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endrin   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endrin aldehyde  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Endrin ketone  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| gamma-BHC (Lindane)  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| gamma-Chlordane  | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Heptachlor   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Heptachlor epoxide   | mg/kg | 0.00076 U                                    | 0.00085 U                                    | 0.00076 U                                     | 0.00078 U                                    | 0.00079 U                                    | 0.00071 U                                     | NA  | 0.00073 U                                   | 0.00074 U                                     | 0.00077 U   | 0.00079 U                                   | 0.00071 U                                       |
| Methoxychlor   | mg/kg | 0.0015 U                                     | 0.0017 U                                     | 0.0015 U                                      | 0.0016 U                                     | 0.0016 U                                     | 0.0014 U                                      | NA  | 0.0015 U                                    | 0.0015 U                                      | 0.0015 U  | 0.0016 U                                    | 0.0014 U  |
| Toxaphene  | mg/kg | 0.019 U                                      | 0.021 U                                      | 0.019 U                                       | 0.019 U                                      | 0.02 U                                       | 0.018 U                                       | NA  | 0.018 U                                     | 0.018 U                                       | 0.019 U   | 0.02 U                                      | 0.018 U   |
| <b>Pesticides-TCLP</b>   |       |  |  |   |  |  |   |   |   |   |   |   |   |
| Chlordane (technical)  | mg/L  | NA   | 0.0033 U                                     | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| Endrin   | mg/L  | NA   | 0.000067 U                                   | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| gamma-BHC (Lindane)  | mg/L  | NA   | 0.000067 U                                   | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| Heptachlor   | mg/L  | NA   | 0.000067 U                                   | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| Heptachlor epoxide   | mg/L  | NA   | 0.000067 U                                   | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| Methoxychlor   | mg/L  | NA   | 0.00013 U                                    | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |
| Toxaphene  | mg/L  | NA   | 0.0017 U                                     | NA  | NA   | NA   | NA  | NA  | NA  | NA  | NA  | NA  | NA  |



Table 3  
Soil Waste Characterization Sample Analytical Results  
NYSEG, Newark Former MGP Site, Newark, New York

| Location ID:<br>Sample Depth(foot):<br>Date Collected:<br>Sample Name: | Units | SB-105                            | SB-105                              | SB-106                                     | SB-106                                | SB-108                                | TP-100                             | TP-100                             | TP-100                            | TP-100                               |
|--|-------|-----------------------------------|-------------------------------------|--|---------------------------------------|---------------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|
|  |       | 0 - 5<br>04/26/18<br>SB-105 (0-5) | 8 - 15<br>04/26/18<br>SB-105 (8-15) | 3 - 15<br>04/24/18<br>SB-106 (3-5) (11-15) | 17 - 21<br>04/25/18<br>SB-106 (17-21) | 15 - 25<br>04/26/18<br>SB-108 (15-25) | 2 - 6<br>04/26/18<br>TP-100 (2-6)A | 2 - 6<br>04/25/18<br>TP-100 (2-6)B | 6 - 8<br>04/25/18<br>TP-100 (6-8) | 8 - 10<br>04/25/18<br>TP-100 (8-10)B |
| <b>Semivolatile Organics</b>   |       |                                   |                                     |  |                                       |                                       |                                    |                                    |                                   |                                      |
| 1,1'-Biphenyl  | mg/kg | 0.0247 J                          | 0.0067 J                            | 0.073 U                                    | 0.0461 J                              | NA                                    | 0.0058 J                           | 0.072 U                            | 0.072 U                           | 0.0312 J                             |
| 1,2,4,5-Tetrachlorobenzene   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 1,4-Dioxane  | mg/kg | 0.037 U                           | 0.036 U                             | 0.037 U                                    | 0.04 U                                | NA                                    | 0.036 U                            | 0.036 U                            | 0.036 U                           | 0.035 U                              |
| 2,3,4,6-Tetrachlorophenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4,5-Trichlorophenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4,6-Trichlorophenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4-Dichlorophenol   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4-Dimethylphenol   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4-Dinitrophenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2,4-Dinitrotoluene   | mg/kg | 0.037 U                           | 0.036 U                             | 0.037 U                                    | 0.04 U                                | NA                                    | 0.036 U                            | 0.036 U                            | 0.036 U                           | 0.035 U                              |
| 2,6-Dinitrotoluene   | mg/kg | 0.037 U                           | 0.036 U                             | 0.037 U                                    | 0.04 U                                | NA                                    | 0.036 U                            | 0.036 U                            | 0.036 U                           | 0.035 U                              |
| 2-Chloronaphthalene  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 2-Chlorophenol   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 2-Methylnaphthalene  | mg/kg | 0.0562                            | 0.0089 J                            | 0.037 U                                    | 0.04 U                                | NA                                    | 0.0087 J                           | 0.036 U                            | 0.0171 J                          | 0.0778                               |
| 2-Methylphenol   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 2-Nitroaniline   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 2-Nitrophenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 3&4-Methylphenol   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 3,3'-Dichlorobenzidine   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 3-Nitroaniline   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 4,6-Dinitro-2-methylphenol   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 4-Bromophenyl phenyl ether   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 4-Chloro-3-methylphenol  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 4-Chloroaniline  | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 4-chlorophenyl-phenylether   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| 4-Nitroaniline   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| 4-Nitrophenol  | mg/kg | 0.37 U                            | 0.36 U                              | 0.37 U                                     | 0.4 U                                 | NA                                    | 0.36 U                             | 0.36 U                             | 0.36 U                            | 0.35 U                               |
| Acenaphthene   | mg/kg | 0.0559                            | 0.036 U                             | 0.037 U                                    | 1.13                                  | NA                                    | 0.036 U                            | 0.036 U                            | 0.036 U                           | 0.437                                |
| Acenaphthylene   | mg/kg | 0.223                             | 0.0246 J                            | 0.037 U                                    | 1.26                                  | NA                                    | 0.036 U                            | 0.036 U                            | 0.0525                            | 0.0294 J                             |
| Acetophenone   | mg/kg | 0.0196 J                          | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| Anthracene   | mg/kg | 0.344                             | 0.0328 J                            | 0.037 U                                    | 0.742                                 | NA                                    | 0.0316 J                           | 0.023 J                            | 0.0965                            | 0.926                                |
| Atrazine   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Benzaldehyde   | mg/kg | 0.0284 J                          | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| Benzo(a)anthracene   | mg/kg | 1.41                              | 0.147                               | 0.0149 J                                   | 4.05                                  | NA                                    | 0.115                              | 0.127                              | 0.322                             | 2.31                                 |
| Benzo(a)pyrene   | mg/kg | 1.36                              | 0.162                               | 0.037 U                                    | 5.99                                  | NA                                    | 0.119                              | 0.146                              | 0.352                             | 2.27                                 |
| Benzo(b)fluoranthene   | mg/kg | 1.8                               | 0.195                               | 0.0181 J                                   | 3.81                                  | NA                                    | 0.156                              | 0.192                              | 0.441                             | 2.65                                 |
| Benzo(g,h)perylene   | mg/kg | 1.32                              | 0.159                               | 0.037 U                                    | 4.1                                   | NA                                    | 0.107                              | 0.138                              | 0.325                             | 1.24                                 |
| Benzo(k)fluoranthene   | mg/kg | 0.556                             | 0.0913                              | 0.037 U                                    | 1.45                                  | NA                                    | 0.0571                             | 0.0718                             | 0.15                              | 0.877                                |
| Bis(2-chloro-1-methylethyl) ether                                      | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Bis(2-chloroethoxy)methane   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Bis(2-chloroethyl)ether  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Bis(2-ethylhexyl)phthalate   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Butyl benzyl phthalate   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Caprolactam  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Carbazole  | mg/kg | 0.112                             | 0.0128 J                            | 0.073 U                                    | 0.08 U                                | NA                                    | 0.0162 J                           | 0.02 J                             | 0.0146 J                          | 0.449                                |
| Chrysene   | mg/kg | 1.33                              | 0.141                               | 0.0146 J                                   | 3.63                                  | NA                                    | 0.124                              | 0.131                              | 0.287                             | 2                                    |
| Dibenzo(a,h)anthracene   | mg/kg | 0.285                             | 0.0328 J                            | 0.037 U                                    | 0.89                                  | NA                                    | 0.0254 J                           | 0.0315 J                           | 0.0459                            | 0.281                                |
| Dibenzofuran   | mg/kg | 0.106                             | 0.072 U                             | 0.073 U                                    | 0.0568 J                              | NA                                    | 0.0168 J                           | 0.072 U                            | 0.0364 J                          | 0.184                                |
| Diethylphthalate   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Dimethylphthalate  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Di-n-butylphthalate  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Di-n-octylphthalate  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Fluoranthene   | mg/kg | 2.29                              | 0.294                               | 0.0348 J                                   | 7.93                                  | NA                                    | 0.262                              | 0.249                              | 0.568                             | 5.05                                 |
| Fluorene   | mg/kg | 0.0971                            | 0.036 U                             | 0.037 U                                    | 0.519                                 | NA                                    | 0.036 U                            | 0.036 U                            | 0.0454                            | 0.389                                |
| Hexachlorobenzene  | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Hexachlorobutadiene  | mg/kg | 0.037 U                           | 0.036 U                             | 0.037 U                                    | 0.04 U                                | NA                                    | 0.036 U                            | 0.036 U                            | 0.036 U                           | 0.035 U                              |
| Hexachlorocyclopentadiene  | mg/kg | 0.37 U                            | 0.36 U                              | 0.37 U                                     | 0.4 U                                 | NA                                    | 0.36 U                             | 0.36 U                             | 0.36 U                            | 0.35 U                               |
| Hexachloroethane   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| Indeno(1,2,3-cd)pyrene   | mg/kg | 1.42                              | 0.163                               | 0.037 U                                    | 3.32                                  | NA                                    | 0.115                              | 0.131                              | 0.33                              | 1.44                                 |
| Isophorone   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Naphthalene  | mg/kg | 0.199                             | 0.0347 J                            | 0.037 U                                    | 0.059                                 | NA                                    | 0.0129 J                           | 0.036 U                            | 0.0197 J                          | 0.124                                |
| Nitrobenzene   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| N-Nitroso-di-n-propylamine   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| N-Nitrosodiphenylamine   | mg/kg | 0.18 U                            | 0.18 U                              | 0.18 U                                     | 0.2 U                                 | NA                                    | 0.18 U                             | 0.18 U                             | 0.18 U                            | 0.17 U                               |
| Pentachlorophenol  | mg/kg | 0.15 U                            | 0.14 U                              | 0.15 U                                     | 0.16 U                                | NA                                    | 0.14 U                             | 0.14 U                             | 0.14 U                            | 0.14 U                               |
| Phenanthrene   | mg/kg | 1.14                              | 0.126                               | 0.013 J                                    | 1.31                                  | NA                                    | 0.136                              | 0.1                                | 0.356                             | 3.37                                 |
| Phenol   | mg/kg | 0.074 U                           | 0.072 U                             | 0.073 U                                    | 0.08 U                                | NA                                    | 0.072 U                            | 0.072 U                            | 0.072 U                           | 0.07 U                               |
| Pyrene   | mg/kg | 2.49                              | 0.279                               | 0.0372                                     | 15.6                                  | NA                                    | 0.251                              | 0.241                              | 0.601                             | 3.72                                 |
| Total PAHs   | mg/kg | 16                                | 1.8 J                               | 0.13 J                                     | 56                                    | NA                                    | 1.5 J                              | 1.6 J                              | 4.0                               | 30 J                                 |

Table 3  
Soil Waste Characterization Sample Analytical Results  
NYSEG, Newark Former MGP Site, Newark, New York

| Location ID:<br>Sample Depth(feet):<br>Date Collected:<br>Sample Name: | SB-105<br>0 - 5<br>04/26/18<br>SB-105 (0-5) | SB-105<br>8 - 15<br>04/26/18<br>SB-105 (8-15) | SB-106<br>3 - 15<br>04/24/18<br>SB-106 (3-5) (11-15) | SB-106<br>17 - 21<br>04/25/18<br>SB-106 (17-21) | SB-108<br>15 - 25<br>04/26/18<br>SB-108 (15-25) | TP-100<br>2 - 6<br>04/26/18<br>TP-100 (2-6)A | TP-100<br>2 - 6<br>04/25/18<br>TP-100 (2-6)B | TP-100<br>6 - 8<br>04/25/18<br>TP-100 (6-8) | TP-100<br>8 - 10<br>04/25/18<br>TP-100 (8-10)B |  |
|--|---|---|--|---|---|--|--|---|--|--|
| <b>Semivolatile Organics-TCLP</b>                                      |   |   |  |   |   |  |  |   |  |  |
| 1,4-Dichlorobenzene  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| 2,4,5-Trichlorophenol  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.05 U                                       | NA  | NA   |  |
| 2,4,6-Trichlorophenol  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.05 U                                       | NA  | NA   |  |
| 2,4-Dinitrotoluene   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| 2-Methylphenol   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| 3&4-Methylphenol   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| Hexachlorobenzene  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| Hexachlorobutadiene  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.01 U                                       | NA  | NA   |  |
| Hexachloroethane   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.05 U                                       | NA  | NA   |  |
| Nitrobenzene   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| Pentachlorophenol  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.1 U  | NA  | NA   |  |
| Pyridine   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.02 U                                       | NA  | NA   |  |
| <b>Inorganics</b>  |   |   |  |   |   |  |  |   |  |  |
| Aluminum   | mg/kg                                       | 6,870   | NA   | 6,150   | NA  | NA   | 4,820  | NA  | NA   |  |
| Antimony   | mg/kg                                       | 2.1 U   | 2.1 U  | 2.3 U   | 2.4 U   | NA   | 2.1 U  | 2.2 U                                       | 2.2 U  |  |
| Arsenic  | mg/kg                                       | 5.8   | 3.3  | 6.9   | 5.5   | NA   | 4.3  | 3.3   | 3.2  |  |
| Barium   | mg/kg                                       | 44  | 124  | 151   | 165   | NA   | 35.3   | 26.3  | 31.7   |  |
| Beryllium  | mg/kg                                       | 0.32  | 0.36   | 0.46  | 0.37  | NA   | 0.45   | 0.28  | 0.21   |  |
| Cadmium  | mg/kg                                       | 0.54 U  | 0.53 U   | 0.56 U  | 9.6   | NA   | 0.53 U                                       | 0.54 U                                      | 0.55 U   |  |
| Calcium  | mg/kg                                       | 58,200  | NA   | 99,000  | NA  | NA   | 105,000                                      | NA  | NA   |  |
| Chromium   | mg/kg                                       | 11.1  | 7.1  | 38.6  | 8   | NA   | 7.6  | 6   | 6.5  |  |
| Cobalt   | mg/kg                                       | 5.4   | NA   | 10.6  | NA  | NA   | 5.4 U  | NA  | NA   |  |
| Copper   | mg/kg                                       | 30.4  | NA   | 15.9  | NA  | NA   | 17.1   | NA  | NA   |  |
| Iron   | mg/kg                                       | 15,600  | NA   | 18,200  | NA  | NA   | 10,200                                       | NA  | NA   |  |
| Lead   | mg/kg                                       | 94.4  | 21   | 12.5  | 6.2   | NA   | 11.2   | 15.6  | 14.7   |  |
| Magnesium  | mg/kg                                       | 21,300  | NA   | 38,800  | NA  | NA   | 36,300                                       | NA  | NA   |  |
| Manganese  | mg/kg                                       | 524   | NA   | 1,590   | NA  | NA   | 483  | NA  | NA   |  |
| Mercury  | mg/kg                                       | 0.82  | 0.17   | 0.034 U   | 0.033 U   | NA   | 0.032 U                                      | 0.034                                       | 0.036  |  |
| Nickel   | mg/kg                                       | 12.7  | 10.8   | 32.7  | 11.7  | NA   | 11.7   | 8.5   | 7.6  |  |
| Percent Sulfur   | mg/kg                                       | NA  | NA   | NA  | NA  | NA   | NA   | NA  | NA   |  |
| Potassium  | mg/kg                                       | 1,550   | NA   | 1,970   | NA  | NA   | 1,270  | NA  | NA   |  |
| Selenium   | mg/kg                                       | 2.1 U   | 2.1 U  | 2.3 U   | 2.4 U   | NA   | 2.1 U  | 2.2 U                                       | 2.2 U  |  |
| Silver   | mg/kg                                       | 0.54 U  | 0.53 U   | 0.56 U  | 0.6 U   | NA   | 0.53 U                                       | 0.54 U                                      | 0.55 U   |  |
| Sodium   | mg/kg                                       | 1,100 U                                       | NA   | 1,100 U   | NA  | NA   | 1,100 U                                      | NA  | NA   |  |
| Thallium   | mg/kg                                       | 1.1 U   | 1.1 U  | 5.6 U   | 1.2 U   | NA   | 1.1 U  | 1.1 U                                       | 1.1 U  |  |
| Vanadium   | mg/kg                                       | 16.9  | 10.6   | 31.7  | 35  | NA   | 12.9   | 11.4  | 10.2   |  |
| Zinc   | mg/kg                                       | 88.3  | 43.5   | 71.4  | 3,930   | NA   | 63.7   | 52.8  | 46.8   |  |
| <b>Inorganics-TCLP</b>   |   |   |  |   |   |  |  |   |  |  |
| Arsenic  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.5 U  | NA  | NA   |  |
| Barium   | mg/L  | NA  | NA   | NA  | NA  | NA   | 1 U  | NA  | NA   |  |
| Cadmium  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.025 U                                      | NA  | NA   |  |
| Chromium   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.05 U                                       | NA  | NA   |  |
| Lead   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.5 U  | NA  | NA   |  |
| Mercury  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.0002 U                                     | NA  | NA   |  |
| Selenium   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.5 U  | NA  | NA   |  |
| Silver   | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.05 U                                       | NA  | NA   |  |
| <b>Miscellaneous</b>   |   |   |  |   |   |  |  |   |  |  |
| Corrosivity as pH  | SU  | NA  | NA   | NA  | NA  | NA   | U  | NA  | NA   |  |
| Cyanide Reactivity   | mg/kg                                       | NA  | NA   | NA  | NA  | NA   | 11 U   | NA  | NA   |  |
| Heat Content, BTU  | BTU/lb                                      | NA  | 170  | NA  | 1,950   | NA   | 1,080  | NA  | 475  |  |
| Ignitability (Flashpoint)  | °F  | NA  | NA   | NA  | NA  | NA   | U  | NA  | NA   |  |
| Percent Sulfur   | %   | 0.1 U   | 0.1 U  | NA  | 0.1 U   | NA   | 0.1 U  | 0.1 U                                       | 0.1 U  |  |
| Sulfide  | mg/kg                                       | NA  | NA   | NA  | NA  | NA   | NA   | NA  | NA   |  |
| Sulfide Reactivity   | mg/kg                                       | NA  | NA   | NA  | NA  | NA   | 110 U  | NA  | NA   |  |
| Cyanide, total   | mg/kg                                       | NA  | 4.8  | 0.21 U  | 0.34  | NA   | 0.2 U  | NA  | 0.22   |  |
| <b>Petroleum Hydrocarbons</b>  |   |   |  |   |   |  |  |   |  |  |
| TPH-GRO (C6-C10)   | mg/kg                                       | NA  | 13 U   | NA  | 9.32 J  | 14 U   | 11 U   | NA  | 12 U   |  |
| Diesel   | mg/kg                                       | NA  | 12.2   | NA  | 513   | NA   | 10.5   | NA  | 12.8   |  |
| <b>Herbicides</b>  |   |   |  |   |   |  |  |   |  |  |
| 2,4,5-T  | mg/kg                                       | 0.0036 U                                      | 0.0035 U   | 0.0037 U  | NA  | NA   | 0.0035 U                                     | 0.0035 U                                    | 0.0034 U                                       |  |
| 2,4-DB   | mg/kg                                       | 0.018 U                                       | 0.018 U  | 0.018 U   | NA  | NA   | 0.018 U                                      | 0.018 U                                     | 0.017 U  |  |
| Dichloroprop   | mg/kg                                       | 0.018 U                                       | 0.018 U  | 0.018 U   | NA  | NA   | 0.018 U                                      | 0.018 U                                     | 0.017 U  |  |
| MCPA   | mg/kg                                       | 1.8 U   | 1.8 U  | 1.8 U   | NA  | NA   | 1.8 U  | 1.8 U                                       | 1.7 U  |  |
| MCPP   | mg/kg                                       | 1.8 U   | 1.8 U  | 1.8 U   | NA  | NA   | 1.8 U  | 1.8 U                                       | 1.7 U  |  |
| 2,4,5-TP (Silvex)  | mg/kg                                       | 0.0036 U                                      | 0.0035 U   | 0.0037 U  | NA  | NA   | 0.0035 U                                     | 0.0035 U                                    | 0.0034 U                                       |  |
| 2,4-D  | mg/kg                                       | 0.018 U                                       | 0.018 U  | 0.018 U   | NA  | NA   | 0.018 U                                      | 0.018 U                                     | 0.017 U  |  |
| Dalapon  | mg/kg                                       | 0.0036 U                                      | 0.0035 U   | 0.0037 U  | NA  | NA   | 0.0035 U                                     | 0.0035 U                                    | 0.0034 U                                       |  |
| Dicamba  | mg/kg                                       | 0.0036 U                                      | 0.0035 U   | 0.0037 U  | NA  | NA   | 0.0035 U                                     | 0.0035 U                                    | 0.0034 U                                       |  |
| Dinoseb  | mg/kg                                       | 0.018 U                                       | 0.018 U  | 0.018 U   | NA  | NA   | 0.018 U                                      | 0.018 U                                     | 0.017 U  |  |
| Pentachlorophenol  | mg/kg                                       | 0.0023  | 0.0215   | 0.0018 U  | NA  | NA   | 0.0018 U                                     | 0.0018 U                                    | 0.0017 U                                       |  |
| <b>Herbicides-TCLP</b>   |   |   |  |   |   |  |  |   |  |  |
| 2,4,5-TP (Silvex)  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.0012 U                                     | NA  | NA   |  |
| 2,4-D  | mg/L  | NA  | NA   | NA  | NA  | NA   | 0.0042 U                                     | NA  | NA   |  |

Table 3  
Soil Waste Characterization Sample Analytical Results  
NYSEG, Newark Former MGP Site, Newark, New York

| Location ID:<br>Sample Depth(feet):<br>Date Collected:<br>Sample Name: |       | SB-105<br>0 - 5<br>04/26/18<br>SB-105 (0-5) | SB-105<br>8 - 15<br>04/26/18<br>SB-105 (8-15) | SB-106<br>3 - 15<br>04/24/18<br>SB-106 (3-5) (11-15) | SB-106<br>17 - 21<br>04/25/18<br>SB-106 (17-21) | SB-108<br>15 - 25<br>04/26/18<br>SB-108 (15-25) | TP-100<br>2 - 6<br>04/26/18<br>TP-100 (2-6)A | TP-100<br>2 - 6<br>04/25/18<br>TP-100 (2-6)B | TP-100<br>6 - 8<br>04/25/18<br>TP-100 (6-8) | TP-100<br>8 - 10<br>04/25/18<br>TP-100 (8-10)B |
|--|-------|---|---|--|---|---|--|--|---|--|
| <b>Pesticides</b>  |       |   |   |  |   |   |  |  |   |  |
| 4,4'-DDD   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| 4,4'-DDE   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| 4,4'-DDT   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Aldrin   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| alpha-BHC  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| alpha-Chlordane  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| beta-BHC   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| delta-BHC  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Dieldrin   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endosulfan I   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endosulfan II  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endosulfan sulfate   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endrin   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endrin aldehyde  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Endrin ketone  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| gamma-BHC (Lindane)  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| gamma-Chlordane  | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Heptachlor   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Heptachlor epoxide   | mg/kg | 0.00073 U                                   | 0.00072 U                                     | 0.00074 U  | NA  | NA  | 0.0007 U                                     | 0.00066 U                                    | 0.00067 U                                   | 0.00068 U                                      |
| Methoxychlor   | mg/kg | 0.0015 U                                    | 0.0014 U                                      | 0.0015 U   | NA  | NA  | 0.0014 U                                     | 0.0013 U                                     | 0.0013 U                                    | 0.0014 U                                       |
| Toxaphene  | mg/kg | 0.018 U                                     | 0.018 U                                       | 0.018 U  | NA  | NA  | 0.018 U                                      | 0.017 U                                      | 0.017 U                                     | 0.017 U  |
| <b>Pesticides-TCLP</b>   |       |   |   |  |   |   |  |  |   |  |
| Chlordane (technical)  | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.0033 U                                     | NA  | NA   |
| Endrin   | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.00067 U                                    | NA  | NA   |
| gamma-BHC (Lindane)  | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.00067 U                                    | NA  | NA   |
| Heptachlor   | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.00067 U                                    | NA  | NA   |
| Heptachlor epoxide   | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.00067 U                                    | NA  | NA   |
| Methoxychlor   | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.0013 U                                     | NA  | NA   |
| Toxaphene  | mg/L  | NA  | NA  | NA   | NA  | NA  | NA   | 0.0017 U                                     | NA  | NA   |

**Table 3**  
**Soil Waste Characterization Sample Analytical Results**  
**NYSEG, Newark Former MGP Site, Newark, New York**

**Notes:**

1. Samples collected by ARCADIS on the dates indicated.
2. Samples analyzed by SGS Accutest Laboratories in Dayton, NJ
3. J = an estimated value.
4. U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
5. ND = None Detected.
6. NA = Not Analyzed.
7. "A" and "B" ID/depth indicates various waste characterization analyses.

**Table 4**  
**Water Elevation Data**  
**NYSEG, Newark Former MGP Site, Newark, New York**

| MW ID              | TOC Elevation (ft AMSL) | DTW   | Water Elevation (ft AMSL) | DTB   | PID |
|--------------------|-------------------------|-------|---------------------------|-------|-----|
| MW-1A              | 441.10                  | 11.15 | 429.95                    | 18.36 | 0.0 |
| MW-2A <sup>1</sup> | 441.06                  | --    | --                        | --    | --  |
| MW-3A              | 441.31                  | 10.95 | 430.36                    | 20.85 | 0.0 |
| MW-4A <sup>1</sup> | 443.06                  | --    | --                        | --    | --  |
| MW-10.01           | 440.88                  | 12.99 | 427.89                    | 21.25 | 0.0 |
| MW-10-02           | 440.99                  | 14.44 | 426.55                    | 20.80 | 0.0 |
| MW-10-03           | 441.49                  | 14.09 | 427.40                    | 20.45 | 0.0 |
| MW-10-04           | 440.80                  | 9.12  | 431.68                    | 19.76 | 0.0 |
| MW-11-05           | 439.95                  | 13.36 | 426.59                    | 19.63 | 0.0 |
| MW-11-06           | 441.05                  | 13.80 | 427.25                    | 19.75 | 0.0 |
| SG-1 <sup>2</sup>  | 430.13                  | 5.98  | 424.15                    | --    | --  |
| SG-2 <sup>3</sup>  | 435.04                  | 3.03  | 432.01                    | --    | --  |

**Notes:**

1. Monitoring wells could not be located
2. SG-1 @ Bridge to canal water
3. SG-2 @ outfall along towpath 3.03' to water (little to no water; almost dry)
4. Gauging was performed on April 23, 2018
5. DTW = Depth to water in feet
6. DTB = Depth to bottom in feet
7. PID = Photoionization detector detector in parts per million
8. TOC = Top of casing
9. AMSL = Above mean sea level
10. Elevations relative to 1988 North American Vertical Datum (NAVD)

**Table 5**  
**Groundwater Sample Analytical Results**  
**NYSEG, Newark Former MGP Site, Newark, New York**

| Location ID:<br>Date Collected:<br>Sample Name: | Units | MW-3A<br>04/23/18<br>MW-3A | MW-10-02<br>04/23/18<br>MW-10-02 | MW-11-06<br>04/23/18<br>MW-11-06 |
|---|-------|----------------------------|----------------------------------|----------------------------------|
| <b>Volatile Organics</b>                        |       |                            |                                  |                                  |
| 1,1,1-Trichloroethane                           | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,1,2,2-Tetrachloroethane                       | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,1,2-Trichloroethane                           | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,1-Dichloroethane                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,1-Dichloroethene                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dibromoethane                               | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichloroethane                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichloroethene (cis) (DCE)                  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichloroethene (trans)                      | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichloropropane                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,3-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,3-Dichloropropene (cis)                       | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,3-Dichloropropene (trans)                     | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,4-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,4-Dioxane                                     | ug/L  | 130 U                      | 130 U                            | 130 U                            |
| 2-Chloroethyl vinyl ether                       | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| Acrolein  | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Acrylonitrile                                   | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Benzene   | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Bromodichloromethane                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Bromoform                                       | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Bromomethane (Methyl bromide)                   | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Carbon tetrachloride                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Chlorobenzene                                   | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Chloroethane                                    | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Chloroform                                      | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Chloromethane (Methyl chloride)                 | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Dibromochloromethane                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Dichlorodifluoromethane (Freon 12)              | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Ethylbenzene                                    | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Methylene chloride                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Tetrachloroethene (PCE)                         | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Toluene   | ug/L  | 1 U                        | 0.38 J                           | 1 U                              |
| Trichloroethene (TCE)                           | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Trichlorofluoromethane (Freon 11)               | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Vinyl chloride                                  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Xylenes (total)                                 | ug/L  | 1 U                        | 0.29 J                           | 1 U                              |



**Table 5**  
**Groundwater Sample Analytical Results**  
**NYSEG, Newark Former MGP Site, Newark, New York**

| Location ID:<br>Date Collected:<br>Sample Name: | Units | MW-3A<br>04/23/18<br>MW-3A | MW-10-02<br>04/23/18<br>MW-10-02 | MW-11-06<br>04/23/18<br>MW-11-06 |
|---|-------|----------------------------|----------------------------------|----------------------------------|
| <b>Semivolatile Organics</b>                    |       |                            |                                  |                                  |
| 1,2,4-Trichlorobenzene                          | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,2-Diphenylhydrazine                           | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,3-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 1,4-Dichlorobenzene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 2,4,6-Trichlorophenol                           | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 2,4-Dichlorophenol                              | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| 2,4-Dimethylphenol                              | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 2,4-Dinitrophenol                               | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| 2,4-Dinitrotoluene                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 2,6-Dinitrotoluene                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| 2-Chloronaphthalene                             | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| 2-Chlorophenol                                  | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 2-Nitrophenol                                   | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 3,3'-Dichlorobenzidine                          | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| 4,6-Dinitro-2-methylphenol                      | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 4-Bromophenyl phenyl ether                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| 4-Chloro-3-methylphenol                         | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 4-Chloroaniline                                 | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| 4-chlorophenyl-phenylether                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| 4-Nitrophenol                                   | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Acenaphthene                                    | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Acenaphthylene                                  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Anthracene                                      | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Benzidine                                       | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Benzo(a)anthracene                              | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Benzo(a)pyrene                                  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Benzo(b)fluoranthene                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Benzo(g,h,i)perylene                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Benzo(k)fluoranthene                            | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Bis(2-chloro-1-methylethyl) ether               | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Bis(2-chloroethoxy)methane                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Bis(2-chloroethyl)ether                         | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Bis(2-ethylhexyl)phthalate                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Butyl benzyl phthalate                          | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Chrysene  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Dibenzo(a,h)anthracene                          | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Diethylphthalate                                | ug/L  | 1.6 J                      | 2 U                              | 2 U                              |
| Dimethylphthalate                               | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Di-n-butylphthalate                             | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Di-n-octylphthalate                             | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Fluoranthene                                    | ug/L  | 0.41 J                     | 1 U                              | 1 U                              |
| Fluorene  | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Hexachlorobenzene                               | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Hexachlorobutadiene                             | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Hexachlorocyclopentadiene                       | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Hexachloroethane                                | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Indeno(1,2,3-cd)pyrene                          | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Isophorone                                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Naphthalene                                     | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Nitrobenzene                                    | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| N-Nitrosodimethylamine                          | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| N-Nitroso-di-n-propylamine                      | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| N-Nitrosodiphenylamine                          | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| Pentachlorophenol                               | ug/L  | 5 U                        | 5 U                              | 5 U                              |
| Phenanthrene                                    | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Phenol  | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Pyrene  | ug/L  | 0.33 J                     | 1 U                              | 1 U                              |
| Total PAHs                                      | ug/L  | 0.74 J                     | ND                               | ND                               |

**Table 5**  
**Groundwater Sample Analytical Results**  
**NYSEG, Newark Former MGP Site, Newark, New York**

| Location ID:<br>Date Collected:<br>Sample Name: | Units | MW-3A<br>04/23/18<br>MW-3A | MW-10-02<br>04/23/18<br>MW-10-02 | MW-11-06<br>04/23/18<br>MW-11-06 |
|---|-------|----------------------------|----------------------------------|----------------------------------|
| <b>Inorganics</b>                               |       |                            |                                  |                                  |
| Aluminum  | ug/L  | 861                        | 39,500                           | 41,000                           |
| Antimony  | ug/L  | 6 U                        | 30 U                             | 30 U                             |
| Arsenic   | ug/L  | 16.2                       | 26.5                             | 50                               |
| Barium  | ug/L  | 200 U                      | 1,010                            | 1,000 U                          |
| Beryllium                                       | ug/L  | 1 U                        | 5 U                              | 5 U                              |
| Cadmium   | ug/L  | 4.7                        | 15 U                             | 15 U                             |
| Calcium   | ug/L  | 184,000                    | 428,000                          | 455,000                          |
| Chromium  | ug/L  | 10 U                       | 52                               | 56                               |
| Cobalt  | ug/L  | 50 U                       | 250 U                            | 250 U                            |
| Copper  | ug/L  | 10 U                       | 145                              | 63                               |
| Iron  | ug/L  | 6,160                      | 61,600                           | 118,000                          |
| Lead  | ug/L  | 3 U                        | 66                               | 20.5                             |
| Magnesium                                       | ug/L  | 33,200                     | 159,000                          | 146,000                          |
| Manganese                                       | ug/L  | 292                        | 12,500                           | 3,410                            |
| Mercury   | ug/L  | 0.2 U                      | 0.6 U                            | 0.4 U                            |
| Nickel  | ug/L  | 10 U                       | 75.5                             | 50 U                             |
| Potassium                                       | ug/L  | 10,000 U                   | 50,000 U                         | 50,000 U                         |
| Selenium  | ug/L  | 10 U                       | 50 U                             | 50 U                             |
| Silver  | ug/L  | 10 U                       | 50 U                             | 50 U                             |
| Sodium  | ug/L  | 129,000                    | 50,000 U                         | 332,000                          |
| Thallium  | ug/L  | 2 U                        | 10 U                             | 10 U                             |
| Vanadium  | ug/L  | 50 U                       | 250 U                            | 250 U                            |
| Zinc  | ug/L  | 28.1                       | 434                              | 161                              |
| <b>Inorganics - Dissolved</b>                   |       |                            |                                  |                                  |
| Aluminum  | ug/L  | 200 U                      | 200 U                            | 200 U                            |
| Antimony  | ug/L  | 6 U                        | 6 U                              | 6 U                              |
| Arsenic   | ug/L  | 3 U                        | 3 U                              | 3 U                              |
| Barium  | ug/L  | 200 U                      | 200 U                            | 200 U                            |
| Beryllium                                       | ug/L  | 1 U                        | 1 U                              | 1 U                              |
| Cadmium   | ug/L  | 3 U                        | 3 U                              | 3 U                              |
| Calcium   | ug/L  | 179,000                    | 181,000                          | 162,000                          |
| Chromium  | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Cobalt  | ug/L  | 50 U                       | 50 U                             | 50 U                             |
| Copper  | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Iron  | ug/L  | 100 U                      | 100 U                            | 100 U                            |
| Lead  | ug/L  | 3 U                        | 3 U                              | 3 U                              |
| Magnesium                                       | ug/L  | 31,900                     | 39,900                           | 43,400                           |
| Manganese                                       | ug/L  | 179                        | 15 U                             | 432                              |
| Mercury   | ug/L  | 0.2 U                      | 0.2 U                            | 0.2 U                            |
| Nickel  | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Potassium                                       | ug/L  | 10,000 U                   | 10,000 U                         | 10,000 U                         |
| Selenium  | ug/L  | 10 U                       | 11.8                             | 10 U                             |
| Silver  | ug/L  | 10 U                       | 10 U                             | 10 U                             |
| Sodium  | ug/L  | 125,000                    | 29,000                           | 319,000                          |
| Thallium  | ug/L  | 2 U                        | 2 U                              | 2 U                              |
| Vanadium  | ug/L  | 50 U                       | 50 U                             | 50 U                             |
| Zinc  | ug/L  | 20 U                       | 20 U                             | 20 U                             |
| <b>Miscellaneous</b>                            |       |                            |                                  |                                  |
| BOD, 5 Day                                      | mg/L  | 10 U                       | 10 U                             | 10 U                             |
| Chemical Oxygen Demand                          | mg/L  | 30.8                       | 20 U                             | 20 U                             |
| Hardness, Total as CaCO3                        | mg/L  | 549                        | 1,170                            | 1,180                            |
| HEM Oil and Grease                              | mg/L  | 5 U                        | 5.2 U                            | 5.5 U                            |
| pH  | SU    | 7.38                       | 7.49                             | 8.45                             |
| Solids, Total Dissolved                         | mg/L  | 984                        | 515                              | 1,170                            |
| Solids, Total Suspended                         | mg/L  | 51                         | 2,740                            | 2,250                            |
| Cyanide, total                                  | mg/L  | 0.01 U                     | 0.044                            | 0.01 U                           |

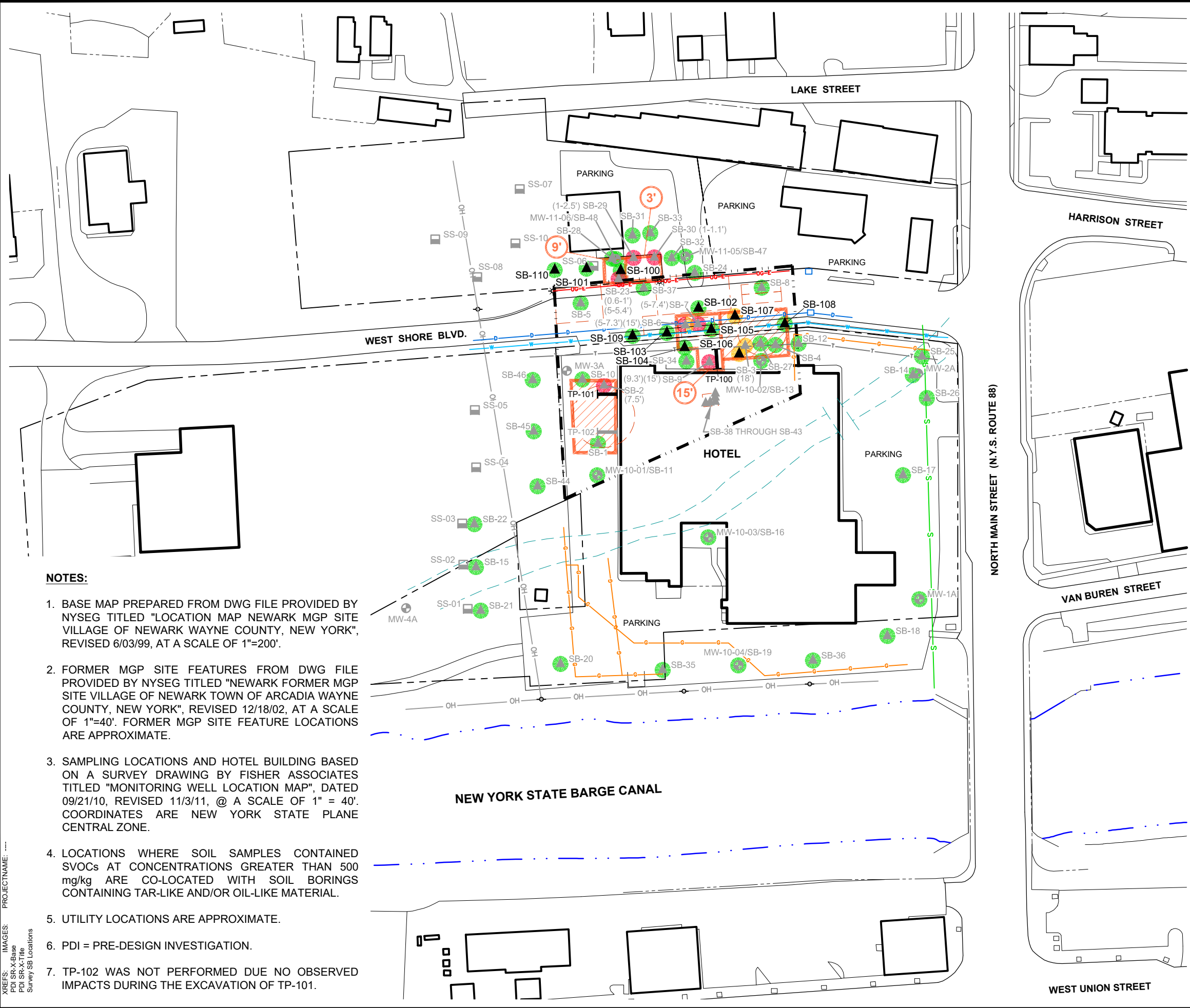
**Notes:**

1. Samples collected by ARCADIS on the dates indicated.
2. Samples analyzed by SGS Accutest Laboratories in Dayton, NJ
3. J = an estimated value.
4. U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
5. ND = None detected.
6. SU = Standard Units
7. mg/L = Milligrams per liter.
8. ug/L = Microgram per liter.

# FIGURES



CITY: SYRACUSE NY DIV/GROUP: EN/CAD DB/R ALLEN E KRAHMER PIC: J BRIEN PM: J GOLUBSKI TR: J SINAY LXR: ON=OFF=REF (FRZ)  
 C:\Users\alecra\OneDrive - ARCADIS\BIM\360 Docs\BERDROLA USA\Newark Former MGP Site\Newark Former MGP Site\DWG\PI\SR-Fig 1-Test Pit and Soil Boring Locations.dwg LAYOUT: 1 SAVER: 9/6/2018 9:06 AM ACADVER: 21.05 (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB  
 PLOTTED: 9/6/2018 9:08 AM BY: DECLERCO, BRIAN PROJECTNAME: ----  
 XREFS: IMAGES: PDI SR-X-Base PDI SR-X-Title Survey SB Locations



**NOTES:**

1. BASE MAP PREPARED FROM DWG FILE PROVIDED BY NYSEG TITLED "LOCATION MAP NEWARK MGP SITE VILLAGE OF NEWARK WAYNE COUNTY, NEW YORK", REVISED 6/03/99, AT A SCALE OF 1"=200'.
2. FORMER MGP SITE FEATURES FROM DWG FILE PROVIDED BY NYSEG TITLED "NEWARK FORMER MGP SITE VILLAGE OF NEWARK TOWN OF ARCADIA WAYNE COUNTY, NEW YORK", REVISED 12/18/02, AT A SCALE OF 1"=40'. FORMER MGP SITE FEATURE LOCATIONS ARE APPROXIMATE.
3. SAMPLING LOCATIONS AND HOTEL BUILDING BASED ON A SURVEY DRAWING BY FISHER ASSOCIATES TITLED "MONITORING WELL LOCATION MAP", DATED 09/21/10, REVISED 11/3/11, @ A SCALE OF 1" = 40'. COORDINATES ARE NEW YORK STATE PLANE CENTRAL ZONE.
4. LOCATIONS WHERE SOIL SAMPLES CONTAINED SVOCs AT CONCENTRATIONS GREATER THAN 500 mg/kg ARE CO-LOCATED WITH SOIL BORINGS CONTAINING TAR-LIKE AND/OR OIL-LIKE MATERIAL.
5. UTILITY LOCATIONS ARE APPROXIMATE.
6. PDI = PRE-DESIGN INVESTIGATION.
7. TP-102 WAS NOT PERFORMED DUE NO OBSERVED IMPACTS DURING THE EXCAVATION OF TP-101.

**LEGEND:**

- PROPERTY LINE
- - - - - APPROXIMATE FORMER LOCATION OF MILITARY BROOK (PRE 1924)
- UG-E UNDERGROUND ELECTRIC
- OH OVERHEAD ELECTRIC
- D STORM SEWER
- S SANITARY SEWER
- W WATER
- G GAS
- T TELECOMMUNICATION
- CATCH BASIN
- \* LIGHT POLE
- UTILITY POLE
- - - - - FORMER MGP BOUNDARY (APPROXIMATE)
- ▭ FORMER MGP STRUCTURES
- ⊕ MONITORING WELL LOCATION
- ▲ SOIL BORING LOCATION
- SURFACE SOIL SAMPLE LOCATION
- (1-2.5') DEPTH OF OBSERVED IMPACT
- SOIL BORING WITH TAR-LIKE MATERIAL
- SOIL BORING WITH TRACE OIL-LIKE MATERIAL
- SOIL BORING WITH NO OBSERVED IMPACTS
- ▭ INITIALLY PROPOSED HORIZONTAL EXCAVATION LIMITS OF REMOVAL
- 9' PROPOSED DEPTH OF REMOVAL
- ▨ AREA REQUIRING FURTHER INVESTIGATION
- ▲ PDI SOIL BORING LOCATION
- ┆ PDI TEST PIT LOCATION
- ┆ PROPOSED TEST PIT LOCATION (SEE NOTE 7)

0 100' 200'  
GRAPHIC SCALE

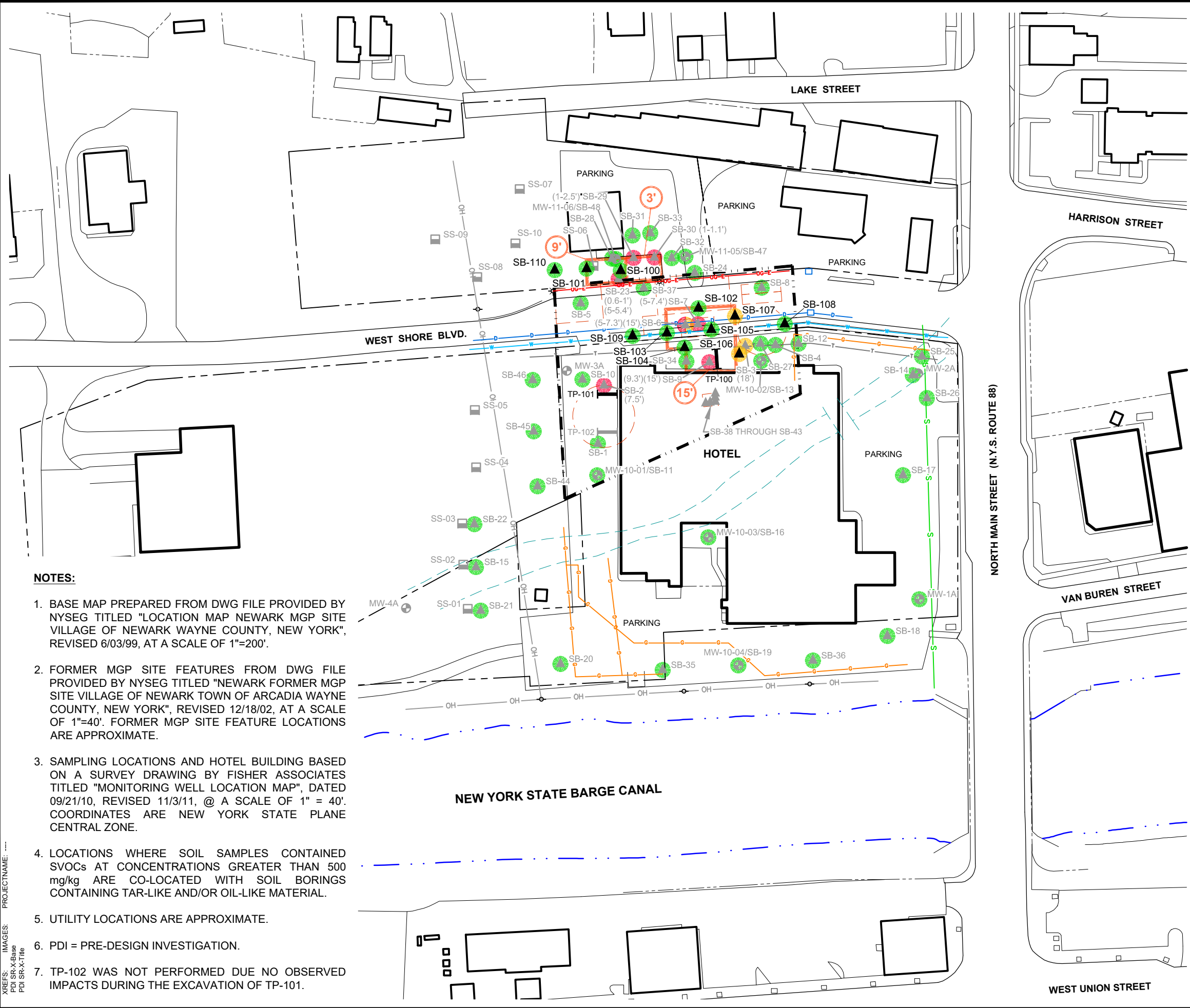
NYSEG  
 NEWARK FORMER MANUFACTURED GAS PLANT SITE  
 SITE NO. 8-59-021  
**PRE-DESIGN INVESTIGATION SUMMARY REPORT**

**TEST PIT AND SOIL BORING LOCATIONS**

ARCADIS *Design & Consultancy for natural and built assets*

FIGURE  
**1**

CITY: SYRACUSE NY DIV/GROUP: EN/CAD DB:R ALLEN E KRAHMER PIC: J BRIEN PM: J GOLUBSKI TR: J SINAY LTR: ON/OFF/REF/FRZ  
 C:\Users\alecra\OneDrive - ARCADIS\BIM\360 Docs\Newark Former MGP Site\Newark Former MGP Site\DWG\PDI SR-Fig 2- Revised Excavation Limits.dwg LAYOUT: 2  
 PLOTTED: 9/6/2018 9:15 AM BY: DECLERCO, BRIAN  
 XREFS: IMAGES: PROJECTNAME: PDI SR-X-Base PDI SR-X-Title  
 ACADVER: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH) PAGES: 21.05 (LMS TECH)



**NOTES:**

1. BASE MAP PREPARED FROM DWG FILE PROVIDED BY NYSEG TITLED "LOCATION MAP NEWARK MGP SITE VILLAGE OF NEWARK WAYNE COUNTY, NEW YORK", REVISED 6/03/99, AT A SCALE OF 1"=200'.
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3. SAMPLING LOCATIONS AND HOTEL BUILDING BASED ON A SURVEY DRAWING BY FISHER ASSOCIATES TITLED "MONITORING WELL LOCATION MAP", DATED 09/21/10, REVISED 11/3/11, @ A SCALE OF 1" = 40'. COORDINATES ARE NEW YORK STATE PLANE CENTRAL ZONE.
4. LOCATIONS WHERE SOIL SAMPLES CONTAINED SVOCs AT CONCENTRATIONS GREATER THAN 500 mg/kg ARE CO-LOCATED WITH SOIL BORINGS CONTAINING TAR-LIKE AND/OR OIL-LIKE MATERIAL.
5. UTILITY LOCATIONS ARE APPROXIMATE.
6. PDI = PRE-DESIGN INVESTIGATION.
7. TP-102 WAS NOT PERFORMED DUE NO OBSERVED IMPACTS DURING THE EXCAVATION OF TP-101.

**LEGEND:**

- PROPERTY LINE
- - - - - APPROXIMATE FORMER LOCATION OF MILITARY BROOK (PRE 1924)
- UG-E UNDERGROUND ELECTRIC
- OH OVERHEAD ELECTRIC
- S STORM SEWER
- W SANITARY SEWER
- G WATER
- T GAS
- TELECOMMUNICATION
- CATCH BASIN
- \* LIGHT POLE
- UTILITY POLE
- · - · - FORMER MGP BOUNDARY (APPROXIMATE)
- ▭ FORMER MGP STRUCTURES
- ⊕ MONITORING WELL LOCATION
- ▲ SOIL BORING LOCATION
- SURFACE SOIL SAMPLE LOCATION
- (1-2.5') DEPTH OF OBSERVED IMPACT
- SOIL BORING WITH TAR-LIKE MATERIAL
- SOIL BORING WITH TRACE OIL-LIKE MATERIAL
- SOIL BORING WITH NO OBSERVED IMPACTS
- ▭ PDI HORIZONTAL LIMITS OF REMOVAL
- 9' PDI DEPTH OF REMOVAL
- ▲ PDI SOIL BORING LOCATION
- PDI TEST PIT LOCATION
- PDI TEST PIT LOCATION (SEE NOTE 7)



NYSEG  
 NEWARK FORMER MANUFACTURED GAS PLANT SITE  
 SITE NO. 8-59-021  
**PRE-DESIGN INVESTIGATION SUMMARY REPORT**

**REVISED EXCAVATION LIMITS**

# ATTACHMENT 1

Utility Site Survey





## **TREC Environmental Inc.**

Technician: Jim Agar

Date: 4/25/18

Site Address: 125 N Main St., Newark, NY

Contact Person: Jason Golubski

Scope of Work: Locate existing utilities.

### **Type of Service:**

- Fault Detection       Utility Location/GPR  
 Infrastructure Assessment       Utility Mapping

### **Type of Equipment Used:**

- Mala Easy Locator HDR       SPX RD 7000

### **Marking Used:**

- Paint       Flags       Chalk       Updated Existing Maps       Other

Instructions from Onsite Contact: Locate existing utilities for soft dig excavation.

### **Notes:**

The communication line running east/west ran at a depth of 4 feet.

The communication service running into the building on the north left the main at 4 feet and rose to 2.5 feet.

The water main running east/west ran at a depth of 5.5 feet on the western end and over 6 feet on the eastern end. The water service was at a depth of 9 feet as it entered the building.

A storm drain in the north end parking lot ran a depth of 6 feet, catch basin to catch basin.

A road/curb drain ran from the catch basin down Main St at a depth of 18 inches. The line started in the road and transitioned over to the south side the curb.

The gas line ran at a depth of 4 feet.

On the west side of the building a drain line ran from the catch basin towards the building on a diagonal as shown on the map. The line ran at a depth of 2.5 feet.

On the north side of Main St there is a street light electric line that runs in line with the poles at a depth Ranging from 2-2.5 feet.

### **Information Relayed on site:**

Verbal       GPR Photos     Digital Photos       Hand drawn Map

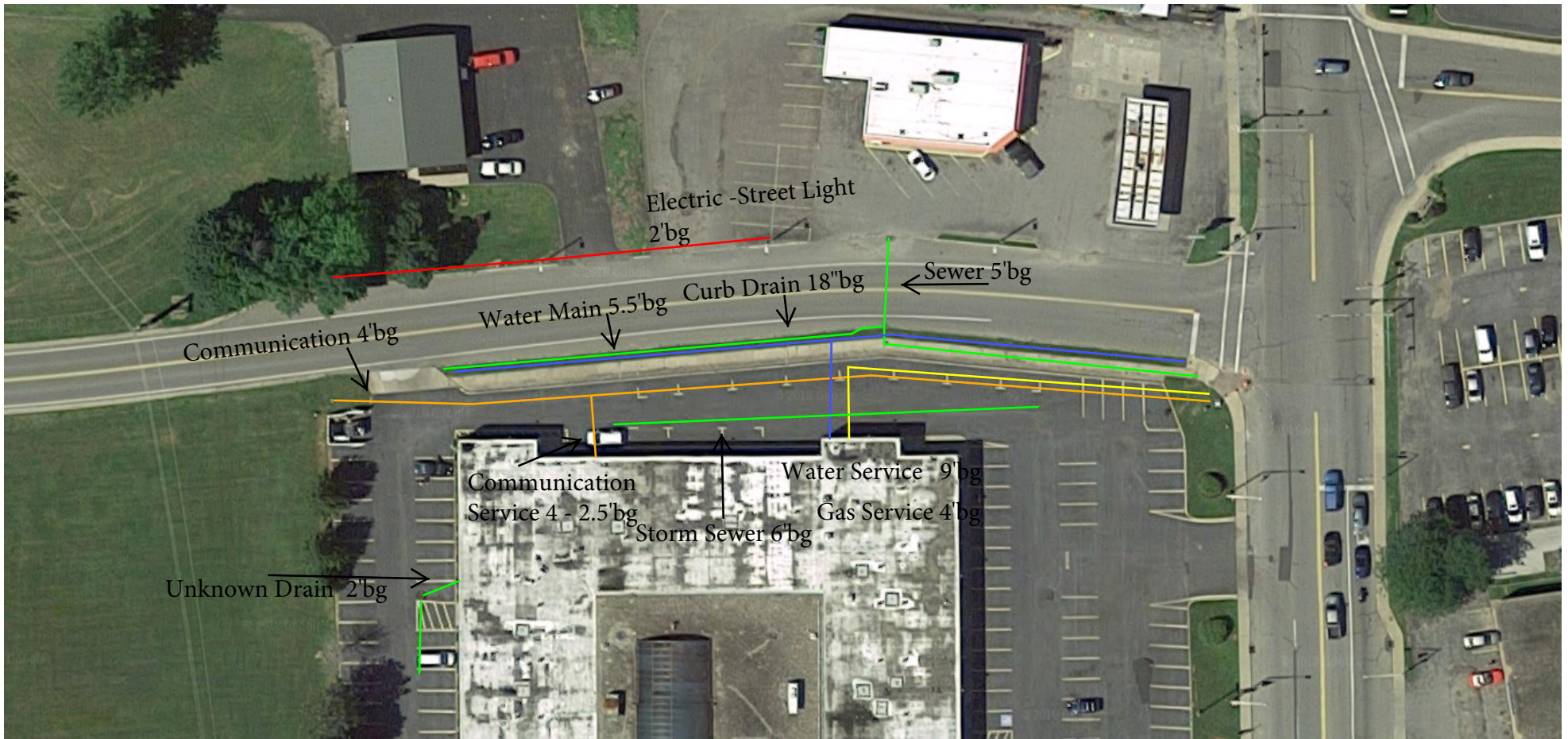
**Reporting Options:**

Letter Report

Comprehensive Report

**TREC will guarantee the accuracy of utility markings only when subsurface utility location methods are used which meet the ASCE's *Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data CI/ASCE 38-02*, Quality Level A. This process exposes subsurface utility systems to confirm location, size and identity.**





50 ft 

# ATTACHMENT 2

Soil Boring Logs



|  |  |   |
|--|--|---|
| <b>Date Start/Finish:</b> 4/27/2018<br><b>Drilling Company:</b> Nothnagle Drilling Inc.<br><b>Driller's Name:</b> Neal Short<br><b>Drilling Method:</b> Hollow Stem Auger<br><b>Auger Size:</b> 4.25" ID<br><b>Rig Type:</b> CME-75<br><b>Sampling Method:</b> 3" x 2' Split Spoon | <b>Northing:</b> 1111230.42<br><b>Eastings:</b> 682980.81<br><b>Casing Elevation:</b> NA<br><br><b>Borehole Depth:</b> 11' bgs<br><b>Surface Elevation:</b> 440.96' AMSL<br><br><b>Descriptions By:</b> Ryan Clare | <b>Well/Boring ID:</b> SB-100<br><br><b>Client:</b> NYSEG<br><br><b>Location:</b> 125 North Main Street<br>Newark, NY 14513 |
|--|--|---|

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts      | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description  | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|------------------|-----------|---------------------|-------------------|-----------------|--|--------------------------|
| 0     | 0         |                   |                 |                 |                  |           |                     |                   |                 |  |                          |
|       |           | 1                 | 0-5             | 5               | NA               | NA        | 0.0                 |                   |                 | Dark brown organics mixed with black fine to coarse SAND and fine to medium GRAVEL, angular to sub angular; some Slag; moist, loose. |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Dark brown organics mixed with black fine to coarse SAND and fine GRAVEL, angular to sub angular; little Slag; moist, loose.         |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Black Slag fragments; dry to moist, loose.   |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Black Slag fragments; dry to moist, loose.   |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Black Slag fragments; dry to moist, loose.   |                          |
| -5    | -5        | 2                 | 5-7             | 0.7             | 2<br>3<br>3<br>3 | NA        | 0.0                 |                   |                 | Black Slag fragments; little Ash; moist to dry, loose.   |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Black Slag fragments; little Ash; moist to dry, loose.   |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Black Slag fragments; little Ash; trace brown Silt; moist to dry, loose.   |                          |
|       |           | 3                 | 7-9             | 1.8             | 4<br>3<br>5      | NA        | 0.0                 |                   |                 | Reddish brown SILT; trace very fine to fine Sand; trace Clay; moist, stiff.  |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Reddish brown SILT; trace very fine to fine Sand; trace Clay; moist, stiff.  |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Reddish brown very fine SAND; some Silt, little to some fine to coarse Gravel, sub angular to sub rounded; trace Clay; moist, loose. |                          |
| -10   | -10       | 4                 | 9-11            | 1.0             | 4<br>4<br>4<br>3 | NA        | 0.0                 |                   |                 | Reddish brown very fine SAND; some Silt, little to some fine to coarse Gravel, sub angular to sub rounded; trace Clay; moist, loose. |                          |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Reddish brown very fine SAND; some Silt, little to some fine to coarse Gravel, sub angular to sub rounded; trace Clay; moist, loose. |                          |
|       |           |                   |                 |                 |                  |           |                     |                   |                 | Boring terminated at 11' bgs.  |                          |
| -15   | -15       |                   |                 |                 |                  |           |                     |                   |                 |  |                          |

|  |  |
|--|--|
|  | <b>Remarks:</b> bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.<br><br>Location hand cleared 0 - 5 ft bgs.<br>3" diameter split spoon used.<br><br>Soil samples collected for:<br>ESMI at 0 - 8 and 8 - 11 ft bgs. |
|--|--|

**Date Start/Finish:** 4/27/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 3" x 2' Split Spoon

**Northing:** 1111232.41  
**Eastings:** 682946.16  
**Casing Elevation:** NA  
**Borehole Depth:** 11' bgs  
**Surface Elevation:** 441.55' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-101  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts      | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction      |
|-------|-----------|-------------------|-----------------|-----------------|------------------|-----------|---------------------|-------------------|-----------------|---|-------------------------------|
| 0     | 0         |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 1     | -1        | 1                 | 0-5             | 5               | NA               | N/A       | 0.0                 |                   |                 | Black Organics mixed with black fine to coarse SAND and fine to medium GRAVEL, angular to sub angular; some Slag; moist, loose. 8" diameter cobble at 3.5' bgs. | Topsoil (0 - 0.5' bgs)        |
| 2     | -2        | 2                 | 5-7             | 0.4             | 3<br>3<br>2<br>2 | NA        | 0.0                 |                   |                 | Black fine to coarse SAND and fine to medium GRAVEL, angular to sub angular; some Slag; moist, loose. Roots at 3' to 5' bgs.                                    |                               |
| 3     | -3        | 3                 | 7-9             | 0.6             | 3<br>3<br>3<br>5 | NA        | 0.0<br>0.0          |                   |                 | Black Slag and dark brown very fine SAND; trace Silt; dry, loose.   |                               |
| 4     | -4        | 4                 | 9-11            | 1.6             | 3<br>4<br>6<br>9 | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Dark brown and black very fine SAND and SILT; some red Brick and Slag fragments; moist to wet, loose.   |                               |
| 5     | -5        |                   |                 |                 |                  |           |                     |                   |                 | Reddish and yellowish brown very fine SAND; some Silt; little to some fine to coarse Gravel, angular to sub rounded; trace Clay; moist, loose.                  | Cement Grout (0.5' - 11' bgs) |
| 6     | -6        |                   |                 |                 |                  |           |                     |                   |                 | Boring terminated at 11' bgs.   |                               |
| 7     | -7        |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 8     | -8        |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 9     | -9        |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 10    | -10       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 11    | -11       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 12    | -12       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 13    | -13       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 14    | -14       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |
| 15    | -15       |                   |                 |                 |                  |           |                     |                   |                 |   |                               |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location hand cleared 0 - 5 ft bgs.  
 3-inch diameter split spoon used to collect soil samples.

Soil samples collected for: Total SVOCs at 7 - 9 ft bgs.  
 ESMI at 0 - 8 and 8 - 11 ft bgs.



**Date Start/Finish:** 4/24/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111192.21  
**Eastings:** 683059.68  
**Casing Elevation:** NA  
**Borehole Depth:** 21' bgs  
**Surface Elevation:** 439.71' AMSL  
**Descriptions By:** Jesse Jones

**Well/Boring ID:** SB-102  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column  | Stratigraphic Description  | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|--|--|--------------------------|
| 0     | 0         |                   |                 |                 |             |           |                     |                   |  |  |                          |
|       |           | 1                 | 0-5             | 0.4             | NA          | NA        | 0.0                 |                   | Asphalt  | Asphalt and Brick debris; some brown fine to coarse SAND; moist to dry, loose. | Asphalt (0 - 0.5' bgs)   |
|       |           |                   |                 |                 |             |           | 0.0                 |                   | Dark brown fine to medium SAND, some fine to medium Gravel, sub angular to sub rounded; moist, loose.  |  |                          |
| -5    | -5        |                   |                 |                 | 7           |           |                     |                   | Brown and red Brick; little Ash; dry, loose.   |  |                          |
|       |           | 2                 | 5-7             | 0.7             | 6           | NA        | 0.0                 |                   | Brown very fine to fine SAND; little Silt; trace fine to coarse Gravel, angular to sub rounded; moist, loose, trace black discoloration and piece of charcoal at 5.6' to 5.7' bgs. |  |                          |
|       |           |                   |                 |                 | 7           |           | 0.0                 |                   |  |  |                          |
|       |           |                   |                 |                 | 4           |           |                     |                   |  |  |                          |
|       |           | 3                 | 7-9             | 0.7             | 4           | NA        | 0.0                 |                   | Yellowish brown fine to medium SAND; little fine to medium Gravel, angular to sub angular; moist, loose.   |  |                          |
|       |           |                   |                 |                 | 5           |           | 0.0                 |                   |  |  |                          |
|       |           |                   |                 |                 | 5           |           | 0.0                 |                   |  |  |                          |
|       |           |                   |                 |                 | 5           |           |                     |                   |  |  |                          |
| -10   | -10       | 4                 | 9-11            | 0.4             | 3           | NA        | 0.0                 |                   | Brown fine to medium SAND; little fine to medium Gravel, angular to sub angular; moist, loose.   |  |                          |
|       |           |                   |                 |                 | 5           |           | 0.0                 |                   |  |  |                          |
|       |           |                   |                 |                 | 6           |           |                     |                   |  |  |                          |
|       |           | 5                 | 11-13           | NR              | 3           | NA        | NA                  |                   | No Recovery.   |  |                          |
|       |           |                   |                 |                 | 14          |           |                     |                   |  |  |                          |
|       |           |                   |                 |                 | 14          |           |                     |                   |  |  |                          |
|       |           |                   |                 |                 | 15          |           |                     |                   |  |  |                          |
|       |           | 6                 | 13-15           | NR              | 10          | NA        | NA                  |                   | No Recovery.   |  |                          |
|       |           |                   |                 |                 | 12          |           |                     |                   |  |  |                          |
|       |           |                   |                 |                 | 21          |           |                     |                   |  |  |                          |
|       |           |                   |                 |                 | 20          |           |                     |                   |  |  |                          |
| -15   | -15       |                   |                 |                 | 2           |           | 0.0                 |                   | Brown fine to medium SAND; some fine to medium Gravel, angular to sub angular; wet, loose.   |  |                          |
|       |           |                   |                 |                 | 4           |           |                     |                   |  |  |                          |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for: Total SVOCs at 19 - 21 ft bgs.  
 ESMI at 17 - 21 ft bgs.  
 Seneca Meadows Landfill at 0 - 17 ft bgs.



Site Location:

Borehole Depth: 21' bgs

125 North Main Street  
Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction      |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------------|---|-------------------------------|
|       |           | 7                 | 15-17           | 0.7             | 4           | NA        | 0.0                 |                   |                 | Brown fine to medium SAND; trace fine to medium Gravel, sub angular; trace Silt; moist, dense.  | Cement Grout (0.5' - 11' bgs) |
|       |           | 8                 | 17-19           | 1.4             | 9           | NA        | 0.0                 |                   |                 | Brown very fine to fine SAND; little Silt; wet, medium dense, slow dilatancy.   |                               |
|       |           |                   |                 |                 | 27          |           | 0.0                 |                   |                 | TILL - Greyish brown very fine to fine SAND; little Silt; trace fine to medium Gravel, angular to sub angular; wet, very dense.                   |                               |
|       |           |                   |                 |                 | 42          |           | 0.0                 |                   |                 | TILL - Greyish brown very fine to medium SAND; little Gravel, sub angular; trace Silt; moist, very dense.   |                               |
| -20   | -20       | 9                 | 19-21           | 1.0             | 29          | NA        | 0.0                 |                   |                 | TILL - Greyish very fine to medium SAND; little Silt; little grading to trace fine to medium Gravel, sub angular to sub rounded; wet, very dense. |                               |
|       |           |                   |                 |                 | 50/5"       |           | 0.0                 |                   |                 | Boring terminated at 21' bgs.   |                               |
| -25   | -25       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -30   | -30       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -35   | -35       |                   |                 |                 |             |           |                     |                   |                 |   |                               |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for: Total SVOCs at 19 - 21 ft bgs.

ESMI at 17 - 21 ft bgs.

Seneca Meadows Landfill at 0 - 17 ft bgs.



**Date Start/Finish:** 4/26/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111167.06  
**Easting:** 683027.65  
**Casing Elevation:** NA  
**Borehole Depth:** 21' bgs  
**Surface Elevation:** 439.84' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-103  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts      | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction   |
|-------|-----------|-------------------|-----------------|-----------------|------------------|-----------|---------------------|-------------------|-----------------|---|--|
| 0     | 0         |                   |                 |                 |                  |           |                     |                   |                 |   |  |
|       |           | 1                 | 0-5             | 5               | NA               | N/A       | 0.0                 |                   |                 | Brown very fine to medium SAND; some Silt; little medium to coarse Gravel, angular to sub rounded; moist, loose.  | <p>Topsoil (0 - 0.5' bgs)</p> <p>Cement Grout (0.5' - 21' bgs)</p> |
|       |           |                   |                 |                 |                  |           | 0.0                 |                   |                 | Brown very fine to coarse SAND; some Silt; little to some fine to coarse Gravel, angular to sub rounded; trace 2" to 8" diameter cobbles and construction debris (asphalt and concrete); moist to wet, loose.       |  |
| -5    | -5        | 2                 | 5-7             | 0.2             | 1<br>1<br>1<br>1 | NA        | 0.0                 |                   |                 | Brown very fine to coarse SAND; some Silt; little to some fine to coarse Gravel, angular to sub rounded; trace construction debris (asphalt and concrete); moist to wet, loose.                                     |  |
|       |           | 3                 | 7-9             | 0.9             | 1<br>1<br>1<br>2 | NA        | 0.0<br>6.8<br>114.7 |                   |                 | Brown very fine to coarse SAND; some Silt; little to some fine to coarse Gravel, angular to sub rounded; trace construction debris (asphalt and concrete); wet, loose.  |  |
|       |           |                   |                 |                 | 3<br>3<br>4<br>7 | NA        | 4.5                 |                   |                 | Brown with black and grey discoloration very fine to medium SAND; trace to little fine to medium Gravel, angular to sub angular; trace Silt, wet to moist, loose, slight fuel-like odor. Rock stuck in sample shoe. |  |
|       |           | 5                 | 11-13           | 0.7             | 9<br>9<br>7<br>5 | NA        | 0.0<br>0.0          |                   |                 | Brown fine to coarse SAND; some fine to coarse Gravel, angular to sub angular; trace Silt; moist, loose.  |  |
|       |           | 6                 | 13-15           | 0.2             | 6<br>6<br>4<br>4 | NA        | 13.2                |                   |                 | Dark brown discolored grey fine to coarse SAND and medium to coarse GRAVEL, angular; little Silt; wet, loose, moderate fuel-like odor.  |  |
| -15   | -15       |                   |                 |                 | 9<br>22          |           |                     |                   |                 | Dark olive brown very fine SAND and fine to coarse GRAVEL, angular to sub angular; little Silt; wet, loose, very slight fuel-like odor. 3" diameter cobble at 15.2' to 15.4' bgs.                                   |  |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location hand cleared 0 - 5 ft bgs. Switched to 3-inch diameter split spoon at 15' bgs.

Soil samples collected for: Total SVOCs at 7 - 9 ft bgs.  
 ESMI at 9 - 19 ft bgs.  
 Seneca Meadows Landfill at 0 - 5 ft bgs.



Site Location:

Borehole Depth: 21' bgs

125 North Main Street  
Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction      |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------------|---|-------------------------------|
|       |           | 7                 | 15-17           | 0.6             | 24          | NA        | NA                  |                   |                 |   |                               |
|       |           |                   |                 |                 | 18          |           |                     |                   |                 | Dark olive brown with grey discoloration very fine SAND and fine to coarse GRAVEL, angular to sub angular; little Silt; very wet, very loose, rapid dilatancy; slight fuel-like odor. |                               |
|       |           | 8                 | 17-19           | 1.3             | 16          | NA        | 31.0                |                   |                 | TILL - Brownish grey very fine to fine SAND; little fine to coarse Gravel, sub angular to sub rounded; trace Silt; wet to moist, medium dense, slow dilatancy at 17.5' to 18' bgs.    |                               |
|       |           |                   |                 |                 | 49          |           | 1.6                 |                   |                 | 3" diameter Cobble.   |                               |
|       |           |                   |                 |                 | 50/5"       |           | 0.0                 |                   |                 |   | Cement Grout (0.5' - 21' bgs) |
| -20   | -20       | 9                 | 19-21           | 0.6             | NA          | NA        | 0.0                 |                   |                 | TILL - Brownish grey very fine to fine SAND; little fine to medium Gravel, sub angular to sub rounded, trace Silt; moist, very dense.   |                               |
|       |           |                   |                 |                 |             |           | 0.0                 |                   |                 |   |                               |
|       |           |                   |                 |                 |             |           |                     |                   |                 | Boring terminated at 21' bgs.   |                               |
| -25   | -25       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -30   | -30       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -35   | -35       |                   |                 |                 |             |           |                     |                   |                 |   |                               |



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location hand cleared 0 - 5 ft bgs. Switched to 3-inch diameter split spoon at 15' bgs.

Soil samples collected for: Total SVOCs at 7 - 9 ft bgs.  
ESMI at 9 - 19 ft bgs.  
Seneca Meadows Landfill at 0 - 5 ft bgs.



**Date Start/Finish:** 4/25/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111152.28  
**Easting:** 683045.62  
**Casing Elevation:** NA  
**Borehole Depth:** 21' bgs  
**Surface Elevation:** 441.35' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-104  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column   | Stratigraphic Description | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|---|---------------------------|--------------------------|
| 0     | 0         |                   |                 |                 |             |           |                     |                   |   |                           |                          |
|       |           | 1                 | 0-5             | 5               | NA          | NA        | 0.0                 |                   | Asphalt   |                           | Asphalt (0 - 0.5' bgs)   |
|       |           |                   |                 |                 |             |           | 0.0                 |                   | Dark brown medium to coarse SAND; trace fine to coarse Gravel, sub angular to sub rounded; moist, loose.  |                           |                          |
|       |           |                   |                 |                 |             |           | 0.0                 |                   | Brown medium to coarse SAND; trace fine to medium Gravel, sub rounded; moist, loose.  |                           |                          |
| -5    | -5        | 2                 | 5-7             | 1.0             | 10          | NA        | 0.0                 |                   | Brown very fine to coarse SAND; little fine to medium Gravel, sub angular to sub rounded; trace Silt; trace Ash and Slag; moist, loose; pocket of black Slag at 5.5' to 5.6' bgs. |                           |                          |
|       |           |                   |                 |                 | 8           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 5           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 5           |           | 0.0                 |                   |   |                           |                          |
|       |           | 3                 | 7-9             | 1.0             | 3           | NA        | 0.0                 |                   | Brown very fine to coarse SAND; little fine to medium Gravel, angular to sub rounded; trace Silt; trace Ash and Slag; moist, loose; greenish white material at 7.3' to 7.35' bgs. |                           |                          |
|       |           |                   |                 |                 | 3           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 4           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 18          |           | 0.0                 |                   |   |                           |                          |
| -10   | -10       | 4                 | 9-11            | 0.8             | 2           | NA        | 0.0                 |                   | Brown very fine to coarse SAND; little fine to medium Gravel, angular to sub rounded; little Silt; trace Ash and Slag; moist, loose, slight odor.                                 |                           |                          |
|       |           |                   |                 |                 | 3           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 4           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 8           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 9           |           | 0.0                 |                   | Fractured white Quartz.   |                           |                          |
|       |           | 5                 | 11-13           | 0.6             | 9           | NA        | 0.0                 |                   | Brown fine to coarse SAND; little fine to coarse Gravel, angular to sub angular; trace Silt; moist, loose.  |                           |                          |
|       |           |                   |                 |                 | 9           |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 12          |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 20          |           | 0.0                 |                   | Fractured red Sandstone.  |                           |                          |
|       |           | 6                 | 13-15           | 1.1             | 12          | NA        | 0.0                 |                   | Brown fine to coarse SAND; little fine to coarse Gravel, angular; trace Silt; moist, loose. Rock in sample shoe.  |                           |                          |
|       |           |                   |                 |                 | 21          |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 14          |           | 0.0                 |                   |   |                           |                          |
|       |           |                   |                 |                 | 20          |           | 0.0                 |                   |   |                           |                          |
| -15   | -15       |                   |                 |                 | 12          |           | 0.0                 |                   | Reddish brown fine SAND; some fine to coarse Gravel, wet, loose, very slight odor.  |                           |                          |
|       |           |                   |                 |                 | 39          |           | 0.0                 |                   |   |                           |                          |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for:  
 ESMI at 5 - 9 and 13 - 17 ft bgs.  
 Seneca Meadows Landfill at 2 - 5 and 9 - 13 ft bgs.



Site Location:

Borehole Depth: 21' bgs

125 North Main Street  
Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction      |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------------|---|-------------------------------|
|       |           | 7                 | 15-17           | 0.7             | 45<br>11    | NA        | 0.0                 |                   |                 |   |                               |
|       |           | 8                 | 17-19           | NR              | 50/3"       | NA        | NA                  |                   |                 | No Recovery. Spoon refusal at 17.5' bgs; Auger to 19' bgs and continue split spoon sampling.      | Cement Grout (0.5' - 21' bgs) |
| -20   | -20       | 9                 | 19-21           | 1.1             | 19<br>50/4" | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Greyish brown very fine SAND; little Silt; moist, very dense, slow dilatancy at 19' to 19.2' bgs. |                               |
|       |           |                   |                 |                 |             |           |                     |                   |                 | Boring terminated at 21' bgs.   |                               |
| -25   | -25       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -30   | -30       |                   |                 |                 |             |           |                     |                   |                 |   |                               |
| -35   | -35       |                   |                 |                 |             |           |                     |                   |                 |   |                               |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for:  
ESMI at 5 - 9 and 13 - 17 ft bgs.  
Seneca Meadows Landfill at 2 - 5 and 9 - 13 ft bgs.



**Date Start/Finish:** 4/26/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111170.58  
**Easting:** 683072.74  
**Casing Elevation:** NA  
**Borehole Depth:** 21' bgs  
**Surface Elevation:** 439.57' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-105  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts          | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction  |
|-------|-----------|-------------------|-----------------|-----------------|----------------------|-----------|---------------------|-------------------|-----------------|---|---|
| 0     | 0         |                   |                 |                 |                      |           |                     |                   |                 |   |   |
|       |           | 1                 | 0-5             | 5               | NA                   | NA        | 0.0                 |                   |                 | Brown very fine to medium SAND; some Silt; little medium to coarse Gravel, sub angular to sub rounded; moist, loose.  | <p>Topsoil (0 - 0.5' bgs)</p> <p>Cement Grout (0.5 - 21' bgs)</p> |
|       |           |                   |                 |                 |                      |           | 0.0                 |                   |                 | Brown very fine to medium SAND; some medium to coarse Gravel, sub angular to sub rounded; some Silt; moist, loose.  |   |
|       |           |                   |                 |                 |                      |           |                     |                   |                 | 3" to 6" COBBLES, sub rounded; little very fine to fine SAND; little Silt; moist, dense (cobbles packed in tightly)   |   |
| -5    | -5        | 2                 | 5-7             | 0.2             | 6<br>5<br>3<br>3     | NA        | 0.0                 |                   |                 | Brown very fine to medium SAND; little Silt; trace fine to medium Gravel, angular; moist, loose.  |   |
|       |           | 3                 | 7-9             | NR              | 1<br>2<br>4<br>6     | NA        | NA                  |                   |                 | No Recovery; Rock in Shoe.  |   |
| -10   | -10       | 4                 | 9-11            | 0.7             | 6<br>7<br>13<br>15   | NA        | 0.0<br>0.0          |                   |                 | Reddish brown very fine to medium SAND; little to some fine to coarse Gravel, angular to sub angular; trace Silt; moist, loose.   |   |
|       |           | 5                 | 11-13           | 0.6             | 14<br>20<br>15<br>12 | NA        | 0.0                 |                   |                 | Reddish brown very fine to medium SAND; little to some fine to coarse Gravel, angular to sub angular; trace fractured Cobbles; trace Silt; moist, loose.  |   |
|       |           | 6                 | 13-15           | 0.6             | 9<br>13<br>15<br>16  | NA        | 0.0                 |                   |                 | Reddish brown very fine to medium SAND; little to some fine to coarse Gravel, angular to sub angular; trace fractured Cobbles; trace Silt; moist to wet, loose. 2" diameter fractured Cobble at 13.1' to 13.3' bgs. |   |
| -15   | -15       |                   |                 |                 | 10<br>10             |           |                     |                   |                 | No Recovery.  |   |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for: SVOCs at 13 - 15 ft bgs.  
 ESMI at 8 - 15 ft bgs.  
 Seneca Meadows Landfill at 2 - 5 and 9 - 13 ft bgs.



Site Location:

Borehole Depth: 21' bgs

125 North Main Street  
Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description  | Well/Boring Construction     |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------------|--|------------------------------|
|       |           | 7                 | 15-17           | NR              | 10          | NA        | NA                  |                   |                 |  |                              |
|       |           |                   |                 |                 | 9           |           |                     |                   |                 |  |                              |
|       |           | 8                 | 17-19           | 1.4             | 29          | NA        | 0.0                 |                   |                 | Dark brown fine to coarse SAND; trace fine Gravel; wet, loose.   |                              |
|       |           |                   |                 |                 | 45          |           | 0.0                 |                   |                 | Yellowish brown very fine SAND; trace fine Gravel, sub angular; moist, dense.  |                              |
|       |           |                   |                 |                 | 48          |           | 0.0                 |                   |                 | TILL - Brownish grey very fine SAND; trace to little fine to medium Gravel, sub angular to sub rounded; trace Silt; moist, very dense. Wet, slow dilatancy at 18.2' to 18.4' bgs.  |                              |
| -20   | -20       | 9                 | 19-21           | 1.1             | 15          | NA        | 0.0                 |                   |                 | TILL - Brownish grey very fine to medium SAND; trace to little fine to medium Gravel, sub angular to sub rounded; trace Silt at 19.6' to 20.1' bgs; moist to wet, very dense. Wet at 19.6' to 20.1' bgs, slow dilatancy at 19.9' to 20.1' bgs. | Cement Grout (0.5 - 21' bgs) |
|       |           |                   |                 |                 | 29          |           | 0.0                 |                   |                 |  |                              |
|       |           |                   |                 |                 | 50/5"       |           | 0.0                 |                   |                 |  |                              |
|       |           |                   |                 |                 |             |           |                     |                   |                 | End of Boring at 21' bgs.  |                              |
| -25   | -25       |                   |                 |                 |             |           |                     |                   |                 |  |                              |
| -30   | -30       |                   |                 |                 |             |           |                     |                   |                 |  |                              |
| -35   | -35       |                   |                 |                 |             |           |                     |                   |                 |  |                              |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location hand cleared 0 - 5 ft bgs.

Soil samples collected for: SVOCs at 13 - 15 ft bgs.

ESMI at 8 - 15 ft bgs.

Seneca Meadows Landfill at 2 - 5 and 9 - 13 ft bgs.



**Date Start/Finish:** 4/25/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111145.80  
**Eastings:** 683100.96  
**Casing Elevation:** NA  
**Borehole Depth:** 21' bgs  
**Surface Elevation:** 441.22' AMSL  
**Descriptions By:** Jesse Jones

**Well/Boring ID:** SB-106  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts          | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description  | Well/Boring Construction |
|-------|-----------|-------------------|-----------------|-----------------|----------------------|-----------|---------------------|-------------------|-----------------|--|--------------------------|
| 0     | 0         |                   |                 |                 |                      |           |                     |                   |                 |  |                          |
|       |           | 1                 | 0-5             | 5               | NA                   | NA        | 0.0                 |                   |                 | Dark brown to brown medium to coarse SAND; little fine to medium Gravel, sub angular to sub rounded; moist, loose. |                          |
|       |           |                   |                 |                 |                      |           | 0.0                 |                   |                 | Brown medium to coarse SAND; trace fine Gravel, sub angular to sub rounded; moist, loose.                          |                          |
| -5    | -5        | 2                 | 5-7             | 0.8             | 2<br>12<br>15<br>7   | NA        | 0.0                 |                   |                 | Black to grey Slag and Ash and fine to medium SAND; trace fine Gravel, sub rounded; moist, loose.                  |                          |
|       |           |                   |                 |                 |                      |           | 0.0                 |                   |                 | Brown oxidized red medium SAND; trace fine Gravel, sub rounded; moist, medium dense.                               |                          |
|       |           | 3                 | 7-9             | 0.9             | 10<br>40<br>22<br>27 | NA        | 0.0                 |                   |                 | Greyish brown medium to coarse SAND; little fine Gravel, angular to sub angular; moist, loose.                     |                          |
|       |           |                   |                 |                 |                      |           | 0.0                 |                   |                 | Tan to brown medium to coarse SAND; little fine Gravel, angular to sub angular; moist, loose.                      |                          |
| -10   | -10       | 4                 | 9-11            | 0.7             | 5<br>7<br>7<br>6     | NA        | 0.0                 |                   |                 | Reddish brown medium to coarse SAND; some fine Gravel, sub angular to sub rounded; moist, loose.                   |                          |
|       |           | 5                 | 11-13           | 0.7             | 7<br>12<br>12<br>10  | NA        | 0.0                 |                   |                 | Reddish brown medium to coarse SAND; trace to little fine Gravel, sub angular; moist, loose.                       |                          |
|       |           | 6                 | 13-15           | 1.1             | 7<br>9<br>12<br>15   | NA        | 0.0                 |                   |                 | Yellowish brown oxidized red fine to medium SAND; trace to little Gravel, sub angular; moist, medium dense.        |                          |
|       |           |                   |                 |                 |                      |           | 0.0                 |                   |                 | Light reddish brown medium to coarse SAND; little fine Gravel, angular to sub angular; moist, loose.               |                          |
| -15   | -15       |                   |                 |                 | 5<br>18              |           | 0.0                 |                   |                 | Brown fine to medium SAND; trace fine Gravel, sub angular; moist, medium dense.                                    |                          |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.  
 Location Hand cleared 0 - 5 ft bgs.  
 Soil samples collected for: Total SVOCs at 17 - 20 ft bgs.  
 ESMI at 17 - 21 ft bgs.  
 Seneca Meadows Landfill at 3 - 5 and 11 - 15 ft bgs.



Site Location:

125 North Main Street  
Newark, NY 14513

Borehole Depth: 21' bgs

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts                | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column   | Stratigraphic Description   | Well/Boring Construction        |
|-------|-----------|-------------------|-----------------|-----------------|----------------------------|-----------|---------------------|-------------------|---|---|---------------------------------|
|       |           | 7                 | 15-17           | 1.1             | 21<br>20                   | NA        | 0.0                 |                   |   | Yellowish grey and brown medium to coarse SAND; little fine to medium Gravel, sub angular to sub rounded; moist, loose.             | Cement Grout<br>(0.5 - 21' bgs) |
|       |           | 8                 | 17-19           | 0.8             | 22                         | NA        | 13.6                |                   |   | Brownish grey medium to coarse SAND; little fine Gravel, sub angular; wet, loose, little sheen on water in pore space, slight odor. |                                 |
|       |           |                   |                 |                 | 11                         |           | 3.5                 |                   |   | Yellowish brown very fine to medium SAND; little fine to medium Gravel, sub angular; wet, dense.                                    |                                 |
|       |           |                   |                 |                 | 10                         |           |                     |                   |   | Greyish brown fine to coarse SAND; trace fine to medium Gravel, sub rounded; moist, dense, little blebs of MGP-like material.       |                                 |
| -20   | -20       | 9                 | 19-21           | 2.0             | 53/6"<br>37<br>38<br>50/6" | NA        | 0.0<br>0.0<br>0.0   |                   | TILL - Brownish grey very fine to fine SAND; trace to little fine to medium Gravel, sub angular; trace Silt; moist, very dense. |   |                                 |
|       |           |                   |                 |                 |                            |           |                     |                   |   | Boring terminated at 21' bgs.   |                                 |
| -25   | -25       |                   |                 |                 |                            |           |                     |                   |   |   |                                 |
| -30   | -30       |                   |                 |                 |                            |           |                     |                   |   |   |                                 |
| -35   | -35       |                   |                 |                 |                            |           |                     |                   |   |   |                                 |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location Hand cleared 0 - 5 ft bgs.

Soil samples collected for: Total SVOCs at 17 - 20 ft bgs.

ESMI at 17 - 21 ft bgs.

Seneca Meadows Landfill at 3 - 5 and 11 - 15 ft bgs.



**Date Start/Finish:** 4/24/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111184.17  
**Easting:** 683096.75  
**Casing Elevation:** NA  
  
**Borehole Depth:** 23' bgs  
**Surface Elevation:** 439.33' AMSL  
  
**Descriptions By:** Jesse Jones

**Well/Boring ID:** SB-107  
**Client:** NYSEG  
  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts         | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column  | Stratigraphic Description | Well/Boring Construction     |
|-------|-----------|-------------------|-----------------|-----------------|---------------------|-----------|---------------------|-------------------|--|---------------------------|------------------------------|
| 0     | 0         |                   |                 |                 |                     |           |                     |                   |  |                           |                              |
|       |           | 1                 | 0-5             | 5               | NA                  | NA        | 0.0                 |                   | Asphalt  | Asphalt (0 - 0.5' bgs)    |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Grey to brown fine to coarse SAND; some fine to medium Gravel, angular to sub angular; dry, loose.                                   |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Dark brown fine to medium SAND; little fine Gravel, sub rounded to round; moist, dense.  |                           |                              |
| -5    | -5        | 2                 | 5-7             | 0.4             | 2<br>2<br>3<br>3    | NA        | 0.0                 |                   | Brown fine SAND; little Silt; trace fine Gravel, sub angular; moist.   |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Yellowish brown fine to medium SAND; little fine Gravel, sub angular; moist, loose.  |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Yellowish brown fine to coarse SAND; some fine to medium Gravel, angular to sub angular; moist, loose.                               |                           |                              |
| -10   | -10       | 4                 | 9-11            | 0.9             | 3<br>8<br>8<br>9    | NA        | 0.0<br>0.1          |                   | Yellowish brown fine to coarse SAND; some fine to medium Gravel, angular to sub angular; moist, loose.                               |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Tan and brown medium to coarse grained SAND; some fine to medium Gravel, sub angular to sub rounded; moist, loose.                   |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Yellowish brown medium to coarse SAND; little fine to medium Gravel, sub rounded; moist, loose.                                      |                           |                              |
| -15   | -15       | 6                 | 13-15           | 0.6             | 4<br>10<br>12<br>16 | NA        | 0.0                 |                   | Yellowish brown medium to coarse SAND; little fine to medium Gravel, sub rounded; moist, loose.                                      |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   | Dark brown discolored black fine to coarse SAND and fine to coarse GRAVEL, angular to sub angular; wet, loose, slight MGP-like odor. |                           |                              |
|       |           |                   |                 |                 |                     |           | 0.0                 |                   |  |                           | Cement Grout (0.5 - 23' bgs) |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.  
 Location Hand cleared 0 - 5 ft bgs.  
 Soil samples collected for:  
 Total SVOCs at 15 - 17 ft bgs.



Site Location:

125 North Main Street  
Newark, NY 14513

Borehole Depth: 23' bgs

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction        |
|-------|-----------|-------------------|-----------------|-----------------|-------------|-----------|---------------------|-------------------|-----------------|---|---------------------------------|
|       |           | 7                 | 15-17           | 0.8             | 12          | NA        | 26.3                |                   |                 |   |                                 |
|       |           |                   |                 |                 | 12          |           |                     |                   |                 |   |                                 |
|       |           | 8                 | 17-19           | 0.9             | 5           | NA        | 9.3                 |                   |                 | Brown discolored dark grey coarse SAND; wet, loose, slight MGP-like odor.   |                                 |
|       |           |                   |                 |                 | 5           |           |                     |                   |                 |   |                                 |
|       |           |                   |                 |                 | 7           |           |                     |                   |                 |   |                                 |
|       |           |                   |                 |                 | 35          |           |                     |                   |                 | Brown very fine to medium SAND; little Silt; trace fine Gravel, sub angular to sub rounded; wet to moist, dense.  |                                 |
| -20   | -20       | 9                 | 19-21           | 0.7             | 5           | NA        | 3.5                 |                   |                 |   | Cement Grout<br>(0.5 - 23' bgs) |
|       |           |                   |                 |                 | 50/3"       |           | 5.8                 |                   |                 | TILL - Greyish brown very fine to fine SAND; little Silt; trace to little fine to medium Gravel, sub angular to sub rounded; moist to wet, little sheen on water in pore space, very dense. |                                 |
|       |           | 10                | 21-23           | 0.6             | 17          | NA        | 0.0                 |                   |                 |   |                                 |
|       |           |                   |                 |                 | 50/5"       |           |                     |                   |                 |   |                                 |
|       |           |                   |                 |                 |             |           |                     |                   |                 | Boring terminated at 23' bgs.   |                                 |
| -25   | -25       |                   |                 |                 |             |           |                     |                   |                 |   |                                 |
| -30   | -30       |                   |                 |                 |             |           |                     |                   |                 |   |                                 |
| -35   | -35       |                   |                 |                 |             |           |                     |                   |                 |   |                                 |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location Hand cleared 0 - 5 ft bgs.

Soil samples collected for:  
Total SVOCs at 15 - 17 ft bgs.





**Date Start/Finish:** 4/26/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 2" x 2' Split Spoon

**Northing:** 1111176.21  
**Easting:** 683147.31  
**Casing Elevation:** NA  
**Borehole Depth:** 25' bgs  
**Surface Elevation:** 439.36' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-108  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts      | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction     |
|-------|-----------|-------------------|-----------------|-----------------|------------------|-----------|---------------------|-------------------|-----------------|---|------------------------------|
| 0     | 0         |                   |                 |                 |                  |           |                     |                   |                 |   |                              |
|       |           | 1                 | 0-5             | 5               | NA               | NA        | 0.0                 |                   |                 | Brown very fine to medium SAND; some Silt; little fine to medium Gravel, angular to sub angular; moist, loose, 4" Cobble at 1' to 1.3' bgs. | Topsoil (0 - 0.5' bgs)       |
|       |           |                   |                 |                 |                  |           |                     |                   |                 | No sample recovered. Tightly packed Cobbles and Building debris were observed in the borehole.  |                              |
| -5    | -5        | 2                 | 5-7             | NR              | 2<br>3<br>2<br>3 | NA        | NA                  |                   |                 | No Recovery; rock stuck in sample shoe.   |                              |
|       |           | 3                 | 7-9             | NR              | 2<br>3<br>3<br>3 | NA        | NA                  |                   |                 | No Recovery; rock stuck in sample shoe.   |                              |
| -10   | -10       | 4                 | 9-11            | NR              | 6<br>7<br>7<br>8 | NA        | NA                  |                   |                 | No Recovery; sample fell out of spoon.  |                              |
|       |           | 5                 | 11-13           | 1.1             | 6<br>6<br>7<br>7 | NA        | 0.0<br>0.0          |                   |                 | Reddish brown fine to coarse SAND; some fine to coarse Gravel, angular to sub angular; moist, loose.  |                              |
|       |           | 6                 | 13-15           | 0.6             | 5<br>6<br>5<br>6 | NA        | 0.0                 |                   |                 | Brown fine to coarse SAND and medium to coarse GRAVEL, angular to sub angular; trace Silt; wet, loose.                                      |                              |
| -15   | -15       |                   |                 |                 | 8<br>9           |           | 0.0                 |                   |                 | Brown fine to coarse SAND and medium to coarse GRAVEL, angular to sub rounded, trace Silt; wet, loose.                                      | Cement Grout (0.5 - 25' bgs) |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location Hand cleared 0 - 5 ft bgs.

Soil samples collected for: Total SVOCs at 15 - 17 ft bgs.  
 ESMI at 15 - 25 ft bgs.  
 Seneca Meadows Landfill at 0 - 5 and 11 - 15 ft bgs.



Site Location:

Borehole Depth: 25' bgs

125 North Main Street  
Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts          | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction     |
|-------|-----------|-------------------|-----------------|-----------------|----------------------|-----------|---------------------|-------------------|-----------------|---|------------------------------|
|       |           | 7                 | 15-17           | 0.8             | 10<br>14             | NA        | 0.0                 |                   |                 |   |                              |
|       |           | 8                 | 17-19           | 1.2             | 24<br>11<br>11<br>10 | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Brown to reddish brown fine to coarse SAND; some fine to coarse Gravel, sub angular to sub rounded; trace Silt; wet, loose.   |                              |
| -20   | -20       | 9                 | 19-21           | 1.1             | 5<br>5<br>12<br>37   | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Yellowish brown very fine to fine SAND; trace fine to medium Gravel, sub rounded; trace Silt, moist to wet, medium dense.   | Cement Grout (0.5 - 25' bgs) |
|       |           | 10                | 21-23           | 0.6             | 25<br>50/5"          | NA        | 0.0                 |                   |                 |   |                              |
|       |           | 11                | 23-25           | 0.5             | 25<br>50/4"          | NA        | 0.0                 |                   |                 | TILL - Greyish brown very fine to fine SAND; little fine to medium Gravel, sub angular; trace Silt, moist to wet, very dense. 2" diameter Rock at 23' to 23.1' bgs. |                              |
| 25    | 25        |                   |                 |                 |                      |           |                     |                   |                 | Boring terminated at 25' bgs.   |                              |
| 30    | -30       |                   |                 |                 |                      |           |                     |                   |                 |   |                              |
| 35    | -35       |                   |                 |                 |                      |           |                     |                   |                 |   |                              |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; NR = No Recovery.

Location Hand cleared 0 - 5 ft bgs.

Soil samples collected for: Total SVOCs at 15 - 17 ft bgs.  
ESMI at 15 - 25 ft bgs.  
Seneca Meadows Landfill at 0 - 5 and 11 - 15 ft bgs.

**Date Start/Finish:** 4/27/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 3" x 2' Split Spoon

**Northing:** 1111164.08  
**Easting:** 682992.88  
**Casing Elevation:** NA  
**Borehole Depth:** 17' bgs  
**Surface Elevation:** 440.33' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-109  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts             | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description   | Well/Boring Construction     |
|-------|-----------|-------------------|-----------------|-----------------|-------------------------|-----------|---------------------|-------------------|-----------------|---|------------------------------|
| 0     | 0         |                   |                 |                 |                         |           |                     |                   |                 |   |                              |
| 1     |           | 1                 | 0-5             | 5               | NA                      | NA        | 0.0                 |                   |                 | Brown fine to medium SAND; some Silt; little fine to medium Gravel, angular to sub angular; moist, loose.   | Topsoil (0 - 0.5' bgs)       |
|       |           |                   |                 |                 |                         |           | 0.0                 |                   |                 | Brown fine to medium SAND; some Silt; little fine to medium Gravel, angular to sub angular; trace 5" to 7" diameter Cobbles, sub angular to sub rounded; moist to wet, loose.                   |                              |
| 2     |           | 2                 | 5-7             | 0.6             | 7<br>5<br>3<br>3        | NA        | 0.0                 |                   |                 | Brown and reddish brown fine to medium SAND; little fine to coarse Gravel, angular to sub angular; little Silt; trace Slag fragments; moist, loose.   | Cement Grout (0.5 - 17' bgs) |
| 3     |           | 3                 | 7-9             | 1.4             | 3<br>4<br>3<br>4        | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Reddish brown very fine SAND and SILT; little fine to coarse Gravel, sub rounded; trace to little Clay; moist to wet, dense, low plasticity, trace medium to coarse Sand from 8.1' to 8.4' bgs. |                              |
| 4     |           | 4                 | 9-11            | 1.1             | 3<br>5<br>5<br>2        | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Reddish brown fine to medium SAND; little to some fine to coarse Gravel, sub angular; trace Cobbles; trace Silt and very fine sand; wet, loose. 1/2" piece of slag at 9.1' bgs.                 |                              |
| 5     |           | 5                 | 11-13           | 0.5             | 3<br>5<br>6<br>6        | NA        | 0.0                 |                   |                 | Reddish brown fine to medium SAND; little to some fine to coarse Gravel, sub angular; trace Silt and very fine Sand; saturated, loose. 1/2" piece of slag at 9.1' bgs.                          |                              |
| 6     |           | 6                 | 13-15           | 1.8             | 15<br>57/6"<br>40<br>45 | NA        | 0.0<br>0.0<br>0.0   |                   |                 | Reddish brown fine to medium SAND; little fine to coarse Gravel, angular to sub rounded; trace Silt, wet to moist, medium dense.  |                              |
|       |           |                   |                 |                 |                         |           |                     |                   |                 | Reddish grey fine to coarse SAND; little fine to medium Gravel, sub angular to sub rounded; trace Cobbles; trace Silt, moist, dense.  |                              |
| 15    |           |                   |                 |                 | 37                      |           | 0.0                 |                   |                 | TILL - Greyish brown very fine SAND; little Silt; trace fine to medium Gravel, sub rounded; wet, medium stiff, slow dilatancy.  |                              |
|       |           |                   |                 |                 |                         |           |                     |                   |                 | TILL - Greyish brown very fine SAND; trace fine to medium Gravel, sub rounded; trace Silt; moist, very dense.   |                              |


**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.  
 Location Hand cleared 0 - 5 ft bgs.  
 3-inch diameter split spoon used to collect soil samples.  
 Soil samples collected for:  
 Total SVOCs at 7 - 9 and 15 - 17 ft bgs.



Site Location:

125 North Main Street  
Newark, NY 14513

Borehole Depth: 17' bgs

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts    | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column | Stratigraphic Description     | Well/Boring Construction   |
|-------|-----------|-------------------|-----------------|-----------------|----------------|-----------|---------------------|-------------------|-----------------|-------------------------------|--|
|       |           | 7                 | 15-17           | 0.7             | 64/6"<br>50/3" | NA        | 0.0                 |                   |                 |                               | <br>Cement Grout<br>(0.5 - 17' bgs) |
| -20   | -20       |                   |                 |                 |                |           |                     |                   |                 | Boring terminated at 17' bgs. |  |
| -25   | -25       |                   |                 |                 |                |           |                     |                   |                 |                               |  |
| -30   | -30       |                   |                 |                 |                |           |                     |                   |                 |                               |  |
| -35   | -35       |                   |                 |                 |                |           |                     |                   |                 |                               |  |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location Hand cleared 0 - 5 ft bgs.  
3-inch diameter split spoon used to collect soil samples.

Soil samples collected for:  
Total SVOCs at 7 - 9 and 15 - 17 ft bgs.



**Date Start/Finish:** 4/27/2018  
**Drilling Company:** Nothnagle Drilling Inc.  
**Driller's Name:** Neal Short  
**Drilling Method:** Hollow Stem Auger  
**Auger Size:** 4.25" ID  
**Rig Type:** CME-75  
**Sampling Method:** 3" x 2' Split Spoon

**Northing:** 1111230.96  
**Eastings:** 682913.81  
**Casing Elevation:** NA  
**Borehole Depth:** 11' bgs  
**Surface Elevation:** 441.87' AMSL  
**Descriptions By:** Ryan Clare

**Well/Boring ID:** SB-110  
**Client:** NYSEG  
**Location:** 125 North Main Street  
 Newark, NY 14513

| DEPTH | ELEVATION | Sample Run Number | Sample/Int/Type | Recovery (feet) | Blow Counts      | N - Value | PID Headspace (ppm) | Analytical Sample | Geologic Column   | Stratigraphic Description  | Well/Boring Construction  |
|-------|-----------|-------------------|-----------------|-----------------|------------------|-----------|---------------------|-------------------|---|--|---|
| 0     | 0         |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 1     | -1        | 1                 | 0-5             | 5               | NA               | NA        | 0.2                 |                   |   | Black Organics and very fine to fine SAND; little fine to medium Gravel; little Silt; moist, loose.                            | <p>Topsoil (0 - 0.5' bgs)</p> <p>Cement Grout (0.5 - 11' bgs)</p> |
| 2     | -2        | 2                 | 5-7             | 1.3             | 3<br>6<br>9<br>9 | NA        | 0.0<br>0.0<br>0.0   |                   | Black fine to coarse SAND and fine to medium GRAVEL, angular to sub angular; moist, loose. Piece of metal debris at 5' bgs. |  |   |
| 3     | -3        | 3                 | 7-9             | 0.9             | 7<br>4<br>3<br>3 | NA        | 0.0                 |                   | Black Slag; little very fine to fine SAND; moist, loose. 3" diameter Cobble at 5.4' to 5.6' bgs                             |  |   |
| 4     | -4        | 4                 | 9-11            | 1.4             | 4<br>4<br>4<br>8 | NA        | 0.0<br>0.0<br>0.0   |                   | Dark reddish brown fine to medium SAND and black Slag; some red Brick fragments; moist, loose.                              |  |   |
| 5     | -5        |                   |                 |                 |                  |           |                     |                   |   | Black, red, and orange Slag and Slag-like material; moist, loose. Little light orange paper-like material at 7.3' to 7.4' bgs. |   |
| 6     | -6        |                   |                 |                 |                  |           |                     |                   |   | Yellowish olive brown very fine to fine SAND; little fine to medium Gravel, sub rounded; little Silt; moist, medium dense.     |   |
| 7     | -7        |                   |                 |                 |                  |           |                     |                   |   | Boring terminated at 11' bgs.  |   |
| 8     | -8        |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 9     | -9        |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 10    | -10       |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 11    | -11       |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 12    | -12       |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 13    | -13       |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 14    | -14       |                   |                 |                 |                  |           |                     |                   |   |  |   |
| 15    | -15       |                   |                 |                 |                  |           |                     |                   |   |  |   |

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Location Hand cleared 0 - 5 ft bgs.  
 3-inch diameter split spoon used to collect soil samples.

Soil samples collected for:  
 Total SVOCs at 7 - 9 ft bgs.



# ATTACHMENT 3

Test Pit Logs



# Test Pit Log

**Test Pit ID: TP-100**

|                     |                        |                       |                         |
|---------------------|------------------------|-----------------------|-------------------------|
| <b>Client:</b>      | NYSEG                  | <b>Date/Day:</b>      | 4-25-2018 / Wednesday   |
| <b>Project:</b>     | Newark Former MGP Site | <b>Weather:</b>       | Rain to Overcast        |
| <b>Location:</b>    | Newark, NY             | <b>Temperature:</b>   | 50 to 54 degrees F      |
| <b>Project #:</b>   | B0013094.0006          | <b>Wind:</b>          | ESE                     |
| <b>Logged By:</b>   | Ryan Clare             | <b>Subcontractor:</b> | Nothnagle Drilling Inc. |
| <b>Coordinates:</b> | See Fischer Report     | <b>Equipment:</b>     | 60 G – Mini Excavator   |

**Sketch of Test Pit Layout:**

W  
↑  
E

| <u>Plan View</u>                       | <u>Profile View</u>                                 |
|--|---|
|  |   |
| <b>Test Pit Dimensions:</b> 20' x 3.5' | <b>Total Depth:</b> 10 ft <b>Depth to Water:</b> NA |

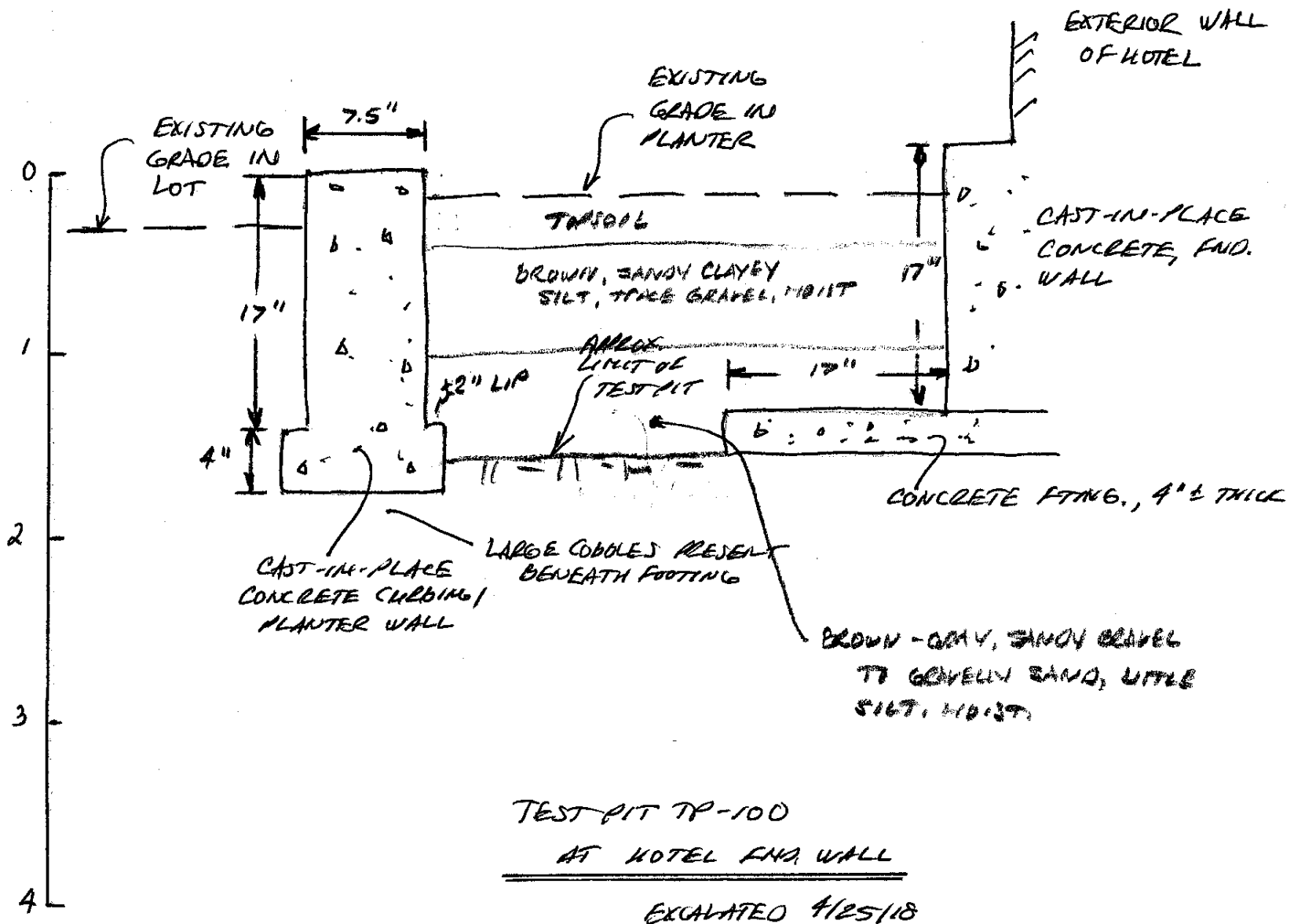
| Depth Interval (feet) | PID Screening Result (ppm) | Description of Soil/Material   |
|-----------------------|----------------------------|--|
| 0-0.5                 | 0.0                        | Asphalt  |
| 0.5-10                | 0.0-0.8                    | (Imported FILL Material) Brown fine to medium SAND; some fine to coarse Gravel, trace 3" to 14" diameter cobbles and boulders, sub-angular to sub-round; trace Silt; moist, very dense to dense. |
|                       | <b>Samples:</b>            | Delineation for PAHs collected from 8'-10' bgs.<br>ESMI Waste Characterization collected from 6'-8' and 8'-10'bgs. (two samples)   |
|                       |                            | Seneca Meadows Waste Characterization collected from 2'-6' bgs.<br>Geotechnical collected from 4'-8' bgs.  |

**Notes:**

Undermining of the Sand and Gravel occurred under the asphalt on the east side of the north end of the test pit. There could have possibly been a preferential pathway through the soils due to surface runoff draining through cracks in the asphalt.

**Photo Summary:**

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# Test Pit Log

**Test Pit ID: TP-101**

|                     |                        |                       |                         |
|---------------------|------------------------|-----------------------|-------------------------|
| <b>Client:</b>      | NYSEG                  | <b>Date/Day:</b>      | 4-24-2018 / Tuesday     |
| <b>Project:</b>     | Newark Former MGP Site | <b>Weather:</b>       | Sunny                   |
| <b>Location:</b>    | Newark, NY             | <b>Temperature:</b>   | 55 degrees F            |
| <b>Project #:</b>   | B0013094.0006          | <b>Wind:</b>          | ESE                     |
| <b>Logged By:</b>   | Ryan Clare             | <b>Subcontractor:</b> | Nothnagle Drilling Inc. |
| <b>Coordinates:</b> | See Fischer Report     | <b>Equipment:</b>     | 60 G – Mini Excavator   |

**Sketch of Test Pit Layout:**

| Plan View                   |                   | Profile View        |              |                        |           |
|-----------------------------|-------------------|---------------------|--------------|------------------------|-----------|
|                             |                   |                     |              |                        |           |
| <b>Test Pit Dimensions:</b> | <b>20' x 3.6'</b> | <b>Total Depth:</b> | <b>10 ft</b> | <b>Depth to Water:</b> | <b>NA</b> |

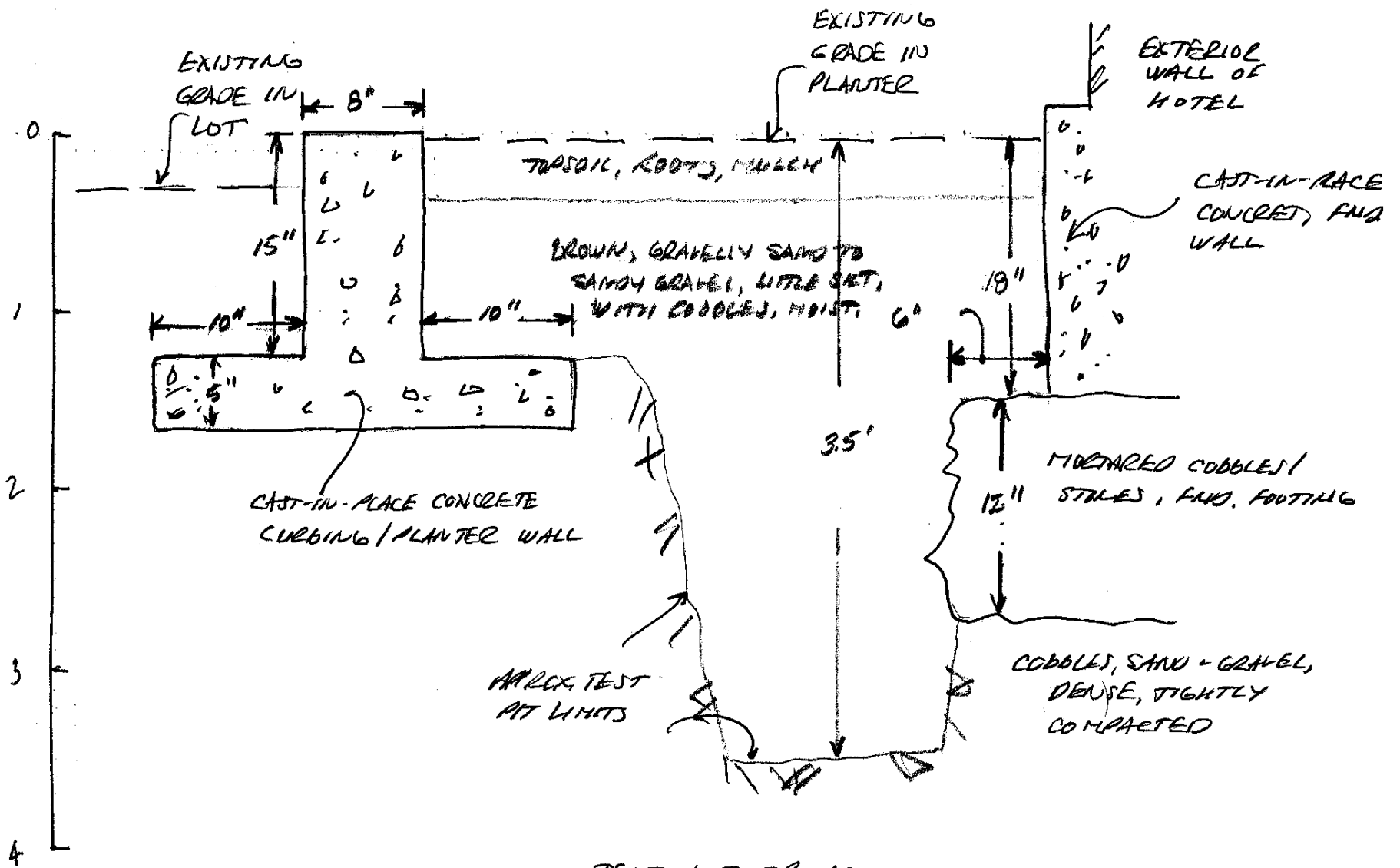
| Depth Interval (feet) | PID Screening Result (ppm) | Description of Soil/Material  |
|-----------------------|----------------------------|---|
| 0-5                   | 0.0                        | (0-0.5 is Asphalt); (Imported FILL Material) Brown fine to coarse SAND; little fine to coarse Gravel, trace 2" to 10" diameter cobbles, sub-angular to sub-round; trace Silt, moist, loose.                                 |
| 5-7                   | 0.0                        | (Imported FILL Material) Greyish brown fine to coarse SAND; some fine to coarse Gravel, sub-angular to sub-round; trace Silt; trace Clay; moist, loose.   |
| 7-8                   | 0.0                        | (FILL Material) Brownish grey fine to coarse GRAVEL, sub-angular to sub-round; little fine to coarse Sand; little Silt; trace Slag; wet, loose.   |
| 8-9                   | 0.0                        | Reddish brown SILT; little fine to coarse Gravel, angular to sub-angular; trace very fine Sand, trace Clay; trace 2" to 8" diameter Cobbles, sub round; trace lenses of very fine to fine Sand; moist, stiff to very stiff. |
| 9-10                  | 0.0                        | Reddish brown very fine to fine SAND; some to little Silt; little fine to coarse Gravel, angular to sub-angular; trace Clay; trace 2" to 8" diameter Cobbles, sub-round; moist, stiff to very stiff.                        |

**Notes:**

**Photo Summary:**

|   |
|---|
| Delineation for PAHs collected from 7' - 8' bgs.                                      |
| ESMI Waste Characterization collected from 4' - 8' bgs.                               |
| Seneca Meadows Waste Characterization collected from 0' - 4' and 8' - 10' bgs.        |
| Geotechnical collected from 8' - 10' bgs.   |
| <ul style="list-style-type: none"> <li>Trace Slag observed at 7' - 8' bgs.</li> </ul> |

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TEST PIT TP-101  
 AT HOTEL FND. WALL

EXCAVATED 4/24/18

# ATTACHMENT 4

Analytical Laboratory Reports



The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

### Arcadis

NYSEG - Newark Former MGP Site, Newark, NY

B0013094.0006

SGS Job Number: JC64857

Sampling Date: 04/23/18

### Report to:

Arcadis  
295 Woodcliff Drive Suite 301  
Fairport, NY 14450  
Jason.Golubski@arcadis.com; Nicholas.Beyrle@arcadis.com  
  
ATTN: Jason Golubski

Total number of pages in report: 250



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Nancy F. Cole".

Nancy Cole  
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.  
Test results relate only to samples analyzed.

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## Sample Summary

Arcadis

**Job No:** JC64857

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Collected |           | Received | Matrix |                      | Client Sample ID |
|---------------|-----------|-----------|----------|--------|----------------------|------------------|
|               | Date      | Time By   |          | Code   | Type                 |                  |
| JC64857-1     | 04/23/18  | 15:30 JKJ | 04/25/18 | AQ     | Ground Water         | MW-11-06         |
| JC64857-1F    | 04/23/18  | 15:30 JKJ | 04/25/18 | AQ     | Groundwater Filtered | MW-11-06         |
| JC64857-2     | 04/23/18  | 16:30 JKJ | 04/25/18 | AQ     | Ground Water         | MW-3A            |
| JC64857-2F    | 04/23/18  | 16:30 JKJ | 04/25/18 | AQ     | Groundwater Filtered | MW-3A            |
| JC64857-3     | 04/23/18  | 16:50 JKJ | 04/25/18 | AQ     | Ground Water         | MW-10-02         |
| JC64857-3F    | 04/23/18  | 16:50 JKJ | 04/25/18 | AQ     | Groundwater Filtered | MW-10-02         |

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Arcadis

**Job No** JC64857

**Site:** NYSEG - Newark Former MGP Site, Newark, NY

**Report Date** 5/14/2018 11:54:15 A

On 04/25/2018, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC64857 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### MS Volatiles By Method EPA 624

**Matrix:** AQ

**Batch ID:** VN11346

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64857-1DUP, JC64857-2MS were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Bromoform, Dichlorodifluoromethane, Trichlorofluoromethane are outside control limits. Outside control limits due to matrix interference.
- JC64857-1: Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.
- JC64857-2: Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.
- JC64857-3: Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to acid preservation.

Monday, May 14, 2018

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## MS Semi-volatiles By Method EPA 625

**Matrix:** AQ

**Batch ID:** OP11610

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JC64857-1 for Pentachlorophenol: Associated CCV outside of control limits low.
- JC64857-3 for bis(2-Chloroethyl)ether: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for n-Nitrosodimethylamine: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for bis(2-Chloroethyl)ether: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for N-Nitroso-di-n-propylamine: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for Benzidine: Associated CCV outside of control limits low.
- JC64857-1 for Benzidine: Associated CCV outside of control limits low.
- JC64857-3 for Pentachlorophenol: Associated CCV outside of control limits low.
- OP11610-BSD for Benzidine: Analytical precision exceeds in-house control limits.
- JC64857-1 for Phenol: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for Phenol: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for bis(2-Chloroethyl)ether: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for Phenol: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for n-Nitrosodimethylamine: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for Benzidine: Associated CCV outside of control limits low.
- JC64857-2 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for Pentachlorophenol: Associated CCV outside of control limits low.
- JC64857-3 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for n-Nitrosodimethylamine: Associated CCV outside of control limits high, sample was ND.
- JC64857-1 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC64857-3 for N-Nitroso-di-n-propylamine: Associated CCV outside of control limits high, sample was ND.
- JC64857-2 for N-Nitroso-di-n-propylamine: Associated CCV outside of control limits high, sample was ND.

Monday, May 14, 2018

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## Metals Analysis By Method SW846 6010C

**Matrix:** AQ

**Batch ID:** MP6829

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64768-2MS, JC64768-2MSD, JC64768-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Chromium, Copper, Iron, Nickel, Zinc are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC64857-1, JC64857-1F, JC64857-2, JC64857-2F, JC64857-3, JC64857-3F: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.
- JC64857-1 for Selenium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Barium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Antimony: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Cobalt: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Silver: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Potassium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Nickel: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Magnesium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Aluminum: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Copper: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Chromium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Calcium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Beryllium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Iron: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Cadmium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Thallium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Lead: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Iron: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Copper: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Zinc: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Vanadium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Magnesium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Cobalt: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Barium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Aluminum: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Antimony: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Arsenic: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Beryllium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Calcium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Chromium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Zinc: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Vanadium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Manganese: Elevated sample detection limit due to difficult sample matrix.

Monday, May 14, 2018

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## Metals Analysis By Method SW846 6010C

**Matrix:** AQ

**Batch ID:** MP6829

- JC64857-3 for Manganese: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Cadmium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Thallium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Arsenic: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Lead: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Sodium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Sodium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Silver: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Selenium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Potassium: Elevated sample detection limit due to difficult sample matrix.
- JC64857-3 for Nickel: Elevated sample detection limit due to difficult sample matrix.

## Metals Analysis By Method SW846 7470A

**Matrix:** AQ

**Batch ID:** MP6849

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64873-1AMS, JC64873-1AMSD were used as the QC samples for metals.
- JC64857-3 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC64857-1 for Mercury: Elevated sample detection limit due to difficult sample matrix.

## General Chemistry By Method EPA 1664A

**Matrix:** AQ

**Batch ID:** GP12722

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64857-1MS, JC65049-1DUP were used as the QC samples for HEM Oil and Grease.
- RPD(s) for Duplicate for HEM Oil and Grease are outside control limits. RPD acceptable due to low duplicate and sample concentrations.

## General Chemistry By Method EPA 335.4/LACHAT

**Matrix:** AQ

**Batch ID:** GP12684

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64857-1MS, JC65010-1DUP were used as the QC samples for Cyanide.

## General Chemistry By Method SM2340 C-11

**Matrix:** AQ

**Batch ID:** GN79357

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65050-2DUP, JC65050-2MS were used as the QC samples for Hardness, Total as CaCO<sub>3</sub>.

### General Chemistry By Method SM2540 C-11

**Matrix:** AQ                      **Batch ID:** GN79194

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64782-1DUP were used as the QC samples for Solids, Total Dissolved.

### General Chemistry By Method SM2540 D-11

**Matrix:** AQ                      **Batch ID:** GN79175

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64854-1DUP were used as the QC samples for Solids, Total Suspended.

### General Chemistry By Method SM4500H+ B-11

**Matrix:** AQ                      **Batch ID:** GN79370

- Sample(s) JC64857-1DUP were used as the QC samples for pH.
- JC64857-1 for pH: Field analysis required. Received out of hold time and analyzed by request.
- JC64857-2 for pH: Field analysis required. Received out of hold time and analyzed by request.
- JC64857-3 for pH: Field analysis required. Received out of hold time and analyzed by request.

### General Chemistry By Method SM5210 B-11

**Matrix:** AQ                      **Batch ID:** GP12626

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64857-1DUP were used as the QC samples for BOD, 5 Day.

### General Chemistry By Method SM5220 C-11,HACH8000

**Matrix:** AQ                      **Batch ID:** GP12766

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64857-1MS, JC64857-1DUP were used as the QC samples for Chemical Oxygen Demand.
- RPD(s) for Duplicate for Chemical Oxygen Demand are outside control limits. RPD acceptable due to low duplicate and sample concentrations.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

# Summary of Hits

**Job Number:** JC64857  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/23/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC64857-1 MW-11-06**

|                          |        |       |  |  |      |               |
|--------------------------|--------|-------|--|--|------|---------------|
| Aluminum <sup>a</sup>    | 41000  | 1000  |  |  | ug/l | SW846 6010C   |
| Arsenic <sup>a</sup>     | 50.0   | 15    |  |  | ug/l | SW846 6010C   |
| Calcium <sup>a</sup>     | 455000 | 25000 |  |  | ug/l | SW846 6010C   |
| Chromium <sup>a</sup>    | 56.0   | 50    |  |  | ug/l | SW846 6010C   |
| Copper <sup>a</sup>      | 63.0   | 50    |  |  | ug/l | SW846 6010C   |
| Iron <sup>a</sup>        | 118000 | 500   |  |  | ug/l | SW846 6010C   |
| Lead <sup>a</sup>        | 20.5   | 15    |  |  | ug/l | SW846 6010C   |
| Magnesium <sup>a</sup>   | 146000 | 25000 |  |  | ug/l | SW846 6010C   |
| Manganese <sup>a</sup>   | 3410   | 75    |  |  | ug/l | SW846 6010C   |
| Sodium <sup>a</sup>      | 332000 | 50000 |  |  | ug/l | SW846 6010C   |
| Zinc <sup>a</sup>        | 161    | 100   |  |  | ug/l | SW846 6010C   |
| Hardness, Total as CaCO3 | 1180   | 4.0   |  |  | mg/l | SM2340 C-11   |
| Solids, Total Dissolved  | 1170   | 10    |  |  | mg/l | SM2540 C-11   |
| Solids, Total Suspended  | 2250   | 4.0   |  |  | mg/l | SM2540 D-11   |
| pH <sup>b</sup>          | 8.45   |       |  |  | su   | SM4500H+ B-11 |

**JC64857-1F MW-11-06**

|           |        |       |  |  |      |             |
|-----------|--------|-------|--|--|------|-------------|
| Calcium   | 162000 | 5000  |  |  | ug/l | SW846 6010C |
| Magnesium | 43400  | 5000  |  |  | ug/l | SW846 6010C |
| Manganese | 432    | 15    |  |  | ug/l | SW846 6010C |
| Sodium    | 319000 | 20000 |  |  | ug/l | SW846 6010C |

**JC64857-2 MW-3A**

|                          |        |       |      |  |      |                      |
|--------------------------|--------|-------|------|--|------|----------------------|
| Diethyl phthalate        | 1.6 J  | 2.0   | 0.26 |  | ug/l | EPA 625              |
| Fluoranthene             | 0.41 J | 1.0   | 0.17 |  | ug/l | EPA 625              |
| Pyrene                   | 0.33 J | 1.0   | 0.22 |  | ug/l | EPA 625              |
| Aluminum                 | 861    | 200   |      |  | ug/l | SW846 6010C          |
| Arsenic                  | 16.2   | 3.0   |      |  | ug/l | SW846 6010C          |
| Cadmium                  | 4.7    | 3.0   |      |  | ug/l | SW846 6010C          |
| Calcium                  | 184000 | 5000  |      |  | ug/l | SW846 6010C          |
| Iron                     | 6160   | 100   |      |  | ug/l | SW846 6010C          |
| Magnesium                | 33200  | 5000  |      |  | ug/l | SW846 6010C          |
| Manganese                | 292    | 15    |      |  | ug/l | SW846 6010C          |
| Sodium                   | 129000 | 10000 |      |  | ug/l | SW846 6010C          |
| Zinc                     | 28.1   | 20    |      |  | ug/l | SW846 6010C          |
| Chemical Oxygen Demand   | 30.8   | 20    |      |  | mg/l | SM5220 C-11,HACH8000 |
| Hardness, Total as CaCO3 | 549    | 4.0   |      |  | mg/l | SM2340 C-11          |
| Solids, Total Dissolved  | 984    | 10    |      |  | mg/l | SM2540 C-11          |
| Solids, Total Suspended  | 51.0   | 4.0   |      |  | mg/l | SM2540 D-11          |
| pH <sup>b</sup>          | 7.38   |       |      |  | su   | SM4500H+ B-11        |

## Summary of Hits

**Job Number:** JC64857  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/23/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC64857-2F MW-3A**

|           |        |       |  |  |      |             |
|-----------|--------|-------|--|--|------|-------------|
| Calcium   | 179000 | 5000  |  |  | ug/l | SW846 6010C |
| Magnesium | 31900  | 5000  |  |  | ug/l | SW846 6010C |
| Manganese | 179    | 15    |  |  | ug/l | SW846 6010C |
| Sodium    | 125000 | 10000 |  |  | ug/l | SW846 6010C |

**JC64857-3 MW-10-02**

|                                      |        |       |      |  |      |                  |
|--------------------------------------|--------|-------|------|--|------|------------------|
| Toluene <sup>c</sup>                 | 0.38 J | 1.0   | 0.24 |  | ug/l | EPA 624          |
| Xylenes (total) <sup>c</sup>         | 0.29 J | 1.0   | 0.20 |  | ug/l | EPA 624          |
| Aluminum <sup>a</sup>                | 39500  | 1000  |      |  | ug/l | SW846 6010C      |
| Arsenic <sup>a</sup>                 | 26.5   | 15    |      |  | ug/l | SW846 6010C      |
| Barium <sup>a</sup>                  | 1010   | 1000  |      |  | ug/l | SW846 6010C      |
| Calcium <sup>a</sup>                 | 428000 | 25000 |      |  | ug/l | SW846 6010C      |
| Chromium <sup>a</sup>                | 52.0   | 50    |      |  | ug/l | SW846 6010C      |
| Copper <sup>a</sup>                  | 145    | 50    |      |  | ug/l | SW846 6010C      |
| Iron <sup>a</sup>                    | 61600  | 500   |      |  | ug/l | SW846 6010C      |
| Lead <sup>a</sup>                    | 66.0   | 15    |      |  | ug/l | SW846 6010C      |
| Magnesium <sup>a</sup>               | 159000 | 25000 |      |  | ug/l | SW846 6010C      |
| Manganese <sup>a</sup>               | 12500  | 75    |      |  | ug/l | SW846 6010C      |
| Nickel <sup>a</sup>                  | 75.5   | 50    |      |  | ug/l | SW846 6010C      |
| Zinc <sup>a</sup>                    | 434    | 100   |      |  | ug/l | SW846 6010C      |
| Cyanide                              | 0.044  | 0.010 |      |  | mg/l | EPA 335.4/LACHAT |
| Hardness, Total as CaCO <sub>3</sub> | 1170   | 4.0   |      |  | mg/l | SM2340 C-11      |
| Solids, Total Dissolved              | 515    | 10    |      |  | mg/l | SM2540 C-11      |
| Solids, Total Suspended              | 2740   | 4.0   |      |  | mg/l | SM2540 D-11      |
| pH <sup>b</sup>                      | 7.49   |       |      |  | su   | SM4500H+ B-11    |

**JC64857-3F MW-10-02**

|           |        |       |  |  |      |                  |
|-----------|--------|-------|--|--|------|------------------|
| Calcium   | 181000 | 5000  |  |  | ug/l | SW846 6010C      |
| Magnesium | 39900  | 5000  |  |  | ug/l | SW846 6010C      |
| Selenium  | 11.8   | 10    |  |  | ug/l | SW846 6010C      |
| Sodium    | 29000  | 10000 |  |  | ug/l | SW846 6010C      |
| Cyanide   | 0.044  | 0.010 |  |  | mg/l | EPA 335.4/LACHAT |

(a) Elevated sample detection limit due to difficult sample matrix.

(b) Field analysis required. Received out of hold time and analyzed by request.

(c) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | N269343.D | 1  | 04/27/18 11:02 | CSF | n/a       | n/a        | VN11346          |
| Run #2              |           |    |                |     |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TVO List

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 107-02-8   | Acrolein                  | ND     | 10  | 6.2  | ug/l  |   |
| 107-13-1   | Acrylonitrile             | ND     | 10  | 1.9  | ug/l  |   |
| 542-88-1   | Bis(chloromethyl)ether    | IND    |     |      | ug/l  |   |
| 71-43-2    | Benzene                   | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane      | ND     | 1.0 | 0.19 | ug/l  |   |
| 75-25-2    | Bromoform                 | ND     | 1.0 | 0.44 | ug/l  |   |
| 74-83-9    | Bromomethane              | ND     | 1.0 | 0.74 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride      | ND     | 1.0 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene             | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-00-3    | Chloroethane              | ND     | 1.0 | 0.63 | ug/l  |   |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND     | 5.0 | 1.5  | ug/l  |   |
| 67-66-3    | Chloroform                | ND     | 1.0 | 0.20 | ug/l  |   |
| 74-87-3    | Chloromethane             | ND     | 1.0 | 0.29 | ug/l  |   |
| 124-48-1   | Dibromochloromethane      | ND     | 1.0 | 0.30 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane         | ND     | 1.0 | 0.27 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene       | ND     | 1.0 | 0.21 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane   | ND     | 2.0 | 0.67 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethene        | ND     | 1.0 | 0.57 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethene    | ND     | 1.0 | 0.54 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethene  | ND     | 1.0 | 0.40 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane       | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene | ND     | 1.0 | 0.59 | ug/l  |   |
| 123-91-1   | 1,4-Dioxane               | ND     | 130 | 27   | ug/l  |   |
| 100-41-4   | Ethylbenzene              | ND     | 1.0 | 0.21 | ug/l  |   |
| 151-56-4   | Ethylenimine              | IND    |     |      | ug/l  |   |
| 75-09-2    | Methylene chloride        | ND     | 1.0 | 0.55 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND     | 1.0 | 0.24 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**VOA TVO List**

| CAS No.   | Compound               | Result | RL  | MDL  | Units | Q |
|-----------|------------------------|--------|-----|------|-------|---|
| 127-18-4  | Tetrachloroethene      | ND     | 1.0 | 0.82 | ug/l  |   |
| 108-88-3  | Toluene                | ND     | 1.0 | 0.24 | ug/l  |   |
| 71-55-6   | 1,1,1-Trichloroethane  | ND     | 1.0 | 0.36 | ug/l  |   |
| 79-00-5   | 1,1,2-Trichloroethane  | ND     | 1.0 | 0.35 | ug/l  |   |
| 79-01-6   | Trichloroethene        | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-69-4   | Trichlorofluoromethane | ND     | 2.0 | 0.89 | ug/l  |   |
| 75-01-4   | Vinyl chloride         | ND     | 1.0 | 0.29 | ug/l  |   |
| 1330-20-7 | Xylenes (total)        | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.    | Surrogate Recoveries        | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------------|--------|--------|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 101%   |        | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 90%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 92%    |        | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 104%   |        | 80-120% |

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 625 EPA 625                             |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | P122322.D | 1  | 05/02/18 15:53 | GS | 04/27/18 16:00 | OP11610    | EP5490           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 1.0 ml       |
| Run #2 |                |              |

## ABN PPL List

| CAS No.   | Compound                             | Result | RL  | MDL  | Units | Q |
|-----------|--------------------------------------|--------|-----|------|-------|---|
| 95-57-8   | 2-Chlorophenol                       | ND     | 5.0 | 0.82 | ug/l  |   |
| 59-50-7   | 4-Chloro-3-methyl phenol             | ND     | 5.0 | 0.89 | ug/l  |   |
| 120-83-2  | 2,4-Dichlorophenol                   | ND     | 2.0 | 1.3  | ug/l  |   |
| 105-67-9  | 2,4-Dimethylphenol                   | ND     | 5.0 | 2.4  | ug/l  |   |
| 51-28-5   | 2,4-Dinitrophenol                    | ND     | 10  | 1.6  | ug/l  |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                 | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-75-5   | 2-Nitrophenol                        | ND     | 5.0 | 0.96 | ug/l  |   |
| 100-02-7  | 4-Nitrophenol                        | ND     | 10  | 1.2  | ug/l  |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>       | ND     | 5.0 | 1.4  | ug/l  |   |
| 108-95-2  | Phenol <sup>b</sup>                  | ND     | 2.0 | 0.39 | ug/l  |   |
| 88-06-2   | 2,4,6-Trichlorophenol                | ND     | 5.0 | 0.92 | ug/l  |   |
| 83-32-9   | Acenaphthene                         | ND     | 1.0 | 0.19 | ug/l  |   |
| 208-96-8  | Acenaphthylene                       | ND     | 1.0 | 0.14 | ug/l  |   |
| 120-12-7  | Anthracene                           | ND     | 1.0 | 0.21 | ug/l  |   |
| 92-87-5   | Benzidine <sup>a</sup>               | ND     | 10  | 0.90 | ug/l  |   |
| 56-55-3   | Benzo(a)anthracene                   | ND     | 1.0 | 0.20 | ug/l  |   |
| 50-32-8   | Benzo(a)pyrene                       | ND     | 1.0 | 0.21 | ug/l  |   |
| 205-99-2  | Benzo(b)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 191-24-2  | Benzo(g,h,i)perylene                 | ND     | 1.0 | 0.34 | ug/l  |   |
| 207-08-9  | Benzo(k)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 101-55-3  | 4-Bromophenyl phenyl ether           | ND     | 2.0 | 0.40 | ug/l  |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>  | ND     | 2.0 | 0.46 | ug/l  |   |
| 91-58-7   | 2-Chloronaphthalene                  | ND     | 2.0 | 0.24 | ug/l  |   |
| 106-47-8  | 4-Chloroaniline                      | ND     | 5.0 | 0.34 | ug/l  |   |
| 218-01-9  | Chrysene                             | ND     | 1.0 | 0.18 | ug/l  |   |
| 111-91-1  | bis(2-Chloroethoxy)methane           | ND     | 2.0 | 0.28 | ug/l  |   |
| 111-44-4  | bis(2-Chloroethyl)ether <sup>b</sup> | ND     | 2.0 | 0.25 | ug/l  |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)         | ND     | 2.0 | 0.40 | ug/l  |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether          | ND     | 2.0 | 0.37 | ug/l  |   |
| 95-50-1   | 1,2-Dichlorobenzene                  | ND     | 1.0 | 0.17 | ug/l  |   |
| 122-66-7  | 1,2-Diphenylhydrazine                | ND     | 1.0 | 0.19 | ug/l  |   |
| 541-73-1  | 1,3-Dichlorobenzene                  | ND     | 1.0 | 0.19 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | MW-11-06                                   | <b>Date Sampled:</b>   | 04/23/18 |
| <b>Lab Sample ID:</b>    | JC64857-1                                  | <b>Date Received:</b>  | 04/25/18 |
| <b>Matrix:</b>           | AQ - Ground Water                          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | EPA 625 EPA 625                            |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN PPL List

| CAS No.  | Compound                                | Result | RL  | MDL  | Units | Q |
|----------|---|--------|-----|------|-------|---|
| 106-46-7 | 1,4-Dichlorobenzene                     | ND     | 1.0 | 0.17 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene                      | ND     | 1.0 | 0.55 | ug/l  |   |
| 606-20-2 | 2,6-Dinitrotoluene                      | ND     | 1.0 | 0.48 | ug/l  |   |
| 91-94-1  | 3,3'-Dichlorobenzidine                  | ND     | 2.0 | 0.51 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 84-74-2  | Di-n-butyl phthalate                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 117-84-0 | Di-n-octyl phthalate <sup>b</sup>       | ND     | 2.0 | 0.23 | ug/l  |   |
| 84-66-2  | Diethyl phthalate                       | ND     | 2.0 | 0.26 | ug/l  |   |
| 131-11-3 | Dimethyl phthalate                      | ND     | 2.0 | 0.22 | ug/l  |   |
| 117-81-7 | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 2.0 | 1.7  | ug/l  |   |
| 206-44-0 | Fluoranthene                            | ND     | 1.0 | 0.17 | ug/l  |   |
| 86-73-7  | Fluorene                                | ND     | 1.0 | 0.17 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene                       | ND     | 1.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene                     | ND     | 1.0 | 0.49 | ug/l  |   |
| 77-47-4  | Hexachlorocyclopentadiene               | ND     | 10  | 2.8  | ug/l  |   |
| 67-72-1  | Hexachloroethane                        | ND     | 2.0 | 0.39 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 78-59-1  | Isophorone                              | ND     | 2.0 | 0.28 | ug/l  |   |
| 91-20-3  | Naphthalene                             | ND     | 1.0 | 0.23 | ug/l  |   |
| 98-95-3  | Nitrobenzene                            | ND     | 2.0 | 0.64 | ug/l  |   |
| 62-75-9  | n-Nitrosodimethylamine <sup>b</sup>     | ND     | 2.0 | 0.82 | ug/l  |   |
| 621-64-7 | N-Nitroso-di-n-propylamine <sup>b</sup> | ND     | 2.0 | 0.48 | ug/l  |   |
| 86-30-6  | N-Nitrosodiphenylamine                  | ND     | 5.0 | 0.22 | ug/l  |   |
| 85-01-8  | Phenanthrene                            | ND     | 1.0 | 0.18 | ug/l  |   |
| 129-00-0 | Pyrene                                  | ND     | 1.0 | 0.22 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene                  | ND     | 1.0 | 0.25 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 53%    |        | 10-110% |
| 4165-62-2 | Phenol-d5            | 40%    |        | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 73%    |        | 35-147% |
| 4165-60-0 | Nitrobenzene-d5      | 84%    |        | 32-132% |
| 321-60-8  | 2-Fluorobiphenyl     | 69%    |        | 40-117% |
| 1718-51-0 | Terphenyl-d14        | 66%    |        | 33-126% |

(a) Associated CCV outside of control limits low.

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### Total Metals Analysis

| Analyte                | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|------------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum <sup>a</sup>  | 41000   | 1000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Antimony <sup>a</sup>  | < 30    | 30    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Arsenic <sup>a</sup>   | 50.0    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium <sup>a</sup>    | < 1000  | 1000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Beryllium <sup>a</sup> | < 5.0   | 5.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium <sup>a</sup>   | < 15    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Calcium <sup>a</sup>   | 455000  | 25000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium <sup>a</sup>  | 56.0    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cobalt <sup>a</sup>    | < 250   | 250   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Copper <sup>a</sup>    | 63.0    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Iron <sup>a</sup>      | 118000  | 500   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead <sup>a</sup>      | 20.5    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Magnesium <sup>a</sup> | 146000  | 25000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Manganese <sup>a</sup> | 3410    | 75    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury <sup>a</sup>   | < 0.40  | 0.40  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Nickel <sup>a</sup>    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Potassium <sup>a</sup> | < 50000 | 50000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Selenium <sup>a</sup>  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver <sup>a</sup>    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Sodium <sup>a</sup>    | 332000  | 50000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Thallium <sup>a</sup>  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Vanadium <sup>a</sup>  | < 250   | 250   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Zinc <sup>a</sup>      | 161     | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA44291

(2) Instrument QC Batch: MA44293

(3) Prep QC Batch: MP6829

(4) Prep QC Batch: MP6849

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

4.1  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte                  | Result  | RL    | Units | DF | Analyzed       | By | Method               |
|--------------------------|---------|-------|-------|----|----------------|----|----------------------|
| BOD, 5 Day               | < 10    | 10    | mg/l  | 1  | 04/25/18 14:19 | RI | SM5210 B-11          |
| Chemical Oxygen Demand   | < 20    | 20    | mg/l  | 1  | 05/03/18 13:57 | MP | SM5220 C-11,HACH8000 |
| Cyanide                  | < 0.010 | 0.010 | mg/l  | 1  | 04/27/18 15:45 | TG | EPA 335.4/LACHAT     |
| HEM Oil and Grease       | < 5.5   | 5.5   | mg/l  | 1  | 04/29/18 22:45 | CB | EPA 1664A            |
| Hardness, Total as CaCO3 | 1180    | 4.0   | mg/l  | .4 | 04/30/18 13:49 | MP | SM2340 C-11          |
| Solids, Total Dissolved  | 1170    | 10    | mg/l  | 1  | 04/26/18 12:35 | RI | SM2540 C-11          |
| Solids, Total Suspended  | 2250    | 4.0   | mg/l  | 1  | 04/26/18 10:10 | RI | SM2540 D-11          |
| pH <sup>a</sup>          | 8.45    |       | su    | 1  | 04/30/18 15:04 | RB | SM4500H+ B-11        |

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit

4.1  
4

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1F                           |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   |  | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### Dissolved Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum  | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Antimony  | < 6.0   | 6.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Arsenic   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Barium    | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Beryllium | < 1.0   | 1.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Cadmium   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Calcium   | 162000  | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Chromium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Cobalt    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Copper    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Iron      | < 100   | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Lead      | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Magnesium | 43400   | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Manganese | 432     | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Mercury   | < 0.20  | 0.20  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>5</sup> |
| Nickel    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Potassium | < 10000 | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Selenium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Silver    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Sodium    | 319000  | 20000 | ug/l  | 2  | 04/26/18 | 04/27/18 GT | SW846 6010C <sup>3</sup> | SW846 3010A <sup>4</sup> |
| Thallium  | < 2.0   | 2.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Vanadium  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |
| Zinc      | < 20    | 20    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>4</sup> |

- (1) Instrument QC Batch: MA44291
- (2) Instrument QC Batch: MA44293
- (3) Instrument QC Batch: MA44299
- (4) Prep QC Batch: MP6829
- (5) Prep QC Batch: MP6849

RL = Reporting Limit

4.2  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-11-06                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-1F                           | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte | Result  | RL    | Units | DF | Analyzed       | By | Method           |
|---------|---------|-------|-------|----|----------------|----|------------------|
| Cyanide | < 0.010 | 0.010 | mg/l  | 1  | 04/27/18 15:39 | TG | EPA 335.4/LACHAT |

RL = Reporting Limit

4.2  
4

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | N269344.D | 1  | 04/27/18 11:32 | CSF | n/a       | n/a        | VN11346          |
| Run #2              |           |    |                |     |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TVO List

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 107-02-8   | Acrolein                  | ND     | 10  | 6.2  | ug/l  |   |
| 107-13-1   | Acrylonitrile             | ND     | 10  | 1.9  | ug/l  |   |
| 542-88-1   | Bis(chloromethyl)ether    | IND    |     |      | ug/l  |   |
| 71-43-2    | Benzene                   | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane      | ND     | 1.0 | 0.19 | ug/l  |   |
| 75-25-2    | Bromoform                 | ND     | 1.0 | 0.44 | ug/l  |   |
| 74-83-9    | Bromomethane              | ND     | 1.0 | 0.74 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride      | ND     | 1.0 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene             | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-00-3    | Chloroethane              | ND     | 1.0 | 0.63 | ug/l  |   |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND     | 5.0 | 1.5  | ug/l  |   |
| 67-66-3    | Chloroform                | ND     | 1.0 | 0.20 | ug/l  |   |
| 74-87-3    | Chloromethane             | ND     | 1.0 | 0.29 | ug/l  |   |
| 124-48-1   | Dibromochloromethane      | ND     | 1.0 | 0.30 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane         | ND     | 1.0 | 0.27 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene       | ND     | 1.0 | 0.21 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane   | ND     | 2.0 | 0.67 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethene        | ND     | 1.0 | 0.57 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethene    | ND     | 1.0 | 0.54 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethene  | ND     | 1.0 | 0.40 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane       | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene | ND     | 1.0 | 0.59 | ug/l  |   |
| 123-91-1   | 1,4-Dioxane               | ND     | 130 | 27   | ug/l  |   |
| 100-41-4   | Ethylbenzene              | ND     | 1.0 | 0.21 | ug/l  |   |
| 151-56-4   | Ethylenimine              | IND    |     |      | ug/l  |   |
| 75-09-2    | Methylene chloride        | ND     | 1.0 | 0.55 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND     | 1.0 | 0.24 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**VOA TVO List**

| CAS No.   | Compound               | Result | RL  | MDL  | Units | Q |
|-----------|------------------------|--------|-----|------|-------|---|
| 127-18-4  | Tetrachloroethene      | ND     | 1.0 | 0.82 | ug/l  |   |
| 108-88-3  | Toluene                | ND     | 1.0 | 0.24 | ug/l  |   |
| 71-55-6   | 1,1,1-Trichloroethane  | ND     | 1.0 | 0.36 | ug/l  |   |
| 79-00-5   | 1,1,2-Trichloroethane  | ND     | 1.0 | 0.35 | ug/l  |   |
| 79-01-6   | Trichloroethene        | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-69-4   | Trichlorofluoromethane | ND     | 2.0 | 0.89 | ug/l  |   |
| 75-01-4   | Vinyl chloride         | ND     | 1.0 | 0.29 | ug/l  |   |
| 1330-20-7 | Xylenes (total)        | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.    | Surrogate Recoveries        | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------------|--------|--------|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 103%   |        | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 92%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 93%    |        | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 103%   |        | 80-120% |

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
4

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 625 EPA 625                             |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | P122323.D | 1  | 05/02/18 16:22 | GS | 04/27/18 16:00 | OP11610    | EP5490           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 1.0 ml       |
| Run #2 |                |              |

## ABN PPL List

| CAS No.   | Compound                             | Result | RL  | MDL  | Units | Q |
|-----------|--------------------------------------|--------|-----|------|-------|---|
| 95-57-8   | 2-Chlorophenol                       | ND     | 5.0 | 0.82 | ug/l  |   |
| 59-50-7   | 4-Chloro-3-methyl phenol             | ND     | 5.0 | 0.89 | ug/l  |   |
| 120-83-2  | 2,4-Dichlorophenol                   | ND     | 2.0 | 1.3  | ug/l  |   |
| 105-67-9  | 2,4-Dimethylphenol                   | ND     | 5.0 | 2.4  | ug/l  |   |
| 51-28-5   | 2,4-Dinitrophenol                    | ND     | 10  | 1.6  | ug/l  |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                 | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-75-5   | 2-Nitrophenol                        | ND     | 5.0 | 0.96 | ug/l  |   |
| 100-02-7  | 4-Nitrophenol                        | ND     | 10  | 1.2  | ug/l  |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>       | ND     | 5.0 | 1.4  | ug/l  |   |
| 108-95-2  | Phenol <sup>b</sup>                  | ND     | 2.0 | 0.39 | ug/l  |   |
| 88-06-2   | 2,4,6-Trichlorophenol                | ND     | 5.0 | 0.92 | ug/l  |   |
| 83-32-9   | Acenaphthene                         | ND     | 1.0 | 0.19 | ug/l  |   |
| 208-96-8  | Acenaphthylene                       | ND     | 1.0 | 0.14 | ug/l  |   |
| 120-12-7  | Anthracene                           | ND     | 1.0 | 0.21 | ug/l  |   |
| 92-87-5   | Benzidine <sup>a</sup>               | ND     | 10  | 0.90 | ug/l  |   |
| 56-55-3   | Benzo(a)anthracene                   | ND     | 1.0 | 0.20 | ug/l  |   |
| 50-32-8   | Benzo(a)pyrene                       | ND     | 1.0 | 0.21 | ug/l  |   |
| 205-99-2  | Benzo(b)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 191-24-2  | Benzo(g,h,i)perylene                 | ND     | 1.0 | 0.34 | ug/l  |   |
| 207-08-9  | Benzo(k)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 101-55-3  | 4-Bromophenyl phenyl ether           | ND     | 2.0 | 0.40 | ug/l  |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>  | ND     | 2.0 | 0.46 | ug/l  |   |
| 91-58-7   | 2-Chloronaphthalene                  | ND     | 2.0 | 0.24 | ug/l  |   |
| 106-47-8  | 4-Chloroaniline                      | ND     | 5.0 | 0.34 | ug/l  |   |
| 218-01-9  | Chrysene                             | ND     | 1.0 | 0.18 | ug/l  |   |
| 111-91-1  | bis(2-Chloroethoxy)methane           | ND     | 2.0 | 0.28 | ug/l  |   |
| 111-44-4  | bis(2-Chloroethyl)ether <sup>b</sup> | ND     | 2.0 | 0.25 | ug/l  |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)         | ND     | 2.0 | 0.40 | ug/l  |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether          | ND     | 2.0 | 0.37 | ug/l  |   |
| 95-50-1   | 1,2-Dichlorobenzene                  | ND     | 1.0 | 0.17 | ug/l  |   |
| 122-66-7  | 1,2-Diphenylhydrazine                | ND     | 1.0 | 0.19 | ug/l  |   |
| 541-73-1  | 1,3-Dichlorobenzene                  | ND     | 1.0 | 0.19 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | MW-3A                                      | <b>Date Sampled:</b>   | 04/23/18 |
| <b>Lab Sample ID:</b>    | JC64857-2                                  | <b>Date Received:</b>  | 04/25/18 |
| <b>Matrix:</b>           | AQ - Ground Water                          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | EPA 625 EPA 625                            |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN PPL List

| CAS No.  | Compound                                | Result | RL  | MDL  | Units | Q |
|----------|---|--------|-----|------|-------|---|
| 106-46-7 | 1,4-Dichlorobenzene                     | ND     | 1.0 | 0.17 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene                      | ND     | 1.0 | 0.55 | ug/l  |   |
| 606-20-2 | 2,6-Dinitrotoluene                      | ND     | 1.0 | 0.48 | ug/l  |   |
| 91-94-1  | 3,3'-Dichlorobenzidine                  | ND     | 2.0 | 0.51 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 84-74-2  | Di-n-butyl phthalate                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 117-84-0 | Di-n-octyl phthalate <sup>b</sup>       | ND     | 2.0 | 0.23 | ug/l  |   |
| 84-66-2  | Diethyl phthalate                       | 1.6    | 2.0 | 0.26 | ug/l  | J |
| 131-11-3 | Dimethyl phthalate                      | ND     | 2.0 | 0.22 | ug/l  |   |
| 117-81-7 | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 2.0 | 1.7  | ug/l  |   |
| 206-44-0 | Fluoranthene                            | 0.41   | 1.0 | 0.17 | ug/l  | J |
| 86-73-7  | Fluorene                                | ND     | 1.0 | 0.17 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene                       | ND     | 1.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene                     | ND     | 1.0 | 0.49 | ug/l  |   |
| 77-47-4  | Hexachlorocyclopentadiene               | ND     | 10  | 2.8  | ug/l  |   |
| 67-72-1  | Hexachloroethane                        | ND     | 2.0 | 0.39 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 78-59-1  | Isophorone                              | ND     | 2.0 | 0.28 | ug/l  |   |
| 91-20-3  | Naphthalene                             | ND     | 1.0 | 0.23 | ug/l  |   |
| 98-95-3  | Nitrobenzene                            | ND     | 2.0 | 0.64 | ug/l  |   |
| 62-75-9  | n-Nitrosodimethylamine <sup>b</sup>     | ND     | 2.0 | 0.82 | ug/l  |   |
| 621-64-7 | N-Nitroso-di-n-propylamine <sup>b</sup> | ND     | 2.0 | 0.48 | ug/l  |   |
| 86-30-6  | N-Nitrosodiphenylamine                  | ND     | 5.0 | 0.22 | ug/l  |   |
| 85-01-8  | Phenanthrene                            | ND     | 1.0 | 0.18 | ug/l  |   |
| 129-00-0 | Pyrene                                  | 0.33   | 1.0 | 0.22 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene                  | ND     | 1.0 | 0.25 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 50%    |        | 10-110% |
| 4165-62-2 | Phenol-d5            | 37%    |        | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 70%    |        | 35-147% |
| 4165-60-0 | Nitrobenzene-d5      | 82%    |        | 32-132% |
| 321-60-8  | 2-Fluorobiphenyl     | 67%    |        | 40-117% |
| 1718-51-0 | Terphenyl-d14        | 65%    |        | 33-126% |

(a) Associated CCV outside of control limits low.

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Total Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum  | 861     | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Antimony  | < 6.0   | 6.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Arsenic   | 16.2    | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium    | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Beryllium | < 1.0   | 1.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium   | 4.7     | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Calcium   | 184000  | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cobalt    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Copper    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Iron      | 6160    | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead      | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Magnesium | 33200   | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Manganese | 292     | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury   | < 0.20  | 0.20  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Nickel    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Potassium | < 10000 | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Selenium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Sodium    | 129000  | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Thallium  | < 2.0   | 2.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Vanadium  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Zinc      | 28.1    | 20    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA44291

(2) Instrument QC Batch: MA44293

(3) Prep QC Batch: MP6829

(4) Prep QC Batch: MP6849

RL = Reporting Limit

4.3  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte                  | Result  | RL    | Units | DF | Analyzed       | By | Method               |
|--------------------------|---------|-------|-------|----|----------------|----|----------------------|
| BOD, 5 Day               | < 10    | 10    | mg/l  | 1  | 04/25/18 14:22 | RI | SM5210 B-11          |
| Chemical Oxygen Demand   | 30.8    | 20    | mg/l  | 1  | 05/03/18 13:57 | MP | SM5220 C-11,HACH8000 |
| Cyanide                  | < 0.010 | 0.010 | mg/l  | 1  | 04/27/18 15:32 | TG | EPA 335.4/LACHAT     |
| HEM Oil and Grease       | < 5.0   | 5.0   | mg/l  | 1  | 04/29/18 22:45 | CB | EPA 1664A            |
| Hardness, Total as CaCO3 | 549     | 4.0   | mg/l  | .4 | 04/30/18 13:49 | MP | SM2340 C-11          |
| Solids, Total Dissolved  | 984     | 10    | mg/l  | 1  | 04/26/18 12:35 | RI | SM2540 C-11          |
| Solids, Total Suspended  | 51.0    | 4.0   | mg/l  | 1  | 04/26/18 10:10 | RI | SM2540 D-11          |
| pH <sup>a</sup>          | 7.38    |       | su    | 1  | 04/30/18 15:25 | RB | SM4500H+ B-11        |

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit

4.3  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2F                           | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Dissolved Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum  | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Antimony  | < 6.0   | 6.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Arsenic   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium    | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Beryllium | < 1.0   | 1.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Calcium   | 179000  | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cobalt    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Copper    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Iron      | < 100   | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead      | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Magnesium | 31900   | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Manganese | 179     | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury   | < 0.20  | 0.20  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Nickel    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Potassium | < 10000 | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Selenium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Sodium    | 125000  | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Thallium  | < 2.0   | 2.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Vanadium  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Zinc      | < 20    | 20    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA44291

(2) Instrument QC Batch: MA44293

(3) Prep QC Batch: MP6829

(4) Prep QC Batch: MP6849

RL = Reporting Limit

4.4  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3A                             | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-2F                           | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte | Result  | RL    | Units | DF | Analyzed       | By | Method           |
|---------|---------|-------|-------|----|----------------|----|------------------|
| Cyanide | < 0.010 | 0.010 | mg/l  | 1  | 04/27/18 15:40 | TG | EPA 335.4/LACHAT |

RL = Reporting Limit

4.4  
4

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | N269345.D | 1  | 04/27/18 12:01 | CSF | n/a       | n/a        | VN11346          |
| Run #2              |           |    |                |     |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TVO List

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 107-02-8   | Acrolein                  | ND     | 10  | 6.2  | ug/l  |   |
| 107-13-1   | Acrylonitrile             | ND     | 10  | 1.9  | ug/l  |   |
| 542-88-1   | Bis(chloromethyl)ether    | IND    |     |      | ug/l  |   |
| 71-43-2    | Benzene                   | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane      | ND     | 1.0 | 0.19 | ug/l  |   |
| 75-25-2    | Bromoform                 | ND     | 1.0 | 0.44 | ug/l  |   |
| 74-83-9    | Bromomethane              | ND     | 1.0 | 0.74 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride      | ND     | 1.0 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene             | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-00-3    | Chloroethane              | ND     | 1.0 | 0.63 | ug/l  |   |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND     | 5.0 | 1.5  | ug/l  |   |
| 67-66-3    | Chloroform                | ND     | 1.0 | 0.20 | ug/l  |   |
| 74-87-3    | Chloromethane             | ND     | 1.0 | 0.29 | ug/l  |   |
| 124-48-1   | Dibromochloromethane      | ND     | 1.0 | 0.30 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane         | ND     | 1.0 | 0.27 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene       | ND     | 1.0 | 0.21 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane   | ND     | 2.0 | 0.67 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethene        | ND     | 1.0 | 0.57 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethene    | ND     | 1.0 | 0.54 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethene  | ND     | 1.0 | 0.40 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane       | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene | ND     | 1.0 | 0.59 | ug/l  |   |
| 123-91-1   | 1,4-Dioxane               | ND     | 130 | 27   | ug/l  |   |
| 100-41-4   | Ethylbenzene              | ND     | 1.0 | 0.21 | ug/l  |   |
| 151-56-4   | Ethylenimine              | IND    |     |      | ug/l  |   |
| 75-09-2    | Methylene chloride        | ND     | 1.0 | 0.55 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND     | 1.0 | 0.24 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 624                                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**VOA TVO List**

| CAS No.   | Compound               | Result | RL  | MDL  | Units | Q |
|-----------|------------------------|--------|-----|------|-------|---|
| 127-18-4  | Tetrachloroethene      | ND     | 1.0 | 0.82 | ug/l  |   |
| 108-88-3  | Toluene                | 0.38   | 1.0 | 0.24 | ug/l  | J |
| 71-55-6   | 1,1,1-Trichloroethane  | ND     | 1.0 | 0.36 | ug/l  |   |
| 79-00-5   | 1,1,2-Trichloroethane  | ND     | 1.0 | 0.35 | ug/l  |   |
| 79-01-6   | Trichloroethene        | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-69-4   | Trichlorofluoromethane | ND     | 2.0 | 0.89 | ug/l  |   |
| 75-01-4   | Vinyl chloride         | ND     | 1.0 | 0.29 | ug/l  |   |
| 1330-20-7 | Xylenes (total)        | 0.29   | 1.0 | 0.20 | ug/l  | J |

| CAS No.    | Surrogate Recoveries        | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------------|--------|--------|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 104%   |        | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 92%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 94%    |        | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 105%   |        | 80-120% |

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
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SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> EPA 625 EPA 625                             |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | P122324.D | 1  | 05/02/18 17:47 | GS | 04/27/18 16:00 | OP11610    | EP5490           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 1.0 ml       |
| Run #2 |                |              |

## ABN PPL List

| CAS No.   | Compound                             | Result | RL  | MDL  | Units | Q |
|-----------|--------------------------------------|--------|-----|------|-------|---|
| 95-57-8   | 2-Chlorophenol                       | ND     | 5.0 | 0.82 | ug/l  |   |
| 59-50-7   | 4-Chloro-3-methyl phenol             | ND     | 5.0 | 0.89 | ug/l  |   |
| 120-83-2  | 2,4-Dichlorophenol                   | ND     | 2.0 | 1.3  | ug/l  |   |
| 105-67-9  | 2,4-Dimethylphenol                   | ND     | 5.0 | 2.4  | ug/l  |   |
| 51-28-5   | 2,4-Dinitrophenol                    | ND     | 10  | 1.6  | ug/l  |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                 | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-75-5   | 2-Nitrophenol                        | ND     | 5.0 | 0.96 | ug/l  |   |
| 100-02-7  | 4-Nitrophenol                        | ND     | 10  | 1.2  | ug/l  |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>       | ND     | 5.0 | 1.4  | ug/l  |   |
| 108-95-2  | Phenol <sup>b</sup>                  | ND     | 2.0 | 0.39 | ug/l  |   |
| 88-06-2   | 2,4,6-Trichlorophenol                | ND     | 5.0 | 0.92 | ug/l  |   |
| 83-32-9   | Acenaphthene                         | ND     | 1.0 | 0.19 | ug/l  |   |
| 208-96-8  | Acenaphthylene                       | ND     | 1.0 | 0.14 | ug/l  |   |
| 120-12-7  | Anthracene                           | ND     | 1.0 | 0.21 | ug/l  |   |
| 92-87-5   | Benzidine <sup>a</sup>               | ND     | 10  | 0.90 | ug/l  |   |
| 56-55-3   | Benzo(a)anthracene                   | ND     | 1.0 | 0.20 | ug/l  |   |
| 50-32-8   | Benzo(a)pyrene                       | ND     | 1.0 | 0.21 | ug/l  |   |
| 205-99-2  | Benzo(b)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 191-24-2  | Benzo(g,h,i)perylene                 | ND     | 1.0 | 0.34 | ug/l  |   |
| 207-08-9  | Benzo(k)fluoranthene                 | ND     | 1.0 | 0.21 | ug/l  |   |
| 101-55-3  | 4-Bromophenyl phenyl ether           | ND     | 2.0 | 0.40 | ug/l  |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>  | ND     | 2.0 | 0.46 | ug/l  |   |
| 91-58-7   | 2-Chloronaphthalene                  | ND     | 2.0 | 0.24 | ug/l  |   |
| 106-47-8  | 4-Chloroaniline                      | ND     | 5.0 | 0.34 | ug/l  |   |
| 218-01-9  | Chrysene                             | ND     | 1.0 | 0.18 | ug/l  |   |
| 111-91-1  | bis(2-Chloroethoxy)methane           | ND     | 2.0 | 0.28 | ug/l  |   |
| 111-44-4  | bis(2-Chloroethyl)ether <sup>b</sup> | ND     | 2.0 | 0.25 | ug/l  |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)         | ND     | 2.0 | 0.40 | ug/l  |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether          | ND     | 2.0 | 0.37 | ug/l  |   |
| 95-50-1   | 1,2-Dichlorobenzene                  | ND     | 1.0 | 0.17 | ug/l  |   |
| 122-66-7  | 1,2-Diphenylhydrazine                | ND     | 1.0 | 0.19 | ug/l  |   |
| 541-73-1  | 1,3-Dichlorobenzene                  | ND     | 1.0 | 0.19 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | MW-10-02                                   | <b>Date Sampled:</b>   | 04/23/18 |
| <b>Lab Sample ID:</b>    | JC64857-3                                  | <b>Date Received:</b>  | 04/25/18 |
| <b>Matrix:</b>           | AQ - Ground Water                          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | EPA 625 EPA 625                            |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN PPL List

| CAS No.  | Compound                                | Result | RL  | MDL  | Units | Q |
|----------|---|--------|-----|------|-------|---|
| 106-46-7 | 1,4-Dichlorobenzene                     | ND     | 1.0 | 0.17 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene                      | ND     | 1.0 | 0.55 | ug/l  |   |
| 606-20-2 | 2,6-Dinitrotoluene                      | ND     | 1.0 | 0.48 | ug/l  |   |
| 91-94-1  | 3,3'-Dichlorobenzidine                  | ND     | 2.0 | 0.51 | ug/l  |   |
| 53-70-3  | Dibenzo(a,h)anthracene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 84-74-2  | Di-n-butyl phthalate                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 117-84-0 | Di-n-octyl phthalate <sup>b</sup>       | ND     | 2.0 | 0.23 | ug/l  |   |
| 84-66-2  | Diethyl phthalate                       | ND     | 2.0 | 0.26 | ug/l  |   |
| 131-11-3 | Dimethyl phthalate                      | ND     | 2.0 | 0.22 | ug/l  |   |
| 117-81-7 | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 2.0 | 1.7  | ug/l  |   |
| 206-44-0 | Fluoranthene                            | ND     | 1.0 | 0.17 | ug/l  |   |
| 86-73-7  | Fluorene                                | ND     | 1.0 | 0.17 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene                       | ND     | 1.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene                     | ND     | 1.0 | 0.49 | ug/l  |   |
| 77-47-4  | Hexachlorocyclopentadiene               | ND     | 10  | 2.8  | ug/l  |   |
| 67-72-1  | Hexachloroethane                        | ND     | 2.0 | 0.39 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene                  | ND     | 1.0 | 0.33 | ug/l  |   |
| 78-59-1  | Isophorone                              | ND     | 2.0 | 0.28 | ug/l  |   |
| 91-20-3  | Naphthalene                             | ND     | 1.0 | 0.23 | ug/l  |   |
| 98-95-3  | Nitrobenzene                            | ND     | 2.0 | 0.64 | ug/l  |   |
| 62-75-9  | n-Nitrosodimethylamine <sup>b</sup>     | ND     | 2.0 | 0.82 | ug/l  |   |
| 621-64-7 | N-Nitroso-di-n-propylamine <sup>b</sup> | ND     | 2.0 | 0.48 | ug/l  |   |
| 86-30-6  | N-Nitrosodiphenylamine                  | ND     | 5.0 | 0.22 | ug/l  |   |
| 85-01-8  | Phenanthrene                            | ND     | 1.0 | 0.18 | ug/l  |   |
| 129-00-0 | Pyrene                                  | ND     | 1.0 | 0.22 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene                  | ND     | 1.0 | 0.25 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 43%    |        | 10-110% |
| 4165-62-2 | Phenol-d5            | 32%    |        | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 49%    |        | 35-147% |
| 4165-60-0 | Nitrobenzene-d5      | 78%    |        | 32-132% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 40-117% |
| 1718-51-0 | Terphenyl-d14        | 52%    |        | 33-126% |

(a) Associated CCV outside of control limits low.

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          |  | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3                            |  | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           |  | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### Total Metals Analysis

| Analyte                | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|------------------------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum <sup>a</sup>  | 39500   | 1000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Antimony <sup>a</sup>  | < 30    | 30    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Arsenic <sup>a</sup>   | 26.5    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium <sup>a</sup>    | 1010    | 1000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Beryllium <sup>a</sup> | < 5.0   | 5.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium <sup>a</sup>   | < 15    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Calcium <sup>a</sup>   | 428000  | 25000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium <sup>a</sup>  | 52.0    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cobalt <sup>a</sup>    | < 250   | 250   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Copper <sup>a</sup>    | 145     | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Iron <sup>a</sup>      | 61600   | 500   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead <sup>a</sup>      | 66.0    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Magnesium <sup>a</sup> | 159000  | 25000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Manganese <sup>a</sup> | 12500   | 75    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury <sup>a</sup>   | < 0.60  | 0.60  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Nickel <sup>a</sup>    | 75.5    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Potassium <sup>a</sup> | < 50000 | 50000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Selenium <sup>a</sup>  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver <sup>a</sup>    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Sodium <sup>a</sup>    | < 50000 | 50000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Thallium <sup>a</sup>  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Vanadium <sup>a</sup>  | < 250   | 250   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Zinc <sup>a</sup>      | 434     | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA44291

(2) Instrument QC Batch: MA44293

(3) Prep QC Batch: MP6829

(4) Prep QC Batch: MP6849

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3                            | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Ground Water                           | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte                  | Result | RL    | Units | DF | Analyzed       | By | Method               |
|--------------------------|--------|-------|-------|----|----------------|----|----------------------|
| BOD, 5 Day               | < 10   | 10    | mg/l  | 1  | 04/25/18 14:24 | RI | SM5210 B-11          |
| Chemical Oxygen Demand   | < 20   | 20    | mg/l  | 1  | 05/03/18 13:57 | MP | SM5220 C-11,HACH8000 |
| Cyanide                  | 0.044  | 0.010 | mg/l  | 1  | 04/27/18 15:36 | TG | EPA 335.4/LACHAT     |
| HEM Oil and Grease       | < 5.2  | 5.2   | mg/l  | 1  | 04/29/18 22:45 | CB | EPA 1664A            |
| Hardness, Total as CaCO3 | 1170   | 4.0   | mg/l  | .4 | 04/30/18 13:49 | MP | SM2340 C-11          |
| Solids, Total Dissolved  | 515    | 10    | mg/l  | 1  | 04/26/18 12:35 | RI | SM2540 C-11          |
| Solids, Total Suspended  | 2740   | 4.0   | mg/l  | 1  | 04/26/18 10:10 | RI | SM2540 D-11          |
| pH <sup>a</sup>          | 7.49   |       | su    | 1  | 04/30/18 15:31 | RB | SM4500H+ B-11        |

(a) Field analysis required. Received out of hold time and analyzed by request.

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3F                           | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Dissolved Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|--------------------------|--------------------------|
| Aluminum  | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Antimony  | < 6.0   | 6.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Arsenic   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Barium    | < 200   | 200   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Beryllium | < 1.0   | 1.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cadmium   | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Calcium   | 181000  | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Chromium  | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Cobalt    | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Copper    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Iron      | < 100   | 100   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Lead      | < 3.0   | 3.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Magnesium | 39900   | 5000  | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Manganese | < 15    | 15    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Mercury   | < 0.20  | 0.20  | ug/l  | 1  | 04/27/18 | 04/27/18 JA | SW846 7470A <sup>2</sup> | SW846 7470A <sup>4</sup> |
| Nickel    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Potassium | < 10000 | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Selenium  | 11.8    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Silver    | < 10    | 10    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Sodium    | 29000   | 10000 | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Thallium  | < 2.0   | 2.0   | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Vanadium  | < 50    | 50    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |
| Zinc      | < 20    | 20    | ug/l  | 1  | 04/26/18 | 04/27/18 PP | SW846 6010C <sup>1</sup> | SW846 3010A <sup>3</sup> |

(1) Instrument QC Batch: MA44291

(2) Instrument QC Batch: MA44293

(3) Prep QC Batch: MP6829

(4) Prep QC Batch: MP6849

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> MW-10-02                          | <b>Date Sampled:</b> 04/23/18  |
| <b>Lab Sample ID:</b> JC64857-3F                           | <b>Date Received:</b> 04/25/18 |
| <b>Matrix:</b> AQ - Groundwater Filtered                   | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

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### General Chemistry

| Analyte | Result | RL    | Units | DF | Analyzed       | By | Method           |
|---------|--------|-------|-------|----|----------------|----|------------------|
| Cyanide | 0.044  | 0.010 | mg/l  | 1  | 04/27/18 15:41 | TG | EPA 335.4/LACHAT |

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

---

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



# Parameter Certification Exceptions

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

The following parameters included in this report are exceptions to NELAC certification. The certification status of each is indicated below.

| Parameter              | CAS#     | Method  | Mat | Certification Status                                  |
|------------------------|----------|---------|-----|---|
| Bis(chloromethyl)ether | 542-88-1 | EPA 624 | AQ  | SGS is not certified for this parameter. <sup>a</sup> |
| Ethylenimine           | 151-56-4 | EPA 624 | AQ  | SGS is not certified for this parameter. <sup>a</sup> |
| 1,2-Dichlorobenzene    | 95-50-1  | EPA 625 | AQ  | SGS is not certified for this parameter. <sup>b</sup> |
| 1,3-Dichlorobenzene    | 541-73-1 | EPA 625 | AQ  | SGS is not certified for this parameter. <sup>b</sup> |
| 1,4-Dichlorobenzene    | 106-46-7 | EPA 625 | AQ  | SGS is not certified for this parameter. <sup>b</sup> |

- (a) Result is indeterminate. Compound is unstable and there is no associated quality control.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

5.1  
5



GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

Table with tracking information: FED-EX Tracking #, Bottle Order Control # (MJ-041318-150), SGS Quote #, and SGS Job # (JC64857).

Main form containing Client/Reporting Information, Project Information, Requested Analysis (see TEST CODE sheet), Matrix Codes, and a table of Lab Sample #, Field ID / Point of Collection, MEQ/DOI Viol #, Date, Time, Sampled by, Matrix, # of bottles, and various test results.

Turnaround Time (Business days) and Data Deliverable Information section, including approval checkboxes for Commercial 'A', 'B', 'C', Full T1, NJ Reduced, Commercial 'C', and NYASP categories.

Sample Custody section with a table for Relinquished by, Date Time, and Received By for 5 different samples.

5.2 5



## SGS Sample Receipt Summary

Job Number: JC64857

Client: ARCADIS

Project: NYSEG - NEWARK FORMER MGP SITE, NEWA

Date / Time Received: 4/25/2018 9:45:00 AM

Delivery Method: FedEx

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.4); Cooler 2: (2.0); Cooler 3: (1.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.9); Cooler 2: (3.5); Cooler 3: (3.3);

**Cooler Security**

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |                          |
| 3. Cooler media:             | Ice (Bag)                           |                          |
| 4. No. Coolers:              | 3                                   |                          |

**Quality Control Preservation**

- |                                 |                                     |                                     |                          |
|---------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 4. VOCs headspace free:         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Sample Integrity - Documentation**

- |  |                                     |                                     |
|--|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Sample container label / COC agree: | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Sample Integrity - Condition**

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:      pH 1-12: 216017      pH 12+: 208717      Other: (Specify)

Comments -3: MW-10-02 labeled as MW-10-06 on containers. Time and date OK.

SM089-02 Rev. Date 12/1/16

JC64857: Chain of Custody

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5.2  
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Responded to by: Diane Komar

Response Date: 4/25/18

Client notified, log in as MW-10-2 - log in for;  
TTO = V624TTO, AB625TTO

5.2

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**JC64857: Chain of Custody**  
**Page 3 of 3**

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC64857

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number   | Method               | Analyzed        | By  | Prepped   | By | Test Codes  |
|---|----------------------|-----------------|-----|-----------|----|---|
| JC64857-1 Collected: 23-APR-18 15:30 By: JKJ Received: 25-APR-18 By: DG<br>MW-11-06 |                      |                 |     |           |    |   |
| JC64857-1   | SM5210 B-11          | 25-APR-18 14:19 | RI  | 25-APR-18 | RI | BOD   |
| JC64857-1   | SM2540 D-11          | 26-APR-18 10:10 | RI  |           |    | TSS   |
| JC64857-1   | SM2540 C-11          | 26-APR-18 12:35 | RI  |           |    | TDS   |
| JC64857-1   | SW846 6010C          | 27-APR-18 04:44 | PP  | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC64857-1   | EPA 624              | 27-APR-18 11:02 | CSF |           |    | V624TVO   |
| JC64857-1   | SW846 7470A          | 27-APR-18 11:18 | JA  | 27-APR-18 | JA | HG  |
| JC64857-1   | EPA 335.4/LACHAT     | 27-APR-18 15:45 | TG  | 27-APR-18 | FO | CN  |
| JC64857-1   | EPA 1664A            | 29-APR-18 22:45 | CB  | 29-APR-18 | CB | OG1664  |
| JC64857-1   | SM2340 C-11          | 30-APR-18 13:49 | MP  |           |    | HRD   |
| JC64857-1   | SM4500H+ B-11        | 30-APR-18 15:04 | RB  |           |    | PHLAB   |
| JC64857-1   | EPA 625              | 02-MAY-18 15:53 | GS  | 27-APR-18 | VP | AB625PPL  |
| JC64857-1   | SM5220 C-11,HACH8000 | 01-MAY-18 13:57 | MP  | 01-MAY-18 | ST | COD   |
| JC64857-2 Collected: 23-APR-18 16:30 By: JKJ Received: 25-APR-18 By: DG<br>MW-3A    |                      |                 |     |           |    |   |
| JC64857-2   | SM5210 B-11          | 25-APR-18 14:22 | RI  | 25-APR-18 | RI | BOD   |
| JC64857-2   | SM2540 D-11          | 26-APR-18 10:10 | RI  |           |    | TSS   |
| JC64857-2   | SM2540 C-11          | 26-APR-18 12:35 | RI  |           |    | TDS   |
| JC64857-2   | SW846 6010C          | 27-APR-18 04:48 | PP  | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC64857-2   | SW846 7470A          | 27-APR-18 11:22 | JA  | 27-APR-18 | JA | HG  |
| JC64857-2   | EPA 624              | 27-APR-18 11:32 | CSF |           |    | V624TVO   |
| JC64857-2   | EPA 335.4/LACHAT     | 27-APR-18 15:32 | TG  | 27-APR-18 | FO | CN  |
| JC64857-2   | EPA 1664A            | 29-APR-18 22:45 | CB  | 29-APR-18 | CB | OG1664  |
| JC64857-2   | SM2340 C-11          | 30-APR-18 13:49 | MP  |           |    | HRD   |
| JC64857-2   | SM4500H+ B-11        | 30-APR-18 15:25 | RB  |           |    | PHLAB   |
| JC64857-2   | EPA 625              | 02-MAY-18 16:22 | GS  | 27-APR-18 | VP | AB625PPL  |
| JC64857-2   | SM5220 C-11,HACH8000 | 01-MAY-18 13:57 | MP  | 01-MAY-18 | ST | COD   |
| JC64857-3 Collected: 23-APR-18 16:50 By: JKJ Received: 25-APR-18 By: DG<br>MW-10-02 |                      |                 |     |           |    |   |
| JC64857-3   | SM5210 B-11          | 25-APR-18 14:24 | RI  | 25-APR-18 | RI | BOD   |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC64857

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number | Method               | Analyzed        | By  | Prepped   | By | Test Codes  |
|---------------|----------------------|-----------------|-----|-----------|----|---|
| JC64857-3     | SM2540 D-11          | 26-APR-18 10:10 | RI  |           |    | TSS   |
| JC64857-3     | SM2540 C-11          | 26-APR-18 12:35 | RI  |           |    | TDS   |
| JC64857-3     | SW846 6010C          | 27-APR-18 04:52 | PP  | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC64857-3     | SW846 7470A          | 27-APR-18 11:24 | JA  | 27-APR-18 | JA | HG  |
| JC64857-3     | EPA 624              | 27-APR-18 12:01 | CSF |           |    | V624TVO   |
| JC64857-3     | EPA 335.4/LACHAT     | 27-APR-18 15:36 | TG  | 27-APR-18 | FO | CN  |
| JC64857-3     | EPA 1664A            | 29-APR-18 22:45 | CB  | 29-APR-18 | CB | OG1664  |
| JC64857-3     | SM2340 C-11          | 30-APR-18 13:49 | MP  |           |    | HRD   |
| JC64857-3     | SM4500H+ B-11        | 30-APR-18 15:31 | RB  |           |    | PHLAB   |
| JC64857-3     | EPA 625              | 02-MAY-18 17:47 | GS  | 27-APR-18 | VP | AB625PPL  |
| JC64857-3     | SM5220 C-11,HACH8000 | 01-MAY-18 13:57 | MP  | 01-MAY-18 | ST | COD   |

JC64857-1F Collected: 23-APR-18 15:30 By: JKJ Received: 25-APR-18 By: DG  
 MW-11-06

|                             |  |                 |    |           |    |  |
|-----------------------------|--|-----------------|----|-----------|----|--|
| JC64857-1F SW846 6010C      |  | 27-APR-18 04:57 | PP | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NI,PB,SB,SE, TL,V,ZN |
| JC64857-1F SW846 7470A      |  | 27-APR-18 11:25 | JA | 27-APR-18 | JA | HG   |
| JC64857-1F SW846 6010C      |  | 27-APR-18 15:06 | GT | 26-APR-18 | CH | NA   |
| JC64857-1F EPA 335.4/LACHAT |  | 27-APR-18 15:39 | TG | 27-APR-18 | FO | CN   |

JC64857-2F Collected: 23-APR-18 16:30 By: JKJ Received: 25-APR-18 By: DG  
 MW-3A

|                             |  |                 |    |           |    |   |
|-----------------------------|--|-----------------|----|-----------|----|---|
| JC64857-2F SW846 6010C      |  | 27-APR-18 05:01 | PP | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC64857-2F SW846 7470A      |  | 27-APR-18 11:26 | JA | 27-APR-18 | JA | HG  |
| JC64857-2F EPA 335.4/LACHAT |  | 27-APR-18 15:40 | TG | 27-APR-18 | FO | CN  |

JC64857-3F Collected: 23-APR-18 16:50 By: JKJ Received: 25-APR-18 By: DG  
 MW-10-02

|                        |  |                 |    |           |    |   |
|------------------------|--|-----------------|----|-----------|----|---|
| JC64857-3F SW846 6010C |  | 27-APR-18 05:05 | PP | 26-APR-18 | CH | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC64857-3F SW846 7470A |  | 27-APR-18 11:27 | JA | 27-APR-18 | JA | HG  |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC64857

NYSEG - Newark Former MGP Site, Newark, NY  
Project No: B0013094.0006

| Sample Number | Method           | Analyzed        | By | Prepped   | By | Test Codes |
|---------------|------------------|-----------------|----|-----------|----|------------|
| JC64857-3F    | EPA 335.4/LACHAT | 27-APR-18 15:41 | TG | 27-APR-18 | FO | CN         |

5.3  
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# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64857-1.1          | Secured Storage      | Sahara Feliciano         | 04/28/18 12:50 | Retrieve from Storage      |
| JC64857-1.1          | Sahara Feliciano     | Secured Staging Area     | 04/28/18 12:50 | Return to Storage          |
| JC64857-1.1          | Secured Staging Area | Chris Brunson            | 04/29/18 09:53 | Retrieve from Storage      |
| JC64857-1.1          | Chris Brunson        |                          | 04/30/18 00:34 | Depleted                   |
| JC64857-1.2          | Secured Storage      | Sahara Feliciano         | 04/28/18 12:50 | Retrieve from Storage      |
| JC64857-1.2          | Sahara Feliciano     | Secured Staging Area     | 04/28/18 12:50 | Return to Storage          |
| JC64857-1.2          | Secured Staging Area | Chris Brunson            | 04/29/18 09:53 | Retrieve from Storage      |
| JC64857-1.2          | Chris Brunson        |                          | 04/30/18 00:34 | Depleted                   |
| JC64857-1.3          | Secured Storage      | Dave Hunkele             | 04/26/18 14:44 | Retrieve from Storage      |
| JC64857-1.3          | Dave Hunkele         | Secured Staging Area     | 04/26/18 14:44 | Return to Storage          |
| JC64857-1.3          | Secured Staging Area | Yaw Britwum              | 04/27/18 06:07 | Retrieve from Storage      |
| JC64857-1.3          | Yaw Britwum          |                          | 04/27/18 15:31 | Depleted                   |
| JC64857-1.3.1        | Yaw Britwum          | Organics Prep            | 04/27/18 06:14 | Extract from JC64857-1.3   |
| JC64857-1.3.1        | Organics Prep        | Vikas Parikh             | 04/27/18 15:14 | Extract from JC64857-1.3   |
| JC64857-1.3.1        | Vikas Parikh         | Extract Storage          | 04/27/18 15:14 | Return to Storage          |
| JC64857-1.3.1        | Extract Storage      | George Sleem             | 05/01/18 23:27 | Retrieve from Storage      |
| JC64857-1.3.1        | George Sleem         | GCMSP                    | 05/01/18 23:27 | Load on Instrument         |
| JC64857-1.3.1        | GCMSP                | Christine Change         | 05/03/18 11:12 | Unload from Instrument     |
| JC64857-1.3.1        | Christine Change     | Extract Storage          | 05/03/18 11:12 | Return to Storage          |
| JC64857-1.7          | Secured Storage      | Luis Villanueva          | 04/26/18 20:10 | Retrieve from Storage      |
| JC64857-1.7          | Luis Villanueva      | Secured Staging Area     | 04/26/18 20:10 | Return to Storage          |
| JC64857-1.7          | Secured Staging Area | Deval Patel              | 04/27/18 10:55 | Retrieve from Storage      |
| JC64857-1.7          | Deval Patel          | Secured Storage          | 04/27/18 11:32 | Return to Storage          |
| JC64857-1.7          | Secured Storage      | Sahara Feliciano         | 04/29/18 11:16 | Retrieve from Storage      |
| JC64857-1.7          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 11:16 | Return to Storage          |
| JC64857-1.7          | Secured Staging Area | Mahendra Patel           | 04/30/18 12:31 | Retrieve from Storage      |
| JC64857-1.7          | Mahendra Patel       | Secured Storage          | 04/30/18 17:45 | Return to Storage          |
| JC64857-1.8          | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage      |
| JC64857-1.8          | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage          |
| JC64857-1.8          | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage      |
| JC64857-1.8          | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage          |
| JC64857-1.8.1        | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-1.8 |
| JC64857-1.8.1        | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-1.8 |
| JC64857-1.8.1        | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage          |
| JC64857-1.10         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:50 | Retrieve from Storage      |
| JC64857-1.10         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:50 | Return to Storage          |
| JC64857-1.10         | Secured Staging Area | Sarvadaman Tripathi      | 05/01/18 08:12 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                 |
|----------------------|----------------------|----------------------|----------------|------------------------|
| JC64857-1.10         | Sarvadaman Tripathi  | Secured Storage      | 05/01/18 17:55 | Return to Storage      |
| JC64857-1.11         | Secured Storage      | Todd Shoemaker       | 04/25/18 13:27 | Retrieve from Storage  |
| JC64857-1.11         | Todd Shoemaker       | Secured Staging Area | 04/25/18 13:27 | Return to Storage      |
| JC64857-1.11         | Secured Staging Area | Rie Iwasaki          | 04/25/18 13:32 | Retrieve from Storage  |
| JC64857-1.11         | Rie Iwasaki          | Secured Storage      | 04/25/18 16:51 | Return to Storage      |
| JC64857-1.12         | Secured Storage      | Dave Hunkele         | 04/26/18 08:45 | Retrieve from Storage  |
| JC64857-1.12         | Dave Hunkele         | Secured Staging Area | 04/26/18 08:46 | Return to Storage      |
| JC64857-1.12         | Secured Staging Area | Rie Iwasaki          | 04/26/18 09:04 | Retrieve from Storage  |
| JC64857-1.12         | Rie Iwasaki          | Secured Storage      | 04/26/18 16:10 | Return to Storage      |
| JC64857-1.14         | Secured Storage      | Dave Hunkele         | 04/26/18 08:45 | Retrieve from Storage  |
| JC64857-1.14         | Dave Hunkele         | Secured Staging Area | 04/26/18 08:46 | Return to Storage      |
| JC64857-1.14         | Secured Staging Area | Rie Iwasaki          | 04/26/18 09:04 | Retrieve from Storage  |
| JC64857-1.14         | Rie Iwasaki          | Secured Storage      | 04/26/18 16:10 | Return to Storage      |
| JC64857-1.14         | Secured Storage      | Christopher Hall     | 04/30/18 13:35 | Retrieve from Storage  |
| JC64857-1.14         | Christopher Hall     | Secured Staging Area | 04/30/18 13:36 | Return to Storage      |
| JC64857-1.14         | Secured Staging Area | Robert Bandstra      | 04/30/18 13:41 | Retrieve from Storage  |
| JC64857-1.14         | Robert Bandstra      | Secured Storage      | 04/30/18 17:16 | Return to Storage      |
| JC64857-1.15         | Secured Storage      | Todd Shoemaker       | 04/26/18 09:02 | Retrieve from Storage  |
| JC64857-1.15         | Todd Shoemaker       | Secured Staging Area | 04/26/18 09:02 | Return to Storage      |
| JC64857-1.15         | Secured Staging Area | Faraja Ombwayo       | 04/26/18 09:32 | Retrieve from Storage  |
| JC64857-1.15         | Faraja Ombwayo       | Secured Storage      | 04/26/18 12:53 | Return to Storage      |
| JC64857-1.15         | Secured Storage      | Todd Shoemaker       | 04/27/18 08:56 | Retrieve from Storage  |
| JC64857-1.15         | Todd Shoemaker       | Secured Staging Area | 04/27/18 08:57 | Return to Storage      |
| JC64857-1.15         | Secured Staging Area | Faraja Ombwayo       | 04/27/18 10:51 | Retrieve from Storage  |
| JC64857-1.15         | Faraja Ombwayo       | Secured Storage      | 04/27/18 13:38 | Return to Storage      |
| JC64857-1.16         | Secured Storage      | Chelsea San Filippo  | 04/27/18 12:29 | Retrieve from Storage  |
| JC64857-1.16         | Chelsea San Filippo  | GCMSN                | 04/27/18 12:29 | Load on Instrument     |
| JC64857-1.16         | GCMSN                | Chelsea San Filippo  | 04/30/18 09:51 | Unload from Instrument |
| JC64857-1.16         | Chelsea San Filippo  | Secured Storage      | 04/30/18 09:51 | Return to Storage      |
| JC64857-1.17         | Secured Storage      | Chelsea San Filippo  | 04/27/18 10:44 | Retrieve from Storage  |
| JC64857-1.17         | Chelsea San Filippo  | GCMSN                | 04/27/18 10:44 | Load on Instrument     |
| JC64857-1.17         | GCMSN                | Chelsea San Filippo  | 04/30/18 09:51 | Unload from Instrument |
| JC64857-1.17         | Chelsea San Filippo  | Secured Storage      | 04/30/18 09:51 | Return to Storage      |
| JC64857-1F.9         | Secured Storage      | Dave Hunkele         | 04/25/18 12:55 | Retrieve from Storage  |
| JC64857-1F.9         | Dave Hunkele         | Secured Staging Area | 04/25/18 12:55 | Return to Storage      |
| JC64857-1F.9         | Secured Staging Area | Radhika Mistry       | 04/25/18 13:02 | Retrieve from Storage  |
| JC64857-1F.9         | Radhika Mistry       | Secured Storage      | 04/25/18 13:28 | Return to Storage      |

# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC64857-1F.9         | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage       |
| JC64857-1F.9         | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage           |
| JC64857-1F.9         | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage       |
| JC64857-1F.9         | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage           |
| JC64857-1F.9         | Secured Storage      | Luis Villanueva          | 04/26/18 20:10 | Retrieve from Storage       |
| JC64857-1F.9         | Luis Villanueva      | Secured Staging Area     | 04/26/18 20:10 | Return to Storage           |
| JC64857-1F.9         | Secured Staging Area | Deval Patel              | 04/27/18 10:55 | Retrieve from Storage       |
| JC64857-1F.9         | Deval Patel          | Secured Storage          | 04/27/18 11:32 | Return to Storage           |
| JC64857-1F.9.1       | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-1F.9 |
| JC64857-1F.9.1       | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-1F.9 |
| JC64857-1F.9.1       | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage           |
| JC64857-2.1          | Secured Storage      | Sahara Feliciano         | 04/28/18 12:50 | Retrieve from Storage       |
| JC64857-2.1          | Sahara Feliciano     | Secured Staging Area     | 04/28/18 12:50 | Return to Storage           |
| JC64857-2.1          | Secured Staging Area | Chris Brunson            | 04/29/18 09:53 | Retrieve from Storage       |
| JC64857-2.1          | Chris Brunson        |                          | 04/30/18 00:34 | Depleted                    |
| JC64857-2.6          | Secured Storage      | Dave Hunkele             | 04/26/18 14:44 | Retrieve from Storage       |
| JC64857-2.6          | Dave Hunkele         | Secured Staging Area     | 04/26/18 14:44 | Return to Storage           |
| JC64857-2.6          | Secured Staging Area | Yaw Britwum              | 04/27/18 06:07 | Retrieve from Storage       |
| JC64857-2.6          | Yaw Britwum          |                          | 04/27/18 15:31 | Depleted                    |
| JC64857-2.6.1        | Yaw Britwum          | Organics Prep            | 04/27/18 06:14 | Extract from JC64857-2.6    |
| JC64857-2.6.1        | Organics Prep        | Vikas Parikh             | 04/27/18 15:14 | Extract from JC64857-2.6    |
| JC64857-2.6.1        | Vikas Parikh         | Extract Storage          | 04/27/18 15:14 | Return to Storage           |
| JC64857-2.6.1        | Extract Storage      | George Sleem             | 05/01/18 23:27 | Retrieve from Storage       |
| JC64857-2.6.1        | George Sleem         | GCMSP                    | 05/01/18 23:27 | Load on Instrument          |
| JC64857-2.6.1        | GCMSP                | Christine Change         | 05/03/18 11:12 | Unload from Instrument      |
| JC64857-2.6.1        | Christine Change     | Extract Storage          | 05/03/18 11:12 | Return to Storage           |
| JC64857-2.7          | Secured Storage      | Luis Villanueva          | 04/26/18 20:10 | Retrieve from Storage       |
| JC64857-2.7          | Luis Villanueva      | Secured Staging Area     | 04/26/18 20:10 | Return to Storage           |
| JC64857-2.7          | Secured Staging Area | Deval Patel              | 04/27/18 10:55 | Retrieve from Storage       |
| JC64857-2.7          | Deval Patel          | Secured Storage          | 04/27/18 11:32 | Return to Storage           |
| JC64857-2.7          | Secured Storage      | Sahara Feliciano         | 04/29/18 11:16 | Retrieve from Storage       |
| JC64857-2.7          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 11:16 | Return to Storage           |
| JC64857-2.7          | Secured Staging Area | Mahendra Patel           | 04/30/18 12:31 | Retrieve from Storage       |
| JC64857-2.7          | Mahendra Patel       | Secured Storage          | 04/30/18 17:45 | Return to Storage           |
| JC64857-2.8          | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage       |
| JC64857-2.8          | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage           |
| JC64857-2.8          | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage       |
| JC64857-2.8          | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage           |

# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64857-2.8.1        | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-2.8 |
| JC64857-2.8.1        | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-2.8 |
| JC64857-2.8.1        | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage          |
| JC64857-2.10         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:50 | Retrieve from Storage      |
| JC64857-2.10         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:50 | Return to Storage          |
| JC64857-2.10         | Secured Staging Area | Sarvadaman Tripathi      | 05/01/18 08:12 | Retrieve from Storage      |
| JC64857-2.10         | Sarvadaman Tripathi  | Secured Storage          | 05/01/18 17:55 | Return to Storage          |
| JC64857-2.11         | Secured Storage      | Todd Shoemaker           | 04/25/18 13:27 | Retrieve from Storage      |
| JC64857-2.11         | Todd Shoemaker       | Secured Staging Area     | 04/25/18 13:27 | Return to Storage          |
| JC64857-2.11         | Secured Staging Area | Rie Iwasaki              | 04/25/18 13:32 | Retrieve from Storage      |
| JC64857-2.11         | Rie Iwasaki          | Secured Storage          | 04/25/18 16:51 | Return to Storage          |
| JC64857-2.12         | Secured Storage      | Dave Hunkele             | 04/26/18 08:45 | Retrieve from Storage      |
| JC64857-2.12         | Dave Hunkele         | Secured Staging Area     | 04/26/18 08:46 | Return to Storage          |
| JC64857-2.12         | Secured Staging Area | Rie Iwasaki              | 04/26/18 09:04 | Retrieve from Storage      |
| JC64857-2.12         | Rie Iwasaki          | Secured Storage          | 04/26/18 16:10 | Return to Storage          |
| JC64857-2.14         | Secured Storage      | Dave Hunkele             | 04/26/18 08:45 | Retrieve from Storage      |
| JC64857-2.14         | Dave Hunkele         | Secured Staging Area     | 04/26/18 08:46 | Return to Storage          |
| JC64857-2.14         | Secured Staging Area | Rie Iwasaki              | 04/26/18 09:04 | Retrieve from Storage      |
| JC64857-2.14         | Rie Iwasaki          | Secured Storage          | 04/26/18 16:10 | Return to Storage          |
| JC64857-2.14         | Secured Storage      | Christopher Hall         | 04/30/18 13:35 | Retrieve from Storage      |
| JC64857-2.14         | Christopher Hall     | Secured Staging Area     | 04/30/18 13:36 | Return to Storage          |
| JC64857-2.14         | Secured Staging Area | Robert Bandstra          | 04/30/18 13:41 | Retrieve from Storage      |
| JC64857-2.14         | Robert Bandstra      | Secured Storage          | 04/30/18 17:16 | Return to Storage          |
| JC64857-2.15         | Secured Storage      | Todd Shoemaker           | 04/26/18 09:02 | Retrieve from Storage      |
| JC64857-2.15         | Todd Shoemaker       | Secured Staging Area     | 04/26/18 09:02 | Return to Storage          |
| JC64857-2.15         | Secured Staging Area | Faraja Ombwayo           | 04/26/18 09:32 | Retrieve from Storage      |
| JC64857-2.15         | Faraja Ombwayo       | Secured Storage          | 04/26/18 12:53 | Return to Storage          |
| JC64857-2.15         | Secured Storage      | Todd Shoemaker           | 04/27/18 08:56 | Retrieve from Storage      |
| JC64857-2.15         | Todd Shoemaker       | Secured Staging Area     | 04/27/18 08:57 | Return to Storage          |
| JC64857-2.15         | Secured Staging Area | Faraja Ombwayo           | 04/27/18 10:51 | Retrieve from Storage      |
| JC64857-2.15         | Faraja Ombwayo       | Secured Storage          | 04/27/18 13:38 | Return to Storage          |
| JC64857-2.16         | Secured Storage      | Chelsea San Filippo      | 04/27/18 10:44 | Retrieve from Storage      |
| JC64857-2.16         | Chelsea San Filippo  | GCMASN                   | 04/27/18 10:44 | Load on Instrument         |
| JC64857-2.16         | GCMASN               | Chelsea San Filippo      | 04/30/18 09:51 | Unload from Instrument     |
| JC64857-2.16         | Chelsea San Filippo  | Secured Storage          | 04/30/18 09:51 | Return to Storage          |
| JC64857-2.17         | Secured Storage      | Chelsea San Filippo      | 04/27/18 12:29 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC64857-2.17         | Chelsea San Filippo  | GCMSN                    | 04/27/18 12:29 | Load on Instrument          |
| JC64857-2.17         | GCMSN                | Chelsea San Filippo      | 04/30/18 09:51 | Unload from Instrument      |
| JC64857-2.17         | Chelsea San Filippo  | Secured Storage          | 04/30/18 09:51 | Return to Storage           |
| JC64857-2F.9         | Secured Storage      | Dave Hunkele             | 04/25/18 12:55 | Retrieve from Storage       |
| JC64857-2F.9         | Dave Hunkele         | Secured Staging Area     | 04/25/18 12:55 | Return to Storage           |
| JC64857-2F.9         | Secured Staging Area | Radhika Mistry           | 04/25/18 13:02 | Retrieve from Storage       |
| JC64857-2F.9         | Radhika Mistry       | Secured Storage          | 04/25/18 13:28 | Return to Storage           |
| JC64857-2F.9         | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage       |
| JC64857-2F.9         | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage           |
| JC64857-2F.9         | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage       |
| JC64857-2F.9         | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage           |
| JC64857-2F.9.1       | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-2F.9 |
| JC64857-2F.9.1       | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-2F.9 |
| JC64857-2F.9.1       | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage           |
| JC64857-3.2          | Secured Storage      | Sahara Feliciano         | 04/28/18 12:50 | Retrieve from Storage       |
| JC64857-3.2          | Sahara Feliciano     | Secured Staging Area     | 04/28/18 12:50 | Return to Storage           |
| JC64857-3.2          | Secured Staging Area | Chris Brunson            | 04/29/18 09:53 | Retrieve from Storage       |
| JC64857-3.2          | Chris Brunson        |                          | 04/30/18 00:34 | Depleted                    |
| JC64857-3.4          | Secured Storage      | Dave Hunkele             | 04/26/18 14:44 | Retrieve from Storage       |
| JC64857-3.4          | Dave Hunkele         | Secured Staging Area     | 04/26/18 14:44 | Return to Storage           |
| JC64857-3.4          | Secured Staging Area | Yaw Britwum              | 04/27/18 06:07 | Retrieve from Storage       |
| JC64857-3.4          | Yaw Britwum          |                          | 04/27/18 15:31 | Depleted                    |
| JC64857-3.4.1        | Yaw Britwum          | Organics Prep            | 04/27/18 06:14 | Extract from JC64857-3.4    |
| JC64857-3.4.1        | Organics Prep        | Vikas Parikh             | 04/27/18 15:14 | Extract from JC64857-3.4    |
| JC64857-3.4.1        | Vikas Parikh         | Extract Storage          | 04/27/18 15:14 | Return to Storage           |
| JC64857-3.4.1        | Extract Storage      | George Sleem             | 05/01/18 23:27 | Retrieve from Storage       |
| JC64857-3.4.1        | George Sleem         | GCMSP                    | 05/01/18 23:27 | Load on Instrument          |
| JC64857-3.4.1        | GCMSP                | Christine Change         | 05/03/18 11:12 | Unload from Instrument      |
| JC64857-3.4.1        | Christine Change     | Extract Storage          | 05/03/18 11:12 | Return to Storage           |
| JC64857-3.7          | Secured Storage      | Luis Villanueva          | 04/26/18 20:10 | Retrieve from Storage       |
| JC64857-3.7          | Luis Villanueva      | Secured Staging Area     | 04/26/18 20:10 | Return to Storage           |
| JC64857-3.7          | Secured Staging Area | Deval Patel              | 04/27/18 10:55 | Retrieve from Storage       |
| JC64857-3.7          | Deval Patel          | Secured Storage          | 04/27/18 11:32 | Return to Storage           |
| JC64857-3.7          | Secured Storage      | Sahara Feliciano         | 04/29/18 11:16 | Retrieve from Storage       |
| JC64857-3.7          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 11:16 | Return to Storage           |
| JC64857-3.7          | Secured Staging Area | Mahendra Patel           | 04/30/18 12:31 | Retrieve from Storage       |
| JC64857-3.7          | Mahendra Patel       | Secured Storage          | 04/30/18 17:45 | Return to Storage           |

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# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64857-3.8          | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage      |
| JC64857-3.8          | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage          |
| JC64857-3.8          | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage      |
| JC64857-3.8          | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage          |
| JC64857-3.8.1        | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-3.8 |
| JC64857-3.8.1        | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-3.8 |
| JC64857-3.8.1        | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage          |
| JC64857-3.10         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:50 | Retrieve from Storage      |
| JC64857-3.10         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:50 | Return to Storage          |
| JC64857-3.10         | Secured Staging Area | Sarvadaman Tripathi      | 05/01/18 08:12 | Retrieve from Storage      |
| JC64857-3.10         | Sarvadaman Tripathi  | Secured Storage          | 05/01/18 17:55 | Return to Storage          |
| JC64857-3.11         | Secured Storage      | Todd Shoemaker           | 04/25/18 13:27 | Retrieve from Storage      |
| JC64857-3.11         | Todd Shoemaker       | Secured Staging Area     | 04/25/18 13:27 | Return to Storage          |
| JC64857-3.11         | Secured Staging Area | Rie Iwasaki              | 04/25/18 13:32 | Retrieve from Storage      |
| JC64857-3.11         | Rie Iwasaki          | Secured Storage          | 04/25/18 16:51 | Return to Storage          |
| JC64857-3.12         | Secured Storage      | Dave Hunkele             | 04/26/18 08:45 | Retrieve from Storage      |
| JC64857-3.12         | Dave Hunkele         | Secured Staging Area     | 04/26/18 08:46 | Return to Storage          |
| JC64857-3.12         | Secured Staging Area | Rie Iwasaki              | 04/26/18 09:04 | Retrieve from Storage      |
| JC64857-3.12         | Rie Iwasaki          | Secured Storage          | 04/26/18 16:10 | Return to Storage          |
| JC64857-3.14         | Secured Storage      | Dave Hunkele             | 04/26/18 08:45 | Retrieve from Storage      |
| JC64857-3.14         | Dave Hunkele         | Secured Staging Area     | 04/26/18 08:46 | Return to Storage          |
| JC64857-3.14         | Secured Staging Area | Rie Iwasaki              | 04/26/18 09:04 | Retrieve from Storage      |
| JC64857-3.14         | Rie Iwasaki          | Secured Storage          | 04/26/18 16:10 | Return to Storage          |
| JC64857-3.14         | Secured Storage      | Christopher Hall         | 04/30/18 13:35 | Retrieve from Storage      |
| JC64857-3.14         | Christopher Hall     | Secured Staging Area     | 04/30/18 13:36 | Return to Storage          |
| JC64857-3.14         | Secured Staging Area | Robert Bandstra          | 04/30/18 13:41 | Retrieve from Storage      |
| JC64857-3.14         | Robert Bandstra      | Secured Storage          | 04/30/18 17:16 | Return to Storage          |
| JC64857-3.15         | Secured Storage      | Todd Shoemaker           | 04/26/18 09:02 | Retrieve from Storage      |
| JC64857-3.15         | Todd Shoemaker       | Secured Staging Area     | 04/26/18 09:02 | Return to Storage          |
| JC64857-3.15         | Secured Staging Area | Faraja Ombwayo           | 04/26/18 09:32 | Retrieve from Storage      |
| JC64857-3.15         | Faraja Ombwayo       | Secured Storage          | 04/26/18 12:53 | Return to Storage          |
| JC64857-3.15         | Secured Storage      | Todd Shoemaker           | 04/27/18 08:56 | Retrieve from Storage      |
| JC64857-3.15         | Todd Shoemaker       | Secured Staging Area     | 04/27/18 08:57 | Return to Storage          |
| JC64857-3.15         | Secured Staging Area | Faraja Ombwayo           | 04/27/18 10:51 | Retrieve from Storage      |
| JC64857-3.15         | Faraja Ombwayo       | Secured Storage          | 04/27/18 13:38 | Return to Storage          |
| JC64857-3.17         | Secured Storage      | Chelsea San Filippo      | 04/27/18 10:44 | Retrieve from Storage      |
| JC64857-3.17         | Chelsea San Filippo  | GCMNSN                   | 04/27/18 10:44 | Load on Instrument         |

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# SGS Internal Chain of Custody

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/25/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC64857-3.17         | GCMSN                | Chelsea San Filippo      | 04/30/18 09:51 | Unload from Instrument      |
| JC64857-3.17         | Chelsea San Filippo  | Secured Storage          | 04/30/18 09:51 | Return to Storage           |
| JC64857-3F.9         | Secured Storage      | Dave Hunkele             | 04/25/18 12:55 | Retrieve from Storage       |
| JC64857-3F.9         | Dave Hunkele         | Secured Staging Area     | 04/25/18 12:55 | Return to Storage           |
| JC64857-3F.9         | Secured Staging Area | Radhika Mistry           | 04/25/18 13:02 | Retrieve from Storage       |
| JC64857-3F.9         | Radhika Mistry       | Secured Storage          | 04/25/18 13:28 | Return to Storage           |
| JC64857-3F.9         | Secured Storage      | Dave Hunkele             | 04/26/18 13:17 | Retrieve from Storage       |
| JC64857-3F.9         | Dave Hunkele         | Secured Staging Area     | 04/26/18 13:18 | Return to Storage           |
| JC64857-3F.9         | Secured Staging Area | Colleen Hill             | 04/26/18 15:10 | Retrieve from Storage       |
| JC64857-3F.9         | Colleen Hill         | Secured Storage          | 04/26/18 17:29 | Return to Storage           |
| JC64857-3F.9         | Secured Storage      | Luis Villanueva          | 04/26/18 20:10 | Retrieve from Storage       |
| JC64857-3F.9         | Luis Villanueva      | Secured Staging Area     | 04/26/18 20:10 | Return to Storage           |
| JC64857-3F.9         | Secured Staging Area | Deval Patel              | 04/27/18 10:55 | Retrieve from Storage       |
| JC64857-3F.9         | Deval Patel          | Secured Storage          | 04/27/18 11:32 | Return to Storage           |
| JC64857-3F.9.1       | Colleen Hill         | Metals Digestion         | 04/26/18 17:19 | Digestate from JC64857-3F.9 |
| JC64857-3F.9.1       | Metals Digestion     | Colleen Hill             | 04/26/18 17:19 | Digestate from JC64857-3F.9 |
| JC64857-3F.9.1       | Colleen Hill         | Metals Digestate Storage | 04/26/18 17:19 | Return to Storage           |

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VN11346-MB | N269342.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.    | Compound                  | Result | RL  | MDL  | Units | Q |
|------------|---------------------------|--------|-----|------|-------|---|
| 107-02-8   | Acrolein                  | ND     | 10  | 6.2  | ug/l  |   |
| 107-13-1   | Acrylonitrile             | ND     | 10  | 1.9  | ug/l  |   |
| 542-88-1   | Bis(chloromethyl)ether    | IND    |     |      | ug/l  |   |
| 71-43-2    | Benzene                   | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane      | ND     | 1.0 | 0.19 | ug/l  |   |
| 75-25-2    | Bromoform                 | ND     | 1.0 | 0.44 | ug/l  |   |
| 74-83-9    | Bromomethane              | ND     | 1.0 | 0.74 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride      | ND     | 1.0 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene             | ND     | 1.0 | 0.23 | ug/l  |   |
| 75-00-3    | Chloroethane              | ND     | 1.0 | 0.63 | ug/l  |   |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND     | 5.0 | 1.5  | ug/l  |   |
| 67-66-3    | Chloroform                | ND     | 1.0 | 0.20 | ug/l  |   |
| 74-87-3    | Chloromethane             | ND     | 1.0 | 0.29 | ug/l  |   |
| 124-48-1   | Dibromochloromethane      | ND     | 1.0 | 0.30 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane         | ND     | 1.0 | 0.27 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene       | ND     | 1.0 | 0.21 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene       | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane   | ND     | 2.0 | 0.67 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane        | ND     | 1.0 | 0.32 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethene        | ND     | 1.0 | 0.57 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethene    | ND     | 1.0 | 0.54 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethene  | ND     | 1.0 | 0.40 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane       | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND     | 1.0 | 0.36 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene | ND     | 1.0 | 0.59 | ug/l  |   |
| 123-91-1   | 1,4-Dioxane               | ND     | 130 | 27   | ug/l  |   |
| 100-41-4   | Ethylbenzene              | ND     | 1.0 | 0.21 | ug/l  |   |
| 151-56-4   | Ethylenimine              | IND    |     |      | ug/l  |   |
| 75-09-2    | Methylene chloride        | ND     | 1.0 | 0.55 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND     | 1.0 | 0.24 | ug/l  |   |
| 127-18-4   | Tetrachloroethene         | ND     | 1.0 | 0.82 | ug/l  |   |
| 108-88-3   | Toluene                   | ND     | 1.0 | 0.24 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane     | ND     | 1.0 | 0.36 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane     | ND     | 1.0 | 0.35 | ug/l  |   |



## Method Blank Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VN11346-MB | N269342.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound               | Result | RL  | MDL  | Units | Q |
|-----------|------------------------|--------|-----|------|-------|---|
| 79-01-6   | Trichloroethene        | ND     | 1.0 | 0.24 | ug/l  |   |
| 75-69-4   | Trichlorofluoromethane | ND     | 2.0 | 0.89 | ug/l  |   |
| 75-01-4   | Vinyl chloride         | ND     | 1.0 | 0.29 | ug/l  |   |
| 1330-20-7 | Xylenes (total)        | ND     | 1.0 | 0.20 | ug/l  |   |

| CAS No.    | Surrogate Recoveries        | Limits       |
|------------|-----------------------------|--------------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 104% 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 93% 80-120%  |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 91% 80-120%  |
| 1868-53-7  | Dibromofluoromethane (S)    | 105% 80-120% |

| CAS No. | Tentatively Identified Compounds | R. T. | Est. Conc. | Units | Q |
|---------|----------------------------------|-------|------------|-------|---|
|         | system artifact                  | 3.39  | 52         | ug/l  | J |
|         | Total TIC, Volatile              |       | 0          | ug/l  |   |

# Blank Spike Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VN11346-BS | N269340.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.    | Compound                  | Spike ug/l | BSP ug/l | BSP % | Limits              |
|------------|---------------------------|------------|----------|-------|---------------------|
| 107-02-8   | Acrolein                  | 20         | 15.1     | 76    | 48-145              |
| 107-13-1   | Acrylonitrile             | 20         | 16.9     | 85    | 64-137              |
| 542-88-1   | Bis(chloromethyl)ether    |            | IND      |       | 50-150 <sup>a</sup> |
| 71-43-2    | Benzene                   | 20         | 16.8     | 84    | 78-118              |
| 75-27-4    | Bromodichloromethane      | 20         | 18.8     | 94    | 77-119              |
| 75-25-2    | Bromoform                 | 20         | 24.9     | 125   | 66-128              |
| 74-83-9    | Bromomethane              | 20         | 20.4     | 102   | 59-141              |
| 56-23-5    | Carbon tetrachloride      | 20         | 21.3     | 107   | 69-137              |
| 108-90-7   | Chlorobenzene             | 20         | 18.2     | 91    | 78-116              |
| 75-00-3    | Chloroethane              | 20         | 21.7     | 109   | 63-136              |
| 110-75-8   | 2-Chloroethyl vinyl ether | 100        | 76.4     | 76    | 55-147              |
| 67-66-3    | Chloroform                | 20         | 16.5     | 83    | 78-122              |
| 74-87-3    | Chloromethane             | 20         | 19.2     | 96    | 49-125              |
| 124-48-1   | Dibromochloromethane      | 20         | 21.7     | 109   | 75-117              |
| 106-93-4   | 1,2-Dibromoethane         | 20         | 17.0     | 85    | 73-117              |
| 95-50-1    | 1,2-Dichlorobenzene       | 20         | 17.6     | 88    | 76-115              |
| 541-73-1   | 1,3-Dichlorobenzene       | 20         | 18.6     | 93    | 75-114              |
| 106-46-7   | 1,4-Dichlorobenzene       | 20         | 18.4     | 92    | 75-113              |
| 75-71-8    | Dichlorodifluoromethane   | 20         | 24.2     | 121   | 48-129              |
| 75-34-3    | 1,1-Dichloroethane        | 20         | 15.8     | 79    | 73-124              |
| 107-06-2   | 1,2-Dichloroethane        | 20         | 16.6     | 83    | 74-127              |
| 75-35-4    | 1,1-Dichloroethene        | 20         | 13.6     | 68    | 54-122              |
| 156-59-2   | cis-1,2-Dichloroethene    | 20         | 15.3     | 77    | 72-115              |
| 156-60-5   | trans-1,2-Dichloroethene  | 20         | 15.4     | 77    | 70-121              |
| 78-87-5    | 1,2-Dichloropropane       | 20         | 15.3     | 77    | 75-118              |
| 10061-01-5 | cis-1,3-Dichloropropene   | 20         | 17.2     | 86    | 76-118              |
| 10061-02-6 | trans-1,3-Dichloropropene | 20         | 15.7     | 79    | 70-122              |
| 123-91-1   | 1,4-Dioxane               | 500        | 593      | 119   | 56-140              |
| 100-41-4   | Ethylbenzene              | 20         | 17.9     | 90    | 76-118              |
| 151-56-4   | Ethylenimine              |            | IND      |       | 50-150 <sup>a</sup> |
| 75-09-2    | Methylene chloride        | 20         | 16.2     | 81    | 69-120              |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | 20         | 15.3     | 77    | 66-119              |
| 127-18-4   | Tetrachloroethene         | 20         | 19.5     | 98    | 66-131              |
| 108-88-3   | Toluene                   | 20         | 17.3     | 87    | 78-119              |
| 71-55-6    | 1,1,1-Trichloroethane     | 20         | 18.3     | 92    | 74-130              |
| 79-00-5    | 1,1,2-Trichloroethane     | 20         | 15.6     | 78    | 74-121              |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VN11346-BS | N269340.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound               | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|-----------|------------------------|---------------|-------------|----------|--------|
| 79-01-6   | Trichloroethene        | 20            | 17.4        | 87       | 78-117 |
| 75-69-4   | Trichlorofluoromethane | 20            | 22.2        | 111      | 66-126 |
| 75-01-4   | Vinyl chloride         | 20            | 19.0        | 95       | 54-125 |
| 1330-20-7 | Xylenes (total)        | 60            | 52.7        | 88       | 76-120 |

| CAS No.    | Surrogate Recoveries        | BSP | Limits  |
|------------|-----------------------------|-----|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 98% | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 96% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 91% | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 99% | 80-120% |

(a) Advisory control limits.

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC64857-2MS            | N269352.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |
| JC64857-2 <sup>a</sup> | N269344.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.    | Compound                  | JC64857-2<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>%           | Limits              |
|------------|---------------------------|-------------------|------------|------------|-------------------|---------------------|
| 107-02-8   | Acrolein                  | ND                | 20         | 15.4       | 77                | 40-154              |
| 107-13-1   | Acrylonitrile             | ND                | 20         | 18.3       | 92                | 60-142              |
| 542-88-1   | Bis(chloromethyl)ether    | IND               |            | IND        |                   | 50-150 <sup>b</sup> |
| 71-43-2    | Benzene                   | ND                | 20         | 20.0       | 100               | 59-136              |
| 75-27-4    | Bromodichloromethane      | ND                | 20         | 21.7       | 109               | 73-125              |
| 75-25-2    | Bromoform                 | ND                | 20         | 28.2       | 141* <sup>c</sup> | 62-134              |
| 74-83-9    | Bromomethane              | ND                | 20         | 24.2       | 121               | 54-149              |
| 56-23-5    | Carbon tetrachloride      | ND                | 20         | 26.5       | 133               | 62-147              |
| 108-90-7   | Chlorobenzene             | ND                | 20         | 22.1       | 111               | 69-128              |
| 75-00-3    | Chloroethane              | ND                | 20         | 22.1       | 111               | 58-145              |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND                | 100        | ND         | 0* <sup>d</sup>   | 10-179              |
| 67-66-3    | Chloroform                | ND                | 20         | 20.1       | 101               | 71-131              |
| 74-87-3    | Chloromethane             | ND                | 20         | 25.5       | 128               | 44-136              |
| 124-48-1   | Dibromochloromethane      | ND                | 20         | 24.5       | 123               | 72-123              |
| 106-93-4   | 1,2-Dibromoethane         | ND                | 20         | 19.4       | 97                | 69-124              |
| 95-50-1    | 1,2-Dichlorobenzene       | ND                | 20         | 20.1       | 101               | 69-123              |
| 541-73-1   | 1,3-Dichlorobenzene       | ND                | 20         | 21.8       | 109               | 71-122              |
| 106-46-7   | 1,4-Dichlorobenzene       | ND                | 20         | 21.1       | 106               | 69-121              |
| 75-71-8    | Dichlorodifluoromethane   | ND                | 20         | 35.2       | 176* <sup>c</sup> | 42-138              |
| 75-34-3    | 1,1-Dichloroethane        | ND                | 20         | 18.9       | 95                | 66-132              |
| 107-06-2   | 1,2-Dichloroethane        | ND                | 20         | 18.9       | 95                | 68-140              |
| 75-35-4    | 1,1-Dichloroethene        | ND                | 20         | 16.6       | 83                | 49-127              |
| 156-59-2   | cis-1,2-Dichloroethene    | ND                | 20         | 18.1       | 91                | 50-134              |
| 156-60-5   | trans-1,2-Dichloroethene  | ND                | 20         | 18.4       | 92                | 63-129              |
| 78-87-5    | 1,2-Dichloropropane       | ND                | 20         | 18.1       | 91                | 73-123              |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND                | 20         | 18.4       | 92                | 71-124              |
| 10061-02-6 | trans-1,3-Dichloropropene | ND                | 20         | 17.3       | 87                | 66-127              |
| 123-91-1   | 1,4-Dioxane               | ND                | 500        | 583        | 117               | 50-149              |
| 100-41-4   | Ethylbenzene              | ND                | 20         | 21.0       | 105               | 65-130              |
| 151-56-4   | Ethylenimine              | IND               |            | IND        |                   | 50-150 <sup>b</sup> |
| 75-09-2    | Methylene chloride        | ND                | 20         | 18.9       | 95                | 65-127              |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND                | 20         | 16.4       | 82                | 62-126              |
| 127-18-4   | Tetrachloroethene         | ND                | 20         | 23.3       | 117               | 51-145              |
| 108-88-3   | Toluene                   | ND                | 20         | 20.1       | 101               | 66-132              |
| 71-55-6    | 1,1,1-Trichloroethane     | ND                | 20         | 21.9       | 110               | 63-143              |
| 79-00-5    | 1,1,2-Trichloroethane     | ND                | 20         | 17.7       | 89                | 71-127              |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC64857-2MS            | N269352.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |
| JC64857-2 <sup>a</sup> | N269344.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

**The QC reported here applies to the following samples:** **Method:** EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound               | JC64857-2<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>%           | Limits |
|-----------|------------------------|-------------------|------------|------------|-------------------|--------|
| 79-01-6   | Trichloroethene        | ND                | 20         | 20.5       | 103               | 46-145 |
| 75-69-4   | Trichlorofluoromethane | ND                | 20         | 29.2       | 146* <sup>c</sup> | 57-139 |
| 75-01-4   | Vinyl chloride         | ND                | 20         | 24.9       | 125               | 45-136 |
| 1330-20-7 | Xylenes (total)        | ND                | 60         | 61.9       | 103               | 66-131 |

| CAS No.    | Surrogate Recoveries        | MS   | JC64857-2 | Limits  |
|------------|-----------------------------|------|-----------|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 97%  | 103%      | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 97%  | 92%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 93%  | 93%       | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 101% | 103%      | 80-120% |

- (a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.
- (b) Advisory control limits.
- (c) Outside control limits due to matrix interference.
- (d) Outside control limits due to acid preservation.

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC64857-1DUP           | N269354.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |
| JC64857-1 <sup>a</sup> | N269343.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.    | Compound                  | JC64857-1<br>ug/l | DUP<br>Q | ug/l | Q | RPD | Limits |
|------------|---------------------------|-------------------|----------|------|---|-----|--------|
| 107-02-8   | Acrolein                  | ND                |          | ND   |   | nc  | 10     |
| 107-13-1   | Acrylonitrile             | ND                |          | ND   |   | nc  | 10     |
| 542-88-1   | Bis(chloromethyl)ether    | IND               |          | IND  |   | nc  | 10     |
| 71-43-2    | Benzene                   | ND                |          | ND   |   | nc  | 12     |
| 75-27-4    | Bromodichloromethane      | ND                |          | ND   |   | nc  | 10     |
| 75-25-2    | Bromoform                 | ND                |          | ND   |   | nc  | 10     |
| 74-83-9    | Bromomethane              | ND                |          | ND   |   | nc  | 10     |
| 56-23-5    | Carbon tetrachloride      | ND                |          | ND   |   | nc  | 10     |
| 108-90-7   | Chlorobenzene             | ND                |          | ND   |   | nc  | 10     |
| 75-00-3    | Chloroethane              | ND                |          | ND   |   | nc  | 10     |
| 110-75-8   | 2-Chloroethyl vinyl ether | ND                |          | ND   |   | nc  | 10     |
| 67-66-3    | Chloroform                | ND                |          | ND   |   | nc  | 20     |
| 74-87-3    | Chloromethane             | ND                |          | ND   |   | nc  | 10     |
| 124-48-1   | Dibromochloromethane      | ND                |          | ND   |   | nc  | 10     |
| 106-93-4   | 1,2-Dibromoethane         | ND                |          | ND   |   | nc  | 10     |
| 95-50-1    | 1,2-Dichlorobenzene       | ND                |          | ND   |   | nc  | 10     |
| 541-73-1   | 1,3-Dichlorobenzene       | ND                |          | ND   |   | nc  | 10     |
| 106-46-7   | 1,4-Dichlorobenzene       | ND                |          | ND   |   | nc  | 10     |
| 75-71-8    | Dichlorodifluoromethane   | ND                |          | ND   |   | nc  | 10     |
| 75-34-3    | 1,1-Dichloroethane        | ND                |          | ND   |   | nc  | 13     |
| 107-06-2   | 1,2-Dichloroethane        | ND                |          | ND   |   | nc  | 11     |
| 75-35-4    | 1,1-Dichloroethene        | ND                |          | ND   |   | nc  | 14     |
| 156-59-2   | cis-1,2-Dichloroethene    | ND                |          | ND   |   | nc  | 22     |
| 156-60-5   | trans-1,2-Dichloroethene  | ND                |          | ND   |   | nc  | 14     |
| 78-87-5    | 1,2-Dichloropropane       | ND                |          | ND   |   | nc  | 10     |
| 10061-01-5 | cis-1,3-Dichloropropene   | ND                |          | ND   |   | nc  | 10     |
| 10061-02-6 | trans-1,3-Dichloropropene | ND                |          | ND   |   | nc  | 10     |
| 123-91-1   | 1,4-Dioxane               | ND                |          | ND   |   | nc  | 10     |
| 100-41-4   | Ethylbenzene              | ND                |          | ND   |   | nc  | 10     |
| 151-56-4   | Ethylenimine              | IND               |          | IND  |   | nc  | 10     |
| 75-09-2    | Methylene chloride        | ND                |          | ND   |   | nc  | 10     |
| 79-34-5    | 1,1,2,2-Tetrachloroethane | ND                |          | ND   |   | nc  | 10     |
| 127-18-4   | Tetrachloroethene         | ND                |          | ND   |   | nc  | 16     |
| 108-88-3   | Toluene                   | ND                |          | ND   |   | nc  | 13     |
| 71-55-6    | 1,1,1-Trichloroethane     | ND                |          | ND   |   | nc  | 10     |
| 79-00-5    | 1,1,2-Trichloroethane     | ND                |          | ND   |   | nc  | 10     |

\* = Outside of Control Limits.

## Duplicate Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC64857-1DUP           | N269354.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |
| JC64857-1 <sup>a</sup> | N269343.D | 1  | 04/27/18 | CSF | n/a       | n/a        | VN11346          |

The QC reported here applies to the following samples:

Method: EPA 624

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound               | JC64857-1 |          | Q | RPD | Limits |
|-----------|------------------------|-----------|----------|---|-----|--------|
|           |                        | ug/l      | DUP ug/l |   |     |        |
| 79-01-6   | Trichloroethene        | ND        | ND       |   | nc  | 18     |
| 75-69-4   | Trichlorofluoromethane | ND        | ND       |   | nc  | 10     |
| 75-01-4   | Vinyl chloride         | ND        | ND       |   | nc  | 14     |
| 1330-20-7 | Xylenes (total)        | ND        | ND       |   | nc  | 14     |

| CAS No.    | Surrogate Recoveries        | DUP  | JC64857-1 | Limits  |
|------------|-----------------------------|------|-----------|---------|
| 17060-07-0 | 1,2-Dichloroethane-D4 (SUR) | 103% | 101%      | 76-122% |
| 2037-26-5  | Toluene-D8 (SUR)            | 91%  | 90%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene (SUR)  | 91%  | 92%       | 80-120% |
| 1868-53-7  | Dibromofluoromethane (S)    | 105% | 104%      | 80-120% |

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

\* = Outside of Control Limits.

# Instrument Performance Check (BFB)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VN11324-BFB    | <b>Injection Date:</b> 04/05/18 |
| <b>Lab File ID:</b> N268785.D | <b>Injection Time:</b> 16:12    |
| <b>Instrument ID:</b> GCMSN   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 16396         | 17.1                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 45602         | 47.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 96101         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 6422          | 6.68                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 72349         | 75.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 5421          | 5.64 (7.49) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 71656         | 74.6 (99.0) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 4588          | 4.77 (6.40) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID    | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|------------------|-------------|---------------|---------------|--------------|-----------------------------|
| VN11324-IC11324  | N268786.D   | 04/05/18      | 17:35         | 01:23        | Initial cal 0.2             |
| VN11324-IC11324  | N268787.D   | 04/05/18      | 18:04         | 01:52        | Initial cal 0.5             |
| VN11324-IC11324  | N268788.D   | 04/05/18      | 18:33         | 02:21        | Initial cal 1               |
| VN11324-IC11324  | N268789.D   | 04/05/18      | 19:02         | 02:50        | Initial cal 2               |
| VN11324-IC11324  | N268790.D   | 04/05/18      | 19:31         | 03:19        | Initial cal 5               |
| VN11324-ICC11324 | N268791.D   | 04/05/18      | 20:01         | 03:49        | Initial cal 20              |
| VN11324-IC11324  | N268792.D   | 04/05/18      | 20:30         | 04:18        | Initial cal 50              |
| VN11324-IC11324  | N268793.D   | 04/05/18      | 20:59         | 04:47        | Initial cal 100             |
| VN11324-IC11324  | N268794.D   | 04/05/18      | 21:28         | 05:16        | Initial cal 200             |
| VN11324-ICV11324 | N268797.D   | 04/05/18      | 22:56         | 06:44        | Initial cal verification 20 |



# Instrument Performance Check (BFB)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VN11346-BFB    | <b>Injection Date:</b> 04/27/18 |
| <b>Lab File ID:</b> N269337.D | <b>Injection Time:</b> 07:18    |
| <b>Instrument ID:</b> GCMSN   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10585         | 16.1                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 31642         | 48.1                     | Pass      |
| 95  | Base peak, 100% relative abundance | 65738         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4032          | 6.13                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 55088         | 83.8                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4385          | 6.67 (7.96) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 53872         | 81.9 (97.8) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3645          | 5.54 (6.77) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|-----------------|-------------|---------------|---------------|--------------|--------------------|
| VN11346-CC11324 | N269339.D   | 04/27/18      | 08:42         | 01:24        | Continuing cal 20  |
| VN11346-BS      | N269340.D   | 04/27/18      | 09:34         | 02:16        | Blank Spike        |
| VN11346-MB      | N269342.D   | 04/27/18      | 10:33         | 03:15        | Method Blank       |
| JC64857-1       | N269343.D   | 04/27/18      | 11:02         | 03:44        | MW-11-06           |
| JC64857-2       | N269344.D   | 04/27/18      | 11:32         | 04:14        | MW-3A              |
| JC64857-3       | N269345.D   | 04/27/18      | 12:01         | 04:43        | MW-10-02           |
| ZZZZZZ          | N269346.D   | 04/27/18      | 12:30         | 05:12        | (unrelated sample) |
| ZZZZZZ          | N269347.D   | 04/27/18      | 13:00         | 05:42        | (unrelated sample) |
| ZZZZZZ          | N269348.D   | 04/27/18      | 13:29         | 06:11        | (unrelated sample) |
| ZZZZZZ          | N269349.D   | 04/27/18      | 13:58         | 06:40        | (unrelated sample) |
| ZZZZZZ          | N269350.D   | 04/27/18      | 14:27         | 07:09        | (unrelated sample) |
| ZZZZZZ          | N269351.D   | 04/27/18      | 14:57         | 07:39        | (unrelated sample) |
| JC64857-2MS     | N269352.D   | 04/27/18      | 15:26         | 08:08        | Matrix Spike       |
| JC64857-1DUP    | N269354.D   | 04/27/18      | 16:25         | 09:07        | Duplicate          |
| ZZZZZZ          | N269355.D   | 04/27/18      | 16:54         | 09:36        | (unrelated sample) |
| ZZZZZZ          | N269357.D   | 04/27/18      | 17:52         | 10:34        | (unrelated sample) |
| ZZZZZZ          | N269358.D   | 04/27/18      | 18:22         | 11:04        | (unrelated sample) |
| ZZZZZZ          | N269359.D   | 04/27/18      | 18:51         | 11:33        | (unrelated sample) |

6.5.2  
6

# Internal Standard Area Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                 |                        |          |
|-----------------------|-----------------|------------------------|----------|
| <b>Check Std:</b>     | VN11346-CC11324 | <b>Injection Date:</b> | 04/27/18 |
| <b>Lab File ID:</b>   | N269339.D       | <b>Injection Time:</b> | 08:42    |
| <b>Instrument ID:</b> | GCMSN           | <b>Method:</b>         | EPA 624  |

|                          | IS 1   | RT   | IS 2   | RT    | IS 3   | RT    | IS 4   | RT    | IS 5   | RT    |
|--------------------------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
|                          | AREA   |      | AREA   |       | AREA   |       | AREA   |       | AREA   |       |
| Check Std                | 75340  | 7.70 | 167147 | 10.04 | 240240 | 10.98 | 156139 | 16.75 | 231270 | 14.25 |
| Upper Limit <sup>a</sup> | 150680 | 8.20 | 334294 | 10.54 | 480480 | 11.48 | 312278 | 17.25 | 462540 | 14.75 |
| Lower Limit <sup>b</sup> | 37670  | 7.20 | 83574  | 9.54  | 120120 | 10.48 | 78070  | 16.25 | 115635 | 13.75 |

| Lab Sample ID          | IS 1   | RT   | IS 2   | RT    | IS 3   | RT    | IS 4   | RT    | IS 5   | RT    |
|------------------------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
|                        | AREA   |      | AREA   |       | AREA   |       | AREA   |       | AREA   |       |
| VN11346-BS             | 79393  | 7.69 | 169617 | 10.04 | 239810 | 10.97 | 154985 | 16.75 | 228673 | 14.25 |
| VN11346-MB             | 72740  | 7.70 | 159225 | 10.04 | 225504 | 10.97 | 141570 | 16.75 | 214292 | 14.25 |
| JC64857-1 <sup>c</sup> | 64796  | 7.70 | 157337 | 10.04 | 222068 | 10.97 | 148876 | 16.75 | 218382 | 14.25 |
| JC64857-2 <sup>c</sup> | 68071  | 7.70 | 156722 | 10.04 | 221497 | 10.97 | 141371 | 16.74 | 216504 | 14.24 |
| JC64857-3 <sup>c</sup> | 67829  | 7.68 | 153909 | 10.04 | 220158 | 10.97 | 141335 | 16.75 | 216027 | 14.24 |
| ZZZZZZ                 | 67096  | 7.69 | 156571 | 10.05 | 221724 | 10.97 | 139755 | 16.75 | 212738 | 14.25 |
| ZZZZZZ                 | 64252  | 7.70 | 154056 | 10.04 | 221376 | 10.97 | 142005 | 16.74 | 211479 | 14.24 |
| ZZZZZZ                 | 65984  | 7.70 | 150727 | 10.04 | 212818 | 10.97 | 143790 | 16.75 | 212305 | 14.25 |
| ZZZZZZ                 | 64024  | 7.70 | 156332 | 10.04 | 221121 | 10.97 | 137420 | 16.75 | 208805 | 14.25 |
| ZZZZZZ                 | 138271 | 7.69 | 149112 | 10.04 | 208660 | 10.97 | 135723 | 16.75 | 202727 | 14.25 |
| ZZZZZZ                 | 65566  | 7.69 | 151834 | 10.04 | 218147 | 10.97 | 136637 | 16.75 | 207759 | 14.25 |
| JC64857-2MS            | 66653  | 7.69 | 163549 | 10.04 | 235124 | 10.97 | 154583 | 16.74 | 227309 | 14.25 |
| JC64857-1DUP           | 66150  | 7.70 | 152177 | 10.04 | 216259 | 10.97 | 142699 | 16.75 | 210835 | 14.24 |
| ZZZZZZ                 | 72891  | 7.70 | 161293 | 10.04 | 223413 | 10.97 | 144016 | 16.75 | 214299 | 14.24 |
| ZZZZZZ                 | 61927  | 7.69 | 152520 | 10.04 | 223279 | 10.97 | 141546 | 16.74 | 210485 | 14.24 |
| ZZZZZZ                 | 61831  | 7.69 | 151624 | 10.04 | 217558 | 10.97 | 143297 | 16.75 | 211994 | 14.25 |
| ZZZZZZ                 | 64374  | 7.70 | 157319 | 10.04 | 227117 | 10.97 | 150758 | 16.74 | 217057 | 14.24 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = 1,4-Dichlorobenzene-d4
- IS 5** = Chlorobenzene-D5

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

6.6.1  
6

# Surrogate Recovery Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                        |                   |
|------------------------|-------------------|
| <b>Method:</b> EPA 624 | <b>Matrix:</b> AQ |
|------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2 | S3 | S4  |
|---------------|-------------|-----|----|----|-----|
| JC64857-1     | N269343.D   | 101 | 90 | 92 | 104 |
| JC64857-2     | N269344.D   | 103 | 92 | 93 | 103 |
| JC64857-3     | N269345.D   | 104 | 92 | 94 | 105 |
| JC64857-1DUP  | N269354.D   | 103 | 91 | 91 | 105 |
| JC64857-2MS   | N269352.D   | 97  | 97 | 93 | 101 |
| VN11346-BS    | N269340.D   | 98  | 96 | 91 | 99  |
| VN11346-MB    | N269342.D   | 104 | 93 | 91 | 105 |

| Surrogate Compounds              | Recovery Limits |
|----------------------------------|-----------------|
| S1 = 1,2-Dichloroethane-D4 (SUR) | 76-122%         |
| S2 = Toluene-D8 (SUR)            | 80-120%         |
| S3 = 4-Bromofluorobenzene (SUR)  | 80-120%         |
| S4 = Dibromofluoromethane (S)    | 80-120%         |

# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICC11324  
**Lab FileID:** N268791.D

Response Factor Report GCMSN

Method : C:\msdchem\1\METHODS\MN11324.M (RTE Integrator)  
 Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

Calibration Files

1 =n268788.D 2 =n268789.D 100 =n268793.D 50 =n268792.D  
 20 =n268791.D 200 =n268794.D 5 =n268790.D 0.5 =n268787.D  
 0.2 =n268786.D =

| Compound  | 1 | 2 | 100 | 50 | 20 | 200 | 5 | 0.5 | 0.2 | Avg    | %RSD  |
|---|---|---|-----|----|----|-----|---|-----|-----|--------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD-----             |   |   |     |    |    |     |   |     |     |        |       |
| 2) tertiary butyl alcohol                             |   |   |     |    |    |     |   |     |     |        |       |
| 1.113 0.919 1.038 0.970 0.975 0.952 0.887 1.034       |   |   |     |    |    |     |   |     |     | 0.986  | 7.39  |
| 3) 1,4-dioxane  |   |   |     |    |    |     |   |     |     |        |       |
| 0.098 0.080 0.098 0.084 0.075 0.093 0.074             |   |   |     |    |    |     |   |     |     | 0.086  | 12.02 |
| 4) I pentafluorobenzene -----ISTD-----                |   |   |     |    |    |     |   |     |     |        |       |
| 5) freon 143a   |   |   |     |    |    |     |   |     |     |        |       |
| 0.822 1.048 0.888 1.020 0.900 0.996                   |   |   |     |    |    |     |   |     |     | 0.946  | 9.36  |
| 6) freon 142b   |   |   |     |    |    |     |   |     |     |        |       |
| 0.922 1.106 0.973 1.104 0.982 1.062                   |   |   |     |    |    |     |   |     |     | 1.025  | 7.47  |
| 7) chlorodifluoromethane                              |   |   |     |    |    |     |   |     |     |        |       |
| 1.332 1.100 1.082 0.982 1.151 0.982 1.037 1.353       |   |   |     |    |    |     |   |     |     | 1.127  | 12.83 |
| 8) dichlorodifluoromethane                            |   |   |     |    |    |     |   |     |     |        |       |
| 1.199 0.894 1.075 0.863 1.052 0.925 1.000 0.868       |   |   |     |    |    |     |   |     |     | 0.984  | 12.11 |
| 9) chloromethane                                      |   |   |     |    |    |     |   |     |     |        |       |
| 1.837 1.561 1.245 1.115 1.266 1.111 1.199 1.698       |   |   |     |    |    |     |   |     |     | 1.379  | 20.30 |
| 10) vinyl chloride                                    |   |   |     |    |    |     |   |     |     |        |       |
| 1.582 1.334 1.291 1.131 1.283 1.150 1.151 1.439 1.492 |   |   |     |    |    |     |   |     |     | 1.317  | 12.24 |
| 11) 1,3-butadiene                                     |   |   |     |    |    |     |   |     |     |        |       |
| 0.998 0.783 0.748 0.830 0.821 0.815                   |   |   |     |    |    |     |   |     |     | 0.833  | 10.40 |
| 12) bromomethane                                      |   |   |     |    |    |     |   |     |     |        |       |
| 1.086 0.920 0.804 0.752 0.836 0.652 0.747 1.034       |   |   |     |    |    |     |   |     |     | 0.854  | 17.50 |
| 13) chloroethane                                      |   |   |     |    |    |     |   |     |     |        |       |
| 0.738 0.647 0.554 0.502 0.568 0.521 0.516 0.722       |   |   |     |    |    |     |   |     |     | 0.596  | 15.78 |
| 14) trichlorofluoromethane                            |   |   |     |    |    |     |   |     |     |        |       |
| 1.278 0.987 1.152 0.951 1.107 1.068 1.030 0.888       |   |   |     |    |    |     |   |     |     | 1.058  | 11.64 |
| 15) pentane   |   |   |     |    |    |     |   |     |     |        |       |
|   |   |   |     |    |    |     |   |     |     | 0.000# | -1.00 |
| 16) freon 141b  |   |   |     |    |    |     |   |     |     |        |       |
| 1.104 0.826 0.895 0.811 0.887 0.853 0.826 0.978 1.007 |   |   |     |    |    |     |   |     |     | 0.910  | 10.96 |
| 17) ethyl ether                                       |   |   |     |    |    |     |   |     |     |        |       |
| 0.345 0.308 0.336 0.327 0.322 0.318 0.280 0.349       |   |   |     |    |    |     |   |     |     | 0.323  | 6.84  |
| 18) acrolein  |   |   |     |    |    |     |   |     |     |        |       |
| 0.108 0.076 0.076 0.081 0.083 0.075                   |   |   |     |    |    |     |   |     |     | 0.083  | 14.99 |
| 19) 1,1-dichloroethene                                |   |   |     |    |    |     |   |     |     |        |       |
| 0.591 0.489 0.456 0.405 0.455 0.489 0.411 0.641 0.732 |   |   |     |    |    |     |   |     |     | 0.519  | 21.57 |
| 20) acetone   |   |   |     |    |    |     |   |     |     |        |       |
| 0.062 0.043 0.043 0.039 0.039 0.042 0.043             |   |   |     |    |    |     |   |     |     | 0.044  | 17.77 |
| 21) freon 113   |   |   |     |    |    |     |   |     |     |        |       |
| 0.687 0.411 0.585 0.496 0.593 0.567 0.543 0.480       |   |   |     |    |    |     |   |     |     | 0.545  | 15.37 |
| 22) acetonitrile                                      |   |   |     |    |    |     |   |     |     |        |       |
| 0.060 0.058 0.060 0.059 0.053                         |   |   |     |    |    |     |   |     |     | 0.058  | 5.41  |
| 23) iodomethane                                       |   |   |     |    |    |     |   |     |     |        |       |

6.8.1  
6

# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICC11324  
**Lab FileID:** N268791.D

|                              |       |       |       |       |       |       |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                              | 0.916 | 0.840 | 0.879 | 0.797 | 0.880 | 0.948 | 0.778 | 0.731 | 0.786 | 0.840 | 8.53  |
| 24) carbon disulfide         | 1.841 | 1.654 | 1.706 | 1.533 | 1.681 | 1.832 | 1.462 | 1.674 | 2.006 | 1.710 | 9.64  |
| 25) methylene chloride       | 0.591 | 0.531 | 0.490 | 0.461 | 0.485 | 0.511 | 0.426 | 0.590 |       | 0.511 | 11.44 |
| 26) methyl acetate           | 0.256 | 0.266 | 0.251 | 0.253 | 0.257 | 0.221 |       |       |       | 0.251 | 6.10  |
| 27) methyl tert butyl ether  | 1.623 | 1.464 | 1.574 | 1.407 | 1.498 | 1.512 | 1.343 | 1.808 | 1.848 | 1.564 | 10.93 |
| 28) trans-1,2-dichloroethene | 0.517 | 0.468 | 0.434 | 0.407 | 0.427 | 0.411 | 0.421 | 0.693 | 0.597 | 0.486 | 20.40 |
| 29) acrylonitrile            | 0.145 | 0.153 | 0.150 | 0.153 | 0.148 | 0.145 |       |       |       | 0.149 | 2.42  |
| 30) hexane                   | 0.662 | 0.454 | 0.515 | 0.433 | 0.519 | 0.459 | 0.526 | 0.546 |       | 0.514 | 14.01 |
| 31) di-isopropyl ether       | 1.711 | 1.508 | 1.553 | 1.482 | 1.542 | 1.483 | 1.378 | 1.869 |       | 1.566 | 9.83  |
| 32) 1,1-dichloroethane       | 0.778 | 0.732 | 0.752 | 0.703 | 0.729 | 0.693 | 0.687 | 0.829 | 0.886 | 0.754 | 8.84  |
| 33) chloroprene              | 0.688 | 0.614 | 0.633 | 0.578 | 0.604 | 0.582 | 0.567 | 0.651 | 0.751 | 0.630 | 9.44  |
| 34) vinyl acetate            | 0.072 | 0.066 | 0.081 | 0.077 | 0.074 | 0.077 | 0.068 |       |       | 0.074 | 7.16  |
| 35) ethyl tert-butyl ether   | 1.731 | 1.499 | 1.655 | 1.540 | 1.606 | 1.619 | 1.356 | 1.704 | 1.600 | 1.590 | 7.17  |
| 36) 2-butanone               | 0.053 | 0.049 | 0.049 | 0.045 | 0.048 | 0.049 | 0.040 | 0.047 |       | 0.047 | 7.99  |
| 37) ethyl acetate            | 0.077 | 0.054 | 0.053 | 0.060 | 0.051 | 0.060 |       |       |       | 0.059 | 16.14 |
| 38) 2,2-dichloropropane      | 0.931 | 0.805 | 0.837 | 0.770 | 0.817 | 0.788 | 0.765 | 0.930 | 1.125 | 0.863 | 13.45 |
| 39) cis-1,2-dichloroethene   | 0.585 | 0.558 | 0.499 | 0.472 | 0.485 | 0.468 | 0.446 | 0.647 | 0.673 | 0.537 | 15.38 |
| 40) methyl acrylate          | 0.044 | 0.063 | 0.060 | 0.059 | 0.059 | 0.065 |       |       |       | 0.058 | 12.90 |
| 41) propionitrile            | 0.076 | 0.062 | 0.066 | 0.062 | 0.065 | 0.064 | 0.057 | 0.071 |       | 0.065 | 8.98  |
| 42) bromochloromethane       | 0.246 | 0.233 | 0.227 | 0.222 | 0.223 | 0.220 | 0.197 | 0.253 | 0.241 | 0.229 | 7.31  |
| 43) tetrahydrofuran          | 0.047 | 0.051 | 0.051 | 0.051 | 0.051 | 0.034 |       |       |       | 0.047 | 14.64 |
| 44) chloroform               | 0.523 | 0.499 | 0.493 | 0.460 | 0.470 | 0.457 | 0.432 | 0.586 | 0.633 | 0.506 | 12.96 |
| 45) t-butyl formate          | 0.379 | 0.343 | 0.387 | 0.372 | 0.372 | 0.374 | 0.323 | 0.430 |       | 0.373 | 8.41  |
| 46) dibromofluoromethane (s) | 0.459 | 0.445 | 0.452 | 0.449 | 0.449 | 0.473 | 0.451 | 0.451 | 0.463 | 0.455 | 1.88  |
| 47) methacrylonitrile        | 0.168 | 0.187 | 0.167 | 0.156 | 0.164 | 0.160 | 0.138 |       |       | 0.163 | 9.14  |
| 48) 1,1,1-trichloroethane    | 0.863 | 0.796 | 0.908 | 0.811 | 0.845 | 0.857 | 0.772 | 0.813 | 1.141 | 0.867 | 12.72 |
| 49) cyclohexane              | 1.037 | 0.634 | 0.808 | 0.707 | 0.747 | 0.792 | 0.765 |       |       | 0.784 | 16.04 |
| 50) 1,1-dichloropropene      | 0.607 | 0.537 | 0.575 | 0.517 | 0.532 | 0.527 | 0.515 | 0.573 | 0.492 | 0.542 | 6.71  |
| 51) carbon tetrachloride     | 0.667 | 0.545 | 0.730 | 0.632 | 0.639 | 0.699 | 0.567 | 0.635 | 0.662 | 0.642 | 9.08  |
| 52) isobutyl alcohol         | 0.021 | 0.019 | 0.019 | 0.023 | 0.018 |       |       |       |       | 0.020 | 9.40  |

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# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICC11324  
**Lab FileID:** N268791.D

|       |                           |                |       |       |       |       |       |       |       |       |       |              |
|-------|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| 53) I | 1,4-difluorobenzene       | -----ISTD----- |       |       |       |       |       |       |       |       |       |              |
| 54)   | 1,2-dichloroethane-d4 (s) |                | 0.338 | 0.336 | 0.330 | 0.329 | 0.327 | 0.327 | 0.339 | 0.340 | 0.344 | 0.334 1.88   |
| 55)   | isopropyl acetate         |                | 0.074 | 0.052 | 0.070 | 0.063 | 0.063 | 0.064 | 0.058 |       |       | 0.064 11.55  |
| 56)   | 2,2,4-trimethylpentane    |                | 1.070 | 0.749 | 1.214 | 0.925 | 1.078 | 1.181 | 0.944 | 0.806 |       | 0.996 16.91  |
| 57)   | benzene                   |                | 1.261 | 1.165 | 1.200 | 1.108 | 1.141 | 1.033 | 1.093 | 1.245 | 1.380 | 1.180 8.85   |
| 58)   | tert-amyl methyl ether    |                | 1.213 | 1.068 | 1.072 | 1.029 | 1.065 | 1.022 | 0.956 | 1.207 | 1.268 | 1.100 9.50   |
| 59)   | 1,2-dichloroethane        |                | 0.383 | 0.344 | 0.363 | 0.343 | 0.337 | 0.333 | 0.320 | 0.416 | 0.461 | 0.367 12.53  |
| 60)   | heptane                   |                | 0.217 | 0.162 | 0.194 | 0.160 | 0.191 | 0.169 | 0.192 | 0.253 |       | 0.192 16.20  |
| 61)   | n-butyl alcohol           |                | 0.009 | 0.009 | 0.010 | 0.008 | 0.008 | 0.010 | 0.007 |       |       | 0.009# 12.98 |
| 62)   | trichloroethene           |                | 0.330 | 0.278 | 0.301 | 0.266 | 0.270 | 0.270 | 0.254 | 0.340 | 0.376 | 0.298 13.96  |
| 63)   | methyl methacrylate       |                | 0.062 | 0.059 | 0.079 | 0.076 | 0.074 | 0.073 | 0.061 |       |       | 0.069 11.92  |
| 64)   | 1,2-dichloropropane       |                | 0.323 | 0.281 | 0.313 | 0.288 | 0.284 | 0.281 | 0.266 | 0.358 | 0.397 | 0.310 13.83  |
| 65)   | methylcyclohexane         |                | 0.683 | 0.469 | 0.647 | 0.533 | 0.608 | 0.595 | 0.581 | 0.515 | 0.646 | 0.586 11.91  |
| 66)   | dibromomethane            |                | 0.186 | 0.164 | 0.175 | 0.164 | 0.160 | 0.162 | 0.147 | 0.217 | 0.176 | 0.172 11.71  |
| 67)   | bromodichloromethane      |                | 0.332 | 0.314 | 0.384 | 0.340 | 0.327 | 0.358 | 0.274 | 0.402 | 0.360 | 0.343 11.11  |
| 68)   | 2-nitropropane            |                | 0.060 | 0.048 | 0.040 | 0.056 | 0.038 |       |       |       |       | 0.048 19.91  |
| 69)   | 2-chloroethyl vinyl ether |                | 0.163 | 0.158 | 0.160 | 0.152 | 0.152 | 0.141 | 0.135 | 0.166 | 0.163 | 0.154 6.87   |
| 70)   | epichlorohydrin           |                | 0.031 | 0.025 | 0.029 | 0.027 | 0.025 | 0.027 | 0.025 |       |       | 0.027 8.69   |
| 71)   | cis-1,3-dichloropropene   |                | 0.483 | 0.419 | 0.471 | 0.424 | 0.413 | 0.427 | 0.382 | 0.497 | 0.456 | 0.441 8.51   |
| 72)   | 4-methyl-2-pentanone      |                | 0.120 | 0.099 | 0.116 | 0.107 | 0.109 | 0.110 | 0.093 | 0.113 | 0.133 | 0.111 10.34  |
| 73)   | 3-methyl-1-butanol        |                | 0.015 | 0.016 | 0.014 | 0.014 | 0.017 | 0.013 |       |       |       | 0.015 10.84  |
| 74) I | chlorobenzene-d5          | -----ISTD----- |       |       |       |       |       |       |       |       |       |              |
| 75)   | toluene-d8                |                | 1.292 | 1.278 | 1.294 | 1.330 | 1.306 | 1.263 | 1.279 | 1.304 | 1.286 | 1.292 1.50   |
| 76)   | toluene                   |                | 0.838 | 0.761 | 0.823 | 0.772 | 0.770 | 0.699 | 0.702 | 0.906 | 0.898 | 0.797 9.51   |
| 77)   | ethyl methacrylate        |                | 0.421 | 0.399 | 0.413 | 0.400 | 0.392 | 0.370 | 0.345 |       |       | 0.391 6.67   |
| 78)   | trans-1,3-dichloropropene |                | 0.445 | 0.381 | 0.435 | 0.412 | 0.402 | 0.384 | 0.358 | 0.480 | 0.429 | 0.414 9.03   |
| 79)   | 1,1,2-trichloroethane     |                | 0.236 | 0.223 | 0.224 | 0.214 | 0.209 | 0.196 | 0.189 | 0.327 |       | 0.227 18.99  |
| 80)   | tetrachloroethene         |                | 0.247 | 0.235 | 0.271 | 0.246 | 0.243 | 0.235 | 0.214 | 0.286 | 0.300 | 0.253 10.78  |
| 81)   | 2-hexanone                |                | 0.115 | 0.107 | 0.105 | 0.102 | 0.103 | 0.097 | 0.095 | 0.101 | 0.084 | 0.101 8.51   |
| 82)   | 1,3-dichloropropane       |                | 0.509 | 0.409 | 0.443 | 0.424 | 0.424 | 0.389 | 0.379 | 0.481 | 0.469 | 0.436 9.87   |
| 83)   | butyl acetate             |                |       |       |       |       |       |       |       |       |       |              |

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# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICC11324  
**Lab FileID:** N268791.D

|       |   |        |       |
|-------|---|--------|-------|
|       | 0.190 0.189 0.189 0.185 0.187 0.172 0.169             | 0.183  | 4.75  |
| 84)   | dibromochloromethane                                  |        |       |
|       | 0.216 0.202 0.285 0.251 0.221 0.266 0.186 0.225 0.265 | 0.235  | 14.10 |
| 85)   | 1,2-dibromoethane                                     |        |       |
|       | 0.278 0.263 0.276 0.263 0.258 0.248 0.228 0.307 0.241 | 0.262  | 8.82  |
| 86)   | chlorobenzene   |        |       |
|       | 0.930 0.836 0.865 0.810 0.834 0.756 0.743 0.932 0.892 | 0.844  | 8.06  |
| 87)   | 1,1,1,2-tetrachloroethane                             |        |       |
|       | 0.362 0.312 0.403 0.365 0.337 0.367 0.284 0.345 0.323 | 0.344  | 10.21 |
| 88)   | ethylbenzene  |        |       |
|       | 1.721 1.476 1.541 1.460 1.502 1.263 1.375 1.693 1.719 | 1.528  | 10.42 |
| 89)   | m,p-xylene  |        |       |
|       | 0.611 0.594 0.628 0.580 0.582 0.542 0.533 0.663 0.674 | 0.601  | 8.13  |
| 90)   | o-xylene  |        |       |
|       | 0.658 0.616 0.694 0.639 0.647 0.613 0.575 0.610 0.757 | 0.646  | 8.32  |
| 91)   | styrene   |        |       |
|       | 1.066 0.950 1.027 0.975 0.986 0.898 0.882 1.036 1.040 | 0.984  | 6.58  |
| 92)   | n-amyl acetate  |        |       |
|       |   | 0.000# | -1.00 |
| 93)   | bromoform   |        |       |
|       | 0.131 0.119 0.169 0.148 0.127 0.167 0.099 0.148       | 0.139  | 17.33 |
| 94)   | isopropylbenzene                                      |        |       |
|       | 1.839 1.618 1.822 1.713 1.777 1.468 1.568 1.799 1.914 | 1.724  | 8.42  |
| 95) I | 1,4-dichlorobenzene-d -----ISTD-----                  |        |       |
| 96)   | 4-bromofluorobenzene (s)                              |        |       |
|       | 0.843 0.827 0.836 0.827 0.836 0.802 0.830 0.837 0.859 | 0.833  | 1.83  |
| 97)   | bromobenzene  |        |       |
|       | 0.679 0.585 0.652 0.613 0.599 0.575 0.576 0.691 0.591 | 0.618  | 7.23  |
| 98)   | 1,1,1,2-tetrachloroethane                             |        |       |
|       | 0.639 0.575 0.647 0.605 0.594 0.562 0.524 0.696 0.710 | 0.617  | 10.00 |
| 99)   | trans-1,4-dichloro-2-butene                           |        |       |
|       | 0.142 0.115 0.120 0.115 0.112 0.105 0.100             | 0.116  | 11.75 |
| 100)  | 1,2,3-trichloropropane                                |        |       |
|       | 0.213 0.173 0.180 0.171 0.171 0.161 0.164 0.176       | 0.176  | 9.15  |
| 101)  | n-propylbenzene                                       |        |       |
|       | 0.727 0.685 0.789 0.699 0.710 0.683 0.640 0.771 0.681 | 0.709  | 6.61  |
| 102)  | 2-chlorotoluene                                       |        |       |
|       | 0.683 0.636 0.710 0.637 0.639 0.626 0.581 0.671 0.610 | 0.644  | 6.06  |
| 103)  | 4-chlorotoluene                                       |        |       |
|       | 0.664 0.590 0.645 0.591 0.608 0.568 0.553 0.701 0.692 | 0.623  | 8.67  |
| 104)  | 1,3,5-trimethylbenzene                                |        |       |
|       | 2.475 2.315 2.765 2.568 2.587 2.197 2.262 2.594 2.764 | 2.503  | 8.29  |
| 105)  | tert-butylbenzene                                     |        |       |
|       | 2.086 1.849 2.373 2.181 2.156 1.963 1.841 1.940 1.954 | 2.038  | 8.60  |
| 106)  | 1,2,4-trimethylbenzene                                |        |       |
|       | 2.643 2.411 2.713 2.551 2.572 2.188 2.237 2.641 2.728 | 2.521  | 7.89  |
| 107)  | sec-butylbenzene                                      |        |       |
|       | 3.231 2.964 3.487 3.305 3.354 2.656 2.886 3.135 3.313 | 3.148  | 8.41  |
| 108)  | 1,3-dichlorobenzene                                   |        |       |
|       | 1.516 1.370 1.403 1.326 1.341 1.228 1.219 1.431 1.528 | 1.374  | 8.03  |
| 109)  | p-isopropyltoluene                                    |        |       |
|       | 2.949 2.613 3.011 2.846 2.903 2.371 2.547 2.718 2.784 | 2.749  | 7.57  |
| 110)  | 1,4-dichlorobenzene                                   |        |       |
|       | 1.585 1.382 1.398 1.337 1.367 1.220 1.275 1.496 1.491 | 1.394  | 8.21  |
| 111)  | 1,2-dichlorobenzene                                   |        |       |
|       | 1.602 1.437 1.518 1.449 1.460 1.320 1.333 1.610 1.689 | 1.491  | 8.42  |
| 112)  | benzyl chloride                                       |        |       |
|       | 1.483 1.153 1.371 1.309 1.263 1.196 1.092 1.416       | 1.285  | 10.50 |
| 113)  | indane  |        |       |

# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICC11324  
**Lab FileID:** N268791.D

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|      |   |        |       |
|------|---|--------|-------|
| 114) | n-butylbenzene  | 0.000# | -1.00 |
|      | 1.513 1.396 1.563 1.458 1.511 1.370 1.369 1.491 1.586                   | 1.473  | 5.46  |
| 115) | hexachloroethane  | 0.340  | 28.36 |
|      | 0.286 0.251 0.483 0.386 0.322 0.476 0.247 0.272                         |        |       |
| 116) | 1,2-dibromo-3-chloropropane   | 0.163  | 12.77 |
|      | 0.162 0.141 0.191 0.174 0.161 0.179 0.133                               |        |       |
| 117) | nitrobenzene *This compound does not meet initial calibration criteria* | 0.024  | 13.97 |
|      | 0.026 0.024 0.025 0.027 0.018   |        |       |
| 118) | 1,3,5-trichlorobenzene  | 1.670  | 9.72  |
|      | 1.900 1.547 1.702 1.648 1.669 1.442 1.477 1.874 1.771                   |        |       |
| 119) | 1,2,4-trichlorobenzene  | 1.558  | 10.89 |
|      | 1.760 1.485 1.556 1.532 1.532 1.304 1.358 1.802 1.696                   |        |       |
| 120) | hexachlorobutadiene   | 0.657  | 10.55 |
|      | 0.680 0.545 0.686 0.638 0.659 0.609 0.600 0.716 0.779                   |        |       |
| 121) | naphthalene   | 3.515  | 14.81 |
|      | 3.972 3.368 3.377 3.496 3.541 2.541 3.148 3.808 4.379                   |        |       |
| 122) | 1,2,3-trichlorobenzene  | 1.402  | 7.79  |
|      | 1.521 1.355 1.438 1.422 1.414 1.194 1.281 1.525 1.468                   |        |       |
| 123) | ETHYLENIMINE  | 0.000# | -1.00 |
| 124) | BIS(CHLOROMETHYL)ETHER  | 0.000# | -1.00 |

-----  
(#) = Out of Range ### Number of calibration levels exceeded format ###

MN11324.M Fri Apr 06 10:08:56 2018 MSDN

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# Initial Calibration Verification

Job Number: JC64857  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VN11324-ICV11324  
 Lab FileID: N268797.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VN11324\n268797.D Vial: 13  
 Acq On : 5 Apr 2018 10:56 pm Operator: CHELSEAS  
 Sample : icv11324-20 Inst : GCMSN  
 Misc : MS25232,VN11324,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MN11324.M (RTE Integrator)  
 Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Fri Apr 06 09:32:14 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.005 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 35% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|------|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I  | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 89    | 0.00     | 7.70  |
| 2 M  | tertiary butyl alcohol   | 0.986 | 0.883 | 10.4         | 80    | 0.00     | 7.81  |
| 3 M  | 1,4-dioxane              | 0.086 | 0.072 | 16.3         | 85    | 0.00     | 11.63 |
| 4 I  | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 102   | 0.00     | 10.04 |
| 5    | freon 143a               | 0.946 | 0.656 | 30.7         | 66    | -0.03    | 3.68  |
| 6    | freon 142b               | 1.025 | 1.062 | -3.6         | 98    | -0.03    | 4.31  |
| 7 M  | chlorodifluoromethane    | 1.127 | 0.844 | 25.1         | 75    | 0.00     | 4.04  |
| 8 M  | dichlorodifluoromethane  | 0.984 | 0.879 | 10.7         | 85    | -0.01    | 4.00  |
| 9 M  | chloromethane            | 1.379 | 1.037 | 24.8         | 84    | -0.02    | 4.41  |
| 10 M | vinyl chloride           | 1.317 | 1.023 | 22.3         | 81    | -0.02    | 4.66  |
| 11   | 1,3-butadiene            | 0.833 | 0.662 | 20.5         | 81    | -0.01    | 4.71  |
| 12 M | bromomethane             | 0.854 | 0.708 | 17.1         | 86    | 0.00     | 5.37  |
| 13 M | chloroethane             | 0.596 | 0.452 | 24.2         | 81    | -0.03    | 5.53  |
| 14 M | trichlorofluoromethane   | 1.058 | 0.927 | 12.4         | 85    | -0.01    | 6.08  |
| 15 M | pentane                  |       |       | -----NA----- |       |          |       |
| 16   | freon 141b               | 0.910 | 0.750 | 17.6         | 86    | 0.00     | 6.53  |
| 17 M | ethyl ether              | 0.323 | 0.280 | 13.3         | 89    | 0.00     | 6.50  |
| 18 M | acrolein                 | 0.083 | 0.097 | -16.9        | 122   | 0.00     | 6.76  |
| 19 M | 1,1-dichloroethene       | 0.519 | 0.351 | 32.4         | 79    | 0.00     | 6.94  |
| 20 M | acetone                  | 0.044 | 0.029 | 34.1         | 76    | 0.00     | 6.99  |
| 21   | freon 113                | 0.545 | 0.569 | -4.4         | 98    | -0.02    | 6.97  |
| 22 M | acetonitrile             | 0.058 | 0.041 | 29.3         | 69    | 0.00     | 7.43  |
| 23 M | iodomethane              | 0.840 | 0.710 | 15.5         | 83    | 0.00     | 7.21  |
| 24 M | carbon disulfide         | 1.710 | 1.329 | 22.3         | 81    | 0.00     | 7.35  |
| 25 M | methylene chloride       | 0.511 | 0.414 | 19.0         | 87    | 0.00     | 7.72  |
| 26 M | methyl acetate           | 0.251 | 0.209 | 16.7         | 84    | 0.00     | 7.47  |
| 27 M | methyl tert butyl ether  | 1.564 | 1.367 | 12.6         | 93    | 0.00     | 8.10  |
| 28 M | trans-1,2-dichloroethene | 0.486 | 0.360 | 25.9         | 86    | 0.00     | 8.13  |
| 29   | acrylonitrile            | 0.149 | 0.144 | 3.4          | 96    | 0.00     | 8.05  |
| 30   | hexane                   | 0.514 | 0.415 | 19.3         | 82    | 0.00     | 8.50  |
| 31 M | di-isopropyl ether       | 1.566 | 1.288 | 17.8         | 85    | 0.00     | 8.73  |
| 32 M | 1,1-dichloroethane       | 0.754 | 0.629 | 16.6         | 88    | 0.00     | 8.74  |
| 33 M | chloroprene              | 0.630 | 0.532 | 15.6         | 90    | 0.00     | 8.84  |
| 34 M | vinyl acetate            | 0.074 | 0.062 | 16.2         | 87    | 0.00     | 8.69  |
| 35 M | ethyl tert-butyl ether   | 1.590 | 1.367 | 14.0         | 87    | 0.00     | 9.21  |
| 36   | 2-butanone               | 0.047 | 0.038 | 19.1         | 80    | 0.00     | 9.42  |
| 37 M | ethyl acetate            | 0.059 | 0.051 | 13.6         | 86    | 0.00     | 9.44  |
| 38 M | 2,2-dichloropropane      | 0.863 | 0.672 | 22.1         | 84    | 0.00     | 9.50  |
| 39 M | cis-1,2-dichloroethene   | 0.537 | 0.422 | 21.4         | 89    | 0.00     | 9.47  |
| 40   | methyl acrylate          | 0.058 | 0.048 | 17.2         | 83    | 0.00     | 9.52  |
| 41 M | propionitrile            | 0.065 | 0.052 | 20.0         | 82    | 0.00     | 9.50  |

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICV11324  
**Lab FileID:** N268797.D

|    |   |                           |       |       |              |     |      |       |
|----|---|---------------------------|-------|-------|--------------|-----|------|-------|
| 42 | M | bromochloromethane        | 0.229 | 0.194 | 15.3         | 89  | 0.00 | 9.77  |
| 43 | M | tetrahydrofuran           | 0.047 | 0.042 | 10.6         | 85  | 0.00 | 9.79  |
| 44 | M | chloroform                | 0.506 | 0.417 | 17.6         | 90  | 0.00 | 9.87  |
| 45 |   | t-butyl formate           | 0.373 | 0.257 | 31.1         | 70  | 0.00 | 9.90  |
| 46 | S | dibromofluoromethane (s)  | 0.455 | 0.436 | 4.2          | 99  | 0.00 | 10.06 |
| 47 | M | methacrylonitrile         | 0.163 | 0.134 | 17.8         | 84  | 0.00 | 9.70  |
| 48 | M | 1,1,1-trichloroethane     | 0.867 | 0.709 | 18.2         | 86  | 0.00 | 10.12 |
| 49 | M | cyclohexane               | 0.784 | 0.907 | -15.7        | 124 | 0.00 | 10.22 |
| 50 |   | 1,1-dichloropropene       | 0.542 | 0.475 | 12.4         | 91  | 0.00 | 10.28 |
| 51 |   | carbon tetrachloride      | 0.642 | 0.537 | 16.4         | 86  | 0.00 | 10.31 |
| 52 |   | isobutyl alcohol          | 0.020 | 0.016 | 20.0         | 88  | 0.00 | 10.29 |
| 53 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 99  | 0.00 | 10.97 |
| 54 | S | 1,2-dichloroethane-d4 (s) | 0.334 | 0.329 | 1.5          | 100 | 0.00 | 10.48 |
| 55 |   | isopropyl acetate         | 0.064 | 0.057 | 10.9         | 90  | 0.00 | 10.47 |
| 56 |   | 2,2,4-trimethylpentane    | 0.996 | 0.932 | 6.4          | 85  | 0.00 | 10.63 |
| 57 | M | benzene                   | 1.180 | 1.016 | 13.9         | 88  | 0.00 | 10.54 |
| 58 | M | tert-amyl methyl ether    | 1.100 | 0.933 | 15.2         | 87  | 0.00 | 10.63 |
| 59 | M | 1,2-dichloroethane        | 0.367 | 0.323 | 12.0         | 95  | 0.00 | 10.58 |
| 60 |   | heptane                   | 0.192 | 0.177 | 7.8          | 92  | 0.00 | 10.81 |
| 61 |   | n-butyl alcohol           | 0.009 | 0.007 | 22.2         | 80  | 0.00 | 11.04 |
| 62 | M | trichloroethene           | 0.298 | 0.249 | 16.4         | 91  | 0.00 | 11.27 |
| 63 | M | methyl methacrylate       | 0.069 | 0.065 | 5.8          | 87  | 0.00 | 11.55 |
| 64 | M | 1,2-dichloropropane       | 0.310 | 0.254 | 18.1         | 88  | 0.00 | 11.58 |
| 65 | M | methylcyclohexane         | 0.586 | 0.502 | 14.3         | 82  | 0.00 | 11.57 |
| 66 |   | dibromomethane            | 0.172 | 0.151 | 12.2         | 94  | 0.00 | 11.69 |
| 67 | M | bromodichloromethane      | 0.343 | 0.287 | 16.3         | 87  | 0.00 | 11.85 |
| 68 |   | 2-nitropropane            | 0.048 | 0.047 | 2.1          | 115 | 0.00 | 12.07 |
| 69 |   | 2-chloroethyl vinyl ether | 0.154 | 0.149 | 3.2          | 97  | 0.00 | 12.11 |
| 70 |   | epichlorohydrin           | 0.027 | 0.023 | 14.8         | 88  | 0.00 | 12.19 |
| 71 | M | cis-1,3-dichloropropene   | 0.441 | 0.387 | 12.2         | 93  | 0.00 | 12.32 |
| 72 | M | 4-methyl-2-pentanone      | 0.111 | 0.095 | 14.4         | 87  | 0.00 | 12.44 |
| 73 |   | 3-methyl-1-butanol        | 0.015 | 0.012 | 20.0         | 85  | 0.00 | 12.45 |
| 74 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 100 | 0.00 | 14.25 |
| 75 | S | toluene-d8                | 1.292 | 1.301 | -0.7         | 100 | 0.00 | 12.64 |
| 76 |   | toluene                   | 0.797 | 0.694 | 12.9         | 90  | 0.00 | 12.72 |
| 77 |   | ethyl methacrylate        | 0.391 | 0.344 | 12.0         | 88  | 0.00 | 12.92 |
| 78 |   | trans-1,3-dichloropropene | 0.414 | 0.350 | 15.5         | 87  | 0.00 | 12.93 |
| 79 |   | 1,1,2-trichloroethane     | 0.227 | 0.193 | 15.0         | 92  | 0.00 | 13.16 |
| 80 | M | tetrachloroethene         | 0.253 | 0.231 | 8.7          | 95  | 0.00 | 13.30 |
| 81 |   | 2-hexanone                | 0.101 | 0.089 | 11.9         | 86  | 0.00 | 13.34 |
| 82 | M | 1,3-dichloropropane       | 0.436 | 0.395 | 9.4          | 93  | 0.00 | 13.35 |
| 83 | M | butyl acetate             | 0.183 | 0.171 | 6.6          | 92  | 0.00 | 13.43 |
| 84 | M | dibromochloromethane      | 0.235 | 0.215 | 8.5          | 97  | 0.00 | 13.61 |
| 85 | M | 1,2-dibromoethane         | 0.262 | 0.240 | 8.4          | 93  | 0.00 | 13.77 |
| 86 | M | chlorobenzene             | 0.844 | 0.763 | 9.6          | 91  | 0.00 | 14.28 |
| 87 | M | 1,1,1,2-tetrachloroethane | 0.344 | 0.306 | 11.0         | 91  | 0.00 | 14.35 |
| 88 | M | ethylbenzene              | 1.528 | 1.359 | 11.1         | 90  | 0.00 | 14.35 |
| 89 | M | m,p-xylene                | 0.601 | 0.539 | 10.3         | 93  | 0.00 | 14.48 |
| 90 | M | o-xylene                  | 0.646 | 0.587 | 9.1          | 91  | 0.00 | 14.91 |
| 91 | M | styrene                   | 0.984 | 0.901 | 8.4          | 91  | 0.00 | 14.92 |
| 92 |   | n-amyl acetate            |       |       | -----NA----- |     |      |       |
| 93 | M | bromoform                 | 0.139 | 0.123 | 11.5         | 97  | 0.00 | 15.17 |
| 94 |   | isopropylbenzene          | 1.724 | 1.591 | 7.7          | 90  | 0.00 | 15.28 |
| 95 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 104 | 0.00 | 16.75 |
| 96 | S | 4-bromofluorobenzene (s)  | 0.833 | 0.801 | 3.8          | 100 | 0.00 | 15.50 |
| 97 | M | bromobenzene              | 0.618 | 0.557 | 9.9          | 97  | 0.00 | 15.69 |
| 98 | M | 1,1,2,2-tetrachloroethane | 0.617 | 0.520 | 15.7         | 91  | 0.00 | 15.59 |

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11324-ICV11324  
**Lab FileID:** N268797.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 99 M  | trans-1,4-dichloro-2-bute | 0.116 | 0.125 | -7.8         | 116 | 0.00 | 15.63 |
| 100 M | 1,2,3-trichloropropane    | 0.176 | 0.149 | 15.3         | 91  | 0.00 | 15.69 |
| 101 M | n-propylbenzene           | 0.709 | 0.619 | 12.7         | 91  | 0.00 | 15.73 |
| 102 M | 2-chlorotoluene           | 0.644 | 0.560 | 13.0         | 91  | 0.00 | 15.87 |
| 103 M | 4-chlorotoluene           | 0.623 | 0.552 | 11.4         | 95  | 0.00 | 15.99 |
| 104 M | 1,3,5-trimethylbenzene    | 2.503 | 2.215 | 11.5         | 89  | 0.00 | 15.90 |
| 105 M | tert-butylbenzene         | 2.038 | 1.900 | 6.8          | 92  | 0.00 | 16.26 |
| 106 M | 1,2,4-trimethylbenzene    | 2.521 | 2.283 | 9.4          | 92  | 0.00 | 16.31 |
| 107 M | sec-butylbenzene          | 3.148 | 2.917 | 7.3          | 91  | 0.00 | 16.49 |
| 108 M | 1,3-dichlorobenzene       | 1.374 | 1.219 | 11.3         | 95  | 0.00 | 16.67 |
| 109 M | p-isopropyltoluene        | 2.749 | 2.555 | 7.1          | 92  | 0.00 | 16.64 |
| 110 M | 1,4-dichlorobenzene       | 1.394 | 1.230 | 11.8         | 94  | 0.00 | 16.77 |
| 111 M | 1,2-dichlorobenzene       | 1.491 | 1.291 | 13.4         | 92  | 0.00 | 17.18 |
| 112 M | benzyl chloride           | 1.285 | 0.847 | 34.1         | 70  | 0.00 | 16.88 |
| 113   | indane                    |       |       | -----NA----- |     |      |       |
| 114 M | n-butylbenzene            | 1.473 | 1.301 | 11.7         | 90  | 0.00 | 17.08 |
| 115   | hexachloroethane          | 0.340 | 0.294 | 13.5         | 95  | 0.00 | 17.49 |
| 116 M | 1,2-dibromo-3-chloropropa | 0.163 | 0.135 | 17.2         | 87  | 0.00 | 18.01 |
| 117   | nitrobenzene              | 0.024 | 0.018 | 25.0         | 77  | 0.00 | 18.22 |
| 118   | 1,3,5-trichlorobenzene    | 1.670 | 1.471 | 11.9         | 92  | 0.00 | 18.20 |
| 119 M | 1,2,4-trichlorobenzene    | 1.558 | 1.381 | 11.4         | 94  | 0.00 | 18.91 |
| 120 M | hexachlorobutadiene       | 0.657 | 0.583 | 11.3         | 92  | 0.00 | 19.03 |
| 121 M | naphthalene               | 3.515 | 3.205 | 8.8          | 94  | 0.00 | 19.22 |
| 122 M | 1,2,3-trichlorobenzene    | 1.402 | 1.250 | 10.8         | 92  | 0.00 | 19.46 |
| 123   | ETHYLENIMINE              |       |       | -----NA----- |     |      |       |
| 124   | BIS(CHLOROMETHYL)ETHER    |       |       | -----NA----- |     |      |       |

(#) = Out of Range  
n268791.D MN11324.M

SPCC's out = 0 CCC's out = 0  
Fri Apr 06 09:34:23 2018 MSDN

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11346-CC11324  
**Lab FileID:** N269339.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VN11346\n269339.D Vial: 4  
 Acq On : 27 Apr 2018 8:42 am Operator: CHELSEAS  
 Sample : CC11324-20 Inst : GCMSN  
 Misc : MS25841,VN11346,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MN11324.M (RTE Integrator)  
 Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Fri Apr 06 10:07:23 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 35% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|------|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I  | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 57    | 0.00     | 7.70  |
| 2 M  | tertiary butyl alcohol   | 0.986 | 0.968 | 1.8          | 56    | 0.00     | 7.81  |
| 3 M  | 1,4-dioxane              | 0.086 | 0.102 | -18.6        | 77    | 0.00     | 11.63 |
| 4 I  | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 80    | 0.00     | 10.04 |
| 5    | freon 143a               | 0.946 | 0.713 | 24.6         | 56    | 0.00     | 3.70  |
| 6    | freon 142b               | 1.025 | 1.170 | -14.1        | 84    | -0.02    | 4.32  |
| 7 M  | chlorodifluoromethane    | 1.127 | 0.896 | 20.5         | 62    | 0.00     | 4.04  |
| 8 M  | dichlorodifluoromethane  | 0.984 | 1.021 | -3.8         | 77    | 0.00     | 4.01  |
| 9 M  | chloromethane            | 1.379 | 1.078 | 21.8         | 68    | 0.00     | 4.42  |
| 10 M | vinyl chloride           | 1.317 | 1.122 | 14.8         | 70    | 0.00     | 4.68  |
| 11   | 1,3-butadiene            | 0.833 | 0.818 | 1.8          | 78    | -0.02    | 4.70  |
| 12 M | bromomethane             | 0.854 | 0.765 | 10.4         | 73    | 0.00     | 5.37  |
| 13 M | chloroethane             | 0.596 | 0.497 | 16.6         | 70    | 0.00     | 5.55  |
| 14 M | trichlorofluoromethane   | 1.058 | 1.082 | -2.3         | 78    | 0.00     | 6.08  |
| 15 M | pentane                  |       |       | -----NA----- |       |          |       |
| 16   | freon 141b               | 0.910 | 0.912 | -0.2         | 82    | 0.00     | 6.54  |
| 17 M | ethyl ether              | 0.323 | 0.384 | -18.9        | 95    | 0.00     | 6.51  |
| 18 M | acrolein                 | 0.083 | 0.059 | 28.9         | 58    | 0.00     | 6.77  |
| 19 M | 1,1-dichloroethene       | 0.519 | 0.367 | 29.3         | 64    | 0.00     | 6.95  |
| 20 M | acetone                  | 0.044 | 0.026 | 40.9#        | 54    | 0.00     | 6.98  |
| 21   | freon 113                | 0.545 | 0.564 | -3.5         | 76    | 0.00     | 6.99  |
| 22 M | acetonitrile             | 0.058 | 0.040 | 31.0         | 53    | 0.00     | 7.44  |
| 23 M | iodomethane              | 0.840 | 0.906 | -7.9         | 82    | 0.00     | 7.22  |
| 24 M | carbon disulfide         | 1.710 | 1.599 | 6.5          | 76    | 0.00     | 7.35  |
| 25 M | methylene chloride       | 0.511 | 0.432 | 15.5         | 71    | 0.00     | 7.73  |
| 26 M | methyl acetate           | 0.251 | 0.208 | 17.1         | 65    | 0.00     | 7.48  |
| 27 M | methyl tert butyl ether  | 1.564 | 1.685 | -7.7         | 89    | 0.00     | 8.11  |
| 28 M | trans-1,2-dichloroethene | 0.486 | 0.370 | 23.9         | 69    | 0.00     | 8.14  |
| 29   | acrylonitrile            | 0.149 | 0.129 | 13.4         | 67    | 0.00     | 8.05  |
| 30   | hexane                   | 0.514 | 0.377 | 26.7         | 58    | 0.00     | 8.51  |
| 31 M | di-isopropyl ether       | 1.566 | 1.049 | 33.0         | 54    | 0.00     | 8.74  |
| 32 M | 1,1-dichloroethane       | 0.754 | 0.611 | 19.0         | 67    | 0.00     | 8.74  |
| 33 M | chloroprene              | 0.630 | 0.423 | 32.9         | 56    | 0.00     | 8.84  |
| 34 M | vinyl acetate            | 0.074 | 0.039 | 47.3#        | 42#   | 0.00     | 8.70  |
| 35 M | ethyl tert-butyl ether   | 1.590 | 1.149 | 27.7         | 57    | 0.00     | 9.21  |
| 36   | 2-butanone               | 0.047 | 0.033 | 29.8         | 55    | 0.00     | 9.42  |
| 37 M | ethyl acetate            | 0.059 | 0.035 | 40.7#        | 45#   | 0.00     | 9.44  |
| 38 M | 2,2-dichloropropane      | 0.863 | 0.711 | 17.6         | 69    | 0.00     | 9.50  |
| 39 M | cis-1,2-dichloroethene   | 0.537 | 0.397 | 26.1         | 65    | 0.00     | 9.47  |
| 40   | methyl acrylate          | 0.058 | 0.054 | 6.9          | 72    | 0.01     | 9.53  |
| 41 M | propionitrile            | 0.065 | 0.045 | 30.8         | 55    | 0.00     | 9.50  |

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11346-CC11324  
**Lab FileID:** N269339.D

|    |   |                           |       |        |              |     |      |       |
|----|---|---------------------------|-------|--------|--------------|-----|------|-------|
| 42 | M | bromochloromethane        | 0.229 | 0.194  | 15.3         | 69  | 0.00 | 9.77  |
| 43 | M | tetrahydrofuran           | 0.047 | 0.043  | 8.5          | 68  | 0.00 | 9.78  |
| 44 | M | chloroform                | 0.506 | 0.422  | 16.6         | 71  | 0.00 | 9.87  |
| 45 |   | t-butyl formate           | 0.373 | 0.239  | 35.9#        | 51  | 0.00 | 9.90  |
| 46 | S | dibromofluoromethane (s)  | 0.455 | 0.462  | -1.5         | 82  | 0.00 | 10.07 |
| 47 | M | methacrylonitrile         | 0.163 | 0.155  | 4.9          | 75  | 0.00 | 9.70  |
| 48 | M | 1,1,1-trichloroethane     | 0.867 | 0.784  | 9.6          | 74  | 0.00 | 10.12 |
| 49 | M | cyclohexane               | 0.784 | 0.633  | 19.3         | 67  | 0.00 | 10.22 |
| 50 |   | 1,1-dichloropropene       | 0.542 | 0.436  | 19.6         | 65  | 0.00 | 10.29 |
| 51 |   | carbon tetrachloride      | 0.642 | 0.663  | -3.3         | 83  | 0.00 | 10.31 |
| 52 |   | isobutyl alcohol          | 0.020 | 0.011  | 45.0#        | 48# | 0.00 | 10.30 |
| 53 | I | 1,4-difluorobenzene       | 1.000 | 1.000  | 0.0          | 76  | 0.00 | 10.98 |
| 54 | S | 1,2-dichloroethane-d4 (s) | 0.334 | 0.322  | 3.6          | 75  | 0.00 | 10.48 |
| 55 |   | isopropyl acetate         | 0.064 | 0.049  | 23.4         | 59  | 0.00 | 10.48 |
| 56 |   | 2,2,4-trimethylpentane    | 0.996 | 0.867  | 13.0         | 61  | 0.00 | 10.64 |
| 57 | M | benzene                   | 1.180 | 0.959  | 18.7         | 64  | 0.00 | 10.54 |
| 58 | M | tert-amyl methyl ether    | 1.100 | 0.854  | 22.4         | 61  | 0.00 | 10.64 |
| 59 | M | 1,2-dichloroethane        | 0.367 | 0.306  | 16.6         | 69  | 0.00 | 10.57 |
| 60 |   | heptane                   | 0.192 | 0.145  | 24.5         | 58  | 0.00 | 10.81 |
| 61 |   | n-butyl alcohol           | 0.009 | 0.006# | 33.3         | 55  | 0.00 | 11.05 |
| 62 | M | trichloroethene           | 0.298 | 0.250  | 16.1         | 71  | 0.00 | 11.28 |
| 63 | M | methyl methacrylate       | 0.069 | 0.076  | -10.1        | 78  | 0.00 | 11.56 |
| 64 | M | 1,2-dichloropropane       | 0.310 | 0.235  | 24.2         | 63  | 0.00 | 11.58 |
| 65 | M | methylcyclohexane         | 0.586 | 0.515  | 12.1         | 65  | 0.00 | 11.57 |
| 66 |   | dibromomethane            | 0.172 | 0.144  | 16.3         | 69  | 0.00 | 11.68 |
| 67 | M | bromodichloromethane      | 0.343 | 0.329  | 4.1          | 77  | 0.00 | 11.85 |
| 68 |   | 2-nitropropane            | 0.048 | 0.051  | -6.2         | 97  | 0.00 | 12.07 |
| 69 |   | 2-chloroethyl vinyl ether | 0.154 | 0.114  | 26.0         | 58  | 0.00 | 12.11 |
| 70 |   | epichlorohydrin           | 0.027 | 0.018  | 33.3         | 55  | 0.00 | 12.19 |
| 71 | M | cis-1,3-dichloropropene   | 0.441 | 0.363  | 17.7         | 67  | 0.00 | 12.33 |
| 72 | M | 4-methyl-2-pentanone      | 0.111 | 0.080  | 27.9         | 56  | 0.00 | 12.45 |
| 73 |   | 3-methyl-1-butanol        | 0.015 | 0.011  | 26.7         | 59  | 0.00 | 12.46 |
| 74 | I | chlorobenzene-d5          | 1.000 | 1.000  | 0.0          | 81  | 0.00 | 14.25 |
| 75 | S | toluene-d8                | 1.292 | 1.224  | 5.3          | 76  | 0.00 | 12.64 |
| 76 |   | toluene                   | 0.797 | 0.637  | 20.1         | 67  | 0.00 | 12.72 |
| 77 |   | ethyl methacrylate        | 0.391 | 0.372  | 4.9          | 76  | 0.00 | 12.93 |
| 78 |   | trans-1,3-dichloropropene | 0.414 | 0.338  | 18.4         | 68  | 0.00 | 12.93 |
| 79 |   | 1,1,2-trichloroethane     | 0.227 | 0.176  | 22.5         | 68  | 0.00 | 13.16 |
| 80 | M | tetrachloroethene         | 0.253 | 0.227  | 10.3         | 76  | 0.00 | 13.30 |
| 81 |   | 2-hexanone                | 0.101 | 0.071  | 29.7         | 55  | 0.00 | 13.34 |
| 82 | M | 1,3-dichloropropane       | 0.436 | 0.365  | 16.3         | 69  | 0.00 | 13.35 |
| 83 | M | butyl acetate             | 0.183 | 0.130  | 29.0         | 56  | 0.00 | 13.43 |
| 84 | M | dibromochloromethane      | 0.235 | 0.245  | -4.3         | 89  | 0.00 | 13.61 |
| 85 | M | 1,2-dibromoethane         | 0.262 | 0.224  | 14.5         | 70  | 0.00 | 13.77 |
| 86 | M | chlorobenzene             | 0.844 | 0.764  | 9.5          | 74  | 0.00 | 14.28 |
| 87 | M | 1,1,1,2-tetrachloroethane | 0.344 | 0.341  | 0.9          | 82  | 0.00 | 14.35 |
| 88 | M | ethylbenzene              | 1.528 | 1.271  | 16.8         | 68  | 0.00 | 14.35 |
| 89 | M | m,p-xylene                | 0.601 | 0.504  | 16.1         | 70  | 0.00 | 14.48 |
| 90 | M | o-xylene                  | 0.646 | 0.526  | 18.6         | 66  | 0.00 | 14.91 |
| 91 | M | styrene                   | 0.984 | 0.832  | 15.4         | 68  | 0.00 | 14.92 |
| 92 |   | n-amyl acetate            |       |        | -----NA----- |     |      |       |
| 93 | M | bromoform                 | 0.139 | 0.160  | -15.1        | 102 | 0.00 | 15.17 |
| 94 |   | isopropylbenzene          | 1.724 | 1.435  | 16.8         | 65  | 0.00 | 15.29 |
| 95 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000  | 0.0          | 86  | 0.00 | 16.75 |
| 96 | S | 4-bromofluorobenzene (s)  | 0.833 | 0.775  | 7.0          | 80  | 0.00 | 15.50 |
| 97 | M | bromobenzene              | 0.618 | 0.551  | 10.8         | 79  | 0.00 | 15.69 |
| 98 | M | 1,1,2,2-tetrachloroethane | 0.617 | 0.481  | 22.0         | 70  | 0.00 | 15.59 |

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VN11346-CC11324  
**Lab FileID:** N269339.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 99 M  | trans-1,4-dichloro-2-bute | 0.116 | 0.140 | -20.7        | 108 | 0.00 | 15.63 |
| 100 M | 1,2,3-trichloropropane    | 0.176 | 0.145 | 17.6         | 73  | 0.00 | 15.69 |
| 101 M | n-propylbenzene           | 0.709 | 0.574 | 19.0         | 69  | 0.00 | 15.73 |
| 102 M | 2-chlorotoluene           | 0.644 | 0.544 | 15.5         | 73  | 0.00 | 15.87 |
| 103 M | 4-chlorotoluene           | 0.623 | 0.543 | 12.8         | 77  | 0.00 | 16.00 |
| 104 M | 1,3,5-trimethylbenzene    | 2.503 | 2.096 | 16.3         | 70  | 0.00 | 15.90 |
| 105 M | tert-butylbenzene         | 2.038 | 1.745 | 14.4         | 70  | 0.00 | 16.26 |
| 106 M | 1,2,4-trimethylbenzene    | 2.521 | 2.136 | 15.3         | 71  | 0.00 | 16.32 |
| 107 M | sec-butylbenzene          | 3.148 | 2.679 | 14.9         | 69  | 0.00 | 16.50 |
| 108 M | 1,3-dichlorobenzene       | 1.374 | 1.242 | 9.6          | 80  | 0.00 | 16.67 |
| 109 M | p-isopropyltoluene        | 2.749 | 2.311 | 15.9         | 68  | 0.00 | 16.64 |
| 110 M | 1,4-dichlorobenzene       | 1.394 | 1.270 | 8.9          | 80  | 0.00 | 16.77 |
| 111 M | 1,2-dichlorobenzene       | 1.491 | 1.312 | 12.0         | 77  | 0.00 | 17.18 |
| 112 M | benzyl chloride           | 1.285 | 1.057 | 17.7         | 72  | 0.00 | 16.88 |
| 113   | indane                    |       |       | -----NA----- |     |      |       |
| 114 M | n-butylbenzene            | 1.473 | 1.226 | 16.8         | 70  | 0.00 | 17.08 |
| 115   | hexachloroethane          | 0.340 | 0.534 | -57.1#       | 143 | 0.00 | 17.49 |
| 116 M | 1,2-dibromo-3-chloropropa | 0.163 | 0.145 | 11.0         | 77  | 0.00 | 18.01 |
| 117   | nitrobenzene              | 0.024 | 0.053 | -120.8#      | 184 | 0.00 | 18.22 |
| 118   | 1,3,5-trichlorobenzene    | 1.670 | 1.560 | 6.6          | 80  | 0.00 | 18.21 |
| 119 M | 1,2,4-trichlorobenzene    | 1.558 | 1.390 | 10.8         | 78  | 0.00 | 18.91 |
| 120 M | hexachlorobutadiene       | 0.657 | 0.718 | -9.3         | 94  | 0.00 | 19.03 |
| 121 M | naphthalene               | 3.515 | 2.868 | 18.4         | 70  | 0.00 | 19.23 |
| 122 M | 1,2,3-trichlorobenzene    | 1.402 | 1.355 | 3.4          | 82  | 0.00 | 19.46 |
| 123   | ETHYLENIMINE              |       |       | -----NA----- |     |      |       |
| 124   | BIS(CHLOROMETHYL)ETHER    |       |       | -----NA----- |     |      |       |

(#) = Out of Range  
n268791.D MN11324.M

SPCC's out = 0 CCC's out = 0  
Fri Apr 27 14:22:59 2018 MSDN

MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michellec\vn11346\  
 Data File : n269343.d  
 Acq On : 27 Apr 2018 11:02 am  
 Operator : CHELSEAS  
 Sample : jc64857-1 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 16:39:09 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 7.697  | 65    | 64796    | 300.00   | ug/L  | 0.00     |
| 4) pentafluorobenzene         | 10.039 | 168   | 157337   | 30.00    | ug/L  | 0.00     |
| 53) 1,4-difluorobenzene       | 10.969 | 114   | 222068   | 30.00    | ug/L  | 0.00     |
| 74) chlorobenzene-d5          | 14.247 | 117   | 218382   | 30.00    | ug/L  | 0.00     |
| 95) 1,4-dichlorobenzene-d4    | 16.746 | 152   | 148876   | 30.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 10.060 | 113   | 74580    | 31.27    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 104.23%  |
| 54) 1,2-dichloroethane-d4 (s) | 10.483 | 65    | 75327    | 30.44    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 76 - 122 | Recovery | =     | 101.47%  |
| 75) toluene-d8                | 12.642 | 98    | 255279   | 27.13    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 90.43%   |
| 96) 4-bromofluorobenzene (s)  | 15.502 | 95    | 114297   | 27.64    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 92.13%   |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

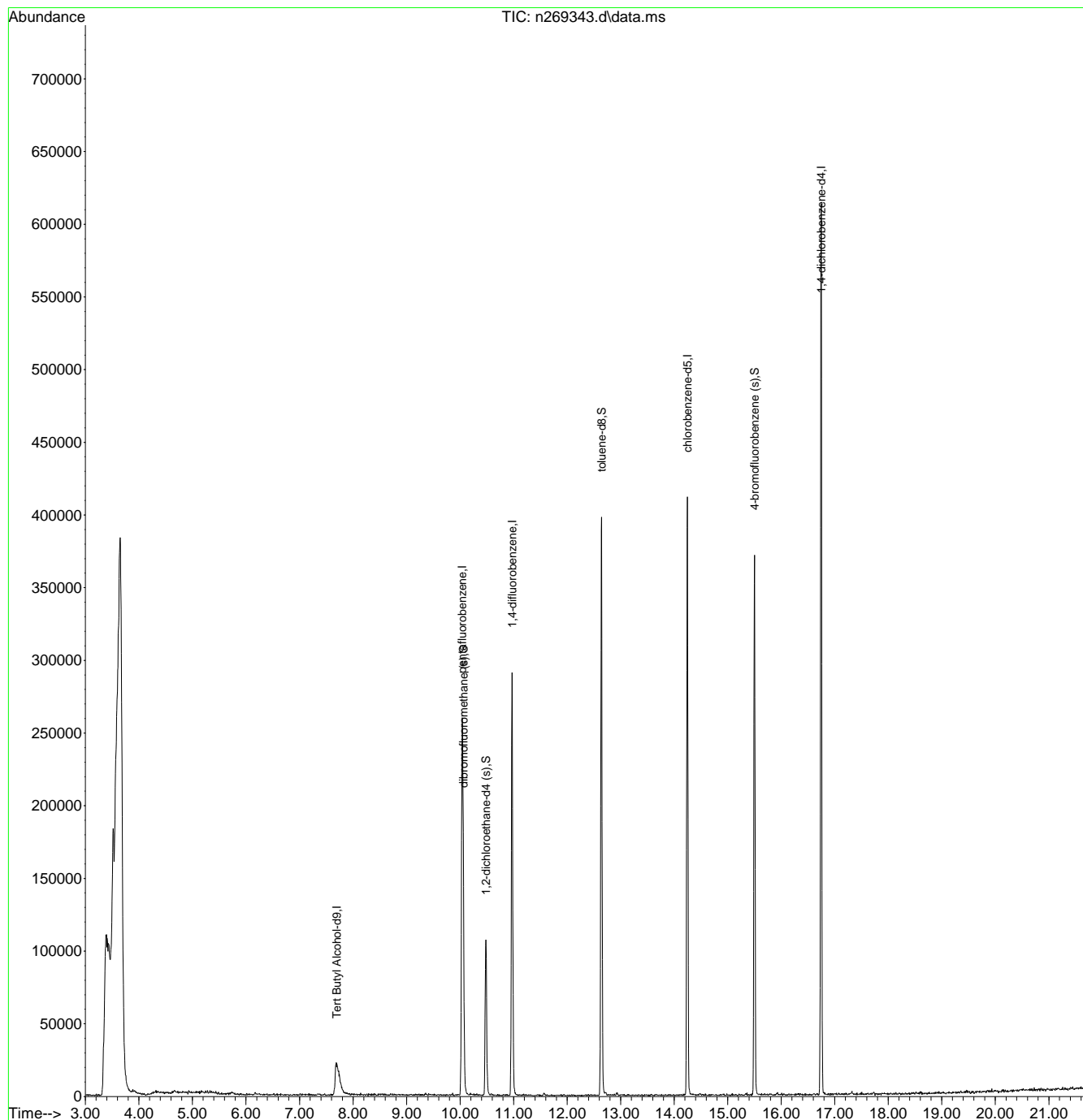
7.1.1  
7



Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michelle\vn11346\  
 Data File : n269343.d  
 Acq On : 27 Apr 2018 11:02 am  
 Operator : CHELSEAS  
 Sample : jc64857-1 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 16:39:09 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michellec\vn11346\  
 Data File : n269344.d  
 Acq On : 27 Apr 2018 11:32 am  
 Operator : CHELSEAS  
 Sample : jc64857-2 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 16:39:31 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 7.704  | 65    | 68071    | 300.00   | ug/L  | 0.00     |
| 4) pentafluorobenzene         | 10.041 | 168   | 156722   | 30.00    | ug/L  | 0.00     |
| 53) 1,4-difluorobenzene       | 10.971 | 114   | 221497   | 30.00    | ug/L  | 0.00     |
| 74) chlorobenzene-d5          | 14.244 | 117   | 216504   | 30.00    | ug/L  | 0.00     |
| 95) 1,4-dichlorobenzene-d4    | 16.743 | 152   | 141371   | 30.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 10.056 | 113   | 73254    | 30.84    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 102.80%  |
| 54) 1,2-dichloroethane-d4 (s) | 10.480 | 65    | 76074    | 30.82    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 76 - 122 | Recovery | =     | 102.73%  |
| 75) toluene-d8                | 12.639 | 98    | 256789   | 27.53    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 91.77%   |
| 96) 4-bromofluorobenzene (s)  | 15.499 | 95    | 109355   | 27.85    | ug/L  | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =     | 92.83%   |

Target Compounds Qvalue

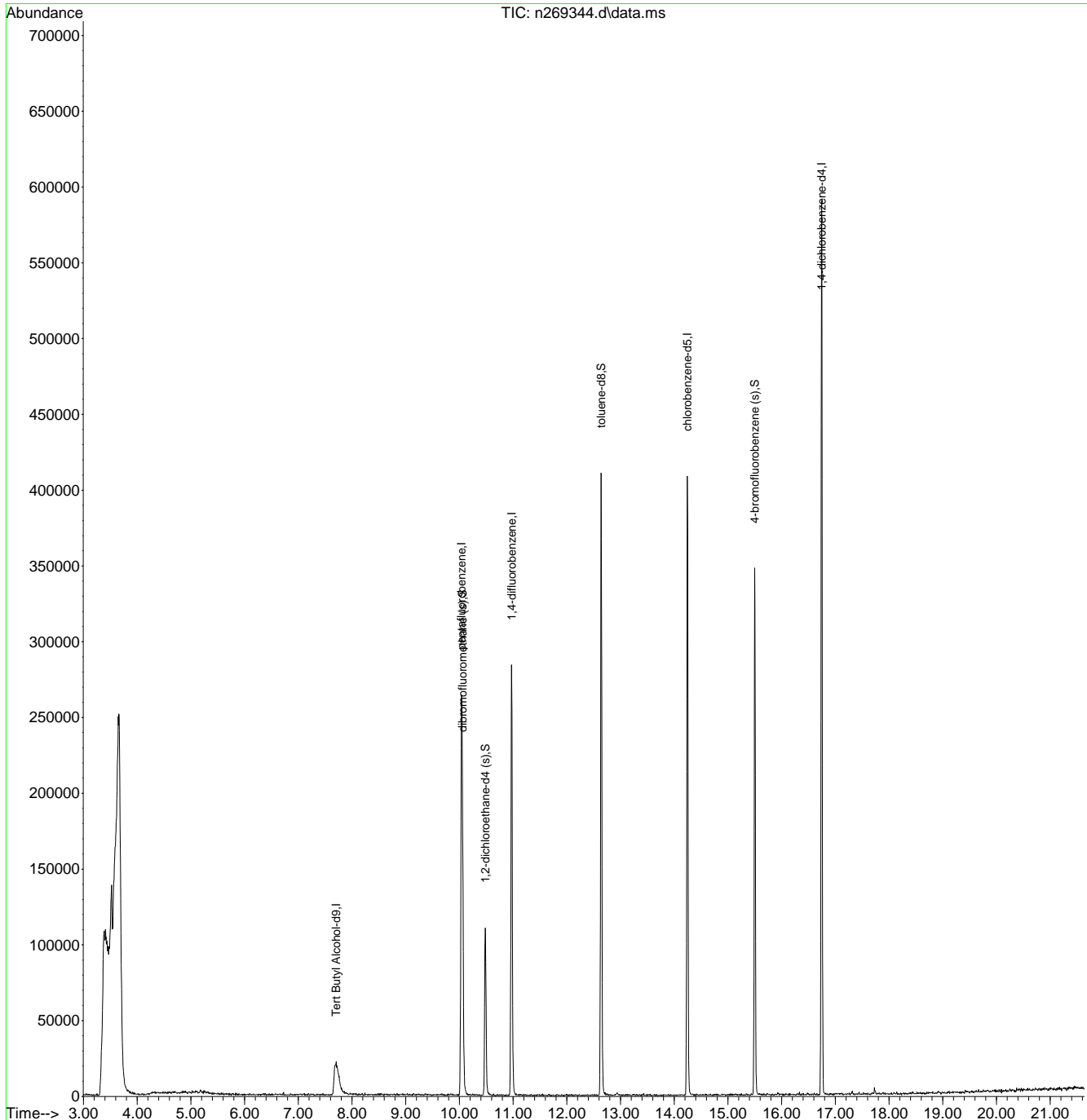
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.12  
7

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michelle\vn11346\  
 Data File : n269344.d  
 Acq On : 27 Apr 2018 11:32 am  
 Operator : CHELSEAS  
 Sample : jc64857-2 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 16:39:31 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration



7.1.2  
7

Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michellec\vn11346\  
 Data File : n269345.d  
 Acq On : 27 Apr 2018 12:01 pm  
 Operator : CHELSEAS  
 Sample : jc64857-3 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 06:12:10 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| Internal Standards            |        |       |          |          |        |          |
| 1) Tert Butyl Alcohol-d9      | 7.683  | 65    | 67829    | 300.00   | ug/L   | -0.02    |
| 4) pentafluorobenzene         | 10.041 | 168   | 153909   | 30.00    | ug/L   | 0.00     |
| 53) 1,4-difluorobenzene       | 10.972 | 114   | 220158   | 30.00    | ug/L   | 0.00     |
| 74) chlorobenzene-d5          | 14.244 | 117   | 216027   | 30.00    | ug/L   | 0.00     |
| 95) 1,4-dichlorobenzene-d4    | 16.749 | 152   | 141335   | 30.00    | ug/L   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 46) dibromofluoromethane (s)  | 10.062 | 113   | 73295    | 31.42    | ug/L   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =      | 104.73%  |
| 54) 1,2-dichloroethane-d4 (s) | 10.480 | 65    | 76257    | 31.08    | ug/L   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 76 - 122 | Recovery | =      | 103.60%  |
| 75) toluene-d8                | 12.639 | 98    | 256979   | 27.61    | ug/L   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =      | 92.03%   |
| 96) 4-bromofluorobenzene (s)  | 15.499 | 95    | 110302   | 28.10    | ug/L   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =      | 93.67%   |
| Target Compounds              |        |       |          |          |        |          |
| 30) hexane                    | 8.488  | 57    | 1734     | 0.66     | ug/L # | 85       |
| 49) cyclohexane               | 10.224 | 84    | 1427     | 0.35     | ug/L # | 39       |
| 60) heptane                   | 10.804 | 57    | 634      | 0.45     | ug/L # | 36       |
| 65) methylcyclohexane         | 11.562 | 83    | 2832     | 0.66     | ug/L   | 82       |
| 76) toluene                   | 12.718 | 92    | 2166     | 0.38     | ug/L # | 77       |
| 89) m,p-xylene                | 14.469 | 106   | 1268     | 0.29     | ug/L # | 71       |

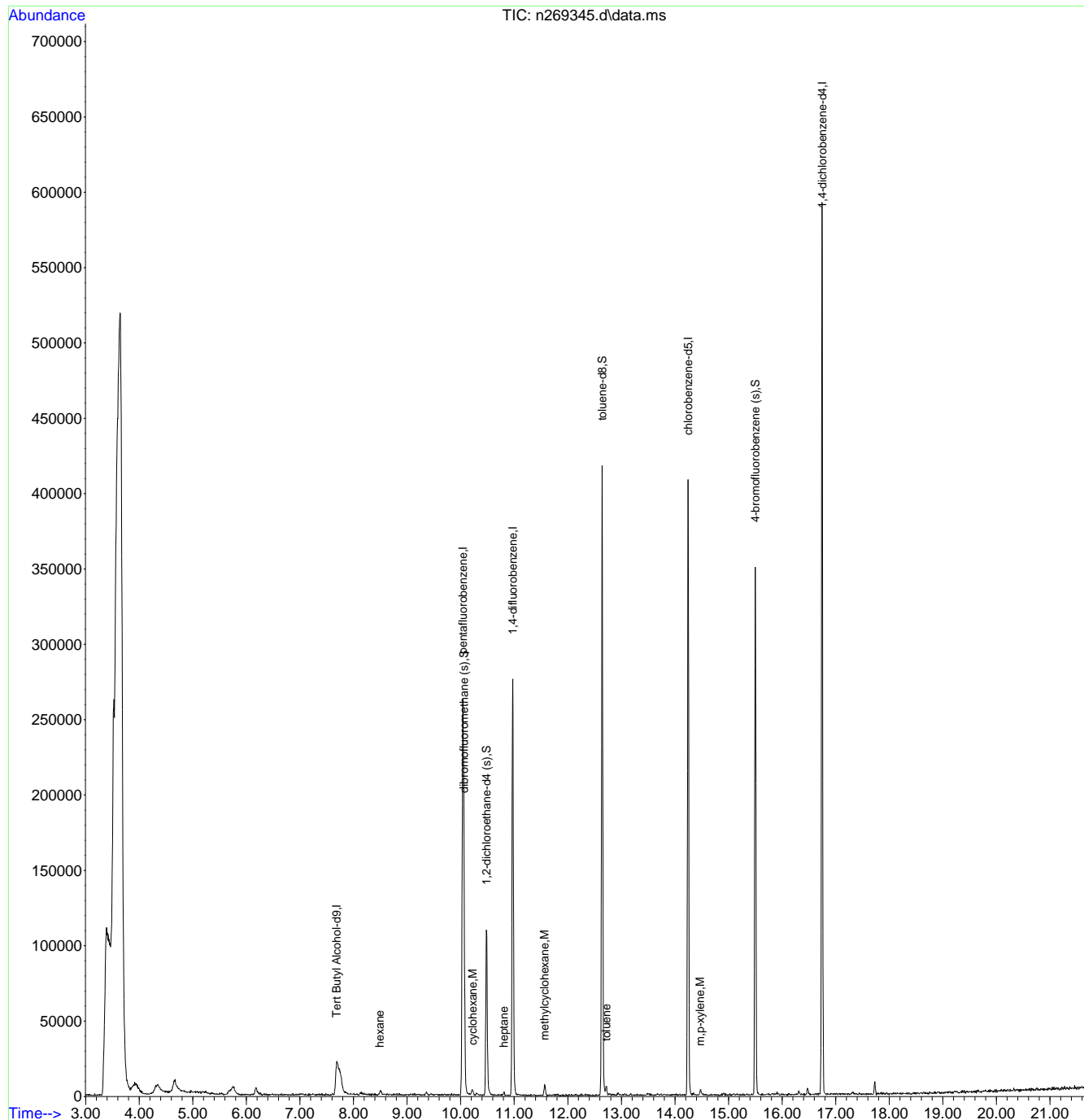
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.3  
7

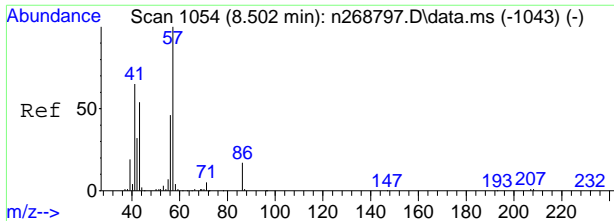
Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-01-18\michelle\vn11346\  
 Data File : n269345.d  
 Acq On : 27 Apr 2018 12:01 pm  
 Operator : CHELSEAS  
 Sample : jc64857-3 Inst : GCMSN  
 Misc : MS25885,VN11346,5,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Results File: MN11324.RES  
 Quant Time: May 01 06:12:10 2018  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

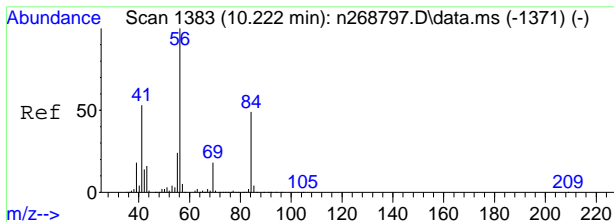
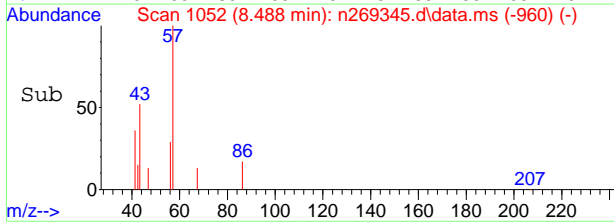
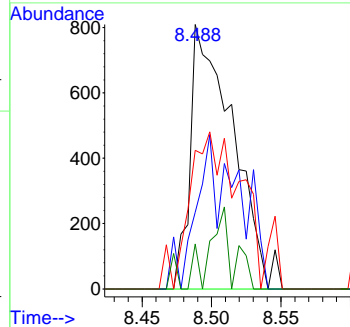
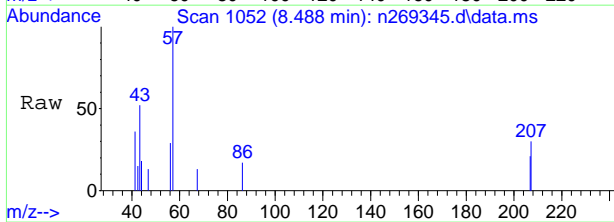


7.1.3  
7



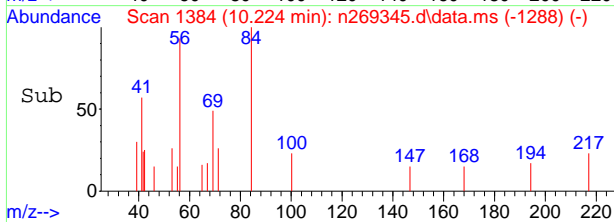
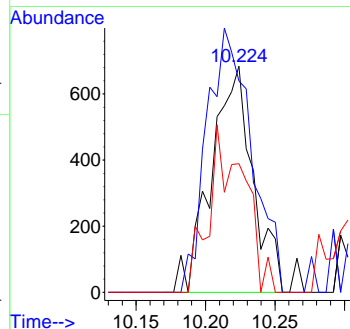
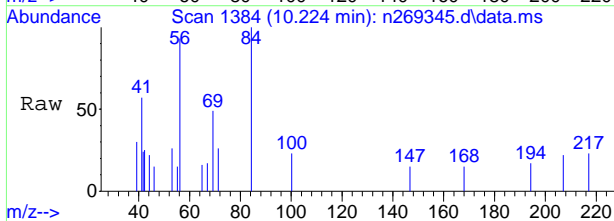
#30  
 hexane  
 Concen: 0.66 ug/L  
 RT: 8.488 min Scan# 1052  
 Delta R.T. -0.018 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

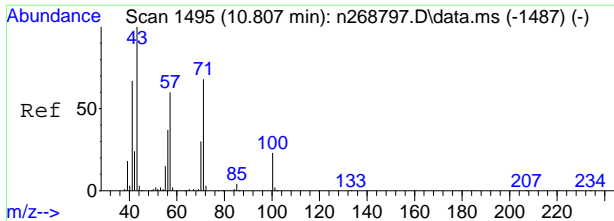
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 57      | 1734 |       |       |
| 56      | 29.0 | 29.2  | 69.2# |
| 43      | 52.3 | 36.6  | 76.6  |
| 86      | 17.0 | 0.0   | 39.5  |



#49  
 cyclohexane  
 Concen: 0.35 ug/L  
 RT: 10.224 min Scan# 1384  
 Delta R.T. 0.003 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

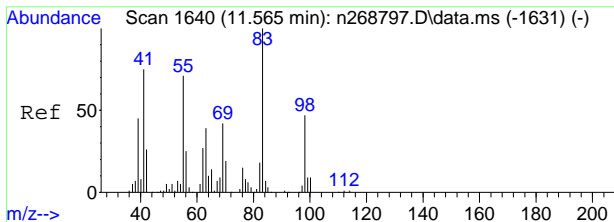
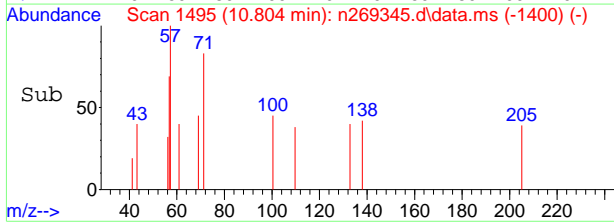
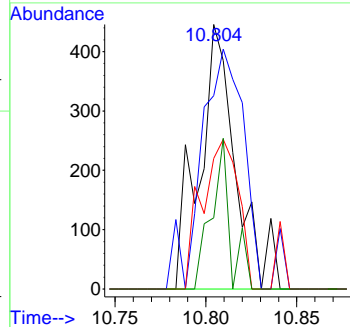
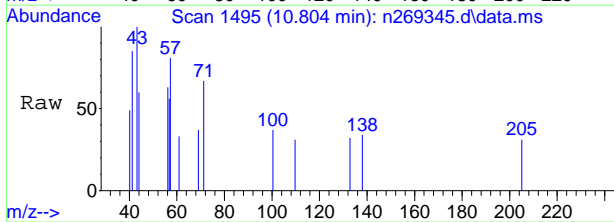
| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 84      | 1427 |       |        |
| 84      | 100  |       |        |
| 56      | 93.4 | 166.2 | 226.2# |
| 41      | 56.9 | 73.6  | 133.6# |





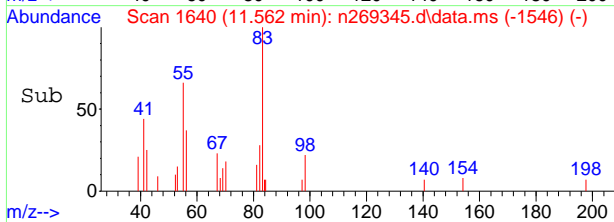
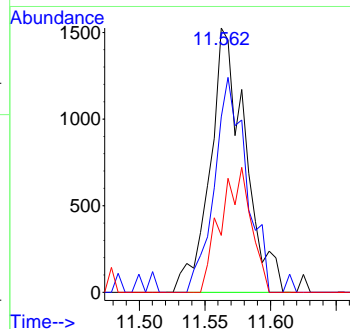
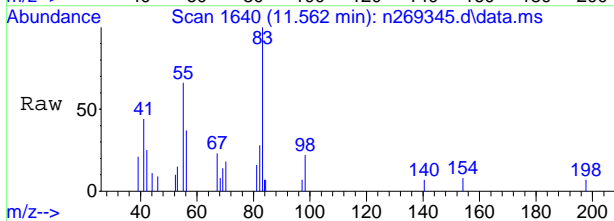
#60  
 heptane  
 Concen: 0.45 ug/L  
 RT: 10.804 min Scan# 1495  
 Delta R.T. -0.002 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 57      | 634  |       |        |
| 43      | 73.1 | 150.5 | 210.5# |
| 71      | 49.3 | 86.2  | 146.2# |
| 100     | 26.9 | 8.1   | 68.1   |

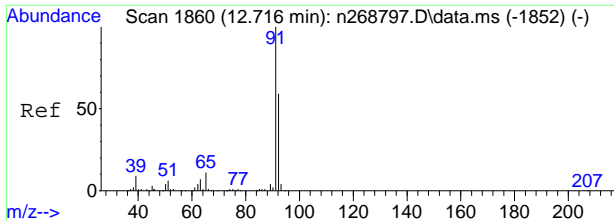


#65  
 methylcyclohexane  
 Concen: 0.66 ug/L  
 RT: 11.562 min Scan# 1640  
 Delta R.T. -0.008 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 83      | 2832 |       |       |
| 55      | 66.4 | 43.2  | 103.2 |
| 98      | 21.6 | 14.3  | 74.3  |

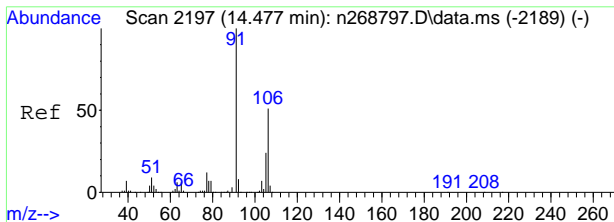
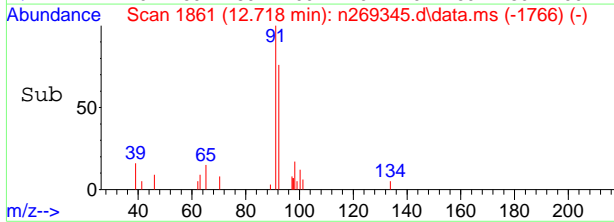
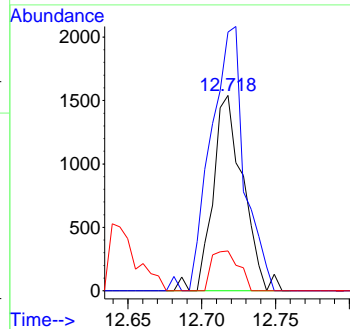
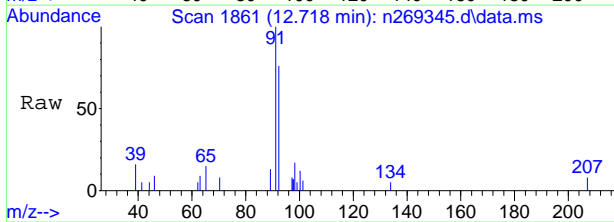


7.1.3  
7



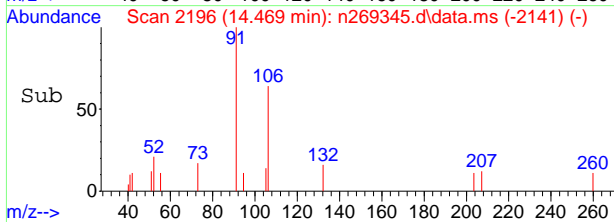
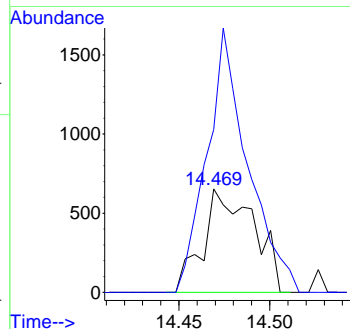
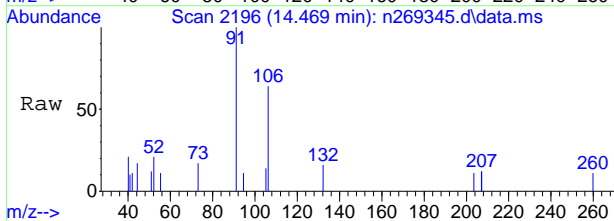
#76  
 toluene  
 Concen: 0.38 ug/L  
 RT: 12.718 min Scan# 1861  
 Delta R.T. -0.002 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 92      | 2166  |       |        |
| 91      | 132.4 | 145.9 | 185.9# |
| 65      | 20.4  | 0.0   | 38.6   |



#89  
 m,p-xylene  
 Concen: 0.29 ug/L  
 RT: 14.469 min Scan# 2196  
 Delta R.T. -0.013 min  
 Lab File: n269345.d  
 Acq: 27 Apr 2018 12:01 pm

| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 106     | 1268  |       |        |
| 106     | 100   |       |        |
| 91      | 157.4 | 171.7 | 231.7# |





Data Path : C:\msdchem\1\DATA\VN11346\  
 Data File : n269342.D  
 Acq On : 27 Apr 2018 10:33 am  
 Operator : CHELSEAS  
 Sample : mb  
 Misc : MS25802,VN11346,5,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 14:25:38 2018  
 Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 1) Tert Butyl Alcohol-d9   | 7.701  | 65   | 72740    | 300.00 | ug/L  | 0.00     |
| 4) pentafluorobenzene      | 10.044 | 168  | 159225   | 30.00  | ug/L  | 0.00     |
| 53) 1,4-difluorobenzene    | 10.974 | 114  | 225504   | 30.00  | ug/L  | 0.00     |
| 74) chlorobenzene-d5       | 14.247 | 117  | 214292   | 30.00  | ug/L  | 0.00     |
| 95) 1,4-dichlorobenzene-d4 | 16.746 | 152  | 141570   | 30.00  | ug/L  | 0.00     |

| System Monitoring Compounds   |        |       |          |          |      |         |
|-------------------------------|--------|-------|----------|----------|------|---------|
| 46) dibromofluoromethane (s)  | 10.064 | 113   | 75785    | 31.40    | ug/L | 0.00    |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =    | 104.67% |
| 54) 1,2-dichloroethane-d4 (s) | 10.483 | 65    | 78309    | 31.16    | ug/L | 0.00    |
| Spiked Amount                 | 30.000 | Range | 76 - 122 | Recovery | =    | 103.87% |
| 75) toluene-d8                | 12.642 | 98    | 256842   | 27.82    | ug/L | 0.00    |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =    | 92.73%  |
| 96) 4-bromofluorobenzene (s)  | 15.502 | 95    | 107121   | 27.25    | ug/L | 0.00    |
| Spiked Amount                 | 30.000 | Range | 80 - 120 | Recovery | =    | 90.83%  |

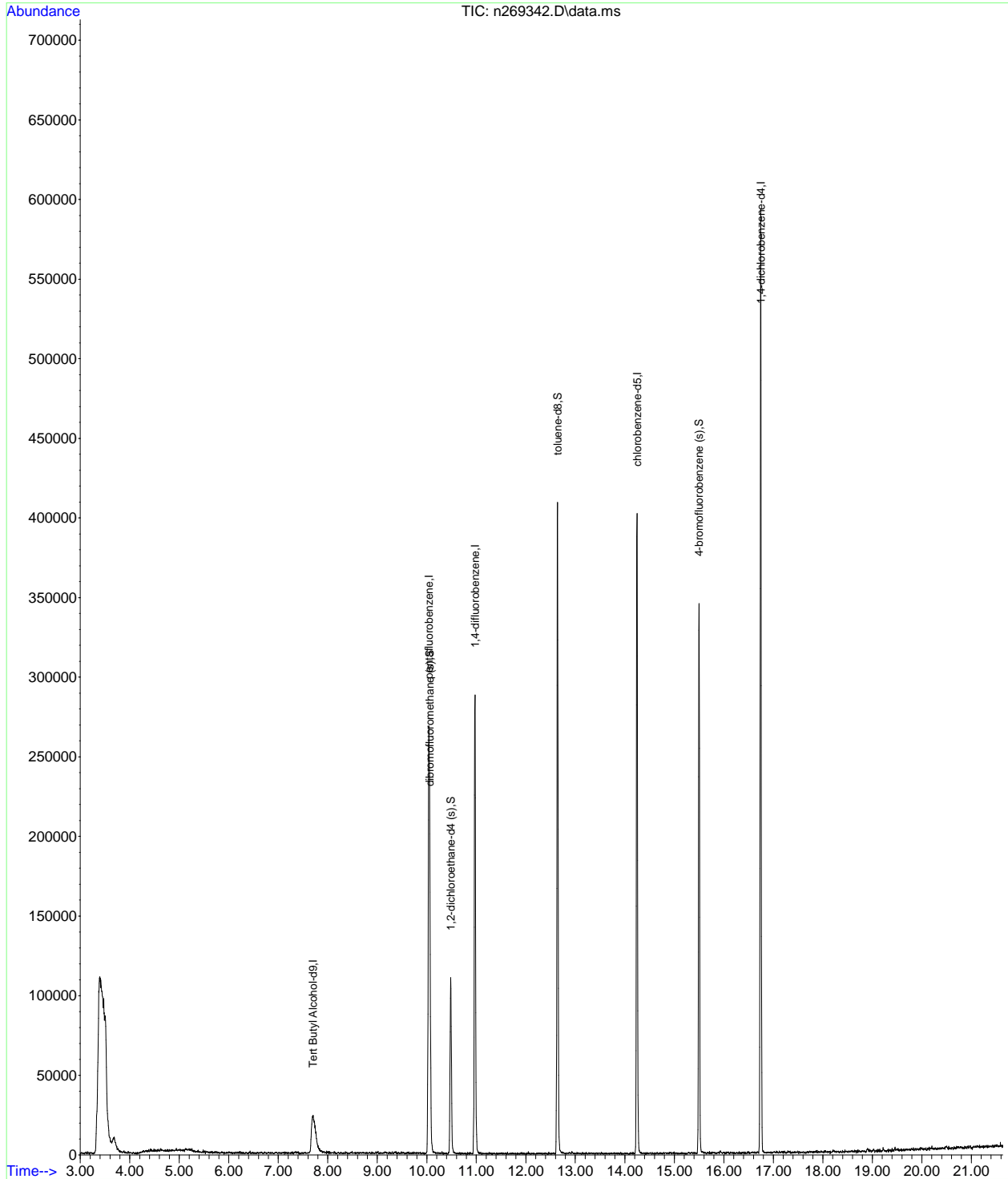
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.1  
7

Data Path : C:\msdchem\1\DATA\VN11346\  
 Data File : n269342.D  
 Acq On : 27 Apr 2018 10:33 am  
 Operator : CHELSEAS  
 Sample : mb  
 Misc : MS25802,VN11346,5,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 14:25:38 2018  
 Quant Method : C:\msdchem\1\METHODS\MN11324.M  
 Quant Title : EPA 624, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Fri Apr 06 10:07:23 2018  
 Response via : Initial Calibration



7.2.1  
7

## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11610-MB1 | P122313.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |

The QC reported here applies to the following samples:

Method: EPA 625

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound                     | Result | RL  | MDL  | Units | Q |
|-----------|------------------------------|--------|-----|------|-------|---|
| 95-57-8   | 2-Chlorophenol               | ND     | 5.0 | 0.82 | ug/l  |   |
| 59-50-7   | 4-Chloro-3-methyl phenol     | ND     | 5.0 | 0.89 | ug/l  |   |
| 120-83-2  | 2,4-Dichlorophenol           | ND     | 2.0 | 1.3  | ug/l  |   |
| 105-67-9  | 2,4-Dimethylphenol           | ND     | 5.0 | 2.4  | ug/l  |   |
| 51-28-5   | 2,4-Dinitrophenol            | ND     | 10  | 1.6  | ug/l  |   |
| 534-52-1  | 4,6-Dinitro-o-cresol         | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-75-5   | 2-Nitrophenol                | ND     | 5.0 | 0.96 | ug/l  |   |
| 100-02-7  | 4-Nitrophenol                | ND     | 10  | 1.2  | ug/l  |   |
| 87-86-5   | Pentachlorophenol            | ND     | 5.0 | 1.4  | ug/l  |   |
| 108-95-2  | Phenol                       | ND     | 2.0 | 0.39 | ug/l  |   |
| 88-06-2   | 2,4,6-Trichlorophenol        | ND     | 5.0 | 0.92 | ug/l  |   |
| 83-32-9   | Acenaphthene                 | ND     | 1.0 | 0.19 | ug/l  |   |
| 208-96-8  | Acenaphthylene               | ND     | 1.0 | 0.14 | ug/l  |   |
| 120-12-7  | Anthracene                   | ND     | 1.0 | 0.21 | ug/l  |   |
| 92-87-5   | Benzidine                    | ND     | 10  | 0.90 | ug/l  |   |
| 56-55-3   | Benzo(a)anthracene           | ND     | 1.0 | 0.20 | ug/l  |   |
| 50-32-8   | Benzo(a)pyrene               | ND     | 1.0 | 0.21 | ug/l  |   |
| 205-99-2  | Benzo(b)fluoranthene         | ND     | 1.0 | 0.21 | ug/l  |   |
| 191-24-2  | Benzo(g,h,i)perylene         | ND     | 1.0 | 0.34 | ug/l  |   |
| 207-08-9  | Benzo(k)fluoranthene         | ND     | 1.0 | 0.21 | ug/l  |   |
| 101-55-3  | 4-Bromophenyl phenyl ether   | ND     | 2.0 | 0.40 | ug/l  |   |
| 85-68-7   | Butyl benzyl phthalate       | ND     | 2.0 | 0.46 | ug/l  |   |
| 91-58-7   | 2-Chloronaphthalene          | ND     | 2.0 | 0.24 | ug/l  |   |
| 106-47-8  | 4-Chloroaniline              | ND     | 5.0 | 0.34 | ug/l  |   |
| 218-01-9  | Chrysene                     | ND     | 1.0 | 0.18 | ug/l  |   |
| 111-91-1  | bis(2-Chloroethoxy)methane   | ND     | 2.0 | 0.28 | ug/l  |   |
| 111-44-4  | bis(2-Chloroethyl)ether      | ND     | 2.0 | 0.25 | ug/l  |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 2.0 | 0.40 | ug/l  |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 2.0 | 0.37 | ug/l  |   |
| 95-50-1   | 1,2-Dichlorobenzene          | ND     | 1.0 | 0.17 | ug/l  |   |
| 122-66-7  | 1,2-Diphenylhydrazine        | ND     | 1.0 | 0.19 | ug/l  |   |
| 541-73-1  | 1,3-Dichlorobenzene          | ND     | 1.0 | 0.19 | ug/l  |   |
| 106-46-7  | 1,4-Dichlorobenzene          | ND     | 1.0 | 0.17 | ug/l  |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 1.0 | 0.55 | ug/l  |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 1.0 | 0.48 | ug/l  |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 2.0 | 0.51 | ug/l  |   |

## Method Blank Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11610-MB1 | P122313.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |

The QC reported here applies to the following samples:

Method: EPA 625

JC64857-1, JC64857-2, JC64857-3

| CAS No.  | Compound                   | Result | RL  | MDL  | Units | Q |
|----------|----------------------------|--------|-----|------|-------|---|
| 53-70-3  | Dibenzo(a,h)anthracene     | ND     | 1.0 | 0.33 | ug/l  |   |
| 84-74-2  | Di-n-butyl phthalate       | ND     | 2.0 | 0.50 | ug/l  |   |
| 117-84-0 | Di-n-octyl phthalate       | ND     | 2.0 | 0.23 | ug/l  |   |
| 84-66-2  | Diethyl phthalate          | ND     | 2.0 | 0.26 | ug/l  |   |
| 131-11-3 | Dimethyl phthalate         | ND     | 2.0 | 0.22 | ug/l  |   |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND     | 2.0 | 1.7  | ug/l  |   |
| 206-44-0 | Fluoranthene               | ND     | 1.0 | 0.17 | ug/l  |   |
| 86-73-7  | Fluorene                   | ND     | 1.0 | 0.17 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene          | ND     | 1.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene        | ND     | 1.0 | 0.49 | ug/l  |   |
| 77-47-4  | Hexachlorocyclopentadiene  | ND     | 10  | 2.8  | ug/l  |   |
| 67-72-1  | Hexachloroethane           | ND     | 2.0 | 0.39 | ug/l  |   |
| 193-39-5 | Indeno(1,2,3-cd)pyrene     | ND     | 1.0 | 0.33 | ug/l  |   |
| 78-59-1  | Isophorone                 | ND     | 2.0 | 0.28 | ug/l  |   |
| 91-20-3  | Naphthalene                | ND     | 1.0 | 0.23 | ug/l  |   |
| 98-95-3  | Nitrobenzene               | ND     | 2.0 | 0.64 | ug/l  |   |
| 62-75-9  | n-Nitrosodimethylamine     | ND     | 2.0 | 0.82 | ug/l  |   |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND     | 2.0 | 0.48 | ug/l  |   |
| 86-30-6  | N-Nitrosodiphenylamine     | ND     | 5.0 | 0.22 | ug/l  |   |
| 85-01-8  | Phenanthrene               | ND     | 1.0 | 0.18 | ug/l  |   |
| 129-00-0 | Pyrene                     | ND     | 1.0 | 0.22 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene     | ND     | 1.0 | 0.25 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 44%    | 10-110% |
| 4165-62-2 | Phenol-d5            | 33%    | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 67%    | 35-147% |
| 4165-60-0 | Nitrobenzene-d5      | 78%    | 32-132% |
| 321-60-8  | 2-Fluorobiphenyl     | 63%    | 40-117% |
| 1718-51-0 | Terphenyl-d14        | 67%    | 33-126% |

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11610-BS1 | P122314.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |
| OP11610-BSD | P122315.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |

The QC reported here applies to the following samples:

Method: EPA 625

JC64857-1, JC64857-2, JC64857-3

| CAS No.   | Compound                     | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD   | Limits<br>Rec/RPD |
|-----------|------------------------------|---------------|-------------|----------|-------------|----------|-------|-------------------|
| 95-57-8   | 2-Chlorophenol               | 50            | 36.1        | 72       | 31.9        | 64       | 12    | 43-100/22         |
| 59-50-7   | 4-Chloro-3-methyl phenol     | 50            | 45.5        | 91       | 42.7        | 85       | 6     | 46-110/21         |
| 120-83-2  | 2,4-Dichlorophenol           | 50            | 39.4        | 79       | 36.3        | 73       | 8     | 44-109/21         |
| 105-67-9  | 2,4-Dimethylphenol           | 50            | 49.1        | 98       | 44.0        | 88       | 11    | 42-116/20         |
| 51-28-5   | 2,4-Dinitrophenol            | 100           | 67.9        | 68       | 61.5        | 62       | 10    | 38-131/27         |
| 534-52-1  | 4,6-Dinitro-o-cresol         | 50            | 36.4        | 73       | 33.5        | 67       | 8     | 50-124/26         |
| 88-75-5   | 2-Nitrophenol                | 50            | 40.2        | 80       | 35.6        | 71       | 12    | 44-109/21         |
| 100-02-7  | 4-Nitrophenol                | 50            | 27.0        | 54       | 22.9        | 46       | 16    | 14-110/23         |
| 87-86-5   | Pentachlorophenol            | 50            | 26.5        | 53       | 23.6        | 47       | 12    | 25-128/25         |
| 108-95-2  | Phenol                       | 50            | 24.6        | 49       | 21.5        | 43       | 13    | 20-110/22         |
| 88-06-2   | 2,4,6-Trichlorophenol        | 50            | 40.1        | 80       | 36.7        | 73       | 9     | 52-118/24         |
| 83-32-9   | Acenaphthene                 | 50            | 35.8        | 72       | 32.4        | 65       | 10    | 47-110/24         |
| 208-96-8  | Acenaphthylene               | 50            | 33.5        | 67       | 31.4        | 63       | 6     | 45-110/24         |
| 120-12-7  | Anthracene                   | 50            | 39.2        | 78       | 36.2        | 72       | 8     | 52-110/24         |
| 92-87-5   | Benzidine                    | 100           | 41.3        | 41       | 15.1        | 15       | 93* a | 10-110/65         |
| 56-55-3   | Benzo(a)anthracene           | 50            | 39.0        | 78       | 36.4        | 73       | 7     | 53-110/20         |
| 50-32-8   | Benzo(a)pyrene               | 50            | 44.0        | 88       | 39.5        | 79       | 11    | 55-110/23         |
| 205-99-2  | Benzo(b)fluoranthene         | 50            | 41.4        | 83       | 38.2        | 76       | 8     | 57-110/23         |
| 191-24-2  | Benzo(g,h,i)perylene         | 50            | 43.6        | 87       | 40.1        | 80       | 8     | 51-110/23         |
| 207-08-9  | Benzo(k)fluoranthene         | 50            | 41.7        | 83       | 37.1        | 74       | 12    | 56-110/22         |
| 101-55-3  | 4-Bromophenyl phenyl ether   | 50            | 31.9        | 64       | 29.3        | 59       | 8     | 51-112/23         |
| 85-68-7   | Butyl benzyl phthalate       | 50            | 45.8        | 92       | 41.6        | 83       | 10    | 50-122/23         |
| 91-58-7   | 2-Chloronaphthalene          | 50            | 30.1        | 60       | 27.2        | 54       | 10    | 41-110/26         |
| 106-47-8  | 4-Chloroaniline              | 50            | 33.7        | 67       | 30.1        | 60       | 11    | 10-110/44         |
| 218-01-9  | Chrysene                     | 50            | 36.4        | 73       | 33.7        | 67       | 8     | 52-110/20         |
| 111-91-1  | bis(2-Chloroethoxy)methane   | 50            | 46.6        | 93       | 42.9        | 86       | 8     | 36-110/21         |
| 111-44-4  | bis(2-Chloroethyl)ether      | 50            | 55.5        | 111      | 49.9        | 100      | 11    | 40-111/21         |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 50            | 40.3        | 81       | 36.9        | 74       | 9     | 37-110/25         |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 50            | 31.8        | 64       | 29.6        | 59       | 7     | 48-110/25         |
| 95-50-1   | 1,2-Dichlorobenzene          | 50            | 30.1        | 60       | 25.8        | 52       | 15    | 35-110/28         |
| 122-66-7  | 1,2-Diphenylhydrazine        | 50            | 43.7        | 87       | 40.4        | 81       | 8     | 39-128/23         |
| 541-73-1  | 1,3-Dichlorobenzene          | 50            | 25.8        | 52       | 23.1        | 46       | 11    | 32-110/28         |
| 106-46-7  | 1,4-Dichlorobenzene          | 50            | 29.5        | 59       | 25.5        | 51       | 15    | 33-110/27         |
| 121-14-2  | 2,4-Dinitrotoluene           | 50            | 42.0        | 84       | 38.2        | 76       | 9     | 61-117/25         |
| 606-20-2  | 2,6-Dinitrotoluene           | 50            | 42.5        | 85       | 39.8        | 80       | 7     | 61-119/23         |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 100           | 53.4        | 53       | 48.2        | 48       | 10    | 20-110/33         |

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11610-BS1 | P122314.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |
| OP11610-BSD | P122315.D | 1  | 05/02/18 | GS | 04/27/18  | OP11610    | EP5490           |

The QC reported here applies to the following samples:

Method: EPA 625

JC64857-1, JC64857-2, JC64857-3

| CAS No.  | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|----------------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 53-70-3  | Dibenzo(a,h)anthracene     | 50            | 41.6        | 83       | 37.2        | 74       | 11  | 55-110/25         |
| 84-74-2  | Di-n-butyl phthalate       | 50            | 42.1        | 84       | 38.3        | 77       | 9   | 55-118/25         |
| 117-84-0 | Di-n-octyl phthalate       | 50            | 51.7        | 103      | 45.9        | 92       | 12  | 49-124/26         |
| 84-66-2  | Diethyl phthalate          | 50            | 39.5        | 79       | 36.3        | 73       | 8   | 54-113/23         |
| 131-11-3 | Dimethyl phthalate         | 50            | 39.0        | 78       | 35.7        | 71       | 9   | 56-110/23         |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50            | 45.3        | 91       | 40.9        | 82       | 10  | 50-120/22         |
| 206-44-0 | Fluoranthene               | 50            | 38.5        | 77       | 35.9        | 72       | 7   | 55-111/23         |
| 86-73-7  | Fluorene                   | 50            | 35.9        | 72       | 33.4        | 67       | 7   | 51-110/25         |
| 118-74-1 | Hexachlorobenzene          | 50            | 33.2        | 66       | 29.9        | 60       | 10  | 47-116/23         |
| 87-68-3  | Hexachlorobutadiene        | 50            | 23.0        | 46       | 20.1        | 40       | 13  | 24-110/34         |
| 77-47-4  | Hexachlorocyclopentadiene  | 100           | 39.8        | 40       | 34.7        | 35       | 14  | 10-110/39         |
| 67-72-1  | Hexachloroethane           | 50            | 23.5        | 47       | 19.5        | 39       | 19  | 28-110/34         |
| 193-39-5 | Indeno(1,2,3-cd)pyrene     | 50            | 43.9        | 88       | 39.2        | 78       | 11  | 51-112/24         |
| 78-59-1  | Isophorone                 | 50            | 46.4        | 93       | 43.5        | 87       | 6   | 42-111/20         |
| 91-20-3  | Naphthalene                | 50            | 30.0        | 60       | 27.4        | 55       | 9   | 34-110/25         |
| 98-95-3  | Nitrobenzene               | 50            | 41.6        | 83       | 38.3        | 77       | 8   | 39-110/21         |
| 62-75-9  | n-Nitrosodimethylamine     | 50            | 25.7        | 51       | 23.7        | 47       | 8   | 15-110/19         |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50            | 47.7        | 95       | 43.9        | 88       | 8   | 33-117/21         |
| 86-30-6  | N-Nitrosodiphenylamine     | 50            | 38.1        | 76       | 34.8        | 70       | 9   | 54-110/24         |
| 85-01-8  | Phenanthrene               | 50            | 39.2        | 78       | 36.6        | 73       | 7   | 53-110/23         |
| 129-00-0 | Pyrene                     | 50            | 37.5        | 75       | 35.2        | 70       | 6   | 52-110/22         |
| 120-82-1 | 1,2,4-Trichlorobenzene     | 50            | 25.6        | 51       | 23.1        | 46       | 10  | 30-110/29         |

| CAS No.   | Surrogate Recoveries | BSP | BSD | Limits  |
|-----------|----------------------|-----|-----|---------|
| 367-12-4  | 2-Fluorophenol       | 62% | 52% | 10-110% |
| 4165-62-2 | Phenol-d5            | 49% | 42% | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 68% | 61% | 35-147% |
| 4165-60-0 | Nitrobenzene-d5      | 80% | 72% | 32-132% |
| 321-60-8  | 2-Fluorobiphenyl     | 65% | 58% | 40-117% |
| 1718-51-0 | Terphenyl-d14        | 73% | 67% | 33-126% |

(a) Analytical precision exceeds in-house control limits.

\* = Outside of Control Limits.

# Instrument Performance Check (DFTPP)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EP5484-DFTPP   | <b>Injection Date:</b> 04/26/18 |
| <b>Lab File ID:</b> P122194.D | <b>Injection Time:</b> 23:09    |
| <b>Instrument ID:</b> GCMSP   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 44469         | 33.0                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 69224         | 51.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 499           | 0.37 (0.72) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 66909         | 49.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 134581        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 10122         | 7.52                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 38768         | 28.8                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 5381          | 4.00                     | Pass      |
| 441 | Present, but less than mass 443    | 16597         | 12.3 (86.0) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 98117         | 72.9                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 19289         | 14.3 (19.7) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EP5484-IC5484  | P122195.D   | 04/26/18      | 23:32         | 00:23        | Initial cal 100             |
| EP5484-IC5484  | P122196.D   | 04/27/18      | 00:00         | 00:51        | Initial cal 80              |
| EP5484-ICC5484 | P122197.D   | 04/27/18      | 00:28         | 01:19        | Initial cal 50              |
| EP5484-IC5484  | P122198.D   | 04/27/18      | 00:56         | 01:47        | Initial cal 25              |
| EP5484-IC5484  | P122199.D   | 04/27/18      | 01:24         | 02:15        | Initial cal 10              |
| EP5484-IC5484  | P122200.D   | 04/27/18      | 01:52         | 02:43        | Initial cal 5               |
| EP5484-IC5484  | P122201.D   | 04/27/18      | 02:20         | 03:11        | Initial cal 2               |
| EP5484-IC5484  | P122202.D   | 04/27/18      | 02:48         | 03:39        | Initial cal 1               |
| EP5484-ICV5484 | P122203.D   | 04/27/18      | 03:16         | 04:07        | Initial cal verification 50 |
| EP5484-ICV5484 | P122204.D   | 04/27/18      | 03:44         | 04:35        | Initial cal verification 50 |
| EP5484-ICV5484 | P122205.D   | 04/27/18      | 04:12         | 05:03        | Initial cal verification 50 |
| EP5484-ICV5484 | P122206.D   | 04/27/18      | 04:40         | 05:31        | Initial cal verification 50 |
| EP5484-ICV5484 | P122207.D   | 04/27/18      | 05:08         | 05:59        | Initial cal verification 50 |
| EP5484-ICV5484 | P122208.D   | 04/27/18      | 05:36         | 06:27        | Initial cal verification 50 |

8.3.1  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EP5486-DFTPP   | <b>Injection Date:</b> 04/27/18 |
| <b>Lab File ID:</b> P122229.D | <b>Injection Time:</b> 21:39    |
| <b>Instrument ID:</b> GCMSP   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 35659         | 31.3                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 56605         | 49.7                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 251           | 0.22 (0.44) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 56746         | 49.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 113976        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 8050          | 7.06                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 32565         | 28.6                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4584          | 4.02                     | Pass      |
| 441 | Present, but less than mass 443    | 12600         | 11.1 (78.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 78794         | 69.1                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 16080         | 14.1 (20.4) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EP5486-IC5486  | P122230.D   | 04/27/18      | 22:05         | 00:26        | Initial cal 100             |
| EP5486-IC5486  | P122231.D   | 04/27/18      | 22:33         | 00:54        | Initial cal 80              |
| EP5486-ICC5486 | P122232.D   | 04/27/18      | 23:01         | 01:22        | Initial cal 50              |
| EP5486-IC5486  | P122233.D   | 04/27/18      | 23:29         | 01:50        | Initial cal 25              |
| EP5486-IC5486  | P122234.D   | 04/27/18      | 23:57         | 02:18        | Initial cal 10              |
| EP5486-IC5486  | P122235.D   | 04/28/18      | 00:25         | 02:46        | Initial cal 5               |
| EP5486-IC5486  | P122236.D   | 04/28/18      | 00:53         | 03:14        | Initial cal 2               |
| EP5486-IC5486  | P122237.D   | 04/28/18      | 01:21         | 03:42        | Initial cal 1               |
| EP5486-ICV5486 | P122238.D   | 04/28/18      | 01:49         | 04:10        | Initial cal verification 50 |

8.3.2  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EP5487-DFTPP   | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> P122240.D | <b>Injection Time:</b> 12:46    |
| <b>Instrument ID:</b> GCMSP   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 46512         | 31.4                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 77818         | 52.5                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 466           | 0.31 (0.60) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 74173         | 50.0                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 148218        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 10072         | 6.80                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 41682         | 28.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 5742          | 3.87                     | Pass      |
| 441 | Present, but less than mass 443    | 15392         | 10.4 (78.5) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 94853         | 64.0                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 19603         | 13.2 (20.7) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EP5487-ICV5484 | P122241.D   | 04/30/18      | 12:57         | 00:11        | Initial cal verification 50 |
| EP5487-ICV5486 | P122242.D   | 04/30/18      | 13:25         | 00:39        | Initial cal verification 50 |
| EP5487-ICV5486 | P122243.D   | 04/30/18      | 13:53         | 01:07        | Initial cal verification 50 |
| EP5487-ICV5486 | P122244.D   | 04/30/18      | 14:20         | 01:34        | Initial cal verification 50 |

8.3.3  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EP5490-DFTPP   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> P122281.D | <b>Injection Time:</b> 19:57    |
| <b>Instrument ID:</b> GCMSP   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 40745         | 36.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 65074         | 58.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 396           | 0.36 (0.61) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 51705         | 46.4                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 111405        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 7836          | 7.03                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 32768         | 29.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4343          | 3.90                     | Pass      |
| 441 | Present, but less than mass 443    | 14609         | 13.1 (87.7) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 89442         | 80.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 16649         | 14.9 (18.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID      |
|---------------|-------------|---------------|---------------|--------------|-----------------------|
| EP5490-CC5484 | P122282.D   | 05/01/18      | 20:11         | 00:14        | Continuing cal 50     |
| EP5490-CC5486 | P122283.D   | 05/01/18      | 20:39         | 00:42        | Continuing cal 50     |
| EP5490-CC5484 | P122286.D   | 05/01/18      | 22:04         | 02:07        | Continuing cal 5      |
| OP11505-MB1   | P122287.D   | 05/01/18      | 22:32         | 02:35        | Method Blank          |
| ZZZZZZ        | P122288.D   | 05/01/18      | 23:01         | 03:04        | (unrelated sample)    |
| OP11663-MB1   | P122300.D   | 05/01/18      | 23:55         | 03:58        | Method Blank          |
| OP11663-BS1   | P122301.D   | 05/02/18      | 00:23         | 04:26        | Blank Spike           |
| OP11663-BSD   | P122302.D   | 05/02/18      | 00:52         | 04:55        | Blank Spike Duplicate |
| OP11610-MB1   | P122313.D   | 05/02/18      | 01:20         | 05:23        | Method Blank          |
| OP11610-BS1   | P122314.D   | 05/02/18      | 01:48         | 05:51        | Blank Spike           |
| OP11610-BSD   | P122315.D   | 05/02/18      | 02:16         | 06:19        | Blank Spike Duplicate |
| ZZZZZZ        | P122289.D   | 05/02/18      | 02:44         | 06:47        | (unrelated sample)    |
| ZZZZZZ        | P122290.D   | 05/02/18      | 03:12         | 07:15        | (unrelated sample)    |
| ZZZZZZ        | P122291.D   | 05/02/18      | 03:40         | 07:43        | (unrelated sample)    |
| ZZZZZZ        | P122292.D   | 05/02/18      | 04:09         | 08:12        | (unrelated sample)    |
| ZZZZZZ        | P122293.D   | 05/02/18      | 04:37         | 08:40        | (unrelated sample)    |
| ZZZZZZ        | P122294.D   | 05/02/18      | 05:05         | 09:08        | (unrelated sample)    |
| ZZZZZZ        | P122295.D   | 05/02/18      | 05:33         | 09:36        | (unrelated sample)    |
| ZZZZZZ        | P122296.D   | 05/02/18      | 06:01         | 10:04        | (unrelated sample)    |

8.3.4  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |              |                        |          |
|-----------------------|--------------|------------------------|----------|
| <b>Sample:</b>        | EP5490-DFTPP | <b>Injection Date:</b> | 05/01/18 |
| <b>Lab File ID:</b>   | P122281.D    | <b>Injection Time:</b> | 19:57    |
| <b>Instrument ID:</b> | GCMSP        |                        |          |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | P122297.D   | 05/02/18      | 06:29         | 10:32        | (unrelated sample) |
| ZZZZZZ        | P122298.D   | 05/02/18      | 06:57         | 11:00        | (unrelated sample) |
| ZZZZZZ        | P122299.D   | 05/02/18      | 07:25         | 11:28        | (unrelated sample) |
| ZZZZZZ        | P122303.D   | 05/02/18      | 07:53         | 11:56        | (unrelated sample) |
| ZZZZZZ        | P122304.D   | 05/02/18      | 08:21         | 12:24        | (unrelated sample) |
| ZZZZZZ        | P122305.D   | 05/02/18      | 08:49         | 12:52        | (unrelated sample) |
| ZZZZZZ        | P122306.D   | 05/02/18      | 09:17         | 13:20        | (unrelated sample) |
| ZZZZZZ        | P122307.D   | 05/02/18      | 09:46         | 13:49        | (unrelated sample) |
| ZZZZZZ        | P122308.D   | 05/02/18      | 10:14         | 14:17        | (unrelated sample) |
| ZZZZZZ        | P122309.D   | 05/02/18      | 10:42         | 14:45        | (unrelated sample) |
| ZZZZZZ        | P122310.D   | 05/02/18      | 11:10         | 15:13        | (unrelated sample) |
| ZZZZZZ        | P122311.D   | 05/02/18      | 11:38         | 15:41        | (unrelated sample) |
| ZZZZZZ        | P122312.D   | 05/02/18      | 12:07         | 16:10        | (unrelated sample) |
| ZZZZZZ        | P122316.D   | 05/02/18      | 12:35         | 16:38        | (unrelated sample) |
| ZZZZZZ        | P122317.D   | 05/02/18      | 13:03         | 17:06        | (unrelated sample) |
| ZZZZZZ        | P122318.D   | 05/02/18      | 13:31         | 17:34        | (unrelated sample) |
| ZZZZZZ        | P122319.D   | 05/02/18      | 14:00         | 18:03        | (unrelated sample) |
| ZZZZZZ        | P122320.D   | 05/02/18      | 14:28         | 18:31        | (unrelated sample) |
| ZZZZZZ        | P122321.D   | 05/02/18      | 15:25         | 19:28        | (unrelated sample) |
| JC64857-1     | P122322.D   | 05/02/18      | 15:53         | 19:56        | MW-11-06           |
| JC64857-2     | P122323.D   | 05/02/18      | 16:22         | 20:25        | MW-3A              |
| ZZZZZZ        | P122326.D   | 05/02/18      | 16:50         | 20:53        | (unrelated sample) |
| ZZZZZZ        | P122327.D   | 05/02/18      | 17:19         | 21:22        | (unrelated sample) |
| JC64857-3     | P122324.D   | 05/02/18      | 17:47         | 21:50        | MW-10-02           |

8.3.4  
8

# Internal Standard Area Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |               |                        |          |
|-----------------------|---------------|------------------------|----------|
| <b>Check Std:</b>     | EP5490-CC5484 | <b>Injection Date:</b> | 05/01/18 |
| <b>Lab File ID:</b>   | P122282.D     | <b>Injection Time:</b> | 20:11    |
| <b>Instrument ID:</b> | GCMSP         | <b>Method:</b>         | EPA 625  |

|                          | IS 1   |      | IS 2    |      | IS 3   |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|--------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA   | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 179808 | 4.49 | 632751  | 5.41 | 417012 | 6.75 | 808537  | 8.50 | 720830  | 13.61 | 712512  | 16.61 |
| Upper Limit <sup>a</sup> | 359616 | 4.99 | 1265502 | 5.91 | 834024 | 7.25 | 1617074 | 9.00 | 1441660 | 14.11 | 1425024 | 17.11 |
| Lower Limit <sup>b</sup> | 89904  | 3.99 | 316376  | 4.91 | 208506 | 6.25 | 404269  | 8.00 | 360415  | 13.11 | 356256  | 16.11 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| OP11505-MB1   | 130718 | 4.49 | 512943 | 5.41 | 327356 | 6.74 | 612670 | 8.49 | 586226 | 13.60 | 544165 | 16.60 |
| ZZZZZZ        | 139298 | 4.49 | 496792 | 5.41 | 300059 | 6.74 | 576857 | 8.50 | 580163 | 13.59 | 519363 | 16.61 |
| OP11663-MB1   | 138234 | 4.49 | 498540 | 5.41 | 311399 | 6.74 | 598626 | 8.50 | 590716 | 13.59 | 535191 | 16.61 |
| OP11663-BS1   | 121749 | 4.49 | 474007 | 5.41 | 272213 | 6.75 | 525269 | 8.50 | 495409 | 13.61 | 441626 | 16.60 |
| OP11663-BSD   | 122817 | 4.49 | 441814 | 5.41 | 274980 | 6.75 | 518677 | 8.50 | 493797 | 13.60 | 452513 | 16.61 |
| OP11610-MB1   | 158945 | 4.49 | 568453 | 5.41 | 345153 | 6.74 | 646745 | 8.50 | 637543 | 13.60 | 586641 | 16.61 |
| OP11610-BS1   | 116599 | 4.49 | 423607 | 5.41 | 256452 | 6.75 | 500602 | 8.50 | 485038 | 13.60 | 442765 | 16.61 |
| OP11610-BSD   | 121889 | 4.49 | 435091 | 5.41 | 270518 | 6.75 | 519654 | 8.50 | 497186 | 13.60 | 464375 | 16.61 |
| ZZZZZZ        | 150600 | 4.49 | 514792 | 5.41 | 327802 | 6.74 | 614078 | 8.49 | 603672 | 13.59 | 550768 | 16.61 |
| ZZZZZZ        | 141912 | 4.49 | 514734 | 5.41 | 303117 | 6.74 | 543925 | 8.49 | 561040 | 13.60 | 513334 | 16.61 |
| ZZZZZZ        | 130998 | 4.49 | 437762 | 5.41 | 249957 | 6.75 | 489836 | 8.51 | 524244 | 13.60 | 489423 | 16.61 |
| ZZZZZZ        | 153048 | 4.49 | 556729 | 5.41 | 331838 | 6.75 | 596959 | 8.50 | 596133 | 13.60 | 538764 | 16.61 |
| ZZZZZZ        | 159916 | 4.49 | 577003 | 5.41 | 356751 | 6.75 | 637169 | 8.50 | 606055 | 13.60 | 529658 | 16.61 |
| ZZZZZZ        | 130016 | 4.49 | 415522 | 5.41 | 261254 | 6.75 | 484519 | 8.50 | 518187 | 13.61 | 498268 | 16.61 |
| ZZZZZZ        | 114849 | 4.49 | 383881 | 5.41 | 259359 | 6.76 | 487553 | 8.53 | 582849 | 13.61 | 552941 | 16.62 |
| ZZZZZZ        | 126809 | 4.49 | 414136 | 5.41 | 264825 | 6.75 | 513930 | 8.51 | 568376 | 13.61 | 538572 | 16.61 |
| ZZZZZZ        | 106818 | 4.49 | 341525 | 5.41 | 232578 | 6.76 | 444944 | 8.53 | 525381 | 13.61 | 515962 | 16.61 |
| ZZZZZZ        | 141185 | 4.49 | 515821 | 5.41 | 310725 | 6.75 | 551286 | 8.50 | 547352 | 13.60 | 517697 | 16.61 |
| ZZZZZZ        | 145818 | 4.49 | 509048 | 5.41 | 307649 | 6.75 | 571970 | 8.50 | 560286 | 13.60 | 509444 | 16.61 |
| ZZZZZZ        | 119105 | 4.49 | 429111 | 5.41 | 265733 | 6.75 | 501906 | 8.50 | 485291 | 13.60 | 452167 | 16.61 |
| ZZZZZZ        | 133952 | 4.49 | 467268 | 5.41 | 296548 | 6.75 | 547059 | 8.50 | 541903 | 13.60 | 502949 | 16.61 |
| ZZZZZZ        | 124438 | 4.49 | 438960 | 5.41 | 273091 | 6.75 | 508279 | 8.50 | 514070 | 13.60 | 481965 | 16.61 |
| ZZZZZZ        | 126083 | 4.49 | 454158 | 5.41 | 287395 | 6.75 | 538612 | 8.50 | 539931 | 13.60 | 501056 | 16.61 |
| ZZZZZZ        | 129276 | 4.49 | 463120 | 5.41 | 284760 | 6.75 | 531865 | 8.50 | 540743 | 13.60 | 506320 | 16.61 |
| ZZZZZZ        | 120059 | 4.49 | 439277 | 5.41 | 276683 | 6.75 | 514397 | 8.50 | 513496 | 13.60 | 468376 | 16.61 |
| ZZZZZZ        | 124603 | 4.49 | 442610 | 5.41 | 268349 | 6.75 | 486440 | 8.50 | 484856 | 13.60 | 453295 | 16.61 |
| ZZZZZZ        | 104625 | 4.49 | 358214 | 5.41 | 237735 | 6.75 | 454794 | 8.50 | 440332 | 13.60 | 420845 | 16.61 |
| ZZZZZZ        | 131949 | 4.49 | 482348 | 5.41 | 290822 | 6.75 | 538409 | 8.50 | 547355 | 13.60 | 497207 | 16.61 |
| ZZZZZZ        | 118686 | 4.49 | 421410 | 5.41 | 254578 | 6.75 | 479412 | 8.50 | 471226 | 13.60 | 434478 | 16.61 |
| ZZZZZZ        | 118715 | 4.49 | 428864 | 5.41 | 264406 | 6.75 | 496831 | 8.50 | 501223 | 13.60 | 471566 | 16.61 |
| ZZZZZZ        | 127297 | 4.49 | 463450 | 5.41 | 285710 | 6.75 | 540516 | 8.50 | 536403 | 13.60 | 495210 | 16.61 |
| ZZZZZZ        | 134182 | 4.49 | 467615 | 5.41 | 291098 | 6.75 | 543123 | 8.50 | 537772 | 13.60 | 506564 | 16.61 |
| ZZZZZZ        | 121621 | 4.49 | 447076 | 5.41 | 287892 | 6.75 | 537768 | 8.50 | 522308 | 13.60 | 468019 | 16.61 |
| ZZZZZZ        | 136298 | 4.49 | 471569 | 5.41 | 291778 | 6.75 | 551473 | 8.50 | 562962 | 13.60 | 520310 | 16.61 |
| ZZZZZZ        | 133868 | 4.49 | 485835 | 5.41 | 301822 | 6.75 | 567297 | 8.50 | 570820 | 13.60 | 532188 | 16.61 |

8.4.1  
8

# Internal Standard Area Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EP5490-CC5484 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> P122282.D   | <b>Injection Time:</b> 20:11    |
| <b>Instrument ID:</b> GCMSP     | <b>Method:</b> EPA 625          |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT | IS 3 AREA | IS 3 RT | IS 4 AREA | IS 4 RT | IS 5 AREA | IS 5 RT | IS 6 AREA | IS 6 RT |
|---------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| JC64857-1     | 125264    | 4.49    | 472446    | 5.41    | 277395    | 6.75    | 515527    | 8.50    | 513972    | 13.60   | 477926    | 16.61   |
| JC64857-2     | 138764    | 4.49    | 517825    | 5.41    | 309599    | 6.75    | 567476    | 8.50    | 556196    | 13.60   | 513793    | 16.61   |
| ZZZZZZ        | 134313    | 4.49    | 487988    | 5.41    | 305032    | 6.75    | 580461    | 8.50    | 573975    | 13.60   | 517915    | 16.61   |
| ZZZZZZ        | 135724    | 4.49    | 485880    | 5.41    | 299231    | 6.75    | 545143    | 8.50    | 559999    | 13.60   | 525600    | 16.61   |
| JC64857-3     | 141277    | 4.49    | 515142    | 5.41    | 309250    | 6.75    | 543293    | 8.50    | 537990    | 13.60   | 493514    | 16.61   |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.4.1  
8

# Surrogate Recovery Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                        |                   |
|------------------------|-------------------|
| <b>Method:</b> EPA 625 | <b>Matrix:</b> AQ |
|------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3 | S4 | S5 | S6 |
|---------------|-------------|----|----|----|----|----|----|
| JC64857-1     | P122322.D   | 53 | 40 | 73 | 84 | 69 | 66 |
| JC64857-2     | P122323.D   | 50 | 37 | 70 | 82 | 67 | 65 |
| JC64857-3     | P122324.D   | 43 | 32 | 49 | 78 | 64 | 52 |
| OP11610-BS1   | P122314.D   | 62 | 49 | 68 | 80 | 65 | 73 |
| OP11610-BSD   | P122315.D   | 52 | 42 | 61 | 72 | 58 | 67 |
| OP11610-MB1   | P122313.D   | 44 | 33 | 67 | 78 | 63 | 67 |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = 2-Fluorophenol       | 10-110%         |
| S2 = Phenol-d5            | 10-110%         |
| S3 = 2,4,6-Tribromophenol | 35-147%         |
| S4 = Nitrobenzene-d5      | 32-132%         |
| S5 = 2-Fluorobiphenyl     | 40-117%         |
| S6 = Terphenyl-d14        | 33-126%         |

8.5.1  
8

# Initial Calibration Summary

Job Number: JC64857  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EP5484-ICC5484  
Lab FileID: P122197.D

## Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 16:08:49 2018  
Response via : Initial Calibration

### Calibration Files

2 =p122201.D 5 =p122200.D 25 =p122198.D 80 =p122196.D  
100 =p122195.D 50 =p122197.D 10 =p122199.D 1 =p122202.D

| Compound                   | 2   | 5     | 25    | 80    | 100   | 50    | 10    | 1     | Avg   | %RSD  |
|----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1,4-Dichlorobenzene-d | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 1.300   | 1.159 | 1.127 | 1.080 | 1.084 | 1.106 | 1.187 | 1.200 | 1.155 | 6.37  |
| 3) Pyridine                | 2.600   | 2.774 | 2.489 | 2.188 | 2.140 | 2.320 | 2.362 | 2.445 | 2.415 | 8.69  |
| 4) N-Nitrosodim            | 1.283   | 1.478 | 1.291 | 1.160 | 1.138 | 1.222 | 1.332 | 1.275 | 1.272 | 8.37  |
| 5) 2-Fluorophen            | 1.364   | 1.574 | 1.697 | 1.556 | 1.523 | 1.647 | 1.567 | 1.284 | 1.527 | 9.05  |
| 6) Indene                  | 2.939   | 2.776 | 2.378 | 1.979 | 1.881 | 2.152 | 2.504 | 2.758 | 2.421 | 16.19 |
| 7) Cumene                  | 5.397   | 5.173 | 4.142 | 3.282 |       | 3.604 | 4.661 | 5.440 | 4.529 | 19.29 |
| 8) Phenol-d5               | 2.188   | 2.188 | 1.978 | 1.753 | 1.662 | 1.850 | 2.040 | 2.041 | 1.962 | 9.84  |
| 9) Phenol                  | 2.490   | 2.538 | 2.207 | 1.892 | 1.793 | 1.992 | 2.292 | 2.275 | 2.185 | 12.40 |
| 10) Aniline                | 2.853   | 2.936 | 2.473 | 2.067 | 1.973 | 2.168 | 2.583 | 2.655 | 2.463 | 14.65 |
| 11) bis(2-Chloro           | 2.193   | 1.995 | 1.530 | 1.282 |       | 1.369 | 1.700 | 2.172 | 1.749 | 21.52 |
|                            | ---- Quadratic regression ---- Coefficient = 0.9996   |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = 0.04168 + 1.51659 *A + -0.12947 *A^2 |       |       |       |       |       |       |       |       |       |
| 12) 2-Chlorophen           | 1.613   | 1.599 | 1.379 | 1.168 | 1.125 | 1.244 | 1.479 | 1.563 | 1.396 | 14.10 |
| 13) Decane                 | 2.088   | 1.801 | 1.373 | 1.105 |       | 1.198 | 1.517 | 1.901 | 1.569 | 23.67 |
|                            | ---- Quadratic regression ---- Coefficient = 0.9994   |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = 0.03932 + 1.36419 *A + -0.14156 *A^2 |       |       |       |       |       |       |       |       |       |
| 14) 1,3-Dichloro           | 2.005   | 1.881 | 1.562 | 1.338 | 1.271 | 1.431 | 1.681 | 2.057 | 1.653 | 18.33 |
| 15) 1,4-Dichloro           | 1.750   | 1.574 | 1.440 | 1.261 | 1.208 | 1.323 | 1.480 | 1.640 | 1.459 | 13.01 |
| 16) Benzyl alcoh           | 0.814   | 0.995 | 0.974 | 0.870 | 0.846 | 0.896 | 0.957 | 0.848 | 0.900 | 7.46  |
| 17) 1,2-Dichloro           | 1.788   | 1.692 | 1.410 | 1.167 | 1.142 | 1.251 | 1.544 | 1.804 | 1.475 | 18.46 |
| 18) Acetophenone           | 2.776   | 2.635 | 2.341 | 2.002 | 1.933 | 2.104 | 2.374 | 2.452 | 2.327 | 12.85 |
| 19) 2-Methylphen           | 1.535   | 1.507 | 1.396 | 1.261 | 1.248 | 1.299 | 1.408 | 1.427 | 1.385 | 7.79  |
| 20) 2,2'-oxybis(           | 0.448   | 0.491 | 0.465 | 0.413 | 0.429 | 0.420 | 0.462 | 0.430 | 0.445 | 5.99  |
| 21) 3&4-Methylph           | 1.521   | 1.649 | 1.557 | 1.353 | 1.343 | 1.480 | 1.530 | 1.229 | 1.458 | 9.43  |
| 22) n-Nitroso-di           | 1.745   | 1.845 | 1.568 | 1.299 | 1.251 | 1.377 | 1.593 | 1.809 | 1.561 | 14.84 |
| 23) Hexachloroet           | 0.737   | 0.623 | 0.586 | 0.548 | 0.539 | 0.554 | 0.604 | 0.712 | 0.613 | 12.23 |
| 24) I Naphthalene-d8       | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.835   | 0.846 | 0.732 | 0.598 | 0.587 | 0.656 | 0.743 | 0.814 | 0.726 | 14.24 |
| 26) Nitrobenzene           | 0.843   | 0.795 | 0.662 | 0.525 |       | 0.581 | 0.721 |       | 0.688 | 17.83 |
| 27) Quinoline              | 0.941   | 0.956 | 0.860 | 0.730 | 0.741 | 0.789 | 0.863 | 0.866 | 0.843 | 9.99  |
| 28) Isophorone             | 1.316   | 1.222 | 1.118 | 0.871 | 0.842 | 0.949 | 1.153 | 1.149 | 1.077 | 15.87 |
| 29) 2-Nitropheno           | 0.247   | 0.240 | 0.233 | 0.202 | 0.199 | 0.212 | 0.226 | 0.197 | 0.219 | 8.93  |
| 30) 2,4-Dimethyl           | 0.466   | 0.516 | 0.489 | 0.432 | 0.423 | 0.463 | 0.491 | 0.400 | 0.460 | 8.52  |
| 31) Benzoic acid           |   |       | 0.373 | 0.398 | 0.409 | 0.411 | 0.274 |       | 0.373 | 15.38 |
| 32) bis(2-Chloro           | 0.600   | 0.605 | 0.523 | 0.430 | 0.422 | 0.471 | 0.541 | 0.591 | 0.523 | 14.27 |
| 33) 2,4-Dichloro           | 0.356   | 0.363 | 0.342 | 0.307 | 0.305 | 0.318 | 0.343 | 0.300 | 0.329 | 7.54  |
| 34) 2,6-Dichloro           | 0.336   | 0.349 | 0.333 | 0.297 | 0.296 | 0.304 | 0.337 | 0.330 | 0.323 | 6.38  |
| 35) 1,3,5-Trichl           | 0.522   | 0.480 | 0.413 | 0.353 | 0.351 | 0.368 | 0.422 | 0.521 | 0.429 | 16.64 |
| 36) 1,2,4-Trichl           | 0.473   | 0.459 | 0.392 | 0.324 | 0.318 | 0.352 | 0.407 | 0.491 | 0.402 | 16.81 |
| 37) 1,2,3-Trichl           | 0.458   | 0.425 | 0.351 | 0.296 | 0.291 | 0.323 | 0.379 | 0.450 | 0.372 | 18.08 |
| 38) Naphthalene            | 1.316   | 1.234 | 1.050 | 0.800 |       | 0.891 | 1.129 | 1.291 | 1.101 | 18.08 |
| 39) 4-Chloroanil           | 0.510   | 0.545 | 0.516 | 0.431 | 0.418 | 0.464 | 0.528 | 0.484 | 0.487 | 9.45  |



# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICC5484  
**Lab FileID:** P122197.D

|     |                                |          |           |       |           |       |       |       |       |       |       |
|-----|--------------------------------|----------|-----------|-------|-----------|-------|-------|-------|-------|-------|-------|
| 40) | 2,3-Dichloro                   | 0.507    | 0.477     | 0.433 | 0.368     | 0.366 | 0.391 | 0.435 | 0.471 | 0.431 | 12.17 |
| 41) | Caprolactam                    | 0.182    | 0.240     | 0.241 | 0.206     | 0.213 | 0.221 | 0.222 | 0.141 | 0.208 | 15.99 |
| 42) | Hexachlorobu                   | 0.291    | 0.273     | 0.247 | 0.225     | 0.225 | 0.237 | 0.255 | 0.266 | 0.252 | 9.31  |
| 43) | 4-Chloro-3-m                   | 0.484    | 0.507     | 0.499 | 0.420     | 0.417 | 0.457 | 0.470 | 0.372 | 0.453 | 10.32 |
| 44) | 2-Methylnaph                   | 0.895    | 0.847     | 0.686 | 0.537     |       | 0.587 | 0.750 | 0.852 | 0.736 | 18.86 |
| 45) | 1-Methylnaph                   | 1.016    | 0.967     | 0.816 | 0.639     |       | 0.700 | 0.869 | 1.065 | 0.867 | 18.47 |
| 46) | Dimethylnaph                   | 0.869    | 0.839     | 0.732 | 0.593     | 0.590 | 0.641 | 0.754 | 0.925 | 0.743 | 17.24 |
| 47) | I Acenaphthene-d10             |          |           |       |           |       |       |       |       |       |       |
| 48) | Hexachlorocy                   | 0.289    | 0.347     | 0.377 | 0.356     | 0.345 | 0.368 | 0.351 | 0.227 | 0.333 | 15.04 |
| 49) | 2,4,6-Trichl                   | 0.446    | 0.442     | 0.421 | 0.372     | 0.374 | 0.395 | 0.412 | 0.376 | 0.405 | 7.44  |
| 50) | 2,4,5-Trichl                   | 0.455    | 0.474     | 0.451 | 0.451     | 0.455 | 0.453 | 0.443 | 0.441 | 0.453 | 2.24  |
| 51) | 2-Fluorobiph                   | 1.931    | 1.804     | 1.409 | 1.191     |       | 1.291 | 1.593 |       | 1.537 | 18.99 |
| 52) | 2-Chloronaph                   | 1.571    | 1.430     | 1.139 | 0.965     |       | 1.035 | 1.284 |       | 1.237 | 18.97 |
| 53) | Biphenyl                       | 1.979    | 1.856     | 1.521 | 1.223     |       | 1.329 | 1.686 | 2.105 | 1.671 | 19.81 |
| 54) | 2-Nitroanili                   | 0.741    | 0.730     | 0.682 | 0.589     | 0.552 | 0.636 | 0.694 | 0.601 | 0.653 | 10.57 |
| 55) | Dimethylphth                   | 1.913    | 1.715     | 1.494 | 1.257     | 1.184 | 1.356 | 1.591 | 1.852 | 1.545 | 17.50 |
| 56) | Acenaphthyle                   | 2.267    | 2.246     | 1.879 | 1.498     |       | 1.629 | 2.078 | 2.431 | 2.004 | 17.38 |
| 57) | 2,6-Dinitrot                   | 0.341    | 0.345     | 0.349 | 0.326     | 0.325 | 0.340 | 0.354 | 0.281 | 0.332 | 7.02  |
| 58) | 3-Nitroanili                   | 0.377    | 0.399     | 0.418 | 0.367     | 0.367 | 0.384 | 0.402 | 0.308 | 0.378 | 8.90  |
| 59) | Acenaphthene                   | 1.396    | 1.388     | 1.182 | 1.009     | 0.947 | 1.084 | 1.261 | 1.463 | 1.216 | 15.83 |
| 60) | 2,4-Dinitrop                   | 0.036    | 0.077     | 0.172 | 0.203     | 0.205 | 0.199 | 0.116 |       | 0.144 | 47.42 |
|     | ---- Quadratic regression ---- |          |           |       |           |       |       |       |       |       |       |
|     | Response Ratio =               | -0.03162 | + 0.20384 | *A    | + 0.00165 | *A^2  |       |       |       |       |       |
| 61) | 4-Nitropheno                   | 0.253    | 0.350     | 0.361 | 0.367     | 0.368 | 0.321 |       | 0.337 |       | 13.18 |
| 62) | Dibenzofuran                   | 2.117    | 2.128     | 1.739 | 1.427     | 1.351 | 1.536 | 1.924 | 2.182 | 1.801 | 18.57 |
| 63) | 2,4-Dinitrot                   | 0.460    | 0.509     | 0.485 | 0.439     | 0.432 | 0.466 | 0.488 | 0.342 | 0.453 | 11.37 |
| 64) | 2,3,4,6-Tetr                   | 0.366    | 0.405     | 0.409 | 0.396     | 0.397 | 0.409 | 0.391 | 0.292 | 0.383 | 10.22 |
| 65) | Diethylphtha                   | 1.837    | 1.827     | 1.576 | 1.305     | 1.214 | 1.412 | 1.677 | 1.705 | 1.569 | 15.03 |
| 66) | Fluorene                       | 1.814    | 1.682     | 1.426 | 1.227     | 1.174 | 1.306 | 1.595 | 1.691 | 1.489 | 16.07 |
| 67) | 4-Chlorophen                   | 0.891    | 0.857     | 0.754 | 0.716     | 0.719 | 0.746 | 0.777 | 0.833 | 0.787 | 8.36  |
| 68) | 4-Nitroanili                   | 0.363    | 0.354     | 0.388 | 0.362     | 0.372 | 0.380 | 0.369 | 0.234 | 0.353 | 13.90 |
| 69) | I Phenanthrene-d10             |          |           |       |           |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-                   | 0.075    | 0.104     | 0.143 | 0.147     | 0.153 | 0.152 | 0.132 |       | 0.129 | 22.63 |
|     | ---- Quadratic regression ---- |          |           |       |           |       |       |       |       |       |       |
|     | Response Ratio =               | -0.00422 | + 0.14907 | *A    | + 0.00174 | *A^2  |       |       |       |       |       |
| 71) | n-Nitrosodip                   | 0.683    | 0.638     | 0.549 | 0.460     | 0.441 | 0.497 | 0.562 | 0.627 | 0.557 | 15.78 |
| 72) | 1,2-Diphenyl                   | 1.606    | 1.492     | 1.202 | 0.920     |       | 1.017 | 1.334 | 1.423 | 1.285 | 19.56 |
| 73) | 2,4,6-Tribro                   | 0.119    | 0.130     | 0.135 | 0.128     | 0.128 | 0.130 | 0.130 | 0.101 | 0.125 | 8.58  |
| 74) | 4-Bromopheny                   | 0.318    | 0.290     | 0.266 | 0.232     | 0.227 | 0.245 | 0.262 | 0.299 | 0.267 | 12.26 |
| 75) | Hexachlorobe                   | 0.328    | 0.300     | 0.265 | 0.238     | 0.232 | 0.253 | 0.275 | 0.346 | 0.280 | 14.85 |
| 76) | Pentachlorop                   | 0.080    | 0.124     | 0.158 | 0.158     | 0.159 | 0.160 | 0.129 |       | 0.138 | 21.58 |
|     | ---- Linear regression ----    |          |           |       |           |       |       |       |       |       |       |
|     | Response Ratio =               | -0.00847 | + 0.16079 | *A    |           |       |       |       |       |       |       |
| 77) | Phenanthrene                   | 1.279    | 1.236     | 1.051 | 0.877     | 0.813 | 0.941 | 1.127 | 1.318 | 1.080 | 17.67 |
| 78) | Anthracene                     | 1.321    | 1.304     | 1.121 | 0.919     | 0.855 | 1.001 | 1.200 | 1.214 | 1.117 | 15.65 |
| 79) | Carbazole                      | 1.296    | 1.309     | 1.110 | 0.924     | 0.864 | 0.996 | 1.165 | 1.088 | 1.094 | 14.81 |
| 80) | Di-n-butylph                   | 1.385    | 1.577     | 1.472 | 1.165     | 1.085 | 1.305 | 1.506 | 1.137 | 1.329 | 13.95 |
| 81) | Fluoranthene                   | 1.523    | 1.580     | 1.379 | 1.139     | 1.068 | 1.241 | 1.477 | 1.402 | 1.351 | 13.66 |
| 82) | Octadecane                     | 0.719    | 0.728     | 0.625 | 0.516     | 0.472 | 0.552 | 0.659 | 0.583 | 0.607 | 15.29 |
| 83) | I Chrysene-d12                 |          |           |       |           |       |       |       |       |       |       |
| 84) | Pyrene                         | 1.627    | 1.633     | 1.402 | 1.178     | 1.143 | 1.228 | 1.444 | 1.604 | 1.407 | 14.57 |
| 85) | Terphenyl-d1                   | 1.165    | 1.140     | 1.049 | 0.920     | 0.895 | 0.944 | 1.053 | 1.107 | 1.034 | 10.00 |
| 86) | Butylbenzylp                   | 0.499    | 0.604     | 0.667 | 0.613     | 0.596 | 0.626 | 0.608 | 0.392 | 0.575 | 15.27 |
| 87) | Benzo[a]anth                   | 1.334    | 1.315     | 1.248 | 1.130     | 1.102 | 1.169 | 1.257 | 1.349 | 1.238 | 7.65  |

**Initial Calibration Summary**

**Job Number:** JC64857

**Sample:** EP5484-ICC5484

**Account:** AGMNYF Arcadis

**Lab FileID:** P122197.D

**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                |                |       |       |       |       |       |       |       |       |       |       |
|----------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 88)            | 3,3'-Dichlor   | 0.313 | 0.384 | 0.420 | 0.435 | 0.439 | 0.444 | 0.393 | 0.233 | 0.383 | 19.36 |
| 89)            | Chrysene       | 1.361 | 1.323 | 1.129 | 1.031 | 1.011 | 1.057 | 1.168 | 1.335 | 1.177 | 12.26 |
| 90)            | bis(2-Ethylh   | 0.552 | 0.703 | 0.858 | 0.791 | 0.778 | 0.816 | 0.764 |       | 0.752 | 13.31 |
| 91)            | I Perylene-d12 |       |       |       |       |       |       |       |       |       |       |
| -----ISTD----- |                |       |       |       |       |       |       |       |       |       |       |
| 92)            | Di-n-octylph   | 0.763 | 1.210 | 1.431 | 1.231 | 1.185 | 1.320 | 1.176 |       | 1.188 | 17.51 |
| 93)            | Benzo[b]fluo   | 1.308 | 1.361 | 1.274 | 1.129 | 1.168 | 1.183 | 1.279 | 1.158 | 1.232 | 6.79  |
| 94)            | Benzo[k]fluo   | 1.408 | 1.389 | 1.141 | 0.966 | 0.892 | 1.017 | 1.169 | 1.305 | 1.161 | 16.78 |
| 95)            | Benzo[a]pyre   | 1.001 | 1.166 | 1.122 | 0.983 | 0.961 | 1.029 | 1.092 | 0.778 | 1.016 | 11.80 |
| 96)            | Indeno[1,2,3   | 0.876 | 1.034 | 0.994 | 0.929 | 0.938 | 0.955 | 0.951 | 0.683 | 0.920 | 11.56 |
| 97)            | Dibenz(a,h)a   | 0.801 | 0.974 | 0.972 | 0.915 | 0.891 | 0.945 | 0.898 | 0.660 | 0.882 | 11.96 |
| 98)            | Dibenz[a,h]a   | 1.006 | 1.140 | 1.054 | 0.984 | 0.973 | 0.993 | 1.084 | 0.843 | 1.010 | 8.76  |
| 99)            | 7,12-Dimethy   | 0.411 | 0.503 | 0.525 | 0.520 | 0.520 | 0.514 | 0.500 | 0.319 | 0.476 | 15.45 |
| 100)           | Benzo[g,h,i]   | 1.020 | 1.106 | 1.018 | 0.949 | 0.941 | 0.958 | 1.026 | 0.852 | 0.984 | 7.71  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5484.M

Tue May 01 12:25:48 2018

ACLIMS

8.6.1  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122203.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122203.D Vial: 10  
Acq On : 27 Apr 2018 3:16 am Operator: chriss2  
Sample : icv5484-50 Inst : MSVOAMSP  
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 27 17:04:41 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 4.32  |
| 5 S  | 2-Fluorophenol         | 1.527 | 1.500 | 1.8  | 86    | 0.00     | 3.38  |
| 8 S  | Phenol-d5              | 1.962 | 1.843 | 6.1  | 94    | 0.00     | 4.11  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 95    | 0.00     | 5.23  |
| 25 S | Nitrobenzene-d5        | 0.726 | 0.619 | 14.7 | 90    | 0.00     | 4.72  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 6.53  |
| 51 S | 2-Fluorobiphenyl       | 1.537 | 1.221 | 20.6 | 88    | 0.00     | 5.99  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 81    | 0.00     | 8.19  |
| 73 S | 2,4,6-Tribromophenol   | 0.125 | 0.112 | 10.4 | 69    | 0.00     | 7.32  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 74    | -0.01    | 13.18 |
| 85 S | Terphenyl-d14          | 1.034 | 0.939 | 9.2  | 73    | 0.00     | 11.06 |

(#) = Out of Range  
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0  
Fri Apr 27 18:13:24 2018 ACLIMS

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122204.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122204.D Vial: 11  
 Acq On : 27 Apr 2018 3:44 am Operator: chriss2  
 Sample : icv5484-50 Inst : MSVOAMSP  
 Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Mon Apr 30 13:32:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0  | 83    | -0.18    | 4.32 |
| 9 t                            | Phenol                    | 2.185  | 2.142  | 2.0  | 89    | -0.17    | 4.12 |
| 12 t                           | 2-Chlorophenol            | 1.396  | 1.324  | 5.2  | 88    | -0.18    | 4.18 |
| 19 t                           | 2-Methylphenol            | 1.385  | 1.328  | 4.1  | 85    | -0.20    | 4.54 |
| 21 t                           | 3&4-Methylphenol          | 1.458  | 1.408  | 3.4  | 79    | -0.21    | 4.65 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0  | 77    | -0.19    | 5.23 |
| 29 t                           | 2-Nitrophenol             | 0.219  | 0.237  | -8.2 | 86    | -0.17    | 4.97 |
| 30 t                           | 2,4-Dimethylphenol        | 0.460  | 0.483  | -5.0 | 81    | -0.18    | 5.02 |
| 31 t                           | Benzoic acid              | 0.373  | 0.284  | 23.9 | 54    | -0.19    | 5.14 |
| 33 t                           | 2,4-Dichlorophenol        | 0.329  | 0.317  | 3.6  | 77    | -0.18    | 5.15 |
| 34                             | 2,6-Dichlorophenol        | 0.323  | 0.325  | -0.6 | 83    | -0.19    | 5.30 |
| 43 t                           | 4-Chloro-3-methylphenol   | 0.453  | 0.462  | -2.0 | 78    | -0.21    | 5.66 |
| 47 I                           | Acenaphthene-d10          | 1.000  | 1.000  | 0.0  | 85    | -0.23    | 6.53 |
| 49 t                           | 2,4,6-Trichlorophenol     | 0.405  | 0.377  | 6.9  | 81    | -0.21    | 5.94 |
| 50 t                           | 2,4,5-Trichlorophenol     | 0.453  | 0.375  | 17.2 | 70    | -0.22    | 5.99 |
| 61 t                           | 4-Nitrophenol             | 0.337  | 0.295  | 12.5 | 68    | -0.25    | 6.73 |
| 64                             | 2,3,4,6-Tetrachlorophenol | 0.383  | 0.325  | 15.1 | 67    | -0.24    | 6.85 |
| 69 I                           | Phenanthrene-d10          | 1.000  | 1.000  | 0.0  | 73    | -0.32    | 8.19 |
| ----- True Calc. % Drift ----- |                           |        |        |      |       |          |      |
| 70 t                           | 4,6-Dinitro-2-methylpheno | 50.000 | 49.528 | 0.9  | 70    | -0.28    | 7.12 |
| ----- True Calc. % Drift ----- |                           |        |        |      |       |          |      |
| 76 t                           | Pentachlorophenol         | 50.000 | 50.931 | -1.9 | 70    | -0.31    | 7.97 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 p122197.D MP5484.M Mon Apr 30 13:38:32 2018 ACLIMS

8.6.3  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122205.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122205.D Vial: 12  
 Acq On : 27 Apr 2018 4:12 am Operator: chriss2  
 Sample : icv5484-50 Inst : MSVOAMSP  
 Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 27 17:04:41 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 85    | 0.00     | 4.32 |
| 3 t  | Pyridine               | 2.415 | 2.455 | -1.7  | 90    | 0.12     | 2.24 |
| 10 t | Aniline                | 2.463 | 2.715 | -10.2 | 106   | 0.00     | 4.09 |
| 16 t | Benzyl alcohol         | 0.900 | 1.057 | -17.4 | 100   | 0.00     | 4.44 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 100   | 0.00     | 5.23 |
| 39 t | 4-Chloroaniline        | 0.487 | 0.449 | 7.8   | 97    | 0.00     | 5.30 |
| 44 t | 2-Methylnaphthalene    | 0.736 | 0.574 | 22.0  | 98    | 0.00     | 5.74 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 96    | 0.00     | 6.53 |
| 54 t | 2-Nitroaniline         | 0.653 | 0.627 | 4.0   | 94    | 0.00     | 6.17 |
| 58 t | 3-Nitroaniline         | 0.378 | 0.370 | 2.1   | 92    | 0.00     | 6.52 |
| 62 t | Dibenzofuran           | 1.801 | 1.559 | 13.4  | 97    | 0.00     | 6.71 |
| 68 t | 4-Nitroaniline         | 0.353 | 0.338 | 4.2   | 85    | -0.02    | 7.10 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 95    | 0.00     | 8.19 |
| 79 t | Carbazole              | 1.094 | 0.993 | 9.2   | 95    | 0.00     | 8.58 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 p122197.D MP5484.M Fri Apr 27 18:13:26 2018 ACLIMS

8.6.4  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122206.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122206.D Vial: 13  
 Acq On : 27 Apr 2018 4:40 am Operator: chriss2  
 Sample : icv5484-50 Inst : MSVOAMSP  
 Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 27 17:04:41 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 87    | 0.00     | 4.32  |
| 4 t  | N-Nitrosodimethylamine         | 1.272  | 1.146  | 9.9   | 81    | 0.02     | 2.11  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 11 t | bis(2-Chloroethyl)ether        | 50.000 | 60.451 | -20.9 | 104   | 0.00     | 4.13  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 14 t | 1,3-Dichlorobenzene            | 1.653  | 1.467  | 11.3  | 89    | 0.00     | 4.27  |
| 15 t | 1,4-Dichlorobenzene            | 1.459  | 1.289  | 11.7  | 85    | 0.00     | 4.33  |
| 17 t | 1,2-Dichlorobenzene            | 1.475  | 1.343  | 8.9   | 93    | 0.00     | 4.44  |
| 20 t | 2,2'-oxybis(1-Chloropropa      | 0.445  | 0.462  | -3.8  | 96    | 0.00     | 4.52  |
| 22   | n-Nitroso-di-n-propylamin      | 1.561  | 1.421  | 9.0   | 90    | -0.01    | 4.61  |
| 23 t | Hexachloroethane               | 0.613  | 0.550  | 10.3  | 86    | 0.00     | 4.68  |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 84    | 0.00     | 5.23  |
| 26 t | Nitrobenzene                   | 0.688  | 0.595  | 13.5  | 86    | 0.00     | 4.74  |
| 28 t | Isophorone                     | 1.077  | 0.906  | 15.9  | 80    | 0.00     | 4.90  |
| 32 t | bis(2-Chloroethoxy)methan      | 0.523  | 0.512  | 2.1   | 91    | 0.00     | 5.07  |
| 36 t | 1,2,4-Trichlorobenzene         | 0.402  | 0.374  | 7.0   | 89    | 0.00     | 5.19  |
| 38 t | Naphthalene                    | 1.101  | 0.907  | 17.6  | 85    | 0.00     | 5.24  |
| 42 t | Hexachlorobutadiene            | 0.252  | 0.248  | 1.6   | 87    | 0.00     | 5.34  |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 83    | 0.00     | 6.53  |
| 48 t | Hexachlorocyclopentadiene      | 0.333  | 0.373  | -12.0 | 78    | 0.00     | 5.85  |
| 52 t | 2-Chloronaphthalene            | 1.237  | 1.089  | 12.0  | 87    | 0.00     | 6.08  |
| 55 t | Dimethylphthalate              | 1.545  | 1.274  | 17.5  | 78    | 0.00     | 6.31  |
| 56 t | Acenaphthylene                 | 2.004  | 1.537  | 23.3  | 78    | 0.00     | 6.41  |
| 57 t | 2,6-Dinitrotoluene             | 0.332  | 0.274  | 17.5  | 67    | 0.00     | 6.36  |
| 59 t | Acenaphthene                   | 1.216  | 1.022  | 16.0  | 78    | 0.00     | 6.56  |
| 63 t | 2,4-Dinitrotoluene             | 0.453  | 0.382  | 15.7  | 68    | 0.00     | 6.71  |
| 65 t | Diethylphthalate               | 1.569  | 1.329  | 15.3  | 78    | 0.00     | 6.95  |
| 66 t | Fluorene                       | 1.489  | 1.201  | 19.3  | 76    | 0.00     | 7.05  |
| 67 t | 4-Chlorophenyl-phenylethe      | 0.787  | 0.658  | 16.4  | 73    | 0.00     | 7.06  |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 79    | 0.00     | 8.19  |
| 71 t | n-Nitrosodiphenylamine         | 0.557  | 0.476  | 14.5  | 76    | 0.00     | 7.19  |
| 72 t | 1,2-Diphenylhydrazine          | 1.285  | 1.004  | 21.9  | 78    | 0.00     | 7.23  |
| 74 t | 4-Bromophenyl-phenylether      | 0.267  | 0.224  | 16.1  | 72    | 0.00     | 7.61  |
| 75 t | Hexachlorobenzene              | 0.280  | 0.223  | 20.4  | 70    | 0.00     | 7.69  |
| 77 t | Phenanthrene                   | 1.080  | 0.928  | 14.1  | 78    | 0.00     | 8.23  |
| 78 t | Anthracene                     | 1.117  | 0.934  | 16.4  | 74    | 0.00     | 8.30  |
| 80 t | Di-n-butylphthalate            | 1.329  | 1.190  | 10.5  | 72    | 0.00     | 9.22  |
| 81 t | Fluoranthene                   | 1.351  | 1.126  | 16.7  | 72    | 0.00     | 10.21 |

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122206.D

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|     |   |                           |       |       |       |    |       |       |
|-----|---|---------------------------|-------|-------|-------|----|-------|-------|
| 83  | I | Chrysene-d12              | 1.000 | 1.000 | 0.0   | 69 | 0.00  | 13.19 |
| 84  | t | Pyrene                    | 1.407 | 1.234 | 12.3  | 70 | 0.00  | 10.64 |
| 86  | t | Butylbenzylphthalate      | 0.575 | 0.610 | -6.1  | 67 | 0.00  | 12.21 |
| 87  | t | Benzo[a]anthracene        | 1.238 | 1.138 | 8.1   | 67 | 0.00  | 13.17 |
| 89  | t | Chrysene                  | 1.177 | 1.048 | 11.0  | 69 | 0.00  | 13.25 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.752 | 0.785 | -4.4  | 67 | 0.00  | 13.59 |
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0   | 65 | 0.00  | 16.18 |
| 92  | t | Di-n-octylphthalate       | 1.188 | 1.319 | -11.0 | 65 | 0.00  | 15.01 |
| 93  | t | Benzo[b]fluoranthene      | 1.232 | 1.094 | 11.2  | 60 | -0.01 | 15.44 |
| 94  | t | Benzo[k]fluoranthene      | 1.161 | 1.081 | 6.9   | 69 | -0.02 | 15.50 |
| 95  | t | Benzo[a]pyrene            | 1.016 | 1.024 | -0.8  | 65 | 0.00  | 16.06 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.920 | 0.900 | 2.2   | 61 | -0.01 | 18.09 |
| 98  | t | Dibenz[a,h]anthracene     | 1.010 | 0.946 | 6.3   | 62 | 0.00  | 18.16 |
| 100 | t | Benzo[g,h,i]perylene      | 0.984 | 1.003 | -1.9  | 68 | 0.00  | 18.52 |

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(#) = Out of Range  
p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0  
Fri Apr 27 18:17:22 2018 ACLIMS

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122207.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122207.D Vial: 14  
 Acq On : 27 Apr 2018 5:08 am Operator: chriss2  
 Sample : icv5484-50 Inst : MSVOAMSP  
 Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 27 17:04:41 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T. |
|------|------------------------|------------|--------|---------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000      | 1.000  | 0.0     | 105   | 0.00     | 4.32 |
| 2 t  | 1,4-Dioxane            | 1.155      | 0.930  | 19.5    | 88    | 0.02     | 1.80 |
| 6 t  | Indene                 | 2.421      | 2.329  | 3.8     | 114   | 0.00     | 4.50 |
| 7 t  | Cumene                 | 4.529      | 3.434  | 24.2    | 100   | 0.00     | 3.72 |
|      |                        | ----- True | Calc.  | % Drift | ----- |          |      |
| 13 t | Decane                 | 50.000     | 51.253 | -2.5    | 109   | 0.00     | 4.20 |
| 18 t | Acetophenone           | 2.327      | 2.070  | 11.0    | 104   | 0.00     | 4.61 |
| 24 I | Naphthalene-d8         | 1.000      | 1.000  | 0.0     | 104   | 0.00     | 5.23 |
| 27 t | Quinoline              | 0.843      | 0.703  | 16.6    | 93    | 0.00     | 5.49 |
| 40 t | 2,3-Dichloroaniline    | 0.431      | 0.342  | 20.6    | 91    | 0.00     | 5.94 |
| 41 t | Caprolactam            | 0.208      | 0.178  | 14.4    | 84    | -0.03    | 5.54 |
| 45 t | 1-Methylnaphthalene    | 0.867      | 0.632  | 27.1    | 94    | 0.00     | 5.81 |
| 46 t | Dimethylnaphthalene    | 0.743      | 0.629  | 15.3    | 102   | 0.00     | 6.19 |
| 47 I | Acenaphthene-d10       | 1.000      | 1.000  | 0.0     | 105   | 0.00     | 6.53 |
| 53 t | Biphenyl               | 1.671      | 1.270  | 24.0    | 100   | 0.00     | 6.07 |
| 69 I | Phenanthrene-d10       | 1.000      | 1.000  | 0.0     | 87    | 0.00     | 8.19 |
| 82 t | Octadecane             | 0.607      | 0.612  | -0.8    | 97    | 0.00     | 8.11 |

(#) = Out of Range  
 p122197.D MP5484.M

SPCC's out = 0 CCC's out = 0  
 Fri Apr 27 18:13:30 2018 ACLIMS

8.6.6  
8



# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5484-ICV5484  
**Lab FileID:** P122208.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5484\p122208.D Vial: 15  
Acq On : 27 Apr 2018 5:36 am Operator: chriss2  
Sample : icv5484-50 Inst : MSVOAMSP  
Misc : op9039,ep5484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 27 17:04:41 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 84    | -0.01    | 13.18 |
| 88 t 3,3'-Dichlorobenzidine | 0.383 | 0.370 | 3.4  | 70    | 0.00     | 13.24 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122197.D MP5484.M Fri Apr 27 18:13:32 2018 ACLIMS

8.6.7  
8

# Initial Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5486-ICC5486  
**Lab FileID:** P122232.D

## Response Factor Report MSVOAMSP

Method : C:\msdchem\1\METHODS\MP5486.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 16:14:45 2018  
Response via : Initial Calibration

### Calibration Files

2 =p122236.D 5 =p122235.D 25 =p122233.D 80 =p122231.D  
100 =p122230.D 50 =p122232.D 10 =p122234.D 1 =p122237.D

| Compound                     | 2     | 5     | 25    | 80    | 100   | 50    | 10    | 1     | Avg   | %RSD  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 101) I 1,4-Dichlorobenzene-d |       |       |       |       |       |       |       |       |       |       |
| 102) Benzaldehyde            | 1.485 | 1.521 | 1.363 | 1.159 | 1.024 | 1.144 | 1.448 | 1.471 | 1.327 | 14.34 |
| 103) I Phenanthrene-d10b     |       |       |       |       |       |       |       |       |       |       |
| 104) Atrazine                | 0.249 | 0.286 | 0.286 | 0.244 | 0.236 | 0.256 | 0.287 | 0.226 | 0.259 | 9.44  |
| 105) I Chrysene-d12b         |       |       |       |       |       |       |       |       |       |       |
| 106) Benzidine               |       | 0.690 | 0.724 | 0.475 |       | 0.553 | 0.736 |       | 0.635 | 18.21 |
| 107) I Naphthalene-d8b       |       |       |       |       |       |       |       |       |       |       |
| 108) Hydroquinone            |       | 0.275 | 0.400 | 0.381 | 0.374 | 0.388 | 0.304 |       | 0.354 | 14.42 |
| 109) I Acenaphthene-d10b     |       |       |       |       |       |       |       |       |       |       |
| 110) 1,2,4,5-Tetr            | 0.812 | 0.802 | 0.633 | 0.541 | 0.515 | 0.564 | 0.668 | 0.795 | 0.666 | 18.50 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5484.M

Mon Apr 30 16:20:09 2018

ACLIMS



# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5486-ICV5486  
**Lab FileID:** P122238.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5486\p122238.D Vial: 10  
Acq On : 28 Apr 2018 1:49 am Operator: chriss2  
Sample : icv5486-50 Inst : MSVOAMSP  
Misc : op9039,ep5486,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 16:08:49 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 107 I Naphthalene-d8b | 1.000 | 1.000 | 0.0  | 96    | 0.00     | 5.42 |
| 108 Hydroquinone      | 0.354 | 0.387 | -9.3 | 96    | 0.00     | 5.75 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122232a.D MP5484.M Mon Apr 30 16:12:39 2018 ACLIMS

6.69  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5487-ICV5484  
**Lab FileID:** P122241.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122241.D Vial: 2  
Acq On : 30 Apr 2018 12:57 pm Operator: seanbl  
Sample : icv5484-50 Inst : MSVOAMSP  
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 13:32:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound               | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T. |
|------------------------|------------|--------|---------|-------|----------|------|
| 47 I Acenaphthene-d10  | 1.000      | 1.000  | 0.0     | 80    | 0.00     | 6.76 |
|                        | ----- True | Calc.  | % Drift | ----- |          |      |
| 60 t 2,4-Dinitrophenol | 50.000     | 36.388 | 27.2    | 58    | 0.00     | 6.83 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122198.D MP5484.M Mon Apr 30 13:36:18 2018 ACLIMS

8.6.10  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5487-ICV5486  
**Lab FileID:** P122242.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122242.D Vial: 3  
Acq On : 30 Apr 2018 1:25 pm Operator: seanbl  
Sample : icv5486-50 Inst : MSVOAMSP  
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 16:08:49 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-------------------------------|-------|-------|------|-------|----------|------|
| 109 I Acenaphthene-d10b       | 1.000 | 1.000 | 0.0  | 83    | 0.00     | 6.76 |
| 110 1,2,4,5-Tetrachlorobenzen | 0.666 | 0.626 | 6.0  | 92    | 0.00     | 6.04 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122232a.D MP5484.M Tue May 01 12:25:36 2018 ACLIMS

8.6.11

8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5487-ICV5486  
**Lab FileID:** P122243.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122243.D Vial: 4  
Acq On : 30 Apr 2018 1:53 pm Operator: seanbl  
Sample : icv5486-50 Inst : MSVOAMSP  
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 16:08:49 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-------|-------------------------|-------|-------|------|-------|----------|------|
| 101 I | 1,4-Dichlorobenzene-d4b | 1.000 | 1.000 | 0.0  | 89    | 0.00     | 4.50 |
| 102   | Benzaldehyde            | 1.327 | 1.124 | 15.3 | 88    | 0.00     | 4.18 |
| 103 I | Phenanthrene-d10b       | 1.000 | 1.000 | 0.0  | 93    | 0.00     | 8.51 |
| 104   | Atrazine                | 0.259 | 0.270 | -4.2 | 98    | 0.00     | 8.15 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122232a.D MP5484.M Tue May 01 12:25:38 2018 ACLIMS

8.6.12  
8

# Initial Calibration Verification

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5487-ICV5486  
**Lab FileID:** P122244.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5487\p122244.D Vial: 5  
Acq On : 30 Apr 2018 2:20 pm Operator: seanbl  
Sample : icv5486-50 Inst : MSVOAMSP  
Misc : op9039,ep5487,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Tue May 01 14:55:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound            | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|---------------------|-------|-------|-------|-------|----------|-------|
| 105 I Chrysene-d12b | 1.000 | 1.000 | 0.0   | 95    | 0.00     | 13.62 |
| 106 Benzidine       | 0.635 | 0.754 | -18.7 | 129   | 0.00     | 10.96 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122232a.D MP5484.M Tue May 01 14:58:29 2018 ACLIMS

86.13

8

# Continuing Calibration Summary

Job Number: JC64857  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EP5490-CC5484  
 Lab FileID: P122282.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5490\p122282.D Vial: 2  
 Acq On : 1 May 2018 8:11 pm Operator: georges  
 Sample : cc5484-50 Inst : MSVOAMSP  
 Misc : op9039,ep5490,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 01 20:50:00 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 83    | 0.00     | 4.49 |
| 2 t                            | 1,4-Dioxane               | 1.155  | 1.181  | -2.3   | 89    | 0.16     | 2.02 |
| 3 t                            | Pyridine                  | 2.415  | 2.914  | -20.7# | 105   | 0.00     | 2.36 |
| 4 t                            | N-Nitrosodimethylamine    | 1.272  | 1.533  | -20.5# | 105   | 0.15     | 2.33 |
| 5 S                            | 2-Fluorophenol            | 1.527  | 1.896  | -24.2# | 96    | 0.09     | 3.62 |
| 6 t                            | Indene                    | 2.421  | 2.478  | -2.4   | 96    | -0.01    | 4.68 |
| 7 t                            | Cumene                    | 4.529  | 4.170  | 7.9    | 97    | 0.03     | 3.89 |
| 8 S                            | Phenol-d5                 | 1.962  | 2.585  | -31.8# | 117   | 0.05     | 4.34 |
| 9 t                            | Phenol                    | 2.185  | 2.649  | -21.2# | 111   | 0.05     | 4.35 |
| 10 t                           | Aniline                   | 2.463  | 2.499  | -1.5   | 96    | 0.00     | 4.26 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 11 t                           | bis(2-Chloroethyl)ether   | 50.000 | 73.012 | -46.0# | 116   | 0.00     | 4.30 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 12 t                           | 2-Chlorophenol            | 1.396  | 1.274  | 8.7    | 85    | 0.03     | 4.38 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 13 t                           | Decane                    | 50.000 | 65.944 | -31.9# | 106   | -0.01    | 4.37 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 14 t                           | 1,3-Dichlorobenzene       | 1.653  | 1.480  | 10.5   | 86    | 0.00     | 4.45 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.459  | 1.400  | 4.0    | 88    | 0.00     | 4.50 |
| 16 t                           | Benzyl alcohol            | 0.900  | 1.141  | -26.8# | 106   | 0.00     | 4.62 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.475  | 1.276  | 13.5   | 85    | -0.01    | 4.61 |
| 18 t                           | Acetophenone              | 2.327  | 2.470  | -6.1   | 98    | -0.02    | 4.79 |
| 19 t                           | 2-Methylphenol            | 1.385  | 1.717  | -24.0# | 110   | 0.01     | 4.75 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.445  | 0.495  | -11.2  | 99    | -0.02    | 4.69 |
| 21 t                           | 3&4-Methylphenol          | 1.458  | 1.719  | -17.9  | 97    | 0.01     | 4.87 |
| 22                             | n-Nitroso-di-n-propylamin | 1.561  | 1.961  | -25.6# | 119   | -0.03    | 4.79 |
| 23 t                           | Hexachloroethane          | 0.613  | 0.583  | 4.9    | 88    | -0.02    | 4.86 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 86    | -0.01    | 5.41 |
| 25 S                           | Nitrobenzene-d5           | 0.726  | 0.817  | -12.5  | 107   | 0.01     | 4.90 |
| 26 t                           | Nitrobenzene              | 0.688  | 0.775  | -12.6  | 115   | 0.01     | 4.91 |
| 27 t                           | Quinoline                 | 0.843  | 0.857  | -1.7   | 94    | 0.00     | 5.68 |
| 28 t                           | Isophorone                | 1.077  | 1.221  | -13.4  | 111   | 0.00     | 5.08 |
| 29 t                           | 2-Nitrophenol             | 0.219  | 0.205  | 6.4    | 83    | 0.00     | 5.14 |
| 30 t                           | 2,4-Dimethylphenol        | 0.460  | 0.546  | -18.7  | 102   | 0.01     | 5.21 |
| 31 t                           | Benzoic acid              | 0.373  | 0.411  | -10.2  | 86    | 0.02     | 5.36 |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.523  | 0.598  | -14.3  | 109   | -0.01    | 5.23 |
| 33 t                           | 2,4-Dichlorophenol        | 0.329  | 0.327  | 0.6    | 89    | 0.02     | 5.36 |

8.6.14

8



# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5490-CC5484  
**Lab FileID:** P122282.D

|      |                           |             |        |         |       |       |      |
|------|---------------------------|-------------|--------|---------|-------|-------|------|
| 34   | 2,6-Dichlorophenol        | 0.323       | 0.311  | 3.7     | 88    | 0.00  | 5.49 |
| 35   | 1,3,5-Trichlorobenzene    | 0.429       | 0.358  | 16.6    | 84    | 0.00  | 5.14 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.402       | 0.341  | 15.2    | 83    | 0.00  | 5.37 |
| 37   | 1,2,3-Trichlorobenzene    | 0.372       | 0.333  | 10.5    | 89    | 0.00  | 5.53 |
| 38 t | Naphthalene               | 1.101       | 0.935  | 15.1    | 90    | 0.00  | 5.42 |
| 39 t | 4-Chloroaniline           | 0.487       | 0.466  | 4.3     | 86    | 0.00  | 5.47 |
| 40 t | 2,3-Dichloroaniline       | 0.431       | 0.423  | 1.9     | 93    | -0.02 | 6.13 |
| 41 t | Caprolactam               | 0.208       | 0.324  | -55.8#  | 126   | -0.02 | 5.75 |
| 42 t | Hexachlorobutadiene       | 0.252       | 0.219  | 13.1    | 79    | -0.01 | 5.51 |
| 43 t | 4-Chloro-3-methylphenol   | 0.453       | 0.538  | -18.8   | 101   | 0.01  | 5.88 |
| 44 t | 2-Methylnaphthalene       | 0.736       | 0.572  | 22.3#   | 84    | -0.03 | 5.91 |
| 45 t | 1-Methylnaphthalene       | 0.867       | 0.740  | 14.6    | 91    | -0.03 | 5.98 |
| 46 t | Dimethylnaphthalene       | 0.743       | 0.677  | 8.9     | 91    | -0.02 | 6.38 |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 91    | -0.01 | 6.75 |
| 48 t | Hexachlorocyclopentadiene | 0.333       | 0.310  | 6.9     | 76    | -0.02 | 6.03 |
| 49 t | 2,4,6-Trichlorophenol     | 0.405       | 0.379  | 6.4     | 87    | 0.00  | 6.15 |
| 50 t | 2,4,5-Trichlorophenol     | 0.453       | 0.426  | 6.0     | 85    | 0.02  | 6.23 |
| 51 S | 2-Fluorobiphenyl          | 1.537       | 1.265  | 17.7    | 89    | -0.02 | 6.18 |
| 52 t | 2-Chloronaphthalene       | 1.237       | 1.018  | 17.7    | 89    | -0.02 | 6.28 |
| 53 t | Biphenyl                  | 1.671       | 1.308  | 21.7#   | 89    | -0.02 | 6.25 |
| 54 t | 2-Nitroaniline            | 0.653       | 0.841  | -28.8#  | 120   | -0.01 | 6.38 |
| 55 t | Dimethylphthalate         | 1.545       | 1.321  | 14.5    | 88    | -0.02 | 6.51 |
| 56 t | Acenaphthylene            | 2.004       | 1.646  | 17.9    | 92    | -0.01 | 6.62 |
| 57 t | 2,6-Dinitrotoluene        | 0.332       | 0.350  | -5.4    | 93    | -0.02 | 6.56 |
| 58 t | 3-Nitroaniline            | 0.378       | 0.381  | -0.8    | 90    | 0.00  | 6.74 |
| 59 t | Acenaphthene              | 1.216       | 1.095  | 10.0    | 92    | 0.00  | 6.78 |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |      |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 89.447 | 10.6    | 79    | 0.00  | 6.83 |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |      |
| 61 t | 4-Nitrophenol             | 0.337       | 0.387  | -14.8   | 95    | 0.00  | 7.05 |
| 62 t | Dibenzofuran              | 1.801       | 1.519  | 15.7    | 90    | 0.00  | 6.94 |
| 63 t | 2,4-Dinitrotoluene        | 0.453       | 0.454  | -0.2    | 88    | 0.00  | 6.94 |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.383       | 0.348  | 9.1     | 77    | 0.02  | 7.10 |
| 65 t | Diethylphthalate          | 1.569       | 1.394  | 11.2    | 89    | 0.00  | 7.18 |
| 66 t | Fluorene                  | 1.489       | 1.263  | 15.2    | 88    | 0.00  | 7.30 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.787       | 0.687  | 12.7    | 84    | 0.00  | 7.30 |
| 68 t | 4-Nitroaniline            | 0.353       | 0.366  | -3.7    | 87    | 0.01  | 7.38 |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 93    | -0.01 | 8.50 |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |      |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 46.292 | 7.4     | 84    | -0.02 | 7.38 |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |      |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.499  | 10.4    | 94    | -0.03 | 7.44 |
| 72 t | 1,2-Diphenylhydrazine     | 1.285       | 1.280  | 0.4     | 118   | -0.03 | 7.48 |
| 73 S | 2,4,6-Tribromophenol      | 0.125       | 0.110  | 12.0    | 79    | -0.01 | 7.59 |
| 74 t | 4-Bromophenyl-phenylether | 0.267       | 0.226  | 15.4    | 86    | -0.02 | 7.88 |
| 75 t | Hexachlorobenzene         | 0.280       | 0.229  | 18.2    | 85    | -0.01 | 7.97 |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |      |
| 76 t | Pentachlorophenol         | 100.000     | 66.889 | 33.1#   | 61    | 0.00  | 8.29 |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |      |
| 77 t | Phenanthrene              | 1.080       | 0.973  | 9.9     | 97    | 0.00  | 8.54 |
| 78 t | Anthracene                | 1.117       | 1.018  | 8.9     | 95    | 0.00  | 8.62 |
| 79 t | Carbazole                 | 1.094       | 1.016  | 7.1     | 95    | 0.00  | 8.90 |

8.6.14  
8

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5490-CC5484  
**Lab FileID:** P122282.D

|     |   |                           |       |       |        |     |       |       |
|-----|---|---------------------------|-------|-------|--------|-----|-------|-------|
| 80  | t | Di-n-butylphthalate       | 1.329 | 1.285 | 3.3    | 92  | -0.03 | 9.55  |
| 81  | t | Fluoranthene              | 1.351 | 1.209 | 10.5   | 91  | -0.02 | 10.59 |
| 82  | t | Octadecane                | 0.607 | 0.699 | -15.2  | 118 | -0.03 | 8.39  |
| 83  | I | Chrysene-d12              | 1.000 | 1.000 | 0.0    | 83  | 0.00  | 13.61 |
| 84  | t | Pyrene                    | 1.407 | 1.389 | 1.3    | 94  | 0.04  | 11.01 |
| 85  | S | Terphenyl-d14             | 1.034 | 1.010 | 2.3    | 89  | 0.01  | 11.43 |
| 86  | t | Butylbenzylphthalate      | 0.575 | 0.696 | -21.0# | 92  | -0.01 | 12.59 |
| 87  | t | Benzo[a]anthracene        | 1.238 | 1.243 | -0.4   | 88  | 0.00  | 13.58 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.383 | 0.422 | -10.2  | 79  | -0.02 | 13.65 |
| 89  | t | Chrysene                  | 1.177 | 1.107 | 5.9    | 87  | 0.00  | 13.67 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.752 | 0.907 | -20.6# | 92  | 0.00  | 13.96 |
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0    | 79  | -0.02 | 16.61 |
| 92  | t | Di-n-octylphthalate       | 1.188 | 1.484 | -24.9# | 89  | -0.04 | 15.38 |
| 93  | t | Benzo[b]fluoranthene      | 1.232 | 1.243 | -0.9   | 83  | 0.00  | 15.88 |
| 94  | t | Benzo[k]fluoranthene      | 1.161 | 1.078 | 7.1    | 84  | 0.00  | 15.94 |
| 95  | t | Benzo[a]pyrene            | 1.016 | 1.096 | -7.9   | 85  | 0.00  | 16.50 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.920 | 1.007 | -9.5   | 84  | -0.06 | 18.54 |
| 97  | t | Dibenz(a,h)acridine       | 0.882 | 0.948 | -7.5   | 80  | -0.05 | 18.18 |
| 98  | t | Dibenz[a,h]anthracene     | 1.010 | 1.055 | -4.5   | 84  | -0.07 | 18.60 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.476 | 0.537 | -12.8  | 83  | 0.00  | 15.89 |
| 100 | t | Benzo[g,h,i]perylene      | 0.984 | 0.993 | -0.9   | 82  | -0.06 | 18.97 |

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(#) = Out of Range  
 p122232a.D MP5484.M

SPCC's out = 0 CCC's out = 0  
 Wed May 02 13:40:36 2018 ACLIMS

8.6.14  
 8

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5490-CC5486  
**Lab FileID:** P122283.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5490\p122283.D Vial: 3  
Acq On : 1 May 2018 8:39 pm Operator: georges  
Sample : cc5486-50 Inst : MSVOAMSP  
Misc : op9039,ep5490,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 13:44:52 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF  | %Dev   | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|-------|--------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4b   | 1.000 | 1.000 | 0.0    | 70    | 0.00     | 4.49  |
| 102   | Benzaldehyde              | 1.327 | 1.476 | -11.2  | 91    | -0.01    | 4.17  |
| 103 I | Phenanthrene-d10b         | 1.000 | 1.000 | 0.0    | 79    | -0.02    | 8.50  |
| 104   | Atrazine                  | 0.259 | 0.242 | 6.6    | 74    | -0.02    | 8.14  |
| 105 I | Chrysene-d12b             | 1.000 | 1.000 | 0.0    | 77    | -0.02    | 13.59 |
| 106   | Benzidine                 | 0.635 | 0.454 | 28.5#  | 63    | -0.02    | 10.94 |
| 107 I | Naphthalene-d8b           | 1.000 | 1.000 | 0.0    | 72    | -0.01    | 5.41  |
| 108   | Hydroquinone              | 0.354 | 0.495 | -39.8# | 93    | 0.04     | 5.78  |
| 109 I | Acenaphthene-d10b         | 1.000 | 1.000 | 0.0    | 79    | -0.02    | 6.74  |
| 110   | 1,2,4,5-Tetrachlorobenzen | 0.666 | 0.540 | 18.9   | 76    | -0.01    | 6.03  |

(#) = Out of Range  
p122232a.D MP5484.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 13:45:51 2018 ACLIMS

86.15

8

# Continuing Calibration Summary

**Job Number:** JC64857  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EP5490-CC5484  
**Lab FileID:** P122286.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\SVOA\ep5490\p122286.d Vial: 6  
Acq On : 1 May 2018 10:04 pm Operator: georges  
Sample : cc5484-5 Inst : MSVOAMSP  
Misc : op9039,ep5490,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\mp5484.m (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 22:45:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound            | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|---------------------|-------|-------|------|-------|----------|-------|
| 111 I Chrysene-d12c | 1.000 | 1.000 | 0.0  | 100   | -0.02    | 13.59 |
| 112 t 2,3,7,8-TCDD  | 0.148 | 0.148 | 0.0  | 100   | 0.00     | 12.77 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
p122235a.D mp5484.m Thu May 03 02:11:08 2018

8.6.16

8

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\SVOA\ep5490\
Data File : p122322.d
Acq On : 2 May 2018 3:53 pm
Operator : georges
Sample : jc64857-1
Misc : op11610,ep5490,1000,,,1,1
ALS Vial : 42 Sample Multiplier: 1
Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m
Quant Results File: mp5484.RES
Quant Time: May 03 04:59:38 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 02 22:45:14 2018
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (1) 1,4-Dichlorobenzene-d4, 24) Naphthalene-d8, 47) Acenaphthene-d10, 69) Phenanthrene-d10, 83) Chrysene-d12, 91) Perylene-d12, 101) 1,4-Dichlorobenzene-d4b, 103) Phenanthrene-d10b, 105) Chrysene-d12b, 107) Naphthalene-d8b, 109) Acenaphthene-d10b, 111) Chrysene-d12c.

System Monitoring Compounds table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include 5) 2-Fluorophenol, 8) Phenol-d5, 25) Nitrobenzene-d5, 51) 2-Fluorobiphenyl, 73) 2,4,6-Tribromophenol, 85) Terphenyl-d14.

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.1.1
9

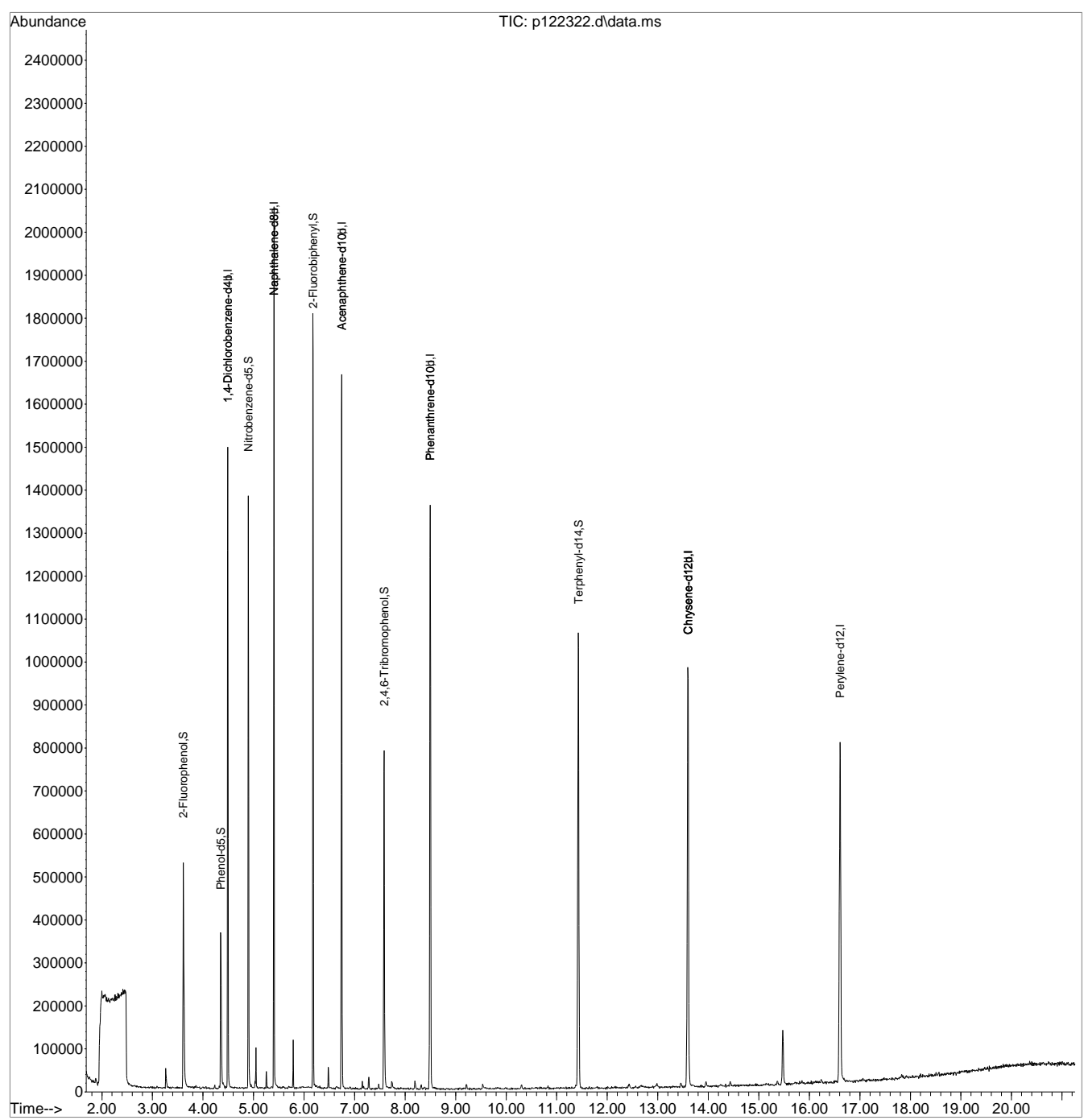


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\SVOA\ep5490\  
Data File : p122322.d  
Acq On : 2 May 2018 3:53 pm  
Operator : georges  
Sample : jc64857-1  
Misc : op11610,ep5490,1000,,,1,1  
ALS Vial : 42 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m  
Quant Results File: mp5484.RES  
Quant Time: May 03 04:59:38 2018  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Wed May 02 22:45:14 2018  
Response via : Initial Calibration



9.1.1  
9



## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-03-18\jonkm\ep5490\  
 Data File : p122323.d  
 Acq On : 2 May 2018 4:22 pm  
 Operator : georges  
 Sample : jc64857-2  
 Misc : op11610,ep5490,1000,,,1,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: May 12 11:15:19 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 02 22:45:14 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.492  | 152  | 138764   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.405  | 136  | 517825   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 6.746  | 164  | 309599   | 40.00 | ppm    | 0.00     |
| 69) Phenanthrene-d10         | 8.498  | 188  | 567476   | 40.00 | ppm    | 0.00     |
| 83) Chrysene-d12             | 13.600 | 240  | 556196   | 40.00 | ppm    | -0.01    |
| 91) Perylene-d12             | 16.608 | 264  | 513793   | 40.00 | ppm    | 0.00     |
| 101) 1,4-Dichlorobenzene-d4b | 4.492  | 152  | 138764   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10b       | 8.498  | 188  | 567476   | 40.00 | ppm    | 0.00     |
| 105) Chrysene-d12b           | 13.600 | 240  | 556196   | 40.00 | ppm    | -0.01    |
| 107) Naphthalene-d8b         | 5.405  | 136  | 517825   | 40.00 | ppm    | 0.00     |
| 109) Acenaphthene-d10b       | 6.746  | 164  | 309599   | 40.00 | ppm    | 0.00     |
| 111) Chrysene-d12c           | 13.600 | 240  | 556196   | 40.00 | ppm    | -0.01    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.605  | 112  | 133576   | 25.22 | ppm    | 0.09     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 50.44% |          |
| 8) Phenol-d5                 | 4.342  | 99   | 126488   | 18.58 | ppm    | 0.06     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 37.16% |          |
| 25) Nitrobenzene-d5          | 4.898  | 82   | 387833   | 41.24 | ppm    | 0.02     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 82.48% |          |
| 51) 2-Fluorobiphenyl         | 6.180  | 172  | 397791   | 33.45 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 66.90% |          |
| 73) 2,4,6-Tribromophenol     | 7.585  | 330  | 61912    | 34.88 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 69.76% |          |
| 85) Terphenyl-d14            | 11.426 | 244  | 467016   | 32.48 | ppm    | 0.01     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 64.96% |          |
| Target Compounds             |        |      |          |       |        |          |
| 65) Diethylphthalate         | 7.174  | 149  | 18829    | 1.55  | ppm    | 87       |
| 81) Fluoranthene             | 10.577 | 202  | 7856     | 0.41  | ppm    | 77       |
| 84) Pyrene                   | 10.999 | 202  | 6424     | 0.33  | ppm    | 75       |

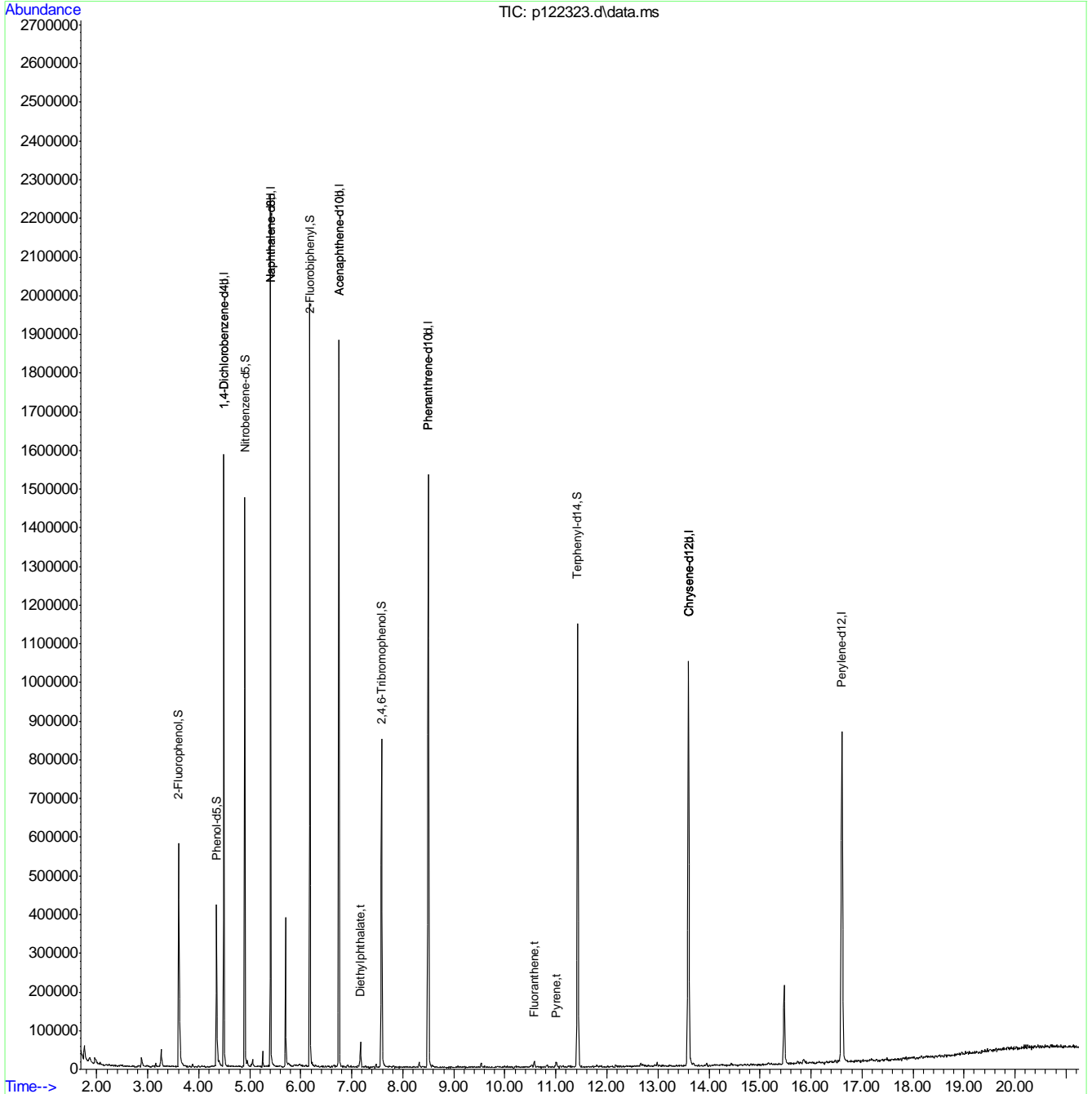
(#) = qualifier out of range (m) = manual integration (+) = signals summed



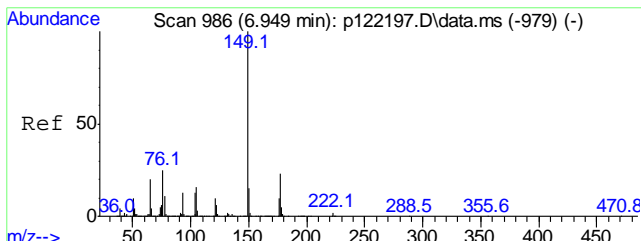
Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-03-18\jonkm\ep5490\  
 Data File : p122323.d  
 Acq On : 2 May 2018 4:22 pm  
 Operator : georges  
 Sample : jc64857-2  
 Misc : op11610,ep5490,1000,,,1,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: May 12 11:15:19 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 02 22:45:14 2018  
 Response via : Initial Calibration

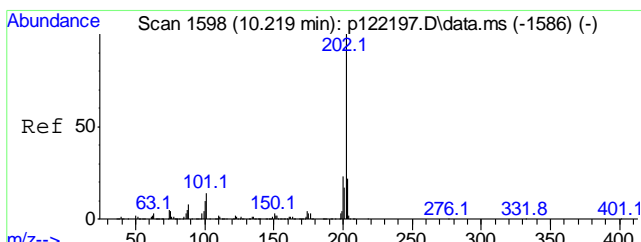
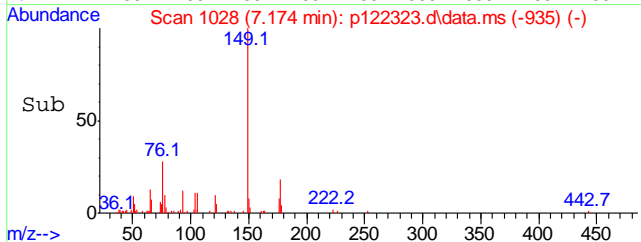
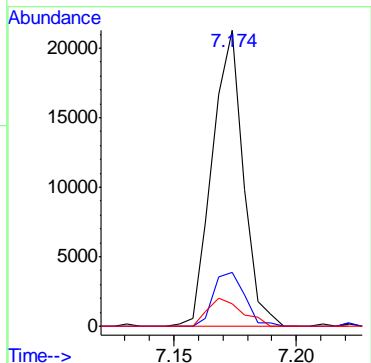
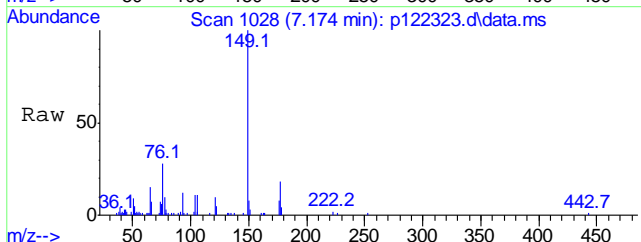


9.1.2  
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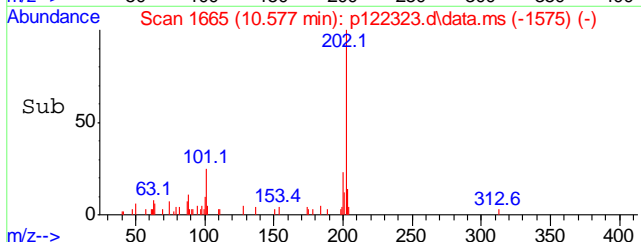
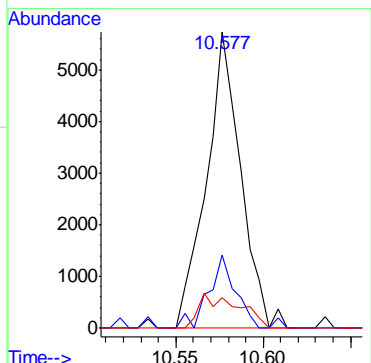
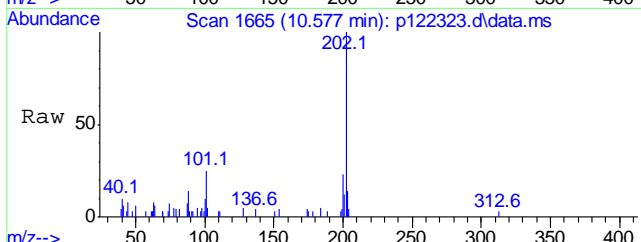
#65  
 Diethylphthalate  
 Concen: 1.55 ppm  
 RT: 7.174 min Scan# 1028  
 Delta R.T. -0.003 min  
 Lab File: p122323.d  
 Acq: 2 May 2018 4:22 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 18829 | 100   |       |
| 177     | 18.4  | 0.0   | 53.2  |
| 150     | 7.5   | 0.0   | 44.6  |

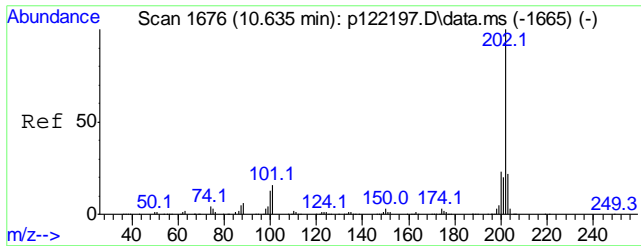


#81  
 Fluoranthene  
 Concen: 0.41 ppm  
 RT: 10.577 min Scan# 1665  
 Delta R.T. -0.022 min  
 Lab File: p122323.d  
 Acq: 2 May 2018 4:22 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 7856 | 100   |       |
| 101     | 29.9 | 0.0   | 43.9  |
| 100     | 10.3 | 0.0   | 40.4  |

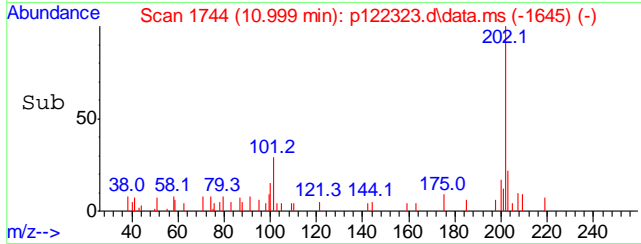
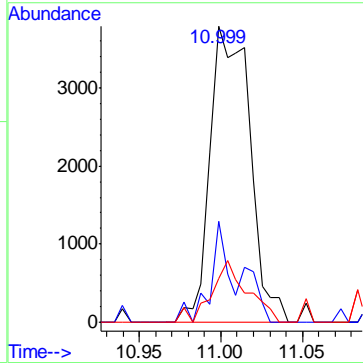
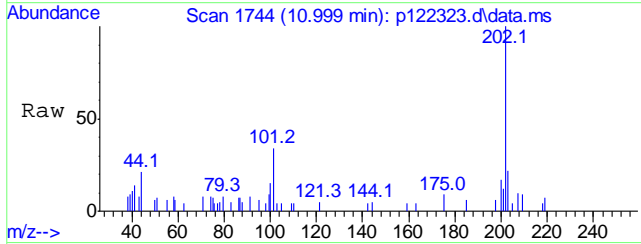


9.1.2  
 9



#84  
 Pyrene  
 Concen: 0.33 ppm  
 RT: 10.999 min Scan# 1744  
 Delta R.T. 0.027 min  
 Lab File: p122323.d  
 Acq: 2 May 2018 4:22 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 34.0  | 0.0   | 46.3  |
| 100     | 14.9  | 0.0   | 43.2  |



9.12  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\SVOA\ep5490\  
 Data File : p122324.d  
 Acq On : 2 May 2018 5:47 pm  
 Operator : georges  
 Sample : jc64857-3 Inst : MSVOAMSP  
 Misc : op11610,ep5490,1000,,,1,1  
 ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m  
 Quant Results File: mp5484.RES  
 Quant Time: May 03 05:24:07 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 02 22:45:14 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.492  | 152  | 141277   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.405  | 136  | 515142   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 6.746  | 164  | 309250   | 40.00 | ppm    | 0.00     |
| 69) Phenanthrene-d10         | 8.498  | 188  | 543293   | 40.00 | ppm    | 0.00     |
| 83) Chrysene-d12             | 13.600 | 240  | 537990   | 40.00 | ppm    | -0.01    |
| 91) Perylene-d12             | 16.608 | 264  | 493514   | 40.00 | ppm    | 0.00     |
| 101) 1,4-Dichlorobenzene-d4b | 4.492  | 152  | 141277   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10b       | 8.498  | 188  | 543293   | 40.00 | ppm    | 0.00     |
| 105) Chrysene-d12b           | 13.600 | 240  | 537990   | 40.00 | ppm    | -0.01    |
| 107) Naphthalene-d8b         | 5.405  | 136  | 515142   | 40.00 | ppm    | 0.00     |
| 109) Acenaphthene-d10b       | 6.746  | 164  | 309250   | 40.00 | ppm    | 0.00     |
| 111) Chrysene-d12c           | 13.600 | 240  | 537990   | 40.00 | ppm    | -0.01    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.605  | 112  | 115224   | 21.37 | ppm    | 0.09     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 42.74% |          |
| 8) Phenol-d5                 | 4.342  | 99   | 110364   | 15.92 | ppm    | 0.06     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 31.84% |          |
| 25) Nitrobenzene-d5          | 4.898  | 82   | 364857   | 39.00 | ppm    | 0.02     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.00% |          |
| 51) 2-Fluorobiphenyl         | 6.180  | 172  | 377227   | 31.76 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 63.52% |          |
| 73) 2,4,6-Tribromophenol     | 7.585  | 330  | 41565    | 24.46 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 48.92% |          |
| 85) Terphenyl-d14            | 11.426 | 244  | 363025   | 26.10 | ppm    | 0.01     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 52.20% |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.1.3  
9

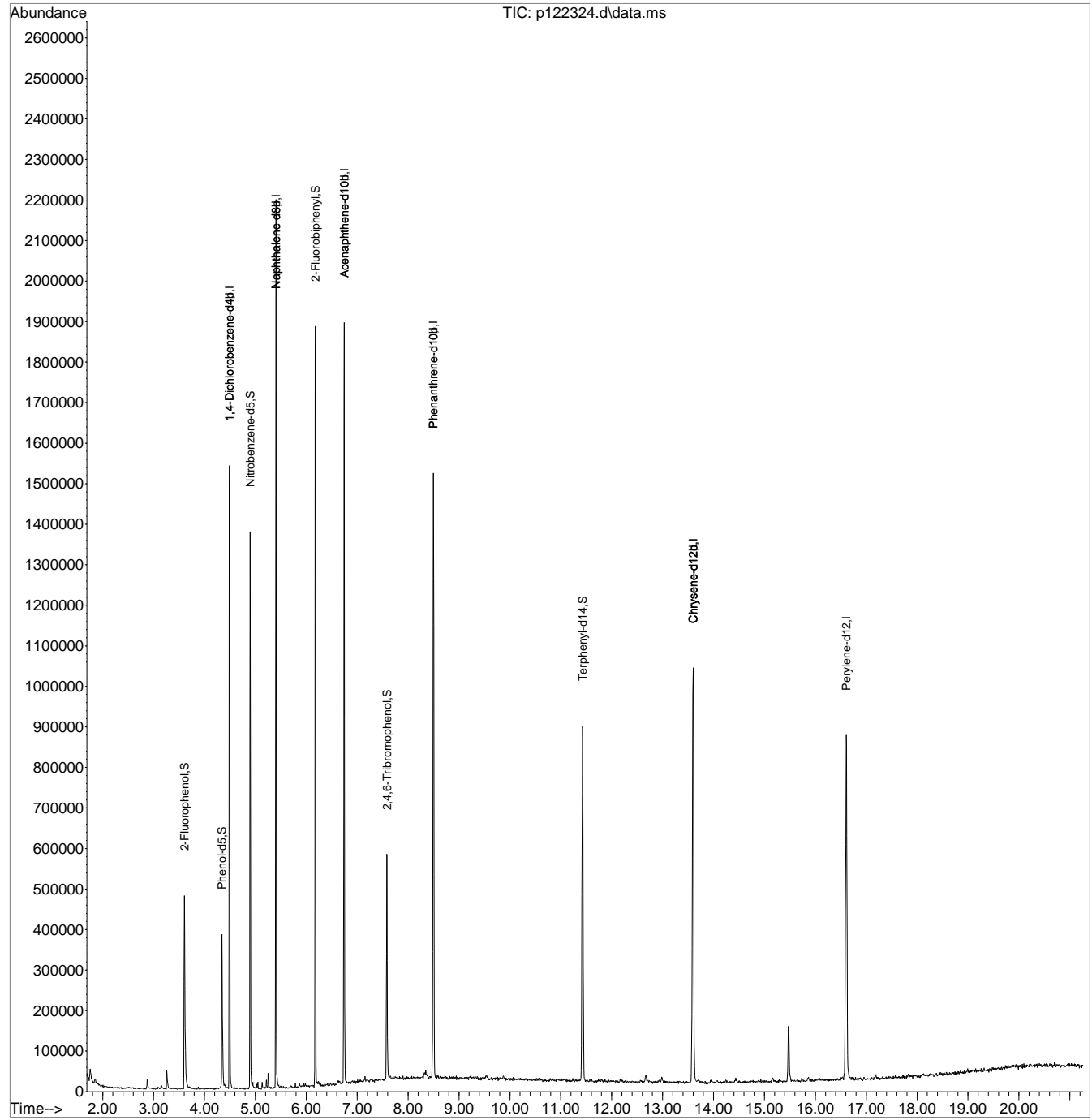


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\VOA\ep5490\  
Data File : p122324.d  
Acq On : 2 May 2018 5:47 pm  
Operator : georges  
Sample : jc64857-3  
Misc : op11610,ep5490,1000,,,1,1  
ALS Vial : 44 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\mp5484.m  
Quant Results File: mp5484.RES  
Quant Time: May 03 05:24:07 2018  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Wed May 02 22:45:14 2018  
Response via : Initial Calibration



9.1.3  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5490\  
 Data File : p122313.D  
 Acq On : 2 May 2018 1:20 am  
 Operator : georges  
 Sample : op11610-mb1  
 Misc : op11610,ep5490,1000,,,1,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 02 13:50:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Tue May 01 20:50:00 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.492  | 152  | 158945   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.405  | 136  | 568453   | 40.00 | ppm    | -0.01    |
| 47) Acenaphthene-d10         | 6.741  | 164  | 345153   | 40.00 | ppm    | -0.02    |
| 69) Phenanthrene-d10         | 8.498  | 188  | 646745   | 40.00 | ppm    | -0.02    |
| 83) Chrysene-d12             | 13.595 | 240  | 637543   | 40.00 | ppm    | -0.02    |
| 91) Perylene-d12             | 16.608 | 264  | 586641   | 40.00 | ppm    | -0.02    |
| 101) 1,4-Dichlorobenzene-d4b | 4.492  | 152  | 158945   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10b       | 8.498  | 188  | 646745   | 40.00 | ppm    | -0.02    |
| 105) Chrysene-d12b           | 13.595 | 240  | 637543   | 40.00 | ppm    | -0.02    |
| 107) Naphthalene-d8b         | 5.405  | 136  | 568453   | 40.00 | ppm    | -0.01    |
| 109) Acenaphthene-d10b       | 6.741  | 164  | 345153   | 40.00 | ppm    | -0.02    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.621  | 112  | 132469   | 21.84 | ppm    | 0.10     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.68% |          |
| 8) Phenol-d5                 | 4.364  | 99   | 130463   | 16.73 | ppm    | 0.08     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 33.46% |          |
| 25) Nitrobenzene-d5          | 4.898  | 82   | 403850   | 39.12 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.24% |          |
| 51) 2-Fluorobiphenyl         | 6.175  | 172  | 414489   | 31.26 | ppm    | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 62.52% |          |
| 73) 2,4,6-Tribromophenol     | 7.585  | 330  | 68002    | 33.61 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 67.22% |          |
| 85) Terphenyl-d14            | 11.426 | 244  | 551642   | 33.47 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 66.94% |          |

Target Compounds Qvalue

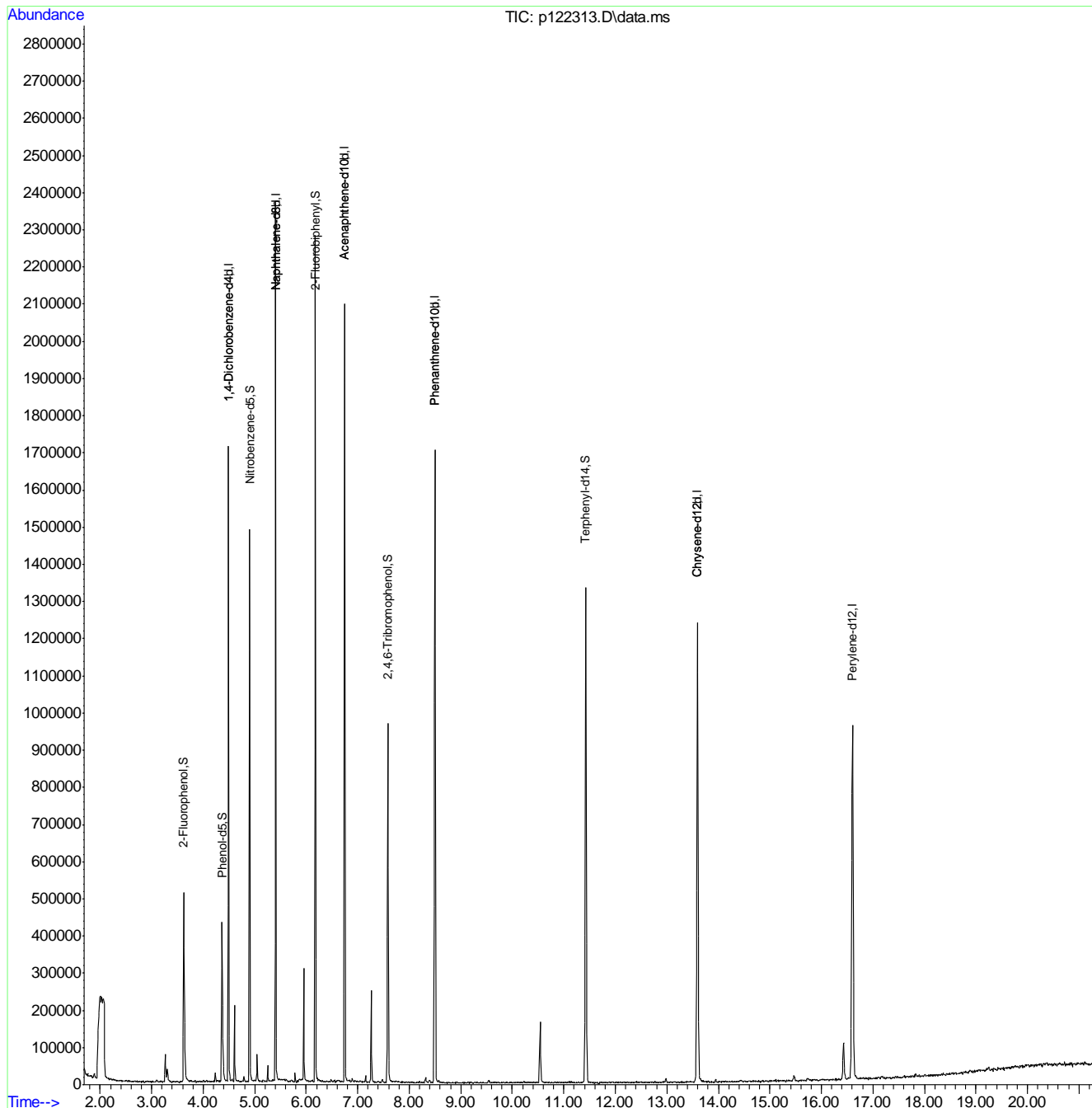
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5490\  
 Data File : p122313.D  
 Acq On : 2 May 2018 1:20 am  
 Operator : georges  
 Sample : op11610-mb1  
 Misc : op11610,ep5490,1000,,,1,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: May 02 13:50:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MP5484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Tue May 01 20:50:00 2018  
 Response via : Initial Calibration



9.2.1  
9

## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 16:44 | MA44291-STD1       | 1               |          | STDA   |
| 16:48 | MA44291-STD2       | 1               |          | STDB   |
| 16:52 | ZZZZZZ             | 1               |          |  |
| 16:56 | ZZZZZZ             | 1               |          |  |
| 17:01 | MA44291-ICV1       | 1               |          |  |
| 17:08 | MA44291-ICB1       | 1               |          |  |
| 17:12 | MA44291-ICCV1      | 1               |          |  |
| 17:21 | MA44291-CCB1       | 1               |          |  |
| 17:25 | MA44291-CRI1       | 1               |          |  |
| 17:29 | MA44291-CRID1      | 1               |          |  |
| 17:34 | MA44291-ICSA1      | 1               |          |  |
| 17:38 | MA44291-ICSAB1     | 1               |          |  |
| 17:42 | MA44291-HSTD1      | 1               |          |  |
| 17:46 | MA44291-HSTD2      | 1               |          |  |
| 17:51 | ZZZZZZ             | 1               |          |  |
| 17:55 | ZZZZZZ             | 1               |          |  |
| 17:59 | ZZZZZZ             | 1               |          |  |
| 18:04 | MA44291-CCV1       | 1               |          |  |
| 18:08 | MA44291-CCB2       | 1               |          |  |
| 18:12 | ZZZZZZ             | 3               |          |  |
| 18:18 | ZZZZZZ             | 1               |          |  |
| 18:22 | MP6819-MB1         | 1               |          |  |
| 18:26 | MP6819-MB2         | 1               |          |  |
| 18:31 | MP6819-B1          | 1               |          |  |
| 18:35 | MP6819-B2          | 1               |          |  |
| 18:39 | MP6819-S1          | 1               |          | MN high  |
| 18:43 | MP6819-S2          | 1               |          | MN high  |
| 18:47 | JC64763-2          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 18:51 | MP6819-SD1         | 5               |          |  |
| 18:56 | MA44291-CCV2       | 1               |          |  |
| 19:00 | MA44291-CCB3       | 1               |          |  |
| 19:04 | ZZZZZZ             | 1               |          |  |
| 19:08 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 19:13 | ZZZZZZ             | 1               |          |  |
| 19:17 | ZZZZZZ             | 1               |          |  |
| 19:22 | ZZZZZZ             | 1               |          |  |
| 19:26 | ZZZZZZ             | 1               |          |  |
| 19:30 | ZZZZZZ             | 1               |          |  |
| 19:35 | ZZZZZZ             | 1               |          |  |
| 19:39 | ZZZZZZ             | 1               |          |  |
| 19:43 | MA44291-CCV3       | 1               |          |  |
| 19:47 | MA44291-CCB4       | 1               |          |  |
| 19:52 | ZZZZZZ             | 1               |          |  |
| 19:56 | ZZZZZZ             | 1               |          |  |
| 20:01 | ZZZZZZ             | 1               |          |  |
| 20:05 | ZZZZZZ             | 1               |          |  |
| 20:09 | ZZZZZZ             | 1               |          |  |
| 20:14 | ZZZZZZ             | 1               |          |  |
| 20:18 | ZZZZZZ             | 1               |          |  |
| 20:22 | ZZZZZZ             | 1               |          |  |
| 20:26 | MP6812-B1          | 1               |          |  |
| 20:30 | MA44291-CCV4       | 1               |          |  |
| 20:35 | MA44291-CCB5       | 1               |          |  |
| 20:39 | MP6812-MB1         | 1               |          |  |
| 20:43 | MP6812-S1          | 1               |          |  |
| 20:47 | MP6812-S2          | 1               |          |  |
| 20:51 | JC64753-7          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 20:56 | MP6812-SD1         | 5               |          |  |
| 21:00 | ZZZZZZ             | 1               |          |  |
| 21:04 | ZZZZZZ             | 1               |          |  |
| 21:08 | ZZZZZZ             | 1               |          |  |
| 21:13 | ZZZZZZ             | 1               |          |  |
| 21:17 | MA44291-CCV5       | 1               |          |  |
| 21:21 | MA44291-CCB6       | 1               |          |  |
| 21:25 | ZZZZZZ             | 1               |          |  |
| 21:30 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 21:34 | ZZZZZZ             | 1               |          |  |
| 21:38 | ZZZZZZ             | 1               |          |  |
| 21:43 | ZZZZZZ             | 1               |          |  |
| 21:47 | ZZZZZZ             | 1               |          |  |
| 21:51 | ZZZZZZ             | 1               |          |  |
| 21:56 | ZZZZZZ             | 1               |          |  |
| 22:00 | ZZZZZZ             | 1               |          |  |
| 22:04 | MA44291-CCV6       | 1               |          |  |
| 22:08 | MA44291-CCB7       | 1               |          |  |
| 22:13 | ZZZZZZ             | 1               |          |  |
| 22:17 | ZZZZZZ             | 1               |          |  |
| 22:21 | ZZZZZZ             | 1               |          |  |
| 22:25 | MP6815-MB2         | 5               |          |  |
| 22:30 | MP6815-B2          | 5               |          |  |
| 22:34 | ZZZZZZ             | 5               |          |  |
| 22:39 | ZZZZZZ             | 5               |          |  |
| 22:43 | ZZZZZZ             | 5               |          |  |
| 22:47 | ZZZZZZ             | 5               |          |  |
| 22:52 | MA44291-CCV7       | 1               |          |  |
| 22:56 | MA44291-CCB8       | 1               |          |  |
| 23:00 | ZZZZZZ             | 5               |          |  |
| 23:05 | ZZZZZZ             | 5               |          |  |
| 23:11 | ZZZZZZ             | 100             |          |  |
| 23:15 | MP6802-B1          | 1               |          |  |
| 23:19 | MP6802-MB1         | 1               |          |  |
| 23:24 | MP6802-S1          | 1               |          |  |
| 23:28 | MP6802-S2          | 1               |          |  |
| 23:32 | JC64612-1A         | 1               |          | (sample used for QC only; not part of login JC64857) |
| 23:36 | MP6802-SD1         | 5               |          |  |
| 23:40 | ZZZZZZ             | 1               |          |  |
| 23:44 | MA44291-CCV8       | 1               |          |  |
| 23:49 | MA44291-CCB9       | 1               |          |  |
| 23:53 | MA44291-CRI2       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 23:57 | MA44291-CRID2      | 1               |          |  |
| 00:02 | MA44291-ICSA2      | 1               |          |  |
| 00:06 | MA44291-ICSAB2     | 1               |          |  |
| 00:10 | MA44291-CCV9       | 1               |          |  |
| 00:14 | MA44291-CCB10      | 1               |          |  |
| 00:19 | ZZZZZZ             | 1               |          |  |
| 00:23 | ZZZZZZ             | 1               |          |  |
| 00:27 | ZZZZZZ             | 1               |          |  |
| 00:32 | ZZZZZZ             | 1               |          |  |
| 00:36 | ZZZZZZ             | 1               |          |  |
| 00:41 | ZZZZZZ             | 1               |          |  |
| 00:45 | ZZZZZZ             | 1               |          |  |
| 00:49 | ZZZZZZ             | 1               |          |  |
| 00:54 | ZZZZZZ             | 1               |          |  |
| 00:58 | ZZZZZZ             | 1               |          |  |
| 01:02 | ZZZZZZ             | 1               |          |  |
| 01:07 | ZZZZZZ             | 1               |          |  |
| 01:11 | MA44291-CCV10      | 1               |          |  |
| 01:15 | MA44291-CCB11      | 1               |          |  |
| 01:20 | MP6802-S3          | 1               |          |  |
| 01:24 | MP6802-S4          | 1               |          |  |
| 01:28 | JC64612-1AF        | 1               |          | (sample used for QC only; not part of login JC64857) |
| 01:32 | MP6802-SD2         | 5               |          |  |
| 01:37 | ZZZZZZ             | 1               |          |  |
| 01:41 | ZZZZZZ             | 1               |          |  |
| 01:45 | ZZZZZZ             | 1               |          |  |
| 01:49 | ZZZZZZ             | 1               |          |  |
| 01:54 | ZZZZZZ             | 1               |          |  |
| 01:58 | MA44291-CCV11      | 1               |          |  |
| 02:02 | MA44291-CCB12      | 1               |          |  |
| 02:06 | ZZZZZZ             | 1               |          |  |
| 02:11 | ZZZZZZ             | 1               |          |  |
| 02:15 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 02:19 | ZZZZZZ             | 1               |          |  |
| 02:23 | ZZZZZZ             | 1               |          |  |
| 02:28 | ZZZZZZ             | 1               |          |  |
| 02:32 | ZZZZZZ             | 1               |          |  |
| 02:36 | ZZZZZZ             | 1               |          |  |
| 02:40 | ZZZZZZ             | 1               |          |  |
| 02:45 | MA44291-CCV12      | 1               |          |  |
| 02:49 | MA44291-CCB13      | 1               |          |  |
| 02:53 | ZZZZZZ             | 1               |          |  |
| 02:58 | ZZZZZZ             | 1               |          |  |
| 03:02 | ZZZZZZ             | 1               |          |  |
| 03:06 | ZZZZZZ             | 1               |          |  |
| 03:10 | MP6829-B1          | 1               |          |  |
| 03:14 | MP6829-MB1         | 1               |          |  |
| 03:19 | MP6829-MB2         | 1               |          |  |
| 03:23 | MP6829-B2          | 1               |          |  |
| 03:27 | MP6829-S1          | 1               |          |  |
| 03:31 | MP6829-S2          | 1               |          |  |
| 03:35 | MA44291-CCV13      | 1               |          |  |
| 03:39 | MA44291-CCB14      | 1               |          |  |
| 03:44 | JC64768-2          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 03:48 | MP6829-SD1         | 5               |          |  |
| 03:52 | ZZZZZZ             | 1               |          |  |
| 03:57 | ZZZZZZ             | 1               |          |  |
| 04:01 | ZZZZZZ             | 1               |          |  |
| 04:05 | ZZZZZZ             | 1               |          |  |
| 04:10 | ZZZZZZ             | 1               |          |  |
| 04:14 | ZZZZZZ             | 1               |          |  |
| 04:18 | ZZZZZZ             | 1               |          |  |
| 04:23 | MA44291-CCV14      | 1               |          |  |
| 04:27 | MA44291-CCB15      | 1               |          |  |
| 04:31 | ZZZZZZ             | 1               |          |  |
| 04:35 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
Analyst: PP Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 04:40  | ZZZZZZ                                      | 1               |          |  |
| 04:44  | JC64857-1                                   | 1               |          |  |
| 04:48  | JC64857-2                                   | 1               |          |  |
| 04:52  | JC64857-3                                   | 1               |          |  |
| 04:57  | JC64857-1F                                  | 1               |          | Na high  |
| 05:01  | JC64857-2F                                  | 1               |          |  |
| 05:05  | JC64857-3F                                  | 1               |          |  |
| -----> | Last reportable sample/prep for job JC64857 |                 |          |  |
| 05:10  | MA44291-CCV15                               | 1               |          |  |
| 05:14  | MA44291-CCB16                               | 1               |          |  |
| 05:18  | MP6795-MB2                                  | 5               |          |  |
| 05:23  | MP6795-B2                                   | 5               |          |  |
| 05:27  | ZZZZZZ                                      | 5               |          |  |
| 05:31  | MP6846-B1                                   | 1               |          |  |
| 05:35  | MP6846-MB1                                  | 1               |          |  |
| 05:40  | MP6846-S1                                   | 1               |          |  |
| 05:44  | MP6846-S2                                   | 1               |          |  |
| 05:48  | JC64707-13A                                 | 1               |          | (sample used for QC only; not part of login JC64857) |
| 05:52  | MP6846-SD1                                  | 5               |          |  |
| 05:56  | MA44291-CCV16                               | 1               |          |  |
| 06:01  | MA44291-CCB17                               | 1               |          |  |
| 06:05  | MA44291-CRI3                                | 1               |          |  |
| 06:09  | MA44291-CRID3                               | 1               |          |  |
| 06:14  | MA44291-CCV17                               | 1               |          |  |
| 06:18  | MA44291-CCB18                               | 1               |          |  |
| -----> | Last reportable CCB for job JC64857         |                 |          |  |
| 06:22  | MP6826-MB1                                  | 1               |          |  |
| 06:26  | MP6826-B1                                   | 1               |          |  |
| 06:30  | MP6826-S1                                   | 1               |          |  |
| 06:34  | MP6826-S2                                   | 1               |          |  |
| 06:38  | JC64779-1                                   | 1               |          | (sample used for QC only; not part of login JC64857) |
| 06:43  | MP6826-SD1                                  | 5               |          |  |
| 06:47  | ZZZZZZ                                      | 1               |          |  |
| 06:51  | ZZZZZZ                                      | 1               |          |  |
| 06:56  | MA44291-CCV18                               | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
Analyst: PP      Run ID: MA44291  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 07:00 | MA44291-CCB19      | 1               |          |          |
| 07:04 | ZZZZZZ             | 1               |          |          |
| 07:08 | ZZZZZZ             | 1               |          |          |
| 07:13 | ZZZZZZ             | 1               |          |          |
| 07:17 | ZZZZZZ             | 1               |          |          |
| 07:21 | ZZZZZZ             | 1               |          |          |
| 07:26 | MA44291-CCV19      | 1               |          |          |
| 07:30 | MA44291-CCB20      | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 16:44 | MA44291-STD1       | 3539 R | 103010 R | 13599 R | 7689 R |
| 16:48 | MA44291-STD2       | 3300   | 95529    | 13418   | 6637   |
| 16:52 | ZZZZZZ             | 3394   | 98311    | 13487   | 6901   |
| 16:56 | ZZZZZZ             | 3543   | 103430   | 13610   | 7727   |
| 17:01 | MA44291-ICV1       | 3398   | 98962    | 13589   | 6929   |
| 17:08 | MA44291-ICB1       | 3541   | 102890   | 13652   | 7699   |
| 17:12 | MA44291-ICCV1      | 3393   | 98367    | 13593   | 6905   |
| 17:21 | MA44291-CCB1       | 3537   | 103520   | 13712   | 7709   |
| 17:25 | MA44291-CRI1       | 3498   | 101970   | 13672   | 7543   |
| 17:29 | MA44291-CRID1      | 3532   | 103460   | 13674   | 7682   |
| 17:34 | MA44291-ICSA1      | 3123   | 90451    | 13217   | 6096   |
| 17:38 | MA44291-ICSAB1     | 3125   | 90562    | 13272   | 6113   |
| 17:42 | MA44291-HSTD1      | 3482   | 102340   | 13739   | 7498   |
| 17:46 | MA44291-HSTD2      | 3189   | 92202    | 13233   | 6192   |
| 17:51 | ZZZZZZ             | 3480   | 101450   | 13684   | 7604   |
| 17:55 | ZZZZZZ             | 3470   | 103340   | 13782   | 7718   |
| 17:59 | ZZZZZZ             | 3529   | 103850   | 13749   | 7714   |
| 18:04 | MA44291-CCV1       | 3394   | 99003    | 13589   | 6929   |
| 18:08 | MA44291-CCB2       | 3536   | 103620   | 13667   | 7728   |
| 18:12 | ZZZZZZ             | 3658   | 106460   | 14607   | 7167   |
| 18:18 | ZZZZZZ             | 3559   | 105150   | 13836   | 7760   |
| 18:22 | MP6819-MB1         | 3559   | 104740   | 13867   | 7780   |
| 18:26 | MP6819-MB2         | 3561   | 104990   | 13820   | 7786   |
| 18:31 | MP6819-B1          | 3461   | 101110   | 13830   | 7166   |
| 18:35 | MP6819-B2          | 3464   | 101560   | 13769   | 7191   |
| 18:39 | MP6819-S1          | 3314   | 97954    | 13615   | 6671   |
| 18:43 | MP6819-S2          | 3327   | 97885    | 13646   | 6682   |
| 18:47 | JC64763-2          | 3350   | 98895    | 13655   | 6879   |
| 18:51 | MP6819-SD1         | 3490   | 102010   | 13731   | 7448   |
| 18:56 | MA44291-CCV2       | 3427   | 99628    | 13597   | 6981   |
| 19:00 | MA44291-CCB3       | 3556   | 104530   | 13792   | 7756   |
| 19:04 | ZZZZZZ             | 3352   | 98696    | 13744   | 6888   |
| 19:08 | ZZZZZZ             | 3192   | 92155    | 13458   | 6298   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 19:13 | ZZZZZZ             | 2985   | 85779  | 13010  | 5785   |
| 19:17 | ZZZZZZ             | 3041   | 87878  | 13100  | 5962   |
| 19:22 | ZZZZZZ             | 3011   | 86489  | 13079  | 5861   |
| 19:26 | ZZZZZZ             | 3565   | 105040 | 13889  | 7781   |
| 19:30 | ZZZZZZ             | 3364   | 97289  | 13675  | 6860   |
| 19:35 | ZZZZZZ             | 3398   | 98478  | 13707  | 7003   |
| 19:39 | ZZZZZZ             | 3328   | 96783  | 13547  | 6824   |
| 19:43 | MA44291-CCV3       | 3395   | 98802  | 13520  | 6942   |
| 19:47 | MA44291-CCB4       | 3532   | 103200 | 13716  | 7732   |
| 19:52 | ZZZZZZ             | 3341   | 96241  | 13763  | 6816   |
| 19:56 | ZZZZZZ             | 3162   | 91608  | 13454  | 6296   |
| 20:01 | ZZZZZZ             | 2934   | 82383  | 12971  | 5573   |
| 20:05 | ZZZZZZ             | 3121   | 89350  | 13331  | 6157   |
| 20:09 | ZZZZZZ             | 3527   | 104630 | 13991  | 7761   |
| 20:14 | ZZZZZZ             | 3512   | 103960 | 13990  | 7704   |
| 20:18 | ZZZZZZ             | 3512   | 103900 | 13873  | 7604   |
| 20:22 | ZZZZZZ             | 3456   | 102510 | 13859  | 7417   |
| 20:26 | MP6812-B1          | 3410   | 100900 | 13743  | 7135   |
| 20:30 | MA44291-CCV4       | 3364   | 98719  | 13617  | 6933   |
| 20:35 | MA44291-CCB5       | 3501   | 103030 | 13750  | 7719   |
| 20:39 | MP6812-MB1         | 3493   | 104090 | 13928  | 7743   |
| 20:43 | MP6812-S1          | 3300   | 98773  | 13732  | 6801   |
| 20:47 | MP6812-S2          | 3298   | 98472  | 13647  | 6779   |
| 20:51 | JC64753-7          | 3314   | 99366  | 13602  | 7026   |
| 20:56 | MP6812-SD1         | 3431   | 102440 | 13650  | 7532   |
| 21:00 | ZZZZZZ             | 3483   | 104560 | 13840  | 7759   |
| 21:04 | ZZZZZZ             | 3303   | 98624  | 13561  | 6988   |
| 21:08 | ZZZZZZ             | 3255   | 97491  | 13409  | 6850   |
| 21:13 | ZZZZZZ             | 3291   | 98310  | 13528  | 6976   |
| 21:17 | MA44291-CCV5       | 3317   | 98380  | 13471  | 6892   |
| 21:21 | MA44291-CCB6       | 3471   | 103340 | 13518  | 7706   |
| 21:25 | ZZZZZZ             | 3303   | 98988  | 13517  | 7028   |
| 21:30 | ZZZZZZ             | 3445   | 102970 | 13742  | 7474   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 21:34 | ZZZZZZ             | 3435   | 102530 | 13826  | 7491   |
| 21:38 | ZZZZZZ             | 3242   | 94726  | 13547  | 6672   |
| 21:43 | ZZZZZZ             | 3363   | 99581  | 13615  | 7168   |
| 21:47 | ZZZZZZ             | 3219   | 94762  | 13466  | 6626   |
| 21:51 | ZZZZZZ             | 3202   | 93335  | 13258  | 6523   |
| 21:56 | ZZZZZZ             | 3060   | 88077  | 13266  | 5953   |
| 22:00 | ZZZZZZ             | 3311   | 98462  | 13562  | 7012   |
| 22:04 | MA44291-CCV6       | 3334   | 98437  | 13411  | 6900   |
| 22:08 | MA44291-CCB7       | 3462   | 103510 | 13541  | 7693   |
| 22:13 | ZZZZZZ             | 3256   | 96533  | 13479  | 6774   |
| 22:17 | ZZZZZZ             | 3468   | 104040 | 13662  | 7721   |
| 22:21 | ZZZZZZ             | 3475   | 104350 | 13787  | 7738   |
| 22:25 | MP6815-MB2         | 3255   | 94972  | 13365  | 6692   |
| 22:30 | MP6815-B2          | 3284   | 95679  | 13476  | 6656   |
| 22:34 | ZZZZZZ             | 3268   | 95370  | 13345  | 6709   |
| 22:39 | ZZZZZZ             | 3270   | 95516  | 13360  | 6664   |
| 22:43 | ZZZZZZ             | 3235   | 94463  | 13206  | 6539   |
| 22:47 | ZZZZZZ             | 3284   | 95364  | 13349  | 6710   |
| 22:52 | MA44291-CCV7       | 3335   | 98719  | 13446  | 6907   |
| 22:56 | MA44291-CCB8       | 3469   | 103280 | 13522  | 7693   |
| 23:00 | ZZZZZZ             | 3237   | 96229  | 13468  | 6647   |
| 23:05 | ZZZZZZ             | 3200   | 93903  | 13380  | 6486   |
| 23:11 | ZZZZZZ             | 3456   | 102380 | 13497  | 7546   |
| 23:15 | MP6802-B1          | 3390   | 101230 | 13621  | 7130   |
| 23:19 | MP6802-MB1         | 3507   | 104760 | 13769  | 7758   |
| 23:24 | MP6802-S1          | 3374   | 100620 | 13678  | 6976   |
| 23:28 | MP6802-S2          | 3366   | 100520 | 13678  | 6959   |
| 23:32 | JC64612-1A         | 3404   | 102010 | 13673  | 7351   |
| 23:36 | MP6802-SD1         | 3467   | 103340 | 13567  | 7642   |
| 23:40 | ZZZZZZ             | 3410   | 101330 | 13659  | 7141   |
| 23:44 | MA44291-CCV8       | 3347   | 98808  | 13563  | 6907   |
| 23:49 | MA44291-CCB9       | 3499   | 103590 | 13510  | 7732   |
| 23:53 | MA44291-CRI2       | 3461   | 102410 | 13517  | 7542   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 23:57 | MA44291-CRID2      | 3495   | 104280 | 13581  | 7693   |
| 00:02 | MA44291-ICSA2      | 3079   | 90939  | 13090  | 6094   |
| 00:06 | MA44291-ICSAB2     | 3087   | 91488  | 13094  | 6127   |
| 00:10 | MA44291-CCV9       | 3362   | 99008  | 13455  | 6951   |
| 00:14 | MA44291-CCB10      | 3490   | 104010 | 13583  | 7726   |
| 00:19 | ZZZZZZ             | 3226   | 95252  | 13158  | 6612   |
| 00:23 | ZZZZZZ             | 3484   | 99455  | 13906  | 6925   |
| 00:27 | ZZZZZZ             | 3245   | 96013  | 13196  | 6724   |
| 00:32 | ZZZZZZ             | 3529   | 104970 | 13625  | 7823   |
| 00:36 | ZZZZZZ             | 3548   | 105260 | 13695  | 7825   |
| 00:41 | ZZZZZZ             | 3508   | 104480 | 13628  | 7729   |
| 00:45 | ZZZZZZ             | 3517   | 104600 | 13741  | 7774   |
| 00:49 | ZZZZZZ             | 3513   | 104120 | 13648  | 7733   |
| 00:54 | ZZZZZZ             | 3563   | 106080 | 14112  | 7967   |
| 00:58 | ZZZZZZ             | 3506   | 103720 | 13670  | 7751   |
| 01:02 | ZZZZZZ             | 3512   | 103950 | 13580  | 7780   |
| 01:07 | ZZZZZZ             | 3510   | 104310 | 13618  | 7744   |
| 01:11 | MA44291-CCV10      | 3381   | 99372  | 13576  | 6950   |
| 01:15 | MA44291-CCB11      | 3559   | 105320 | 13830  | 7843   |
| 01:20 | MP6802-S3          | 3405   | 100870 | 13806  | 7015   |
| 01:24 | MP6802-S4          | 3402   | 100720 | 13787  | 7004   |
| 01:28 | JC64612-1AF        | 3453   | 103160 | 13851  | 7426   |
| 01:32 | MP6802-SD2         | 3538   | 104760 | 13834  | 7746   |
| 01:37 | ZZZZZZ             | 3506   | 104270 | 13839  | 7597   |
| 01:41 | ZZZZZZ             | 3438   | 102070 | 13737  | 7280   |
| 01:45 | ZZZZZZ             | 3237   | 101680 | 13781  | 7252   |
| 01:49 | ZZZZZZ             | 3290   | 96804  | 13709  | 7416   |
| 01:54 | ZZZZZZ             | 3442   | 102460 | 13904  | 7279   |
| 01:58 | MA44291-CCV11      | 3415   | 100210 | 13650  | 7002   |
| 02:02 | MA44291-CCB12      | 3535   | 105320 | 13723  | 7793   |
| 02:06 | ZZZZZZ             | 3237   | 96572  | 13625  | 6710   |
| 02:11 | ZZZZZZ             | 3369   | 100340 | 13745  | 7114   |
| 02:15 | ZZZZZZ             | 3350   | 99971  | 13780  | 7057   |

10.1.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 02:19 | ZZZZZZ             | 3373   | 102440 | 13910  | 7142   |
| 02:23 | ZZZZZZ             | 3369   | 101760 | 13925  | 7151   |
| 02:28 | ZZZZZZ             | 3516   | 104550 | 13971  | 7623   |
| 02:32 | ZZZZZZ             | 3445   | 101980 | 13837  | 7273   |
| 02:36 | ZZZZZZ             | 3224   | 101680 | 13834  | 7234   |
| 02:40 | ZZZZZZ             | 3289   | 96700  | 13761  | 7423   |
| 02:45 | MA44291-CCV12      | 3418   | 100320 | 13700  | 7017   |
| 02:49 | MA44291-CCB13      | 3537   | 105270 | 13751  | 7793   |
| 02:53 | ZZZZZZ             | 3422   | 101600 | 13796  | 7235   |
| 02:58 | ZZZZZZ             | 3229   | 96103  | 13516  | 6718   |
| 03:02 | ZZZZZZ             | 3366   | 99770  | 13721  | 7100   |
| 03:06 | ZZZZZZ             | 3339   | 99086  | 13733  | 7065   |
| 03:10 | MP6829-B1          | 3439   | 102050 | 13806  | 7181   |
| 03:14 | MP6829-MB1         | 3543   | 105850 | 14053  | 7832   |
| 03:19 | MP6829-MB2         | 3550   | 105840 | 13972  | 7823   |
| 03:23 | MP6829-B2          | 3441   | 101960 | 13862  | 7190   |
| 03:27 | MP6829-S1          | 3389   | 100880 | 13779  | 6999   |
| 03:31 | MP6829-S2          | 3394   | 100720 | 13846  | 6997   |
| 03:35 | MA44291-CCV13      | 3411   | 100320 | 13787  | 7008   |
| 03:39 | MA44291-CCB14      | 3548   | 105220 | 13856  | 7828   |
| 03:44 | JC64768-2          | 3432   | 102060 | 13960  | 7347   |
| 03:48 | MP6829-SD1         | 3516   | 104310 | 13958  | 7703   |
| 03:52 | ZZZZZZ             | 3483   | 103830 | 13949  | 7489   |
| 03:57 | ZZZZZZ             | 3342   | 98618  | 13745  | 6962   |
| 04:01 | ZZZZZZ             | 3474   | 102690 | 13850  | 7455   |
| 04:05 | ZZZZZZ             | 3422   | 100440 | 13837  | 7170   |
| 04:10 | ZZZZZZ             | 3364   | 98549  | 13813  | 6926   |
| 04:14 | ZZZZZZ             | 3365   | 99313  | 13849  | 6989   |
| 04:18 | ZZZZZZ             | 3438   | 101630 | 13723  | 7266   |
| 04:23 | MA44291-CCV14      | 3410   | 100590 | 13728  | 6982   |
| 04:27 | MA44291-CCB15      | 3559   | 105620 | 13901  | 7838   |
| 04:31 | ZZZZZZ             | 3414   | 102020 | 13846  | 7109   |
| 04:35 | ZZZZZZ             | 3379   | 100060 | 13889  | 7041   |

10.1.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 04:40 | ZZZZZZ             | 3452   | 101890 | 14034  | 7124   |
| 04:44 | JC64857-1          | 3401   | 100740 | 13966  | 6975   |
| 04:48 | JC64857-2          | 3257   | 96265  | 13683  | 6720   |
| 04:52 | JC64857-3          | 3458   | 102530 | 13987  | 7162   |
| 04:57 | JC64857-1F         | 3206   | 93998  | 13580  | 6489   |
| 05:01 | JC64857-2F         | 3256   | 96403  | 13622  | 6727   |
| 05:05 | JC64857-3F         | 3312   | 98213  | 13718  | 6872   |
| 05:10 | MA44291-CCV15      | 3434   | 100730 | 13889  | 7032   |
| 05:14 | MA44291-CCB16      | 3576   | 105680 | 13927  | 7846   |
| 05:18 | MP6795-MB2         | 3353   | 96615  | 13725  | 6799   |
| 05:23 | MP6795-B2          | 3383   | 98011  | 13810  | 6792   |
| 05:27 | ZZZZZZ             | 3266   | 95473  | 13606  | 6563   |
| 05:31 | MP6846-B1          | 3454   | 102480 | 13977  | 7192   |
| 05:35 | MP6846-MB1         | 3561   | 105770 | 14144  | 7810   |
| 05:40 | MP6846-S1          | 3455   | 102480 | 13940  | 7180   |
| 05:44 | MP6846-S2          | 3453   | 102710 | 14002  | 7192   |
| 05:48 | JC64707-13A        | 3565   | 105730 | 14129  | 7716   |
| 05:52 | MP6846-SD1         | 3561   | 106010 | 13977  | 7824   |
| 05:56 | MA44291-CCV16      | 3417   | 100850 | 13803  | 7015   |
| 06:01 | MA44291-CCB17      | 3556   | 105330 | 13918  | 7841   |
| 06:05 | MA44291-CRI3       | 3531   | 104250 | 13972  | 7663   |
| 06:09 | MA44291-CRID3      | 3553   | 105970 | 13934  | 7796   |
| 06:14 | MA44291-CCV17      | 3435   | 100670 | 13881  | 7023   |
| 06:18 | MA44291-CCB18      | 3586   | 106580 | 14011  | 7880   |
| 06:22 | MP6826-MB1         | 3636   | 108050 | 14456  | 8116   |
| 06:26 | MP6826-B1          | 3529   | 104130 | 14445  | 7412   |
| 06:30 | MP6826-S1          | 3392   | 100130 | 14156  | 6954   |
| 06:34 | MP6826-S2          | 3395   | 100490 | 14193  | 6955   |
| 06:38 | JC64779-1          | 3418   | 100890 | 14163  | 7221   |
| 06:43 | MP6826-SD1         | 3472   | 102830 | 13795  | 7534   |
| 06:47 | ZZZZZZ             | 3449   | 101450 | 14328  | 7167   |
| 06:51 | ZZZZZZ             | 3405   | 100610 | 14147  | 7171   |
| 06:56 | MA44291-CCV18      | 3416   | 100820 | 13879  | 7024   |

10.1.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: PP Run ID: MA44291  
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 07:00 | MA44291-CCB19      | 3576   | 106210 | 14021  | 7898   |
| 07:04 | ZZZZZZ             | 3422   | 102870 | 14402  | 7221   |
| 07:08 | ZZZZZZ             | 3374   | 101800 | 14291  | 7121   |
| 07:13 | ZZZZZZ             | 3355   | 100960 | 14208  | 7078   |
| 07:17 | ZZZZZZ             | 3393   | 101970 | 14230  | 7141   |
| 07:21 | ZZZZZZ             | 3435   | 101140 | 14257  | 7230   |
| 07:26 | MA44291-CCV19      | 3424   | 100810 | 13844  | 7022   |
| 07:30 | MA44291-CCB20      | 3598   | 106650 | 13946  | 7917   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

10.1.1  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      |      |     | 17:08  |        |        | 17:21  |        |        | 18:08  |        |     | 19:00 |
|------------|------|-----|--------|--------|--------|--------|--------|--------|--------|--------|-----|-------|
| Sample ID: | RL   | IDL | ICB1   | final  | CCB1   | final  | CCB2   | final  | CCB3   | final  |     |       |
| Metal      |      |     | raw    |        | raw    |        | raw    |        | raw    |        | raw | final |
| Aluminum   | 200  | 34  | 6.50   | <200   | 6.90   | <200   | 8.50   | <200   | 5.50   | <200   |     |       |
| Antimony   | 6.0  | 1.4 | -0.400 | <6.0   | -0.300 | <6.0   | -0.900 | <6.0   | 0.100  | <6.0   |     |       |
| Arsenic    | 3.0  | 1.4 | -0.200 | <3.0   | 0.300  | <3.0   | 0.500  | <3.0   | -0.100 | <3.0   |     |       |
| Barium     | 200  | .5  | 0.00   | <200   | 0.00   | <200   | 0.300  | <200   | 0.00   | <200   |     |       |
| Beryllium  | 1.0  | .2  | 0.100  | <1.0   | 0.00   | <1.0   | 0.100  | <1.0   | 0.100  | <1.0   |     |       |
| Bismuth    | 20   | 2.5 | anr    |        |        |        |        |        |        |        |     |       |
| Boron      | 100  | 1.9 |        |        |        |        |        |        |        |        |     |       |
| Cadmium    | 3.0  | .3  | 0.00   | <3.0   | 0.200  | <3.0   | 0.200  | <3.0   | 0.300  | <3.0   |     |       |
| Calcium    | 2000 | 8.7 | 30.6   | <5000  | 29.9   | <5000  | 45.6   | <5000  | 28.1   | <5000  |     |       |
| Chromium   | 10   | .6  | 0.300  | <10    | 0.500  | <10    | 0.600  | <10    | 0.600  | <10    |     |       |
| Cobalt     | 50   | .5  | 0.200  | <50    | 0.200  | <50    | 0.200  | <50    | 0.200  | <50    |     |       |
| Copper     | 10   | 1.2 | 0.100  | <10    | 0.00   | <10    | 0.500  | <10    | 0.600  | <10    |     |       |
| Iron       | 100  | 4.6 | 2.30   | <100   | 4.50   | <100   | 5.40   | <100   | 3.00   | <100   |     |       |
| Lead       | 3.0  | 1.4 | 0.900  | <3.0   | 1.20   | <3.0   | -0.100 | <3.0   | 1.10   | <3.0   |     |       |
| Lithium    | 50   | 2.8 |        |        |        |        |        |        |        |        |     |       |
| Magnesium  | 2000 | 33  | 3.20   | <5000  | 7.40   | <5000  | -5.40  | <5000  | 14.4   | <5000  |     |       |
| Manganese  | 15   | .1  | 0.100  | <15    | 0.00   | <15    | 0.100  | <15    | 0.500  | <15    |     |       |
| Molybdenum | 20   | .4  | anr    |        |        |        |        |        |        |        |     |       |
| Nickel     | 10   | .5  | 0.00   | <10    | 0.200  | <10    | 0.400  | <10    | 0.200  | <10    |     |       |
| Phosphorus | 50   | 1.7 |        |        |        |        |        |        |        |        |     |       |
| Potassium  | 2000 | 68  | 21.2   | <10000 | 17.3   | <10000 | 8.30   | <10000 | 17.1   | <10000 |     |       |
| Selenium   | 10   | 3.8 | -0.200 | <10    | 2.70   | <10    | -0.100 | <10    | 0.900  | <10    |     |       |
| Silicon    | 200  | 2.1 |        |        |        |        |        |        |        |        |     |       |
| Silver     | 10   | .5  | -0.100 | <10    | 0.00   | <10    | 0.100  | <10    | 0.100  | <10    |     |       |
| Sodium     | 2000 | 15  | 11.8   | <10000 | 7.10   | <10000 | 11.9   | <10000 | 13.0   | <10000 |     |       |
| Strontium  | 10   | .2  | anr    |        |        |        |        |        |        |        |     |       |
| Sulfur     | 50   | 20  |        |        |        |        |        |        |        |        |     |       |
| Thallium   | 2.0  | 1.6 | 0.300  | <2.0   | 0.00   | <2.0   | 0.200  | <2.0   | 0.600  | <2.0   |     |       |
| Tin        | 10   | 1   |        |        |        |        |        |        |        |        |     |       |
| Titanium   | 10   | .7  | anr    |        |        |        |        |        |        |        |     |       |
| Tungsten   | 50   | 1.8 |        |        |        |        |        |        |        |        |     |       |
| Vanadium   | 50   | .4  | 0.100  | <50    | 0.00   | <50    | 0.100  | <50    | 0.300  | <50    |     |       |
| Zinc       | 20   | .3  | 0.00   | <20    | 0.200  | <20    | 0.200  | <20    | 0.100  | <20    |     |       |

10.1.2 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

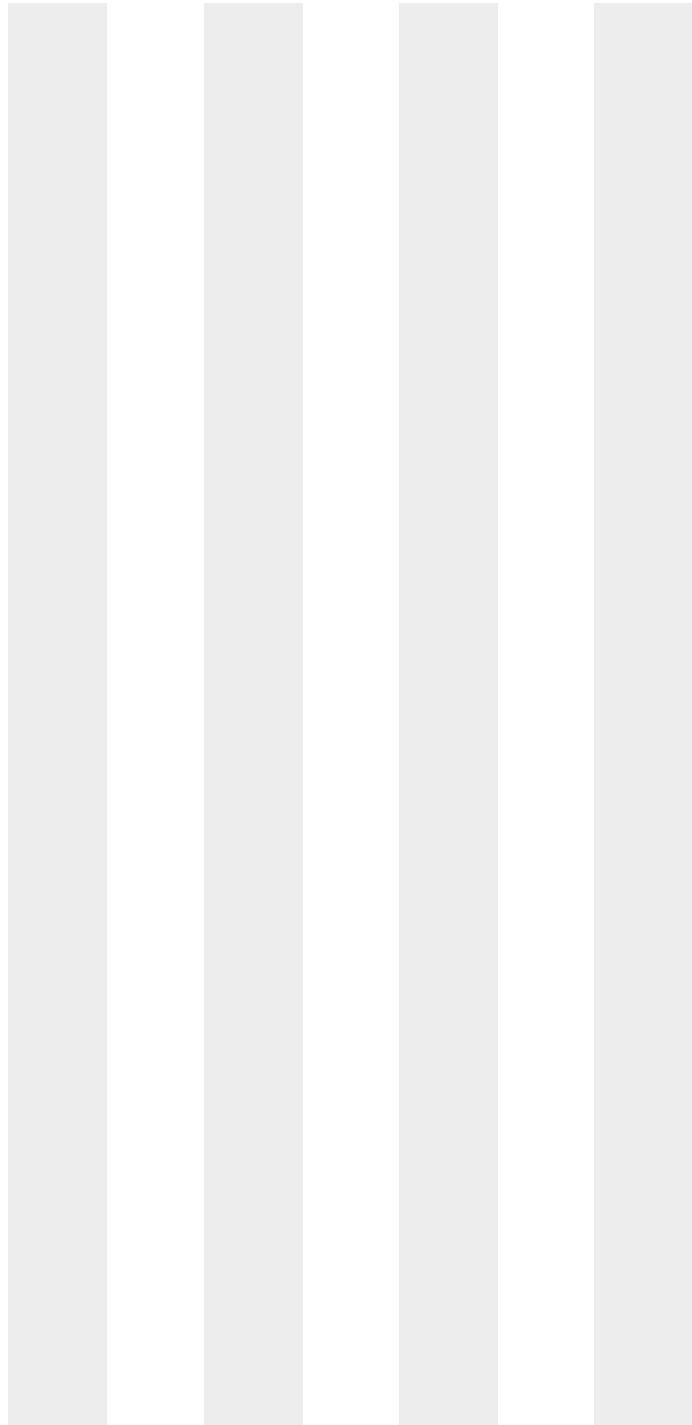
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      |    |     | 17:08 |       | 17:21 |       | 18:08 |       | 19:00 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.2  
 10



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:<br>Sample ID: | 19:47<br>CCB4 | 20:35<br>CCB5 | 21:21<br>CCB6 | 22:08<br>CCB7 |        |        |        |        |        |        |
|---------------------|---------------|---------------|---------------|---------------|--------|--------|--------|--------|--------|--------|
| Metal               | RL            | IDL           | raw           | final         | raw    | final  | raw    | final  | raw    | final  |
| Aluminum            | 200           | 34            | 6.20          | <200          | 23.6   | <200   | 15.9   | <200   | 23.8   | <200   |
| Antimony            | 6.0           | 1.4           | -1.10         | <6.0          | -0.800 | <6.0   | -0.800 | <6.0   | -1.20  | <6.0   |
| Arsenic             | 3.0           | 1.4           | 0.700         | <3.0          | -0.500 | <3.0   | -0.500 | <3.0   | -0.300 | <3.0   |
| Barium              | 200           | .5            | 0.200         | <200          | 0.00   | <200   | 0.100  | <200   | 0.00   | <200   |
| Beryllium           | 1.0           | .2            | 0.300         | <1.0          | 0.200  | <1.0   | 0.100  | <1.0   | 0.100  | <1.0   |
| Bismuth             | 20            | 2.5           | anr           |               |        |        |        |        |        |        |
| Boron               | 100           | 1.9           |               |               |        |        |        |        |        |        |
| Cadmium             | 3.0           | .3            | 0.500         | <3.0          | 0.400  | <3.0   | 0.200  | <3.0   | 0.200  | <3.0   |
| Calcium             | 2000          | 8.7           | 36.1          | <5000         | 36.7   | <5000  | 24.9   | <5000  | 31.4   | <5000  |
| Chromium            | 10            | .6            | 0.600         | <10           | 0.600  | <10    | 0.500  | <10    | 0.600  | <10    |
| Cobalt              | 50            | .5            | 0.100         | <50           | 0.300  | <50    | 0.300  | <50    | 0.100  | <50    |
| Copper              | 10            | 1.2           | 0.100         | <10           | 0.300  | <10    | 0.500  | <10    | 0.600  | <10    |
| Iron                | 100           | 4.6           | 7.50          | <100          | 6.50   | <100   | 1.80   | <100   | 9.40   | <100   |
| Lead                | 3.0           | 1.4           | 0.400         | <3.0          | 0.00   | <3.0   | -0.300 | <3.0   | 0.00   | <3.0   |
| Lithium             | 50            | 2.8           |               |               |        |        |        |        |        |        |
| Magnesium           | 2000          | 33            | -20.0         | <5000         | -5.50  | <5000  | 14.7   | <5000  | -12.8  | <5000  |
| Manganese           | 15            | .1            | 0.400         | <15           | 0.400  | <15    | 0.300  | <15    | 0.300  | <15    |
| Molybdenum          | 20            | .4            | anr           |               |        |        |        |        |        |        |
| Nickel              | 10            | .5            | 0.200         | <10           | 0.300  | <10    | 0.100  | <10    | 0.00   | <10    |
| Phosphorus          | 50            | 1.7           |               |               |        |        |        |        |        |        |
| Potassium           | 2000          | 68            | -37.9         | <10000        | -6.20  | <10000 | -21.5  | <10000 | -55.1  | <10000 |
| Selenium            | 10            | 3.8           | 0.800         | <10           | -0.800 | <10    | -1.20  | <10    | -0.300 | <10    |
| Silicon             | 200           | 2.1           |               |               |        |        |        |        |        |        |
| Silver              | 10            | .5            | 0.100         | <10           | 0.700  | <10    | 0.600  | <10    | 0.700  | <10    |
| Sodium              | 2000          | 15            | 20.6          | <10000        | 31.6   | <10000 | -4.10  | <10000 | 23.1   | <10000 |
| Strontium           | 10            | .2            | anr           |               |        |        |        |        |        |        |
| Sulfur              | 50            | 20            |               |               |        |        |        |        |        |        |
| Thallium            | 2.0           | 1.6           | 0.700         | <2.0          | 0.400  | <2.0   | 0.300  | <2.0   | 0.400  | <2.0   |
| Tin                 | 10            | 1             |               |               |        |        |        |        |        |        |
| Titanium            | 10            | .7            | anr           |               |        |        |        |        |        |        |
| Tungsten            | 50            | 1.8           |               |               |        |        |        |        |        |        |
| Vanadium            | 50            | .4            | 0.200         | <50           | 0.200  | <50    | 0.200  | <50    | 0.200  | <50    |
| Zinc                | 20            | .3            | 0.300         | <20           | 0.200  | <20    | 0.200  | <20    | 0.100  | <20    |

10.1.2 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

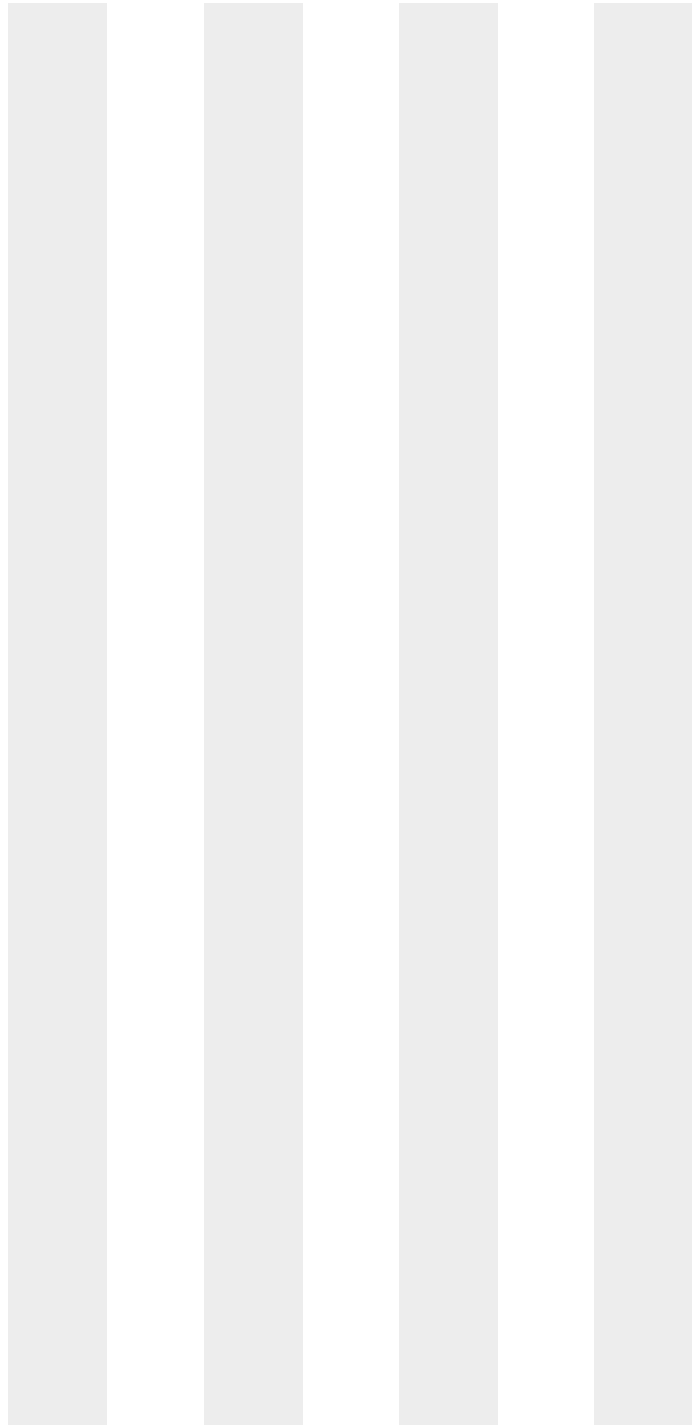
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      | 19:47 | 20:35 | 21:21 | 22:08 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.2  
 10

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      |      |     | 22:56  |        |        | 23:49  |        |        | 00:14  |        |        | 01:15 |
|------------|------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Sample ID: | RL   | IDL | CCB8   | final  | CCB9   | final  | CCB10  | final  | CCB11  | final  | final  |       |
| Metal      | RL   | IDL | raw    | final  | raw    | final  | raw    | final  | raw    | final  | final  |       |
| Aluminum   | 200  | 34  | 19.5   | <200   | 11.4   | <200   | 10.8   | <200   | 7.00   | <200   | <200   |       |
| Antimony   | 6.0  | 1.4 | -0.200 | <6.0   | -0.800 | <6.0   | -1.90  | <6.0   | -1.10  | <6.0   | <6.0   |       |
| Arsenic    | 3.0  | 1.4 | 1.10   | <3.0   | -0.100 | <3.0   | -0.300 | <3.0   | -1.20  | <3.0   | <3.0   |       |
| Barium     | 200  | .5  | 0.200  | <200   | 0.200  | <200   | 0.200  | <200   | 0.00   | <200   | <200   |       |
| Beryllium  | 1.0  | .2  | 0.200  | <1.0   | 0.300  | <1.0   | 0.200  | <1.0   | 0.200  | <1.0   | <1.0   |       |
| Bismuth    | 20   | 2.5 | anr    |        |        |        |        |        |        |        |        |       |
| Boron      | 100  | 1.9 |        |        |        |        |        |        |        |        |        |       |
| Cadmium    | 3.0  | .3  | 0.300  | <3.0   | 0.00   | <3.0   | 0.200  | <3.0   | 0.400  | <3.0   | <3.0   |       |
| Calcium    | 2000 | 8.7 | 31.4   | <5000  | 31.7   | <5000  | 33.6   | <5000  | 24.7   | <5000  | <5000  |       |
| Chromium   | 10   | .6  | 0.500  | <10    | 0.600  | <10    | 0.800  | <10    | 0.600  | <10    | <10    |       |
| Cobalt     | 50   | .5  | 0.300  | <50    | 0.300  | <50    | 0.100  | <50    | 0.100  | <50    | <50    |       |
| Copper     | 10   | 1.2 | 1.00   | <10    | 0.700  | <10    | 0.500  | <10    | 0.900  | <10    | <10    |       |
| Iron       | 100  | 4.6 | 2.80   | <100   | 0.900  | <100   | 8.70   | <100   | 3.40   | <100   | <100   |       |
| Lead       | 3.0  | 1.4 | 0.800  | <3.0   | 0.00   | <3.0   | 0.200  | <3.0   | -0.500 | <3.0   | <3.0   |       |
| Lithium    | 50   | 2.8 |        |        |        |        |        |        |        |        |        |       |
| Magnesium  | 2000 | 33  | 3.00   | <5000  | -34.7  | <5000  | 2.00   | <5000  | -1.50  | <5000  | <5000  |       |
| Manganese  | 15   | .1  | 0.400  | <15    | 0.400  | <15    | 0.300  | <15    | 0.300  | <15    | <15    |       |
| Molybdenum | 20   | .4  | anr    |        |        |        |        |        |        |        |        |       |
| Nickel     | 10   | .5  | 0.400  | <10    | 0.400  | <10    | 0.200  | <10    | 0.400  | <10    | <10    |       |
| Phosphorus | 50   | 1.7 |        |        |        |        |        |        |        |        |        |       |
| Potassium  | 2000 | 68  | 3.50   | <10000 | -9.60  | <10000 | 3.60   | <10000 | -0.200 | <10000 | <10000 |       |
| Selenium   | 10   | 3.8 | 1.50   | <10    | 0.700  | <10    | 0.800  | <10    | 0.700  | <10    | <10    |       |
| Silicon    | 200  | 2.1 |        |        |        |        |        |        |        |        |        |       |
| Silver     | 10   | .5  | 0.800  | <10    | 0.300  | <10    | 0.400  | <10    | 0.600  | <10    | <10    |       |
| Sodium     | 2000 | 15  | 43.3   | <10000 | 3.90   | <10000 | 25.5   | <10000 | 5.20   | <10000 | <10000 |       |
| Strontium  | 10   | .2  | anr    |        |        |        |        |        |        |        |        |       |
| Sulfur     | 50   | 20  |        |        |        |        |        |        |        |        |        |       |
| Thallium   | 2.0  | 1.6 | -0.100 | <2.0   | 0.700  | <2.0   | 1.20   | <2.0   | 0.400  | <2.0   | <2.0   |       |
| Tin        | 10   | 1   |        |        |        |        |        |        |        |        |        |       |
| Titanium   | 10   | .7  | anr    |        |        |        |        |        |        |        |        |       |
| Tungsten   | 50   | 1.8 |        |        |        |        |        |        |        |        |        |       |
| Vanadium   | 50   | .4  | 0.00   | <50    | 0.300  | <50    | 0.300  | <50    | 0.300  | <50    | <50    |       |
| Zinc       | 20   | .3  | 0.00   | <20    | 0.200  | <20    | 0.200  | <20    | 0.200  | <20    | <20    |       |

10.1.2 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

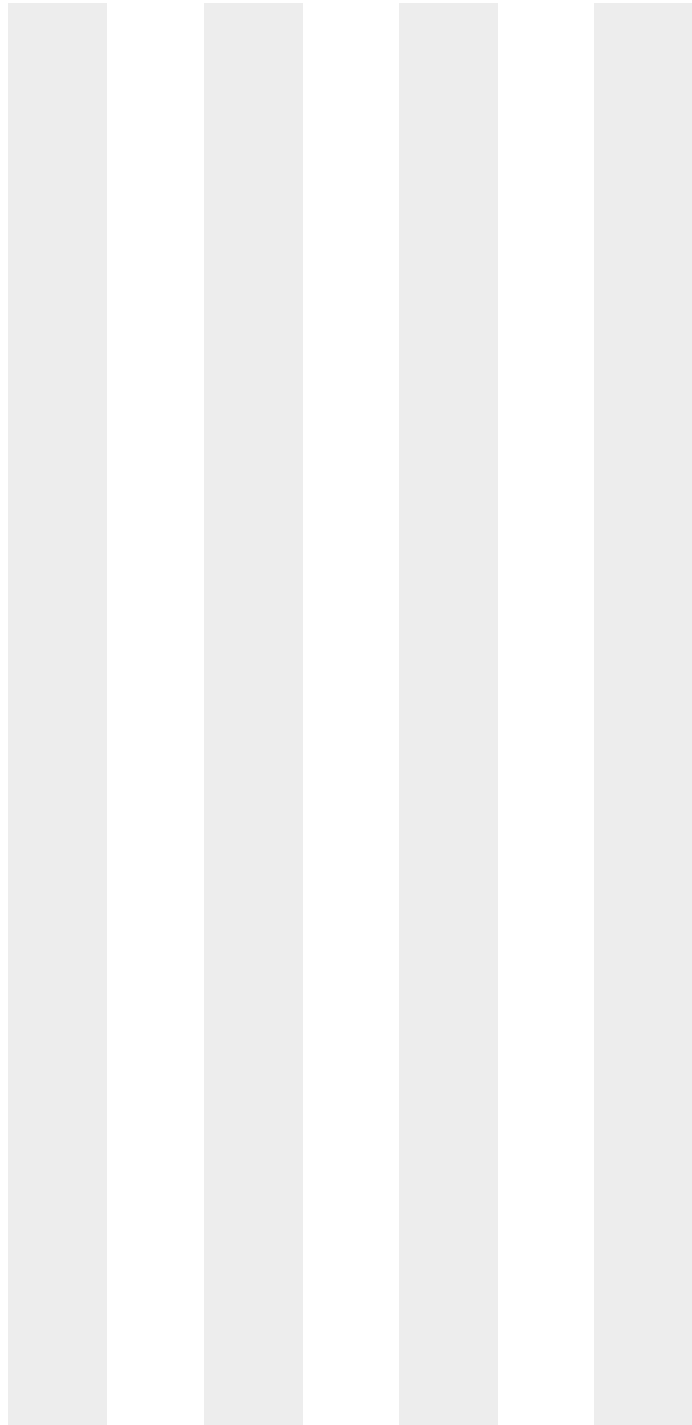
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      | 22:56 | 23:49 | 00:14 | 01:15 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.2  
 10

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Metal      | Time:      |     | 02:02  |        | 02:49  |        | 03:39  |        | 04:27  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB12  | CCB13  | CCB14  | CCB15  | raw    | final  | raw    |
| Aluminum   | 200        | 34  | 6.10   | <200   | 12.2   | <200   | 19.6   | <200   | 10.4   | <200   |
| Antimony   | 6.0        | 1.4 | -1.40  | <6.0   | -0.500 | <6.0   | -1.10  | <6.0   | -1.30  | <6.0   |
| Arsenic    | 3.0        | 1.4 | -1.30  | <3.0   | -0.600 | <3.0   | -0.700 | <3.0   | -0.300 | <3.0   |
| Barium     | 200        | .5  | 0.200  | <200   | 0.00   | <200   | -0.100 | <200   | -0.200 | <200   |
| Beryllium  | 1.0        | .2  | 0.200  | <1.0   | -0.100 | <1.0   | 0.00   | <1.0   | 0.00   | <1.0   |
| Bismuth    | 20         | 2.5 | anr    |        |        |        |        |        |        |        |
| Boron      | 100        | 1.9 |        |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .3  | 0.300  | <3.0   | 0.00   | <3.0   | 0.100  | <3.0   | 0.200  | <3.0   |
| Calcium    | 2000       | 8.7 | 25.5   | <5000  | 7.90   | <5000  | 5.10   | <5000  | 5.20   | <5000  |
| Chromium   | 10         | .6  | 0.600  | <10    | 0.300  | <10    | 0.600  | <10    | 0.600  | <10    |
| Cobalt     | 50         | .5  | -0.200 | <50    | -0.100 | <50    | 0.00   | <50    | 0.100  | <50    |
| Copper     | 10         | 1.2 | 1.20   | <10    | 0.400  | <10    | 0.500  | <10    | 0.200  | <10    |
| Iron       | 100        | 4.6 | 4.70   | <100   | -0.600 | <100   | -0.500 | <100   | -2.10  | <100   |
| Lead       | 3.0        | 1.4 | 0.500  | <3.0   | -0.500 | <3.0   | 0.00   | <3.0   | 1.50   | <3.0   |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |
| Magnesium  | 2000       | 33  | 10.7   | <5000  | -38.7  | <5000  | -37.3  | <5000  | 16.2   | <5000  |
| Manganese  | 15         | .1  | 0.300  | <15    | 0.300  | <15    | 0.300  | <15    | 0.300  | <15    |
| Molybdenum | 20         | .4  | anr    |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | 0.100  | <10    | 0.600  | <10    | 0.300  | <10    | 0.00   | <10    |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |
| Potassium  | 2000       | 68  | -1.70  | <10000 | 5.30   | <10000 | -8.60  | <10000 | 10.2   | <10000 |
| Selenium   | 10         | 3.8 | 1.60   | <10    | 0.500  | <10    | 0.300  | <10    | -0.100 | <10    |
| Silicon    | 200        | 2.1 |        |        |        |        |        |        |        |        |
| Silver     | 10         | .5  | 0.100  | <10    | 0.600  | <10    | 0.300  | <10    | 0.700  | <10    |
| Sodium     | 2000       | 15  | 5.70   | <10000 | -7.10  | <10000 | -18.2  | <10000 | 14.4   | <10000 |
| Strontium  | 10         | .2  | anr    |        |        |        |        |        |        |        |
| Sulfur     | 50         | 20  |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.6 | 0.200  | <2.0   | 0.600  | <2.0   | 1.10   | <2.0   | 1.60   | <2.0   |
| Tin        | 10         | 1   |        |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  | anr    |        |        |        |        |        |        |        |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .4  | 0.300  | <50    | 0.200  | <50    | -0.100 | <50    | 0.300  | <50    |
| Zinc       | 20         | .3  | 0.200  | <20    | 0.00   | <20    | 0.100  | <20    | 0.100  | <20    |

10.1.2 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

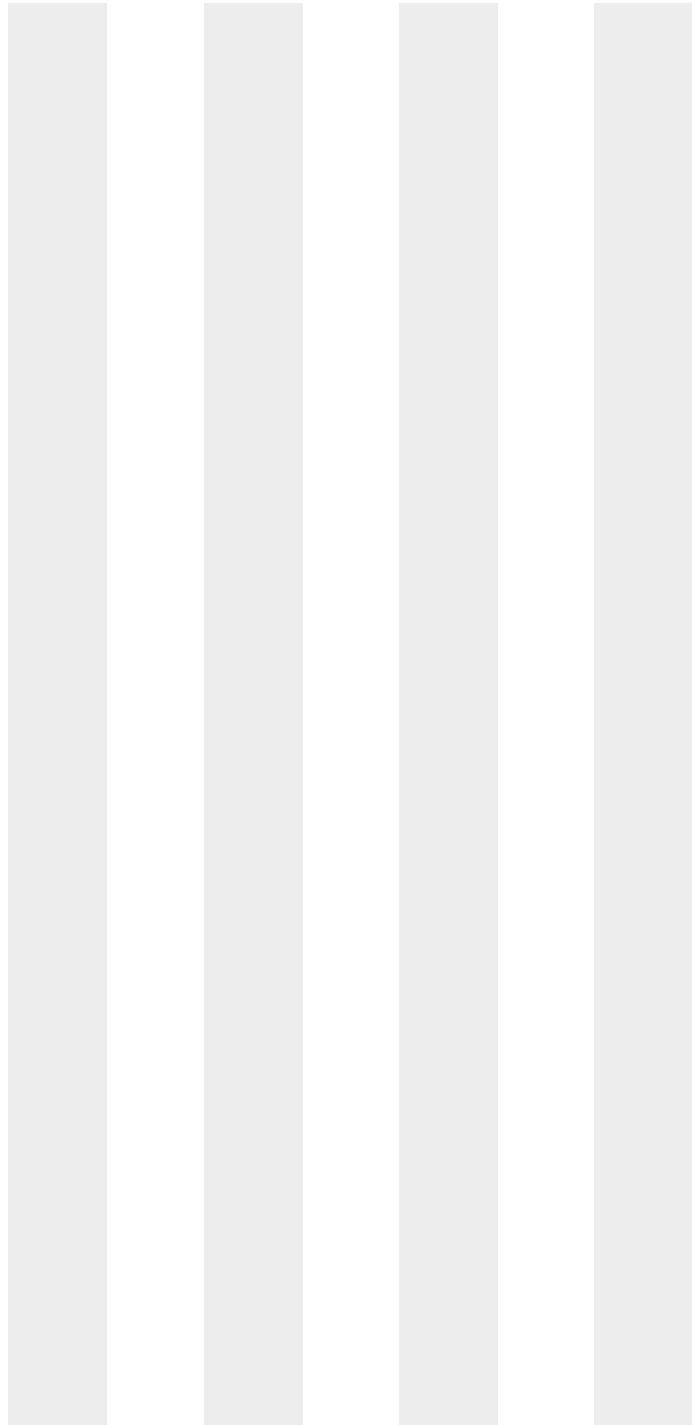
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      | 02:02 | 02:49 | 03:39 | 04:27 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB12 | CCB13 | CCB14 | CCB15 |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.2  
 10

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Metal      | Time:      |     | 05:14  |        | 06:01  |       | 06:18  |       |       |       |     |
|------------|------------|-----|--------|--------|--------|-------|--------|-------|-------|-------|-----|
|            | Sample ID: | RL  | IDL    | CCB16  | raw    | final | CCB17  | raw   | final | CCB18 | raw |
| Aluminum   | 200        | 34  | 8.90   | <200   | 13.8   | <200  | 14.4   | <200  |       |       |     |
| Antimony   | 6.0        | 1.4 | -1.50  | <6.0   | -1.10  | <100  | -1.50  | <100  |       |       |     |
| Arsenic    | 3.0        | 1.4 | -1.30  | <3.0   | -0.200 | <100  | -0.800 | <100  |       |       |     |
| Barium     | 200        | .5  | 0.00   | <200   | 0.00   | <200  | 0.00   | <200  |       |       |     |
| Beryllium  | 1.0        | .2  | 0.00   | <1.0   | 0.00   | <5.0  | 0.00   | <5.0  |       |       |     |
| Bismuth    | 20         | 2.5 | anr    |        |        |       |        |       |       |       |     |
| Boron      | 100        | 1.9 |        |        |        |       |        |       |       |       |     |
| Cadmium    | 3.0        | .3  | 0.200  | <3.0   | 0.200  | <5.0  | 0.200  | <5.0  |       |       |     |
| Calcium    | 2000       | 8.7 | 8.60   | <5000  | 5.80   | <2000 | 9.10   | <2000 |       |       |     |
| Chromium   | 10         | .6  | 0.600  | <10    | 0.500  | <10   | 0.600  | <10   |       |       |     |
| Cobalt     | 50         | .5  | 0.100  | <50    | 0.100  | <50   | 0.200  | <50   |       |       |     |
| Copper     | 10         | 1.2 | -0.300 | <10    | 0.400  | <10   | 0.100  | <10   |       |       |     |
| Iron       | 100        | 4.6 | 2.30   | <100   | 7.00   | <100  | 0.700  | <100  |       |       |     |
| Lead       | 3.0        | 1.4 | 0.00   | <3.0   | 0.200  | <100  | 0.800  | <100  |       |       |     |
| Lithium    | 50         | 2.8 |        |        |        |       |        |       |       |       |     |
| Magnesium  | 2000       | 33  | -12.8  | <5000  | -14.0  | <2000 | -11.1  | <2000 |       |       |     |
| Manganese  | 15         | .1  | 0.400  | <15    | 0.300  | <15   | 0.300  | <15   |       |       |     |
| Molybdenum | 20         | .4  | anr    |        |        |       |        |       |       |       |     |
| Nickel     | 10         | .5  | 0.100  | <10    | 0.300  | <10   | 0.400  | <10   |       |       |     |
| Phosphorus | 50         | 1.7 |        |        |        |       |        |       |       |       |     |
| Potassium  | 2000       | 68  | 1.80   | <10000 | 3.70   | <2000 | -31.1  | <2000 |       |       |     |
| Selenium   | 10         | 3.8 | -0.600 | <10    | -0.500 | <100  | 0.600  | <100  |       |       |     |
| Silicon    | 200        | 2.1 |        |        |        |       |        |       |       |       |     |
| Silver     | 10         | .5  | 0.00   | <10    | 0.700  | <10   | 0.200  | <10   |       |       |     |
| Sodium     | 2000       | 15  | -2.70  | <10000 | -3.90  | <2000 | -12.9  | <2000 |       |       |     |
| Strontium  | 10         | .2  | anr    |        |        |       |        |       |       |       |     |
| Sulfur     | 50         | 20  |        |        |        |       |        |       |       |       |     |
| Thallium   | 2.0        | 1.6 | 0.200  | <2.0   | 0.400  | <100  | 0.500  | <100  |       |       |     |
| Tin        | 10         | 1   |        |        |        |       |        |       |       |       |     |
| Titanium   | 10         | .7  | anr    |        |        |       |        |       |       |       |     |
| Tungsten   | 50         | 1.8 |        |        |        |       |        |       |       |       |     |
| Vanadium   | 50         | .4  | 0.400  | <50    | 0.100  | <50   | 0.00   | <50   |       |       |     |
| Zinc       | 20         | .3  | 0.100  | <20    | 0.00   | <20   | 0.200  | <20   |       |       |     |

10.1.2 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

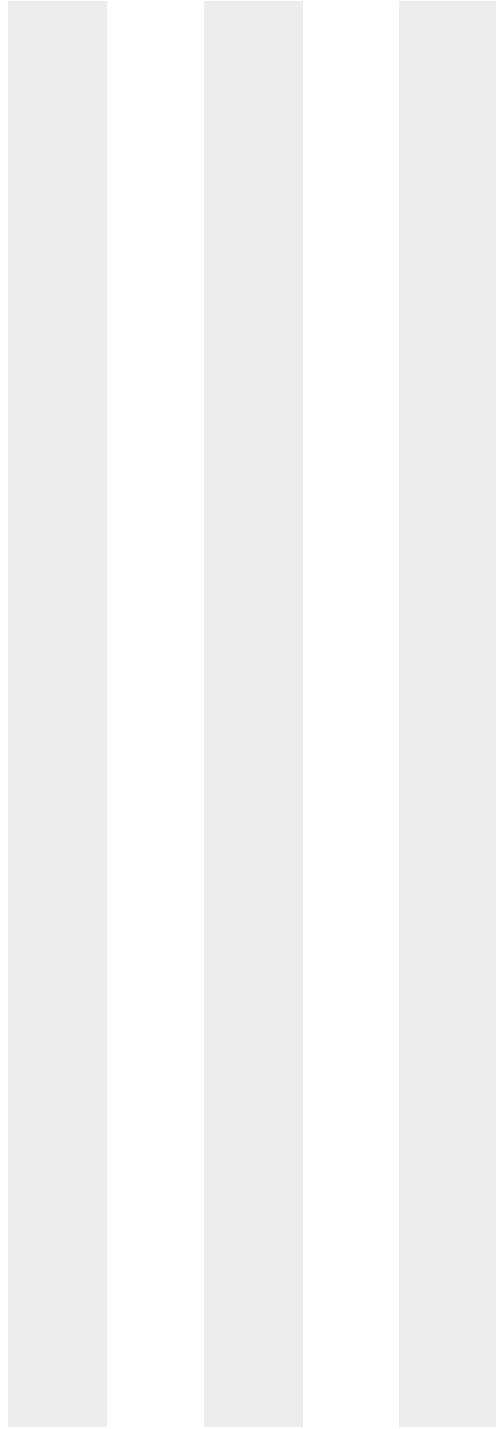
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44291 Units: ug/l

| Time:      |    |     | 05:14 |       | 06:01 |       | 06:18 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | CCB16 |       | CCB17 |       | CCB18 |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.2  
 10



CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Time:      | Sample ID: | ICCV  | 17:12<br>ICCV1 | Results | % Rec |
|------------|------------|-------|----------------|---------|-------|
| Metal      | True       |       |                |         |       |
| Aluminum   | 40000      | 40000 |                | 40000   | 100.0 |
| Antimony   | 2000       | 2020  |                | 2020    | 101.0 |
| Arsenic    | 2000       | 1990  |                | 1990    | 99.5  |
| Barium     | 2000       | 2010  |                | 2010    | 100.5 |
| Beryllium  | 2000       | 2020  |                | 2020    | 101.0 |
| Bismuth    | anr        |       |                |         |       |
| Boron      |            |       |                |         |       |
| Cadmium    | 2000       | 2020  |                | 2020    | 101.0 |
| Calcium    | 40000      | 40600 |                | 40600   | 101.5 |
| Chromium   | 2000       | 2040  |                | 2040    | 102.0 |
| Cobalt     | 2000       | 2010  |                | 2010    | 100.5 |
| Copper     | 2000       | 1980  |                | 1980    | 99.0  |
| Iron       | 40000      | 40700 |                | 40700   | 101.8 |
| Lead       | 2000       | 2040  |                | 2040    | 102.0 |
| Lithium    |            |       |                |         |       |
| Magnesium  | 40000      | 40300 |                | 40300   | 100.8 |
| Manganese  | 2000       | 2040  |                | 2040    | 102.0 |
| Molybdenum | anr        |       |                |         |       |
| Nickel     | 2000       | 2030  |                | 2030    | 101.5 |
| Phosphorus |            |       |                |         |       |
| Potassium  | 40000      | 39900 |                | 39900   | 99.8  |
| Selenium   | 2000       | 2010  |                | 2010    | 100.5 |
| Silicon    |            |       |                |         |       |
| Silver     | 250        | 253   |                | 253     | 101.2 |
| Sodium     | 40000      | 40100 |                | 40100   | 100.3 |
| Strontium  | anr        |       |                |         |       |
| Sulfur     |            |       |                |         |       |
| Thallium   | 2000       | 2080  |                | 2080    | 104.0 |
| Tin        |            |       |                |         |       |
| Titanium   | anr        |       |                |         |       |
| Tungsten   |            |       |                |         |       |
| Vanadium   | 2000       | 2000  |                | 2000    | 100.0 |
| Zinc       | 2000       | 2040  |                | 2040    | 102.0 |

10.1.3  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44291 Units: ug/l

|                 |       |         |       |
|-----------------|-------|---------|-------|
| Time:           | 17:12 |         |       |
| Sample ID: ICCV | ICCV1 |         |       |
| Metal           | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested

10.1.3  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:<br>Sample ID: ICV<br>True | 17:01           |       |             | 18:04           |       |             | 18:56           |       |  |
|------------|---------------------------------|-----------------|-------|-------------|-----------------|-------|-------------|-----------------|-------|--|
|            |                                 | ICV1<br>Results | % Rec | CCV<br>True | CCV1<br>Results | % Rec | CCV<br>True | CCV2<br>Results | % Rec |  |
| Aluminum   | 40000                           | 39800           | 99.5  | 40000       | 40000           | 100.0 | 40000       | 40000           | 100.0 |  |
| Antimony   | 2000                            | 2000            | 100.0 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Arsenic    | 2000                            | 1980            | 99.0  | 2000        | 2000            | 100.0 | 2000        | 1990            | 99.5  |  |
| Barium     | 2000                            | 2010            | 100.5 | 2000        | 2010            | 100.5 | 2000        | 2020            | 101.0 |  |
| Beryllium  | 2000                            | 2030            | 101.5 | 2000        | 2020            | 101.0 | 2000        | 2040            | 102.0 |  |
| Bismuth    | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Boron      |                                 |                 |       |             |                 |       |             |                 |       |  |
| Cadmium    | 2000                            | 2020            | 101.0 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Calcium    | 40000                           | 40500           | 101.3 | 40000       | 40800           | 102.0 | 40000       | 41000           | 102.5 |  |
| Chromium   | 2000                            | 2020            | 101.0 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Cobalt     | 2000                            | 2000            | 100.0 | 2000        | 2010            | 100.5 | 2000        | 2000            | 100.0 |  |
| Copper     | 2000                            | 1980            | 99.0  | 2000        | 1980            | 99.0  | 2000        | 1980            | 99.0  |  |
| Iron       | 40000                           | 41000           | 102.5 | 40000       | 41200           | 103.0 | 40000       | 41500           | 103.8 |  |
| Lead       | 2000                            | 2030            | 101.5 | 2000        | 2030            | 101.5 | 2000        | 2030            | 101.5 |  |
| Lithium    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Magnesium  | 40000                           | 40400           | 101.0 | 40000       | 40600           | 101.5 | 40000       | 40900           | 102.3 |  |
| Manganese  | 2000                            | 2040            | 102.0 | 2000        | 2040            | 102.0 | 2000        | 2030            | 101.5 |  |
| Molybdenum | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Nickel     | 2000                            | 2020            | 101.0 | 2000        | 2030            | 101.5 | 2000        | 2030            | 101.5 |  |
| Phosphorus |                                 |                 |       |             |                 |       |             |                 |       |  |
| Potassium  | 40000                           | 40000           | 100.0 | 40000       | 40100           | 100.3 | 40000       | 40400           | 101.0 |  |
| Selenium   | 2000                            | 2010            | 100.5 | 2000        | 2010            | 100.5 | 2000        | 2000            | 100.0 |  |
| Silicon    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Silver     | 250                             | 256             | 102.4 | 250         | 250             | 100.0 | 250         | 250             | 100.0 |  |
| Sodium     | 40000                           | 40100           | 100.3 | 40000       | 40200           | 100.5 | 40000       | 40600           | 101.5 |  |
| Strontium  | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Sulfur     |                                 |                 |       |             |                 |       |             |                 |       |  |
| Thallium   | 2000                            | 2080            | 104.0 | 2000        | 2080            | 104.0 | 2000        | 2070            | 103.5 |  |
| Tin        |                                 |                 |       |             |                 |       |             |                 |       |  |
| Titanium   | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Tungsten   |                                 |                 |       |             |                 |       |             |                 |       |  |
| Vanadium   | 2000                            | 2000            | 100.0 | 2000        | 2000            | 100.0 | 2000        | 2000            | 100.0 |  |
| Zinc       | 2000                            | 2030            | 101.5 | 2000        | 2040            | 102.0 | 2000        | 2030            | 101.5 |  |

10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|            | Time: |         | 17:01 |      | 18:04   |       | 18:56 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:      | 19:43 |       |       | 20:30 |       |       | 21:17 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV3  | % Rec | CCV   | CCV4  | % Rec | CCV   | CCV5  | % Rec |
| Aluminum   | 40000      | 40300 | 100.8 | 40000 | 40600 | 101.5 | 40000 | 40800 | 102.0 |       |
| Antimony   | 2000       | 2050  | 102.5 | 2000  | 2060  | 103.0 | 2000  | 2100  | 105.0 |       |
| Arsenic    | 2000       | 2020  | 101.0 | 2000  | 2030  | 101.5 | 2000  | 2060  | 103.0 |       |
| Barium     | 2000       | 2060  | 103.0 | 2000  | 2060  | 103.0 | 2000  | 2090  | 104.5 |       |
| Beryllium  | 2000       | 2040  | 102.0 | 2000  | 1990  | 99.5  | 2000  | 2020  | 101.0 |       |
| Bismuth    | anr        |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2050  | 102.5 | 2000  | 2050  | 102.5 | 2000  | 2080  | 104.0 |       |
| Calcium    | 40000      | 41600 | 104.0 | 40000 | 42100 | 105.3 | 40000 | 42300 | 105.8 |       |
| Chromium   | 2000       | 2050  | 102.5 | 2000  | 2070  | 103.5 | 2000  | 2070  | 103.5 |       |
| Cobalt     | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2040  | 102.0 |       |
| Copper     | 2000       | 1980  | 99.0  | 2000  | 1970  | 98.5  | 2000  | 1990  | 99.5  |       |
| Iron       | 40000      | 42200 | 105.5 | 40000 | 42300 | 105.8 | 40000 | 43200 | 108.0 |       |
| Lead       | 2000       | 2040  | 102.0 | 2000  | 2000  | 100.0 | 2000  | 2000  | 100.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 41400 | 103.5 | 40000 | 40700 | 101.8 | 40000 | 41400 | 103.5 |       |
| Manganese  | 2000       | 2050  | 102.5 | 2000  | 2020  | 101.0 | 2000  | 2020  | 101.0 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2040  | 102.0 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 40800 | 102.0 | 40000 | 40700 | 101.8 | 40000 | 41500 | 103.8 |       |
| Selenium   | 2000       | 2020  | 101.0 | 2000  | 2000  | 100.0 | 2000  | 2020  | 101.0 |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 251   | 100.4 | 250   | 254   | 101.6 | 250   | 252   | 100.8 |       |
| Sodium     | 40000      | 40400 | 101.0 | 40000 | 40200 | 100.5 | 40000 | 40700 | 101.8 |       |
| Strontium  | anr        |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2080  | 104.0 | 2000  | 2050  | 102.5 | 2000  | 2070  | 103.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 2020  | 101.0 | 2000  | 1990  | 99.5  | 2000  | 2010  | 100.5 |       |
| Zinc       | 2000       | 2050  | 102.5 | 2000  | 2010  | 100.5 | 2000  | 2030  | 101.5 |       |

10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|            | Time: |  | 19:43   |       | 20:30 |  | 21:17   |       |
|------------|-------|--|---------|-------|-------|--|---------|-------|
| Sample ID: | CCV   |  | CCV3    |       | CCV4  |  | CCV5    |       |
| Metal      | True  |  | Results | % Rec | True  |  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:      | 22:04 |       |       | 22:52 |       |       | 23:44 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV6  | % Rec | CCV   | CCV7  | % Rec | CCV   | CCV8  | % Rec |
| Aluminum   | 40000      | 40300 | 100.8 | 40000 | 40100 | 100.3 | 40000 | 40100 | 100.3 |       |
| Antimony   | 2000       | 2060  | 103.0 | 2000  | 2050  | 102.5 | 2000  | 2050  | 102.5 |       |
| Arsenic    | 2000       | 2030  | 101.5 | 2000  | 2020  | 101.0 | 2000  | 2020  | 101.0 |       |
| Barium     | 2000       | 2060  | 103.0 | 2000  | 2050  | 102.5 | 2000  | 2050  | 102.5 |       |
| Beryllium  | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2000  | 100.0 |       |
| Bismuth    | anr        |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2050  | 102.5 | 2000  | 2040  | 102.0 | 2000  | 2050  | 102.5 |       |
| Calcium    | 40000      | 41900 | 104.8 | 40000 | 41300 | 103.3 | 40000 | 41200 | 103.0 |       |
| Chromium   | 2000       | 2050  | 102.5 | 2000  | 2020  | 101.0 | 2000  | 2040  | 102.0 |       |
| Cobalt     | 2000       | 2020  | 101.0 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Copper     | 2000       | 1950  | 97.5  | 2000  | 1960  | 98.0  | 2000  | 1970  | 98.5  |       |
| Iron       | 40000      | 42700 | 106.8 | 40000 | 42300 | 105.8 | 40000 | 42200 | 105.5 |       |
| Lead       | 2000       | 1970  | 98.5  | 2000  | 1980  | 99.0  | 2000  | 1990  | 99.5  |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 41100 | 102.8 | 40000 | 41000 | 102.5 | 40000 | 40900 | 102.3 |       |
| Manganese  | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2010  | 100.5 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 40700 | 101.8 | 40000 | 40800 | 102.0 | 40000 | 40800 | 102.0 |       |
| Selenium   | 2000       | 1990  | 99.5  | 2000  | 1990  | 99.5  | 2000  | 1990  | 99.5  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 249   | 99.6  | 250   | 247   | 98.8  | 250   | 249   | 99.6  |       |
| Sodium     | 40000      | 40100 | 100.3 | 40000 | 40000 | 100.0 | 40000 | 40100 | 100.3 |       |
| Strontium  | anr        |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2060  | 103.0 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1980  | 99.0  | 2000  | 1980  | 99.0  | 2000  | 1990  | 99.5  |       |
| Zinc       | 2000       | 1990  | 99.5  | 2000  | 2000  | 100.0 | 2000  | 2010  | 100.5 |       |

10.1.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|       | Time:      |         |               |      |               |       |               |         |       |
|-------|------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|       | Sample ID: | CCV     | 22:04<br>CCV6 | CCV  | 22:52<br>CCV7 | CCV   | 23:44<br>CCV8 | CCV     | CCV   |
| Metal | True       | Results | % Rec         | True | Results       | % Rec | True          | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4  
10



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:      | 00:10 |       |       | 01:11 |       |       | 01:58 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV9  | % Rec | CCV   | CCV10 | % Rec | CCV   | CCV11 | % Rec |
| Aluminum   | 40000      | 40100 | 100.3 | 40000 | 39700 | 99.3  | 40000 | 39400 | 98.5  |       |
| Antimony   | 2000       | 2050  | 102.5 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Arsenic    | 2000       | 2010  | 100.5 | 2000  | 1990  | 99.5  | 2000  | 1980  | 99.0  |       |
| Barium     | 2000       | 2050  | 102.5 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Beryllium  | 2000       | 2010  | 100.5 | 2000  | 1980  | 99.0  | 2000  | 1990  | 99.5  |       |
| Bismuth    | anr        |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2040  | 102.0 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Calcium    | 40000      | 41200 | 103.0 | 40000 | 40700 | 101.8 | 40000 | 40900 | 102.3 |       |
| Chromium   | 2000       | 2030  | 101.5 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Cobalt     | 2000       | 2010  | 100.5 | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Copper     | 2000       | 1970  | 98.5  | 2000  | 1950  | 97.5  | 2000  | 1940  | 97.0  |       |
| Iron       | 40000      | 42400 | 106.0 | 40000 | 41500 | 103.8 | 40000 | 41500 | 103.8 |       |
| Lead       | 2000       | 1980  | 99.0  | 2000  | 1980  | 99.0  | 2000  | 1970  | 98.5  |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 41200 | 103.0 | 40000 | 40500 | 101.3 | 40000 | 40300 | 100.8 |       |
| Manganese  | 2000       | 2010  | 100.5 | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 40800 | 102.0 | 40000 | 40200 | 100.5 | 40000 | 39900 | 99.8  |       |
| Selenium   | 2000       | 1980  | 99.0  | 2000  | 1970  | 98.5  | 2000  | 1970  | 98.5  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 247   | 98.8  | 250   | 246   | 98.4  | 250   | 245   | 98.0  |       |
| Sodium     | 40000      | 40100 | 100.3 | 40000 | 39700 | 99.3  | 40000 | 39500 | 98.8  |       |
| Strontium  | anr        |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2030  | 101.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1990  | 99.5  | 2000  | 1970  | 98.5  | 2000  | 1960  | 98.0  |       |
| Zinc       | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 1980  | 99.0  |       |

10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

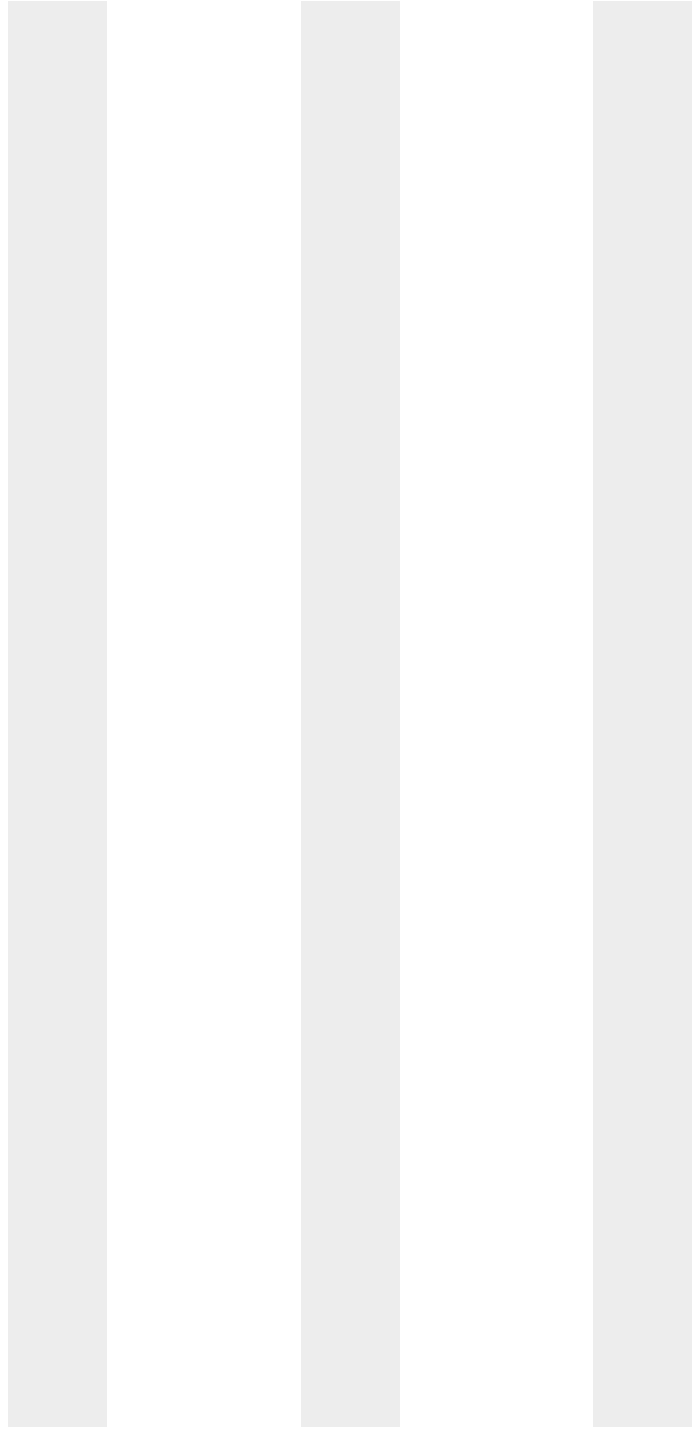
Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|            | Time: |         |       |      | 01:11   |       |      | 01:58   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 00:10   |       | CCV  | CCV10   |       | CCV  | CCV11   |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:      | 02:45 |       |       | 03:35 |       |       | 04:23 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV12 | % Rec | CCV   | CCV13 | % Rec | CCV   | CCV14 | % Rec |
| Aluminum   | 40000      | 39800 | 99.5  | 40000 | 40100 | 100.3 | 40000 | 39900 | 99.8  |       |
| Antimony   | 2000       | 2030  | 101.5 | 2000  | 2050  | 102.5 | 2000  | 2040  | 102.0 |       |
| Arsenic    | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Barium     | 2000       | 2050  | 102.5 | 2000  | 2050  | 102.5 | 2000  | 2050  | 102.5 |       |
| Beryllium  | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Bismuth    | anr        |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2040  | 102.0 |       |
| Calcium    | 40000      | 41100 | 102.8 | 40000 | 40900 | 102.3 | 40000 | 40900 | 102.3 |       |
| Chromium   | 2000       | 2020  | 101.0 | 2000  | 2020  | 101.0 | 2000  | 2020  | 101.0 |       |
| Cobalt     | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Copper     | 2000       | 1970  | 98.5  | 2000  | 1970  | 98.5  | 2000  | 1980  | 99.0  |       |
| Iron       | 40000      | 42000 | 105.0 | 40000 | 41700 | 104.3 | 40000 | 41800 | 104.5 |       |
| Lead       | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2020  | 101.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 40800 | 102.0 | 40000 | 40500 | 101.3 | 40000 | 40700 | 101.8 |       |
| Manganese  | 2000       | 2020  | 101.0 | 2000  | 2010  | 100.5 | 2000  | 2030  | 101.5 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2020  | 101.0 | 2000  | 2010  | 100.5 | 2000  | 2030  | 101.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 40600 | 101.5 | 40000 | 40600 | 101.5 | 40000 | 40600 | 101.5 |       |
| Selenium   | 2000       | 1990  | 99.5  | 2000  | 2000  | 100.0 | 2000  | 2010  | 100.5 |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 248   | 99.2  | 250   | 249   | 99.6  | 250   | 248   | 99.2  |       |
| Sodium     | 40000      | 40000 | 100.0 | 40000 | 40100 | 100.3 | 40000 | 40100 | 100.3 |       |
| Strontium  | anr        |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2050  | 102.5 | 2000  | 2060  | 103.0 | 2000  | 2060  | 103.0 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1990  | 99.5  | 2000  | 1990  | 99.5  | 2000  | 2000  | 100.0 |       |
| Zinc       | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2020  | 101.0 |       |

10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

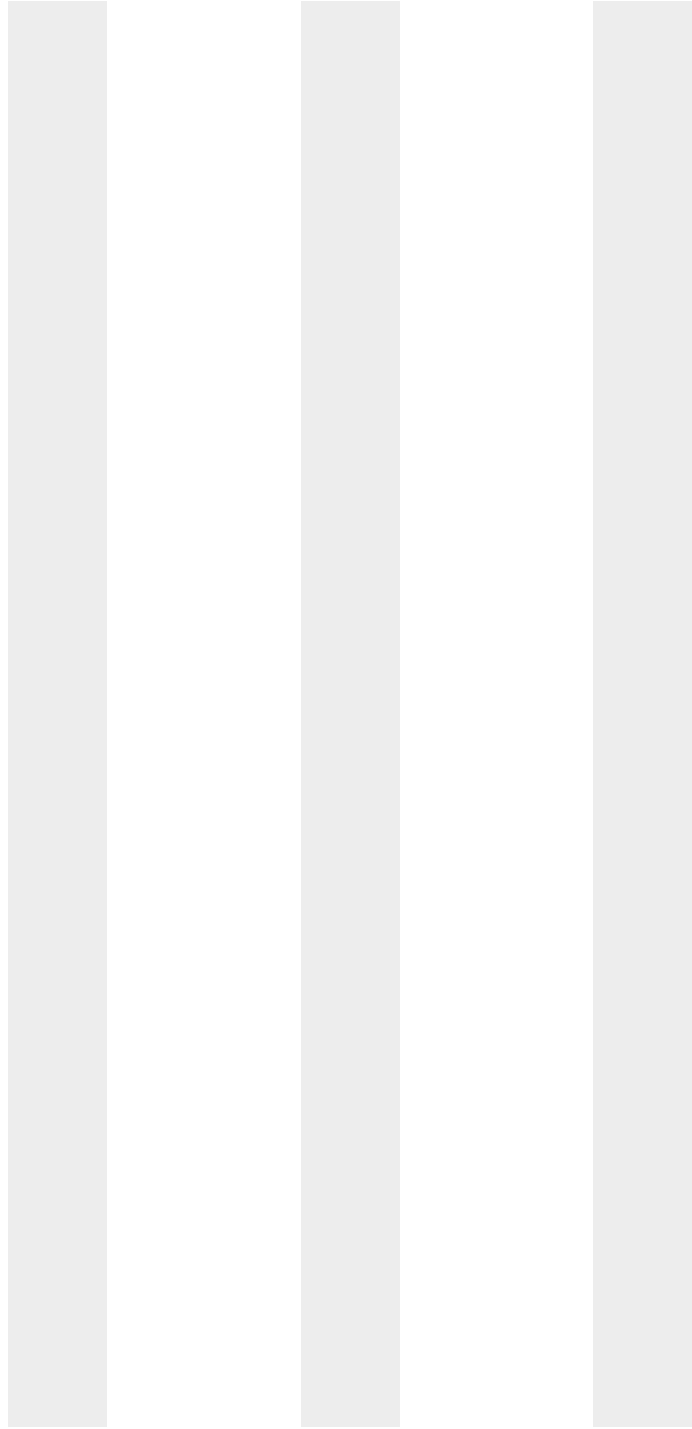
Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|            | Time: | 02:45         |      | 03:35         |      | 04:23         |  |
|------------|-------|---------------|------|---------------|------|---------------|--|
| Sample ID: | CCV   | CCV12         | CCV  | CCV13         | CCV  | CCV14         |  |
| Metal      | True  | Results % Rec | True | Results % Rec | True | Results % Rec |  |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

| Metal      | Time:      | 05:10 |       |       | 05:56 |       |       | 06:14 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV15 | % Rec | CCV   | CCV16 | % Rec | CCV   | CCV17 | % Rec |
| Aluminum   | 40000      | 39900 | 99.8  | 40000 | 40000 | 100.0 | 40000 | 39700 | 99.3  |       |
| Antimony   | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2030  | 101.5 |       |
| Arsenic    | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2000  | 100.0 |       |
| Barium     | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2030  | 101.5 |       |
| Beryllium  | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 2000  | 100.0 |       |
| Bismuth    | anr        |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2030  | 101.5 | 2000  | 2040  | 102.0 | 2000  | 2030  | 101.5 |       |
| Calcium    | 40000      | 40600 | 101.5 | 40000 | 40800 | 102.0 | 40000 | 40600 | 101.5 |       |
| Chromium   | 2000       | 2020  | 101.0 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Cobalt     | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Copper     | 2000       | 1970  | 98.5  | 2000  | 1970  | 98.5  | 2000  | 1970  | 98.5  |       |
| Iron       | 40000      | 41300 | 103.3 | 40000 | 41700 | 104.3 | 40000 | 41300 | 103.3 |       |
| Lead       | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 2000  | 100.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 40300 | 100.8 | 40000 | 40600 | 101.5 | 40000 | 40300 | 100.8 |       |
| Manganese  | 2000       | 2020  | 101.0 | 2000  | 2020  | 101.0 | 2000  | 2020  | 101.0 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 40300 | 100.8 | 40000 | 40500 | 101.3 | 40000 | 40300 | 100.8 |       |
| Selenium   | 2000       | 1990  | 99.5  | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 248   | 99.2  | 250   | 246   | 98.4  | 250   | 248   | 99.2  |       |
| Sodium     | 40000      | 40000 | 100.0 | 40000 | 40100 | 100.3 | 40000 | 39900 | 99.8  |       |
| Strontium  | anr        |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2060  | 103.0 | 2000  | 2060  | 103.0 | 2000  | 2050  | 102.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1990  | 99.5  | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Zinc       | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2000  | 100.0 |       |

10.1.4 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

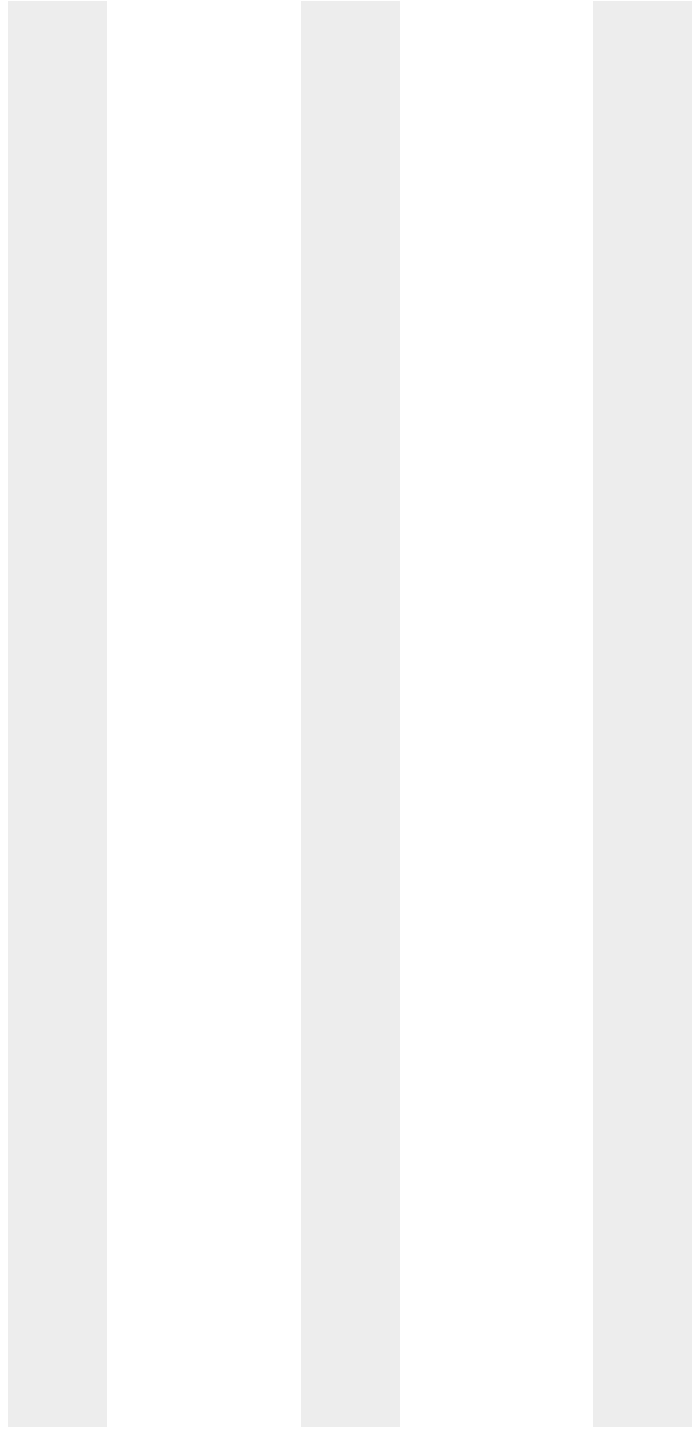
Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44291      Units: ug/l

|            | Time: | 05:10   |       | 05:56   |         | 06:14   |       |
|------------|-------|---------|-------|---------|---------|---------|-------|
| Sample ID: | CCV   | CCV15   | CCV   | CCV16   | CCV     | CCV17   |       |
| Metal      | True  | Results | % Rec | True    | Results | % Rec   | True  |
|            |       | Results | % Rec | Results | % Rec   | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.1.4  
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44291 Units: ug/l

| Time:      | 17:42 |         |       | 17:46  |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD   | HSTD2   |       |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       | 300000 | 303000  | 101.0 |
| Antimony   | 5000  | 5140    | 102.8 |        |         |       |
| Arsenic    | 5000  | 4980    | 99.6  |        |         |       |
| Barium     | 5000  | 5140    | 102.8 |        |         |       |
| Beryllium  | 5000  | 5150    | 103.0 |        |         |       |
| Bismuth    | anr   |         |       |        |         |       |
| Boron      |       |         |       |        |         |       |
| Cadmium    | 5000  | 5080    | 101.6 |        |         |       |
| Calcium    |       |         |       | 150000 | 151000  | 100.7 |
| Chromium   | 5000  | 5230    | 104.6 |        |         |       |
| Cobalt     | 5000  | 5080    | 101.6 |        |         |       |
| Copper     | 5000  | 5260    | 105.2 |        |         |       |
| Iron       |       |         |       | 150000 | 151000  | 100.7 |
| Lead       | 5000  | 5120    | 102.4 |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       | 300000 | 301000  | 100.3 |
| Manganese  | 5000  | 5220    | 104.4 |        |         |       |
| Molybdenum | anr   |         |       |        |         |       |
| Nickel     | 5000  | 5060    | 101.2 |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       | 150000 | 145000  | 96.7  |
| Selenium   | 5000  | 5060    | 101.2 |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | 625   | 653     | 104.5 |        |         |       |
| Sodium     |       |         |       | 150000 | 154000  | 102.7 |
| Strontium  | anr   |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | 5000  | 5340    | 106.8 |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   | anr   |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | 5000  | 5150    | 103.0 |        |         |       |
| Zinc       | 5000  | 5260    | 105.2 |        |         |       |

10.1.5  
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44291 Units: ug/l

|            | Time: | 17:42   |       | 17:46 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.1.5  
 10



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44291 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 17:25<br>CRI1 |         | 17:29<br>CRID1 |         | 23:53<br>CRI2 |  |
|------------|------------|------|------|---------|---------------|---------|----------------|---------|---------------|--|
| Metal      | True       | True | True | Results | % Rec         | Results | % Rec          | Results | % Rec         |  |
| Aluminum   | 200        | 500  | 100  | 209     | 104.5         | 106     | 106.0          | 227     | 113.5         |  |
| Antimony   | 6.0        | 20   | 3.0  | 5.60    | 93.3          |         |                | 5.50    | 91.7          |  |
| Arsenic    | 8.0        | 20   | 3.0  | 7.90    | 98.8          | 2.50    | 83.3           | 7.40    | 92.5          |  |
| Barium     | 200        |      | 4.0  | 207     | 103.5         | 3.90    | 97.5           | 214     | 107.0         |  |
| Beryllium  | 2.0        |      | 1.0  | 2.00    | 100.0         | 0.900   | 90.0           | 2.10    | 105.0         |  |
| Bismuth    | 20         |      |      | anr     |               |         |                |         |               |  |
| Boron      | 100        |      | 10   |         |               |         |                |         |               |  |
| Cadmium    | 3.0        |      | 1.0  | 3.30    | 110.0         | 1.10    | 110.0          | 3.40    | 113.3         |  |
| Calcium    | 5000       | 2000 | 1000 | 5300    | 106.0         | 1080    | 108.0          | 5530    | 110.6         |  |
| Chromium   | 10         |      | 2.0  | 11.0    | 110.0         | 2.50    | 125.0          | 10.9    | 109.0         |  |
| Cobalt     | 50         |      | 3.0  | 50.0    | 100.0         | 2.80    | 93.3           | 51.1    | 102.2         |  |
| Copper     | 10         |      | 2.0  | 10.3    | 103.0         |         |                | 10.9    | 109.0         |  |
| Iron       | 100        | 500  |      | 108     | 108.0         |         |                | 111     | 111.0         |  |
| Lead       | 3.0        | 20   | 2.5  | 2.20    | 73.3          |         |                | 3.50    | 116.7         |  |
| Lithium    | 50         |      |      |         |               |         |                |         |               |  |
| Magnesium  | 5000       | 2000 | 100  | 5270    | 105.4         | 79.4    | 79.4           | 5420    | 108.4         |  |
| Manganese  | 15         |      | 3.0  | 16.5    | 110.0         | 3.20    | 106.7          | 16.5    | 110.0         |  |
| Molybdenum | 20         |      |      | anr     |               |         |                |         |               |  |
| Nickel     | 10         |      | 4.0  | 10.2    | 102.0         | 4.30    | 107.5          | 10.4    | 104.0         |  |
| Phosphorus | 50         |      |      |         |               |         |                |         |               |  |
| Potassium  | 5000       |      | 2000 | 5190    | 103.8         | 2050    | 102.5          | 5280    | 105.6         |  |
| Selenium   | 10         | 20   | 5.0  | 10.6    | 106.0         | 5.30    | 106.0          | 10.4    | 104.0         |  |
| Silicon    | 200        |      |      |         |               |         |                |         |               |  |
| Silver     | 5.0        |      | 2.0  | 4.70    | 94.0          |         |                | 5.40    | 108.0         |  |
| Sodium     | 5000       |      | 1000 | 5150    | 103.0         | 1050    | 105.0          | 5230    | 104.6         |  |
| Strontium  | 10         |      |      | anr     |               |         |                |         |               |  |
| Sulfur     | 50         |      |      |         |               |         |                |         |               |  |
| Thallium   | 10         |      | 2.0  | 12.6    | 126.0         | 1.90    | 95.0           | 12.0    | 120.0         |  |
| Tin        | 10         |      |      |         |               |         |                |         |               |  |
| Titanium   | 10         |      |      | anr     |               |         |                |         |               |  |
| Tungsten   | 50         |      |      |         |               |         |                |         |               |  |
| Vanadium   | 50         |      | 2.0  | 51.2    | 102.4         | 1.90    | 95.0           | 51.6    | 103.2         |  |
| Zinc       | 20         |      | 10   | 21.7    | 108.5         | 10.7    | 107.0          | 21.5    | 107.5         |  |

10.1.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

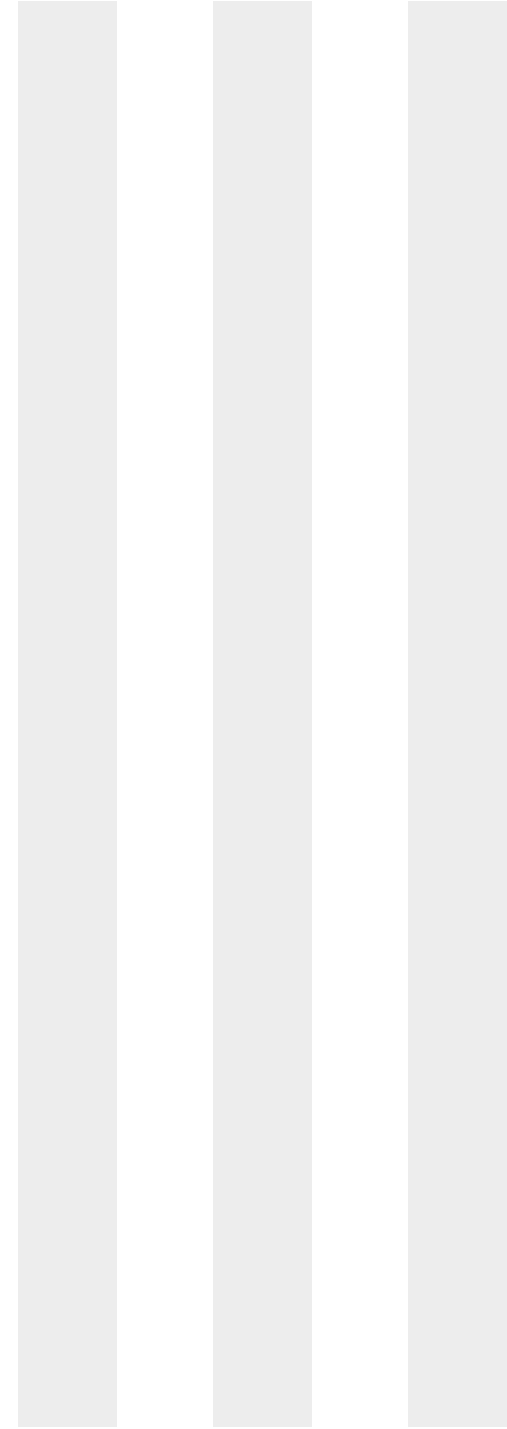
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44291 Units: ug/l

| Time:      |      |      |      | 17:25   |       |         | 17:29 |         |       | 23:53   |
|------------|------|------|------|---------|-------|---------|-------|---------|-------|---------|
| Sample ID: | CRI  | CRIA | CRID | CRI1    |       | CRID1   |       | CRID2   |       | CRID3   |
| Metal      | True | True | True | Results | % Rec | Results | % Rec | Results | % Rec | Results |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.6  
**10**

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44291 Units: ug/l

| Time:      | 23:57 | 06:05 | 06:09 |         |       |
|------------|-------|-------|-------|---------|-------|
| Sample ID: | CRID2 | CRID3 | CRID3 |         |       |
| Metal      | True  | True  | True  | Results | % Rec |
| Aluminum   | 200   | 500   | 100   | 114     | 114.0 |
| Antimony   | 6.0   | 20    | 3.0   |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | 2.30    | 76.7  |
| Barium     | 200   |       | 4.0   | 4.30    | 107.5 |
| Beryllium  | 2.0   |       | 1.0   | 1.00    | 100.0 |
| Bismuth    | 20    |       |       |         |       |
| Boron      | 100   |       | 10    |         |       |
| Cadmium    | 3.0   |       | 1.0   | 1.30    | 130.0 |
| Calcium    | 5000  | 2000  | 1000  | 1110    | 111.0 |
| Chromium   | 10    |       | 2.0   | 2.50    | 125.0 |
| Cobalt     | 50    |       | 3.0   | 3.30    | 110.0 |
| Copper     | 10    |       | 2.0   |         |       |
| Iron       | 100   | 500   |       |         |       |
| Lead       | 3.0   | 20    | 2.5   |         |       |
| Lithium    | 50    |       |       |         |       |
| Magnesium  | 5000  | 2000  | 100   | 108     | 108.0 |
| Manganese  | 15    |       | 3.0   | 3.30    | 110.0 |
| Molybdenum | 20    |       |       |         |       |
| Nickel     | 10    |       | 4.0   | 4.30    | 107.5 |
| Phosphorus | 50    |       |       |         |       |
| Potassium  | 5000  |       | 2000  | 2130    | 106.5 |
| Selenium   | 10    | 20    | 5.0   | 4.90    | 98.0  |
| Silicon    | 200   |       |       |         |       |
| Silver     | 5.0   |       | 2.0   |         |       |
| Sodium     | 5000  |       | 1000  | 1040    | 104.0 |
| Strontium  | 10    |       |       |         |       |
| Sulfur     | 50    |       |       |         |       |
| Thallium   | 10    |       | 2.0   | 1.50    | 75.0  |
| Tin        | 10    |       |       |         |       |
| Titanium   | 10    |       |       |         |       |
| Tungsten   | 50    |       |       |         |       |
| Vanadium   | 50    |       | 2.0   | 2.30    | 115.0 |
| Zinc       | 20    |       | 10    | 10.7    | 107.0 |

10.1.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

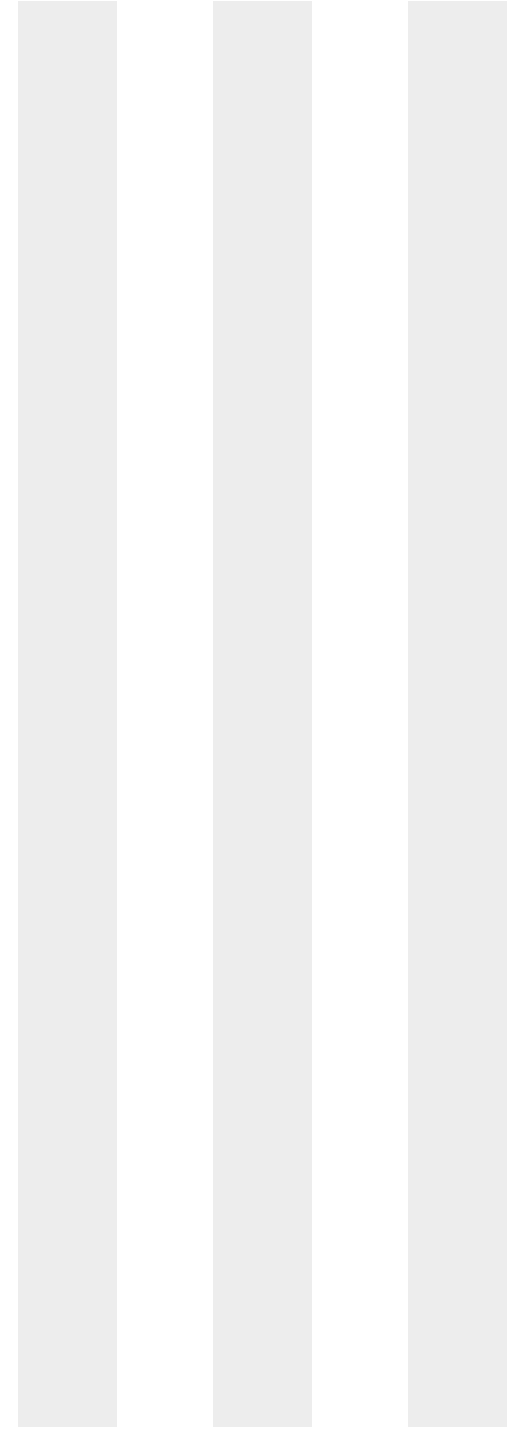
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44291 Units: ug/l

| Time:      | 23:57 |      | 06:05 |               | 06:09         |               |
|------------|-------|------|-------|---------------|---------------|---------------|
| Sample ID: | CRI   | CRIA | CRID  | CRID2         | CRI3          | CRID3         |
| Metal      | True  | True | True  | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.1.6  
 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP      Date Analyzed: 04/26/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44291      Units: ug/l

| Time:      |        |        | 17:34   |       |         | 17:38 |         |       | 00:02   |       |  | 00:06 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 519000  | 103.8 | 507000  | 101.4 | 527000  | 105.4 | 516000  | 103.2 |  |       |
| Antimony   |        | 1000   | -7.50   |       | 1010    | 101.0 | -4.50   |       | 1040    | 104.0 |  |       |
| Arsenic    |        | 1000   | 1.70    |       | 991     | 99.1  | 1.80    |       | 1010    | 101.0 |  |       |
| Barium     |        | 500    | -0.300  |       | 499     | 99.8  | -0.100  |       | 516     | 103.2 |  |       |
| Beryllium  |        | 500    | 0.100   |       | 486     | 97.2  | 0.200   |       | 489     | 97.8  |  |       |
| Bismuth    |        | 500    | -7.00   |       | 527     | 105.4 | -5.10   |       | 544     | 108.8 |  |       |
| Boron      |        | 500    | -3.60   |       | 483     | 96.6  | -1.70   |       | 498     | 99.6  |  |       |
| Cadmium    |        | 1000   | 0.300   |       | 1010    | 101.0 | 0.400   |       | 1030    | 103.0 |  |       |
| Calcium    | 400000 | 400000 | 392000  | 98.0  | 386000  | 96.5  | 402000  | 100.5 | 392000  | 98.0  |  |       |
| Chromium   |        | 500    | -1.00   |       | 475     | 95.0  | -0.900  |       | 480     | 96.0  |  |       |
| Cobalt     |        | 500    | -1.30   |       | 477     | 95.4  | -1.70   |       | 483     | 96.6  |  |       |
| Copper     |        | 500    | 2.50    |       | 495     | 99.0  | 3.40    |       | 496     | 99.2  |  |       |
| Iron       | 200000 | 200000 | 188000  | 94.0  | 182000  | 91.0  | 197000  | 98.5  | 191000  | 95.5  |  |       |
| Lead       |        | 1000   | 3.10    |       | 958     | 95.8  | 0.900   |       | 946     | 94.6  |  |       |
| Lithium    |        | 500    | 2.80    |       | 520     | 104.0 | 4.50    |       | 549     | 109.8 |  |       |
| Magnesium  | 500000 | 500000 | 506000  | 101.2 | 495000  | 99.0  | 521000  | 104.2 | 512000  | 102.4 |  |       |
| Manganese  |        | 500    | -1.30   |       | 488     | 97.6  | 0.800   |       | 486     | 97.2  |  |       |
| Molybdenum |        | 500    | -1.60   |       | 476     | 95.2  | -2.40   |       | 479     | 95.8  |  |       |
| Nickel     |        | 1000   | -0.900  |       | 957     | 95.7  | -0.800  |       | 959     | 95.9  |  |       |
| Phosphorus |        | 500    | -6.80   |       | 482     | 96.4  | -14.8   |       | 473     | 94.6  |  |       |
| Potassium  |        |        | -456    |       | -443    |       | -496    |       | -471    |       |  |       |
| Selenium   |        | 1000   | -3.20   |       | 961     | 96.1  | 1.10    |       | 961     | 96.1  |  |       |
| Silicon    |        | 500    | -7.50   |       | 509     | 101.8 | -7.60   |       | 532     | 106.4 |  |       |
| Silver     |        | 1000   | 2.30    |       | 1030    | 103.0 | 9.00    |       | 1030    | 103.0 |  |       |
| Sodium     |        |        | -14.7   |       | 4.50    |       | 8.70    |       | 39.1    |       |  |       |
| Strontium  |        | 500    | 4.60    |       | 535     | 107.0 | 4.90    |       | 555     | 111.0 |  |       |
| Sulfur     |        | 500    | 45.1    |       | 535     | 107.0 | 49.5    |       | 533     | 106.6 |  |       |
| Thallium   |        | 1000   | -1.20   |       | 1040    | 104.0 | -1.10   |       | 1040    | 104.0 |  |       |
| Tin        |        | 500    | -3.20   |       | 451     | 90.2  | -3.10   |       | 448     | 89.6  |  |       |
| Titanium   |        | 500    | -0.400  |       | 489     | 97.8  | -0.200  |       | 489     | 97.8  |  |       |
| Tungsten   |        | 500    | 6.90    |       | 470     | 94.0  | 9.60    |       | 473     | 94.6  |  |       |
| Vanadium   |        | 500    | -0.900  |       | 479     | 95.8  | -1.60   |       | 480     | 96.0  |  |       |
| Zinc       |        | 1000   | 4.00    |       | 944     | 94.4  | 4.10    |       | 940     | 94.0  |  |       |

10.1.7  
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042618M2.ICP Date Analyzed: 04/26/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44291 Units: ug/l

| Time:      |      |       | 17:34   |       | 17:38   |       | 00:02   |       | 00:06   |       |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |

|           |  |     |      |  |     |      |      |  |     |      |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|
| Zirconium |  | 500 | 1.70 |  | 462 | 92.4 | 3.50 |  | 464 | 92.8 |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.1.7  
 10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44293  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 10:23 | MA44293-STD1       | 1               |          | B=2.0466E-004, C=1.8426E-002,R=0.9999621             |
| 10:25 | MA44293-STD2       | 1               |          | STDB   |
| 10:26 | MA44293-STD3       | 1               |          | STDC   |
| 10:27 | MA44293-STD4       | 1               |          | STDD   |
| 10:29 | MA44293-STD5       | 1               |          | STDE   |
| 10:30 | MA44293-STD6       | 1               |          | STDF   |
| 10:34 | MA44293-STD7       | 1               |          | STDC   |
| 10:37 | MA44293-ICV1       | 1               |          |  |
| 10:40 | MA44293-ICB1       | 1               |          |  |
| 10:41 | MA44293-CCV1       | 1               |          |  |
| 10:43 | MA44293-CCB1       | 1               |          |  |
| 10:44 | ZZZZZZ             | 1               |          |  |
| 10:51 | MA44293-CRI1       | 1               |          |  |
| 10:55 | MP6849-MB1         | 1               |          |  |
| 10:56 | MP6849-B1          | 1               |          |  |
| 10:57 | MP6849-S1          | 1               |          |  |
| 10:59 | MP6849-S2          | 1               |          |  |
| 11:01 | JC64873-1A         | 1               |          | (sample used for QC only; not part of login JC64857) |
| 11:02 | ZZZZZZ             | 1               |          |  |
| 11:04 | ZZZZZZ             | 1               |          |  |
| 11:05 | MA44293-CCV2       | 1               |          |  |
| 11:06 | MA44293-CCB2       | 1               |          |  |
| 11:08 | ZZZZZZ             | 1               |          |  |
| 11:09 | ZZZZZZ             | 1               |          |  |
| 11:10 | ZZZZZZ             | 1               |          |  |
| 11:12 | ZZZZZZ             | 1               |          |  |
| 11:13 | ZZZZZZ             | 1               |          |  |
| 11:14 | ZZZZZZ             | 1               |          |  |
| 11:15 | ZZZZZZ             | 1               |          |  |
| 11:17 | ZZZZZZ             | 1               |          |  |
| 11:18 | JC64857-1          | 1               |          | CLOUDY   |
| 11:19 | MA44293-CCV3       | 1               |          |  |
| 11:21 | MA44293-CCB3       | 1               |          |  |

10.2  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44293  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 11:22  | JC64857-2                                   | 1               |          |  |
| 11:24  | JC64857-3                                   | 1               |          | CLOUDY/BROWN   |
| 11:25  | JC64857-1F                                  | 1               |          |  |
| 11:26  | JC64857-2F                                  | 1               |          |  |
| 11:27  | JC64857-3F                                  | 1               |          |  |
| -----> | Last reportable sample/prep for job JC64857 |                 |          |  |
| 11:29  | ZZZZZZ                                      | 1               |          |  |
| 11:30  | ZZZZZZ                                      | 1               |          |  |
| 11:31  | ZZZZZZ                                      | 1               |          |  |
| 11:33  | MP6850-MB1                                  | 1               |          |  |
| 11:34  | MA44293-CCV4                                | 1               |          |  |
| 11:35  | MA44293-CCB4                                | 1               |          |  |
| 11:37  | MP6850-B1                                   | 1               |          |  |
| 11:38  | MP6850-S1                                   | 1               |          |  |
| 11:40  | MP6850-S2                                   | 1               |          |  |
| 11:41  | JC64950-15A                                 | 1               |          | (sample used for QC only; not part of login JC64857) |
| 11:43  | ZZZZZZ                                      | 1               |          |  |
| 11:44  | ZZZZZZ                                      | 1               |          |  |
| 11:45  | ZZZZZZ                                      | 1               |          |  |
| 11:47  | ZZZZZZ                                      | 1               |          |  |
| 11:48  | ZZZZZZ                                      | 1               |          |  |
| 11:49  | MA44293-CCV5                                | 1               |          |  |
| 11:50  | MA44293-CCB5                                | 1               |          |  |
| 11:52  | ZZZZZZ                                      | 1               |          |  |
| 11:53  | ZZZZZZ                                      | 1               |          |  |
| 11:55  | ZZZZZZ                                      | 1               |          |  |
| 11:56  | ZZZZZZ                                      | 1               |          |  |
| 11:57  | ZZZZZZ                                      | 1               |          |  |
| 11:58  | ZZZZZZ                                      | 1               |          |  |
| 12:00  | ZZZZZZ                                      | 1               |          |  |
| 12:01  | ZZZZZZ                                      | 1               |          |  |
| 12:02  | ZZZZZZ                                      | 1               |          |  |
| 12:04  | MA44293-CCV6                                | 1               |          |  |
| 12:05  | MA44293-CCB6                                | 1               |          |  |

10.2  
10



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44293  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:06 | ZZZZZZ             | 1               |          |  |
| 12:08 | ZZZZZZ             | 1               |          |  |
| 12:09 | ZZZZZZ             | 1               |          |  |
| 12:10 | ZZZZZZ             | 1               |          |  |
| 12:12 | ZZZZZZ             | 1               |          |  |
| 12:13 | MP6799-MB3         | 1               |          |  |
| 12:14 | MP6799-B3          | 1               |          |  |
| 12:16 | ZZZZZZ             | 1               |          |  |
| 12:17 | MP6851-MB1         | 1               |          |  |
| 12:18 | MA44293-CCV7       | 1               |          |  |
| 12:20 | MA44293-CCB7       | 1               |          |  |
| 12:21 | ZZZZZZ             | 1               |          |  |
| 12:23 | ZZZZZZ             | 1               |          |  |
| 12:24 | ZZZZZZ             | 1               |          |  |
| 12:25 | ZZZZZZ             | 1               |          |  |
| 12:34 | MA44293-CCV8       | 1               |          |  |
| 12:35 | MA44293-CCB8       | 1               |          |  |
| 12:44 | MP6851-B1          | 1               |          |  |
| 12:46 | MP6851-S1          | 1               |          |  |
| 12:47 | MP6851-S2          | 1               |          |  |
| 12:49 | JC64707-13A        | 1               |          | (sample used for QC only; not part of login JC64857) |
| 12:50 | MA44293-CCV9       | 1               |          |  |
| 12:52 | MA44293-CCB9       | 1               |          |  |
| 14:28 | MA44293-CCV10      | 1               |          |  |
| 14:29 | MA44293-CCB10      | 1               |          |  |
| 14:34 | MP6860-MB1         | 1               |          |  |
| 14:36 | MP6860-B1          | 1               |          |  |
| 14:37 | MP6860-S1          | 1               |          |  |
| 14:38 | MP6860-S2          | 1               |          |  |
| 14:40 | JC64850-2          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 14:41 | ZZZZZZ             | 1               |          |  |
| 14:43 | ZZZZZZ             | 1               |          |  |
| 14:49 | MA44293-CCV11      | 1               |          |  |

10.2  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
Analyst: JA      Run ID: MA44293  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 14:50 | MA44293-CCB11      | 1               |          |          |
| 15:00 | MP6799-MB4         | 1               |          |          |
| 15:01 | MP6799-B4          | 1               |          |          |
| 15:03 | ZZZZZZ             | 1               |          |          |
| 15:04 | ZZZZZZ             | 1               |          |          |
| 15:05 | ZZZZZZ             | 1               |          |          |
| 15:07 | ZZZZZZ             | 1               |          |          |
| 15:08 | ZZZZZZ             | 1               |          |          |
| 15:09 | ZZZZZZ             | 1               |          |          |
| 15:11 | MA44293-CCV12      | 1               |          |          |
| 15:12 | MA44293-CCB12      | 1               |          |          |
| 15:13 | ZZZZZZ             | 1               |          |          |
| 15:15 | ZZZZZZ             | 1               |          |          |
| 15:21 | MA44293-CRI2       | 1               |          |          |
| 15:24 | MA44293-CCV13      | 1               |          |          |
| 15:25 | MA44293-CCB13      | 1               |          |          |

-----> Last reportable CCB for job JC64857  
Refer to raw data for calibration curve and standards.

10.2  
10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44293 Units: ug/l

|         | Time:      |      | 10:40  |       | 10:43   |       | 11:06   |       | 11:21   |       |
|---------|------------|------|--------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | ICB1   |       | CCB1    |       | CCB2    |       | CCB3    |       |
| Metal   | RL         | IDL  | raw    | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .059 | 0.0749 | <0.20 | -0.0323 | <0.20 | -0.0329 | <0.20 | -0.0340 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.2.1  
 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44293 Units: ug/l

|         | Time:      |      | 11:35   |       | 11:50   |       | 12:05   |       | 12:20   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .059 | -0.0282 | <0.20 | -0.0303 | <0.20 | -0.0274 | <0.20 | -0.0215 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.2.1  
 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44293 Units: ug/l

|         | Time:      |      | 12:35   |       | 12:52   |       | 14:29   |       | 14:50   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB8    |       | CCB9    |       | CCB10   |       | CCB11   |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .059 | -0.0203 | <0.20 | -0.0209 | <0.20 | -0.0186 | <0.20 | -0.0239 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.2.1  
 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
 QC Limits: result < RL      Run ID: MA44293      Units: ug/l

|       | Time:      |     | 15:12 |       | 15:25 |       |
|-------|------------|-----|-------|-------|-------|-------|
|       | Sample ID: |     | CCB12 |       | CCB13 |       |
| Metal | RL         | IDL | raw   | final | raw   | final |

|         |      |      |         |       |         |       |
|---------|------|------|---------|-------|---------|-------|
| Mercury | 0.20 | .059 | -0.0225 | <0.20 | -0.0334 | <0.20 |
|---------|------|------|---------|-------|---------|-------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.2.1  
 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44293      Units: ug/l

|            | Time: |         | 10:37 |      | 10:41   |       | 11:05 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   |         | ICV1  | CCV  | CCV1    | CCV   | CCV2  |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 3.15    | 105.0 | 2.5  | 2.51    | 100.4 | 2.5   | 2.46    | 98.4  |

(\*) Outside of QC limits  
(anr) Analyte not requested

10.2.2 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44293      Units: ug/l

|            | Time: | 11:19   |       | 11:34 |         | 11:49 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    |       | CCV4  |         | CCV5  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.43    | 97.2  | 2.5   | 2.46    | 98.4  | 2.5  | 2.48    | 99.2  |

(\*) Outside of QC limits  
(anr) Analyte not requested

10.2.2 10



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44293      Units: ug/l

|            | Time: | 12:04   |       | 12:18 |         | 12:34 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7  | CCV     | CCV8  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.50    | 100.0 | 2.5   | 2.58    | 103.2 | 2.5  | 2.49    | 99.6  |

(\*) Outside of QC limits  
(anr) Analyte not requested

10.2.2 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44293      Units: ug/l

|            | Time: | 12:50   |       | 14:28 |         | 14:49 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV9    | CCV   | CCV10 | CCV     | CCV11 |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.62    | 104.8 | 2.5   | 2.47    | 98.8  | 2.5  | 2.59    | 103.6 |

(\*) Outside of QC limits  
(anr) Analyte not requested

10.2.2 10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV      Date Analyzed: 04/27/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44293      Units: ug/l

|            | Time: | 15:11   |       | 15:24 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV12   |       | CCV   | CCV13   |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |
| Mercury    | 2.5   | 2.58    | 103.2 | 2.5   | 2.57    | 102.8 |

(\*) Outside of QC limits  
(anr) Analyte not requested

10.2.2  
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7042718W1.CSV Date Analyzed: 04/27/18 Methods: SW846 7470A  
 QC Limits: 70 to 130 % Recovery Run ID: MA44293 Units: ug/l

|            | Time: |      | 10:51   |       | 15:21   |       |
|------------|-------|------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRI1    |       | CRI2    |       |
| Metal      | True  | True | Results | % Rec | Results | % Rec |
| Mercury    | 0.20  |      | 0.189   | 94.5  | 0.214   | 107.0 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.2.3  
 10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 09:55 | MA44299-STD1       | 1               |          | STDA   |
| 10:00 | MA44299-STD2       | 1               |          | STDB   |
| 10:04 | ZZZZZZ             | 1               |          |  |
| 10:08 | ZZZZZZ             | 1               |          |  |
| 10:14 | MA44299-ICV1       | 1               |          |  |
| 10:24 | MA44299-ICB1       | 1               |          |  |
| 10:29 | MA44299-ICCV1      | 1               |          |  |
| 10:38 | MA44299-CCB1       | 1               |          |  |
| 10:42 | MA44299-CRI1       | 1               |          |  |
| 10:46 | MA44299-CRID1      | 1               |          |  |
| 10:51 | MA44299-ICSA1      | 1               |          |  |
| 10:55 | MA44299-ICSAB1     | 1               |          |  |
| 10:59 | MA44299-HSTD1      | 1               |          |  |
| 11:03 | MA44299-HSTD2      | 1               |          |  |
| 11:08 | ZZZZZZ             | 1               |          |  |
| 11:12 | ZZZZZZ             | 1               |          |  |
| 11:16 | ZZZZZZ             | 1               |          |  |
| 11:21 | MA44299-CCV1       | 1               |          |  |
| 11:25 | MA44299-CCB2       | 1               |          |  |
| 11:29 | MP6830-MB1         | 1               |          |  |
| 11:34 | MP6830-B1          | 1               |          |  |
| 11:38 | MP6830-S1          | 1               |          |  |
| 11:42 | MP6830-S2          | 1               |          |  |
| 11:46 | JC64822-2          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 11:50 | MP6830-SD1         | 5               |          | rerun for Zn   |
| 11:54 | ZZZZZZ             | 1               |          |  |
| 11:58 | ZZZZZZ             | 1               |          |  |
| 12:03 | ZZZZZZ             | 1               |          |  |
| 12:07 | MA44299-CCV2       | 1               |          |  |
| 12:11 | MA44299-CCB3       | 1               |          |  |
| 12:16 | ZZZZZZ             | 1               |          |  |
| 12:20 | ZZZZZZ             | 1               |          |  |
| 12:24 | ZZZZZZ             | 1               |          |  |

10.3  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 12:28 | ZZZZZZ             | 1               |          |          |
| 12:33 | ZZZZZZ             | 1               |          |          |
| 12:37 | ZZZZZZ             | 1               |          |          |
| 12:41 | ZZZZZZ             | 1               |          |          |
| 12:46 | ZZZZZZ             | 1               |          |          |
| 12:50 | ZZZZZZ             | 1               |          |          |
| 12:54 | MA44299-CCV3       | 1               |          |          |
| 12:58 | MA44299-CCB4       | 1               |          |          |
| 13:03 | ZZZZZZ             | 1               |          |          |
| 13:07 | ZZZZZZ             | 1               |          |          |
| 13:11 | ZZZZZZ             | 1               |          |          |
| 13:15 | ZZZZZZ             | 1               |          |          |
| 13:20 | ZZZZZZ             | 1               |          |          |
| 13:24 | ZZZZZZ             | 1               |          |          |
| 13:29 | ZZZZZZ             | 1               |          |          |
| 13:33 | ZZZZZZ             | 1               |          |          |
| 13:37 | ZZZZZZ             | 1               |          |          |
| 13:41 | MA44299-CCV4       | 1               |          |          |
| 13:45 | MA44299-CCB5       | 1               |          |          |
| 13:50 | ZZZZZZ             | 5               |          |          |
| 13:54 | ZZZZZZ             | 5               |          |          |
| 13:58 | ZZZZZZ             | 1               |          |          |
| 14:02 | ZZZZZZ             | 1               |          |          |
| 14:06 | MP6819-S1          | 2               |          |          |
| 14:11 | MP6819-S2          | 2               |          |          |
| 14:15 | ZZZZZZ             | 1               |          |          |
| 14:19 | ZZZZZZ             | 3               |          |          |
| 14:23 | MA44299-CCV5       | 1               |          |          |
| 14:27 | MA44299-CCB6       | 1               |          |          |
| 14:32 | ZZZZZZ             | 2               |          |          |
| 14:36 | ZZZZZZ             | 10              |          |          |
| 14:40 | ZZZZZZ             | 2               |          |          |
| 14:45 | ZZZZZZ             | 10              |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44299  
Parameters: Na

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 14:49  | ZZZZZZ                                      | 2               |          |  |
| 14:53  | ZZZZZZ                                      | 10              |          |  |
| 14:58  | ZZZZZZ                                      | 1               |          |  |
| 15:02  | ZZZZZZ                                      | 1               |          |  |
| 15:06  | JC64857-1F                                  | 2               |          |  |
| -----> | Last reportable sample/prep for job JC64857 |                 |          |  |
| 15:10  | MA44299-CCV6                                | 1               |          |  |
| 15:14  | MA44299-CCB7                                | 1               |          |  |
| 15:19  | ZZZZZZ                                      | 1               |          |  |
| 15:23  | ZZZZZZ                                      | 1               |          |  |
| 15:27  | ZZZZZZ                                      | 1               |          |  |
| 15:32  | ZZZZZZ                                      | 1               |          |  |
| 15:36  | ZZZZZZ                                      | 1               |          |  |
| 15:40  | ZZZZZZ                                      | 1               |          |  |
| 15:45  | ZZZZZZ                                      | 1               |          |  |
| 15:49  | ZZZZZZ                                      | 1               |          |  |
| 15:53  | ZZZZZZ                                      | 1               |          |  |
| 15:58  | ZZZZZZ                                      | 1               |          |  |
| 16:02  | ZZZZZZ                                      | 1               |          |  |
| 16:06  | ZZZZZZ                                      | 1               |          |  |
| 16:11  | MA44299-CCV7                                | 1               |          |  |
| 16:15  | MA44299-CCB8                                | 1               |          |  |
| 16:19  | MA44299-CRI2                                | 1               |          |  |
| 16:24  | MA44299-CRID2                               | 1               |          |  |
| 16:28  | MA44299-ICSA2                               | 1               |          |  |
| 16:32  | MA44299-ICSAB2                              | 1               |          |  |
| 16:37  | MA44299-CCV8                                | 1               |          |  |
| 16:41  | MA44299-CCB9                                | 1               |          |  |
| -----> | Last reportable CCB for job JC64857         |                 |          |  |
| 16:45  | MP6845-MB1                                  | 1               |          |  |
| 16:49  | MP6845-B1                                   | 1               |          |  |
| 16:53  | MP6845-S1                                   | 1               |          | %sol   |
| 16:58  | MP6845-S2                                   | 1               |          | %sol   |
| 17:02  | JC64221-1                                   | 1               |          | (sample used for QC only; not part of login JC64857) |
| 17:06  | MP6845-SD1                                  | 5               |          | %sol   |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 17:10 | ZZZZZZ             | 1               |          |          |
| 17:14 | ZZZZZZ             | 1               |          |          |
| 17:18 | ZZZZZZ             | 1               |          |          |
| 17:23 | MA44299-CCV9       | 1               |          |          |
| 17:27 | MA44299-CCB10      | 1               |          |          |
| 17:31 | ZZZZZZ             | 1               |          |          |
| 17:35 | ZZZZZZ             | 1               |          |          |
| 17:39 | ZZZZZZ             | 1               |          |          |
| 17:44 | ZZZZZZ             | 1               |          |          |
| 17:48 | ZZZZZZ             | 1               |          |          |
| 17:52 | ZZZZZZ             | 1               |          |          |
| 17:57 | ZZZZZZ             | 1               |          |          |
| 18:01 | ZZZZZZ             | 1               |          |          |
| 18:05 | ZZZZZZ             | 1               |          |          |
| 18:09 | MA44299-CCV10      | 1               |          |          |
| 18:13 | MA44299-CCB11      | 1               |          |          |
| 18:18 | ZZZZZZ             | 1               |          |          |
| 18:22 | ZZZZZZ             | 1               |          |          |
| 18:26 | ZZZZZZ             | 1               |          |          |
| 18:30 | ZZZZZZ             | 1               |          |          |
| 18:34 | ZZZZZZ             | 1               |          |          |
| 18:39 | ZZZZZZ             | 1               |          |          |
| 18:43 | MA44299-CCV11      | 1               |          |          |
| 18:47 | MA44299-CCB12      | 1               |          |          |
| 19:03 | ZZZZZZ             | 10              |          |          |
| 19:08 | ZZZZZZ             | 10              |          |          |
| 19:12 | ZZZZZZ             | 3               |          |          |
| 19:16 | ZZZZZZ             | 2               |          |          |
| 19:50 | ZZZZZZ             | 1               |          |          |
| 19:54 | MA44299-CCV12      | 1               |          |          |
| 19:58 | MA44299-CCB13      | 1               |          |          |
| 20:03 | ZZZZZZ             | 1               |          |          |
| 22:32 | MA44299-CCV13      | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 22:36 | MA44299-CCB14      | 1               |          |  |
| 23:08 | MP6847-MB1         | 1               |          |  |
| 23:12 | MP6847-B1          | 1               |          | Wrong solution used for spike, but good recoveries. The correct one will be digested and analyzed on a later date. |
| 23:16 | MP6847-S1          | 1               |          |  |
| 23:20 | MP6847-S2          | 1               |          |  |
| 23:24 | JC60488-1R         | 1               |          | (sample used for QC only; not part of login JC64857)   |
| 23:29 | MP6847-SD1         | 5               |          |  |
| 23:33 | ZZZZZZ             | 1               |          |  |
| 23:37 | ZZZZZZ             | 1               |          |  |
| 23:41 | MA44299-CCV14      | 1               |          |  |
| 23:45 | MA44299-CCB15      | 1               |          |  |
| 23:50 | MA44299-CRI3       | 1               |          |  |
| 23:54 | MA44299-CRID3      | 1               |          |  |
| 23:59 | MA44299-ICSA3      | 1               |          |  |
| 00:03 | MA44299-ICSAB3     | 1               |          |  |
| 00:07 | MA44299-CCV15      | 1               |          |  |
| 00:11 | MA44299-CCB16      | 1               |          |  |
| 00:16 | MP6857-MB1         | 1               |          |  |
| 00:20 | MP6857-B1          | 1               |          |  |
| 00:24 | MP6857-S1          | 1               |          |  |
| 00:28 | MP6857-S2          | 1               |          |  |
| 00:32 | JC64582-7B         | 1               |          | (sample used for QC only; not part of login JC64857)   |
| 00:36 | MP6857-SD1         | 5               |          |  |
| 00:41 | ZZZZZZ             | 1               |          |  |
| 00:45 | ZZZZZZ             | 1               |          |  |
| 00:49 | ZZZZZZ             | 1               |          |  |
| 00:54 | MP6852-B1          | 1               |          |  |
| 00:58 | MA44299-CCV16      | 1               |          |  |
| 01:02 | MA44299-CCB17      | 1               |          |  |
| 01:06 | MP6852-MB1         | 1               |          |  |
| 01:10 | MP6852-S1          | 1               |          |  |
| 01:15 | MP6852-S2          | 1               |          |  |
| 01:19 | JC64984-4          | 1               |          | (sample used for QC only; not part of login JC64857)   |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 01:23 | MP6852-SD1         | 5               |          |  |
| 01:27 | ZZZZZZ             | 1               |          |  |
| 01:31 | ZZZZZZ             | 1               |          |  |
| 01:36 | ZZZZZZ             | 1               |          |  |
| 01:40 | ZZZZZZ             | 1               |          |  |
| 01:44 | ZZZZZZ             | 1               |          |  |
| 01:49 | MA44299-CCV17      | 1               |          |  |
| 01:53 | MA44299-CCB18      | 1               |          |  |
| 01:57 | ZZZZZZ             | 1               |          |  |
| 02:02 | ZZZZZZ             | 1               |          |  |
| 02:06 | ZZZZZZ             | 1               |          |  |
| 02:10 | ZZZZZZ             | 1               |          |  |
| 02:14 | ZZZZZZ             | 1               |          |  |
| 02:19 | ZZZZZZ             | 1               |          |  |
| 02:23 | ZZZZZZ             | 1               |          |  |
| 02:27 | ZZZZZZ             | 1               |          |  |
| 02:32 | ZZZZZZ             | 1               |          |  |
| 02:36 | ZZZZZZ             | 1               |          |  |
| 02:40 | MA44299-CCV18      | 1               |          |  |
| 02:44 | MA44299-CCB19      | 1               |          |  |
| 02:49 | ZZZZZZ             | 1               |          |  |
| 02:53 | ZZZZZZ             | 1               |          |  |
| 02:57 | ZZZZZZ             | 1               |          |  |
| 03:02 | ZZZZZZ             | 1               |          |  |
| 03:06 | MP6854-B1          | 1               |          |  |
| 03:10 | MP6854-MB1         | 1               |          |  |
| 03:14 | MP6854-S1          | 1               |          |  |
| 03:18 | MP6854-S2          | 1               |          |  |
| 03:22 | JC64855-12A        | 1               |          | (sample used for QC only; not part of login JC64857) |
| 03:27 | MP6854-SD1         | 5               |          |  |
| 03:31 | MA44299-CCV19      | 1               |          |  |
| 03:35 | MA44299-CCB20      | 1               |          |  |
| 03:39 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44299  
Parameters: Na

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 03:44 | ZZZZZZ             | 1               |          |          |
| 03:48 | ZZZZZZ             | 1               |          |          |
| 03:52 | ZZZZZZ             | 1               |          |          |
| 03:57 | ZZZZZZ             | 1               |          |          |
| 04:01 | ZZZZZZ             | 1               |          |          |
| 04:05 | ZZZZZZ             | 1               |          |          |
| 04:10 | ZZZZZZ             | 1               |          |          |
| 04:14 | ZZZZZZ             | 1               |          |          |
| 04:18 | ZZZZZZ             | 1               |          |          |
| 04:23 | MA44299-CCV20      | 1               |          |          |
| 04:27 | MA44299-CCB21      | 1               |          |          |
| 04:31 | ZZZZZZ             | 1               |          |          |
| 04:35 | ZZZZZZ             | 1               |          |          |
| 04:40 | ZZZZZZ             | 1               |          |          |
| 04:44 | ZZZZZZ             | 1               |          |          |
| 04:48 | ZZZZZZ             | 1               |          |          |
| 04:53 | ZZZZZZ             | 1               |          |          |
| 04:57 | ZZZZZZ             | 1               |          |          |
| 05:01 | ZZZZZZ             | 1               |          |          |
| 05:06 | ZZZZZZ             | 1               |          |          |
| 05:10 | MA44299-CCV21      | 1               |          |          |
| 05:14 | MA44299-CCB22      | 1               |          |          |
| 05:18 | MA44299-CRI4       | 1               |          |          |
| 05:23 | MA44299-CRID4      | 1               |          |          |
| 05:27 | MA44299-CCV22      | 1               |          |          |
| 05:31 | MA44299-CCB23      | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 09:55 | MA44299-STD1       | 3452 R | 100840 R | 14025 R | 7672 R |
| 10:00 | MA44299-STD2       | 3211   | 93708    | 13749   | 6598   |
| 10:04 | ZZZZZZ             | 3319   | 96443    | 13784   | 6890   |
| 10:08 | ZZZZZZ             | 3459   | 101830   | 14010   | 7708   |
| 10:14 | MA44299-ICV1       | 3326   | 96746    | 13883   | 6908   |
| 10:24 | MA44299-ICB1       | 3462   | 101790   | 14111   | 7705   |
| 10:29 | MA44299-ICCV1      | 3325   | 97319    | 13910   | 6908   |
| 10:38 | MA44299-CCB1       | 3464   | 101730   | 14183   | 7716   |
| 10:42 | MA44299-CRI1       | 3427   | 99847    | 14067   | 7525   |
| 10:46 | MA44299-CRID1      | 3451   | 101220   | 14062   | 7655   |
| 10:51 | MA44299-ICSA1      | 3037   | 88319    | 13494   | 6045   |
| 10:55 | MA44299-ICSAB1     | 3049   | 88473    | 13546   | 6064   |
| 10:59 | MA44299-HSTD1      | 3366   | 98900    | 13879   | 7391   |
| 11:03 | MA44299-HSTD2      | 3097   | 89865    | 13571   | 6117   |
| 11:08 | ZZZZZZ             | 3350   | 98580    | 13955   | 7463   |
| 11:12 | ZZZZZZ             | 3344   | 100750   | 14100   | 7583   |
| 11:16 | ZZZZZZ             | 3426   | 100850   | 14037   | 7634   |
| 11:21 | MA44299-CCV1       | 3277   | 95980    | 13769   | 6820   |
| 11:25 | MA44299-CCB2       | 3415   | 100660   | 13944   | 7611   |
| 11:29 | MP6830-MB1         | 3434   | 101430   | 14165   | 7645   |
| 11:34 | MP6830-B1          | 3324   | 97890    | 14083   | 7026   |
| 11:38 | MP6830-S1          | 3176   | 93625    | 13909   | 6562   |
| 11:42 | MP6830-S2          | 3174   | 93283    | 14005   | 6544   |
| 11:46 | JC64822-2          | 3220   | 94385    | 13949   | 6772   |
| 11:50 | MP6830-SD1         | 3370   | 98843    | 14163   | 7335   |
| 11:54 | ZZZZZZ             | 3037   | 85084    | 13697   | 5869   |
| 11:58 | ZZZZZZ             | 3178   | 93620    | 13860   | 6636   |
| 12:03 | ZZZZZZ             | 3342   | 98466    | 14243   | 7263   |
| 12:07 | MA44299-CCV2       | 3277   | 95476    | 14158   | 6810   |
| 12:11 | MA44299-CCB3       | 3410   | 100550   | 14247   | 7619   |
| 12:16 | ZZZZZZ             | 3244   | 94621    | 14121   | 6811   |
| 12:20 | ZZZZZZ             | 3211   | 93660    | 14087   | 6666   |
| 12:24 | ZZZZZZ             | 3265   | 95800    | 14183   | 6931   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 12:28 | ZZZZZZ             | 3198   | 94152  | 14134  | 6752   |
| 12:33 | ZZZZZZ             | 3220   | 96803  | 14192  | 7009   |
| 12:37 | ZZZZZZ             | 3232   | 96757  | 14249  | 6999   |
| 12:41 | ZZZZZZ             | 3407   | 101140 | 14497  | 7629   |
| 12:46 | ZZZZZZ             | 3206   | 94093  | 14125  | 6656   |
| 12:50 | ZZZZZZ             | 3246   | 96643  | 14084  | 6997   |
| 12:54 | MA44299-CCV3       | 3255   | 95886  | 14090  | 6790   |
| 12:58 | MA44299-CCB4       | 3394   | 100280 | 14335  | 7605   |
| 13:03 | ZZZZZZ             | 3221   | 95849  | 14345  | 6942   |
| 13:07 | ZZZZZZ             | 3192   | 94320  | 14316  | 6722   |
| 13:11 | ZZZZZZ             | 3252   | 96713  | 14308  | 6909   |
| 13:15 | ZZZZZZ             | 3063   | 89559  | 14033  | 6209   |
| 13:20 | ZZZZZZ             | 3223   | 94452  | 14186  | 6725   |
| 13:24 | ZZZZZZ             | 3398   | 101230 | 14336  | 7594   |
| 13:29 | ZZZZZZ             | 3401   | 100970 | 14502  | 7594   |
| 13:33 | ZZZZZZ             | 3414   | 101920 | 14542  | 7646   |
| 13:37 | ZZZZZZ             | 3314   | 98008  | 14500  | 7023   |
| 13:41 | MA44299-CCV4       | 3253   | 95763  | 14167  | 6789   |
| 13:45 | MA44299-CCB5       | 3396   | 100420 | 14351  | 7592   |
| 13:50 | ZZZZZZ             | 3324   | 99191  | 14300  | 7439   |
| 13:54 | ZZZZZZ             | 3295   | 96744  | 14159  | 7215   |
| 13:58 | ZZZZZZ             | 3407   | 101810 | 14578  | 7652   |
| 14:02 | ZZZZZZ             | 3302   | 97771  | 14453  | 6999   |
| 14:06 | MP6819-S1          | 3254   | 96421  | 14392  | 6819   |
| 14:11 | MP6819-S2          | 3268   | 96438  | 14265  | 6840   |
| 14:15 | ZZZZZZ             | 3039   | 88695  | 13879  | 6140   |
| 14:19 | ZZZZZZ             | 3194   | 93905  | 14141  | 6682   |
| 14:23 | MA44299-CCV5       | 3257   | 96087  | 14270  | 6807   |
| 14:27 | MA44299-CCB6       | 3390   | 100780 | 14282  | 7602   |
| 14:32 | ZZZZZZ             | 2983   | 86855  | 13732  | 6022   |
| 14:36 | ZZZZZZ             | 3259   | 95421  | 14083  | 6879   |
| 14:40 | ZZZZZZ             | 3028   | 88622  | 13793  | 6176   |
| 14:45 | ZZZZZZ             | 3250   | 95616  | 14148  | 6937   |

10.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 14:49 | ZZZZZZ             | 3000   | 87458  | 13821  | 6084   |
| 14:53 | ZZZZZZ             | 3231   | 94621  | 14181  | 6852   |
| 14:58 | ZZZZZZ             | 3402   | 101260 | 14547  | 7622   |
| 15:02 | ZZZZZZ             | 3303   | 97797  | 14589  | 6995   |
| 15:06 | JC64857-1F         | 3167   | 92975  | 14146  | 6629   |
| 15:10 | MA44299-CCV6       | 3247   | 95444  | 14201  | 6769   |
| 15:14 | MA44299-CCB7       | 3385   | 100260 | 14401  | 7582   |
| 15:19 | ZZZZZZ             | 3114   | 91912  | 14001  | 6444   |
| 15:23 | ZZZZZZ             | 3376   | 95554  | 14686  | 6760   |
| 15:27 | ZZZZZZ             | 3135   | 92339  | 14033  | 6575   |
| 15:32 | ZZZZZZ             | 3418   | 101450 | 14440  | 7658   |
| 15:36 | ZZZZZZ             | 3418   | 100870 | 14515  | 7620   |
| 15:40 | ZZZZZZ             | 3392   | 100390 | 14256  | 7558   |
| 15:45 | ZZZZZZ             | 3399   | 101030 | 14337  | 7612   |
| 15:49 | ZZZZZZ             | 3400   | 100950 | 14412  | 7581   |
| 15:53 | ZZZZZZ             | 3444   | 102370 | 14840  | 7798   |
| 15:58 | ZZZZZZ             | 3408   | 100490 | 14449  | 7630   |
| 16:02 | ZZZZZZ             | 3405   | 101270 | 14432  | 7631   |
| 16:06 | ZZZZZZ             | 3405   | 101450 | 14425  | 7617   |
| 16:11 | MA44299-CCV7       | 3251   | 95962  | 14287  | 6780   |
| 16:15 | MA44299-CCB8       | 3396   | 101100 | 14395  | 7605   |
| 16:19 | MA44299-CRI2       | 3361   | 99497  | 14375  | 7421   |
| 16:24 | MA44299-CRID2      | 3394   | 100810 | 14452  | 7566   |
| 16:28 | MA44299-ICSA2      | 2990   | 88068  | 13973  | 5962   |
| 16:32 | MA44299-ICSAB2     | 3001   | 88484  | 13894  | 5993   |
| 16:37 | MA44299-CCV8       | 3268   | 96601  | 14311  | 6820   |
| 16:41 | MA44299-CCB9       | 3405   | 101160 | 14367  | 7608   |
| 16:45 | MP6845-MB1         | 3431   | 102580 | 14498  | 7664   |
| 16:49 | MP6845-B1          | 3326   | 98943  | 14370  | 7038   |
| 16:53 | MP6845-S1          | 3300   | 97412  | 14531  | 6936   |
| 16:58 | MP6845-S2          | 3294   | 97669  | 14482  | 6940   |
| 17:02 | JC64221-1          | 3362   | 99912  | 14509  | 7230   |
| 17:06 | MP6845-SD1         | 3382   | 100360 | 14235  | 7436   |

10.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
 Analyst: GT      Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1  | Istd#2   | Istd#3  | Istd#4  |
|-------|--------------------|---------|----------|---------|---------|
| 17:10 | ZZZZZZ             | 3301    | 98120    | 14697   | 6699    |
| 17:14 | ZZZZZZ             | 3386    | 100450   | 14919   | 6933    |
| 17:18 | ZZZZZZ             | 3399    | 100200   | 14942   | 6947    |
| 17:23 | MA44299-CCV9       | 3247    | 95647    | 14115   | 6762    |
| 17:27 | MA44299-CCB10      | 3383    | 100120   | 14188   | 7551    |
| 17:31 | ZZZZZZ             | 3384    | 100180   | 14979   | 6906    |
| 17:35 | ZZZZZZ             | 3380    | 100320   | 14556   | 6991    |
| 17:39 | ZZZZZZ             | 3371    | 99722    | 14730   | 6921    |
| 17:44 | ZZZZZZ             | 2791    | 82539    | 13221   | 5555    |
| 17:48 | ZZZZZZ             | 2798    | 82921    | 13362   | 5562    |
| 17:52 | ZZZZZZ             | 3273    | 97019    | 14697   | 6570    |
| 17:57 | ZZZZZZ             | 3402    | 100450   | 14470   | 7323    |
| 18:01 | ZZZZZZ             | 3404    | 99962    | 14578   | 7265    |
| 18:05 | ZZZZZZ             | 3284    | 97459    | 14491   | 6571    |
| 18:09 | MA44299-CCV10      | 3241    | 95218    | 14043   | 6758    |
| 18:13 | MA44299-CCB11      | 3390    | 100490   | 14266   | 7577    |
| 18:18 | ZZZZZZ             | 3373    | 100050   | 14689   | 6935    |
| 18:22 | ZZZZZZ             | 3380    | 99446    | 14912   | 6952    |
| 18:26 | ZZZZZZ             | 3295    | 97792    | 14614   | 6746    |
| 18:30 | ZZZZZZ             | 3025    | 90356    | 13889   | 6062    |
| 18:34 | ZZZZZZ             | 3257    | 96952    | 14547   | 6667    |
| 18:39 | ZZZZZZ             | 3283    | 97351    | 14270   | 7196    |
| 18:43 | MA44299-CCV11      | 3248    | 95729    | 14143   | 6761    |
| 18:47 | MA44299-CCB12      | 3383    | 99970    | 14203   | 7544    |
| 19:03 | ZZZZZZ             | 3126    | 92105    | 13631   | 6649    |
| 19:08 | ZZZZZZ             | 3151    | 93218    | 13832   | 6685    |
| 19:12 | ZZZZZZ             | 3166    | 93941    | 14005   | 6540    |
| 19:16 | ZZZZZZ             | 3311    | 98077    | 14175   | 7231    |
| 19:50 | ZZZZZZ             | 3329    | 98598    | 13914   | 7444    |
| 19:54 | MA44299-CCV12      | 3218    | 94751    | 13849   | 6717    |
| 19:58 | MA44299-CCB13      | 3388    | 100350   | 14135   | 7555    |
| 20:03 | ZZZZZZ             | 12476 ! | 318910 ! | 35111 ! | 25858 ! |
| 22:32 | MA44299-CCV13      | 3363    | 97187    | 14521   | 6983    |

10.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 22:36 | MA44299-CCB14      | 3513   | 102570 | 14771  | 7880   |
| 23:08 | MP6847-MB1         | 3540   | 104080 | 14986  | 7957   |
| 23:12 | MP6847-B1          | 3338   | 95819  | 14641  | 6780   |
| 23:16 | MP6847-S1          | 3419   | 100390 | 14821  | 7184   |
| 23:20 | MP6847-S2          | 3413   | 99363  | 14787  | 7138   |
| 23:24 | JC60488-1R         | 3523   | 102330 | 14829  | 7588   |
| 23:29 | MP6847-SD1         | 3554   | 103250 | 14681  | 7849   |
| 23:33 | ZZZZZ              | 3565   | 104040 | 15107  | 7616   |
| 23:37 | ZZZZZ              | 3534   | 102870 | 14999  | 7590   |
| 23:41 | MA44299-CCV14      | 3441   | 99510  | 14769  | 7124   |
| 23:45 | MA44299-CCB15      | 3596   | 104490 | 14919  | 8038   |
| 23:50 | MA44299-CRI3       | 3545   | 103120 | 14855  | 7806   |
| 23:54 | MA44299-CRID3      | 3580   | 104360 | 14817  | 7961   |
| 23:59 | MA44299-ICSA3      | 3135   | 90882  | 14244  | 6185   |
| 00:03 | MA44299-ICSAB3     | 3144   | 90802  | 14178  | 6206   |
| 00:07 | MA44299-CCV15      | 3447   | 99933  | 14749  | 7132   |
| 00:11 | MA44299-CCB16      | 3603   | 105180 | 14854  | 8048   |
| 00:16 | MP6857-MB1         | 3590   | 105460 | 15006  | 8056   |
| 00:20 | MP6857-B1          | 3486   | 101880 | 14899  | 7359   |
| 00:24 | MP6857-S1          | 3465   | 101670 | 14937  | 7276   |
| 00:28 | MP6857-S2          | 3478   | 102020 | 15005  | 7315   |
| 00:32 | JC64582-7B         | 3574   | 105250 | 14998  | 7889   |
| 00:36 | MP6857-SD1         | 3601   | 105060 | 15060  | 8029   |
| 00:41 | ZZZZZ              | 3582   | 105070 | 15082  | 7839   |
| 00:45 | ZZZZZ              | 3537   | 102990 | 15028  | 7586   |
| 00:49 | ZZZZZ              | 3521   | 102710 | 14901  | 7569   |
| 00:54 | MP6852-B1          | 3498   | 102110 | 14935  | 7362   |
| 00:58 | MA44299-CCV16      | 3466   | 100720 | 14709  | 7171   |
| 01:02 | MA44299-CCB17      | 3606   | 105480 | 14893  | 8057   |
| 01:06 | MP6852-MB1         | 3597   | 105610 | 15021  | 8050   |
| 01:10 | MP6852-S1          | 3443   | 100720 | 14772  | 7139   |
| 01:15 | MP6852-S2          | 3442   | 100640 | 14821  | 7141   |
| 01:19 | JC64984-4          | 3499   | 102580 | 14885  | 7579   |

10.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 01:23 | MP6852-SD1         | 3593   | 104720 | 14902  | 7957   |
| 01:27 | ZZZZZZ             | 3377   | 97203  | 14702  | 6865   |
| 01:31 | ZZZZZZ             | 3196   | 92207  | 14448  | 6402   |
| 01:36 | ZZZZZZ             | 3471   | 100460 | 14764  | 7294   |
| 01:40 | ZZZZZZ             | 3338   | 95394  | 14534  | 6688   |
| 01:44 | ZZZZZZ             | 3403   | 98038  | 14818  | 6928   |
| 01:49 | MA44299-CCV17      | 3474   | 100500 | 14744  | 7167   |
| 01:53 | MA44299-CCB18      | 3629   | 105660 | 14974  | 8081   |
| 01:57 | ZZZZZZ             | 3603   | 105400 | 14928  | 7914   |
| 02:02 | ZZZZZZ             | 3567   | 103960 | 15018  | 7640   |
| 02:06 | ZZZZZZ             | 3416   | 101200 | 14724  | 7340   |
| 02:10 | ZZZZZZ             | 3595   | 105730 | 15045  | 7787   |
| 02:14 | ZZZZZZ             | 3631   | 106080 | 14965  | 8068   |
| 02:19 | ZZZZZZ             | 3539   | 103500 | 14742  | 7712   |
| 02:23 | ZZZZZZ             | 3361   | 96628  | 14557  | 6900   |
| 02:27 | ZZZZZZ             | 3365   | 96363  | 14545  | 6897   |
| 02:32 | ZZZZZZ             | 3508   | 102420 | 14911  | 7539   |
| 02:36 | ZZZZZZ             | 3515   | 102910 | 14859  | 7601   |
| 02:40 | MA44299-CCV18      | 3490   | 101370 | 14809  | 7210   |
| 02:44 | MA44299-CCB19      | 3639   | 107930 | 14918  | 8101   |
| 02:49 | ZZZZZZ             | 3507   | 102410 | 14889  | 7564   |
| 02:53 | ZZZZZZ             | 3399   | 98768  | 14749  | 7059   |
| 02:57 | ZZZZZZ             | 3437   | 99713  | 14756  | 7212   |
| 03:02 | ZZZZZZ             | 3466   | 101800 | 14774  | 7313   |
| 03:06 | MP6854-B1          | 3509   | 102540 | 15047  | 7367   |
| 03:10 | MP6854-MB1         | 3626   | 106790 | 15078  | 8101   |
| 03:14 | MP6854-S1          | 3429   | 99830  | 14836  | 7017   |
| 03:18 | MP6854-S2          | 3422   | 99743  | 14903  | 7012   |
| 03:22 | JC64855-12A        | 3435   | 100780 | 14744  | 7281   |
| 03:27 | MP6854-SD1         | 3577   | 104380 | 14849  | 7848   |
| 03:31 | MA44299-CCV19      | 3489   | 101160 | 14773  | 7206   |
| 03:35 | MA44299-CCB20      | 3638   | 105820 | 14819  | 8098   |
| 03:39 | ZZZZZZ             | 3487   | 102030 | 14975  | 7422   |

10.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44299  
 Parameters: Na

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 03:44 | ZZZZZZ             | 3234   | 94145  | 14500  | 6584   |
| 03:48 | ZZZZZZ             | 3410   | 99933  | 14751  | 7152   |
| 03:52 | ZZZZZZ             | 3412   | 99250  | 14803  | 7124   |
| 03:57 | ZZZZZZ             | 3405   | 98134  | 14708  | 7067   |
| 04:01 | ZZZZZZ             | 3486   | 102080 | 14873  | 7369   |
| 04:05 | ZZZZZZ             | 3422   | 100260 | 14922  | 7195   |
| 04:10 | ZZZZZZ             | 3452   | 101290 | 14899  | 7294   |
| 04:14 | ZZZZZZ             | 3457   | 101010 | 14963  | 7298   |
| 04:18 | ZZZZZZ             | 3443   | 100580 | 14946  | 7258   |
| 04:23 | MA44299-CCV20      | 3491   | 101230 | 14866  | 7207   |
| 04:27 | MA44299-CCB21      | 3649   | 106290 | 14982  | 8134   |
| 04:31 | ZZZZZZ             | 3411   | 99842  | 14867  | 7179   |
| 04:35 | ZZZZZZ             | 3458   | 101580 | 14921  | 7326   |
| 04:40 | ZZZZZZ             | 3471   | 100900 | 14961  | 7175   |
| 04:44 | ZZZZZZ             | 3451   | 101220 | 14923  | 7293   |
| 04:48 | ZZZZZZ             | 3400   | 99386  | 14821  | 7115   |
| 04:53 | ZZZZZZ             | 3469   | 101420 | 14948  | 7347   |
| 04:57 | ZZZZZZ             | 3438   | 101090 | 15024  | 7261   |
| 05:01 | ZZZZZZ             | 3632   | 107370 | 15165  | 8114   |
| 05:06 | ZZZZZZ             | 3445   | 100810 | 14910  | 7266   |
| 05:10 | MA44299-CCV21      | 3491   | 101590 | 14919  | 7219   |
| 05:14 | MA44299-CCB22      | 3649   | 106970 | 15102  | 8140   |
| 05:18 | MA44299-CRI4       | 3596   | 104590 | 14856  | 7914   |
| 05:23 | MA44299-CRID4      | 3619   | 106160 | 14973  | 8039   |
| 05:27 | MA44299-CCV22      | 3493   | 101910 | 14924  | 7220   |
| 05:31 | MA44299-CCB23      | 3648   | 106520 | 14962  | 8129   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

10.3.1  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Metal      | Time:      |     | 10:24 |        | 10:38 |        | 11:25 |        | 12:11 |        |       |
|------------|------------|-----|-------|--------|-------|--------|-------|--------|-------|--------|-------|
|            | Sample ID: | RL  | IDL   | ICB1   | final | CCB1   | final | CCB2   | final | CCB3   | final |
| Aluminum   | 200        | 34  | anr   |        |       |        |       |        |       |        |       |
| Antimony   | 6.0        | 1.4 | anr   |        |       |        |       |        |       |        |       |
| Arsenic    | 3.0        | 1.4 | anr   |        |       |        |       |        |       |        |       |
| Barium     | 200        | .5  | anr   |        |       |        |       |        |       |        |       |
| Beryllium  | 1.0        | .2  | anr   |        |       |        |       |        |       |        |       |
| Bismuth    | 20         | 2.5 |       |        |       |        |       |        |       |        |       |
| Boron      | 100        | 1.9 | anr   |        |       |        |       |        |       |        |       |
| Cadmium    | 3.0        | .3  | anr   |        |       |        |       |        |       |        |       |
| Calcium    | 2000       | 8.7 | anr   |        |       |        |       |        |       |        |       |
| Chromium   | 10         | .6  | anr   |        |       |        |       |        |       |        |       |
| Cobalt     | 50         | .5  | anr   |        |       |        |       |        |       |        |       |
| Copper     | 10         | 1.2 | anr   |        |       |        |       |        |       |        |       |
| Iron       | 100        | 4.6 | anr   |        |       |        |       |        |       |        |       |
| Lead       | 3.0        | 1.4 | anr   |        |       |        |       |        |       |        |       |
| Lithium    | 50         | 2.8 |       |        |       |        |       |        |       |        |       |
| Magnesium  | 2000       | 33  | anr   |        |       |        |       |        |       |        |       |
| Manganese  | 15         | .1  | anr   |        |       |        |       |        |       |        |       |
| Molybdenum | 20         | .4  | anr   |        |       |        |       |        |       |        |       |
| Nickel     | 10         | .5  | anr   |        |       |        |       |        |       |        |       |
| Phosphorus | 50         | 1.7 |       |        |       |        |       |        |       |        |       |
| Potassium  | 2000       | 68  | anr   |        |       |        |       |        |       |        |       |
| Selenium   | 10         | 3.8 | anr   |        |       |        |       |        |       |        |       |
| Silicon    | 200        | 2.1 |       |        |       |        |       |        |       |        |       |
| Silver     | 10         | .5  | anr   |        |       |        |       |        |       |        |       |
| Sodium     | 2000       | 15  | 6.10  | <10000 | 30.7  | <10000 | -6.40 | <10000 | 54.2  | <10000 |       |
| Strontium  | 10         | .2  |       |        |       |        |       |        |       |        |       |
| Sulfur     | 50         | 20  |       |        |       |        |       |        |       |        |       |
| Thallium   | 2.0        | 1.6 | anr   |        |       |        |       |        |       |        |       |
| Tin        | 10         | 1   |       |        |       |        |       |        |       |        |       |
| Titanium   | 10         | .7  | anr   |        |       |        |       |        |       |        |       |
| Tungsten   | 50         | 1.8 |       |        |       |        |       |        |       |        |       |
| Vanadium   | 50         | .4  | anr   |        |       |        |       |        |       |        |       |
| Zinc       | 20         | .3  | anr   |        |       |        |       |        |       |        |       |

10.3.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

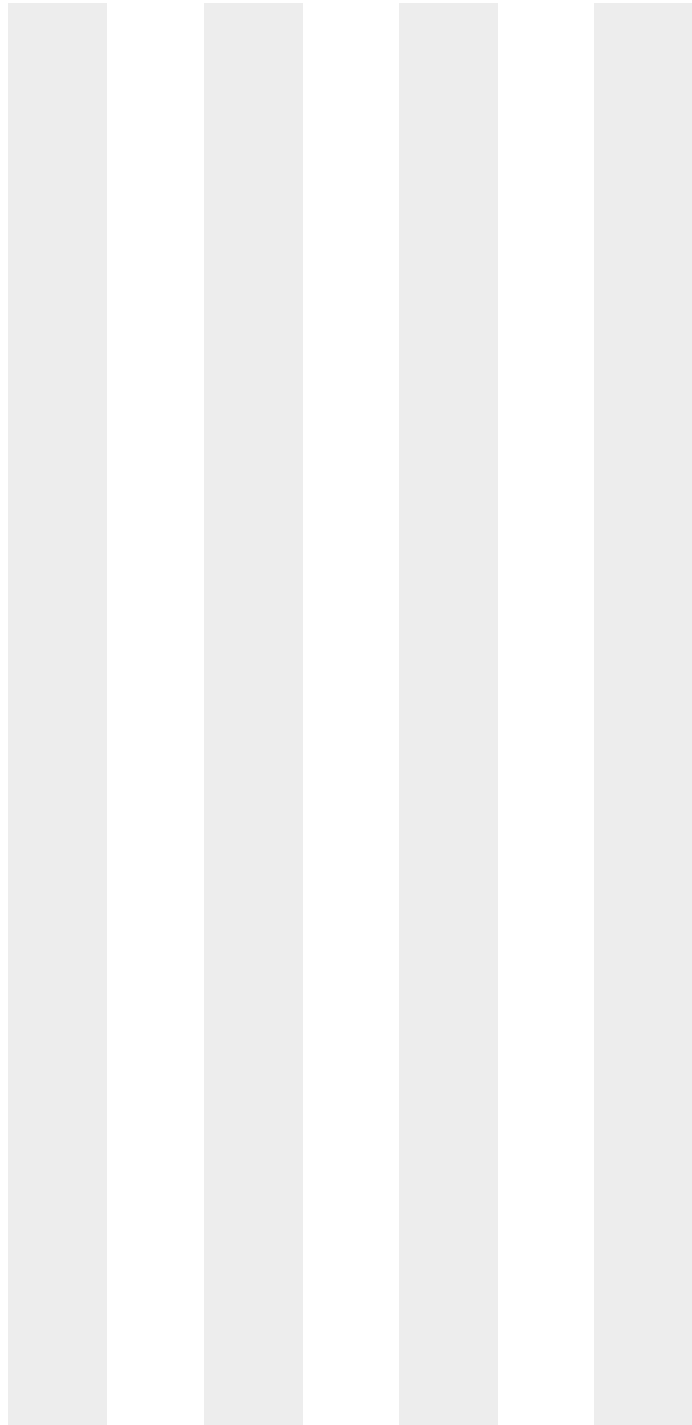
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Time:      |    |     | 10:24 |       | 10:38 |       | 11:25 |       | 12:11 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.3.2  
 10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Metal      | RL   | IDL | 12:58 | 13:45  |       | 14:27  |       | 15:14  |       |        |
|------------|------|-----|-------|--------|-------|--------|-------|--------|-------|--------|
|            |      |     | CCB4  | raw    | final | raw    | final | raw    | final | raw    |
| Aluminum   | 200  | 34  | anr   |        |       |        |       |        |       |        |
| Antimony   | 6.0  | 1.4 | anr   |        |       |        |       |        |       |        |
| Arsenic    | 3.0  | 1.4 | anr   |        |       |        |       |        |       |        |
| Barium     | 200  | .5  | anr   |        |       |        |       |        |       |        |
| Beryllium  | 1.0  | .2  | anr   |        |       |        |       |        |       |        |
| Bismuth    | 20   | 2.5 |       |        |       |        |       |        |       |        |
| Boron      | 100  | 1.9 | anr   |        |       |        |       |        |       |        |
| Cadmium    | 3.0  | .3  | anr   |        |       |        |       |        |       |        |
| Calcium    | 2000 | 8.7 | anr   |        |       |        |       |        |       |        |
| Chromium   | 10   | .6  | anr   |        |       |        |       |        |       |        |
| Cobalt     | 50   | .5  | anr   |        |       |        |       |        |       |        |
| Copper     | 10   | 1.2 | anr   |        |       |        |       |        |       |        |
| Iron       | 100  | 4.6 | anr   |        |       |        |       |        |       |        |
| Lead       | 3.0  | 1.4 | anr   |        |       |        |       |        |       |        |
| Lithium    | 50   | 2.8 |       |        |       |        |       |        |       |        |
| Magnesium  | 2000 | 33  | anr   |        |       |        |       |        |       |        |
| Manganese  | 15   | .1  | anr   |        |       |        |       |        |       |        |
| Molybdenum | 20   | .4  | anr   |        |       |        |       |        |       |        |
| Nickel     | 10   | .5  | anr   |        |       |        |       |        |       |        |
| Phosphorus | 50   | 1.7 |       |        |       |        |       |        |       |        |
| Potassium  | 2000 | 68  | anr   |        |       |        |       |        |       |        |
| Selenium   | 10   | 3.8 | anr   |        |       |        |       |        |       |        |
| Silicon    | 200  | 2.1 |       |        |       |        |       |        |       |        |
| Silver     | 10   | .5  | anr   |        |       |        |       |        |       |        |
| Sodium     | 2000 | 15  | 34.9  | <10000 | 4.70  | <10000 | 21.8  | <10000 | 36.6  | <10000 |
| Strontium  | 10   | .2  |       |        |       |        |       |        |       |        |
| Sulfur     | 50   | 20  |       |        |       |        |       |        |       |        |
| Thallium   | 2.0  | 1.6 | anr   |        |       |        |       |        |       |        |
| Tin        | 10   | 1   |       |        |       |        |       |        |       |        |
| Titanium   | 10   | .7  | anr   |        |       |        |       |        |       |        |
| Tungsten   | 50   | 1.8 |       |        |       |        |       |        |       |        |
| Vanadium   | 50   | .4  | anr   |        |       |        |       |        |       |        |
| Zinc       | 20   | .3  | anr   |        |       |        |       |        |       |        |

10.3.2  
10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

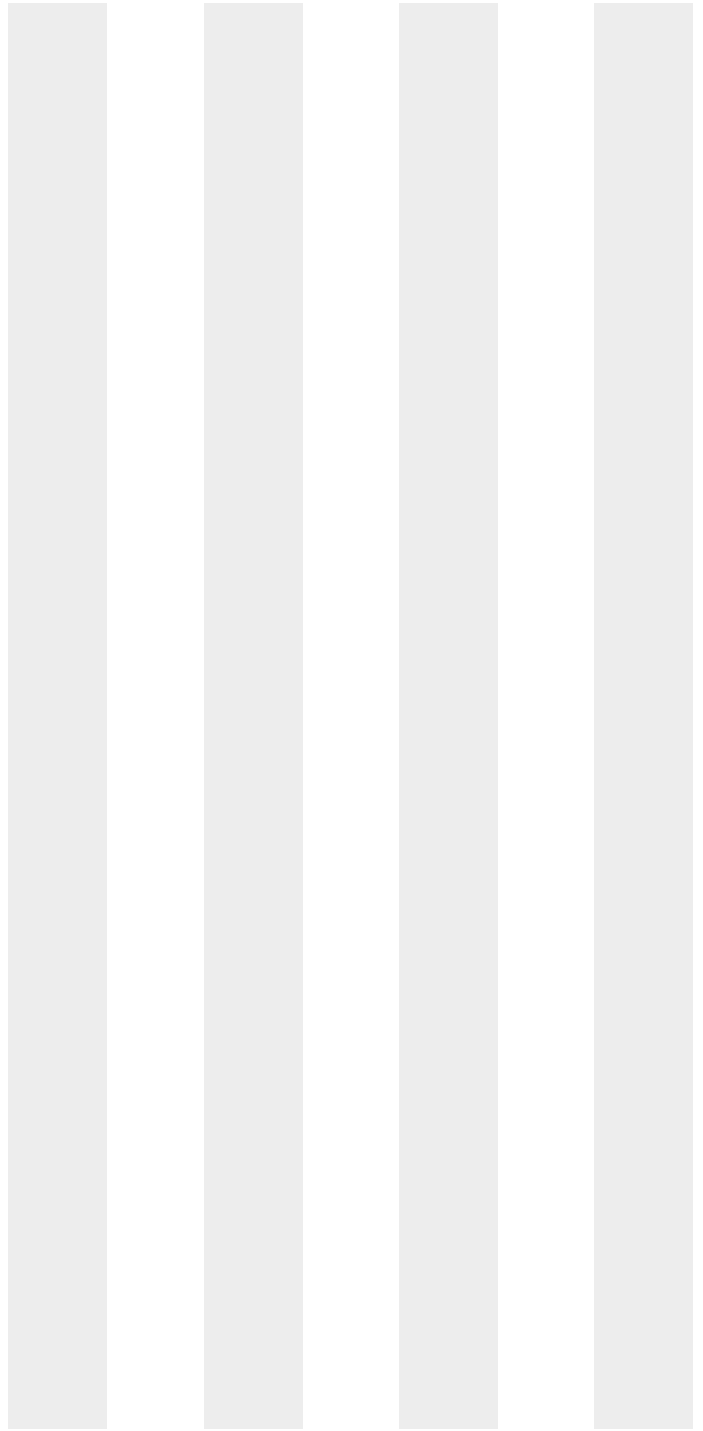
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Time:      | 12:58 | 13:45 | 14:27 | 15:14 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.3.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Metal      | RL   | IDL | 16:15<br>CCB8<br>raw | final  | 16:41<br>CCB9<br>raw | final  |
|------------|------|-----|----------------------|--------|----------------------|--------|
| Aluminum   | 200  | 34  | anr                  |        |                      |        |
| Antimony   | 6.0  | 1.4 | anr                  |        |                      |        |
| Arsenic    | 3.0  | 1.4 | anr                  |        |                      |        |
| Barium     | 200  | .5  | anr                  |        |                      |        |
| Beryllium  | 1.0  | .2  | anr                  |        |                      |        |
| Bismuth    | 20   | 2.5 |                      |        |                      |        |
| Boron      | 100  | 1.9 | anr                  |        |                      |        |
| Cadmium    | 3.0  | .3  | anr                  |        |                      |        |
| Calcium    | 2000 | 8.7 | anr                  |        |                      |        |
| Chromium   | 10   | .6  | anr                  |        |                      |        |
| Cobalt     | 50   | .5  | anr                  |        |                      |        |
| Copper     | 10   | 1.2 | anr                  |        |                      |        |
| Iron       | 100  | 4.6 | anr                  |        |                      |        |
| Lead       | 3.0  | 1.4 | anr                  |        |                      |        |
| Lithium    | 50   | 2.8 |                      |        |                      |        |
| Magnesium  | 2000 | 33  | anr                  |        |                      |        |
| Manganese  | 15   | .1  | anr                  |        |                      |        |
| Molybdenum | 20   | .4  | anr                  |        |                      |        |
| Nickel     | 10   | .5  | anr                  |        |                      |        |
| Phosphorus | 50   | 1.7 |                      |        |                      |        |
| Potassium  | 2000 | 68  | anr                  |        |                      |        |
| Selenium   | 10   | 3.8 | anr                  |        |                      |        |
| Silicon    | 200  | 2.1 |                      |        |                      |        |
| Silver     | 10   | .5  | anr                  |        |                      |        |
| Sodium     | 2000 | 15  | 6.20                 | <10000 | 3.70                 | <10000 |
| Strontium  | 10   | .2  |                      |        |                      |        |
| Sulfur     | 50   | 20  |                      |        |                      |        |
| Thallium   | 2.0  | 1.6 | anr                  |        |                      |        |
| Tin        | 10   | 1   |                      |        |                      |        |
| Titanium   | 10   | .7  | anr                  |        |                      |        |
| Tungsten   | 50   | 1.8 |                      |        |                      |        |
| Vanadium   | 50   | .4  | anr                  |        |                      |        |
| Zinc       | 20   | .3  | anr                  |        |                      |        |

10.3.2  
10

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44299 Units: ug/l

| Time:      | 16:15 | 16:41 |     |       |     |       |
|------------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  |     |       |     |       |
| Metal      | RL    | IDL   | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.3.2  
 10



CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

| Metal      | Sample ID: ICCV | Time: 10:29<br>ICCV1 | Results | % Rec |
|------------|-----------------|----------------------|---------|-------|
| Aluminum   | anr             |                      |         |       |
| Antimony   | anr             |                      |         |       |
| Arsenic    | anr             |                      |         |       |
| Barium     | anr             |                      |         |       |
| Beryllium  | anr             |                      |         |       |
| Bismuth    |                 |                      |         |       |
| Boron      | anr             |                      |         |       |
| Cadmium    | anr             |                      |         |       |
| Calcium    | anr             |                      |         |       |
| Chromium   | anr             |                      |         |       |
| Cobalt     | anr             |                      |         |       |
| Copper     | anr             |                      |         |       |
| Iron       | anr             |                      |         |       |
| Lead       | anr             |                      |         |       |
| Lithium    |                 |                      |         |       |
| Magnesium  | anr             |                      |         |       |
| Manganese  | anr             |                      |         |       |
| Molybdenum | anr             |                      |         |       |
| Nickel     | anr             |                      |         |       |
| Phosphorus |                 |                      |         |       |
| Potassium  | anr             |                      |         |       |
| Selenium   | anr             |                      |         |       |
| Silicon    |                 |                      |         |       |
| Silver     | anr             |                      |         |       |
| Sodium     | 40000           | 39600                |         | 99.0  |
| Strontium  |                 |                      |         |       |
| Sulfur     |                 |                      |         |       |
| Thallium   | anr             |                      |         |       |
| Tin        |                 |                      |         |       |
| Titanium   | anr             |                      |         |       |
| Tungsten   |                 |                      |         |       |
| Vanadium   | anr             |                      |         |       |
| Zinc       | anr             |                      |         |       |

10.3.3  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44299 Units: ug/l

|                 |       |         |       |
|-----------------|-------|---------|-------|
| Time:           | 10:29 |         |       |
| Sample ID: ICCV | ICCV1 |         |       |
| Metal           | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested

10.3.3  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

| Metal      | Time:      | 10:14   | % Rec | 11:21   | % Rec | 12:07   | % Rec |       |      |
|------------|------------|---------|-------|---------|-------|---------|-------|-------|------|
|            | Sample ID: | ICV1    |       | CCV     |       | CCV1    |       | CCV2  |      |
|            | ICV        | Results | True  | Results | True  | Results | True  |       |      |
| Aluminum   | anr        |         |       |         |       |         |       |       |      |
| Antimony   | anr        |         |       |         |       |         |       |       |      |
| Arsenic    | anr        |         |       |         |       |         |       |       |      |
| Barium     | anr        |         |       |         |       |         |       |       |      |
| Beryllium  | anr        |         |       |         |       |         |       |       |      |
| Bismuth    |            |         |       |         |       |         |       |       |      |
| Boron      | anr        |         |       |         |       |         |       |       |      |
| Cadmium    | anr        |         |       |         |       |         |       |       |      |
| Calcium    | anr        |         |       |         |       |         |       |       |      |
| Chromium   | anr        |         |       |         |       |         |       |       |      |
| Cobalt     | anr        |         |       |         |       |         |       |       |      |
| Copper     | anr        |         |       |         |       |         |       |       |      |
| Iron       | anr        |         |       |         |       |         |       |       |      |
| Lead       | anr        |         |       |         |       |         |       |       |      |
| Lithium    |            |         |       |         |       |         |       |       |      |
| Magnesium  | anr        |         |       |         |       |         |       |       |      |
| Manganese  | anr        |         |       |         |       |         |       |       |      |
| Molybdenum | anr        |         |       |         |       |         |       |       |      |
| Nickel     | anr        |         |       |         |       |         |       |       |      |
| Phosphorus |            |         |       |         |       |         |       |       |      |
| Potassium  | anr        |         |       |         |       |         |       |       |      |
| Selenium   | anr        |         |       |         |       |         |       |       |      |
| Silicon    |            |         |       |         |       |         |       |       |      |
| Silver     | anr        |         |       |         |       |         |       |       |      |
| Sodium     | 40000      | 39900   | 99.8  | 40000   | 40300 | 100.8   | 40000 | 39800 | 99.5 |
| Strontium  |            |         |       |         |       |         |       |       |      |
| Sulfur     |            |         |       |         |       |         |       |       |      |
| Thallium   | anr        |         |       |         |       |         |       |       |      |
| Tin        |            |         |       |         |       |         |       |       |      |
| Titanium   | anr        |         |       |         |       |         |       |       |      |
| Tungsten   |            |         |       |         |       |         |       |       |      |
| Vanadium   | anr        |         |       |         |       |         |       |       |      |
| Zinc       | anr        |         |       |         |       |         |       |       |      |

10.3.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

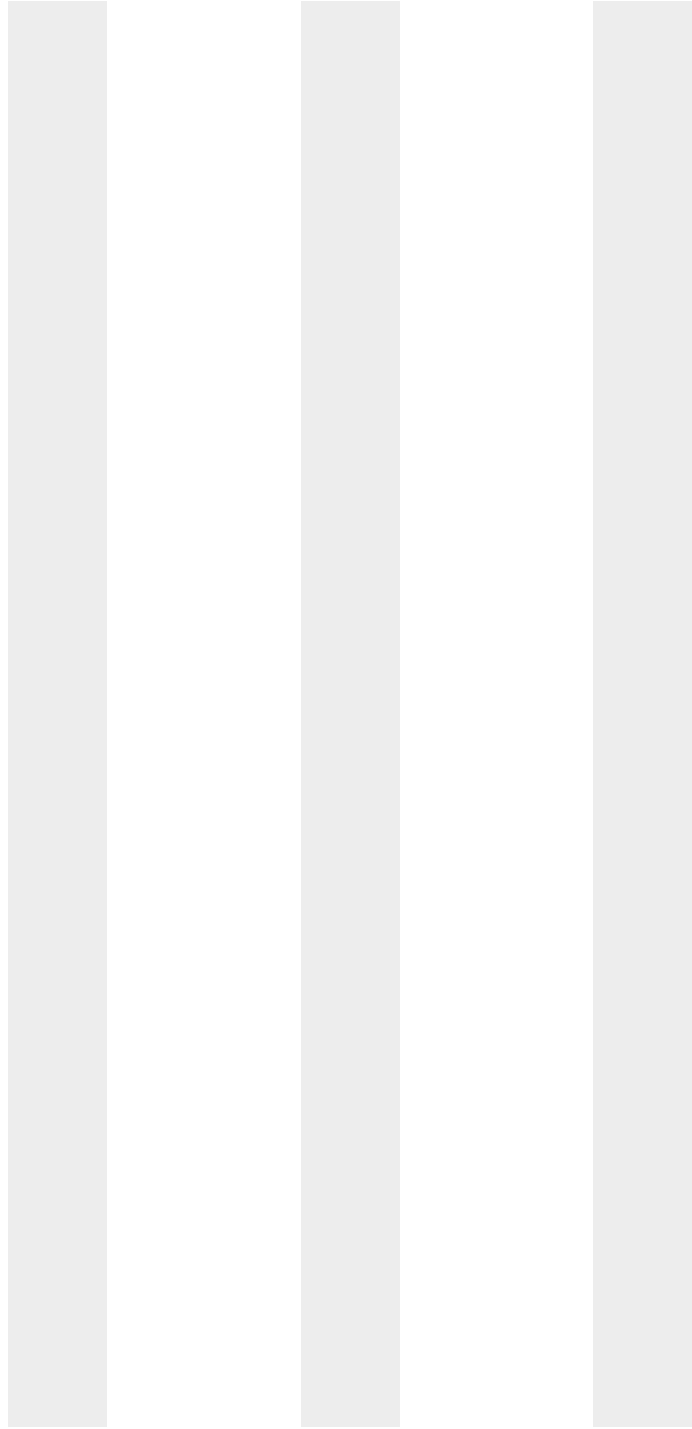
Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

|            | Time: |         | 10:14 |      | 11:21   |       | 12:07 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.3.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

| Metal      | Time:      | 12:54   |       | CCV   | 13:41   |       | CCV   | 14:23   |       |
|------------|------------|---------|-------|-------|---------|-------|-------|---------|-------|
|            | Sample ID: | CCV     | CCV3  |       | CCV3    | CCV4  |       | CCV5    | CCV5  |
|            | True       | Results | % Rec | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |       |         |       |
| Antimony   | anr        |         |       |       |         |       |       |         |       |
| Arsenic    | anr        |         |       |       |         |       |       |         |       |
| Barium     | anr        |         |       |       |         |       |       |         |       |
| Beryllium  | anr        |         |       |       |         |       |       |         |       |
| Bismuth    |            |         |       |       |         |       |       |         |       |
| Boron      | anr        |         |       |       |         |       |       |         |       |
| Cadmium    | anr        |         |       |       |         |       |       |         |       |
| Calcium    | anr        |         |       |       |         |       |       |         |       |
| Chromium   | anr        |         |       |       |         |       |       |         |       |
| Cobalt     | anr        |         |       |       |         |       |       |         |       |
| Copper     | anr        |         |       |       |         |       |       |         |       |
| Iron       | anr        |         |       |       |         |       |       |         |       |
| Lead       | anr        |         |       |       |         |       |       |         |       |
| Lithium    |            |         |       |       |         |       |       |         |       |
| Magnesium  | anr        |         |       |       |         |       |       |         |       |
| Manganese  | anr        |         |       |       |         |       |       |         |       |
| Molybdenum | anr        |         |       |       |         |       |       |         |       |
| Nickel     | anr        |         |       |       |         |       |       |         |       |
| Phosphorus |            |         |       |       |         |       |       |         |       |
| Potassium  | anr        |         |       |       |         |       |       |         |       |
| Selenium   | anr        |         |       |       |         |       |       |         |       |
| Silicon    |            |         |       |       |         |       |       |         |       |
| Silver     | anr        |         |       |       |         |       |       |         |       |
| Sodium     | 40000      | 40000   | 100.0 | 40000 | 39700   | 99.3  | 40000 | 39600   | 99.0  |
| Strontium  |            |         |       |       |         |       |       |         |       |
| Sulfur     |            |         |       |       |         |       |       |         |       |
| Thallium   | anr        |         |       |       |         |       |       |         |       |
| Tin        |            |         |       |       |         |       |       |         |       |
| Titanium   | anr        |         |       |       |         |       |       |         |       |
| Tungsten   |            |         |       |       |         |       |       |         |       |
| Vanadium   | anr        |         |       |       |         |       |       |         |       |
| Zinc       | anr        |         |       |       |         |       |       |         |       |

10.3.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

|       | Time:      |         |               |      |               |       |               |         |       |
|-------|------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|       | Sample ID: | CCV     | 12:54<br>CCV3 | CCV  | 13:41<br>CCV4 | CCV   | 14:23<br>CCV5 | CCV     | CCV5  |
| Metal | True       | Results | % Rec         | True | Results       | % Rec | True          | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.3.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

| Metal      | Time:      | 15:10   |       | 16:11 |         | 16:37 |       |         |       |
|------------|------------|---------|-------|-------|---------|-------|-------|---------|-------|
|            | Sample ID: | CCV     | CCV6  | CCV   | CCV7    | CCV   | CCV8  |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |       |         |       |
| Antimony   | anr        |         |       |       |         |       |       |         |       |
| Arsenic    | anr        |         |       |       |         |       |       |         |       |
| Barium     | anr        |         |       |       |         |       |       |         |       |
| Beryllium  | anr        |         |       |       |         |       |       |         |       |
| Bismuth    |            |         |       |       |         |       |       |         |       |
| Boron      | anr        |         |       |       |         |       |       |         |       |
| Cadmium    | anr        |         |       |       |         |       |       |         |       |
| Calcium    | anr        |         |       |       |         |       |       |         |       |
| Chromium   | anr        |         |       |       |         |       |       |         |       |
| Cobalt     | anr        |         |       |       |         |       |       |         |       |
| Copper     | anr        |         |       |       |         |       |       |         |       |
| Iron       | anr        |         |       |       |         |       |       |         |       |
| Lead       | anr        |         |       |       |         |       |       |         |       |
| Lithium    |            |         |       |       |         |       |       |         |       |
| Magnesium  | anr        |         |       |       |         |       |       |         |       |
| Manganese  | anr        |         |       |       |         |       |       |         |       |
| Molybdenum | anr        |         |       |       |         |       |       |         |       |
| Nickel     | anr        |         |       |       |         |       |       |         |       |
| Phosphorus |            |         |       |       |         |       |       |         |       |
| Potassium  | anr        |         |       |       |         |       |       |         |       |
| Selenium   | anr        |         |       |       |         |       |       |         |       |
| Silicon    |            |         |       |       |         |       |       |         |       |
| Silver     | anr        |         |       |       |         |       |       |         |       |
| Sodium     | 40000      | 39900   | 99.8  | 40000 | 39800   | 99.5  | 40000 | 39700   | 99.3  |
| Strontium  |            |         |       |       |         |       |       |         |       |
| Sulfur     |            |         |       |       |         |       |       |         |       |
| Thallium   | anr        |         |       |       |         |       |       |         |       |
| Tin        |            |         |       |       |         |       |       |         |       |
| Titanium   | anr        |         |       |       |         |       |       |         |       |
| Tungsten   |            |         |       |       |         |       |       |         |       |
| Vanadium   | anr        |         |       |       |         |       |       |         |       |
| Zinc       | anr        |         |       |       |         |       |       |         |       |

10.3.4  
10

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44299      Units: ug/l

|            | Time: |               |       |      |               |       |      |               |       |
|------------|-------|---------------|-------|------|---------------|-------|------|---------------|-------|
| Sample ID: | CCV   | 15:10<br>CCV6 |       | CCV  | 16:11<br>CCV7 |       | CCV  | 16:37<br>CCV8 |       |
| Metal      | True  | Results       | % Rec | True | Results       | % Rec | True | Results       | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



10.3.4  
10



HIGH STANDARD CHECK SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44299 Units: ug/l

|            | Time: | 10:59   |       | 11:03  |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD   | HSTD2   |       |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       |        |         |       |
| Antimony   | anr   |         |       |        |         |       |
| Arsenic    | anr   |         |       |        |         |       |
| Barium     | anr   |         |       |        |         |       |
| Beryllium  | anr   |         |       |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      | anr   |         |       |        |         |       |
| Cadmium    | anr   |         |       |        |         |       |
| Calcium    |       |         |       |        |         |       |
| Chromium   | anr   |         |       |        |         |       |
| Cobalt     | anr   |         |       |        |         |       |
| Copper     | anr   |         |       |        |         |       |
| Iron       |       |         |       |        |         |       |
| Lead       | anr   |         |       |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       |        |         |       |
| Manganese  | anr   |         |       |        |         |       |
| Molybdenum |       |         |       |        |         |       |
| Nickel     | anr   |         |       |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       |        |         |       |
| Selenium   | anr   |         |       |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | anr   |         |       |        |         |       |
| Sodium     |       |         |       | 150000 | 153000  | 102.0 |
| Strontium  |       |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | anr   |         |       |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   | anr   |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | anr   |         |       |        |         |       |
| Zinc       | anr   |         |       |        |         |       |

10.3.5  
10

HIGH STANDARD CHECK SUMMARY

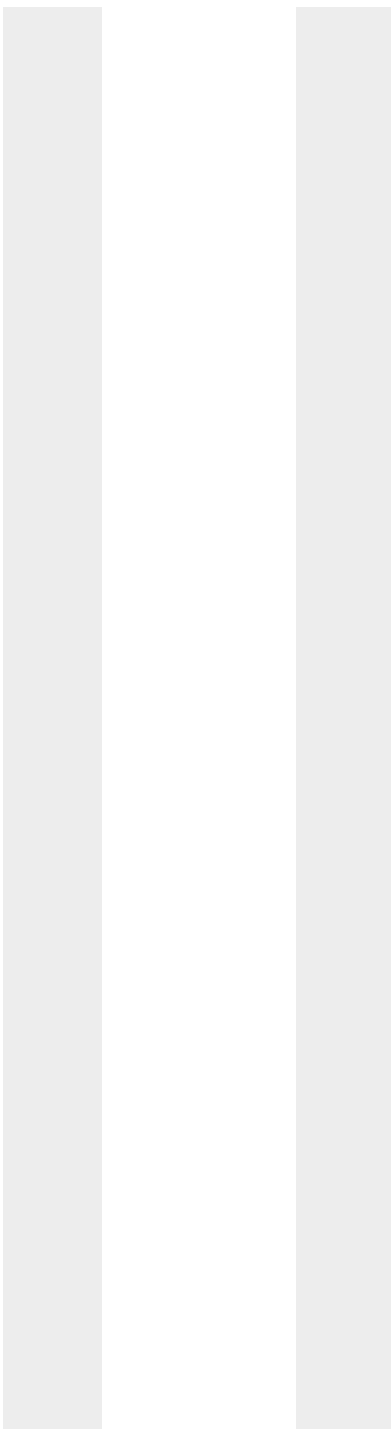
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44299 Units: ug/l

|            | Time: | 10:59   |       | 11:03 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.3.5  
 10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44299 Units: ug/l

| Time:      | 10:42 | 10:46 | 16:19 |         |       |         |       |         |       |
|------------|-------|-------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA  | CRID  | CR11    |       | CRID1   | % Rec | CRID2   | % Rec |
| Metal      | True  | True  | True  | Results | % Rec | Results | % Rec | Results | % Rec |
| Aluminum   | 200   | 500   | 100   | anr     |       |         |       |         |       |
| Antimony   | 6.0   | 20    | 3.0   | anr     |       |         |       |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | anr     |       |         |       |         |       |
| Barium     | 200   |       | 4.0   | anr     |       |         |       |         |       |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |       |         |       |
| Bismuth    | 20    |       |       |         |       |         |       |         |       |
| Boron      | 100   |       | 10    | anr     |       |         |       |         |       |
| Cadmium    | 3.0   |       | 1.0   | anr     |       |         |       |         |       |
| Calcium    | 5000  | 2000  | 1000  | anr     |       |         |       |         |       |
| Chromium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Cobalt     | 50    |       | 3.0   | anr     |       |         |       |         |       |
| Copper     | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Iron       | 100   | 500   |       | anr     |       |         |       |         |       |
| Lead       | 3.0   | 20    | 2.5   | anr     |       |         |       |         |       |
| Lithium    | 50    |       |       |         |       |         |       |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |       |         |       |         |       |
| Manganese  | 15    |       | 3.0   | anr     |       |         |       |         |       |
| Molybdenum | 20    |       |       | anr     |       |         |       |         |       |
| Nickel     | 10    |       | 4.0   | anr     |       |         |       |         |       |
| Phosphorus | 50    |       |       |         |       |         |       |         |       |
| Potassium  | 5000  |       | 2000  | anr     |       |         |       |         |       |
| Selenium   | 10    | 20    | 5.0   | anr     |       |         |       |         |       |
| Silicon    | 200   |       |       |         |       |         |       |         |       |
| Silver     | 5.0   |       | 2.0   | anr     |       |         |       |         |       |
| Sodium     | 5000  |       | 1000  | 5150    | 103.0 | 1040    | 104.0 | 5130    | 102.6 |
| Strontium  | 10    |       |       |         |       |         |       |         |       |
| Sulfur     | 50    |       |       |         |       |         |       |         |       |
| Thallium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Tin        | 10    |       |       |         |       |         |       |         |       |
| Titanium   | 10    |       |       | anr     |       |         |       |         |       |
| Tungsten   | 50    |       |       |         |       |         |       |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |       |         |       |         |       |
| Zinc       | 20    |       | 10    | anr     |       |         |       |         |       |

10.3.6  
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

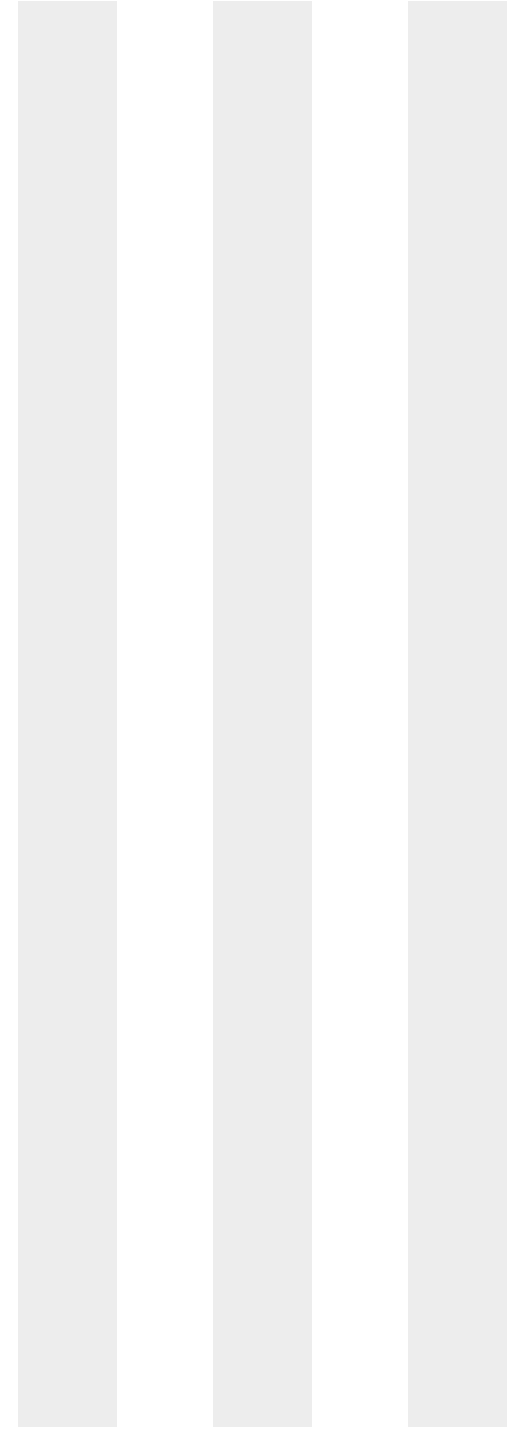
Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44299 Units: ug/l

| Time:      |      |      |      | 10:42   |       |         | 10:46 |         |       | 16:19   |
|------------|------|------|------|---------|-------|---------|-------|---------|-------|---------|
| Sample ID: | CRI  | CRIA | CRID | CRI1    |       | CRID1   |       | CRID2   |       | CRID3   |
| Metal      | True | True | True | Results | % Rec | Results | % Rec | Results | % Rec | Results |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



10.3.6  
 10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44299 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID | 16:24<br>CRID2 | Results | % Rec |
|------------|------------|------|------|------|----------------|---------|-------|
| Metal      | True       | True | True | True | True           |         |       |
| Aluminum   | 200        | 500  | 100  |      | anr            |         |       |
| Antimony   | 6.0        | 20   | 3.0  |      |                |         |       |
| Arsenic    | 8.0        | 20   | 3.0  |      | anr            |         |       |
| Barium     | 200        |      | 4.0  |      | anr            |         |       |
| Beryllium  | 2.0        |      | 1.0  |      | anr            |         |       |
| Bismuth    | 20         |      |      |      |                |         |       |
| Boron      | 100        |      | 10   |      |                |         |       |
| Cadmium    | 3.0        |      | 1.0  |      | anr            |         |       |
| Calcium    | 5000       | 2000 | 1000 |      | anr            |         |       |
| Chromium   | 10         |      | 2.0  |      | anr            |         |       |
| Cobalt     | 50         |      | 3.0  |      | anr            |         |       |
| Copper     | 10         |      | 2.0  |      |                |         |       |
| Iron       | 100        | 500  |      |      |                |         |       |
| Lead       | 3.0        | 20   | 2.5  |      |                |         |       |
| Lithium    | 50         |      |      |      |                |         |       |
| Magnesium  | 5000       | 2000 | 100  |      | anr            |         |       |
| Manganese  | 15         |      | 3.0  |      | anr            |         |       |
| Molybdenum | 20         |      |      |      |                |         |       |
| Nickel     | 10         |      | 4.0  |      | anr            |         |       |
| Phosphorus | 50         |      |      |      |                |         |       |
| Potassium  | 5000       |      | 2000 |      | anr            |         |       |
| Selenium   | 10         | 20   | 5.0  |      | anr            |         |       |
| Silicon    | 200        |      |      |      |                |         |       |
| Silver     | 5.0        |      | 2.0  |      |                |         |       |
| Sodium     | 5000       |      | 1000 | 1050 |                | 105.0   |       |
| Strontium  | 10         |      |      |      |                |         |       |
| Sulfur     | 50         |      |      |      |                |         |       |
| Thallium   | 10         |      | 2.0  |      | anr            |         |       |
| Tin        | 10         |      |      |      |                |         |       |
| Titanium   | 10         |      |      |      |                |         |       |
| Tungsten   | 50         |      |      |      |                |         |       |
| Vanadium   | 50         |      | 2.0  |      | anr            |         |       |
| Zinc       | 20         |      | 10   |      | anr            |         |       |

10.3.6  
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44299 Units: ug/l

| Time:      | 16:24 |      |      |               |
|------------|-------|------|------|---------------|
| Sample ID: | CRI   | CRIA | CRID | CRID2         |
| Metal      | True  | True | True | Results % Rec |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.3.6  
 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP      Date Analyzed: 04/27/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44299      Units: ug/l

| Time:      |        |        | 10:51   |       |         | 10:55 |         |       | 16:28   |       |  | 16:32 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 513000  | 102.6 | 500000  | 100.0 | 524000  | 104.8 | 509000  | 101.8 |  |       |
| Antimony   |        | 1000   | -1.80   |       | 1020    | 102.0 | -5.80   |       | 1040    | 104.0 |  |       |
| Arsenic    |        | 1000   | 1.90    |       | 993     | 99.3  | 0.900   |       | 1010    | 101.0 |  |       |
| Barium     |        | 500    | 0.00    |       | 504     | 100.8 | 0.100   |       | 508     | 101.6 |  |       |
| Beryllium  |        | 500    | 0.300   |       | 493     | 98.6  | 0.200   |       | 495     | 99.0  |  |       |
| Bismuth    |        | 500    | -3.90   |       | 530     | 106.0 | 1.00    |       | 544     | 108.8 |  |       |
| Boron      |        | 500    | -3.80   |       | 483     | 96.6  | -5.10   |       | 494     | 98.8  |  |       |
| Cadmium    |        | 1000   | 0.500   |       | 1010    | 101.0 | 0.500   |       | 1030    | 103.0 |  |       |
| Calcium    | 400000 | 400000 | 394000  | 98.5  | 386000  | 96.5  | 389000  | 97.3  | 382000  | 95.5  |  |       |
| Chromium   |        | 500    | -1.50   |       | 484     | 96.8  | -1.40   |       | 485     | 97.0  |  |       |
| Cobalt     |        | 500    | -0.700  |       | 483     | 96.6  | -1.10   |       | 488     | 97.6  |  |       |
| Copper     |        | 500    | 1.50    |       | 497     | 99.4  | 1.50    |       | 505     | 101.0 |  |       |
| Iron       | 200000 | 200000 | 190000  | 95.0  | 183000  | 91.5  | 188000  | 94.0  | 183000  | 91.5  |  |       |
| Lead       |        | 1000   | 1.30    |       | 964     | 96.4  | 1.80    |       | 980     | 98.0  |  |       |
| Lithium    |        | 500    | 2.10    |       | 524     | 104.8 | 0.600   |       | 532     | 106.4 |  |       |
| Magnesium  | 500000 | 500000 | 508000  | 101.6 | 497000  | 99.4  | 497000  | 99.4  | 491000  | 98.2  |  |       |
| Manganese  |        | 500    | 0.00    |       | 493     | 98.6  | 0.400   |       | 492     | 98.4  |  |       |
| Molybdenum |        | 500    | -2.00   |       | 478     | 95.6  | -2.00   |       | 482     | 96.4  |  |       |
| Nickel     |        | 1000   | -1.20   |       | 968     | 96.8  | -1.30   |       | 976     | 97.6  |  |       |
| Phosphorus |        | 500    | -7.60   |       | 488     | 97.6  | -6.80   |       | 496     | 99.2  |  |       |
| Potassium  |        |        | -466    |       | -464    |       | -485    |       | -458    |       |  |       |
| Selenium   |        | 1000   | -3.10   |       | 957     | 95.7  | -6.70   |       | 968     | 96.8  |  |       |
| Silicon    |        | 500    | -4.30   |       | 511     | 102.2 | -5.20   |       | 527     | 105.4 |  |       |
| Silver     |        | 1000   | 2.40    |       | 1040    | 104.0 | 2.00    |       | 1050    | 105.0 |  |       |
| Sodium     |        |        | -11.4   |       | 0.00    |       | 8.90    |       | 13.8    |       |  |       |
| Strontium  |        | 500    | 4.70    |       | 542     | 108.4 | 5.00    |       | 546     | 109.2 |  |       |
| Sulfur     |        | 500    | 52.0    |       | 536     | 107.2 | 44.8    |       | 554     | 110.8 |  |       |
| Thallium   |        | 1000   | 1.80    |       | 1050    | 105.0 | 0.100   |       | 1060    | 106.0 |  |       |
| Tin        |        | 500    | -3.10   |       | 455     | 91.0  | -3.70   |       | 458     | 91.6  |  |       |
| Titanium   |        | 500    | -0.500  |       | 493     | 98.6  | -0.800  |       | 495     | 99.0  |  |       |
| Tungsten   |        | 500    | 8.40    |       | 470     | 94.0  | 8.90    |       | 475     | 95.0  |  |       |
| Vanadium   |        | 500    | -1.90   |       | 483     | 96.6  | -1.00   |       | 483     | 96.6  |  |       |
| Zinc       |        | 1000   | 2.80    |       | 950     | 95.0  | 3.10    |       | 960     | 96.0  |  |       |

10.3.7 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042718M1.ICP Date Analyzed: 04/27/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44299 Units: ug/l

| Time:      |      |       | 10:51   |       | 10:55   |       | 16:28   |       | 16:32   |       |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |

|           |  |     |      |  |     |      |      |  |     |      |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|
| Zirconium |  | 500 | 2.50 |  | 462 | 92.4 | 2.60 |  | 469 | 93.8 |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

10.3.7  
 10



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/26/18 04/26/18

| Metal      | RL    | IDL | MDL | MB<br>raw | final  | MB<br>raw | final  |
|------------|-------|-----|-----|-----------|--------|-----------|--------|
| Aluminum   | 200   | 34  | 33  | 8.9       | <200   | 21.5      | <200   |
| Antimony   | 6.0   | 1.4 | 4.3 | -1.0      | <6.0   | -0.90     | <6.0   |
| Arsenic    | 3.0   | 1.4 | 2.7 | -2.1      | <3.0   | -1.3      | <3.0   |
| Barium     | 200   | .5  | 1.3 | -0.10     | <200   | 0.10      | <200   |
| Beryllium  | 1.0   | .2  | .4  | 0.0       | <1.0   | -0.10     | <1.0   |
| Bismuth    | 20    | 2.5 | 5   |           |        |           |        |
| Boron      | 100   | 1.9 | 13  |           |        |           |        |
| Cadmium    | 3.0   | .3  | .7  | 0.10      | <3.0   | 0.30      | <3.0   |
| Calcium    | 5000  | 8.7 | 29  | 9.1       | <5000  | 26.3      | <5000  |
| Chromium   | 10    | .6  | .85 | -0.20     | <10    | 0.50      | <10    |
| Cobalt     | 50    | .5  | .72 | -0.10     | <50    | 0.20      | <50    |
| Copper     | 10    | 1.2 | 3.2 | 0.20      | <10    | 3.9       | <10    |
| Iron       | 100   | 4.6 | 32  | -0.90     | <100   | 9.4       | <100   |
| Lead       | 3.0   | 1.4 | 2.6 | 0.50      | <3.0   | -0.20     | <3.0   |
| Lithium    | 50    | 2.8 | 15  |           |        |           |        |
| Magnesium  | 5000  | 33  | 64  | 11.1      | <5000  | -14       | <5000  |
| Manganese  | 15    | .1  | .42 | 0.20      | <15    | 0.30      | <15    |
| Molybdenum | 20    | .4  | 1.4 |           |        |           |        |
| Nickel     | 10    | .5  | 1.3 | 0.30      | <10    | -0.10     | <10    |
| Phosphorus | 50    | 1.7 | 13  |           |        |           |        |
| Potassium  | 10000 | 68  | 230 | -4.6      | <10000 | -38       | <10000 |
| Selenium   | 10    | 3.8 | 6.6 | 2.2       | <10    | 0.30      | <10    |
| Silicon    | 200   | 2.1 | 45  |           |        |           |        |
| Silver     | 10    | .5  | 3.1 | 0.40      | <10    | 0.30      | <10    |
| Sodium     | 10000 | 15  | 130 | -7.7      | <10000 | -14       | <10000 |
| Strontium  | 10    | .2  | .3  |           |        |           |        |
| Sulfur     | 50    | 20  | 15  |           |        |           |        |
| Thallium   | 2.0   | 1.6 | 1.6 | -0.30     | <2.0   | -1.1      | <2.0   |
| Tin        | 10    | 1   | 2.4 |           |        |           |        |
| Titanium   | 10    | .7  | 1.8 |           |        |           |        |
| Tungsten   | 50    | 1.8 | 14  |           |        |           |        |
| Vanadium   | 50    | .4  | 1.3 | -0.20     | <50    | -0.30     | <50    |
| Zinc       | 20    | .3  | 4   | 0.20      | <20    | 0.70      | <20    |

10.4.1  
10

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/26/18 04/26/18

| Metal | RL | IDL | MDL | MB<br>raw | final | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|-----------|-------|
|-------|----|-----|-----|-----------|-------|-----------|-------|

Zirconium 10 .3 2

Associated samples MP6829: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

10.4.1  
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18

| Metal      | JC64768-2<br>Original MS | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |        |
|------------|--------------------------|--------------------|-------|--------------|--------|
| Aluminum   | 0.00                     | 24600              | 25000 | 98.4         | 75-125 |
| Antimony   | 0.0                      | 2000               | 2000  | 100.0        | 75-125 |
| Arsenic    | 0.0                      | 1960               | 2000  | 98.0         | 75-125 |
| Barium     | 69.0                     | 2110               | 2000  | 102.1        | 75-125 |
| Beryllium  | 0.0                      | 2030               | 2000  | 101.5        | 75-125 |
| Bismuth    |                          |                    |       |              |        |
| Boron      |                          |                    |       |              |        |
| Cadmium    | 0.0                      | 2010               | 2000  | 100.5        | 75-125 |
| Calcium    | 55000                    | 80300              | 25000 | 101.2        | 75-125 |
| Chromium   | 1.8                      | 1980               | 2000  | 98.9         | 75-125 |
| Cobalt     | 0.0                      | 1960               | 2000  | 98.0         | 75-125 |
| Copper     | 1.5                      | 1970               | 2000  | 98.4         | 75-125 |
| Iron       | 43.6                     | 26000              | 25000 | 103.8        | 75-125 |
| Lead       | 0.0                      | 1960               | 2000  | 98.0         | 75-125 |
| Lithium    |                          |                    |       |              |        |
| Magnesium  | 11900                    | 36700              | 25000 | 99.2         | 75-125 |
| Manganese  | 50.6                     | 2030               | 2000  | 99.0         | 75-125 |
| Molybdenum | anr                      |                    |       |              |        |
| Nickel     | 0.60                     | 1970               | 2000  | 98.5         | 75-125 |
| Phosphorus |                          |                    |       |              |        |
| Potassium  | 491                      | 25600              | 25000 | 100.4        | 75-125 |
| Selenium   | 0.0                      | 1970               | 2000  | 98.5         | 75-125 |
| Silicon    |                          |                    |       |              |        |
| Silver     | 0.0                      | 239                | 250   | 95.6         | 75-125 |
| Sodium     | 7440                     | 32300              | 25000 | 99.4         | 75-125 |
| Strontium  |                          |                    |       |              |        |
| Sulfur     |                          |                    |       |              |        |
| Thallium   | 0.0                      | 2030               | 2000  | 101.5        | 75-125 |
| Tin        |                          |                    |       |              |        |
| Titanium   |                          |                    |       |              |        |
| Tungsten   |                          |                    |       |              |        |
| Vanadium   | 0.0                      | 1970               | 2000  | 98.5         | 75-125 |
| Zinc       | 1.1                      | 1950               | 2000  | 97.4         | 75-125 |

10.4.2  
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/26/18

| Metal | JC64768-2<br>Original MS | Spike/lot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|--------------------------|---------------------|-------|--------------|
|-------|--------------------------|---------------------|-------|--------------|

Zirconium

Associated samples MP6829: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

10.4.2  
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18

| Metal      | JC64768-2<br>Original MSD | Spikelot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |    |
|------------|---------------------------|--------------------|-------|------------|-------------|----|
| Aluminum   | 0.00                      | 25200              | 25000 | 100.8      | 2.4         | 20 |
| Antimony   | 0.0                       | 2030               | 2000  | 101.5      | 1.5         | 20 |
| Arsenic    | 0.0                       | 1990               | 2000  | 99.5       | 1.5         | 20 |
| Barium     | 69.0                      | 2150               | 2000  | 104.1      | 1.9         | 20 |
| Beryllium  | 0.0                       | 2060               | 2000  | 103.0      | 1.5         | 20 |
| Bismuth    |                           |                    |       |            |             |    |
| Boron      |                           |                    |       |            |             |    |
| Cadmium    | 0.0                       | 2050               | 2000  | 102.5      | 2.0         | 20 |
| Calcium    | 55000                     | 81200              | 25000 | 104.8      | 1.1         | 20 |
| Chromium   | 1.8                       | 2020               | 2000  | 100.9      | 2.0         | 20 |
| Cobalt     | 0.0                       | 2010               | 2000  | 100.5      | 2.5         | 20 |
| Copper     | 1.5                       | 2010               | 2000  | 100.4      | 2.0         | 20 |
| Iron       | 43.6                      | 26300              | 25000 | 105.0      | 1.1         | 20 |
| Lead       | 0.0                       | 2010               | 2000  | 100.5      | 2.5         | 20 |
| Lithium    |                           |                    |       |            |             |    |
| Magnesium  | 11900                     | 37200              | 25000 | 101.2      | 1.4         | 20 |
| Manganese  | 50.6                      | 2080               | 2000  | 101.5      | 2.4         | 20 |
| Molybdenum | anr                       |                    |       |            |             |    |
| Nickel     | 0.60                      | 2010               | 2000  | 100.5      | 2.0         | 20 |
| Phosphorus |                           |                    |       |            |             |    |
| Potassium  | 491                       | 26100              | 25000 | 102.4      | 1.9         | 20 |
| Selenium   | 0.0                       | 2000               | 2000  | 100.0      | 1.5         | 20 |
| Silicon    |                           |                    |       |            |             |    |
| Silver     | 0.0                       | 244                | 250   | 97.6       | 2.1         | 20 |
| Sodium     | 7440                      | 33000              | 25000 | 102.2      | 2.1         | 20 |
| Strontium  |                           |                    |       |            |             |    |
| Sulfur     |                           |                    |       |            |             |    |
| Thallium   | 0.0                       | 2070               | 2000  | 103.5      | 2.0         | 20 |
| Tin        |                           |                    |       |            |             |    |
| Titanium   |                           |                    |       |            |             |    |
| Tungsten   |                           |                    |       |            |             |    |
| Vanadium   | 0.0                       | 2020               | 2000  | 101.0      | 2.5         | 20 |
| Zinc       | 1.1                       | 1990               | 2000  | 99.4       | 2.0         | 20 |

10.4.2  
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18

| Metal | JC64768-2<br>Original MSD | Spike/lot<br>MPSPK2 % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|---------------------------|------------|-------------|
|-------|---------------------------|---------------------------|------------|-------------|

Zirconium

Associated samples MP6829: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

10.4.2  
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18 04/26/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|------------|-----------------|-------|-----------|
| Aluminum   | 24400      | 25000           | 97.6  | 80-120    | 24600      | 25000           | 98.4  | 80-120    |
| Antimony   | 1980       | 2000            | 99.0  | 80-120    | 1960       | 2000            | 98.0  | 80-120    |
| Arsenic    | 1920       | 2000            | 96.0  | 80-120    | 1910       | 2000            | 95.5  | 80-120    |
| Barium     | 2020       | 2000            | 101.0 | 80-120    | 2010       | 2000            | 100.5 | 80-120    |
| Beryllium  | 2000       | 2000            | 100.0 | 80-120    | 1980       | 2000            | 99.0  | 80-120    |
| Bismuth    |            |                 |       |           |            |                 |       |           |
| Boron      |            |                 |       |           |            |                 |       |           |
| Cadmium    | 2000       | 2000            | 100.0 | 80-120    | 1990       | 2000            | 99.5  | 80-120    |
| Calcium    | 25200      | 25000           | 100.8 | 80-120    | 25200      | 25000           | 100.8 | 80-120    |
| Chromium   | 1990       | 2000            | 99.5  | 80-120    | 1980       | 2000            | 99.0  | 80-120    |
| Cobalt     | 1960       | 2000            | 98.0  | 80-120    | 1960       | 2000            | 98.0  | 80-120    |
| Copper     | 1950       | 2000            | 97.5  | 80-120    | 1950       | 2000            | 97.5  | 80-120    |
| Iron       | 25800      | 25000           | 103.2 | 80-120    | 25900      | 25000           | 103.6 | 80-120    |
| Lead       | 1960       | 2000            | 98.0  | 80-120    | 1950       | 2000            | 97.5  | 80-120    |
| Lithium    |            |                 |       |           |            |                 |       |           |
| Magnesium  | 24900      | 25000           | 99.6  | 80-120    | 25000      | 25000           | 100.0 | 80-120    |
| Manganese  | 1990       | 2000            | 99.5  | 80-120    | 1980       | 2000            | 99.0  | 80-120    |
| Molybdenum | anr        |                 |       |           |            |                 |       |           |
| Nickel     | 1970       | 2000            | 98.5  | 80-120    | 1970       | 2000            | 98.5  | 80-120    |
| Phosphorus |            |                 |       |           |            |                 |       |           |
| Potassium  | 24900      | 25000           | 99.6  | 80-120    | 25000      | 25000           | 100.0 | 80-120    |
| Selenium   | 1950       | 2000            | 97.5  | 80-120    | 1930       | 2000            | 96.5  | 80-120    |
| Silicon    |            |                 |       |           |            |                 |       |           |
| Silver     | 224        | 250             | 89.6  | 80-120    | 234        | 250             | 93.6  | 80-120    |
| Sodium     | 24600      | 25000           | 98.4  | 80-120    | 24700      | 25000           | 98.8  | 80-120    |
| Strontium  |            |                 |       |           |            |                 |       |           |
| Sulfur     |            |                 |       |           |            |                 |       |           |
| Thallium   | 2040       | 2000            | 102.0 | 80-120    | 2040       | 2000            | 102.0 | 80-120    |
| Tin        |            |                 |       |           |            |                 |       |           |
| Titanium   |            |                 |       |           |            |                 |       |           |
| Tungsten   |            |                 |       |           |            |                 |       |           |
| Vanadium   | 1960       | 2000            | 98.0  | 80-120    | 1950       | 2000            | 97.5  | 80-120    |
| Zinc       | 1970       | 2000            | 98.5  | 80-120    | 1960       | 2000            | 98.0  | 80-120    |

10.4.3  
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18 04/26/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP6829: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

10.4.3  
 10



SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/26/18

| Metal      | JC64768-2<br>Original | SDL 1:5 | %DIF     | QC<br>Limits |
|------------|-----------------------|---------|----------|--------------|
| Aluminum   | 0.00                  | 209     | NC       | 0-10         |
| Antimony   | 0.00                  | 0.00    | NC       | 0-10         |
| Arsenic    | 0.00                  | 0.00    | NC       | 0-10         |
| Barium     | 69.0                  | 68.4    | 0.9      | 0-10         |
| Beryllium  | 0.00                  | 0.00    | NC       | 0-10         |
| Bismuth    |                       |         |          |              |
| Boron      |                       |         |          |              |
| Cadmium    | 0.00                  | 0.00    | NC       | 0-10         |
| Calcium    | 55000                 | 55600   | 1.1      | 0-10         |
| Chromium   | 1.80                  | 0.00    | 100.0(a) | 0-10         |
| Cobalt     | 0.00                  | 0.00    | NC       | 0-10         |
| Copper     | 1.50                  | 0.00    | 100.0(a) | 0-10         |
| Iron       | 43.6                  | 33.7    | 22.7 (a) | 0-10         |
| Lead       | 0.00                  | 0.00    | NC       | 0-10         |
| Lithium    |                       |         |          |              |
| Magnesium  | 11900                 | 11900   | 0.1      | 0-10         |
| Manganese  | 50.6                  | 51.9    | 2.6      | 0-10         |
| Molybdenum | anr                   |         |          |              |
| Nickel     | 0.600                 | 0.00    | 100.0(a) | 0-10         |
| Phosphorus |                       |         |          |              |
| Potassium  | 491                   | 449     | 8.4      | 0-10         |
| Selenium   | 0.00                  | 0.00    | NC       | 0-10         |
| Silicon    |                       |         |          |              |
| Silver     | 0.00                  | 2.50    | NC       | 0-10         |
| Sodium     | 7440                  | 7340    | 1.4      | 0-10         |
| Strontium  |                       |         |          |              |
| Sulfur     |                       |         |          |              |
| Thallium   | 0.00                  | 0.00    | NC       | 0-10         |
| Tin        |                       |         |          |              |
| Titanium   |                       |         |          |              |
| Tungsten   |                       |         |          |              |
| Vanadium   | 0.00                  | 0.00    | NC       | 0-10         |
| Zinc       | 1.10                  | 5.20    | 372.7(a) | 0-10         |

10.4.4  
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6829  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/26/18

| Metal | JC64768-2        | QC          |
|-------|------------------|-------------|
|       | Original SDL 1:5 | %DIF Limits |

Zirconium

Associated samples MP6829: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6849  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 04/27/18

| Metal   | RL   | IDL  | MDL | MB    |       |
|---------|------|------|-----|-------|-------|
|         |      |      |     | raw   | final |
| Mercury | 0.20 | .059 | .13 | 0.044 | <0.20 |

Associated samples MP6849: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6849  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 04/27/18

| Metal | JC64873-1A<br>Original MS | Spike<br>lot | HGPW3<br>% Rec | QC<br>Limits |
|-------|---------------------------|--------------|----------------|--------------|
|-------|---------------------------|--------------|----------------|--------------|

Mercury 0.0 2.2 2 110.0 75-125

Associated samples MP6849: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64857  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6849  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 04/27/18

| Metal   | JC64873-1A<br>Original MSD | SpikeLot<br>HGPW3 | % Rec | MSD<br>RPD | QC<br>Limit |
|---------|----------------------------|-------------------|-------|------------|-------------|
| Mercury | 0.0                        | 2.3               | 2     | 115.0      | 4.4 20      |

Associated samples MP6849: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

10.5.2  
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6849  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 04/27/18

| Metal   | BSP<br>Result | Spikelot<br>HGPW3 | % Rec | QC<br>Limits |
|---------|---------------|-------------------|-------|--------------|
| Mercury | 2.2           | 2                 | 110.0 | 80-120       |

Associated samples MP6849: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                  | Batch ID        | RL    | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|--------------------------|-----------------|-------|-----------|-------|--------------|------------|------------|-----------|
| BOD, 5 Day               | GP12626/GN79135 | 2.0   | 0.0       | mg/l  | 198          | 220        | 111.1      | 85-115%   |
| Chemical Oxygen Demand   | GP12766/GN79530 | 20    | 0.0       | mg/l  |              |            |            |           |
| Chemical Oxygen Demand   | GP12766/GN79530 | 20    | 0.0       | mg/l  | 50           | 51.3       | 102.6      | 90-110%   |
| Cyanide                  | GP12684/GN79292 | 0.010 | 0.0       | mg/l  | 0.0833       | 0.0900     | 108.0      | 90-110%   |
| HEM Oil and Grease       | GP12722/GN79339 | 5.0   | 0.0       | mg/l  | 40.05        | 34.8       | 86.9       | 78-114%   |
| Hardness, Total as CaCO3 | GN79357         | 4.0   | 0.0       | mg/l  | 160          | 161        | 100.6      | 80-120%   |
| Hardness, Total as CaCO3 | GN79357         |       |           | mg/l  | 80           | 80.4       | 100.5      | 80-120%   |
| Hardness, Total as CaCO3 | GN79357         |       |           | mg/l  | 160          | 161        | 100.6      | 80-120%   |
| Hardness, Total as CaCO3 | GN79357         |       |           | mg/l  | 80           | 78.4       | 98.0       | 80-120%   |
| Solids, Total Dissolved  | GN79194         | 10    | 0.0       | mg/l  |              |            |            |           |
| Solids, Total Suspended  | GN79175         | 4.0   | 0.0       | mg/l  |              |            |            |           |

Associated Samples:

Batch GN79175: JC64857-1, JC64857-2, JC64857-3  
 Batch GN79194: JC64857-1, JC64857-2, JC64857-3  
 Batch GN79357: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12626: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12684: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F  
 Batch GP12722: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12766: JC64857-1, JC64857-2, JC64857-3  
 (\*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                  | Batch ID        | QC Sample | Units | Original Result | DUP Result | RPD      | QC Limits |
|--------------------------|-----------------|-----------|-------|-----------------|------------|----------|-----------|
| BOD, 5 Day               | GP12626/GN79135 | JC64857-1 | mg/l  | 0.0             | 0.0        | 0.0      | 0-31%     |
| Chemical Oxygen Demand   | GP12766/GN79530 | JC64857-1 | mg/l  | 0.0             | 7.7        | 200.0(a) | 0-25%     |
| Cyanide                  | GP12684/GN79292 | JC65010-1 | mg/l  | 0.19            | 0.20       | 5.1      | 0-32%     |
| HEM Oil and Grease       | GP12722/GN79339 | JC65049-1 | mg/l  | 1.2             | 0.0        | 200.0(a) | 0-18%     |
| Hardness, Total as CaCO3 | GN79357         | JC65050-2 | mg/l  | 13.7            | 13.7       | 0.0      | 0-10%     |
| Solids, Total Dissolved  | GN79194         | JC64782-1 | mg/l  | 348             | 358        | 2.8      | 0-16%     |
| Solids, Total Suspended  | GN79175         | JC64854-1 | mg/l  | 0.60            | 0.60       | 0.0      | 0-17%     |
| pH                       | GN79370         | JC64857-1 | su    | 8.45            | 8.27       | 2.1      | 0-10%     |

Associated Samples:

Batch GN79175: JC64857-1, JC64857-2, JC64857-3  
 Batch GN79194: JC64857-1, JC64857-2, JC64857-3  
 Batch GN79357: JC64857-1, JC64857-2, JC64857-3  
 Batch GN79370: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12626: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12684: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F  
 Batch GP12722: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12766: JC64857-1, JC64857-2, JC64857-3

(\*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                  | Batch ID        | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|--------------------------|-----------------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Chemical Oxygen Demand   | GP12766/GN79530 | JC64857-1 | mg/l  | 0.0             | 50           | 59.0      | 118.0 | 55-133%   |
| Cyanide                  | GP12684/GN79292 | JC64857-1 | mg/l  | 0.0             | 0.0833       | 0.089     | 106.8 | 90-110%   |
| HEM Oil and Grease       | GP12722/GN79339 | JC64857-1 | mg/l  | 1.6             | 42.16        | 35.8      | 81.1  | 78-114%   |
| Hardness, Total as CaCO3 | GN79357         | JC65050-2 | mg/l  | 13.7            | 80           | 92.1      | 98.0  | 67-130%   |

Associated Samples:

Batch GN79357: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12684: JC64857-1, JC64857-2, JC64857-3, JC64857-1F, JC64857-2F, JC64857-3F  
 Batch GP12722: JC64857-1, JC64857-2, JC64857-3  
 Batch GP12766: JC64857-1, JC64857-2, JC64857-3  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E042718W1.CN Date Analyzed: 04/27/18 Methods: EPA 335.4/LACHAT, SW846 CHAP7/9012 B  
Analyst: TG Run ID: GN79292  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:32 | GN79292-STD1       | 1               |          | STDA   |
| 14:33 | GN79292-STD2       | 1               |          | STDB   |
| 14:35 | GN79292-STD3       | 1               |          | STDC   |
| 14:36 | GN79292-STD4       | 1               |          | STDD   |
| 14:37 | GN79292-STD5       | 1               |          | STDE   |
| 14:39 | GN79292-STD6       | 1               |          | STDF   |
| 14:40 | GN79292-STD7       | 1               |          | STDG   |
| 14:41 | GN79292-ICV1       | 1               |          |  |
| 14:43 | GN79292-ICB1       | 1               |          |  |
| 14:44 | GN79292-CCV1       | 1               |          |  |
| 14:45 | GN79292-CCB1       | 1               |          |  |
| 14:47 | GP12654-MB1        | 1               |          | reprep, bsp fail                                     |
| 14:48 | GP12654-B1         | 1               |          | reprep, bsp fail                                     |
| 14:50 | GP12654-D1         | 1               |          | reprep, bsp fail                                     |
| 14:51 | JC64577-1A         | 1               |          | (sample used for QC only; not part of login JC64857) |
| 14:52 | ZZZZZZ             | 1               |          |  |
| 14:54 | ZZZZZZ             | 1               |          |  |
| 14:55 | ZZZZZZ             | 1               |          |  |
| 14:56 | ZZZZZZ             | 1               |          |  |
| 14:58 | ZZZZZZ             | 1               |          |  |
| 14:59 | ZZZZZZ             | 1               |          |  |
| 15:00 | GN79292-CCV2       | 1               |          |  |
| 15:02 | GN79292-CCB2       | 1               |          |  |
| 15:03 | GP12654-B1         | 1               |          | reprep, bsp fail                                     |
| 15:04 | ZZZZZZ             | 1               |          |  |
| 15:06 | ZZZZZZ             | 1               |          |  |
| 15:07 | ZZZZZZ             | 1               |          |  |
| 15:09 | ZZZZZZ             | 1               |          |  |
| 15:10 | ZZZZZZ             | 1               |          |  |
| 15:11 | ZZZZZZ             | 1               |          |  |
| 15:13 | ZZZZZZ             | 1               |          |  |
| 15:14 | ZZZZZZ             | 1               |          |  |
| 15:15 | GP12684-MB1        | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E042718W1.CN Date Analyzed: 04/27/18 Methods: EPA 335.4/LACHAT, SW846 CHAP7/9012 B  
Analyst: TG Run ID: GN79292  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:17 | GN79292-CCV3       | 1               |          |  |
| 15:18 | GN79292-CCB3       | 1               |          |  |
| 15:19 | GP12684-B1         | 1               |          |  |
| 15:21 | GP12684-S1         | 1               |          |  |
| 15:22 | GP12684-S2         | 1               |          |  |
| 15:24 | GP12684-D1         | 1               |          |  |
| 15:25 | JC65010-1          | 1               |          | (sample used for QC only; not part of login JC64857) |
| 15:26 | ZZZZZZ             | 1               |          |  |
| 15:28 | ZZZZZZ             | 1               |          |  |
| 15:29 | JC64857-1          | 1               |          | air spike  |
| 15:30 | ZZZZZZ             | 1               |          |  |
| 15:32 | JC64857-2          | 1               |          |  |
| 15:33 | GN79292-CCV4       | 1               |          |  |
| 15:34 | GN79292-CCB4       | 1               |          |  |
| 15:36 | JC64857-3          | 1               |          |  |
| 15:37 | JC64857-1          | 1               |          | air spike  |
| 15:39 | JC64857-1F         | 1               |          |  |
| 15:40 | JC64857-2F         | 1               |          |  |
| 15:41 | JC64857-3F         | 1               |          |  |
| 15:43 | ZZZZZZ             | 1               |          |  |
| 15:44 | ZZZZZZ             | 1               |          |  |
| 15:45 | JC64857-1          | 1               |          |  |
| 15:48 | GN79292-CCV5       | 1               |          |  |
| 15:50 | GN79292-CCB5       | 1               |          |  |

Refer to raw data for calibration curve and standards.

11.4  
11

Instrument QC Summary  
Inorganics Analyses

Login Number: JC64857  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E042718W1.CN

Date Analyzed: 04/27/18  
Run ID: GN79292

Methods: EPA 335.4/LACHAT, SW846 CHAP7/9012 B  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79292-ICV1  | Cyanide   | 0.304    | 0.010 | 0.0058  | .3         | 101.3    | 90-110    |
| GN79292-ICB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79292-CCV1  | Cyanide   | 0.416    | 0.010 | 0.0058  | .4         | 104.0    | 90-110    |
| GN79292-CCB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79292-CCV2  | Cyanide   | 0.411    | 0.010 | 0.0058  | .4         | 102.8    | 90-110    |
| GN79292-CCB2  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79292-CCV3  | Cyanide   | 0.407    | 0.010 | 0.0058  | .4         | 101.8    | 90-110    |
| GN79292-CCB3  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79292-CCV4  | Cyanide   | 0.408    | 0.010 | 0.0058  | .4         | 102.0    | 90-110    |
| GN79292-CCB4  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79292-CCV5  | Cyanide   | 0.407    | 0.010 | 0.0058  | .4         | 101.8    | 90-110    |
| GN79292-CCB5  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |

(!) Outside of QC limits

11.4  
11

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Arcadis

NYSEG - Newark Former MGP Site, Newark, NY

B0013094.0006

SGS Job Number: JC64996

Sampling Dates: 04/24/18 - 04/25/18



Report to:

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Fairport, NY 14450  
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Total number of pages in report: **1008**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole  
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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## Sample Summary

Arcadis

**Job No:** JC64996

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Collected |          | Received | Matrix |      | Client Sample ID     |
|---------------|-----------|----------|----------|--------|------|----------------------|
|               | Date      | Time By  |          | Code   | Type |                      |
| JC64996-1     | 04/24/18  | 15:00 RC | 04/26/18 | SO     | Soil | TP-101 (7-8)         |
| JC64996-2     | 04/24/18  | 16:35 RC | 04/26/18 | SO     | Soil | SB-102 (19-21)       |
| JC64996-3     | 04/24/18  | 17:05 RC | 04/26/18 | SO     | Soil | SB-107 (15-17)       |
| JC64996-4     | 04/25/18  | 12:15 JJ | 04/26/18 | SO     | Soil | SB-106 (17-20)       |
| JC64996-5     | 04/24/18  | 15:15 RC | 04/26/18 | SO     | Soil | TP-101 (4-8)         |
| JC64996-6     | 04/24/18  | 16:45 RC | 04/26/18 | SO     | Soil | SB-102 (17-21)       |
| JC64996-7     | 04/25/18  | 12:20 JJ | 04/26/18 | SO     | Soil | SB-106 (17-21)       |
| JC64996-8     | 04/24/18  | 15:30 RC | 04/26/18 | SO     | Soil | TP-101 (0-4) (8-10)  |
| JC64996-9     | 04/24/18  | 17:00 RC | 04/26/18 | SO     | Soil | SB-102 (0-17)        |
| JC64996-10    | 04/24/18  | 12:25 JJ | 04/26/18 | SO     | Soil | SB-106 (3-5) (11-15) |

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

2

**Client:** Arcadis

**Job No** JC64996

**Site:** NYSEG - Newark Former MGP Site, Newark, NY

**Report Date** 5/22/2018 5:07:13 PM

On 04/26/2018, 10 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5.1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC64996 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### MS Volatiles By Method SW846 8260C

**Matrix:** SO

**Batch ID:** V3C6521

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65047-1MS, JC65047-3DUP were used as the QC samples indicated.
- JC64996-9: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC64996-9 for Freon 113: Associated CCV outside of control limits low.

**Matrix:** SO

**Batch ID:** VI8838

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC64660-1DUP, JC64924-5MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC64996-6: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC64996-6 for Trichlorofluoromethane: Associated CCV outside of control limits low.
- JC64996-6 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JC64996-6 for Carbon disulfide: Associated CCV outside of control limits low.

**Matrix:** SO

**Batch ID:** VI8852

- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65686-5MS, JC65686-6DUP were used as the QC samples indicated.
- The following samples were run outside of holding time for method SW846 8260C: JC64996-10, JC64996-7 Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- Matrix Spike Recovery(s) for Methyl Acetate are outside control limits. Outside control limits due to matrix interference.
- JC64996-7: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- JC64996-10: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- VI8852-BS for 1,2,3-Trichlorobenzene: High percent recoveries and no associated positive reported in the QC batch.
- VI8852-BS for 1,2-Dibromo-3-chloropropane: High percent recoveries and no associated positive reported in the QC batch.
- VI8852-BS for 1,2,4-Trichlorobenzene: High percent recoveries and no associated positive reported in the QC batch.

Tuesday, May 22, 2018

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## MS Semi-volatiles By Method SW846 8270D

**Matrix:** SO

**Batch ID:** OP11642

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-6MS, JC64996-6MSD were used as the QC samples indicated.
- JC64996-6 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-6 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-2 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-2 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-2 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-2 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-3 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-6 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-9 for Benzo(a)pyrene: Associated CCV outside of control limits high.
- JC64996-3 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-1 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-1 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-1 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-1 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-9 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-4 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-4 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-9 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC64996-4 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-9 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-3 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC64996-6 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-4 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-9 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC64996-3 for Benzaldehyde: Associated CCV outside of control limits low.

**Matrix:** SO

**Batch ID:** OP12122

- Sample(s) JC66239-1MS, JC66239-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC64996-10: Sample extracted outside the holding time per client's request.
- JC64996-7: Sample extracted outside the holding time per client's request.
- JC64996-7 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC64996-10 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for 4-Chlorophenyl phenyl ether: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for Pyrene: Associated CCV outside of control limits low.
- JC64996-7 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-10 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for 2,4,6-Trichlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.

Tuesday, May 22, 2018

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### MS Semi-volatiles By Method SW846 8270D

**Matrix:** SO**Batch ID:** OP12122

- JC64996-10 for Benzaldehyde: Associated CCV outside of control limits low.
- JC64996-10 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.
- JC64996-10 for 4-Chlorophenyl phenyl ether: Associated CCV outside of control limits high, sample was ND.
- JC64996-10 for 2,4,6-Trichlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND.
- JC64996-10 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC64996-7 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.

### GC Volatiles By Method SW846 8015C

**Matrix:** SO**Batch ID:** GPF4599

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC64996-5QMS, JC64996-5QMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8015C

**Matrix:** SO**Batch ID:** OP11620

- All samples were extracted within the recommended method holding time.
- Sample(s) JC64962-1MS, JC64962-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8081B

**Matrix:** SO**Batch ID:** OP11640

- All samples were extracted within the recommended method holding time.
- Sample(s) JC64960-1MS, JC64960-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO**Batch ID:** OP11639

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64843-1MS, JC64843-1MSD were used as the QC samples indicated.

**Matrix:** SO**Batch ID:** OP11668

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65130-1MS, JC65130-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO**Batch ID:** OP11775

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65281-54MS, JC65281-54MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC64996-9 for Decachlorobiphenyl: Outside control limits due to matrix interference.

**Matrix:** SO**Batch ID:** OP12045

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7MS, JC64996-7MSD were used as the QC samples indicated.
- OP12045-BSD for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- OP12045-BS for Aroclor 1260: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- OP12045-BSD for Aroclor 1016: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- OP12045-BS for Aroclor 1016: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

## GC/LC Semi-volatiles By Method SW846 8151A

**Matrix:** SO**Batch ID:** OP11638

- All samples were extracted within the recommended method holding time.
- Sample(s) JC64996-8QMS, JC64996-8QMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals Analysis By Method SW846 6010C

**Matrix:** SO

**Batch ID:** MP6862

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65015-2MS, JC65015-2SDL, JC65015-2MSD were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony, Calcium, Magnesium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Recovery(s) for Aluminum, Iron are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for MSD for Calcium, Magnesium, Potassium, Sodium are outside control limits for sample MP6862-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Cadmium, Silver, Thallium are outside control limits for sample MP6862-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

**Matrix:** SO

**Batch ID:** MP6996

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD20533-1DUP, TD20533-1MSD, TD20533-1SDL, TD20533-1PS were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Sulfur are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- MP6996-PS1 for Sulfur: Spike recovery indicates possible matrix interference.

**Matrix:** SO

**Batch ID:** MP7131

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65891-6MS, JC65891-6MSD, JC65891-6SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Selenium, Silver, Thallium are outside control limits for sample MP7131-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JC64996-10 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- MP7131-SD1 for Potassium: Serial dilution indicates possible matrix interference.

## Metals Analysis By Method SW846 7471B

**Matrix:** SO

**Batch ID:** MP6890

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65018-1MS, JC65018-1MSD were used as the QC samples for metals.

**Matrix:** SO

**Batch ID:** MP7152

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65784-50MS, JC65784-50MSD were used as the QC samples for metals.

### General Chemistry By Method ASTM D129-95

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP13154 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-7DUP were used as the QC samples for Percent Sulfur.

### General Chemistry By Method ASTM D240-92

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP12667 |
|-------------------|--------------------------|

- Sample(s) TD20089-1DUP were used as the QC samples for Heat Content, BTU.

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP13163 |
|-------------------|--------------------------|

- Sample(s) JC64996-7DUP were used as the QC samples for Heat Content, BTU.

### General Chemistry By Method SM2540 G-97

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GN79286 |
|-------------------|--------------------------|

- The data for SM2540 G-97 meets quality control requirements.

### General Chemistry By Method SW846 9012B/LACHAT

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP12755 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65018-1DUP, JC65018-1MS were used as the QC samples for Cyanide.

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP13030 |
|-------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66031-1DUP, JC66031-1MS were used as the QC samples for Cyanide.
- The following samples were prepared outside of holding time for method SW846 9012B/LACHAT: JC64996-10, JC64996-7  
Analysis done out of holding time.

### General Chemistry By Method SW846 9034 M

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP12727 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-6DUP, JC64996-6MS were used as the QC samples for Sulfide, Neutral Extraction.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover



## Summary of Hits

**Job Number:** JC64996  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/24/18 thru 04/25/18

| Lab Sample ID | Client Sample ID | Result/<br>Analyte | RL | MDL | Units | Method |
|---------------|------------------|--------------------|----|-----|-------|--------|
|---------------|------------------|--------------------|----|-----|-------|--------|

### JC64996-1 TP-101 (7-8)

|                            |        |    |     |       |             |
|----------------------------|--------|----|-----|-------|-------------|
| Benzo(a)anthracene         | 34.8 J | 37 | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene             | 30.1 J | 37 | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene       | 37.4   | 37 | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene       | 18.5 J | 37 | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene       | 18.8 J | 37 | 17  | ug/kg | SW846 8270D |
| Chrysene                   | 30.3 J | 37 | 12  | ug/kg | SW846 8270D |
| bis(2-Ethylhexyl)phthalate | 80.6   | 74 | 8.6 | ug/kg | SW846 8270D |
| Fluoranthene               | 66.4   | 37 | 16  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene     | 18.7 J | 37 | 17  | ug/kg | SW846 8270D |
| Phenanthrene               | 33.0 J | 37 | 12  | ug/kg | SW846 8270D |
| Pyrene                     | 58.0   | 37 | 12  | ug/kg | SW846 8270D |

### JC64996-2 SB-102 (19-21)

|                      |        |    |     |       |             |
|----------------------|--------|----|-----|-------|-------------|
| Di-n-butyl phthalate | 51.9 J | 74 | 6.0 | ug/kg | SW846 8270D |
|----------------------|--------|----|-----|-------|-------------|

### JC64996-3 SB-107 (15-17)

|                        |        |    |     |       |             |
|------------------------|--------|----|-----|-------|-------------|
| Acenaphthene           | 1230   | 40 | 14  | ug/kg | SW846 8270D |
| Acenaphthylene         | 121    | 40 | 20  | ug/kg | SW846 8270D |
| Anthracene             | 320    | 40 | 24  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 393    | 40 | 11  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 437    | 40 | 18  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 427    | 40 | 18  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 334    | 40 | 20  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 155    | 40 | 19  | ug/kg | SW846 8270D |
| Carbazole              | 29.6 J | 79 | 5.7 | ug/kg | SW846 8270D |
| Chrysene               | 417    | 40 | 12  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 60.4   | 40 | 18  | ug/kg | SW846 8270D |
| Fluoranthene           | 495    | 40 | 18  | ug/kg | SW846 8270D |
| Fluorene               | 149    | 40 | 18  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 340    | 40 | 19  | ug/kg | SW846 8270D |
| Naphthalene            | 120    | 40 | 11  | ug/kg | SW846 8270D |
| Phenanthrene           | 119    | 40 | 13  | ug/kg | SW846 8270D |
| Pyrene                 | 1200   | 40 | 13  | ug/kg | SW846 8270D |

### JC64996-4 SB-106 (17-20)

|                    |      |    |    |       |             |
|--------------------|------|----|----|-------|-------------|
| Acenaphthene       | 357  | 37 | 13 | ug/kg | SW846 8270D |
| Acenaphthylene     | 545  | 37 | 19 | ug/kg | SW846 8270D |
| Anthracene         | 420  | 37 | 23 | ug/kg | SW846 8270D |
| Benzo(a)anthracene | 2540 | 37 | 11 | ug/kg | SW846 8270D |
| Benzo(a)pyrene     | 3700 | 37 | 17 | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC64996  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/24/18 thru 04/25/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL  | MDL | Units | Method      |
|---------------|------------------|-----------------|-----|-----|-------|-------------|
|               |                  | 2470            | 37  | 17  | ug/kg | SW846 8270D |
|               |                  | 2440            | 37  | 19  | ug/kg | SW846 8270D |
|               |                  | 791             | 37  | 17  | ug/kg | SW846 8270D |
|               |                  | 68.5 J          | 75  | 5.1 | ug/kg | SW846 8270D |
|               |                  | 2310            | 37  | 12  | ug/kg | SW846 8270D |
|               |                  | 307             | 37  | 17  | ug/kg | SW846 8270D |
|               |                  | 31.5 J          | 75  | 15  | ug/kg | SW846 8270D |
|               |                  | 4970            | 190 | 84  | ug/kg | SW846 8270D |
|               |                  | 276             | 37  | 17  | ug/kg | SW846 8270D |
|               |                  | 2010            | 37  | 18  | ug/kg | SW846 8270D |
|               |                  | 15.9 J          | 37  | 8.5 | ug/kg | SW846 8270D |
|               |                  | 35.5 J          | 37  | 11  | ug/kg | SW846 8270D |
|               |                  | 1190            | 37  | 13  | ug/kg | SW846 8270D |
|               |                  | 7460            | 190 | 60  | ug/kg | SW846 8270D |

**JC64996-5 TP-101 (4-8)**

No hits reported in this sample.

**JC64996-6 SB-102 (17-21)**

|                             |        |     |     |        |              |
|-----------------------------|--------|-----|-----|--------|--------------|
| Di-n-butyl phthalate        | 18.5 J | 74  | 6.1 | ug/kg  | SW846 8270D  |
| Arsenic                     | 2.3    | 2.2 |     | mg/kg  | SW846 6010C  |
| Barium                      | 32.4   | 22  |     | mg/kg  | SW846 6010C  |
| Chromium                    | 5.5    | 1.1 |     | mg/kg  | SW846 6010C  |
| Lead                        | 4.0    | 2.2 |     | mg/kg  | SW846 6010C  |
| Nickel                      | 5.5    | 4.3 |     | mg/kg  | SW846 6010C  |
| Sulfur                      | 555    | 11  |     | mg/kg  | SW846 6010C  |
| Vanadium                    | 9.1    | 5.4 |     | mg/kg  | SW846 6010C  |
| Zinc                        | 23.2   | 5.4 |     | mg/kg  | SW846 6010C  |
| Heat Content, BTU           | 2390   | 100 |     | BTU/lb | ASTM D240-92 |
| Sulfide, Neutral Extraction | 4.5    | 4.5 |     | mg/kg  | SW846 9034 M |

**JC64996-7 SB-106 (17-21)**

|                                |        |      |      |       |             |
|--------------------------------|--------|------|------|-------|-------------|
| Acetone <sup>a</sup>           | 18.2   | 12   | 7.5  | ug/kg | SW846 8260C |
| Benzene <sup>a</sup>           | 0.56 J | 0.59 | 0.13 | ug/kg | SW846 8260C |
| Carbon disulfide <sup>a</sup>  | 3.3    | 2.3  | 0.71 | ug/kg | SW846 8260C |
| Cyclohexane <sup>a</sup>       | 0.61 J | 2.3  | 0.40 | ug/kg | SW846 8260C |
| Ethylbenzene <sup>a</sup>      | 0.67 J | 1.2  | 0.34 | ug/kg | SW846 8260C |
| Methylcyclohexane <sup>a</sup> | 1.6 J  | 2.3  | 0.64 | ug/kg | SW846 8260C |
| Styrene <sup>a</sup>           | 2.1 J  | 2.3  | 0.58 | ug/kg | SW846 8260C |
| Toluene <sup>a</sup>           | 1.8    | 1.2  | 0.64 | ug/kg | SW846 8260C |
| m,p-Xylene <sup>a</sup>        | 2.1    | 1.2  | 0.64 | ug/kg | SW846 8260C |
| o-Xylene <sup>a</sup>          | 1.0 J  | 1.2  | 0.29 | ug/kg | SW846 8260C |

## Summary of Hits

**Job Number:** JC64996  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/24/18 thru 04/25/18



| Lab Sample ID<br>Analyte            | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units  | Method             |
|-------------------------------------|------------------|-----------------|------|------|--------|--------------------|
| Xylene (total) <sup>a</sup>         |                  | 3.1             | 1.2  | 0.29 | ug/kg  | SW846 8260C        |
| Acenaphthene <sup>b</sup>           |                  | 1130            | 40   | 14   | ug/kg  | SW846 8270D        |
| Acenaphthylene <sup>b</sup>         |                  | 1260            | 40   | 20   | ug/kg  | SW846 8270D        |
| Anthracene <sup>b</sup>             |                  | 742             | 40   | 25   | ug/kg  | SW846 8270D        |
| Benzo(a)anthracene <sup>b</sup>     |                  | 4050            | 200  | 57   | ug/kg  | SW846 8270D        |
| Benzo(a)pyrene <sup>b</sup>         |                  | 5990            | 200  | 91   | ug/kg  | SW846 8270D        |
| Benzo(b)fluoranthene <sup>b</sup>   |                  | 3810            | 200  | 88   | ug/kg  | SW846 8270D        |
| Benzo(g,h,i)perylene <sup>b</sup>   |                  | 4100            | 200  | 100  | ug/kg  | SW846 8270D        |
| Benzo(k)fluoranthene <sup>b</sup>   |                  | 1450            | 40   | 19   | ug/kg  | SW846 8270D        |
| 1,1'-Biphenyl <sup>b</sup>          |                  | 46.1 J          | 80   | 5.5  | ug/kg  | SW846 8270D        |
| Chrysene <sup>b</sup>               |                  | 3630            | 200  | 63   | ug/kg  | SW846 8270D        |
| Dibenzo(a,h)anthracene <sup>b</sup> |                  | 890             | 40   | 18   | ug/kg  | SW846 8270D        |
| Dibenzofuran <sup>b</sup>           |                  | 56.8 J          | 80   | 16   | ug/kg  | SW846 8270D        |
| Fluoranthene <sup>b</sup>           |                  | 7930            | 200  | 89   | ug/kg  | SW846 8270D        |
| Fluorene <sup>b</sup>               |                  | 519             | 40   | 18   | ug/kg  | SW846 8270D        |
| Indeno(1,2,3-cd)pyrene <sup>b</sup> |                  | 3320            | 40   | 19   | ug/kg  | SW846 8270D        |
| Naphthalene <sup>b</sup>            |                  | 59.0            | 40   | 11   | ug/kg  | SW846 8270D        |
| Phenanthrene <sup>b</sup>           |                  | 1310            | 40   | 13   | ug/kg  | SW846 8270D        |
| Pyrene <sup>c</sup>                 |                  | 15600           | 200  | 64   | ug/kg  | SW846 8270D        |
| TPH-GRO (C6-C10)                    |                  | 9.32 J          | 15   | 7.7  | mg/kg  | SW846 8015C        |
| TPH-DRO (C10-C28)                   |                  | 513             | 12   | 2.9  | mg/kg  | SW846 8015C        |
| Arsenic                             |                  | 5.5             | 2.4  |      | mg/kg  | SW846 6010C        |
| Barium                              |                  | 165             | 24   |      | mg/kg  | SW846 6010C        |
| Beryllium                           |                  | 0.37            | 0.24 |      | mg/kg  | SW846 6010C        |
| Cadmium                             |                  | 9.6             | 0.60 |      | mg/kg  | SW846 6010C        |
| Chromium                            |                  | 8.0             | 1.2  |      | mg/kg  | SW846 6010C        |
| Lead                                |                  | 6.2             | 2.4  |      | mg/kg  | SW846 6010C        |
| Nickel                              |                  | 11.7            | 4.8  |      | mg/kg  | SW846 6010C        |
| Vanadium                            |                  | 35.0            | 6.0  |      | mg/kg  | SW846 6010C        |
| Zinc                                |                  | 3930            | 30   |      | mg/kg  | SW846 6010C        |
| Cyanide <sup>d</sup>                |                  | 0.34            | 0.22 |      | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU                   |                  | 1950            | 100  |      | BTU/lb | ASTM D240-92       |

**JC64996-8 TP-101 (0-4) (8-10)**

No hits reported in this sample.

**JC64996-9 SB-102 (0-17)**

|                      |  |        |      |      |       |             |
|----------------------|--|--------|------|------|-------|-------------|
| Benzene <sup>e</sup> |  | 0.45 J | 0.52 | 0.11 | ug/kg | SW846 8260C |
| 3&4-Methylphenol     |  | 74.8 J | 77   | 32   | ug/kg | SW846 8270D |
| Phenol               |  | 44.0 J | 77   | 20   | ug/kg | SW846 8270D |
| Acenaphthene         |  | 165    | 39   | 13   | ug/kg | SW846 8270D |
| Acenaphthylene       |  | 1140   | 39   | 20   | ug/kg | SW846 8270D |
| Acetophenone         |  | 23.3 J | 190  | 8.3  | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC64996  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/24/18 thru 04/25/18



| Lab Sample ID<br>Analyte    | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method      |
|-----------------------------|------------------|-----------------|-------|-----|-------|-------------|
| Anthracene                  |                  | 1900            | 39    | 24  | ug/kg | SW846 8270D |
| Benzo(a)anthracene          |                  | 4420            | 190   | 55  | ug/kg | SW846 8270D |
| Benzo(a)pyrene <sup>f</sup> |                  | 4510            | 190   | 88  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene        |                  | 5340            | 190   | 85  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene        |                  | 3310            | 39    | 19  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene        |                  | 2220            | 190   | 90  | ug/kg | SW846 8270D |
| Butyl benzyl phthalate      |                  | 65.2 J          | 77    | 9.4 | ug/kg | SW846 8270D |
| 1,1'-Biphenyl               |                  | 81.6            | 77    | 5.3 | ug/kg | SW846 8270D |
| Carbazole                   |                  | 252             | 77    | 5.6 | ug/kg | SW846 8270D |
| Chrysene                    |                  | 3880            | 190   | 61  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene      |                  | 681             | 39    | 17  | ug/kg | SW846 8270D |
| Dibenzofuran                |                  | 406             | 77    | 16  | ug/kg | SW846 8270D |
| Di-n-butyl phthalate        |                  | 19.2 J          | 77    | 6.3 | ug/kg | SW846 8270D |
| Fluoranthene                |                  | 9620            | 190   | 86  | ug/kg | SW846 8270D |
| Fluorene                    |                  | 565             | 39    | 18  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene      |                  | 3680            | 39    | 18  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene         |                  | 193             | 39    | 8.7 | ug/kg | SW846 8270D |
| Naphthalene                 |                  | 758             | 39    | 11  | ug/kg | SW846 8270D |
| Phenanthrene                |                  | 5580            | 190   | 65  | ug/kg | SW846 8270D |
| Pyrene                      |                  | 8180            | 190   | 62  | ug/kg | SW846 8270D |
| Aluminum                    |                  | 12900           | 57    |     | mg/kg | SW846 6010C |
| Arsenic                     |                  | 10.1            | 2.3   |     | mg/kg | SW846 6010C |
| Barium                      |                  | 68.4            | 23    |     | mg/kg | SW846 6010C |
| Beryllium                   |                  | 0.63            | 0.23  |     | mg/kg | SW846 6010C |
| Calcium                     |                  | 50700           | 1700  |     | mg/kg | SW846 6010C |
| Chromium                    |                  | 16.7            | 1.1   |     | mg/kg | SW846 6010C |
| Cobalt                      |                  | 7.1             | 5.7   |     | mg/kg | SW846 6010C |
| Copper                      |                  | 23.9            | 2.9   |     | mg/kg | SW846 6010C |
| Iron                        |                  | 20900           | 57    |     | mg/kg | SW846 6010C |
| Lead                        |                  | 41.7            | 2.3   |     | mg/kg | SW846 6010C |
| Magnesium                   |                  | 21600           | 570   |     | mg/kg | SW846 6010C |
| Manganese                   |                  | 993             | 1.7   |     | mg/kg | SW846 6010C |
| Mercury                     |                  | 1.1             | 0.070 |     | mg/kg | SW846 7471B |
| Nickel                      |                  | 20.1            | 4.6   |     | mg/kg | SW846 6010C |
| Potassium                   |                  | 2910            | 1100  |     | mg/kg | SW846 6010C |
| Vanadium                    |                  | 26.5            | 5.7   |     | mg/kg | SW846 6010C |
| Zinc                        |                  | 80.2            | 5.7   |     | mg/kg | SW846 6010C |

**JC64996-10 SB-106 (3-5) (11-15)**

|                                   |  |        |    |    |       |             |
|-----------------------------------|--|--------|----|----|-------|-------------|
| Benzo(a)anthracene <sup>b</sup>   |  | 14.9 J | 37 | 10 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene <sup>b</sup> |  | 18.1 J | 37 | 16 | ug/kg | SW846 8270D |
| Chrysene <sup>b</sup>             |  | 14.6 J | 37 | 12 | ug/kg | SW846 8270D |
| Fluoranthene <sup>b</sup>         |  | 34.8 J | 37 | 16 | ug/kg | SW846 8270D |
| Phenanthrene <sup>b</sup>         |  | 13.0 J | 37 | 12 | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC64996  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/24/18 thru 04/25/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL   | MDL | Units | Method      |
|--------------------------|------------------|-----------------|------|-----|-------|-------------|
| Pyrene <sup>b</sup>      |                  | 37.2            | 37   | 12  | ug/kg | SW846 8270D |
| Aluminum                 |                  | 6150            | 56   |     | mg/kg | SW846 6010C |
| Arsenic                  |                  | 6.9             | 2.3  |     | mg/kg | SW846 6010C |
| Barium                   |                  | 151             | 23   |     | mg/kg | SW846 6010C |
| Beryllium                |                  | 0.46            | 0.23 |     | mg/kg | SW846 6010C |
| Calcium                  |                  | 99000           | 2800 |     | mg/kg | SW846 6010C |
| Chromium                 |                  | 38.6            | 1.1  |     | mg/kg | SW846 6010C |
| Cobalt                   |                  | 10.6            | 5.6  |     | mg/kg | SW846 6010C |
| Copper                   |                  | 15.9            | 2.8  |     | mg/kg | SW846 6010C |
| Iron                     |                  | 18200           | 56   |     | mg/kg | SW846 6010C |
| Lead                     |                  | 12.5            | 2.3  |     | mg/kg | SW846 6010C |
| Magnesium                |                  | 38800           | 560  |     | mg/kg | SW846 6010C |
| Manganese                |                  | 1590            | 8.4  |     | mg/kg | SW846 6010C |
| Nickel                   |                  | 32.7            | 4.5  |     | mg/kg | SW846 6010C |
| Potassium                |                  | 1970            | 1100 |     | mg/kg | SW846 6010C |
| Vanadium                 |                  | 31.7            | 5.6  |     | mg/kg | SW846 6010C |
| Zinc                     |                  | 71.4            | 5.6  |     | mg/kg | SW846 6010C |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- (b) Sample extracted outside the holding time per client's request.
- (c) Sample extracted outside the holding time per client's request. Associated CCV outside of control limits low.
- (d) Analysis done out of holding time.
- (e) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (f) Associated CCV outside of control limits high.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (7-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC64996-1                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 87.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M145999.D | 1  | 05/09/18 07:51 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 98  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.9 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 34.8   | 37  | 10  | ug/kg | J |
| 50-32-8   | Benzo(a)pyrene             | 30.1   | 37  | 17  | ug/kg | J |
| 205-99-2  | Benzo(b)fluoranthene       | 37.4   | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 18.5   | 37  | 18  | ug/kg | J |
| 207-08-9  | Benzo(k)fluoranthene       | 18.8   | 37  | 17  | ug/kg | J |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.0 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 180 | 9.1 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (7-8)                      |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-1                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | 30.3   | 37  | 12  | ug/kg | J |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 37  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | ND     | 74  | 6.0 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 74  | 7.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | 80.6   | 74  | 8.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 66.4   | 37  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                        | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 74  | 9.3 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 18.7   | 37  | 17  | ug/kg | J |
| 78-59-1   | Isophorone                      | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 37  | 8.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 180 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 180 | 9.2 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 180 | 9.5 | ug/kg |   |
| 91-20-3   | Naphthalene                     | ND     | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 33.0   | 37  | 12  | ug/kg | J |
| 129-00-0  | Pyrene                          | 58.0   | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 180 | 9.4 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 62%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
 4



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (7-8)                      | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-1                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 87.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 64%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 83%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 71%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 71%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (19-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-2                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146000.D | 1  | 05/09/18 08:21 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 99  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.0 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 37  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 37  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.1 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.2 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.4 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-102 (19-21)                             | <b>Date Sampled:</b>   | 04/24/18 |
| <b>Lab Sample ID:</b>    | JC64996-2                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | ND     | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 51.9   | 74  | 6.0 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 74  | 7.9 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND     | 74  | 8.7 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | ND     | 37  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                        | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 74  | 9.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 190 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 37  | 8.4 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 190 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 190 | 9.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 190 | 9.6 | ug/kg |   |
| 91-20-3   | Naphthalene                     | ND     | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | ND     | 37  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                          | ND     | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 190 | 9.4 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 59%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (19-21)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-2                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 62%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 75%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 68%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 72%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-107 (15-17)                    |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-3                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 83.3    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146003.D | 1  | 05/09/18 09:49 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 79  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 200 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 200 | 34  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 200 | 71  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 200 | 42  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 79  | 25  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 79  | 33  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 200 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 400 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 160 | 37  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 79  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 200 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 200 | 30  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 200 | 24  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 1230   | 40  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 121    | 40  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 200 | 8.5 | ug/kg |   |
| 120-12-7  | Anthracene                 | 320    | 40  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 79  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 393    | 40  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 437    | 40  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 427    | 40  | 18  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 334    | 40  | 20  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 155    | 40  | 19  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 79  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 79  | 9.7 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 79  | 5.4 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 200 | 9.8 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 79  | 9.4 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 200 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                  | 29.6   | 79  | 5.7 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-107 (15-17)                             | <b>Date Sampled:</b>   | 04/24/18 |
| <b>Lab Sample ID:</b>    | JC64996-3                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 83.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 79  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                        | 417    | 40  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 79  | 8.5 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 79  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 79  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 79  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 40  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 40  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND     | 79  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 40  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | 60.4   | 40  | 18  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 79  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | ND     | 79  | 6.5 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 79  | 9.9 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 79  | 8.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 79  | 7.1 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND     | 79  | 9.3 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 495    | 40  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                        | 149    | 40  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 79  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 40  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 400 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 200 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 340    | 40  | 19  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND     | 79  | 8.5 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 40  | 9.0 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 200 | 9.4 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 200 | 9.9 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                     | 120    | 40  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 79  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 79  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 200 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 119    | 40  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                          | 1200   | 40  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 71%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-107 (15-17)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-3                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 83.3    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 71%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 91%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 91%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-106 (17-20)                             | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC64996-4                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146004.D | 1  | 05/09/18 10:19 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 | M146028.D | 5  | 05/09/18 22:17 | JB | 04/27/18 23:15 | OP11642    | EM6204           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 | 30.4 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 75  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 67  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 75  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 75  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 75  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 357    | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 545    | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.1 | ug/kg |   |
| 120-12-7  | Anthracene                 | 420    | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 75  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 2540   | 37  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 3700   | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 2470   | 37  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 2440   | 37  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 791    | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 75  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 75  | 9.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 68.5   | 75  | 5.1 | ug/kg | J |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 75  | 8.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 75  | 5.4 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-20)                    |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-4                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                        | Result            | RL  | MDL | Units | Q |
|-----------|---------------------------------|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND                | 75  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | 2310              | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND                | 75  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND                | 75  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND                | 75  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND                | 75  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND                | 37  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND                | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND                | 75  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND                | 37  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | 307               | 37  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | 31.5              | 75  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate            | ND                | 75  | 6.1 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate            | ND                | 75  | 9.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND                | 75  | 8.0 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND                | 75  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND                | 75  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 4970 <sup>c</sup> | 190 | 84  | ug/kg |   |
| 86-73-7   | Fluorene                        | 276               | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND                | 75  | 9.5 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND                | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND                | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND                | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 2010              | 37  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND                | 75  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | 15.9              | 37  | 8.5 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND                | 190 | 8.8 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND                | 190 | 9.4 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND                | 190 | 9.7 | ug/kg |   |
| 91-20-3   | Naphthalene                     | 35.5              | 37  | 11  | ug/kg | J |
| 98-95-3   | Nitrobenzene                    | ND                | 75  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND                | 75  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND                | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 1190              | 37  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                          | 7460 <sup>c</sup> | 190 | 60  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND                | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 49%    | 47%    | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit    B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range    N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-20)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-4                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 87.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 50%    | 52%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 66%    | 63%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 60%    | 54%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 58%    | 56%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 66%    | 60%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
4

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (4-8)                      | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-5                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 81.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## General Chemistry

| Analyte         | Result | RL | Units | DF | Analyzed       | By | Method      |
|-----------------|--------|----|-------|----|----------------|----|-------------|
| Solids, Percent | 81.2   |    | %     | 1  | 04/27/18 14:50 | LV | SM2540 G-97 |

RL = Reporting Limit

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | I219810.D | 1  | 04/30/18 17:24 | GA | 04/28/18 09:00 | n/a        | VI8838           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.3 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                             | Result | RL   | MDL  | Units | Q |
|------------|--------------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND     | 11   | 6.8  | ug/kg |   |
| 71-43-2    | Benzene                              | ND     | 0.53 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane                   | ND     | 5.3  | 0.46 | ug/kg |   |
| 75-27-4    | Bromodichloromethane                 | ND     | 2.1  | 0.26 | ug/kg |   |
| 75-25-2    | Bromoform                            | ND     | 5.3  | 0.33 | ug/kg |   |
| 74-83-9    | Bromomethane                         | ND     | 5.3  | 0.75 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)                     | ND     | 11   | 5.6  | ug/kg |   |
| 75-15-0    | Carbon disulfide <sup>b</sup>        | ND     | 2.1  | 0.65 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride                 | ND     | 2.1  | 0.69 | ug/kg |   |
| 108-90-7   | Chlorobenzene                        | ND     | 2.1  | 0.31 | ug/kg |   |
| 75-00-3    | Chloroethane                         | ND     | 5.3  | 0.96 | ug/kg |   |
| 67-66-3    | Chloroform                           | ND     | 2.1  | 0.34 | ug/kg |   |
| 74-87-3    | Chloromethane                        | ND     | 5.3  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                          | ND     | 2.1  | 0.37 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND     | 2.1  | 0.72 | ug/kg |   |
| 124-48-1   | Dibromochloromethane                 | ND     | 2.1  | 0.41 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND     | 1.1  | 0.26 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND     | 1.1  | 0.55 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND     | 1.1  | 0.31 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND     | 1.1  | 0.51 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane <sup>b</sup> | ND     | 5.3  | 0.65 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane                   | ND     | 1.1  | 0.28 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND     | 1.1  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene                   | ND     | 1.1  | 0.75 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene               | ND     | 1.1  | 0.43 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene             | ND     | 1.1  | 0.62 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND     | 2.1  | 0.42 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND     | 2.1  | 0.41 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND     | 2.1  | 0.25 | ug/kg |   |
| 100-41-4   | Ethylbenzene                         | ND     | 1.1  | 0.31 | ug/kg |   |
| 76-13-1    | Freon 113                            | ND     | 5.3  | 0.72 | ug/kg |   |
| 591-78-6   | 2-Hexanone                           | ND     | 5.3  | 3.0  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.6    |
| <b>Method:</b> SW846 8260C SW846 5035                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**VOA TCL List**

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.3 | 2.7  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.1 | 0.58 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.1 | 0.46 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.3 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.3 | 2.7  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.1 | 0.53 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.1 | 0.27 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.1 | 0.68 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.1 | 0.58 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.3 | 1.1  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.3 | 1.1  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.1 | 0.62 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.1 | 0.45 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.1 | 0.58 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>b</sup> | ND     | 5.3 | 0.51 | ug/kg |   |
| 75-01-4   | Vinyl chloride                      | ND     | 2.1 | 0.81 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.1 | 0.58 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.1 | 0.27 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.1 | 0.27 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 112%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%    |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M145998.D | 1  | 05/09/18 07:22 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 74  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 99  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.0 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 37  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 37  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.1 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.2 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.4 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | ND     | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 74  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 37  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3' -Dichlorobenzidine         | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 37  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 18.5   | 74  | 6.1 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 74  | 9.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 74  | 7.9 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND     | 74  | 8.7 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | ND     | 37  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                        | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 74  | 9.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 190 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND     | 74  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 37  | 8.4 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 190 | 8.8 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 190 | 9.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 190 | 9.6 | ug/kg |   |
| 91-20-3   | Naphthalene                     | ND     | 37  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | ND     | 37  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                          | ND     | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 56%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-102 (17-21)<br><b>Lab Sample ID:</b> JC64996-6<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/24/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 88.6 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 59%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 72%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 64%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 70%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-102 (17-21)                             | <b>Date Sampled:</b>   | 04/24/18 |
| <b>Lab Sample ID:</b>    | JC64996-6                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.6     |
| <b>Method:</b>           | SW846 8015C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145576.D | 1  | 04/30/18 11:02 | KC | 04/28/18 09:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.3 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 13     | 6.7     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 79%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |  |                                |
| <b>Lab Sample ID:</b> JC64996-6                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227818.D | 1  | 05/01/18 23:57 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.1 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 35 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 35 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 35 | 9.5 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 35 | 5.6 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 35 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 35 | 8.7 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 35 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 35 | 5.2 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 35 | 2.7 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 97%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 85%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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### Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |  |                                |
| <b>Lab Sample ID:</b> JC64996-6                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88738.D | 1  | 04/27/18 23:35 | RK | 04/27/18 06:45 | OP11620    | GZZ3196          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 11.6 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | ND     | 9.7    | 2.3     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 47%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 61%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 56%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------|---------|-------|-------|----|----------|-------------|--------|---|
| Antimony  | < 2.2   | 2.2   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Arsenic   | 2.3     | 2.2   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Barium    | 32.4    | 22    | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Beryllium | < 0.22  | 0.22  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Cadmium   | < 0.54  | 0.54  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Chromium  | 5.5     | 1.1   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Lead      | 4.0     | 2.2   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Mercury   | < 0.034 | 0.034 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP     | SW846 7471B <sup>2</sup> SW846 7471B <sup>5</sup> |
| Nickel    | 5.5     | 4.3   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Selenium  | < 2.2   | 2.2   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Silver    | < 0.54  | 0.54  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Sulfur    | 555     | 11    | mg/kg | 1  | 05/07/18 | 05/07/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>6</sup> |
| Thallium  | < 1.1   | 1.1   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Vanadium  | 9.1     | 5.4   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |
| Zinc      | 23.2    | 5.4   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT     | SW846 6010C <sup>1</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44304
- (2) Instrument QC Batch: MA44305
- (3) Instrument QC Batch: MA44358
- (4) Prep QC Batch: MP6862
- (5) Prep QC Batch: MP6890
- (6) Prep QC Batch: MP6996

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte                     | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|-----------------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide                     | < 0.18 | 0.18 | mg/kg  | 1  | 05/01/18 16:04 | TG  | SW846 9012B/LACHAT |
| Heat Content, BTU           | 2390   | 100  | BTU/lb | 1  | 05/10/18 16:00 | JOO | ASTM D240-92       |
| Solids, Percent             | 88.6   |      | %      | 1  | 04/27/18 14:50 | LV  | SM2540 G-97        |
| Sulfide, Neutral Extraction | 4.5    | 4.5  | mg/kg  | 1  | 04/30/18 17:55 | ST  | SW846 9034 M       |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | I220106.D | 1  | 05/11/18 18:18 | GA | 04/28/18 09:00 | n/a        | VI8852           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.3 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                                | Result | RL   | MDL  | Units | Q |
|------------|---|--------|------|------|-------|---|
| 67-64-1    | Acetone                                 | 18.2   | 12   | 7.5  | ug/kg |   |
| 71-43-2    | Benzene                                 | 0.56   | 0.59 | 0.13 | ug/kg | J |
| 74-97-5    | Bromochloromethane                      | ND     | 5.9  | 0.51 | ug/kg |   |
| 75-27-4    | Bromodichloromethane                    | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                               | ND     | 5.9  | 0.37 | ug/kg |   |
| 74-83-9    | Bromomethane                            | ND     | 5.9  | 0.82 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)                        | ND     | 12   | 6.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide                        | 3.3    | 2.3  | 0.71 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride                    | ND     | 2.3  | 0.76 | ug/kg |   |
| 108-90-7   | Chlorobenzene                           | ND     | 2.3  | 0.34 | ug/kg |   |
| 75-00-3    | Chloroethane                            | ND     | 5.9  | 1.1  | ug/kg |   |
| 67-66-3    | Chloroform                              | ND     | 2.3  | 0.38 | ug/kg |   |
| 74-87-3    | Chloromethane                           | ND     | 5.9  | 1.2  | ug/kg |   |
| 110-82-7   | Cyclohexane                             | 0.61   | 2.3  | 0.40 | ug/kg | J |
| 96-12-8    | 1,2-Dibromo-3-chloropropan <sup>b</sup> | ND     | 2.3  | 0.79 | ug/kg |   |
| 124-48-1   | Dibromochloromethane                    | ND     | 2.3  | 0.45 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane                       | ND     | 1.2  | 0.29 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene                     | ND     | 1.2  | 0.60 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene                     | ND     | 1.2  | 0.34 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene                     | ND     | 1.2  | 0.56 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane                 | ND     | 5.9  | 0.71 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane                      | ND     | 1.2  | 0.30 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane                      | ND     | 1.2  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene                      | ND     | 1.2  | 0.83 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene                  | ND     | 1.2  | 0.47 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene                | ND     | 1.2  | 0.68 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane                     | ND     | 2.3  | 0.46 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene                 | ND     | 2.3  | 0.45 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene               | ND     | 2.3  | 0.28 | ug/kg |   |
| 100-41-4   | Ethylbenzene                            | 0.67   | 1.2  | 0.34 | ug/kg | J |
| 76-13-1    | Freon 113                               | ND     | 5.9  | 0.79 | ug/kg |   |
| 591-78-6   | 2-Hexanone                              | ND     | 5.9  | 3.3  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 80.6    |
| <b>Method:</b> SW846 8260C SW846 5035                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.29 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.9 | 3.0  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | 1.6    | 2.3 | 0.64 | ug/kg | J |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.2 | 0.50 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.9 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.9 | 2.9  | ug/kg |   |
| 100-42-5  | Styrene                             | 2.1    | 2.3 | 0.58 | ug/kg | J |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.30 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.75 | ug/kg |   |
| 108-88-3  | Toluene                             | 1.8    | 1.2 | 0.64 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene <sup>b</sup> | ND     | 5.9 | 1.2  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene <sup>b</sup> | ND     | 5.9 | 1.2  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.68 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.49 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.2 | 0.64 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane              | ND     | 5.9 | 0.56 | ug/kg |   |
| 75-01-4   | Vinyl chloride                      | ND     | 2.3 | 0.90 | ug/kg |   |
|           | m,p-Xylene                          | 2.1    | 1.2 | 0.64 | ug/kg |   |
| 95-47-6   | o-Xylene                            | 1.0    | 1.2 | 0.29 | ug/kg | J |
| 1330-20-7 | Xylene (total)                      | 3.1    | 1.2 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 113%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 117%   |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 104%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- (b) Associated CCV and BS outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 2P79773.D | 1  | 05/22/18 04:14 | SA | 05/21/18 07:05 | OP12122    | E2P3514          |
| Run #2 <sup>a</sup> | 2P79789.D | 5  | 05/22/18 14:12 | JB | 05/21/18 07:05 | OP12122    | E2P3515          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.0 g         | 1.0 ml       |
| Run #2 | 31.0 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                           | Result            | RL  | MDL | Units | Q |
|-----------|------------------------------------|-------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                     | ND                | 80  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol           | ND                | 200 | 25  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                 | ND                | 200 | 34  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                 | ND                | 200 | 71  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                  | ND                | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol               | ND                | 200 | 43  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                     | ND                | 80  | 26  | ug/kg |   |
|           | 3&4-Methylphenol                   | ND                | 80  | 33  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                      | ND                | 200 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>b</sup>         | ND                | 400 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                  | ND                | 160 | 38  | ug/kg |   |
| 108-95-2  | Phenol                             | ND                | 80  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol          | ND                | 200 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol              | ND                | 200 | 30  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol <sup>b</sup> | ND                | 200 | 24  | ug/kg |   |
| 83-32-9   | Acenaphthene                       | 1130              | 40  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                     | 1260              | 40  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                       | ND                | 200 | 8.6 | ug/kg |   |
| 120-12-7  | Anthracene                         | 742               | 40  | 25  | ug/kg |   |
| 1912-24-9 | Atrazine                           | ND                | 80  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                 | 4050 <sup>c</sup> | 200 | 57  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                     | 5990 <sup>c</sup> | 200 | 91  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene               | 3810 <sup>c</sup> | 200 | 88  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene               | 4100 <sup>c</sup> | 200 | 100 | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene               | 1450              | 40  | 19  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether         | ND                | 80  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate             | ND                | 80  | 9.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                      | 46.1              | 80  | 5.5 | ug/kg | J |
| 100-52-7  | Benzaldehyde <sup>d</sup>          | ND                | 200 | 9.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                | ND                | 80  | 9.5 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                    | ND                | 200 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                          | ND                | 80  | 5.8 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-106 (17-21)                             | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC64996-7                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 80.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                 | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                              | ND                 | 80  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                                 | 3630 <sup>c</sup>  | 200 | 63  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane               | ND                 | 80  | 8.6 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                  | ND                 | 80  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)             | ND                 | 80  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether <sup>b</sup> | ND                 | 80  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                       | ND                 | 40  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                       | ND                 | 40  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                   | ND                 | 80  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane <sup>b</sup>                 | ND                 | 40  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                   | 890                | 40  | 18  | ug/kg |   |
| 132-64-9  | Dibenzofuran                             | 56.8               | 80  | 16  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate                     | ND                 | 80  | 6.5 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                     | ND                 | 80  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                        | ND                 | 80  | 8.5 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                       | ND                 | 80  | 7.1 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate               | ND                 | 80  | 9.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                             | 7930 <sup>c</sup>  | 200 | 89  | ug/kg |   |
| 86-73-7   | Fluorene                                 | 519                | 40  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                        | ND                 | 80  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>b</sup>         | ND                 | 40  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>b</sup>   | ND                 | 400 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                         | ND                 | 200 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                   | 3320               | 40  | 19  | ug/kg |   |
| 78-59-1   | Isophorone                               | ND                 | 80  | 8.6 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                      | ND                 | 40  | 9.0 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                           | ND                 | 200 | 9.4 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                           | ND                 | 200 | 10  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                           | ND                 | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                              | 59.0               | 40  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                             | ND                 | 80  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine               | ND                 | 80  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                   | ND                 | 200 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                             | 1310               | 40  | 13  | ug/kg |   |
| 129-00-0  | Pyrene <sup>d</sup>                      | 15600 <sup>c</sup> | 200 | 64  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene               | ND                 | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 59%    | 50%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 80.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 60%    | 51%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 116%   | 81%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 91%    | 74%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 88%    | 68%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 80%    | 70%    | 36-134% |

- (a) Sample extracted outside the holding time per client's request.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2
- (d) Associated CCV outside of control limits low.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |  |                                |
| <b>Lab Sample ID:</b> JC64996-7                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145577.D | 1  | 04/30/18 11:28 | KC | 04/28/18 09:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.5 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | 9.32   | 15     | 7.7     | mg/kg | J |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 80%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |  |                                |
| <b>Lab Sample ID:</b> JC64996-7                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 5G78594.D | 1  | 05/17/18 08:41 | RK | 05/16/18 16:00 | OP12045    | G5G1867          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.5 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 40 | 16  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 40 | 16  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 40 | 11  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 40 | 6.4 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 40 | 23  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 40 | 9.8 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 40 | 13  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 40 | 6.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 40 | 3.0 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 59%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 74%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 65%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 85%    |        | 10-166% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-7                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 80.6    |
| <b>Method:</b> SW846 8015C SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88739.D | 1  | 04/28/18 00:08 | RK | 04/27/18 09:50 | OP11620    | GZZ3196          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.4 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 513    | 12     | 2.9     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 50%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 65%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 71%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-106 (17-21)<br><b>Lab Sample ID:</b> JC64996-7<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 80.6 |
|--|--|

### Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.4   | 2.4   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Arsenic   | 5.5     | 2.4   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium    | 165     | 24    | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Beryllium | 0.37    | 0.24  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium   | 9.6     | 0.60  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium  | 8.0     | 1.2   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead      | 6.2     | 2.4   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury   | < 0.033 | 0.033 | mg/kg | 1  | 05/14/18 | 05/14/18    | MS SW846 7471B <sup>1</sup> | SW846 7471B <sup>5</sup> |
| Nickel    | 11.7    | 4.8   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Selenium  | < 2.4   | 2.4   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver    | < 0.60  | 0.60  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Thallium  | < 1.2   | 1.2   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Vanadium  | 35.0    | 6.0   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Zinc      | 3930    | 30    | mg/kg | 5  | 05/14/18 | 05/15/18    | ND SW846 6010C <sup>3</sup> | SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44392
- (2) Instrument QC Batch: MA44406
- (3) Instrument QC Batch: MA44414
- (4) Prep QC Batch: MP7131
- (5) Prep QC Batch: MP7152

RL = Reporting Limit

4.7  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte              | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|----------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide <sup>a</sup> | 0.34   | 0.22 | mg/kg  | 1  | 05/16/18 14:58 | BM  | SW846 9012B/LACHAT |
| Heat Content, BTU    | 1950   | 100  | BTU/lb | 1  | 05/18/18 14:00 | JOO | ASTM D240-92       |
| Percent Sulfur       | < 0.10 | 0.10 | %      | 1  | 05/18/18 14:00 | JOO | ASTM D129-95       |
| Solids, Percent      | 80.6   |      | %      | 1  | 04/27/18 14:50 | LV  | SM2540 G-97        |

(a) Analysis done out of holding time.

RL = Reporting Limit

4.7  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (0-4) (8-10)               | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-8                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte         | Result | RL | Units | DF | Analyzed       | By | Method      |
|-----------------|--------|----|-------|----|----------------|----|-------------|
| Solids, Percent | 92.9   |    | %     | 1  | 04/27/18 14:50 | LV | SM2540 G-97 |

RL = Reporting Limit



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  |                                |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|                     | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 3C143955.D | 1  | 05/02/18 10:17 | GA | 04/28/18 09:00 | n/a        | V3C6521          |
| Run #2              |            |    |                |    |                |            |                  |

|        | Initial Weight |
|--------|----------------|
| Run #1 | 5.6 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.7  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.45   | 0.52 | 0.11 | ug/kg | J |
| 74-97-5    | Bromochloromethane          | ND     | 5.2  | 0.46 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.1  | 0.25 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.2  | 0.33 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.2  | 0.74 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.5  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.1  | 0.64 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.1  | 0.68 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.1  | 0.30 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.2  | 0.95 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.1  | 0.34 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.2  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.1  | 0.36 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.1  | 0.71 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.1  | 0.40 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.26 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.54 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.30 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.50 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.2  | 0.64 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.27 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.74 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.42 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.61 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.1  | 0.42 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.1  | 0.40 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.1  | 0.25 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.30 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>b</sup>      | ND     | 5.2  | 0.71 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.2  | 2.9  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |                                |
| <b>Lab Sample ID:</b> JC64996-9                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## VOA TCL List

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene           | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate             | ND     | 5.2 | 2.7  | ug/kg |   |
| 108-87-2  | Methylcyclohexane          | ND     | 2.1 | 0.57 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether    | ND     | 1.0 | 0.45 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.2 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.2 | 2.6  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.1 | 0.52 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.1 | 0.27 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.1 | 0.67 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.57 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.2 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.2 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.1 | 0.61 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.1 | 0.44 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.57 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.2 | 0.50 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.1 | 0.80 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.57 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.26 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.26 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110%   |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  |                                |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146010.D | 1  | 05/09/18 13:17 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 | M146026.D | 5  | 05/09/18 21:17 | JB | 04/27/18 23:15 | OP11642    | EM6204           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 | 30.5 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                    | Result            | RL  | MDL | Units | Q |
|-----------|-----------------------------|-------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol              | ND                | 77  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol    | ND                | 190 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol          | ND                | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol          | ND                | 190 | 69  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol           | ND                | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol        | ND                | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol              | ND                | 77  | 25  | ug/kg |   |
|           | 3&4-Methylphenol            | 74.8              | 77  | 32  | ug/kg | J |
| 88-75-5   | 2-Nitrophenol               | ND                | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol               | ND                | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol           | ND                | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                      | 44.0              | 77  | 20  | ug/kg | J |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol   | ND                | 190 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol       | ND                | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol       | ND                | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                | 165               | 39  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene              | 1140              | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                | 23.3              | 190 | 8.3 | ug/kg | J |
| 120-12-7  | Anthracene                  | 1900              | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                    | ND                | 77  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene          | 4420 <sup>a</sup> | 190 | 55  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene <sup>b</sup> | 4510 <sup>a</sup> | 190 | 88  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene        | 5340 <sup>a</sup> | 190 | 85  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene        | 3310              | 39  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene        | 2220 <sup>a</sup> | 190 | 90  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether  | ND                | 77  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate      | 65.2              | 77  | 9.4 | ug/kg | J |
| 92-52-4   | 1,1'-Biphenyl               | 81.6              | 77  | 5.3 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>c</sup>   | ND                | 190 | 9.6 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene         | ND                | 77  | 9.2 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline             | ND                | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                   | 252               | 77  | 5.6 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-102 (0-17)                              | <b>Date Sampled:</b>   | 04/24/18 |
| <b>Lab Sample ID:</b>    | JC64996-9                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 85.1     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                        | Result            | RL  | MDL | Units | Q |
|-----------|---------------------------------|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>d</sup>        | ND                | 77  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | 3880 <sup>a</sup> | 190 | 61  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND                | 77  | 8.2 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND                | 77  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND                | 77  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND                | 77  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND                | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>d</sup> | ND                | 39  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND                | 77  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND                | 39  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | 681               | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | 406               | 77  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 19.2              | 77  | 6.3 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND                | 77  | 9.6 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND                | 77  | 8.2 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND                | 77  | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND                | 77  | 9.0 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 9620 <sup>a</sup> | 190 | 86  | ug/kg |   |
| 86-73-7   | Fluorene                        | 565               | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND                | 77  | 9.7 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND                | 39  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND                | 390 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND                | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 3680              | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND                | 77  | 8.2 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | 193               | 39  | 8.7 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>d</sup>     | ND                | 190 | 9.1 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND                | 190 | 9.6 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND                | 190 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                     | 758               | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND                | 77  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND                | 77  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND                | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 5580 <sup>a</sup> | 190 | 65  | ug/kg |   |
| 129-00-0  | Pyrene                          | 8180 <sup>a</sup> | 190 | 62  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND                | 190 | 9.8 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 57%    | 53%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 61%    | 59%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 73%    | 69%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 68%    | 64%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 70%    | 66%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    | 67%    | 36-134% |

- (a) Result is from Run# 2
- (b) Associated CCV outside of control limits high.
- (c) Associated CCV outside of control limits low.
- (d) Associated CCV outside of control limits high, sample was ND.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  |                                |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8151A SW846 3546                      |  | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | 3G116159.D | 1  | 04/30/18 21:04 | VDT | 04/30/18 06:45 | OP11638    | G3G4033          |
| Run #2 |            |    |                |     |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.4 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.6  | 3.1  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.6  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.6  | 3.2  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.6  | 2.6  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 11   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 7.1  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1700 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 10   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 94%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 84%    |        | 10-159% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  |                                |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 1G145694.D | 1  | 04/30/18 02:24 | TL | 04/27/18 23:15 | OP11640    | G1G4633          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.6 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.71 | 0.58 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.71 | 0.58 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.71 | 0.64 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.71 | 0.68 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.71 | 0.52 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.71 | 0.57 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.71 | 0.32 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.71 | 0.49 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.71 | 0.65 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.71 | 0.62 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.71 | 0.63 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.71 | 0.55 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.71 | 0.55 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.71 | 0.40 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.71 | 0.41 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.71 | 0.44 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.71 | 0.61 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.71 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.4  | 0.56 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.71 | 0.51 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 123%   |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 140%   |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 108%   |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  |                                |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162951.D | 1  | 05/07/18 11:10 | TR | 05/05/18 09:20 | OP11775    | G2G4326          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.4 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 38 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 38 | 16  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 38 | 10  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 38 | 6.1 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 38 | 22  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 38 | 9.4 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 38 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 38 | 5.7 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 38 | 2.9 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 79%               |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 79%               |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 330% <sup>a</sup> |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 486% <sup>a</sup> |        | 10-166% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-102 (0-17)<br><b>Lab Sample ID:</b> JC64996-9<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/24/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 85.1 |
|---|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Aluminum  | 12900  | 57    | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Antimony  | < 2.3  | 2.3   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Arsenic   | 10.1   | 2.3   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Barium    | 68.4   | 23    | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Beryllium | 0.63   | 0.23  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Cadmium   | < 0.57 | 0.57  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Calcium   | 50700  | 1700  | mg/kg | 3  | 04/28/18 | 04/30/18    | GT SW846 6010C <sup>3</sup> | SW846 3050B <sup>4</sup> |
| Chromium  | 16.7   | 1.1   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Cobalt    | 7.1    | 5.7   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Copper    | 23.9   | 2.9   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Iron      | 20900  | 57    | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Lead      | 41.7   | 2.3   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Magnesium | 21600  | 570   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Manganese | 993    | 1.7   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Mercury   | 1.1    | 0.070 | mg/kg | 2  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>2</sup> | SW846 7471B <sup>5</sup> |
| Nickel    | 20.1   | 4.6   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Potassium | 2910   | 1100  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Selenium  | < 2.3  | 2.3   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Silver    | < 0.57 | 0.57  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Sodium    | < 1100 | 1100  | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Vanadium  | 26.5   | 5.7   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |
| Zinc      | 80.2   | 5.7   | mg/kg | 1  | 04/28/18 | 04/29/18    | GT SW846 6010C <sup>1</sup> | SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44304
- (2) Instrument QC Batch: MA44305
- (3) Instrument QC Batch: MA44308
- (4) Prep QC Batch: MP6862
- (5) Prep QC Batch: MP6890

RL = Reporting Limit

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              |                                |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | I220105.D | 1  | 05/11/18 17:49 | GA | 04/28/18 09:00 | n/a        | VI8852           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.3 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                                | Result | RL   | MDL  | Units | Q |
|------------|---|--------|------|------|-------|---|
| 67-64-1    | Acetone                                 | ND     | 11   | 6.7  | ug/kg |   |
| 71-43-2    | Benzene                                 | ND     | 0.53 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane                      | ND     | 5.3  | 0.46 | ug/kg |   |
| 75-27-4    | Bromodichloromethane                    | ND     | 2.1  | 0.26 | ug/kg |   |
| 75-25-2    | Bromoform                               | ND     | 5.3  | 0.33 | ug/kg |   |
| 74-83-9    | Bromomethane                            | ND     | 5.3  | 0.74 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)                        | ND     | 11   | 5.5  | ug/kg |   |
| 75-15-0    | Carbon disulfide                        | ND     | 2.1  | 0.64 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride                    | ND     | 2.1  | 0.68 | ug/kg |   |
| 108-90-7   | Chlorobenzene                           | ND     | 2.1  | 0.30 | ug/kg |   |
| 75-00-3    | Chloroethane                            | ND     | 5.3  | 0.95 | ug/kg |   |
| 67-66-3    | Chloroform                              | ND     | 2.1  | 0.34 | ug/kg |   |
| 74-87-3    | Chloromethane                           | ND     | 5.3  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                             | ND     | 2.1  | 0.36 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropan <sup>b</sup> | ND     | 2.1  | 0.71 | ug/kg |   |
| 124-48-1   | Dibromochloromethane                    | ND     | 2.1  | 0.40 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane                       | ND     | 1.1  | 0.26 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene                     | ND     | 1.1  | 0.54 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene                     | ND     | 1.1  | 0.30 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene                     | ND     | 1.1  | 0.50 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane                 | ND     | 5.3  | 0.64 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane                      | ND     | 1.1  | 0.27 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane                      | ND     | 1.1  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene                      | ND     | 1.1  | 0.74 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene                  | ND     | 1.1  | 0.42 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene                | ND     | 1.1  | 0.61 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane                     | ND     | 2.1  | 0.42 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene                 | ND     | 2.1  | 0.40 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene               | ND     | 2.1  | 0.25 | ug/kg |   |
| 100-41-4   | Ethylbenzene                            | ND     | 1.1  | 0.30 | ug/kg |   |
| 76-13-1    | Freon 113                               | ND     | 5.3  | 0.71 | ug/kg |   |
| 591-78-6   | 2-Hexanone                              | ND     | 5.3  | 2.9  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8260C SW846 5035                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**VOA TCL List**

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.3 | 2.7  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.1 | 0.57 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.1 | 0.45 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.3 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.3 | 2.6  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.1 | 0.52 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.1 | 0.27 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.1 | 0.67 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.1 | 0.58 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene <sup>b</sup> | ND     | 5.3 | 1.1  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene <sup>b</sup> | ND     | 5.3 | 1.1  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.1 | 0.61 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.1 | 0.44 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.1 | 0.58 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane              | ND     | 5.3 | 0.50 | ug/kg |   |
| 75-01-4   | Vinyl chloride                      | ND     | 2.1 | 0.80 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.1 | 0.58 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.1 | 0.26 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.1 | 0.26 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 109%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113%   |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 104%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%    |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.
- (b) Associated CCV and BS outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              |                                |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 2P79759.D | 1  | 05/21/18 23:10 | SA | 05/21/18 07:05 | OP12122    | E2P3514          |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                           | Result | RL  | MDL | Units | Q |
|-----------|------------------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                     | ND     | 73  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol           | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                 | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                 | ND     | 180 | 65  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                  | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol               | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                     | ND     | 73  | 23  | ug/kg |   |
|           | 3&4-Methylphenol                   | ND     | 73  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                      | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>b</sup>         | ND     | 370 | 98  | ug/kg |   |
| 87-86-5   | Pentachlorophenol                  | ND     | 150 | 34  | ug/kg |   |
| 108-95-2  | Phenol                             | ND     | 73  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol          | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol              | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol <sup>b</sup> | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                       | ND     | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                     | ND     | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone                       | ND     | 180 | 7.9 | ug/kg |   |
| 120-12-7  | Anthracene                         | ND     | 37  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                           | ND     | 73  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                 | 14.9   | 37  | 10  | ug/kg | J |
| 50-32-8   | Benzo(a)pyrene                     | ND     | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene               | 18.1   | 37  | 16  | ug/kg | J |
| 191-24-2  | Benzo(g,h,i)perylene               | ND     | 37  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene               | ND     | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether         | ND     | 73  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate             | ND     | 73  | 8.9 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                      | ND     | 73  | 5.0 | ug/kg |   |
| 100-52-7  | Benzaldehyde <sup>c</sup>          | ND     | 180 | 9.1 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                | ND     | 73  | 8.7 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                    | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                          | ND     | 73  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                 | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                              | ND     | 73  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                                 | 14.6   | 37  | 12  | ug/kg | J |
| 111-91-1  | bis(2-Chloroethoxy)methane               | ND     | 73  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                  | ND     | 73  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)             | ND     | 73  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether <sup>b</sup> | ND     | 73  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                       | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                       | ND     | 37  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                   | ND     | 73  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane <sup>b</sup>                 | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                   | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                             | ND     | 73  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                     | ND     | 73  | 6.0 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                     | ND     | 73  | 9.1 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                        | ND     | 73  | 7.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                       | ND     | 73  | 6.5 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate               | ND     | 73  | 8.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                             | 34.8   | 37  | 16  | ug/kg | J |
| 86-73-7   | Fluorene                                 | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                        | ND     | 73  | 9.3 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>b</sup>         | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>b</sup>   | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                         | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                   | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                               | ND     | 73  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                      | ND     | 37  | 8.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                           | ND     | 180 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                           | ND     | 180 | 9.2 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                           | ND     | 180 | 9.5 | ug/kg |   |
| 91-20-3   | Naphthalene                              | ND     | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                             | ND     | 73  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine               | ND     | 73  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                   | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                             | 13.0   | 37  | 12  | ug/kg | J |
| 129-00-0  | Pyrene                                   | 37.2   | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene               | ND     | 180 | 9.3 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 68%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 69%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 111%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 84%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 97%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 101%   |        | 36-134% |

- (a) Sample extracted outside the holding time per client's request.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Associated CCV outside of control limits low.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8151A SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | 3G116160.D | 1  | 04/30/18 21:32 | VDT | 04/30/18 18:45 | OP11638    | G3G4033          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.1 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 13   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.7  | 3.2  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.7  | 1.7  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.7  | 3.3  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.7  | 2.7  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 11   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 7.3  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1700 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1700 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 11   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 31%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 23%    |        | 10-159% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              |                                |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 1G145695.D | 1  | 04/30/18 02:42 | TL | 04/27/18 21:30 | OP11640    | G1G4633          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.74 | 0.61 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.74 | 0.60 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.74 | 0.67 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.74 | 0.71 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.74 | 0.54 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.74 | 0.60 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.74 | 0.33 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.74 | 0.51 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.74 | 0.68 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.74 | 0.65 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.74 | 0.65 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.74 | 0.57 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.74 | 0.58 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.74 | 0.42 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.74 | 0.43 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.74 | 0.46 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.74 | 0.64 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.74 | 0.52 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.59 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.74 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 81%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 63%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 135%   |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 69%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8082A SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | 2G162537.D | 1  | 04/29/18 03:36 | EAL | 04/27/18 21:30 | OP11639    | G2G4320          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.1 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 37 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 37 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 37 | 9.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 37 | 5.9 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 37 | 22  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 37 | 9.1 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 37 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 37 | 5.5 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 37 | 2.8 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 87%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 89%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 84%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 84%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------------------|---------|-------|-------|----|----------|-------------|--------|---|
| Aluminum              | 6150    | 56    | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Antimony              | < 2.3   | 2.3   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Arsenic               | 6.9     | 2.3   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Barium                | 151     | 23    | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Beryllium             | 0.46    | 0.23  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cadmium               | < 0.56  | 0.56  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Calcium               | 99000   | 2800  | mg/kg | 5  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Chromium              | 38.6    | 1.1   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cobalt                | 10.6    | 5.6   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Copper                | 15.9    | 2.8   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Iron                  | 18200   | 56    | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Lead                  | 12.5    | 2.3   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Magnesium             | 38800   | 560   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Manganese             | 1590    | 8.4   | mg/kg | 5  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Mercury               | < 0.034 | 0.034 | mg/kg | 1  | 05/14/18 | 05/14/18    | MS     | SW846 7471B <sup>1</sup> SW846 7471B <sup>5</sup> |
| Nickel                | 32.7    | 4.5   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Potassium             | 1970    | 1100  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Selenium              | < 2.3   | 2.3   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Silver                | < 0.56  | 0.56  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Sodium                | < 1100  | 1100  | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Thallium <sup>a</sup> | < 5.6   | 5.6   | mg/kg | 5  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Vanadium              | 31.7    | 5.6   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Zinc                  | 71.4    | 5.6   | mg/kg | 1  | 05/14/18 | 05/15/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44392
- (2) Instrument QC Batch: MA44406
- (3) Instrument QC Batch: MA44414
- (4) Prep QC Batch: MP7131
- (5) Prep QC Batch: MP7152

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

4.10  
4

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

4.10  
4

### General Chemistry

| Analyte              | Result | RL   | Units | DF | Analyzed       | By | Method             |
|----------------------|--------|------|-------|----|----------------|----|--------------------|
| Cyanide <sup>a</sup> | < 0.21 | 0.21 | mg/kg | 1  | 05/16/18 14:59 | BM | SW846 9012B/LACHAT |
| Solids, Percent      | 89.7   |      | %     | 1  | 04/27/18 14:50 | LV | SM2540 G-97        |

(a) Analysis done out of holding time.

---

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

# Parameter Certification Exceptions

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

The following parameters included in this report are exceptions to NELAC certification. The certification status of each is indicated below.

| Parameter                   | CAS#       | Method       | Mat | Certification Status                                  |
|-----------------------------|------------|--------------|-----|---|
| Sulfur                      | 7704-34-9  | SW846 6010C  | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| Percent Sulfur              |            | ASTM D129-95 | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| Sulfide, Neutral Extraction | 18496-25-8 | SW846 9034 M | SO  | SGS is not certified for this parameter. <sup>b</sup> |

- (a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.
- (b) Lab is certified for 9034 titration, but not for neutral extraction modification which is not on the standard list of certifiable methods. Its use for regulatory programs must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

5.1  
5



SO  
SUL  
SME

### CHAIN OF CUSTODY

SGS North America Inc. - Dayton  
2235 Route 130, Dayton, NJ 08810  
TEL. 732-329-0200 FAX 732-329-3499  
www.sgs.com/en/usa

FED-EX Tracking #  
Bottle Order/Project # **NJ-041318-147**  
SGS Quotes # **5C64996**  
SGS Job #

| Client Reporting Information  |                                 | Project Information                                   |                                       |   |                                   | Requested Analysis (see TEST CODE sheet)  |                                 |                                   |                   |                  |                                |      |        |       |           | Matrix Codes  |  |              |  |      |
|---|---------------------------------|---|---------------------------------------|---|-----------------------------------|---|---------------------------------|-----------------------------------|-------------------|------------------|--------------------------------|------|--------|-------|-----------|---|--|--------------|--|------|
| Company Name<br><b>Arcadis</b>  |                                 | Project Name<br><b>NYSEG - Newark Former MGP Site</b> |                                       |   |                                   | Total SUCS (TCL): 82700<br>X<br>X<br>X<br>X   |                                 |                                   |                   |                  |                                |      |        |       |           | DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED - Sediment<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WP - Wipes<br>FB - Field Blank<br>EB - Equipment Blank<br>RB - Rinse Blank<br>TB - Trip Blank |  |              |  |      |
| Street Address<br><b>295 Woodcliff Dr, Suite 501</b>  |                                 | Street<br><b>125 N. Main St.</b>                      |                                       | Billing Information (if different from Report to) |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| City, State, Zip<br><b>Fairport NY 14950</b>  |                                 | City, State<br><b>Newark NY</b>                       |                                       | Company Name                                      |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| Project Contact<br><b>Jason Golubski</b>  |                                 | Project #<br><b>80013094.0006</b>                     |                                       | Street Address                                    |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| Phone #<br><b>315-671-9437</b>  |                                 | Client Purchase Order #                               |                                       | City, State, Zip                                  |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| Sampler(s) Name(s)<br><b>Ryan Clark &amp; Jesse Jones</b>   |                                 | Project Manager<br><b>Jason Golubski</b>              |                                       | Attention:  |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| Lab Sample #  | Field ID / Point of Collection  | MECH/DI Viol #  | Collection                            |   |                                   | Matrix  | # of bottles                    | Number of preserved bottles       |                   |                  |                                |      |        |       |           |   |  | LAB USE ONLY |  |      |
|   |                                 |   | Date                                  | Time  | Sampled by                        |   |                                 | HCl                               | NiCl <sub>2</sub> | HNO <sub>3</sub> | H <sub>2</sub> SO <sub>4</sub> | NONE | DIVINE | MEDIA | ENCLOSURE |   |  |              |  |      |
| 1   | TR-101 (7-8)                    | -   | 4/24/18                               | 1500  | RDC                               | SO  | 1                               |                                   |                   |                  |                                |      |        |       |           |   |  |              |  | C14  |
| 2   | SB-102 (19-21)                  | -   | 4/24/18                               | 1635  | RDC                               | SO  | 1                               |                                   |                   |                  |                                |      |        |       |           |   |  |              |  | H273 |
| 3   | SB-107 (15-17)                  | -   | 4/24/18                               | 1705  | RDC                               | SO  | 1                               |                                   |                   |                  |                                |      |        |       |           |   |  |              |  | 1415 |
| 4   | SB-106 (17-20)                  | -   | 4/25/18                               | 1215  | JKS                               | SO  | 1                               |                                   |                   |                  |                                |      |        |       |           |   |  |              |  | 4973 |
| Turnaround Time (Business days)   |                                 | Approved by (SGS Project Manager)/Date:               |                                       |   |                                   | Data Deliverable Information  |                                 |                                   |                   |                  |                                |      |        |       |           | Comments / Special Instructions   |  |              |  |      |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other |                                 |   |                                       |   |                                   | <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms<br><input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format<br><input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other |                                 |                                   |                   |                  |                                |      |        |       |           | INITIAL ASSESSMENT <b>JLJB</b><br>LABEL VERIFICATION  |  |              |  |      |
| Emergency & Rush T/A data available via LabLink   |                                 | NJ Reduced = Results + QC Summary + Partial Raw data  |                                       |   |                                   | Sample inventory is verified upon receipt in the laboratory   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| Sample Custody must be documented below each time samples change possession, including courier delivery.  |                                 |   |                                       |   |                                   |   |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| 1 Relinquished by: <b>[Signature]</b>   | Date Time: <b>4/25/18 13:50</b> | 1 Received By: <b>[Signature]</b>                     | 2 Relinquished by: <b>[Signature]</b> | Date Time: <b>4/25/18 13:03</b>                   | 3 Received By: <b>[Signature]</b> | 4 Relinquished by: <b>[Signature]</b>   | Date Time: <b>4/25/18 10:20</b> | 5 Received By: <b>[Signature]</b> |                   |                  |                                |      |        |       |           |   |  |              |  |      |
| 2 Relinquished by: <b>[Signature]</b>   | Date Time: <b>4/25/18 13:03</b> | 3 Received By: <b>[Signature]</b>                     | 4 Relinquished by: <b>[Signature]</b> | Date Time: <b>4/25/18 13:03</b>                   | 5 Received By: <b>[Signature]</b> | <input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> On Ice    Cooler Temp.<br><input type="checkbox"/> Not intact  |                                 |                                   |                   |                  |                                |      |        |       |           |   |  |              |  |      |

5.2  
5

03.6 SP



SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusua

FED-EX Tracking #
Bottle Order Control #
SGS Quote #
SGS Job # JC64996

Client/Reporting Information, Project Information, Requested Analysis (see TEST CODE sheet), Matrix Codes, Lab Sample #, Field ID / Point of Collection, MEQ/HD/Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NO3-, NH4+, HPO4-, HPO3-, NO2-, NO3-, DI. Water, MESH, ENDORE.

Turnaround Time (Business days), Data Deliverable Information, Comments / Special Instructions, ESMI

Sample Custody must be documented below each time samples change possession, including courier delivery. Received By, Date Time, Received By, Date Time.

03.6 SD

5.2 5

SGS North America Inc. - Dayton  
 2235 Route 130, Dayton, NJ 08810  
 TEL. 732-329-0200 FAX 732-329-3499  
 www.sgs.com/ehsusua

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
 SGS Quote # \_\_\_\_\_ SGS Job # 5164996

| Client / Reporting Information  |                                | Project Information   |         |   |            |                                 |              | Requested Analytes (see TEST CODE sheet)   |                           |                           |                  |                |                       |                                 |         |   |   | Matrix Codes   |   |   |   |   |   |  |
|---|--------------------------------|---|---------|---|------------|---------------------------------|--------------|--|---------------------------|---------------------------|------------------|----------------|-----------------------|---------------------------------|---------|---|---|--|---|---|---|---|---|--|
| Company Name<br><b>Arcadis</b>  |                                | Project Name<br><b>NYSEG-Newark Former MGP Site</b>   |         |   |            |                                 |              | <p><i>Handwritten:</i> VOCs, SVOCs, PCBs, HCB, PAHs, Pesticides, SW-846, Metals, SW-846, Total PCBs, Total VOCs (TCL), Total SVOCs (TCL), Total Metals</p> |                           |                           |                  |                |                       |                                 |         |   |   | <p><b>Matrix Codes</b></p> <ul style="list-style-type: none"> <li>DW - Drinking Water</li> <li>GW - Ground Water</li> <li>WW - Water</li> <li>SW - Surface Water</li> <li>SO - Soil</li> <li>SL - Sludge</li> <li>SED - Sediment</li> <li>OI - Oil</li> <li>LIQ - Other Liquid</li> <li>AIR - Air</li> <li>SOL - Other Solid</li> <li>WIP - Wipe</li> <li>FB - Field Blank</li> <li>EB - Equipment Blank</li> <li>RB - Rinse Blank</li> <li>TB - Trip Blank</li> </ul> |   |   |   |   |   |  |
| Street Address<br><b>295 Woodcliff Dr. Ste 103</b>  |                                | Street<br><b>125 N. Main St.</b>  |         |   |            |                                 |              |  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| City, State, Zip<br><b>Fairfax NY 14750</b>   |                                | City, State, Zip<br><b>Newark NY</b>  |         |   |            |                                 |              |  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| Project Contact<br><b>Jason Golubski</b>  |                                | Project #<br><b>80013094.0006</b>   |         |   |            |                                 |              |  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| Phone #<br><b>315-671-9437</b>  |                                | Client Purchase Order #<br><b></b>  |         |   |            |                                 |              |  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| Sampler(s) Name(s)<br><b>Ryan Clane &amp; Jesse Jones</b>   |                                | Project Manager<br><b>Jason Golubski</b>  |         |   |            |                                 |              | Billing Information (if different from Report to)<br>Company Name<br><b></b>   | Street Address<br><b></b> | City<br><b></b>           | State<br><b></b> | Zip<br><b></b> | Attention:<br><b></b> | LAB USE ONLY                    |         |   |   |  |   |   |   |   |   |  |
| Lab Sample #  | Field ID / Point of Collection | MEOH/DI Val #   | Date    | Time  | Sampled by | Matrix                          | # of bottles | HCl  | NaOH                      | HNO3                      | H2SO4            | NONE           | DI Water              | MEOH                            | ENIGONE |   |   |  |   |   |   |   |   |  |
| 8   | TP-101(0-4)(8-10)              | -   | 4/24/18 | 1530  | RDC        | SO                              | 3            |  |                           |                           |                  |                |                       |                                 |         | X | X | X  | X | X | X | X | X |  |
| 9   | SB-102(0-13)                   | -   | 4/24/18 | 1700  | RDC        | SO                              | 2            |  |                           |                           |                  |                |                       |                                 |         | X | X | X  | X | X | X | X | X |  |
| 10  | SB-106(3-5)(11-15)             | -   | 4/24/18 | 1225  | JKT        | SO                              | 2            |  |                           |                           |                  |                |                       |                                 |         | X | X | X  | X | X | X | X | X |  |
| Turnaround Time (Business days)   |                                | Data Deliverable Information  |         |   |            |                                 |              | Comments / Special Instructions  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other _____ |                                | Approved by (SGS Project Manager)/Date: _____<br><input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms<br><input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format<br><input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____<br><input type="checkbox"/> NJ Data of Known Quality Protocol Reporting<br>Commercial "A" = Results Only;      Commercial "B" = Results + QC Summary<br>NJ Reduced = Results + QC Summary + Partial Raw data |         |   |            |                                 |              | <i>Seneca Meadows</i><br><br>Sample inventory is verified upon receipt in the Laboratory   |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| Emergency & Rush TIA data available via LabLink   |                                | Sample Custody must be documented below each time samples change possession, including courier delivery.  |         |   |            |                                 |              |  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |
| Relinquished By: <i>[Signature]</i>   |                                | Date Time: <b>4/25/18 13:50</b>   |         |   |            | Received By: <i>[Signature]</i> |              |  |                           | Date Time: <b>10:10</b>   |                  |                |                       | Received By: <i>[Signature]</i> |         |   |   |  |   |   |   |   |   |  |
| Relinquished By: <i>[Signature]</i>   |                                | Date Time: <b>4/24/18 1305</b>  |         |   |            | Received By: <i>[Signature]</i> |              |  |                           | Date Time: <b>4/24/18</b> |                  |                |                       | Received By: <i>[Signature]</i> |         |   |   |  |   |   |   |   |   |  |
| Relinquished By: <i>[Signature]</i>   |                                | Date Time: _____  |         |   |            | Received By: _____              |              |  |                           | Date Time: _____          |                  |                |                       | Received By: _____              |         |   |   |  |   |   |   |   |   |  |
| Custody Seals   |                                | Intact <input type="checkbox"/>   |         | Preserved where applicable <input type="checkbox"/> |            | On Ice <input type="checkbox"/> |              | Cooler Temp. <input type="checkbox"/>  |                           |                           |                  |                |                       |                                 |         |   |   |  |   |   |   |   |   |  |

*036 SD*

5.2 5



# SGS Sample Receipt Summary

**Job Number:** JC64996

**Client:** ARCADIS

**Project:** NYSEG - NEWARK FORMER MGP SITE, NEWA

**Date / Time Received:** 4/26/2018 1:03:00 PM

**Delivery Method:** Accutest Courier

**Airbill #s:** \_\_\_\_\_

**Cooler Temps (Raw Measured) °C:** Cooler 1: (3.6);

**Cooler Temps (Corrected) °C:** Cooler 1: (5.1);

| <u>Cooler Security</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |                       | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|---------------------------|-------------------------------------|-----------|--------------------------|-----------------------|-------------------------------------|-----------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

| <u>Cooler Temperature</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |           |                          |
| 3. Cooler media:             | Ice (Bag)                           |           |                          |
| 4. No. Coolers:              | 1                                   |           |                          |

| <u>Quality Control Preservation</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|-------------------------------------|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler:     | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Trip Blank listed on COC:        | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Samples preserved properly:      | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. VOCs headspace free:             | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

| <u>Sample Integrity - Documentation</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|---|-------------------------------------|-----------|--------------------------|
| 1. Sample labels present on bottles:    | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Container labeling complete:         | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Sample container label / COC agree:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

| <u>Sample Integrity - Condition</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|-------------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Sample recvd within HT:          | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. All containers accounted for:    | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Condition of sample:             | Intact                              |           |                          |

| <u>Sample Integrity - Instructions</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

|                    |                 |                |                        |
|--------------------|-----------------|----------------|------------------------|
| Test Strip Lot #s: | pH 1-12: 216017 | pH 12+: 208717 | Other: (Specify) _____ |
|--------------------|-----------------|----------------|------------------------|

Comments Soil volatiles was not collected according to 5035 specifications, VOA lab to prep from intact volume.

SM089-03  
Rev. Date 12/7/17

5.2  
5

Responded to by: CSR: N/A

Response Date: Response Date: 4/26/2018

Response:

Response: Proceed with analysis

**JC64996: Chain of Custody**  
**Page 5 of 8**

**Job Change Order: JC64996**

**Requested Date:** 5/11/2018      **Received Date:** 4/26/2018  
**Account Name:** Arcadis      **Due Date:** 5/10/2018  
**Project Description:** NYSEG - Newark Former MGP Site, Newark, NY      **Deliverable:** REDT2  
**C/O Initiated By:** DIANEK      **PM:** DK      **TAT (Days):** 8

=====  
**Sample #:** JC64996-7      **Change:**  
Take off HOLD and log in for  
V8260TCL20,AB8270TCL20,V8015GRO,B8015DRO,SULFUR, BTU,CN,  
HM8 ,Be, Ni, SB, TL, V,SOL104 -ok to run out of HOLD

=====  
**Dept:**      8  
**TAT:**      8  
SB-106 (17-21)

=====  
**Sample #:** JC64996-10      **Change:**  
Take off HOLD and log in for:  
V8260TCL20,AB8270TCL20,P8081PESTTCL,H8151FL,P8082PCB11,  
MTAL ,SOL104 -ok to run out of HOLD.

=====  
**Dept:**      8  
**TAT:**      8  
SB-106 (3-5) (11-15)

=====  
**Sample #:** JC64996-      **Change:**  
**Dept:**  
**TAT:**

**JC64996: Chain of Custody**  
**Page 6 of 8**

**Above Changes Per:** Jason Golubski      **Date/Time:** 5/11/2018 1:16:26 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.



**Job Change Order: JC64996**

**Requested Date:** 4/27/2018      **Received Date:** 4/26/2018  
**Account Name:** Arcadis      **Due Date:** 5/10/2018  
**Project Description:** NYSEG - Newark Former MGP Site, Newark, NY      **Deliverable:** REDT2  
**C/O Initiated By:** dianek      **PM:** DK      **TAT (Days):** 1

=====  
**Sample #:** JC64996-5      **Change:**  
Dept: Put sample on HOLD pending further instructions from client

**TAT:** 1  
TP-101 (4-8)

=====  
**Sample #:** JC64996-7      **Change:**  
Dept: Put sample on HOLD pending further instructions from client

**TAT:** 1  
SB-106 (17-21)

=====  
**Sample #:** JC64996-8      **Change:**  
Dept: Put sample on HOLD pending further instructions from client

**TAT:** 1  
TP-101 (0-4) (8-10)

=====  
**Sample #:** JC64996-10      **Change:**  
Dept: Put sample on HOLD pending further instructions from client

**TAT:** 1  
SB-106 (3-5) (11-15)

**Above Changes Per:** Jason Golubski      **Date/Time:** 4/27/2018 6:34:47 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.



**Job Change Order:** JC64996

**Requested Date:** 4/27/2018  
**Account Name:** Arcadis  
**Project Description:** NYSEG - Newark Former MGP Site, Newark, NY  
**C/O Initiated By:** dianek  
**PM:** DK  
**Received Date:** 4/26/2018  
**Due Date:** 5/10/2018  
**Deliverable:** REDT2  
**TAT (Days):** 1

**JC64996: Chain of Custody**  
**Page 8 of 8**

**Above Changes Per:** Jason Golubski  
**Date/Time:** 4/27/2018 6:34:47 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC64996

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number  | Method      | Analyzed        | By | Prepped   | By | Test Codes                                |
|--|-------------|-----------------|----|-----------|----|---|
| JC64996-1 Collected: 24-APR-18 15:00 By: RC Received: 26-APR-18 By: AS<br>TP-101 (7-8)   |             |                 |    |           |    |   |
| JC64996-1  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-1  | SW846 8270D | 09-MAY-18 07:51 | CS | 27-APR-18 | LL | AB8270TCL20                               |
| JC64996-2 Collected: 24-APR-18 16:35 By: RC Received: 26-APR-18 By: AS<br>SB-102 (19-21) |             |                 |    |           |    |   |
| JC64996-2  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-2  | SW846 8270D | 09-MAY-18 08:21 | CS | 27-APR-18 | LL | AB8270TCL20                               |
| JC64996-3 Collected: 24-APR-18 17:05 By: RC Received: 26-APR-18 By: AS<br>SB-107 (15-17) |             |                 |    |           |    |   |
| JC64996-3  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-3  | SW846 8270D | 09-MAY-18 09:49 | CS | 27-APR-18 | LL | AB8270TCL20                               |
| JC64996-4 Collected: 25-APR-18 12:15 By: JJ Received: 26-APR-18 By: AS<br>SB-106 (17-20) |             |                 |    |           |    |   |
| JC64996-4  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-4  | SW846 8270D | 09-MAY-18 10:19 | CS | 27-APR-18 | LL | AB8270TCL20                               |
| JC64996-4  | SW846 8270D | 09-MAY-18 22:17 | JB | 27-APR-18 | LL | AB8270TCL20                               |
| JC64996-5 Collected: 24-APR-18 15:15 By: RC Received: 26-APR-18 By: AS<br>TP-101 (4-8)   |             |                 |    |           |    |   |
| JC64996-5  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-6 Collected: 24-APR-18 16:45 By: RC Received: 26-APR-18 By: AS<br>SB-102 (17-21) |             |                 |    |           |    |   |
| JC64996-6  | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104                                    |
| JC64996-6  | SW846 8015C | 27-APR-18 23:35 | RK | 27-APR-18 | FN | B8015DRO                                  |
| JC64996-6  | SW846 6010C | 29-APR-18 13:21 | GT | 28-APR-18 | BP | AG,AS,BA,BE,CD,CR,NI,PB,SB,<br>SE,TL,V,ZN |
| JC64996-6  | SW846 8015C | 30-APR-18 11:02 | KC |           |    | V8015GRO                                  |
| JC64996-6  | SW846 7471B | 30-APR-18 12:48 | DP | 30-APR-18 | DP | HG  |
| JC64996-6  | SW846 8260C | 30-APR-18 17:24 | GA |           |    | V8260TCL20                                |

## Internal Sample Tracking Chronicle

Arcadis

**Job No:** JC64996

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

5.3  
5

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

|           |                    |                 |     |           |    |             |
|-----------|--------------------|-----------------|-----|-----------|----|-------------|
| JC64996-6 | SW846 9034 M       | 30-APR-18 17:55 | ST  | 30-APR-18 | ST | S           |
| JC64996-6 | SW846 9012B/LACHAT | 01-MAY-18 16:04 | TG  | 01-MAY-18 | RP | CN          |
| JC64996-6 | SW846 8082A        | 01-MAY-18 23:57 | TR  | 01-MAY-18 | FN | P8082PCB11  |
| JC64996-6 | SW846 6010C        | 07-MAY-18 19:08 | ND  | 07-MAY-18 | BP | SICP        |
| JC64996-6 | SW846 8270D        | 09-MAY-18 07:22 | CS  | 27-APR-18 | LL | AB8270TCL20 |
| JC64996-6 | ASTM D240-92       | 10-MAY-18 16:00 | JOO | 10-MAY-18 | HS | BTU         |

JC64996-7 Collected: 25-APR-18 12:20 By: JJ      Received: 26-APR-18 By: AS  
 SB-106 (17-21)

|           |                    |                 |     |           |     |   |
|-----------|--------------------|-----------------|-----|-----------|-----|---|
| JC64996-7 | SM2540 G-97        | 27-APR-18 14:50 | LV  |           |     | SOL104  |
| JC64996-7 | SW846 8015C        | 28-APR-18 00:08 | RK  | 27-APR-18 | SLM | B8015DRO                                      |
| JC64996-7 | SW846 8015C        | 30-APR-18 11:28 | KC  |           |     | V8015GRO                                      |
| JC64996-7 | SW846 8260C        | 11-MAY-18 18:18 | GA  |           |     | V8260TCL20                                    |
| JC64996-7 | SW846 7471B        | 14-MAY-18 13:34 | MS  | 14-MAY-18 | MS  | HG  |
| JC64996-7 | SW846 6010C        | 15-MAY-18 03:30 | ND  | 14-MAY-18 | RM  | AG, AS, BA, BE, CD, CR, NI, PB, SB, SE, TL, V |
| JC64996-7 | SW846 6010C        | 15-MAY-18 20:58 | ND  | 14-MAY-18 | RM  | ZN  |
| JC64996-7 | SW846 9012B/LACHAT | 16-MAY-18 14:58 | BM  | 14-MAY-18 | FO  | CN  |
| JC64996-7 | SW846 8082A        | 17-MAY-18 08:41 | RK  | 16-MAY-18 | LL  | P8082PCB11                                    |
| JC64996-7 | ASTM D129-95       | 18-MAY-18 14:00 | JOO | 18-MAY-18 | JOO | SULFUR  |
| JC64996-7 | ASTM D240-92       | 18-MAY-18 14:00 | JOO | 18-MAY-18 | JOO | BTU   |
| JC64996-7 | SW846 8270D        | 22-MAY-18 04:14 | SA  | 21-MAY-18 | AY  | AB8270TCL20                                   |
| JC64996-7 | SW846 8270D        | 22-MAY-18 14:12 | JB  | 21-MAY-18 | AY  | AB8270TCL20                                   |

JC64996-8 Collected: 24-APR-18 15:30 By: RC      Received: 26-APR-18 By: AS  
 TP-101 (0-4) (8-10)

|           |             |                 |    |  |  |        |
|-----------|-------------|-----------------|----|--|--|--------|
| JC64996-8 | SM2540 G-97 | 27-APR-18 14:50 | LV |  |  | SOL104 |
|-----------|-------------|-----------------|----|--|--|--------|

JC64996-9 Collected: 24-APR-18 17:00 By: RC      Received: 26-APR-18 By: AS  
 SB-102 (0-17)

|           |             |                 |    |           |    |  |
|-----------|-------------|-----------------|----|-----------|----|--|
| JC64996-9 | SM2540 G-97 | 27-APR-18 14:50 | LV |           |    | SOL104   |
| JC64996-9 | SW846 6010C | 29-APR-18 13:42 | GT | 28-APR-18 | BP | AG, AL, AS, BA, BE, CD, CO, CR, CU, FE, K, MG, MN, NA, NI, PB, SB, SE, TL, V, ZN |
| JC64996-9 | SW846 8081B | 30-APR-18 02:24 | TL | 27-APR-18 | LL | P8081PESTTCL   |
| JC64996-9 | SW846 7471B | 30-APR-18 13:50 | DP | 30-APR-18 | DP | HG   |
| JC64996-9 | SW846 6010C | 30-APR-18 16:55 | GT | 28-APR-18 | BP | CA   |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC64996

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

|           |             |                 |     |           |    |             |
|-----------|-------------|-----------------|-----|-----------|----|-------------|
| JC64996-9 | SW846 8151A | 30-APR-18 21:04 | VDT | 30-APR-18 | FN | H8151FL     |
| JC64996-9 | SW846 8260C | 02-MAY-18 10:17 | GA  |           |    | V8260TCL20  |
| JC64996-9 | SW846 8082A | 07-MAY-18 11:10 | TR  | 05-MAY-18 | NT | P8082PCB11  |
| JC64996-9 | SW846 8270D | 09-MAY-18 13:17 | CS  | 27-APR-18 | LL | AB8270TCL20 |
| JC64996-9 | SW846 8270D | 09-MAY-18 21:17 | JB  | 27-APR-18 | LL | AB8270TCL20 |

JC64996-10 Collected: 24-APR-18 12:25 By: JJ Received: 26-APR-18 By: AS  
 SB-106 (3-5) (11-15)

|            |                    |                 |     |           |    |  |
|------------|--------------------|-----------------|-----|-----------|----|--|
| JC64996-10 | SM2540 G-97        | 27-APR-18 14:50 | LV  |           |    | SOL104   |
| JC64996-10 | SW846 8082A        | 29-APR-18 03:36 | EAL | 27-APR-18 | LL | P8082PCB11AO   |
| JC64996-10 | SW846 8081B        | 30-APR-18 02:42 | TL  | 27-APR-18 | LL | P8081PESTTCL   |
| JC64996-10 | SW846 8151A        | 30-APR-18 21:32 | VDT | 30-APR-18 | FN | H8151FL  |
| JC64996-10 | SW846 8260C        | 11-MAY-18 17:49 | GA  |           |    | V8260TCL20   |
| JC64996-10 | SW846 7471B        | 14-MAY-18 13:36 | MS  | 14-MAY-18 | MS | HG   |
| JC64996-10 | SW846 6010C        | 15-MAY-18 03:34 | ND  | 14-MAY-18 | RM | AG,AL,AS,BA,BE,CD,CO,CR,CU,<br>FE,K,MG,NA,NI,PB,SB,SE,V,ZN |
| JC64996-10 | SW846 6010C        | 15-MAY-18 21:02 | ND  | 14-MAY-18 | RM | CA,MN,TL   |
| JC64996-10 | SW846 9012B/LACHAT | 16-MAY-18 14:59 | BM  | 14-MAY-18 | FO | CN   |
| JC64996-10 | SW846 8270D        | 21-MAY-18 23:10 | SA  | 21-MAY-18 | AY | AB8270TCL20  |



# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC64996-1.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| JC64996-1.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-1.1          | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage    |
| JC64996-1.1          | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage        |
| JC64996-1.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage    |
| JC64996-1.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage        |
| JC64996-1.1          | Secured Staging Area | Chatiah Canaday      | 04/27/18 21:13 | Retrieve from Storage    |
| JC64996-1.1          | Chatiah Canaday      | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-1.1.1        | Chatiah Canaday      | Organics Prep        | 04/27/18 21:14 | Extract from JC64996-1.1 |
| JC64996-1.1.1        | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-1.1 |
| JC64996-1.1.1        | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage        |
| JC64996-1.1.1        | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage    |
| JC64996-1.1.1        | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument       |
| JC64996-1.1.1        | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument   |
| JC64996-1.1.1        | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage        |
| JC64996-2.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| JC64996-2.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-2.1          | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage    |
| JC64996-2.1          | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage        |
| JC64996-2.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage    |
| JC64996-2.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage        |
| JC64996-2.1          | Secured Staging Area | Chatiah Canaday      | 04/27/18 21:13 | Retrieve from Storage    |
| JC64996-2.1          | Chatiah Canaday      | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-2.1.1        | Chatiah Canaday      | Organics Prep        | 04/27/18 21:14 | Extract from JC64996-2.1 |
| JC64996-2.1.1        | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-2.1 |
| JC64996-2.1.1        | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage        |
| JC64996-2.1.1        | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage    |
| JC64996-2.1.1        | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument       |
| JC64996-2.1.1        | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument   |
| JC64996-2.1.1        | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage        |
| JC64996-3.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| JC64996-3.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-3.1          | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage    |
| JC64996-3.1          | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage        |
| JC64996-3.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage    |
| JC64996-3.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage        |
| JC64996-3.1          | Secured Staging Area | Chatiah Canaday      | 04/27/18 21:13 | Retrieve from Storage    |
| JC64996-3.1          | Chatiah Canaday      | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-3.1.1        | Chatiah Canaday      | Organics Prep        | 04/27/18 21:14 | Extract from JC64996-3.1 |

# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC64996-3.1.1   | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-3.1 |
| JC64996-3.1.1   | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage        |
| JC64996-3.1.1   | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage    |
| JC64996-3.1.1   | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument       |
| JC64996-3.1.1   | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument   |
| JC64996-3.1.1   | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage        |
| JC64996-4.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| JC64996-4.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-4.1   | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage    |
| JC64996-4.1   | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage        |
| JC64996-4.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage    |
| JC64996-4.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage        |
| JC64996-4.1   | Secured Staging Area | Chatiyah Canaday     | 04/27/18 21:13 | Retrieve from Storage    |
| JC64996-4.1   | Chatiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-4.1.1   | Chatiyah Canaday     | Organics Prep        | 04/27/18 21:14 | Extract from JC64996-4.1 |
| JC64996-4.1.1   | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-4.1 |
| JC64996-4.1.1   | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage        |
| JC64996-4.1.1   | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage    |
| JC64996-4.1.1   | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument       |
| JC64996-4.1.1   | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument   |
| JC64996-4.1.1   | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage        |
| JC64996-5.1   | Secured Storage      | Christopher Hall     | 04/27/18 06:28 | Retrieve from Storage    |
| JC64996-5.1   | Christopher Hall     | Secured Staging Area | 04/27/18 06:28 | Return to Storage        |
| JC64996-5.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 08:40 | Retrieve from Storage    |
| JC64996-5.1   | Sauvelson Auguste    | Secured Staging Area | 04/27/18 10:00 | Return to Storage        |
| JC64996-5.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC64996-5.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-5.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 13:17 | Retrieve from Storage    |
| JC64996-5.1   | Sauvelson Auguste    | Secured Storage      | 04/27/18 13:18 | Return to Storage        |
| JC64996-5.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage    |
| JC64996-5.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage        |
| JC64996-5.1   | Secured Staging Area | Chatiyah Canaday     | 04/27/18 21:13 | Retrieve from Storage    |
| JC64996-5.1   | Chatiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-5.1   | Secured Storage      | Bhooma Patel         | 04/28/18 07:36 | Retrieve from Storage    |
| JC64996-5.1   | Bhooma Patel         | Secured Storage      | 04/28/18 12:15 | Return to Storage        |
| JC64996-5.1   | Secured Storage      | Sahara Feliciano     | 04/29/18 10:31 | Retrieve from Storage    |
| JC64996-5.1   | Sahara Feliciano     | Secured Staging Area | 04/29/18 10:31 | Return to Storage        |
| JC64996-5.1   | Secured Staging Area | Deval Patel          | 04/30/18 07:25 | Retrieve from Storage    |
| JC64996-5.1   | Deval Patel          | Radhika Mistry       | 04/30/18 09:30 | Custody Transfer         |
| JC64996-5.1   | Radhika Mistry       | Secured Storage      | 04/30/18 09:34 | Return to Storage        |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64996-5.1          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 22:10 | Retrieve from Storage      |
| JC64996-5.1          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 22:10 | Return to Storage          |
| JC64996-5.1          | Secured Staging Area | Meilly Arbelo            | 05/01/18 06:24 | Retrieve from Storage      |
| JC64996-5.1          | Meilly Arbelo        | Rebecca Gluckman         | 05/01/18 14:53 | Custody Transfer           |
| JC64996-5.1          | Rebecca Gluckman     | Secured Storage          | 05/01/18 15:58 | Return to Storage          |
| JC64996-5.1.1        | Sauvelson Auguste    | Hg Metals Digestion      | 04/27/18 08:40 | Digestate from JC64996-5.1 |
| JC64996-5.1.2        | Sauvelson Auguste    | Organics Prep            | 04/27/18 13:17 | Extract from JC64996-5.1   |
| JC64996-5.1.2        | Organics Prep        | Sauvelson Auguste        | 04/27/18 13:17 | Extract from JC64996-5.1   |
| JC64996-5.1.2        | Sauvelson Auguste    | Extract Storage          | 04/27/18 13:17 | Return to Storage          |
| JC64996-5.1.2        | Extract Storage      | Rebecca Krug             | 04/27/18 15:10 | Retrieve from Storage      |
| JC64996-5.1.2        | Rebecca Krug         | GCZZ                     | 04/27/18 15:10 | Load on Instrument         |
| JC64996-5.1.3        | Chatihyah Canaday    | Organics Prep            | 04/27/18 21:14 | Extract from JC64996-5.1   |
| JC64996-5.1.3        | Organics Prep        | Lindsey Lee              | 04/28/18 10:30 | Extract from JC64996-5.1   |
| JC64996-5.1.3        | Lindsey Lee          | Extract Storage          | 04/28/18 10:30 | Return to Storage          |
| JC64996-5.1.3        | Extract Storage      | Christopher Sowa         | 05/09/18 04:04 | Retrieve from Storage      |
| JC64996-5.1.3        | Christopher Sowa     | GCMSM                    | 05/09/18 04:04 | Load on Instrument         |
| JC64996-5.1.3        | GCMSM                | John Boudreau            | 05/09/18 16:55 | Unload from Instrument     |
| JC64996-5.1.3        | John Boudreau        | Extract Freezer          | 05/09/18 16:55 | Return to Storage          |
| JC64996-5.1.4        | Bhooma Patel         | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-5.1 |
| JC64996-5.1.4        | Metals Digestion     | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-5.1 |
| JC64996-5.1.4        | Bhooma Patel         | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage          |
| JC64996-5.1.5        | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC64996-5.1   |
| JC64996-5.1.5        | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC64996-5.1   |
| JC64996-5.1.5        | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC64996-5.1.5        | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC64996-5.1.5        | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC64996-5.1.5        | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC64996-5.1.5        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC64996-5.2          | Secured Storage      | Krizhka Cuenta           | 04/27/18 12:31 | Retrieve from Storage      |
| JC64996-5.2          | Krizhka Cuenta       | Secured Storage          | 04/27/18 12:36 | Return to Storage          |
| JC64996-5.3          | Secured Storage      | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage      |
| JC64996-5.3          | Harrison Tsai        | Secured Storage          | 04/28/18 09:32 | Return to Storage          |
| JC64996-5.4          | Secured Storage      | Krizhka Cuenta           | 04/30/18 10:01 | Retrieve from Storage      |
| JC64996-5.4          | Krizhka Cuenta       | Secured Storage          | 04/30/18 16:55 | Return to Storage          |
| JC64996-6.1          | Secured Storage      | Christopher Hall         | 04/27/18 06:28 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                |
|---|----------------------|----------------------|----------------|-----------------------|
| JC64996-6.1   | Christopher Hall     | Secured Staging Area | 04/27/18 06:28 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 08:40 | Retrieve from Storage |
| JC64996-6.1   | Sauvelson Auguste    | Secured Staging Area | 04/27/18 10:00 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC64996-6.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 13:17 | Retrieve from Storage |
| JC64996-6.1   | Sauvelson Auguste    | Secured Storage      | 04/27/18 13:18 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage |
| JC64996-6.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Chadiyah Canaday     | 04/27/18 21:13 | Retrieve from Storage |
| JC64996-6.1   | Chadiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Bhooma Patel         | 04/28/18 07:36 | Retrieve from Storage |
| JC64996-6.1   | Bhooma Patel         | Secured Storage      | 04/28/18 12:15 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Sahara Feliciano     | 04/29/18 10:31 | Retrieve from Storage |
| JC64996-6.1   | Sahara Feliciano     | Secured Staging Area | 04/29/18 10:31 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Deval Patel          | 04/30/18 07:25 | Retrieve from Storage |
| JC64996-6.1   | Deval Patel          | Radhika Mistry       | 04/30/18 09:30 | Custody Transfer      |
| JC64996-6.1   | Radhika Mistry       | Secured Storage      | 04/30/18 09:34 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Todd Shoemaker       | 04/30/18 13:20 | Retrieve from Storage |
| JC64996-6.1   | Todd Shoemaker       | Sarvadaman Tripathi  | 04/30/18 13:20 | Custody Transfer      |
| JC64996-6.1   | Sarvadaman Tripathi  | Secured Storage      | 04/30/18 18:33 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Jennifer Voitovitch  | 04/30/18 21:44 | Retrieve from Storage |
| JC64996-6.1   | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 21:44 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC64996-6.1   | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage |
| JC64996-6.1   | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer      |
| JC64996-6.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage |
| JC64996-6.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC64996-6.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage |
| JC64996-6.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage |
| JC64996-6.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage |
| JC64996-6.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage     |
| JC64996-6.1   | Secured Storage      | Dwayne Johnson       | 05/10/18 08:50 | Retrieve from Storage |
| JC64996-6.1   | Dwayne Johnson       | Secured Staging Area | 05/10/18 08:50 | Return to Storage     |
| JC64996-6.1   | Secured Staging Area | Jared O. Onindo      | 05/10/18 10:01 | Retrieve from Storage |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM      | Transfer TO              | Date/Time      | Reason                     |
|----------------------|--------------------|--------------------------|----------------|----------------------------|
| JC64996-6.1          | Jared O. Onindo    | Secured Storage          | 05/10/18 20:37 | Return to Storage          |
| JC64996-6.1          | Secured Storage    | Andrew Csimbok           | 05/11/18 08:48 | Retrieve from Storage      |
| JC64996-6.1          | Andrew Csimbok     | Secured Storage          | 05/11/18 17:12 | Return to Storage          |
| JC64996-6.1.1        | Sauvelson Auguste  | Hg Metals Digestion      | 04/27/18 08:40 | Digestate from JC64996-6.1 |
| JC64996-6.1.2        | Sauvelson Auguste  | Organics Prep            | 04/27/18 13:17 | Extract from JC64996-6.1   |
| JC64996-6.1.2        | Organics Prep      | Sauvelson Auguste        | 04/27/18 13:17 | Extract from JC64996-6.1   |
| JC64996-6.1.2        | Sauvelson Auguste  | Extract Storage          | 04/27/18 13:17 | Return to Storage          |
| JC64996-6.1.2        | Extract Storage    | Rebecca Krug             | 04/27/18 15:10 | Retrieve from Storage      |
| JC64996-6.1.2        | Rebecca Krug       | GCZZ                     | 04/27/18 15:10 | Load on Instrument         |
| JC64996-6.1.3        | Chatihyah Canaday  | Organics Prep            | 04/27/18 21:14 | Extract from JC64996-6.1   |
| JC64996-6.1.3        | Organics Prep      | Lindsey Lee              | 04/28/18 10:30 | Extract from JC64996-6.1   |
| JC64996-6.1.3        | Lindsey Lee        | Extract Storage          | 04/28/18 10:30 | Return to Storage          |
| JC64996-6.1.3        | Extract Storage    | Christopher Sowa         | 05/09/18 04:04 | Retrieve from Storage      |
| JC64996-6.1.3        | Christopher Sowa   | GCMSM                    | 05/09/18 04:04 | Load on Instrument         |
| JC64996-6.1.3        | GCMSM              | John Boudreau            | 05/09/18 16:55 | Unload from Instrument     |
| JC64996-6.1.3        | John Boudreau      | Extract Freezer          | 05/09/18 16:55 | Return to Storage          |
| JC64996-6.1.4        | Bhooma Patel       | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-6.1 |
| JC64996-6.1.4        | Metals Digestion   | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-6.1 |
| JC64996-6.1.4        | Bhooma Patel       | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage          |
| JC64996-6.1.5        | Meilly Arbelo      | Organics Prep            | 05/01/18 06:36 | Extract from JC64996-6.1   |
| JC64996-6.1.5        | Organics Prep      | Finley Nyaata            | 05/01/18 16:04 | Extract from JC64996-6.1   |
| JC64996-6.1.5        | Finley Nyaata      | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC64996-6.1.5        | Extract Storage    | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC64996-6.1.5        | Tianwei Ruan       | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC64996-6.1.5        | GCXX               | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC64996-6.1.5        | Edouard Adrian Lee | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC64996-6.1.6        | Meilly Arbelo      | Rinku Patel              | 05/01/18 09:06 | Aliquot from JC64996-6.1   |
| JC64996-6.1.6        | Rinku Patel        |                          | 05/01/18 16:17 | Disposed                   |
| JC64996-6.1.7        | Bhooma Patel       | Metals Digestion         | 05/07/18 09:30 | Digestate from JC64996-6.1 |
| JC64996-6.1.7        | Metals Digestion   | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC64996-6.1 |
| JC64996-6.1.7        | Bhooma Patel       | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC64996-6.2          | Secured Storage    | Krizhka Cuenta           | 04/27/18 12:31 | Retrieve from Storage      |
| JC64996-6.2          | Krizhka Cuenta     | Secured Storage          | 04/27/18 12:36 | Return to Storage          |
| JC64996-6.3          | Secured Storage    | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage      |
| JC64996-6.3          | Harrison Tsai      | Secured Storage          | 04/28/18 09:32 | Return to Storage          |

# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                |
|---|----------------------|----------------------|----------------|-----------------------|
| JC64996-6.4   | Secured Storage      | Krizhka Cuenta       | 04/30/18 10:01 | Retrieve from Storage |
| JC64996-6.4   | Krizhka Cuenta       | Secured Storage      | 04/30/18 16:55 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Christopher Hall     | 04/27/18 06:28 | Retrieve from Storage |
| JC64996-7.1   | Christopher Hall     | Secured Staging Area | 04/27/18 06:28 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 08:40 | Retrieve from Storage |
| JC64996-7.1   | Sauvelson Auguste    | Secured Staging Area | 04/27/18 10:00 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC64996-7.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Sauvelson Auguste    | 04/27/18 13:17 | Retrieve from Storage |
| JC64996-7.1   | Sauvelson Auguste    | Secured Storage      | 04/27/18 13:18 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Sahara Feliciano     | 04/27/18 20:00 | Retrieve from Storage |
| JC64996-7.1   | Sahara Feliciano     | Secured Staging Area | 04/27/18 20:00 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Chadiyah Canaday     | 04/27/18 21:13 | Retrieve from Storage |
| JC64996-7.1   | Chadiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Bhooma Patel         | 04/28/18 07:36 | Retrieve from Storage |
| JC64996-7.1   | Bhooma Patel         | Secured Storage      | 04/28/18 12:15 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Sahara Feliciano     | 04/29/18 10:31 | Retrieve from Storage |
| JC64996-7.1   | Sahara Feliciano     | Secured Staging Area | 04/29/18 10:31 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Deval Patel          | 04/30/18 07:25 | Retrieve from Storage |
| JC64996-7.1   | Deval Patel          | Radhika Mistry       | 04/30/18 09:30 | Custody Transfer      |
| JC64996-7.1   | Radhika Mistry       | Secured Storage      | 04/30/18 09:34 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage |
| JC64996-7.1   | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage |
| JC64996-7.1   | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer      |
| JC64996-7.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Sahara Feliciano     | 05/13/18 10:39 | Retrieve from Storage |
| JC64996-7.1   | Sahara Feliciano     | Secured Staging Area | 05/13/18 10:39 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Sauvelson Auguste    | 05/14/18 04:41 | Retrieve from Storage |
| JC64996-7.1   | Sauvelson Auguste    | Secured Storage      | 05/14/18 11:01 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Dave Hunkele         | 05/15/18 13:32 | Retrieve from Storage |
| JC64996-7.1   | Dave Hunkele         | Secured Staging Area | 05/15/18 13:33 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Lindsey Lee          | 05/15/18 14:55 | Retrieve from Storage |
| JC64996-7.1   | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC64996-7.1   | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Chadiyah Canaday     | 05/16/18 12:42 | Retrieve from Storage |
| JC64996-7.1   | Chadiyah Canaday     | Secured Storage      | 05/16/18 19:45 | Return to Storage     |
| JC64996-7.1   | Secured Storage      | Sahara Feliciano     | 05/17/18 16:05 | Retrieve from Storage |
| JC64996-7.1   | Sahara Feliciano     | Secured Staging Area | 05/17/18 16:05 | Return to Storage     |
| JC64996-7.1   | Secured Staging Area | Hans Seignon         | 05/17/18 16:53 | Retrieve from Storage |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC64996-7.1   | Hans Seignon         | Secured Storage          | 05/17/18 23:09 | Return to Storage          |
| JC64996-7.1   | Secured Storage      | Meghan Hand              | 05/21/18 05:29 | Retrieve from Storage      |
| JC64996-7.1   | Meghan Hand          | Secured Staging Area     | 05/21/18 05:30 | Return to Storage          |
| JC64996-7.1   | Meghan Hand          | Secured Staging Area     | 05/21/18 05:30 | Return to Storage          |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |
| JC64996-7.1   | Secured Staging Area | Sauvelson Auguste        | 05/21/18 06:15 | Retrieve from Storage      |
| JC64996-7.1   | Sauvelson Auguste    | Secured Storage          | 05/21/18 11:32 | Return to Storage          |
| JC64996-7.1.1   | Sauvelson Auguste    | Hg Metals Digestion      | 04/27/18 08:40 | Digestate from JC64996-7.1 |
| JC64996-7.1.2   | Sauvelson Auguste    | Organics Prep            | 04/27/18 13:17 | Extract from JC64996-7.1   |
| JC64996-7.1.2   | Organics Prep        | Sauvelson Auguste        | 04/27/18 13:17 | Extract from JC64996-7.1   |
| JC64996-7.1.2   | Sauvelson Auguste    | Extract Storage          | 04/27/18 13:17 | Return to Storage          |
| JC64996-7.1.2   | Extract Storage      | Rebecca Krug             | 04/27/18 15:10 | Retrieve from Storage      |
| JC64996-7.1.2   | Rebecca Krug         | GCZZ                     | 04/27/18 15:10 | Load on Instrument         |
| JC64996-7.1.3   | Chatiyah Canaday     | Organics Prep            | 04/27/18 21:14 | Extract from JC64996-7.1   |
| JC64996-7.1.3   | Organics Prep        | Lindsey Lee              | 04/28/18 10:30 | Extract from JC64996-7.1   |
| JC64996-7.1.3   | Lindsey Lee          | Extract Storage          | 04/28/18 10:30 | Return to Storage          |
| JC64996-7.1.3   | Extract Storage      | Christopher Sowa         | 05/09/18 04:04 | Retrieve from Storage      |
| JC64996-7.1.3   | Christopher Sowa     | GCMSM                    | 05/09/18 04:04 | Load on Instrument         |
| JC64996-7.1.3   | GCMSM                | John Boudreau            | 05/09/18 16:55 | Unload from Instrument     |
| JC64996-7.1.3   | John Boudreau        | Extract Freezer          | 05/09/18 16:55 | Return to Storage          |
| JC64996-7.1.4   | Bhooma Patel         | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-7.1 |
| JC64996-7.1.4   | Metals Digestion     | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-7.1 |
| JC64996-7.1.4   | Bhooma Patel         | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage          |
| JC64996-7.1.5   | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC64996-7.1   |
| JC64996-7.1.5   | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC64996-7.1   |
| JC64996-7.1.5   | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC64996-7.1.5   | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC64996-7.1.5   | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC64996-7.1.5   | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC64996-7.1.5   | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC64996-7.1.6   | Sauvelson Auguste    | Organics Prep            | 05/14/18 04:46 | Extract from JC64996-7.1   |
| JC64996-7.1.6   | Organics Prep        | Finley Nyaata            | 05/14/18 12:14 | Extract from JC64996-7.1   |
| JC64996-7.1.6   | Finley Nyaata        | Extract Storage          | 05/14/18 12:14 | Return to Storage          |
| JC64996-7.1.6   | Extract Storage      | George Sleem             | 05/15/18 02:41 | Retrieve from Storage      |
| JC64996-7.1.6   | George Sleem         | GCMS2M                   | 05/15/18 02:41 | Load on Instrument         |
| JC64996-7.1.6   | GCMS2M               | John Boudreau            | 05/15/18 16:35 | Unload from Instrument     |
| JC64996-7.1.6   | John Boudreau        | Extract Freezer          | 05/15/18 16:36 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM      | Transfer TO              | Date/Time      | Reason                       |
|----------------------|--------------------|--------------------------|----------------|------------------------------|
| JC64996-7.1.7        | Sauvelson Auguste  | Radhika Mistry           | 05/14/18 08:50 | Aliquot from JC64996-7.1     |
| JC64996-7.1.7        | Radhika Mistry     | Martin Serwatka          | 05/14/18 09:59 | Custody Transfer             |
| JC64996-7.1.7        | Martin Serwatka    |                          | 05/14/18 11:18 | Disposed                     |
| JC64996-7.1.8        | Radhika Mistry     | Metals Digestion         | 05/14/18 09:43 | Digestate from JC64996-7.1.7 |
| JC64996-7.1.8        | Metals Digestion   | Radhika Mistry           | 05/14/18 09:43 | Digestate from JC64996-7.1.7 |
| JC64996-7.1.8        | Radhika Mistry     | Metals Digestate Storage | 05/14/18 09:43 | Return to Storage            |
| JC64996-7.1.9        | Lindsey Lee        | Organics Prep            | 05/15/18 15:00 | Extract from JC64996-7.1     |
| JC64996-7.1.9        | Organics Prep      | Lindsey Lee              | 05/15/18 21:20 | Extract from JC64996-7.1     |
| JC64996-7.1.9        | Lindsey Lee        | Extract Storage          | 05/15/18 21:20 | Return to Storage            |
| JC64996-7.1.9        | Extract Storage    | Rebecca Krug             | 05/16/18 12:09 | Retrieve from Storage        |
| JC64996-7.1.9        | Rebecca Krug       | GCZZ                     | 05/16/18 12:09 | Load on Instrument           |
| JC64996-7.1.10       | Chatiyah Canaday   | Organics Prep            | 05/16/18 12:49 | Extract from JC64996-7.1     |
| JC64996-7.1.10       | Organics Prep      | Lindsey Lee              | 05/16/18 21:17 | Extract from JC64996-7.1     |
| JC64996-7.1.10       | Lindsey Lee        | Extract Storage          | 05/16/18 21:17 | Return to Storage            |
| JC64996-7.1.10       | Extract Storage    | Christine Phillips       | 05/17/18 02:40 | Retrieve from Storage        |
| JC64996-7.1.10       | Christine Phillips | GC5G                     | 05/17/18 02:40 | Load on Instrument           |
| JC64996-7.1.11       | Sauvelson Auguste  | Organics Prep            | 05/21/18 06:18 | Extract from JC64996-7.1     |
| JC64996-7.1.11       | Organics Prep      | Finley Nyaata            | 05/21/18 14:15 | Extract from JC64996-7.1     |
| JC64996-7.1.11       | Finley Nyaata      | Extract Storage          | 05/21/18 14:15 | Return to Storage            |
| JC64996-7.1.11       | Extract Storage    | Sufiyanu Ahmed           | 05/21/18 22:22 | Retrieve from Storage        |
| JC64996-7.1.11       | Sufiyanu Ahmed     | GCMS2P                   | 05/21/18 22:22 | Load on Instrument           |
| JC64996-7.1.11       | GCMS2P             | John Boudreau            | 05/22/18 16:13 | Unload from Instrument       |
| JC64996-7.1.11       | John Boudreau      | Extract Freezer          | 05/22/18 16:13 | Return to Storage            |
| JC64996-7.2          | Secured Storage    | Krizhka Cuenta           | 04/27/18 12:31 | Retrieve from Storage        |
| JC64996-7.2          | Krizhka Cuenta     | Secured Storage          | 04/27/18 12:36 | Return to Storage            |
| JC64996-7.2          | Secured Storage    | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage        |
| JC64996-7.2          | Harrison Tsai      | Secured Storage          | 04/28/18 09:32 | Return to Storage            |
| JC64996-7.4          | Secured Storage    | Krizhka Cuenta           | 04/30/18 10:01 | Retrieve from Storage        |
| JC64996-7.4          | Krizhka Cuenta     | Secured Storage          | 04/30/18 16:55 | Return to Storage            |
| JC64996-7.6          | Secured Storage    | Bridget Kelly            | 05/11/18 15:59 | Retrieve from Storage        |
| JC64996-7.6          | Bridget Kelly      | GCMSI                    | 05/11/18 15:59 | Load on Instrument           |
| JC64996-7.6          | GCMSI              | Gabriela Alvarez         | 05/15/18 09:52 | Unload from Instrument       |
| JC64996-7.6          | Gabriela Alvarez   |                          | 05/15/18 09:53 | Depleted                     |
| JC64996-7.7          | Secured Storage    | Prashant Shukla          | 05/12/18 15:07 | Retrieve from Storage        |
| JC64996-7.7          | Prashant Shukla    | GCMSY                    | 05/12/18 15:07 | Load on Instrument           |
| JC64996-7.7          | GCMSY              | Prashant Shukla          | 05/14/18 10:14 | Unload from Instrument       |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC64996-7.7          | Prashant Shukla      |                      | 05/14/18 10:14 | Depleted                 |
| JC64996-8.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage    |
| JC64996-8.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage        |
| JC64996-8.1          | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage    |
| JC64996-8.1          | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage        |
| JC64996-8.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 17:03 | Retrieve from Storage    |
| JC64996-8.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 17:03 | Return to Storage        |
| JC64996-8.1          | Secured Staging Area | Chadiyah Canaday     | 04/27/18 19:41 | Retrieve from Storage    |
| JC64996-8.1          | Chadiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage        |
| JC64996-8.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 10:31 | Retrieve from Storage    |
| JC64996-8.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 10:31 | Return to Storage        |
| JC64996-8.1          | Secured Staging Area | Deval Patel          | 04/30/18 07:25 | Retrieve from Storage    |
| JC64996-8.1          | Deval Patel          | Radhika Mistry       | 04/30/18 09:30 | Custody Transfer         |
| JC64996-8.1          | Radhika Mistry       | Secured Storage      | 04/30/18 09:34 | Return to Storage        |
| JC64996-8.1.1        | Chadiyah Canaday     | Organics Prep        | 04/27/18 19:46 | Extract from JC64996-8.1 |
| JC64996-8.1.1        | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-8.1 |
| JC64996-8.1.1        | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage        |
| JC64996-8.1.1        | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage    |
| JC64996-8.1.1        | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument       |
| JC64996-8.1.1        | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument   |
| JC64996-8.1.1        | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage        |
| JC64996-8.1.2        | Chadiyah Canaday     | Organics Prep        | 04/27/18 19:48 | Extract from JC64996-8.1 |
| JC64996-8.1.2        | Organics Prep        | Lindsey Lee          | 04/28/18 10:31 | Extract from JC64996-8.1 |
| JC64996-8.1.2        | Lindsey Lee          | Extract Storage      | 04/28/18 10:31 | Return to Storage        |
| JC64996-8.1.2        | Extract Storage      | Edouard Adrian Lee   | 04/28/18 20:30 | Retrieve from Storage    |
| JC64996-8.1.2        | Edouard Adrian Lee   | GC2G                 | 04/28/18 20:30 | Load on Instrument       |
| JC64996-8.1.2        | GC2G                 | Tianwei Ruan         | 05/01/18 10:41 | Unload from Instrument   |
| JC64996-8.1.2        | Tianwei Ruan         | Extract Freezer      | 05/01/18 10:41 | Return to Storage        |
| JC64996-8.1.3        | Chadiyah Canaday     | Organics Prep        | 04/27/18 19:49 | Extract from JC64996-8.1 |
| JC64996-8.1.3        | Organics Prep        | Lindsey Lee          | 04/28/18 10:32 | Extract from JC64996-8.1 |
| JC64996-8.1.3        | Lindsey Lee          | Extract Storage      | 04/28/18 10:32 | Return to Storage        |
| JC64996-8.1.3        | Extract Storage      | Christine Phillips   | 04/29/18 23:43 | Retrieve from Storage    |
| JC64996-8.1.3        | Christine Phillips   | GC1G                 | 04/29/18 23:43 | Load on Instrument       |
| JC64996-8.2          | Secured Storage      | Brian Miller         | 04/27/18 04:27 | Retrieve from Storage    |
| JC64996-8.2          | Brian Miller         | Ashav Desai          | 04/27/18 10:28 | Custody Transfer         |
| JC64996-8.2          | Ashav Desai          | Secured Storage      | 04/27/18 15:31 | Return to Storage        |
| JC64996-8.2          | Secured Storage      | Bhooma Patel         | 04/28/18 07:36 | Retrieve from Storage    |
| JC64996-8.2          | Bhooma Patel         | Secured Storage      | 04/28/18 12:15 | Return to Storage        |
| JC64996-8.2          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64996-8.2          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 08:43 | Return to Storage          |
| JC64996-8.2          | Secured Staging Area | Sauvelson Auguste        | 04/30/18 04:36 | Retrieve from Storage      |
| JC64996-8.2          | Sauvelson Auguste    | Secured Storage          | 04/30/18 11:54 | Return to Storage          |
| JC64996-8.2.1        | Brian Miller         | TCLP                     | 04/27/18 04:27 | Leachate from JC64996-8.2  |
| JC64996-8.2.1        | TCLP                 | Robert Bandstra          | 04/28/18 08:18 | Leachate from JC64996-8.2  |
| JC64996-8.2.1        | Robert Bandstra      | Secured Storage          | 04/28/18 08:18 | Return to Storage          |
| JC64996-8.2.2        | Brian Miller         | TCLP                     | 04/27/18 04:27 | Leachate from JC64996-8.2  |
| JC64996-8.2.2        | TCLP                 | Robert Bandstra          | 04/28/18 13:13 | Leachate from JC64996-8.2  |
| JC64996-8.2.2        | Robert Bandstra      | Secured Storage          | 04/28/18 13:14 | Return to Storage          |
| JC64996-8.2.2        | Secured Storage      | Jessica Potts            | 04/30/18 09:14 | Retrieve from Storage      |
| JC64996-8.2.2        | Jessica Potts        | GCMS2V                   | 04/30/18 09:14 | Load on Instrument         |
| JC64996-8.2.2        | GCMS2V               | Jessica Potts            | 05/01/18 07:39 | Unload from Instrument     |
| JC64996-8.2.2        | Jessica Potts        | Secured Storage          | 05/01/18 07:39 | Return to Storage          |
| JC64996-8.2.3        | Ashav Desai          | TCLP                     | 04/27/18 15:30 | Leachate from JC64996-8.2  |
| JC64996-8.2.3        | TCLP                 | Robert Bandstra          | 05/05/18 11:13 | Leachate from JC64996-8.2  |
| JC64996-8.2.3        | Robert Bandstra      |                          | 05/05/18 11:13 | Deleted                    |
| JC64996-8.2.4        | TCLP                 | Robert Bandstra          | 04/28/18 08:18 | Leachate from JC64996-8.2  |
| JC64996-8.2.4        | Robert Bandstra      | Secured Storage          | 04/28/18 08:18 | Return to Storage          |
| JC64996-8.2.5        | Bhooma Patel         | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-8.2 |
| JC64996-8.2.5        | Metals Digestion     | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-8.2 |
| JC64996-8.2.5        | Bhooma Patel         | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage          |
| JC64996-8.2.6        | TCLP                 | Robert Bandstra          | 04/28/18 13:13 | Leachate from JC64996-8.2  |
| JC64996-8.2.6        | Robert Bandstra      | Secured Storage          | 04/28/18 13:14 | Return to Storage          |
| JC64996-8.2.7        | Sauvelson Auguste    | Organics Prep            | 04/30/18 04:37 | Extract from JC64996-8.2   |
| JC64996-8.2.7        | Organics Prep        | Finley Nyaata            | 04/30/18 11:45 | Extract from JC64996-8.2   |
| JC64996-8.2.7        | Finley Nyaata        | Extract Storage          | 04/30/18 11:45 | Return to Storage          |
| JC64996-8.2.7        | Extract Storage      | Vincent Drago            | 04/30/18 16:38 | Retrieve from Storage      |
| JC64996-8.2.7        | Vincent Drago        | GC3G                     | 04/30/18 16:38 | Load on Instrument         |
| JC64996-8.2.7        | GC3G                 | Vincent Drago            | 05/02/18 10:05 | Unload from Instrument     |
| JC64996-8.2.7        | Vincent Drago        | Extract Freezer          | 05/02/18 10:05 | Return to Storage          |
| JC64996-8.3          | Secured Storage      | Brian Miller             | 04/27/18 04:27 | Retrieve from Storage      |
| JC64996-8.3          | Brian Miller         | Ashav Desai              | 04/27/18 10:28 | Custody Transfer           |
| JC64996-8.3          | Ashav Desai          | Secured Storage          | 04/27/18 15:31 | Return to Storage          |
| JC64996-8.3          | Secured Storage      | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage      |
| JC64996-8.3          | Harrison Tsai        | Secured Storage          | 04/28/18 09:32 | Return to Storage          |

# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|----------------------|----------------------|----------------------|----------------|---------------------------|
| JC64996-8.3.1        | Brian Miller         | TCLP                 | 04/27/18 04:27 | Leachate from JC64996-8.3 |
| JC64996-8.3.1        | TCLP                 | Robert Bandstra      | 05/05/18 11:13 | Leachate from JC64996-8.3 |
| JC64996-8.3.1        | Robert Bandstra      |                      | 05/05/18 11:13 | Depleted                  |
| JC64996-8.3.2        | Brian Miller         | TCLP                 | 04/27/18 04:27 | Leachate from JC64996-8.3 |
| JC64996-8.3.2        | TCLP                 | Robert Bandstra      | 05/05/18 11:13 | Leachate from JC64996-8.3 |
| JC64996-8.3.2        | Robert Bandstra      |                      | 05/05/18 11:13 | Depleted                  |
| JC64996-8.3.3        | Ashav Desai          | TCLP                 | 04/27/18 15:30 | Leachate from JC64996-8.3 |
| JC64996-8.3.3        | TCLP                 | Robert Bandstra      | 05/05/18 11:13 | Leachate from JC64996-8.3 |
| JC64996-8.3.3        | Robert Bandstra      |                      | 05/05/18 11:13 | Depleted                  |
| JC64996-9.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 12:54 | Retrieve from Storage     |
| JC64996-9.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 12:54 | Return to Storage         |
| JC64996-9.1          | Secured Staging Area | Sahara Feliciano     | 04/27/18 14:01 | Retrieve from Storage     |
| JC64996-9.1          | Sahara Feliciano     | Secured Storage      | 04/27/18 14:01 | Return to Storage         |
| JC64996-9.1          | Secured Storage      | Sahara Feliciano     | 04/27/18 17:03 | Retrieve from Storage     |
| JC64996-9.1          | Sahara Feliciano     | Secured Staging Area | 04/27/18 17:03 | Return to Storage         |
| JC64996-9.1          | Secured Staging Area | Chadiyah Canaday     | 04/27/18 19:41 | Retrieve from Storage     |
| JC64996-9.1          | Chadiyah Canaday     | Secured Storage      | 04/27/18 23:49 | Return to Storage         |
| JC64996-9.1          | Secured Storage      | Bhooma Patel         | 04/28/18 07:36 | Retrieve from Storage     |
| JC64996-9.1          | Bhooma Patel         | Secured Storage      | 04/28/18 12:15 | Return to Storage         |
| JC64996-9.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage     |
| JC64996-9.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage         |
| JC64996-9.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage     |
| JC64996-9.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage         |
| JC64996-9.1          | Secured Storage      | Todd Shoemaker       | 05/04/18 14:40 | Retrieve from Storage     |
| JC64996-9.1          | Todd Shoemaker       | Secured Staging Area | 05/04/18 14:40 | Return to Storage         |
| JC64996-9.1          | Secured Staging Area | Natasha Torres       | 05/04/18 15:13 | Retrieve from Storage     |
| JC64996-9.1          | Natasha Torres       | Secured Storage      | 05/05/18 09:45 | Return to Storage         |
| JC64996-9.1.1        | Chadiyah Canaday     | Organics Prep        | 04/27/18 19:46 | Extract from JC64996-9.1  |
| JC64996-9.1.1        | Organics Prep        | Lindsey Lee          | 04/28/18 10:30 | Extract from JC64996-9.1  |
| JC64996-9.1.1        | Lindsey Lee          | Extract Storage      | 04/28/18 10:30 | Return to Storage         |
| JC64996-9.1.1        | Extract Storage      | Christopher Sowa     | 05/09/18 04:04 | Retrieve from Storage     |
| JC64996-9.1.1        | Christopher Sowa     | GCMSM                | 05/09/18 04:04 | Load on Instrument        |
| JC64996-9.1.1        | GCMSM                | John Boudreau        | 05/09/18 16:55 | Unload from Instrument    |
| JC64996-9.1.1        | John Boudreau        | Extract Freezer      | 05/09/18 16:55 | Return to Storage         |
| JC64996-9.1.2        | Chadiyah Canaday     | Organics Prep        | 04/27/18 19:48 | Extract from JC64996-9.1  |
| JC64996-9.1.2        | Organics Prep        | Lindsey Lee          | 04/28/18 10:31 | Extract from JC64996-9.1  |
| JC64996-9.1.2        | Lindsey Lee          | Extract Storage      | 04/28/18 10:31 | Return to Storage         |
| JC64996-9.1.2        | Extract Storage      | Edouard Adrian Lee   | 04/28/18 20:30 | Retrieve from Storage     |
| JC64996-9.1.2        | Edouard Adrian Lee   | GC2G                 | 04/28/18 20:30 | Load on Instrument        |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC64996-9.1.2        | GC2G                 | Tianwei Ruan             | 05/01/18 10:41 | Unload from Instrument     |
| JC64996-9.1.2        | Tianwei Ruan         | Extract Freezer          | 05/01/18 10:41 | Return to Storage          |
| JC64996-9.1.3        | Chatiyah Canaday     | Organics Prep            | 04/27/18 19:49 | Extract from JC64996-9.1   |
| JC64996-9.1.3        | Organics Prep        | Lindsey Lee              | 04/28/18 10:32 | Extract from JC64996-9.1   |
| JC64996-9.1.3        | Lindsey Lee          | Extract Storage          | 04/28/18 10:32 | Return to Storage          |
| JC64996-9.1.3        | Extract Storage      | Christine Phillips       | 04/29/18 23:43 | Retrieve from Storage      |
| JC64996-9.1.3        | Christine Phillips   | GC1G                     | 04/29/18 23:43 | Load on Instrument         |
| JC64996-9.1.4        | Bhooma Patel         | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-9.1 |
| JC64996-9.1.4        | Metals Digestion     | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-9.1 |
| JC64996-9.1.4        | Bhooma Patel         | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage          |
| JC64996-9.1.5        | Sauvelson Auguste    | Organics Prep            | 04/30/18 04:37 | Extract from JC64996-9.1   |
| JC64996-9.1.5        | Organics Prep        | Finley Nyaata            | 04/30/18 11:45 | Extract from JC64996-9.1   |
| JC64996-9.1.5        | Finley Nyaata        | Extract Storage          | 04/30/18 11:45 | Return to Storage          |
| JC64996-9.1.5        | Extract Storage      | Vincent Drago            | 04/30/18 16:38 | Retrieve from Storage      |
| JC64996-9.1.5        | Vincent Drago        | GC3G                     | 04/30/18 16:38 | Load on Instrument         |
| JC64996-9.1.5        | GC3G                 | Vincent Drago            | 05/02/18 10:05 | Unload from Instrument     |
| JC64996-9.1.5        | Vincent Drago        | Extract Freezer          | 05/02/18 10:05 | Return to Storage          |
| JC64996-9.1.6        | Natasha Torres       | Organics Prep            | 05/04/18 15:15 | Extract from JC64996-9.1   |
| JC64996-9.1.6        | Organics Prep        | Natasha Torres           | 05/05/18 07:57 | Extract from JC64996-9.1   |
| JC64996-9.1.6        | Natasha Torres       | Extract Storage          | 05/05/18 07:57 | Return to Storage          |
| JC64996-9.1.6        | Extract Storage      | Tianwei Ruan             | 05/07/18 11:52 | Retrieve from Storage      |
| JC64996-9.1.6        | Tianwei Ruan         | GC2G                     | 05/07/18 11:52 | Load on Instrument         |
| JC64996-9.1.6        | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC64996-9.1.6        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC64996-9.2          | Secured Storage      | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage      |
| JC64996-9.2          | Harrison Tsai        | Secured Storage          | 04/28/18 09:32 | Return to Storage          |
| JC64996-9.4          | Secured Storage      | Gabriela Alvarez         | 05/02/18 15:05 | Retrieve from Storage      |
| JC64996-9.4          | Gabriela Alvarez     | GCMS3C                   | 05/02/18 15:05 | Load on Instrument         |
| JC64996-9.4          | GCMS3C               | Gabriela Alvarez         | 05/07/18 12:27 | Unload from Instrument     |
| JC64996-9.4          | Gabriela Alvarez     |                          | 05/07/18 12:28 | Deleted                    |
| JC64996-10.1         | Secured Storage      | Sahara Feliciano         | 04/27/18 12:54 | Retrieve from Storage      |
| JC64996-10.1         | Sahara Feliciano     | Secured Staging Area     | 04/27/18 12:54 | Return to Storage          |
| JC64996-10.1         | Secured Staging Area | Sahara Feliciano         | 04/27/18 14:01 | Retrieve from Storage      |
| JC64996-10.1         | Sahara Feliciano     | Secured Storage          | 04/27/18 14:01 | Return to Storage          |
| JC64996-10.1         | Secured Storage      | Sahara Feliciano         | 04/27/18 17:03 | Retrieve from Storage      |
| JC64996-10.1         | Sahara Feliciano     | Secured Staging Area     | 04/27/18 17:03 | Return to Storage          |
| JC64996-10.1         | Secured Staging Area | Chatiyah Canaday         | 04/27/18 19:41 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|---|----------------------|--------------------------|----------------|-----------------------------|
| JC64996-10.1  | Chatiyah Canaday     | Secured Storage          | 04/27/18 23:49 | Return to Storage           |
| JC64996-10.1  | Secured Storage      | Bhooma Patel             | 04/28/18 07:36 | Retrieve from Storage       |
| JC64996-10.1  | Bhooma Patel         | Secured Storage          | 04/28/18 12:15 | Return to Storage           |
| JC64996-10.1  | Secured Storage      | Sahara Feliciano         | 04/29/18 08:42 | Retrieve from Storage       |
| JC64996-10.1  | Sahara Feliciano     | Secured Staging Area     | 04/29/18 08:43 | Return to Storage           |
| JC64996-10.1  | Secured Staging Area | Sauvelson Auguste        | 04/30/18 04:36 | Retrieve from Storage       |
| JC64996-10.1  | Sauvelson Auguste    | Secured Storage          | 04/30/18 11:54 | Return to Storage           |
| JC64996-10.1  | Secured Storage      | Sahara Feliciano         | 05/13/18 10:39 | Retrieve from Storage       |
| JC64996-10.1  | Sahara Feliciano     | Secured Staging Area     | 05/13/18 10:39 | Return to Storage           |
| JC64996-10.1  | Secured Staging Area | Sauvelson Auguste        | 05/14/18 04:41 | Retrieve from Storage       |
| JC64996-10.1  | Sauvelson Auguste    | Secured Storage          | 05/14/18 11:01 | Return to Storage           |
| JC64996-10.1  | Secured Storage      | Meghan Hand              | 05/21/18 05:29 | Retrieve from Storage       |
| JC64996-10.1  | Meghan Hand          | Secured Staging Area     | 05/21/18 05:30 | Return to Storage           |
| JC64996-10.1  | Meghan Hand          | Secured Staging Area     | 05/21/18 05:30 | Return to Storage           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                             |
| JC64996-10.1  | Secured Staging Area | Sauvelson Auguste        | 05/21/18 06:15 | Retrieve from Storage       |
| JC64996-10.1  | Sauvelson Auguste    | Secured Storage          | 05/21/18 11:32 | Return to Storage           |
| JC64996-10.1.1  | Chatiyah Canaday     | Organics Prep            | 04/27/18 19:46 | Extract from JC64996-10.1   |
| JC64996-10.1.1  | Organics Prep        | Lindsey Lee              | 04/28/18 10:30 | Extract from JC64996-10.1   |
| JC64996-10.1.1  | Lindsey Lee          | Extract Storage          | 04/28/18 10:30 | Return to Storage           |
| JC64996-10.1.1  | Extract Storage      | Christopher Sowa         | 05/09/18 04:04 | Retrieve from Storage       |
| JC64996-10.1.1  | Christopher Sowa     | GCMSM                    | 05/09/18 04:04 | Load on Instrument          |
| JC64996-10.1.1  | GCMSM                | John Boudreau            | 05/09/18 16:55 | Unload from Instrument      |
| JC64996-10.1.1  | John Boudreau        | Extract Freezer          | 05/09/18 16:55 | Return to Storage           |
| JC64996-10.1.2  | Chatiyah Canaday     | Organics Prep            | 04/27/18 19:48 | Extract from JC64996-10.1   |
| JC64996-10.1.2  | Organics Prep        | Lindsey Lee              | 04/28/18 10:31 | Extract from JC64996-10.1   |
| JC64996-10.1.2  | Lindsey Lee          | Extract Storage          | 04/28/18 10:31 | Return to Storage           |
| JC64996-10.1.2  | Extract Storage      | Edouard Adrian Lee       | 04/28/18 20:30 | Retrieve from Storage       |
| JC64996-10.1.2  | Edouard Adrian Lee   | GC2G                     | 04/28/18 20:30 | Load on Instrument          |
| JC64996-10.1.2  | GC2G                 | Tianwei Ruan             | 05/01/18 10:41 | Unload from Instrument      |
| JC64996-10.1.2  | Tianwei Ruan         | Extract Freezer          | 05/01/18 10:41 | Return to Storage           |
| JC64996-10.1.3  | Chatiyah Canaday     | Organics Prep            | 04/27/18 19:49 | Extract from JC64996-10.1   |
| JC64996-10.1.3  | Organics Prep        | Lindsey Lee              | 04/28/18 10:32 | Extract from JC64996-10.1   |
| JC64996-10.1.3  | Lindsey Lee          | Extract Storage          | 04/28/18 10:32 | Return to Storage           |
| JC64996-10.1.3  | Extract Storage      | Christine Phillips       | 04/29/18 23:43 | Retrieve from Storage       |
| JC64996-10.1.3  | Christine Phillips   | GC1G                     | 04/29/18 23:43 | Load on Instrument          |
| JC64996-10.1.4  | Bhooma Patel         | Metals Digestion         | 04/28/18 08:58 | Digestate from JC64996-10.1 |
| JC64996-10.1.4  | Metals Digestion     | Bhooma Patel             | 04/28/18 08:58 | Digestate from JC64996-10.1 |
| JC64996-10.1.4  | Bhooma Patel         | Metals Digestate Storage | 04/28/18 08:58 | Return to Storage           |

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# SGS Internal Chain of Custody

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/26/18

| Sample.Bottle Number | Transfer FROM     | Transfer TO              | Date/Time      | Reason                        |
|----------------------|-------------------|--------------------------|----------------|-------------------------------|
| JC64996-10.1.5       | Sauvelson Auguste | Organics Prep            | 04/30/18 04:37 | Extract from JC64996-10.1     |
| JC64996-10.1.5       | Organics Prep     | Finley Nyaata            | 04/30/18 11:45 | Extract from JC64996-10.1     |
| JC64996-10.1.5       | Finley Nyaata     | Extract Storage          | 04/30/18 11:45 | Return to Storage             |
| JC64996-10.1.5       | Extract Storage   | Vincent Drago            | 04/30/18 16:38 | Retrieve from Storage         |
| JC64996-10.1.5       | Vincent Drago     | GC3G                     | 04/30/18 16:38 | Load on Instrument            |
| JC64996-10.1.5       | GC3G              | Vincent Drago            | 05/02/18 10:05 | Unload from Instrument        |
| JC64996-10.1.5       | Vincent Drago     | Extract Freezer          | 05/02/18 10:05 | Return to Storage             |
| JC64996-10.1.6       | Sauvelson Auguste | Organics Prep            | 05/14/18 04:46 | Extract from JC64996-10.1     |
| JC64996-10.1.6       | Organics Prep     | Finley Nyaata            | 05/14/18 12:14 | Extract from JC64996-10.1     |
| JC64996-10.1.6       | Finley Nyaata     | Extract Storage          | 05/14/18 12:14 | Return to Storage             |
| JC64996-10.1.6       | Extract Storage   | George Sleem             | 05/15/18 02:41 | Retrieve from Storage         |
| JC64996-10.1.6       | George Sleem      | GCMS2M                   | 05/15/18 02:41 | Load on Instrument            |
| JC64996-10.1.6       | GCMS2M            | John Boudreau            | 05/15/18 16:35 | Unload from Instrument        |
| JC64996-10.1.6       | John Boudreau     | Extract Freezer          | 05/15/18 16:36 | Return to Storage             |
| JC64996-10.1.7       | Sauvelson Auguste | Radhika Mistry           | 05/14/18 08:50 | Aliquot from JC64996-10.1     |
| JC64996-10.1.7       | Radhika Mistry    | Martin Serwatka          | 05/14/18 09:59 | Custody Transfer              |
| JC64996-10.1.7       | Martin Serwatka   |                          | 05/14/18 11:18 | Disposed                      |
| JC64996-10.1.8       | Radhika Mistry    | Metals Digestion         | 05/14/18 09:43 | Digestate from JC64996-10.1.7 |
| JC64996-10.1.8       | Metals Digestion  | Radhika Mistry           | 05/14/18 09:43 | Digestate from JC64996-10.1.7 |
| JC64996-10.1.8       | Radhika Mistry    | Metals Digestate Storage | 05/14/18 09:43 | Return to Storage             |
| JC64996-10.1.9       | Sauvelson Auguste | Organics Prep            | 05/21/18 06:18 | Extract from JC64996-10.1     |
| JC64996-10.1.9       | Organics Prep     | Finley Nyaata            | 05/21/18 14:15 | Extract from JC64996-10.1     |
| JC64996-10.1.9       | Finley Nyaata     | Extract Storage          | 05/21/18 14:15 | Return to Storage             |
| JC64996-10.1.9       | Extract Storage   | Sufiyanu Ahmed           | 05/21/18 22:22 | Retrieve from Storage         |
| JC64996-10.1.9       | Sufiyanu Ahmed    | GCMS2P                   | 05/21/18 22:22 | Load on Instrument            |
| JC64996-10.1.9       | GCMS2P            | John Boudreau            | 05/22/18 10:11 | Unload from Instrument        |
| JC64996-10.1.9       | John Boudreau     | Extract Freezer          | 05/22/18 10:11 | Return to Storage             |
| JC64996-10.2         | Secured Storage   | Harrison Tsai            | 04/28/18 09:26 | Retrieve from Storage         |
| JC64996-10.2         | Harrison Tsai     | Secured Storage          | 04/28/18 09:32 | Return to Storage             |
| JC64996-10.4         | Secured Storage   | Bridget Kelly            | 05/11/18 15:59 | Retrieve from Storage         |
| JC64996-10.4         | Bridget Kelly     | GCMSI                    | 05/11/18 15:59 | Load on Instrument            |
| JC64996-10.4         | GCMSI             | Gabriela Alvarez         | 05/15/18 09:52 | Unload from Instrument        |
| JC64996-10.4         | Gabriela Alvarez  |                          | 05/15/18 09:53 | Depleted                      |
| JC64996-10.5         | Secured Storage   | Prashant Shukla          | 05/12/18 15:41 | Retrieve from Storage         |
| JC64996-10.5         | Prashant Shukla   | GCMSY                    | 05/12/18 15:41 | Load on Instrument            |
| JC64996-10.5         | GCMSY             | Prashant Shukla          | 05/14/18 10:14 | Unload from Instrument        |
| JC64996-10.5         | Prashant Shukla   |                          | 05/14/18 10:14 | Depleted                      |

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8838-MB | I219796.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |



# Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8838-MB | I219796.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 101% 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% 75-130% |
| 2037-26-5  | Toluene-D8            | 99% 80-120%  |
| 460-00-4   | 4-Bromofluorobenzene  | 97% 79-127%  |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

6.1.1  
6

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V3C6521-MB | 3C143954.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

# Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V3C6521-MB | 3C143954.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 96% 75-127%  |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% 75-130% |
| 2037-26-5  | Toluene-D8            | 100% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% 79-127% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | system artifact                  | .97  | 8.3        | ug/kg | J |
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8852-MB | I220087.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

# Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8852-MB | I220087.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 102% 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% 75-130% |
| 2037-26-5  | Toluene-D8            | 104% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 97% 79-127%  |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

## Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VI8838-MB2 | I219821A.D | 1  | 05/01/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64660-1DUP

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

# Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VI8838-MB2 | I219821A.D | 1  | 05/01/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64660-1DUP

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 104% 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% 75-130% |
| 2037-26-5  | Toluene-D8            | 100% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 96% 79-127%  |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

6.1.4  
6

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|               |                |           |                 |           |                  |                   |                         |
|---------------|----------------|-----------|-----------------|-----------|------------------|-------------------|-------------------------|
| <b>Sample</b> | <b>File ID</b> | <b>DF</b> | <b>Analyzed</b> | <b>By</b> | <b>Prep Date</b> | <b>Prep Batch</b> | <b>Analytical Batch</b> |
| VI8838-BS     | I219795.D      | 1         | 04/30/18        | GA        | n/a              | n/a               | VI8838                  |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 200            | 220          | 110      | 48-149 |
| 71-43-2    | Benzene                     | 50             | 50.8         | 102      | 74-117 |
| 74-97-5    | Bromochloromethane          | 50             | 53.8         | 108      | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50             | 52.6         | 105      | 78-119 |
| 75-25-2    | Bromoform                   | 50             | 56.8         | 114      | 76-130 |
| 74-83-9    | Bromomethane                | 50             | 48.0         | 96       | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200            | 222          | 111      | 65-143 |
| 75-15-0    | Carbon disulfide            | 50             | 49.4         | 99       | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50             | 53.5         | 107      | 69-136 |
| 108-90-7   | Chlorobenzene               | 50             | 50.8         | 102      | 79-117 |
| 75-00-3    | Chloroethane                | 50             | 46.5         | 93       | 62-139 |
| 67-66-3    | Chloroform                  | 50             | 49.6         | 99       | 76-119 |
| 74-87-3    | Chloromethane               | 50             | 43.9         | 88       | 52-144 |
| 110-82-7   | Cyclohexane                 | 50             | 46.3         | 93       | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50             | 55.4         | 111      | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50             | 54.5         | 109      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50             | 53.3         | 107      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50             | 52.0         | 104      | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50             | 49.6         | 99       | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50             | 50.1         | 100      | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50             | 38.6         | 77       | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50             | 50.7         | 101      | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50             | 50.0         | 100      | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50             | 52.6         | 105      | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50             | 48.2         | 96       | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50             | 51.8         | 104      | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50             | 52.5         | 105      | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50             | 52.7         | 105      | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50             | 52.2         | 104      | 78-119 |
| 100-41-4   | Ethylbenzene                | 50             | 49.8         | 100      | 75-118 |
| 76-13-1    | Freon 113                   | 50             | 48.3         | 97       | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200            | 229          | 115      | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50             | 50.6         | 101      | 74-122 |
| 79-20-9    | Methyl Acetate              | 50             | 58.2         | 116      | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50             | 48.4         | 97       | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50             | 53.1         | 106      | 75-123 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8838-BS | I219795.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200         | 233       | 117   | 73-136 |
| 75-09-2   | Methylene chloride         | 50          | 50.1      | 100   | 73-120 |
| 100-42-5  | Styrene                    | 50          | 50.8      | 102   | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50          | 52.6      | 105   | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50          | 50.1      | 100   | 69-128 |
| 108-88-3  | Toluene                    | 50          | 49.2      | 98    | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50          | 47.1      | 94    | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50          | 49.2      | 98    | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50          | 51.2      | 102   | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50          | 52.9      | 106   | 79-117 |
| 79-01-6   | Trichloroethene            | 50          | 50.9      | 102   | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50          | 43.8      | 88    | 63-141 |
| 75-01-4   | Vinyl chloride             | 50          | 47.3      | 95    | 55-145 |
|           | m,p-Xylene                 | 100         | 99.7      | 100   | 75-120 |
| 95-47-6   | o-Xylene                   | 50          | 50.5      | 101   | 75-119 |
| 1330-20-7 | Xylene (total)             | 150         | 150       | 100   | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%  | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%  | 75-130% |
| 2037-26-5  | Toluene-D8            | 100% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 94%  | 79-127% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V3C6521-BS | 3C143953.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 200            | 209          | 105      | 48-149 |
| 71-43-2    | Benzene                     | 50             | 52.5         | 105      | 74-117 |
| 74-97-5    | Bromochloromethane          | 50             | 51.5         | 103      | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50             | 57.3         | 115      | 78-119 |
| 75-25-2    | Bromoform                   | 50             | 58.2         | 116      | 76-130 |
| 74-83-9    | Bromomethane                | 50             | 42.2         | 84       | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200            | 215          | 108      | 65-143 |
| 75-15-0    | Carbon disulfide            | 50             | 46.7         | 93       | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50             | 49.8         | 100      | 69-136 |
| 108-90-7   | Chlorobenzene               | 50             | 53.0         | 106      | 79-117 |
| 75-00-3    | Chloroethane                | 50             | 52.8         | 106      | 62-139 |
| 67-66-3    | Chloroform                  | 50             | 51.5         | 103      | 76-119 |
| 74-87-3    | Chloromethane               | 50             | 49.1         | 98       | 52-144 |
| 110-82-7   | Cyclohexane                 | 50             | 42.1         | 84       | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50             | 59.9         | 120      | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50             | 58.1         | 116      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50             | 55.4         | 111      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50             | 54.6         | 109      | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50             | 54.2         | 108      | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50             | 53.5         | 107      | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50             | 50.8         | 102      | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50             | 51.2         | 102      | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50             | 52.0         | 104      | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50             | 48.4         | 97       | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50             | 52.2         | 104      | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50             | 51.1         | 102      | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50             | 54.1         | 108      | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50             | 55.7         | 111      | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50             | 56.6         | 113      | 78-119 |
| 100-41-4   | Ethylbenzene                | 50             | 54.1         | 108      | 75-118 |
| 76-13-1    | Freon 113                   | 50             | 43.4         | 87       | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200            | 228          | 114      | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50             | 54.1         | 108      | 74-122 |
| 79-20-9    | Methyl Acetate              | 50             | 52.0         | 104      | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50             | 47.2         | 94       | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50             | 51.6         | 103      | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V3C6521-BS | 3C143953.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200         | 226       | 113   | 73-136 |
| 75-09-2   | Methylene chloride         | 50          | 50.3      | 101   | 73-120 |
| 100-42-5  | Styrene                    | 50          | 54.9      | 110   | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50          | 58.6      | 117   | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50          | 53.8      | 108   | 69-128 |
| 108-88-3  | Toluene                    | 50          | 54.2      | 108   | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50          | 54.0      | 108   | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50          | 54.2      | 108   | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50          | 51.8      | 104   | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50          | 55.6      | 111   | 79-117 |
| 79-01-6   | Trichloroethene            | 50          | 54.4      | 109   | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50          | 48.2      | 96    | 63-141 |
| 75-01-4   | Vinyl chloride             | 50          | 50.6      | 101   | 55-145 |
|           | m,p-Xylene                 | 100         | 107       | 107   | 75-120 |
| 95-47-6   | o-Xylene                   | 50          | 54.0      | 108   | 75-119 |
| 1330-20-7 | Xylene (total)             | 150         | 161       | 107   | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 96%  | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | 75-130% |
| 2037-26-5  | Toluene-D8            | 102% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%  | 79-127% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8852-BS | I220085.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.    | Compound                    | Spike ug/kg | BSP ug/kg | BSP %  | Limits |
|------------|-----------------------------|-------------|-----------|--------|--------|
| 67-64-1    | Acetone                     | 200         | 232       | 116    | 48-149 |
| 71-43-2    | Benzene                     | 50          | 50.0      | 100    | 74-117 |
| 74-97-5    | Bromochloromethane          | 50          | 52.4      | 105    | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50          | 52.6      | 105    | 78-119 |
| 75-25-2    | Bromoform                   | 50          | 58.7      | 117    | 76-130 |
| 74-83-9    | Bromomethane                | 50          | 47.5      | 95     | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200         | 232       | 116    | 65-143 |
| 75-15-0    | Carbon disulfide            | 50          | 47.4      | 95     | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50          | 53.2      | 106    | 69-136 |
| 108-90-7   | Chlorobenzene               | 50          | 51.0      | 102    | 79-117 |
| 75-00-3    | Chloroethane                | 50          | 48.5      | 97     | 62-139 |
| 67-66-3    | Chloroform                  | 50          | 48.8      | 98     | 76-119 |
| 74-87-3    | Chloromethane               | 50          | 47.7      | 95     | 52-144 |
| 110-82-7   | Cyclohexane                 | 50          | 45.9      | 92     | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50          | 66.0      | 132* a | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50          | 55.8      | 112    | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50          | 53.9      | 108    | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50          | 52.9      | 106    | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50          | 50.7      | 101    | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50          | 51.1      | 102    | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50          | 39.7      | 79     | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50          | 49.9      | 100    | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50          | 50.3      | 101    | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50          | 50.0      | 100    | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50          | 45.9      | 92     | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50          | 50.1      | 100    | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50          | 52.3      | 105    | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50          | 52.3      | 105    | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50          | 53.5      | 107    | 78-119 |
| 100-41-4   | Ethylbenzene                | 50          | 49.8      | 100    | 75-118 |
| 76-13-1    | Freon 113                   | 50          | 45.6      | 91     | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200         | 242       | 121    | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50          | 49.9      | 100    | 74-122 |
| 79-20-9    | Methyl Acetate              | 50          | 57.1      | 114    | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50          | 45.9      | 92     | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50          | 51.8      | 104    | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VI8852-BS | I220085.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP %  | Limits |
|-----------|----------------------------|-------------|-----------|--------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200         | 245       | 123    | 73-136 |
| 75-09-2   | Methylene chloride         | 50          | 48.3      | 97     | 73-120 |
| 100-42-5  | Styrene                    | 50          | 50.4      | 101    | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50          | 55.6      | 111    | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50          | 50.0      | 100    | 69-128 |
| 108-88-3  | Toluene                    | 50          | 48.9      | 98     | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50          | 69.0      | 138* a | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50          | 69.3      | 139* a | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50          | 50.3      | 101    | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50          | 53.7      | 107    | 79-117 |
| 79-01-6   | Trichloroethene            | 50          | 50.2      | 100    | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50          | 44.2      | 88     | 63-141 |
| 75-01-4   | Vinyl chloride             | 50          | 47.5      | 95     | 55-145 |
|           | m,p-Xylene                 | 100         | 98.9      | 99     | 75-120 |
| 95-47-6   | o-Xylene                   | 50          | 50.1      | 100    | 75-119 |
| 1330-20-7 | Xylene (total)             | 150         | 149       | 99     | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101% | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 75-130% |
| 2037-26-5  | Toluene-D8            | 103% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 94%  | 79-127% |

(a) High percent recoveries and no associated positive reported in the QC batch.

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| JC64924-5MS | I219808.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |
| JC64924-5   | I219799.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.    | Compound                    | JC64924-5<br>ug/kg | Spike<br>Q | ug/kg | MS<br>ug/kg | MS<br>% | Limits |
|------------|-----------------------------|--------------------|------------|-------|-------------|---------|--------|
| 67-64-1    | Acetone                     | 75.7               |            | 246   | 388         | 127     | 10-157 |
| 71-43-2    | Benzene                     | ND                 |            | 61.6  | 47.3        | 77      | 58-125 |
| 74-97-5    | Bromochloromethane          | ND                 |            | 61.6  | 57.8        | 94      | 60-127 |
| 75-27-4    | Bromodichloromethane        | ND                 |            | 61.6  | 52.3        | 85      | 57-128 |
| 75-25-2    | Bromoform                   | ND                 |            | 61.6  | 60.9        | 99      | 48-133 |
| 74-83-9    | Bromomethane                | ND                 |            | 61.6  | 64.5        | 105     | 31-141 |
| 78-93-3    | 2-Butanone (MEK)            | 9.3                | J          | 246   | 317         | 125     | 29-146 |
| 75-15-0    | Carbon disulfide            | ND                 |            | 61.6  | 46.5        | 76      | 47-145 |
| 56-23-5    | Carbon tetrachloride        | ND                 |            | 61.6  | 53.4        | 87      | 51-143 |
| 108-90-7   | Chlorobenzene               | ND                 |            | 61.6  | 45.8        | 74      | 54-130 |
| 75-00-3    | Chloroethane                | ND                 |            | 61.6  | 69.3        | 113     | 22-153 |
| 67-66-3    | Chloroform                  | ND                 |            | 61.6  | 50.9        | 83      | 61-125 |
| 74-87-3    | Chloromethane               | ND                 |            | 61.6  | 64.6        | 105     | 43-142 |
| 110-82-7   | Cyclohexane                 | ND                 |            | 61.6  | 64.9        | 105     | 37-148 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |            | 61.6  | 70.1        | 114     | 41-127 |
| 124-48-1   | Dibromochloromethane        | ND                 |            | 61.6  | 56.4        | 92      | 56-127 |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |            | 61.6  | 57.9        | 94      | 54-121 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |            | 61.6  | 43.9        | 71      | 41-134 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |            | 61.6  | 41.0        | 67      | 41-135 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |            | 61.6  | 41.4        | 67      | 41-133 |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |            | 61.6  | 58.7        | 95      | 30-153 |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |            | 61.6  | 52.3        | 85      | 61-131 |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |            | 61.6  | 53.1        | 86      | 56-126 |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |            | 61.6  | 52.7        | 86      | 53-132 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |            | 61.6  | 48.2        | 78      | 57-125 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |            | 61.6  | 51.4        | 83      | 56-130 |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |            | 61.6  | 52.4        | 85      | 63-126 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |            | 61.6  | 51.9        | 84      | 55-126 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |            | 61.6  | 53.8        | 87      | 51-126 |
| 100-41-4   | Ethylbenzene                | ND                 |            | 61.6  | 44.9        | 73      | 49-132 |
| 76-13-1    | Freon 113                   | ND                 |            | 61.6  | 50.6        | 82      | 42-179 |
| 591-78-6   | 2-Hexanone                  | ND                 |            | 246   | 306         | 124     | 25-150 |
| 98-82-8    | Isopropylbenzene            | ND                 |            | 61.6  | 43.4        | 70      | 43-141 |
| 79-20-9    | Methyl Acetate              | ND                 |            | 61.6  | 82.4        | 134     | 32-158 |
| 108-87-2   | Methylcyclohexane           | ND                 |            | 61.6  | 45.2        | 73      | 22-158 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |            | 61.6  | 60.1        | 98      | 58-123 |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| JC64924-5MS | I219808.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |
| JC64924-5   | I219799.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.   | Compound                   | JC64924-5<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits     |
|-----------|----------------------------|--------------------|------------|-------------|---------|------------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |            | 246         | 305     | 124 40-140 |
| 75-09-2   | Methylene chloride         | ND                 |            | 61.6        | 53.3    | 87 57-123  |
| 100-42-5  | Styrene                    | ND                 |            | 61.6        | 44.2    | 72 46-139  |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |            | 61.6        | 67.7    | 110 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                 |            | 61.6        | 43.5    | 71 39-154  |
| 108-88-3  | Toluene                    | ND                 |            | 61.6        | 45.7    | 74 54-127  |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |            | 61.6        | 29.3    | 48 17-151  |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |            | 61.6        | 31.0    | 50 19-153  |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |            | 61.6        | 51.3    | 83 57-138  |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |            | 61.6        | 57.9    | 94 53-127  |
| 79-01-6   | Trichloroethene            | ND                 |            | 61.6        | 46.5    | 76 52-140  |
| 75-69-4   | Trichlorofluoromethane     | ND                 |            | 61.6        | 72.0    | 117 46-142 |
| 75-01-4   | Vinyl chloride             | ND                 |            | 61.6        | 73.3    | 119 43-146 |
|           | m,p-Xylene                 | ND                 |            | 123         | 88.0    | 71 45-137  |
| 95-47-6   | o-Xylene                   | ND                 |            | 61.6        | 44.6    | 72 48-135  |
| 1330-20-7 | Xylene (total)             | ND                 |            | 185         | 133     | 72 46-137  |

| CAS No.    | Surrogate Recoveries  | MS   | JC64924-5 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 111% | 106%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 104%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 101% | 100%      | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 100%      | 79-127% |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| JC65047-1MS | 3C143963.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |
| JC65047-1   | 3C143956.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.    | Compound                    | JC65047-1<br>ug/kg | Spike<br>Q | ug/kg | MS<br>ug/kg | MS<br>% | Limits |
|------------|-----------------------------|--------------------|------------|-------|-------------|---------|--------|
| 67-64-1    | Acetone                     | ND                 |            | 119   | 119         | 100     | 10-157 |
| 71-43-2    | Benzene                     | ND                 |            | 29.7  | 25.8        | 87      | 58-125 |
| 74-97-5    | Bromochloromethane          | ND                 |            | 29.7  | 26.2        | 88      | 60-127 |
| 75-27-4    | Bromodichloromethane        | ND                 |            | 29.7  | 27.7        | 93      | 57-128 |
| 75-25-2    | Bromoform                   | ND                 |            | 29.7  | 27.0        | 91      | 48-133 |
| 74-83-9    | Bromomethane                | ND                 |            | 29.7  | 20.7        | 70      | 31-141 |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |            | 119   | 113         | 95      | 29-146 |
| 75-15-0    | Carbon disulfide            | ND                 |            | 29.7  | 24.0        | 81      | 47-145 |
| 56-23-5    | Carbon tetrachloride        | ND                 |            | 29.7  | 24.6        | 83      | 51-143 |
| 108-90-7   | Chlorobenzene               | ND                 |            | 29.7  | 24.7        | 83      | 54-130 |
| 75-00-3    | Chloroethane                | ND                 |            | 29.7  | 30.1        | 101     | 22-153 |
| 67-66-3    | Chloroform                  | ND                 |            | 29.7  | 25.1        | 84      | 61-125 |
| 74-87-3    | Chloromethane               | ND                 |            | 29.7  | 28.0        | 94      | 43-142 |
| 110-82-7   | Cyclohexane                 | ND                 |            | 29.7  | 27.7        | 93      | 37-148 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |            | 29.7  | 28.4        | 96      | 41-127 |
| 124-48-1   | Dibromochloromethane        | ND                 |            | 29.7  | 27.3        | 92      | 56-127 |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |            | 29.7  | 27.0        | 91      | 54-121 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |            | 29.7  | 24.0        | 81      | 41-134 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |            | 29.7  | 23.5        | 79      | 41-135 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |            | 29.7  | 22.9        | 77      | 41-133 |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |            | 29.7  | 31.1        | 105     | 30-153 |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |            | 29.7  | 25.5        | 86      | 61-131 |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |            | 29.7  | 26.3        | 88      | 56-126 |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |            | 29.7  | 25.7        | 86      | 53-132 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |            | 29.7  | 25.1        | 84      | 57-125 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |            | 29.7  | 25.7        | 86      | 56-130 |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |            | 29.7  | 26.7        | 90      | 63-126 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |            | 29.7  | 26.8        | 90      | 55-126 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |            | 29.7  | 26.6        | 89      | 51-126 |
| 100-41-4   | Ethylbenzene                | ND                 |            | 29.7  | 25.6        | 86      | 49-132 |
| 76-13-1    | Freon 113                   | ND                 |            | 29.7  | 25.3        | 85      | 42-179 |
| 591-78-6   | 2-Hexanone                  | ND                 |            | 119   | 117         | 98      | 25-150 |
| 98-82-8    | Isopropylbenzene            | ND                 |            | 29.7  | 25.7        | 86      | 43-141 |
| 79-20-9    | Methyl Acetate              | ND                 |            | 29.7  | 47.1        | 158     | 32-158 |
| 108-87-2   | Methylcyclohexane           | ND                 |            | 29.7  | 26.9        | 90      | 22-158 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |            | 29.7  | 27.2        | 91      | 58-123 |

\* = Outside of Control Limits.



# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| JC65047-1MS | 3C143963.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |
| JC65047-1   | 3C143956.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.   | Compound                   | JC65047-1<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|-----------|----------------------------|--------------------|------------|-------------|---------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |            | 119         | 120     | 40-140 |
| 75-09-2   | Methylene chloride         | ND                 |            | 29.7        | 25.8    | 57-123 |
| 100-42-5  | Styrene                    | ND                 |            | 29.7        | 25.2    | 46-139 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |            | 29.7        | 29.2    | 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                 |            | 29.7        | 26.0    | 39-154 |
| 108-88-3  | Toluene                    | ND                 |            | 29.7        | 25.8    | 54-127 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |            | 29.7        | 21.0    | 17-151 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |            | 29.7        | 20.6    | 19-153 |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |            | 29.7        | 26.0    | 57-138 |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |            | 29.7        | 27.8    | 53-127 |
| 79-01-6   | Trichloroethene            | ND                 |            | 29.7        | 26.4    | 52-140 |
| 75-69-4   | Trichlorofluoromethane     | ND                 |            | 29.7        | 31.3    | 46-142 |
| 75-01-4   | Vinyl chloride             | ND                 |            | 29.7        | 30.9    | 43-146 |
|           | m,p-Xylene                 | ND                 |            | 59.5        | 50.1    | 45-137 |
| 95-47-6   | o-Xylene                   | ND                 |            | 29.7        | 25.5    | 48-135 |
| 1330-20-7 | Xylene (total)             | ND                 |            | 89.2        | 75.6    | 46-137 |

| CAS No.    | Surrogate Recoveries  | MS   | JC65047-1 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 98%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 106%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 100% | 99%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 100%      | 79-127% |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65686-5MS | I220100.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |
| JC65686-5   | I220088.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.    | Compound                    | JC65686-5<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|------------|-----------------------------|--------------------|------------|-------------|---------|--------|
| 67-64-1    | Acetone                     | ND                 | 199        | 214         | 108     | 10-157 |
| 71-43-2    | Benzene                     | ND                 | 49.7       | 45.4        | 91      | 58-125 |
| 74-97-5    | Bromochloromethane          | ND                 | 49.7       | 48.1        | 97      | 60-127 |
| 75-27-4    | Bromodichloromethane        | ND                 | 49.7       | 46.8        | 94      | 57-128 |
| 75-25-2    | Bromoform                   | ND                 | 49.7       | 49.2        | 99      | 48-133 |
| 74-83-9    | Bromomethane                | ND                 | 49.7       | 56.6        | 114     | 31-141 |
| 78-93-3    | 2-Butanone (MEK)            | ND                 | 199        | 199         | 100     | 29-146 |
| 75-15-0    | Carbon disulfide            | ND                 | 49.7       | 47.0        | 95      | 47-145 |
| 56-23-5    | Carbon tetrachloride        | ND                 | 49.7       | 51.9        | 104     | 51-143 |
| 108-90-7   | Chlorobenzene               | ND                 | 49.7       | 41.8        | 84      | 54-130 |
| 75-00-3    | Chloroethane                | ND                 | 49.7       | 59.1        | 119     | 22-153 |
| 67-66-3    | Chloroform                  | ND                 | 49.7       | 46.1        | 93      | 61-125 |
| 74-87-3    | Chloromethane               | ND                 | 49.7       | 59.9        | 120     | 43-142 |
| 110-82-7   | Cyclohexane                 | ND                 | 49.7       | 44.5        | 89      | 37-148 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 | 49.7       | 52.5        | 106     | 41-127 |
| 124-48-1   | Dibromochloromethane        | ND                 | 49.7       | 48.2        | 97      | 56-127 |
| 106-93-4   | 1,2-Dibromoethane           | ND                 | 49.7       | 48.4        | 97      | 54-121 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 | 49.7       | 38.1        | 77      | 41-134 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 | 49.7       | 36.0        | 72      | 41-135 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 | 49.7       | 36.4        | 73      | 41-133 |
| 75-71-8    | Dichlorodifluoromethane     | ND                 | 49.7       | 60.1        | 121     | 30-153 |
| 75-34-3    | 1,1-Dichloroethane          | ND                 | 49.7       | 47.8        | 96      | 61-131 |
| 107-06-2   | 1,2-Dichloroethane          | ND                 | 49.7       | 45.8        | 92      | 56-126 |
| 75-35-4    | 1,1-Dichloroethene          | ND                 | 49.7       | 51.0        | 103     | 53-132 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 | 49.7       | 42.9        | 86      | 57-125 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 | 49.7       | 48.2        | 97      | 56-130 |
| 78-87-5    | 1,2-Dichloropropane         | ND                 | 49.7       | 47.3        | 95      | 63-126 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 | 49.7       | 45.3        | 91      | 55-126 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 | 49.7       | 45.5        | 91      | 51-126 |
| 100-41-4   | Ethylbenzene                | ND                 | 49.7       | 40.3        | 81      | 49-132 |
| 76-13-1    | Freon 113                   | ND                 | 49.7       | 49.8        | 100     | 42-179 |
| 591-78-6   | 2-Hexanone                  | ND                 | 199        | 196         | 99      | 25-150 |
| 98-82-8    | Isopropylbenzene            | ND                 | 49.7       | 38.8        | 78      | 43-141 |
| 79-20-9    | Methyl Acetate              | ND                 | 49.7       | 96.7        | 194* a  | 32-158 |
| 108-87-2   | Methylcyclohexane           | ND                 | 49.7       | 40.2        | 81      | 22-158 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 | 49.7       | 48.0        | 97      | 58-123 |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65686-5MS | I220100.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |
| JC65686-5   | I220088.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.   | Compound                   | JC65686-5<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|-----------|----------------------------|--------------------|------------|-------------|---------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 | 199        | 207         | 104     | 40-140 |
| 75-09-2   | Methylene chloride         | ND                 | 49.7       | 46.5        | 94      | 57-123 |
| 100-42-5  | Styrene                    | ND                 | 49.7       | 38.7        | 78      | 46-139 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 | 49.7       | 22.6        | 45      | 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                 | 49.7       | 41.7        | 84      | 39-154 |
| 108-88-3  | Toluene                    | ND                 | 49.7       | 41.7        | 84      | 54-127 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 | 49.7       | 38.5        | 77      | 17-151 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 | 49.7       | 37.7        | 76      | 19-153 |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 | 49.7       | 48.6        | 98      | 57-138 |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 | 49.7       | 46.8        | 94      | 53-127 |
| 79-01-6   | Trichloroethene            | ND                 | 49.7       | 65.3        | 131     | 52-140 |
| 75-69-4   | Trichlorofluoromethane     | ND                 | 49.7       | 60.5        | 122     | 46-142 |
| 75-01-4   | Vinyl chloride             | ND                 | 49.7       | 60.2        | 121     | 43-146 |
|           | m,p-Xylene                 | ND                 | 99.5       | 79.8        | 80      | 45-137 |
| 95-47-6   | o-Xylene                   | ND                 | 49.7       | 40.7        | 82      | 48-135 |
| 1330-20-7 | Xylene (total)             | ND                 | 149        | 121         | 81      | 46-137 |

| CAS No.    | Surrogate Recoveries  | MS   | JC65686-5 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 108% | 105%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 108%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 103% | 103%      | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 96%  | 99%       | 79-127% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC64660-1DUP | I219822.D | 1  | 05/01/18 | GA | n/a       | n/a        | VI8838           |
| JC64660-1    | I219807.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.    | Compound                    | JC64660-1<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|------------|-----------------------------|--------------------|----------|-------|---|-----|--------|
| 67-64-1    | Acetone                     | 68.4               |          | 46.9  |   | 37  | 40     |
| 71-43-2    | Benzene                     | ND                 |          | ND    |   | nc  | 30     |
| 74-97-5    | Bromochloromethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-27-4    | Bromodichloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 75-25-2    | Bromoform                   | ND                 |          | ND    |   | nc  | 30     |
| 74-83-9    | Bromomethane                | ND                 |          | ND    |   | nc  | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |          | ND    |   | nc  | 30     |
| 75-15-0    | Carbon disulfide            | ND                 |          | ND    |   | nc  | 30     |
| 56-23-5    | Carbon tetrachloride        | ND                 |          | ND    |   | nc  | 30     |
| 108-90-7   | Chlorobenzene               | ND                 |          | ND    |   | nc  | 30     |
| 75-00-3    | Chloroethane                | ND                 |          | ND    |   | nc  | 30     |
| 67-66-3    | Chloroform                  | ND                 |          | ND    |   | nc  | 30     |
| 74-87-3    | Chloromethane               | ND                 |          | ND    |   | nc  | 30     |
| 110-82-7   | Cyclohexane                 | ND                 |          | ND    |   | nc  | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |          | ND    |   | nc  | 30     |
| 124-48-1   | Dibromochloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |          | ND    |   | nc  | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |          | ND    |   | nc  | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |          | ND    |   | nc  | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |          | ND    |   | nc  | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |          | ND    |   | nc  | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |          | ND    |   | nc  | 30     |
| 100-41-4   | Ethylbenzene                | ND                 |          | ND    |   | nc  | 30     |
| 76-13-1    | Freon 113                   | ND                 |          | ND    |   | nc  | 30     |
| 591-78-6   | 2-Hexanone                  | ND                 |          | ND    |   | nc  | 30     |
| 98-82-8    | Isopropylbenzene            | ND                 |          | ND    |   | nc  | 30     |
| 79-20-9    | Methyl Acetate              | ND                 |          | ND    |   | nc  | 30     |
| 108-87-2   | Methylcyclohexane           | ND                 |          | ND    |   | nc  | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |          | ND    |   | nc  | 30     |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC64660-1DUP | I219822.D | 1  | 05/01/18 | GA | n/a       | n/a        | VI8838           |
| JC64660-1    | I219807.D | 1  | 04/30/18 | GA | n/a       | n/a        | VI8838           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-6

| CAS No.   | Compound                   | JC64660-1<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|-----------|----------------------------|--------------------|----------|-------|---|-----|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |          | ND    |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND                 |          | ND    |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND                 |          | ND    |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |          | ND    |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND                 |          | ND    |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |          | ND    |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |          | ND    |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |          | ND    |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |          | ND    |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND                 |          | ND    |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND                 |          | ND    |   | nc  | 30     |
|           | m,p-Xylene                 | ND                 |          | ND    |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND                 |          | ND    |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND                 |          | ND    |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC64660-1 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 108% | 113%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 108%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 100% | 99%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%  | 97%       | 79-127% |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| JC65047-3DUP | 3C143965.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |
| JC65047-3    | 3C143957.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.    | Compound                    | JC65047-3<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|------------|-----------------------------|--------------------|----------|-------|---|-----|--------|
| 67-64-1    | Acetone                     | 14.7               |          | 11.0  |   | 29  | 40     |
| 71-43-2    | Benzene                     | ND                 |          | ND    |   | nc  | 30     |
| 74-97-5    | Bromochloromethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-27-4    | Bromodichloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 75-25-2    | Bromoform                   | ND                 |          | ND    |   | nc  | 30     |
| 74-83-9    | Bromomethane                | ND                 |          | ND    |   | nc  | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |          | ND    |   | nc  | 30     |
| 75-15-0    | Carbon disulfide            | ND                 |          | ND    |   | nc  | 30     |
| 56-23-5    | Carbon tetrachloride        | ND                 |          | ND    |   | nc  | 30     |
| 108-90-7   | Chlorobenzene               | ND                 |          | ND    |   | nc  | 30     |
| 75-00-3    | Chloroethane                | ND                 |          | ND    |   | nc  | 30     |
| 67-66-3    | Chloroform                  | ND                 |          | ND    |   | nc  | 30     |
| 74-87-3    | Chloromethane               | ND                 |          | ND    |   | nc  | 30     |
| 110-82-7   | Cyclohexane                 | ND                 |          | ND    |   | nc  | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |          | ND    |   | nc  | 30     |
| 124-48-1   | Dibromochloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |          | ND    |   | nc  | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |          | ND    |   | nc  | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |          | ND    |   | nc  | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |          | ND    |   | nc  | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |          | ND    |   | nc  | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |          | ND    |   | nc  | 30     |
| 100-41-4   | Ethylbenzene                | ND                 |          | ND    |   | nc  | 30     |
| 76-13-1    | Freon 113                   | ND                 |          | ND    |   | nc  | 30     |
| 591-78-6   | 2-Hexanone                  | ND                 |          | ND    |   | nc  | 30     |
| 98-82-8    | Isopropylbenzene            | ND                 |          | ND    |   | nc  | 30     |
| 79-20-9    | Methyl Acetate              | ND                 |          | ND    |   | nc  | 30     |
| 108-87-2   | Methylcyclohexane           | ND                 |          | ND    |   | nc  | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |          | ND    |   | nc  | 30     |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| JC65047-3DUP | 3C143965.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |
| JC65047-3    | 3C143957.D | 1  | 05/02/18 | GA | n/a       | n/a        | V3C6521          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-9

| CAS No.   | Compound                   | JC65047-3 |           | Q | RPD | Limits |
|-----------|----------------------------|-----------|-----------|---|-----|--------|
|           |                            | ug/kg     | DUP ug/kg |   |     |        |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND        | ND        |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND        | ND        |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND        | ND        |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND        | ND        |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND        | ND        |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND        | ND        |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND        | ND        |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND        | ND        |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND        | ND        |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND        | ND        |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND        | ND        |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND        | ND        |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND        | ND        |   | nc  | 30     |
|           | m,p-Xylene                 | ND        | ND        |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND        | ND        |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND        | ND        |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC65047-3 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 98%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 103%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 99%  | 99%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 101%      | 79-127% |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65686-6DUP | I220102.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |
| JC65686-6    | I220089.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.    | Compound                    | JC65686-6<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|------------|-----------------------------|--------------------|----------|-------|---|-----|--------|
| 67-64-1    | Acetone                     | ND                 |          | ND    |   | nc  | 40     |
| 71-43-2    | Benzene                     | ND                 |          | ND    |   | nc  | 30     |
| 74-97-5    | Bromochloromethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-27-4    | Bromodichloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 75-25-2    | Bromoform                   | ND                 |          | ND    |   | nc  | 30     |
| 74-83-9    | Bromomethane                | ND                 |          | ND    |   | nc  | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |          | ND    |   | nc  | 30     |
| 75-15-0    | Carbon disulfide            | ND                 |          | ND    |   | nc  | 30     |
| 56-23-5    | Carbon tetrachloride        | ND                 |          | ND    |   | nc  | 30     |
| 108-90-7   | Chlorobenzene               | ND                 |          | ND    |   | nc  | 30     |
| 75-00-3    | Chloroethane                | ND                 |          | ND    |   | nc  | 30     |
| 67-66-3    | Chloroform                  | ND                 |          | ND    |   | nc  | 30     |
| 74-87-3    | Chloromethane               | ND                 |          | ND    |   | nc  | 30     |
| 110-82-7   | Cyclohexane                 | ND                 |          | ND    |   | nc  | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |          | ND    |   | nc  | 30     |
| 124-48-1   | Dibromochloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |          | ND    |   | nc  | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |          | ND    |   | nc  | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |          | ND    |   | nc  | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |          | ND    |   | nc  | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |          | ND    |   | nc  | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |          | ND    |   | nc  | 30     |
| 100-41-4   | Ethylbenzene                | ND                 |          | ND    |   | nc  | 30     |
| 76-13-1    | Freon 113                   | ND                 |          | ND    |   | nc  | 30     |
| 591-78-6   | 2-Hexanone                  | ND                 |          | ND    |   | nc  | 30     |
| 98-82-8    | Isopropylbenzene            | ND                 |          | ND    |   | nc  | 30     |
| 79-20-9    | Methyl Acetate              | ND                 |          | ND    |   | nc  | 30     |
| 108-87-2   | Methylcyclohexane           | ND                 |          | ND    |   | nc  | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |          | ND    |   | nc  | 30     |

\* = Outside of Control Limits.



# Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65686-6DUP | I220102.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |
| JC65686-6    | I220089.D | 1  | 05/11/18 | GA | n/a       | n/a        | VI8852           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC64996-7, JC64996-10

| CAS No.   | Compound                   | JC65686-6<br>ug/kg | DUP<br>Q | JC65686-6<br>ug/kg | Q | RPD | Limits |
|-----------|----------------------------|--------------------|----------|--------------------|---|-----|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |          | ND                 |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND                 |          | ND                 |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND                 |          | ND                 |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |          | ND                 |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND                 |          | ND                 |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND                 |          | ND                 |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |          | ND                 |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |          | ND                 |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |          | ND                 |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |          | ND                 |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND                 |          | ND                 |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND                 |          | ND                 |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND                 |          | ND                 |   | nc  | 30     |
|           | m,p-Xylene                 | ND                 |          | ND                 |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND                 |          | ND                 |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND                 |          | ND                 |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC65686-6 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 109% | 106%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 109%      | 75-130% |
| 2037-26-5  | Toluene-D8            | 103% | 103%      | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 97%       | 79-127% |

\* = Outside of Control Limits.

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> V3C6518-BFB     | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 3C143878.D | <b>Injection Time:</b> 18:18    |
| <b>Instrument ID:</b> GCMS3C   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 28293         | 20.3                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 68968         | 49.6                     | Pass      |
| 95  | Base peak, 100% relative abundance | 139048        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 9518          | 6.85                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 110456        | 79.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 8380          | 6.03 (7.59) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 106970        | 76.9 (96.8) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 7116          | 5.12 (6.65) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| V3C6518-IC6518  | 3C143880.D  | 04/28/18      | 19:09         | 00:51        | Initial cal 0.5             |
| V3C6518-IC6518  | 3C143881.D  | 04/28/18      | 19:34         | 01:16        | Initial cal 1               |
| V3C6518-IC6518  | 3C143882.D  | 04/28/18      | 19:59         | 01:41        | Initial cal 2               |
| V3C6518-IC6518  | 3C143883.D  | 04/28/18      | 20:24         | 02:06        | Initial cal 4               |
| V3C6518-IC6518  | 3C143884.D  | 04/28/18      | 20:49         | 02:31        | Initial cal 8               |
| V3C6518-IC6518  | 3C143885.D  | 04/28/18      | 21:14         | 02:56        | Initial cal 20              |
| V3C6518-ICC6518 | 3C143886.D  | 04/28/18      | 21:39         | 03:21        | Initial cal 50              |
| V3C6518-IC6518  | 3C143887.D  | 04/28/18      | 22:04         | 03:46        | Initial cal 100             |
| V3C6518-IC6518  | 3C143888.D  | 04/28/18      | 22:29         | 04:11        | Initial cal 200             |
| V3C6518-ICV6518 | 3C143891.D  | 04/28/18      | 23:44         | 05:26        | Initial cal verification 50 |
| V3C6518-ICV6518 | 3C143892.D  | 04/29/18      | 00:09         | 05:51        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> V3C6521-BFB     | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 3C143951.D | <b>Injection Time:</b> 08:11    |
| <b>Instrument ID:</b> GCMS3C   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 32853         | 20.3                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 73616         | 45.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 161835        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10713         | 6.62                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 126840        | 78.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9536          | 5.89 (7.52) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 122864        | 75.9 (96.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8470          | 5.23 (6.89) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| V3C6521-CC6518 | 3C143951.D  | 05/02/18      | 08:11         | 00:00        | Continuing cal 20                           |
| V3C6521-BS     | 3C143953.D  | 05/02/18      | 09:13         | 01:02        | Blank Spike                                 |
| V3C6521-MB     | 3C143954.D  | 05/02/18      | 09:38         | 01:27        | Method Blank                                |
| JC64996-9      | 3C143955.D  | 05/02/18      | 10:17         | 02:06        | SB-102 (0-17)                               |
| JC65047-1      | 3C143956.D  | 05/02/18      | 10:42         | 02:31        | (used for QC only; not part of job JC64996) |
| JC65047-3      | 3C143957.D  | 05/02/18      | 11:07         | 02:56        | (used for QC only; not part of job JC64996) |
| ZZZZZZ         | 3C143958.D  | 05/02/18      | 11:44         | 03:33        | (unrelated sample)                          |
| ZZZZZZ         | 3C143959.D  | 05/02/18      | 12:09         | 03:58        | (unrelated sample)                          |
| ZZZZZZ         | 3C143960.D  | 05/02/18      | 12:35         | 04:24        | (unrelated sample)                          |
| ZZZZZZ         | 3C143961.D  | 05/02/18      | 13:00         | 04:49        | (unrelated sample)                          |
| ZZZZZZ         | 3C143962.D  | 05/02/18      | 13:25         | 05:14        | (unrelated sample)                          |
| JC65047-1MS    | 3C143963.D  | 05/02/18      | 13:50         | 05:39        | Matrix Spike                                |
| JC65047-3DUP   | 3C143965.D  | 05/02/18      | 14:40         | 06:29        | Duplicate                                   |
| ZZZZZZ         | 3C143966.D  | 05/02/18      | 15:05         | 06:54        | (unrelated sample)                          |
| ZZZZZZ         | 3C143969.D  | 05/02/18      | 16:21         | 08:10        | (unrelated sample)                          |
| ZZZZZZ         | 3C143972.D  | 05/02/18      | 17:36         | 09:25        | (unrelated sample)                          |
| ZZZZZZ         | 3C143973.D  | 05/02/18      | 18:01         | 09:50        | (unrelated sample)                          |
| ZZZZZZ         | 3C143974.D  | 05/02/18      | 18:26         | 10:15        | (unrelated sample)                          |
| ZZZZZZ         | 3C143975.D  | 05/02/18      | 18:51         | 10:40        | (unrelated sample)                          |
| ZZZZZZ         | 3C143976.D  | 05/02/18      | 19:16         | 11:05        | (unrelated sample)                          |
| ZZZZZZ         | 3C143977.D  | 05/02/18      | 19:41         | 11:30        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8822-BFB     | <b>Injection Date:</b> 04/11/18 |
| <b>Lab File ID:</b> I219381.D | <b>Injection Time:</b> 15:36    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 14350         | 21.3                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 33189         | 49.2                     | Pass      |
| 95  | Base peak, 100% relative abundance | 67514         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4510          | 6.68                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 49061         | 72.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3812          | 5.65 (7.77) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 47560         | 70.4 (96.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3274          | 4.85 (6.88) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VI8822-IC8822  | I219382.D   | 04/11/18      | 16:03         | 00:27        | Initial cal 0.5             |
| VI8822-IC8822  | I219383.D   | 04/11/18      | 16:30         | 00:54        | Initial cal 1               |
| VI8822-IC8822  | I219384.D   | 04/11/18      | 16:56         | 01:20        | Initial cal 2               |
| VI8822-IC8822  | I219385.D   | 04/11/18      | 17:23         | 01:47        | Initial cal 4               |
| VI8822-IC8822  | I219386.D   | 04/11/18      | 17:50         | 02:14        | Initial cal 8               |
| VI8822-IC8822  | I219387.D   | 04/11/18      | 18:17         | 02:41        | Initial cal 20              |
| VI8822-ICC8822 | I219388.D   | 04/11/18      | 18:43         | 03:07        | Initial cal 50              |
| VI8822-IC8822  | I219389.D   | 04/11/18      | 19:10         | 03:34        | Initial cal 100             |
| VI8822-IC8822  | I219390.D   | 04/11/18      | 19:37         | 04:01        | Initial cal 200             |
| VI8822-ICV8822 | I219393.D   | 04/11/18      | 20:56         | 05:20        | Initial cal verification 50 |
| VI8822-ICV8822 | I219394.D   | 04/11/18      | 21:23         | 05:47        | Initial cal verification 50 |

6.5.3

6

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8822-BFB2    | <b>Injection Date:</b> 04/12/18 |
| <b>Lab File ID:</b> I219396.D | <b>Injection Time:</b> 08:51    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 13468         | 20.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 31328         | 48.6                     | Pass      |
| 95  | Base peak, 100% relative abundance | 64461         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4130          | 6.41                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 49576         | 76.9                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3685          | 5.72 (7.43) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 47941         | 74.4 (96.7) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3162          | 4.91 (6.60) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VI8822-ICV8822 | I219397.D   | 04/12/18      | 09:35         | 00:44        | Initial cal verification 50 |

6.5.4  
6

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8838-BFB     | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> I219793.D | <b>Injection Time:</b> 08:28    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 16487         | 22.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 37520         | 50.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 75099         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 5063          | 6.74                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 54352         | 72.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4018          | 5.35 (7.39) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 52381         | 69.7 (96.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3481          | 4.64 (6.65) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| VI8838-CC8822 | I219793.D   | 04/30/18      | 08:28         | 00:00        | Continuing cal 20                           |
| VI8837-BS2    | I219795A.D  | 04/30/18      | 09:32         | 01:04        | Blank Spike                                 |
| VI8838-BS     | I219795.D   | 04/30/18      | 09:32         | 01:04        | Blank Spike                                 |
| VI8838-MB     | I219796.D   | 04/30/18      | 09:58         | 01:30        | Method Blank                                |
| VI8837-MB2    | I219796A.D  | 04/30/18      | 09:58         | 01:30        | Method Blank                                |
| JC64872-7DUP  | I219797.D   | 04/30/18      | 10:57         | 02:29        | Duplicate                                   |
| ZZZZZZ        | I219798.D   | 04/30/18      | 11:23         | 02:55        | (unrelated sample)                          |
| JC64924-5     | I219799.D   | 04/30/18      | 11:49         | 03:21        | (used for QC only; not part of job JC64996) |
| ZZZZZZ        | I219803.D   | 04/30/18      | 13:35         | 05:07        | (unrelated sample)                          |
| JC64660-1     | I219807.D   | 04/30/18      | 16:04         | 07:36        | (used for QC only; not part of job JC64996) |
| JC64924-5MS   | I219808.D   | 04/30/18      | 16:31         | 08:03        | Matrix Spike                                |
| JC64996-6     | I219810.D   | 04/30/18      | 17:24         | 08:56        | SB-102 (17-21)                              |
| ZZZZZZ        | I219811.D   | 04/30/18      | 17:50         | 09:22        | (unrelated sample)                          |
| ZZZZZZ        | I219812.D   | 04/30/18      | 18:17         | 09:49        | (unrelated sample)                          |
| ZZZZZZ        | I219813.D   | 04/30/18      | 18:43         | 10:15        | (unrelated sample)                          |
| ZZZZZZ        | I219814.D   | 04/30/18      | 19:10         | 10:42        | (unrelated sample)                          |
| ZZZZZZ        | I219815.D   | 04/30/18      | 19:36         | 11:08        | (unrelated sample)                          |
| ZZZZZZ        | I219816.D   | 04/30/18      | 20:03         | 11:35        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8839-BFB     | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> I219817.D | <b>Injection Time:</b> 06:49    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 16013         | 22.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 36515         | 50.1                     | Pass      |
| 95  | Base peak, 100% relative abundance | 72856         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4822          | 6.62                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 53283         | 73.1                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4104          | 5.63 (7.70) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 51275         | 70.4 (96.2) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3470          | 4.76 (6.77) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| VI8839-CC8822 | I219817.D   | 05/01/18      | 06:49         | 00:00        | Continuing cal 20                           |
| VI8838-BS2    | I219819A.D  | 05/01/18      | 07:54         | 01:05        | Blank Spike                                 |
| VI8839-BS     | I219819.D   | 05/01/18      | 07:54         | 01:05        | Blank Spike                                 |
| VI8839-MB     | I219821.D   | 05/01/18      | 09:44         | 02:55        | Method Blank                                |
| VI8838-MB2    | I219821A.D  | 05/01/18      | 09:44         | 02:55        | Method Blank                                |
| JC64660-1DUP  | I219822.D   | 05/01/18      | 10:11         | 03:22        | Duplicate                                   |
| JC64767-27    | I219823.D   | 05/01/18      | 10:38         | 03:49        | (used for QC only; not part of job JC64996) |
| JC64767-28    | I219824.D   | 05/01/18      | 11:05         | 04:16        | (used for QC only; not part of job JC64996) |
| ZZZZZZ        | I219825.D   | 05/01/18      | 12:33         | 05:44        | (unrelated sample)                          |
| ZZZZZZ        | I219827.D   | 05/01/18      | 13:26         | 06:37        | (unrelated sample)                          |
| ZZZZZZ        | I219828.D   | 05/01/18      | 13:53         | 07:04        | (unrelated sample)                          |
| ZZZZZZ        | I219829.D   | 05/01/18      | 14:19         | 07:30        | (unrelated sample)                          |
| ZZZZZZ        | I219830.D   | 05/01/18      | 14:46         | 07:57        | (unrelated sample)                          |
| ZZZZZZ        | I219831.D   | 05/01/18      | 15:12         | 08:23        | (unrelated sample)                          |
| ZZZZZZ        | I219832.D   | 05/01/18      | 15:39         | 08:50        | (unrelated sample)                          |
| ZZZZZZ        | I219833.D   | 05/01/18      | 16:06         | 09:17        | (unrelated sample)                          |
| JC64767-27MS  | I219834.D   | 05/01/18      | 16:32         | 09:43        | Matrix Spike                                |
| JC64767-28DUP | I219836.D   | 05/01/18      | 17:26         | 10:37        | Duplicate                                   |
| ZZZZZZ        | I219839.D   | 05/01/18      | 18:46         | 11:57        | (unrelated sample)                          |

6.5.6  
6

# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8845-BFB     | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> I219960.D | <b>Injection Time:</b> 21:09    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 11794         | 21.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 27616         | 50.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 55237         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3754          | 6.80                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 42565         | 77.1                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3292          | 5.96 (7.73) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 41088         | 74.4 (96.5) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2733          | 4.95 (6.65) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VI8845-IC8822  | I219962.D   | 05/07/18      | 22:07         | 00:58        | Initial cal 1               |
| VI8845-IC8822  | I219963.D   | 05/07/18      | 22:36         | 01:27        | Initial cal 2               |
| VI8845-IC8822  | I219964.D   | 05/07/18      | 23:05         | 01:56        | Initial cal 4               |
| VI8845-IC8822  | I219965.D   | 05/07/18      | 23:34         | 02:25        | Initial cal 8               |
| VI8845-IC8822  | I219966.D   | 05/08/18      | 00:03         | 02:54        | Initial cal 20              |
| VI8845-IC8822  | I219967.D   | 05/08/18      | 00:31         | 03:22        | Initial cal 50              |
| VI8845-IC8822  | I219968.D   | 05/08/18      | 01:00         | 03:51        | Initial cal 100             |
| VI8845-IC8822  | I219969.D   | 05/08/18      | 01:29         | 04:20        | Initial cal 200             |
| VI8845-ICV8822 | I219972.D   | 05/08/18      | 02:56         | 05:47        | Initial cal verification 50 |



# Instrument Performance Check (BFB)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VI8852-BFB     | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> I220084.D | <b>Injection Time:</b> 07:15    |
| <b>Instrument ID:</b> GCMSI   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 13780         | 22.1                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 31363         | 50.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 62408         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4231          | 6.78                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 47627         | 76.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3579          | 5.73 (7.51) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 46245         | 74.1 (97.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3081          | 4.94 (6.66) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| VI8852-CC8822 | I220084.D   | 05/11/18      | 07:15         | 00:00        | Continuing cal 20                           |
| VI8852-BS     | I220085.D   | 05/11/18      | 07:49         | 00:34        | Blank Spike                                 |
| VI8852-MB     | I220087.D   | 05/11/18      | 08:47         | 01:32        | Method Blank                                |
| JC65686-5     | I220088.D   | 05/11/18      | 09:21         | 02:06        | (used for QC only; not part of job JC64996) |
| JC65686-6     | I220089.D   | 05/11/18      | 09:51         | 02:36        | (used for QC only; not part of job JC64996) |
| ZZZZZZ        | I220090.D   | 05/11/18      | 10:20         | 03:05        | (unrelated sample)                          |
| ZZZZZZ        | I220091.D   | 05/11/18      | 10:59         | 03:44        | (unrelated sample)                          |
| ZZZZZZ        | I220092.D   | 05/11/18      | 11:28         | 04:13        | (unrelated sample)                          |
| ZZZZZZ        | I220094.D   | 05/11/18      | 12:27         | 05:12        | (unrelated sample)                          |
| ZZZZZZ        | I220095.D   | 05/11/18      | 12:56         | 05:41        | (unrelated sample)                          |
| ZZZZZZ        | I220098.D   | 05/11/18      | 14:24         | 07:09        | (unrelated sample)                          |
| ZZZZZZ        | I220099.D   | 05/11/18      | 14:54         | 07:39        | (unrelated sample)                          |
| JC65686-5MS   | I220100.D   | 05/11/18      | 15:23         | 08:08        | Matrix Spike                                |
| ZZZZZZ        | I220101.D   | 05/11/18      | 15:52         | 08:37        | (unrelated sample)                          |
| JC65686-6DUP  | I220102.D   | 05/11/18      | 16:22         | 09:07        | Duplicate                                   |
| ZZZZZZ        | I220103.D   | 05/11/18      | 16:51         | 09:36        | (unrelated sample)                          |
| ZZZZZZ        | I220104.D   | 05/11/18      | 17:20         | 10:05        | (unrelated sample)                          |
| JC64996-10    | I220105.D   | 05/11/18      | 17:49         | 10:34        | SB-106 (3-5) (11-15)                        |
| JC64996-7     | I220106.D   | 05/11/18      | 18:18         | 11:03        | SB-106 (17-21)                              |
| ZZZZZZ        | I220107.D   | 05/11/18      | 18:47         | 11:32        | (unrelated sample)                          |

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V3C6521-CC6518 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 3C143951.D   | <b>Injection Time:</b> 08:11    |
| <b>Instrument ID:</b> GCMS3C     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT   | IS 4<br>AREA | RT   | IS 5<br>AREA | RT   |
|--------------------------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| Check Std                | 157325       | 2.59 | 360729       | 4.05 | 542985       | 4.71 | 487547       | 7.42 | 243774       | 9.35 |
| Upper Limit <sup>a</sup> | 314650       | 3.09 | 721458       | 4.55 | 1085970      | 5.21 | 975094       | 7.92 | 487548       | 9.85 |
| Lower Limit <sup>b</sup> | 78663        | 2.09 | 180365       | 3.55 | 271493       | 4.21 | 243774       | 6.92 | 121887       | 8.85 |

| Lab<br>Sample ID       | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT   | IS 4<br>AREA | RT   | IS 5<br>AREA | RT   |
|------------------------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| V3C6521-BS             | 162020       | 2.60 | 369537       | 4.05 | 561484       | 4.71 | 496057       | 7.42 | 255442       | 9.35 |
| V3C6521-MB             | 161887       | 2.59 | 365440       | 4.05 | 561448       | 4.71 | 497112       | 7.42 | 254126       | 9.35 |
| JC64996-9 <sup>c</sup> | 174054       | 2.59 | 293843       | 4.05 | 460472       | 4.71 | 419319       | 7.42 | 215833       | 9.35 |
| JC65047-1              | 158699       | 2.59 | 358034       | 4.05 | 549478       | 4.71 | 502261       | 7.42 | 254203       | 9.35 |
| JC65047-3              | 139920       | 2.59 | 348332       | 4.05 | 538802       | 4.71 | 485361       | 7.42 | 250669       | 9.35 |
| ZZZZZZ                 | 145674       | 2.59 | 341049       | 4.05 | 521413       | 4.71 | 470292       | 7.42 | 234550       | 9.35 |
| ZZZZZZ                 | 136957       | 2.59 | 335078       | 4.05 | 517822       | 4.71 | 465936       | 7.42 | 233780       | 9.35 |
| ZZZZZZ                 | 142605       | 2.59 | 331140       | 4.05 | 508212       | 4.71 | 430586       | 7.42 | 176751       | 9.35 |
| ZZZZZZ                 | 136856       | 2.59 | 312121       | 4.05 | 486176       | 4.71 | 435781       | 7.42 | 222966       | 9.35 |
| ZZZZZZ                 | 153220       | 2.59 | 337370       | 4.06 | 524790       | 4.71 | 485777       | 7.42 | 277101       | 9.35 |
| JC65047-1MS            | 153186       | 2.60 | 350072       | 4.05 | 532952       | 4.71 | 476293       | 7.42 | 242442       | 9.35 |
| JC65047-3DUP           | 128420       | 2.59 | 330090       | 4.05 | 510476       | 4.71 | 463099       | 7.42 | 237599       | 9.35 |
| ZZZZZZ                 | 146279       | 2.59 | 340883       | 4.05 | 522995       | 4.71 | 475023       | 7.42 | 243067       | 9.35 |
| ZZZZZZ                 | 144874       | 2.59 | 341566       | 4.05 | 524904       | 4.71 | 473450       | 7.42 | 240704       | 9.35 |
| ZZZZZZ                 | 140180       | 2.59 | 326897       | 4.05 | 502607       | 4.71 | 454837       | 7.42 | 231442       | 9.35 |
| ZZZZZZ                 | 144217       | 2.59 | 328882       | 4.05 | 505247       | 4.71 | 459356       | 7.42 | 232166       | 9.35 |
| ZZZZZZ                 | 152530       | 2.59 | 331865       | 4.05 | 512139       | 4.71 | 462779       | 7.42 | 238857       | 9.35 |
| ZZZZZZ                 | 148053       | 2.59 | 324832       | 4.05 | 497197       | 4.71 | 453083       | 7.42 | 232142       | 9.35 |
| ZZZZZZ                 | 138893       | 2.59 | 325505       | 4.05 | 501347       | 4.71 | 448489       | 7.42 | 229086       | 9.35 |
| ZZZZZZ                 | 141836       | 2.59 | 323552       | 4.05 | 491805       | 4.71 | 436555       | 7.42 | 222981       | 9.35 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

6.6.1  
6

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |               |                        |             |
|-----------------------|---------------|------------------------|-------------|
| <b>Check Std:</b>     | VI8838-CC8822 | <b>Injection Date:</b> | 04/30/18    |
| <b>Lab File ID:</b>   | I219793.D     | <b>Injection Time:</b> | 08:28       |
| <b>Instrument ID:</b> | GCMSI         | <b>Method:</b>         | SW846 8260C |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 99314        | 7.42 | 175320       | 9.75  | 282828       | 10.69 | 238736       | 13.82 | 122330       | 16.16 |
| Upper Limit <sup>a</sup> | 198628       | 7.92 | 350640       | 10.25 | 565656       | 11.19 | 477472       | 14.32 | 244660       | 16.66 |
| Lower Limit <sup>b</sup> | 49657        | 6.92 | 87660        | 9.25  | 141414       | 10.19 | 119368       | 13.32 | 61165        | 15.66 |

| Lab<br>Sample ID       | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| VI8838-BS              | 100790       | 7.42 | 174443       | 9.75 | 283475       | 10.69 | 241828       | 13.82 | 128375       | 16.16 |
| VI8837-BS2             | 100790       | 7.42 | 174443       | 9.75 | 283475       | 10.69 | 241828       | 13.82 | 128375       | 16.16 |
| VI8837-MB2             | 90407        | 7.42 | 169231       | 9.75 | 273967       | 10.69 | 236883       | 13.82 | 119798       | 16.16 |
| VI8838-MB              | 90407        | 7.42 | 169231       | 9.75 | 273967       | 10.69 | 236883       | 13.82 | 119798       | 16.16 |
| JC64872-7DUP           | 91838        | 7.41 | 156032       | 9.75 | 256443       | 10.69 | 223478       | 13.82 | 116498       | 16.16 |
| ZZZZZZ                 | 76824        | 7.42 | 149402       | 9.75 | 246930       | 10.69 | 215008       | 13.82 | 109540       | 16.16 |
| JC64924-5              | 83390        | 7.42 | 143987       | 9.75 | 239483       | 10.70 | 205637       | 13.82 | 100971       | 16.16 |
| ZZZZZZ                 | 87538        | 7.41 | 135580       | 9.75 | 229320       | 10.69 | 191993       | 13.82 | 89578        | 16.16 |
| JC64660-1              | 79154        | 7.41 | 123213       | 9.75 | 216073       | 10.69 | 189116       | 13.82 | 95182        | 16.16 |
| JC64924-5MS            | 87482        | 7.42 | 127070       | 9.75 | 220922       | 10.69 | 186757       | 13.82 | 91378        | 16.16 |
| JC64996-6 <sup>c</sup> | 89412        | 7.42 | 122799       | 9.75 | 211831       | 10.69 | 184181       | 13.82 | 90553        | 16.16 |
| ZZZZZZ                 | 88944        | 7.41 | 128010       | 9.75 | 220032       | 10.69 | 194461       | 13.82 | 97246        | 16.16 |
| ZZZZZZ                 | 80958        | 7.42 | 125685       | 9.75 | 217548       | 10.69 | 187337       | 13.82 | 88624        | 16.16 |
| ZZZZZZ                 | 73712        | 7.41 | 126551       | 9.75 | 219403       | 10.69 | 194141       | 13.82 | 106763       | 16.16 |
| ZZZZZZ                 | 88947        | 7.41 | 142920       | 9.75 | 244016       | 10.69 | 209682       | 13.82 | 101623       | 16.16 |
| ZZZZZZ                 | 94507        | 7.41 | 152576       | 9.75 | 257312       | 10.69 | 221630       | 13.82 | 113455       | 16.16 |
| ZZZZZZ                 | 88042        | 7.41 | 147595       | 9.75 | 249801       | 10.69 | 215871       | 13.82 | 109668       | 16.16 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

6.6.2  
6

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VI8839-CC8822 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> I219817.D   | <b>Injection Time:</b> 06:49    |
| <b>Instrument ID:</b> GCMSI     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 91665        | 7.41 | 157114       | 9.75  | 262879       | 10.69 | 225763       | 13.81 | 114939       | 16.16 |
| Upper Limit <sup>a</sup> | 183330       | 7.91 | 314228       | 10.25 | 525758       | 11.19 | 451526       | 14.31 | 229878       | 16.66 |
| Lower Limit <sup>b</sup> | 45833        | 6.91 | 78557        | 9.25  | 131440       | 10.19 | 112882       | 13.31 | 57470        | 15.66 |

| Lab<br>Sample ID | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| VI8839-BS        | 91237        | 7.42 | 152079       | 9.75 | 253479       | 10.69 | 217802       | 13.82 | 114513       | 16.16 |
| VI8838-BS2       | 91237        | 7.42 | 152079       | 9.75 | 253479       | 10.69 | 217802       | 13.82 | 114513       | 16.16 |
| VI8839-MB        | 108061       | 7.41 | 145707       | 9.75 | 242248       | 10.69 | 205666       | 13.82 | 104288       | 16.16 |
| VI8838-MB2       | 108061       | 7.41 | 145707       | 9.75 | 242248       | 10.69 | 205666       | 13.82 | 104288       | 16.16 |
| JC64660-1DUP     | 77212        | 7.41 | 128256       | 9.75 | 218488       | 10.69 | 187606       | 13.82 | 95087        | 16.16 |
| JC64767-27       | 82375        | 7.42 | 136506       | 9.75 | 227754       | 10.69 | 197091       | 13.82 | 99414        | 16.16 |
| JC64767-28       | 87375        | 7.41 | 131995       | 9.75 | 225376       | 10.69 | 192094       | 13.82 | 92686        | 16.16 |
| ZZZZZZ           | 83393        | 7.42 | 145527       | 9.75 | 239914       | 10.69 | 215949       | 13.82 | 111469       | 16.16 |
| ZZZZZZ           | 76044        | 7.42 | 129571       | 9.75 | 219140       | 10.70 | 190429       | 13.82 | 96111        | 16.16 |
| ZZZZZZ           | 82775        | 7.41 | 127033       | 9.75 | 215787       | 10.69 | 184484       | 13.82 | 90097        | 16.16 |
| ZZZZZZ           | 79862        | 7.42 | 121049       | 9.75 | 202294       | 10.69 | 177068       | 13.82 | 89994        | 16.16 |
| ZZZZZZ           | 68658        | 7.42 | 113826       | 9.75 | 191029       | 10.69 | 164345       | 13.82 | 79743        | 16.16 |
| ZZZZZZ           | 77481        | 7.42 | 106389       | 9.75 | 176965       | 10.69 | 151406       | 13.82 | 72772        | 16.16 |
| ZZZZZZ           | 68346        | 7.41 | 120970       | 9.75 | 203857       | 10.69 | 171182       | 13.82 | 83913        | 16.16 |
| ZZZZZZ           | 75791        | 7.41 | 123340       | 9.75 | 203617       | 10.69 | 164424       | 13.82 | 73004        | 16.16 |
| JC64767-27MS     | 92123        | 7.42 | 137275       | 9.75 | 230500       | 10.69 | 198597       | 13.82 | 103285       | 16.16 |
| JC64767-28DUP    | 88007        | 7.42 | 131678       | 9.75 | 221265       | 10.69 | 187929       | 13.82 | 90328        | 16.16 |
| ZZZZZZ           | 79099        | 7.41 | 122877       | 9.75 | 207669       | 10.69 | 179573       | 13.82 | 90141        | 16.16 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VI8852-CC8822 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> I220084.D   | <b>Injection Time:</b> 07:15    |
| <b>Instrument ID:</b> GCMSI     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 85972        | 7.42 | 143394       | 9.75  | 231945       | 10.69 | 196034       | 13.81 | 99875        | 16.16 |
| Upper Limit <sup>a</sup> | 171944       | 7.92 | 286788       | 10.25 | 463890       | 11.19 | 392068       | 14.31 | 199750       | 16.66 |
| Lower Limit <sup>b</sup> | 42986        | 6.92 | 71697        | 9.25  | 115973       | 10.19 | 98017        | 13.31 | 49938        | 15.66 |

| Lab<br>Sample ID        | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|-------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| VI8852-BS               | 83088        | 7.42 | 145561       | 9.75 | 234270       | 10.69 | 197749       | 13.81 | 102765       | 16.16 |
| VI8852-MB               | 77314        | 7.42 | 136467       | 9.75 | 217423       | 10.69 | 183578       | 13.82 | 92456        | 16.16 |
| JC65686-5               | 72526        | 7.42 | 135315       | 9.75 | 220346       | 10.69 | 184163       | 13.82 | 90235        | 16.16 |
| JC65686-6               | 75493        | 7.42 | 132685       | 9.75 | 214068       | 10.69 | 184043       | 13.82 | 91919        | 16.16 |
| ZZZZZZ                  | 75314        | 7.42 | 129900       | 9.75 | 213151       | 10.69 | 179880       | 13.82 | 89608        | 16.16 |
| ZZZZZZ                  | 79696        | 7.42 | 118210       | 9.75 | 191137       | 10.69 | 165204       | 13.81 | 83123        | 16.16 |
| ZZZZZZ                  | 66984        | 7.42 | 118308       | 9.75 | 192371       | 10.69 | 164736       | 13.81 | 82478        | 16.16 |
| ZZZZZZ                  | 76571        | 7.42 | 131874       | 9.75 | 216169       | 10.69 | 184580       | 13.82 | 92278        | 16.16 |
| ZZZZZZ                  | 74493        | 7.42 | 127421       | 9.75 | 206847       | 10.69 | 176372       | 13.82 | 89003        | 16.16 |
| ZZZZZZ                  | 70728        | 7.42 | 120677       | 9.75 | 198844       | 10.69 | 169830       | 13.82 | 84087        | 16.16 |
| ZZZZZZ                  | 73318        | 7.42 | 121054       | 9.75 | 199032       | 10.69 | 170498       | 13.82 | 86830        | 16.16 |
| JC65686-5MS             | 78842        | 7.42 | 130902       | 9.75 | 217493       | 10.69 | 184118       | 13.82 | 94922        | 16.16 |
| ZZZZZZ                  | 81959        | 7.42 | 136441       | 9.75 | 219345       | 10.69 | 186987       | 13.82 | 94851        | 16.16 |
| JC65686-6DUP            | 69480        | 7.42 | 120049       | 9.75 | 195751       | 10.69 | 167580       | 13.82 | 82877        | 16.16 |
| ZZZZZZ                  | 79071        | 7.42 | 129490       | 9.75 | 211422       | 10.69 | 180581       | 13.82 | 89787        | 16.16 |
| ZZZZZZ                  | 64323        | 7.42 | 122552       | 9.75 | 200777       | 10.69 | 171868       | 13.82 | 85411        | 16.16 |
| JC64996-10 <sup>c</sup> | 79163        | 7.42 | 122441       | 9.75 | 199126       | 10.69 | 170522       | 13.82 | 83150        | 16.16 |
| JC64996-7 <sup>c</sup>  | 76021        | 7.42 | 106556       | 9.75 | 176407       | 10.69 | 146839       | 13.82 | 67431        | 16.16 |
| ZZZZZZ                  | 76143        | 7.42 | 123391       | 9.75 | 196627       | 10.69 | 151721       | 13.82 | 58735        | 16.16 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory out of hold time.

6.6.4  
6

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8260C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2  | S3  | S4  |
|---------------|-------------|-----|-----|-----|-----|
| JC64996-6     | I219810.D   | 112 | 108 | 100 | 99  |
| JC64996-7     | I220106.D   | 113 | 117 | 104 | 104 |
| JC64996-9     | 3C143955.D  | 99  | 110 | 98  | 101 |
| JC64996-10    | I220105.D   | 109 | 113 | 104 | 99  |
| JC64660-1DUP  | I219822.D   | 108 | 105 | 100 | 97  |
| JC64924-5MS   | I219808.D   | 111 | 105 | 101 | 99  |
| JC65047-1MS   | 3C143963.D  | 98  | 105 | 100 | 101 |
| JC65047-3DUP  | 3C143965.D  | 98  | 103 | 99  | 101 |
| JC65686-5MS   | I220100.D   | 108 | 110 | 103 | 96  |
| JC65686-6DUP  | I220102.D   | 109 | 110 | 103 | 99  |
| V3C6521-BS    | 3C143953.D  | 96  | 102 | 102 | 98  |
| V3C6521-MB    | 3C143954.D  | 96  | 102 | 100 | 102 |
| VI8838-BS     | I219795.D   | 99  | 98  | 100 | 94  |
| VI8838-MB     | I219796.D   | 101 | 100 | 99  | 97  |
| VI8852-BS     | I220085.D   | 101 | 104 | 103 | 94  |
| VI8852-MB     | I220087.D   | 102 | 104 | 104 | 97  |
| VI8838-MB2    | I219821A.D  | 104 | 105 | 100 | 96  |

| Surrogate Compounds        | Recovery Limits |
|----------------------------|-----------------|
| S1 = Dibromofluoromethane  | 75-127%         |
| S2 = 1,2-Dichloroethane-D4 | 75-130%         |
| S3 = Toluene-D8            | 80-120%         |
| S4 = 4-Bromofluorobenzene  | 79-127%         |

6.7.1  
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# Initial Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V3C6518-ICC6518  
 Lab FileID: 3C143886.D

## Response Factor Report MS3C

Method : C:\MSDCHEM\1\METHODS\M3C6518.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 Last Update : Thu May 03 09:36:05 2018  
 Response via : Initial Calibration

### Calibration Files

4 =3C143883.D 8 =3C143884.D 0.5 =3C143880.D 50 =3C143886.D  
 100 =3C143887.D 1 =3C143881.D 200 =3C143888.D 20 =3C143885.D  
 2 =3C143882.D =

| Compound   | 4 | 8 | 0.5 | 50    | 100   | 1     | 200   | 20    | 2     | Avg   | %RSD  |
|--|---|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD-----                  |   |   |     |       |       |       |       |       |       |       |       |
| 2) ethanol   |   |   |     |       |       |       |       |       |       | 0.000 | -1.00 |
| 3) tertiary butyl alcohol                                  |   |   |     |       |       |       |       |       |       |       |       |
| 1.018 1.122  |   |   |     | 1.159 | 1.170 | 1.043 |       | 1.201 | 1.156 | 1.124 | 6.08  |
| 4) 1,4-dioxane   |   |   |     |       |       |       |       |       |       |       |       |
| 0.096 0.116  |   |   |     | 0.126 | 0.124 |       | 0.129 | 0.128 | 0.101 | 0.117 | 11.54 |
| 5) I pentafluorobenzene -----ISTD-----                     |   |   |     |       |       |       |       |       |       |       |       |
| 6) chlorodifluoromethane                                   |   |   |     |       |       |       |       |       |       |       |       |
| 0.515 0.513 0.527  |   |   |     | 0.536 | 0.536 | 0.498 | 0.549 | 0.565 | 0.607 | 0.538 | 6.02  |
| 7) dichlorodifluoromethane                                 |   |   |     |       |       |       |       |       |       |       |       |
| 0.524 0.509 0.346  |   |   |     | 0.517 | 0.517 | 0.504 | 0.529 | 0.534 | 0.513 | 0.499 | 11.66 |
| 8) chloromethane   |   |   |     |       |       |       |       |       |       |       |       |
| 0.607 0.597 0.696  |   |   |     | 0.593 | 0.609 | 0.593 | 0.639 | 0.621 | 0.628 | 0.620 | 5.28  |
| 9) 1,3-butadiene   |   |   |     |       |       |       |       |       |       | 0.000 | -1.00 |
| 10) vinyl chloride   |   |   |     |       |       |       |       |       |       |       |       |
| 0.585 0.580  |   |   |     | 0.596 | 0.613 | 0.484 | 0.649 | 0.619 | 0.621 | 0.593 | 8.37  |
| 11) bromomethane   |   |   |     |       |       |       |       |       |       |       |       |
| 0.386 0.361 0.388  |   |   |     | 0.271 | 0.212 | 0.337 |       | 0.339 | 0.392 | 0.336 | 18.99 |
| 12) chloroethane   |   |   |     |       |       |       |       |       |       |       |       |
| 0.364 0.347 0.323  |   |   |     | 0.355 | 0.352 | 0.336 |       | 0.368 | 0.399 | 0.356 | 6.38  |
| 13) vinyl Bromide  |   |   |     |       |       |       |       |       |       |       |       |
| 0.370 0.373  |   |   |     | 0.381 | 0.386 | 0.326 | 0.393 | 0.399 | 0.375 | 0.375 | 5.97  |
| 14) trichlorofluoromethane                                 |   |   |     |       |       |       |       |       |       |       |       |
| 0.590 0.589 0.575  |   |   |     | 0.612 | 0.622 | 0.565 | 0.649 | 0.631 | 0.643 | 0.608 | 4.94  |
| 15) ethyl ether  |   |   |     |       |       |       |       |       |       |       |       |
| 0.267 0.283 0.226  |   |   |     | 0.296 | 0.297 | 0.273 | 0.307 | 0.298 | 0.295 | 0.283 | 8.73  |
| 16) 2-chloropropane  |   |   |     |       |       |       |       |       |       |       |       |
| 0.174 0.180  |   |   |     | 0.185 | 0.168 |       | 0.146 | 0.192 | 0.188 | 0.176 | 8.86  |
| 17) acrolein   |   |   |     |       |       |       |       |       |       |       |       |
| 0.080 0.082  |   |   |     | 0.092 | 0.087 |       | 0.094 | 0.086 | 0.074 | 0.085 | 8.06  |
| 18) freon 113  |   |   |     |       |       |       |       |       |       |       |       |
| 0.302 0.303  |   |   |     | 0.325 | 0.316 | 0.275 | 0.326 | 0.337 | 0.322 | 0.313 | 6.23  |
| 19) 1,1-dichloroethene                                     |   |   |     |       |       |       |       |       |       |       |       |
| 0.392 0.401 0.356  |   |   |     | 0.422 | 0.420 | 0.378 | 0.433 | 0.436 | 0.437 | 0.408 | 6.97  |
| 20) acetone  |   |   |     |       |       |       |       |       |       |       |       |
| 0.035 0.036  |   |   |     | 0.038 | 0.037 | 0.030 | 0.038 | 0.037 | 0.036 | 0.036 | 6.66  |
| 21) acetonitrile   |   |   |     |       |       |       |       |       |       |       |       |
| 0.064 0.061  |   |   |     | 0.061 | 0.061 |       | 0.063 | 0.062 | 0.067 | 0.063 | 3.48  |
| 22) iodomethane  |   |   |     |       |       |       |       |       |       |       |       |
| *This compound does not meet initial calibration criteria* |   |   |     |       |       |       |       |       |       |       |       |
| 0.063 0.104  |   |   |     | 0.272 | 0.333 |       | 0.346 | 0.181 |       | 0.216 | 54.98 |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICC6518  
**Lab FileID:** 3C143886.D

|     |  |       |       |       |       |       |       |       |       |       |       |       |
|-----|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 23) | carbon disulfide   | 1.208 | 1.197 | 1.317 | 1.261 | 1.264 | 1.203 | 1.303 | 1.316 | 1.347 | 1.268 | 4.43  |
| 24) | methylene chloride   | 0.458 | 0.459 | 0.435 | 0.477 | 0.468 | 0.419 | 0.487 | 0.489 | 0.502 | 0.466 | 5.72  |
| 25) | methyl acetate   | 0.349 | 0.354 |       | 0.377 | 0.373 | 0.374 | 0.369 | 0.372 | 0.369 | 0.367 | 2.72  |
| 26) | methyl tert butyl ether                                    | 1.291 | 1.288 | 1.221 | 1.345 | 1.326 | 1.260 | 1.353 | 1.370 | 1.376 | 1.314 | 4.03  |
| 27) | trans-1,2-dichloroethene                                   | 0.451 | 0.451 | 0.387 | 0.464 | 0.458 | 0.433 | 0.471 | 0.477 | 0.469 | 0.451 | 6.06  |
| 28) | hexane   | 0.822 | 0.806 | 0.911 | 0.836 | 0.831 | 0.859 | 0.844 | 0.882 | 0.907 | 0.855 | 4.36  |
| 29) | di-isopropyl ether   | 1.637 | 1.628 | 1.578 | 1.684 | 1.676 | 1.514 | 1.729 | 1.735 | 1.739 | 1.658 | 4.63  |
| 30) | ethyl tert-butyl ether                                     | 1.529 | 1.528 | 1.491 | 1.554 | 1.555 | 1.390 | 1.580 | 1.610 | 1.594 | 1.537 | 4.29  |
| 31) | 2-butanone   | 0.049 | 0.050 |       | 0.054 | 0.053 | 0.044 | 0.054 | 0.053 | 0.056 | 0.052 | 7.42  |
| 32) | 1,1-dichloroethane   | 0.857 | 0.846 | 0.792 | 0.869 | 0.864 | 0.816 | 0.896 | 0.903 | 0.935 | 0.864 | 5.11  |
| 33) | chloroprene  | 0.775 | 0.749 | 0.687 | 0.786 | 0.789 | 0.734 | 0.811 | 0.824 | 0.796 | 0.772 | 5.53  |
| 34) | acrylonitrile  | 0.149 | 0.148 |       | 0.153 | 0.154 | 0.115 | 0.155 | 0.157 | 0.140 | 0.146 | 9.48  |
| 35) | vinyl acetate  | 0.079 | 0.092 |       | 0.098 | 0.097 |       | 0.099 | 0.097 |       | 0.094 | 8.17  |
| 36) | ethyl acetate  | 0.054 | 0.067 |       | 0.078 | 0.077 |       | 0.079 | 0.078 |       | 0.072 | 14.06 |
| 37) | 2,2-dichloropropane  | 0.661 | 0.652 | 0.677 | 0.683 | 0.684 | 0.667 | 0.705 | 0.708 | 0.711 | 0.683 | 3.12  |
| 38) | cis-1,2-dichloroethene                                     | 0.482 | 0.484 | 0.488 | 0.505 | 0.504 | 0.447 | 0.516 | 0.524 | 0.532 | 0.498 | 5.22  |
| 39) | propionitrile  | 0.070 | 0.071 | 0.070 | 0.075 | 0.073 | 0.067 | 0.076 | 0.074 | 0.073 | 0.072 | 3.75  |
| 40) | bromochloromethane   | 0.271 | 0.272 |       | 0.273 | 0.267 | 0.218 | 0.276 | 0.277 | 0.292 | 0.268 | 8.06  |
| 41) | tetrahydrofuran  | 0.049 | 0.049 |       | 0.056 | 0.055 |       | 0.057 | 0.055 | 0.043 | 0.052 | 9.57  |
| 42) | chloroform   | 0.735 | 0.760 | 0.778 | 0.776 | 0.765 | 0.764 | 0.787 | 0.797 | 0.835 | 0.778 | 3.59  |
| 43) | tert-Butyl Formate   | 0.405 | 0.399 |       | 0.455 | 0.458 | 0.371 | 0.485 | 0.439 | 0.394 | 0.426 | 9.18  |
| 44) | isobutyl alcohol   |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 45) | dibromofluoromethane (s)                                   | 0.420 | 0.423 | 0.422 | 0.430 | 0.416 | 0.421 | 0.422 | 0.423 | 0.426 | 0.423 | 0.94  |
| 46) | methacrylonitrile  | 0.165 | 0.181 |       | 0.191 | 0.189 |       | 0.191 | 0.190 | 0.169 | 0.182 | 6.13  |
| 47) | 1,1,1-trichloroethane                                      | 0.641 | 0.623 | 0.607 | 0.662 | 0.663 | 0.602 | 0.679 | 0.692 | 0.688 | 0.651 | 5.26  |
| 48) | cyclohexane  | 0.769 | 0.745 | 0.699 | 0.751 | 0.739 | 0.700 | 0.752 | 0.776 | 0.792 | 0.747 | 4.25  |
| 49) | 1,1-dichloropropene  | 0.232 | 0.216 |       | 0.226 | 0.227 | 0.195 | 0.232 | 0.241 | 0.226 | 0.224 | 6.14  |
| 50) | tert-amyl alcohol  |       |       |       |       |       |       |       |       |       |       |       |
|     | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |       |       |       |
|     |  | 0.299 | 0.307 |       | 0.316 | 0.312 | 0.283 | 0.320 | 0.322 | 0.317 | 0.310 | 4.22  |
| 51) | carbon tetrachloride                                       | 0.499 | 0.487 |       | 0.504 | 0.517 | 0.420 | 0.540 | 0.518 | 0.579 | 0.508 | 9.00  |

6.8.1  
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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICC6518  
**Lab FileID:** 3C143886.D

|     |   |                           |                |       |       |       |       |       |       |       |       |       |       |
|-----|---|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 52) | I | 1,4-difluorobenzene       | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 53) |   | 1,2-dichloroethane-d4 (s) | 0.302          | 0.303 | 0.304 | 0.312 | 0.315 | 0.301 | 0.310 | 0.301 | 0.302 | 0.306 | 1.79  |
| 54) |   | 2,2,4-trimethylpentane    | 1.368          | 1.344 | 1.316 | 1.387 | 1.408 | 1.262 | 1.426 | 1.440 | 1.446 | 1.377 | 4.49  |
| 55) |   | tert-amyl methyl ether    | 0.261          | 0.256 |       | 0.277 | 0.278 | 0.251 | 0.288 | 0.283 | 0.263 | 0.270 | 5.01  |
| 56) |   | n-butyl alcohol           | 0.008          | 0.008 |       | 0.010 | 0.011 |       | 0.012 | 0.009 |       | 0.010 | 15.85 |
| 57) |   | benzene                   | 1.224          | 1.168 | 1.254 | 1.203 | 1.206 | 1.193 | 1.223 | 1.270 | 1.268 | 1.223 | 2.87  |
| 58) |   | heptane                   | 0.288          | 0.280 | 0.275 | 0.296 | 0.306 | 0.272 | 0.315 | 0.309 | 0.306 | 0.294 | 5.39  |
| 59) |   | isopropyl acetate         |                |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 60) |   | 1,2-dichloroethane        | 0.377          | 0.361 | 0.445 | 0.368 | 0.373 | 0.400 | 0.385 | 0.383 | 0.414 | 0.390 | 6.76  |
| 61) |   | trichloroethene           | 0.292          | 0.274 | 0.253 | 0.287 | 0.291 | 0.276 | 0.300 | 0.297 | 0.294 | 0.285 | 5.29  |
| 62) |   | ethyl acrylate            | 0.370          | 0.362 |       | 0.384 | 0.385 | 0.285 | 0.398 | 0.384 | 0.360 | 0.366 | 9.58  |
| 63) |   | 2-nitropropane            | 0.085          | 0.086 |       | 0.097 | 0.103 |       | 0.113 | 0.092 |       | 0.096 | 10.90 |
| 64) |   | 2-chloroethyl vinyl ether | 0.194          | 0.192 | 0.187 | 0.201 | 0.199 | 0.183 | 0.200 | 0.205 | 0.204 | 0.196 | 3.95  |
| 65) |   | methyl methacrylate       | 0.072          | 0.073 |       | 0.078 | 0.081 |       | 0.082 | 0.082 | 0.060 | 0.076 | 10.68 |
| 66) |   | 1,2-dichloropropane       | 0.312          | 0.302 | 0.291 | 0.318 | 0.319 | 0.287 | 0.333 | 0.328 | 0.334 | 0.314 | 5.53  |
| 67) |   | methylcyclohexane         | 0.574          | 0.568 | 0.477 | 0.593 | 0.594 | 0.575 | 0.608 | 0.618 | 0.611 | 0.580 | 7.31  |
| 68) |   | dibromomethane            | 0.149          | 0.151 |       | 0.158 | 0.159 | 0.124 | 0.164 | 0.160 | 0.156 | 0.152 | 8.13  |
| 69) |   | bromodichloromethane      | 0.328          | 0.329 | 0.295 | 0.362 | 0.371 | 0.316 | 0.388 | 0.365 | 0.354 | 0.345 | 8.70  |
| 70) |   | epichlorohydrin           | 0.029          | 0.031 |       | 0.032 | 0.032 |       | 0.033 | 0.031 | 0.031 | 0.031 | 4.52  |
| 71) |   | cis-1,3-dichloropropene   | 0.502          | 0.473 | 0.435 | 0.514 | 0.517 | 0.442 | 0.531 | 0.522 | 0.516 | 0.495 | 7.22  |
| 72) |   | 4-methyl-2-pentanone      | 0.044          | 0.045 |       | 0.049 | 0.049 | 0.038 | 0.050 | 0.048 | 0.045 | 0.046 | 8.76  |
| 73) |   | 3-methyl-1-butanol        | 0.010          | 0.012 |       | 0.014 | 0.015 |       | 0.017 | 0.014 |       | 0.014 | 17.66 |
| 74) | I | chlorobenzene-d5          | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 75) |   | toluene-d8 (s)            | 1.304          | 1.301 | 1.296 | 1.299 | 1.308 | 1.288 | 1.301 | 1.306 | 1.288 | 1.299 | 0.54  |
| 76) |   | toluene                   | 0.855          | 0.828 | 0.887 | 0.835 | 0.845 | 0.765 | 0.842 | 0.878 | 0.868 | 0.845 | 4.26  |
| 77) |   | trans-1,3-dichloropropene | 0.455          | 0.457 | 0.453 | 0.487 | 0.494 | 0.426 | 0.506 | 0.491 | 0.473 | 0.471 | 5.40  |
| 78) |   | ethyl methacrylate        | 0.414          | 0.413 | 0.360 | 0.446 | 0.450 | 0.357 | 0.455 | 0.452 | 0.426 | 0.419 | 9.01  |
| 79) |   | 1,1,2-trichloroethane     | 0.220          | 0.233 | 0.215 | 0.236 | 0.240 | 0.209 | 0.245 | 0.241 | 0.234 | 0.230 | 5.52  |
| 80) |   | 2-hexanone                | 0.121          | 0.121 | 0.109 | 0.127 | 0.131 | 0.107 | 0.134 | 0.129 | 0.124 | 0.123 | 7.82  |
| 81) |   | tetrachloroethene         | 0.362          | 0.342 | 0.273 | 0.341 | 0.343 | 0.333 | 0.340 | 0.360 | 0.349 | 0.338 | 7.69  |
| 82) |   | 1,3-dichloropropane       |                |       |       |       |       |       |       |       |       |       |       |

6.8.1  
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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICC6518  
**Lab FileID:** 3C143886.D

|      |                             |                |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)  | butyl acetate               | 0.506          | 0.487 | 0.442 | 0.500 | 0.497 | 0.442 | 0.498 | 0.511 | 0.523 | 0.490 | 5.92  |
| 84)  | dibromochloromethane        | 0.230          | 0.221 | 0.272 | 0.232 | 0.235 | 0.216 | 0.245 | 0.237 | 0.257 | 0.238 | 7.41  |
| 85)  | 1,2-dibromoethane           | 0.228          | 0.234 |       | 0.268 | 0.280 | 0.208 | 0.292 | 0.263 | 0.246 | 0.252 | 11.21 |
| 86)  | n-butyl ether               | 0.287          | 0.279 | 0.209 | 0.284 | 0.286 | 0.288 | 0.288 | 0.297 | 0.270 | 0.276 | 9.57  |
| 87)  | chlorobenzene               | 1.614          | 1.626 | 1.671 | 1.662 | 1.673 | 1.509 | 1.657 | 1.721 | 1.667 | 1.644 | 3.59  |
| 88)  | 1,1,1,2-tetrachloroethane   | 0.889          | 0.865 | 0.981 | 0.863 | 0.879 | 0.849 | 0.870 | 0.912 | 0.934 | 0.894 | 4.68  |
| 89)  | ethylbenzene                | 0.260          | 0.258 | 0.242 | 0.287 | 0.293 | 0.248 | 0.303 | 0.294 | 0.269 | 0.273 | 8.09  |
| 90)  | m,p-xylene                  | 1.571          | 1.555 | 1.656 | 1.570 | 1.562 | 1.499 | 1.530 | 1.654 | 1.682 | 1.587 | 3.95  |
| 91)  | o-xylene                    | 0.619          | 0.599 | 0.626 | 0.597 | 0.604 | 0.596 | 0.596 | 0.631 | 0.627 | 0.611 | 2.43  |
| 92)  | styrene                     | 1.217          | 1.203 | 1.239 | 1.222 | 1.228 | 1.178 | 1.245 | 1.287 | 1.294 | 1.235 | 3.03  |
| 93)  | bromoform                   | 0.988          | 0.995 | 0.963 | 1.009 | 1.008 | 0.904 | 1.020 | 1.055 | 1.039 | 0.998 | 4.47  |
| 94)  | butyl acrylate              | 0.124          | 0.130 |       | 0.157 | 0.173 |       | 0.191 | 0.152 | 0.127 | 0.151 | 16.75 |
| 95)  | isopropylbenzene            | 0.588          | 0.595 | 0.580 | 0.670 | 0.684 | 0.499 | 0.750 | 0.654 | 0.580 | 0.622 | 11.92 |
| 96)  | cis-1,4-dichloro-2-butene   | 1.520          | 1.528 | 1.464 | 1.512 | 1.502 | 1.447 | 1.509 | 1.587 | 1.594 | 1.518 | 3.21  |
|      |                             | 0.120          | 0.118 |       | 0.133 | 0.139 | 0.098 | 0.152 | 0.131 | 0.117 | 0.126 | 12.99 |
| 97)  | I 1,4-dichlorobenzene-d     | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 98)  | 4-bromofluorobenzene (s)    | 0.888          | 0.889 | 0.902 | 0.891 | 0.866 | 0.896 | 0.849 | 0.895 | 0.885 | 0.885 | 1.87  |
| 99)  | bromobenzene                | 0.702          | 0.679 | 0.729 | 0.692 | 0.678 | 0.680 | 0.685 | 0.733 | 0.736 | 0.702 | 3.48  |
| 100) | 1,1,2,2-tetrachloroethane   | 0.662          | 0.656 | 0.591 | 0.706 | 0.718 | 0.579 | 0.724 | 0.724 | 0.650 | 0.668 | 8.32  |
| 101) | trans-1,4-dichloro-2-butene | 0.081          | 0.083 |       | 0.095 | 0.100 |       | 0.104 | 0.092 |       | 0.093 | 9.91  |
| 102) | 1,2,3-trichloropropane      | 0.197          | 0.196 |       | 0.203 | 0.201 | 0.161 | 0.207 | 0.206 | 0.188 | 0.195 | 7.72  |
| 103) | n-propylbenzene             | 3.577          | 3.554 | 3.653 | 3.595 | 3.497 | 3.459 | 3.301 | 3.809 | 3.948 | 3.599 | 5.29  |
| 104) | 2-chlorotoluene             | 0.694          | 0.675 | 0.652 | 0.678 | 0.682 | 0.664 | 0.675 | 0.719 | 0.766 | 0.690 | 4.99  |
| 105) | 4-chlorotoluene             | 0.696          | 0.689 | 0.716 | 0.681 | 0.683 | 0.630 | 0.686 | 0.718 | 0.748 | 0.694 | 4.68  |
| 106) | 1,3,5-trimethylbenzene      | 2.404          | 2.416 | 2.576 | 2.451 | 2.437 | 2.362 | 2.387 | 2.580 | 2.680 | 2.477 | 4.39  |
| 107) | tert-butylbenzene           | 2.149          | 2.112 | 2.236 | 2.150 | 2.149 | 2.131 | 2.122 | 2.284 | 2.275 | 2.179 | 3.09  |
| 108) | 1,2,4-trimethylbenzene      | 2.476          | 2.437 | 2.509 | 2.494 | 2.477 | 2.495 | 2.410 | 2.595 | 2.617 | 2.501 | 2.69  |
| 109) | sec-butylbenzene            | 3.248          | 3.230 | 3.324 | 3.272 | 3.256 | 3.115 | 3.100 | 3.421 | 3.656 | 3.291 | 5.11  |
| 110) | 1,3-dichlorobenzene         | 1.347          | 1.332 | 1.386 | 1.355 | 1.354 | 1.267 | 1.351 | 1.403 | 1.415 | 1.357 | 3.20  |
| 111) | p-isopropyltoluene          | 2.772          | 2.716 | 2.743 | 2.808 | 2.808 | 2.705 | 2.686 | 2.877 | 3.038 | 2.795 | 3.90  |
| 112) | 1,4-dichlorobenzene         |                |       |       |       |       |       |       |       |       |       |       |

6.8.1  
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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICC6518  
**Lab FileID:** 3C143886.D

|      |                             |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 113) | 1,2-dichlorobenzene         | 1.339 | 1.339 | 1.462 | 1.355 | 1.374 | 1.372 | 1.350 | 1.400 | 1.524 | 1.390 | 4.54  |
| 114) | n-butylbenzene              | 1.249 | 1.253 | 1.350 | 1.276 | 1.305 | 1.223 | 1.303 | 1.322 | 1.313 | 1.288 | 3.18  |
| 115) | 1,2-dibromo-3-chloropropane | 1.459 | 1.430 | 1.415 | 1.520 | 1.557 | 1.458 | 1.520 | 1.537 | 1.567 | 1.496 | 3.76  |
| 116) | 1,3,5-Trichlorobenzene      | 0.119 | 0.127 |       | 0.159 | 0.166 |       | 0.171 | 0.145 | 0.125 | 0.145 | 14.57 |
| 117) | 1,2,4-trichlorobenzene      | 1.118 | 1.146 | 1.191 | 1.214 | 1.232 | 1.277 | 1.158 | 1.200 | 1.241 | 1.198 | 4.22  |
| 118) | hexachlorobutadiene         | 1.022 | 1.016 | 1.153 | 1.084 | 1.094 | 1.062 | 1.007 | 1.069 | 1.079 | 1.065 | 4.30  |
| 119) | naphthalene                 | 0.572 | 0.563 | 0.596 | 0.620 | 0.618 | 0.596 | 0.587 | 0.610 | 0.598 | 0.596 | 3.28  |
| 120) | 1,2,3-trichlorobenzene      | 2.365 | 2.320 | 2.571 | 2.538 | 2.541 | 2.428 | 2.325 | 2.487 | 2.470 | 2.449 | 3.90  |
| 121) | hexachloroethane            | 0.982 | 0.978 | 1.076 | 1.049 | 1.052 | 0.973 | 0.961 | 1.037 | 1.031 | 1.015 | 4.12  |
| 122) | Benzyl chloride             | 0.262 | 0.274 |       | 0.349 | 0.391 |       | 0.425 | 0.334 | 0.273 | 0.330 | 19.22 |
| 123) | 2-ethylhexyl acrylate       | 1.181 | 1.188 | 1.150 | 1.371 | 1.430 | 1.145 | 1.463 | 1.329 | 1.199 | 1.273 | 9.87  |
| 124) | 2-methylnaphthalene         | 0.749 | 0.796 |       | 1.003 | 1.071 |       | 1.033 | 0.922 |       | 0.929 | 14.16 |
|      |                             | 1.686 | 1.711 |       | 1.851 | 1.812 | 1.711 | 1.613 | 1.840 | 1.805 | 1.754 | 4.87  |

-----  
 (#) = Out of Range ### Number of calibration levels exceeded format ###

M3C6518.M

Thu May 03 09:47:36 2018

MS3C

# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V3C6518-ICV6518  
 Lab FileID: 3C143891.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3C6518\3C143891.D Vial: 14  
 Acq On : 28 Apr 2018 11:44 pm Operator: Gabriela  
 Sample : ICV6518-50 Inst : MS3C  
 Misc : MS25850,V3C6518,5.0,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6518.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 Last Update : Thu May 03 09:36:05 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 99    | 0.00     | 2.60 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   | 1.124 | 1.141 | -1.5         | 98    | 0.00     | 2.66 |
| 4   | 1,4-dioxane              | 0.117 | 0.129 | -10.3        | 102   | 0.00     | 5.32 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 103   | 0.00     | 4.05 |
| 6   | chlorodifluoromethane    | 0.538 | 0.440 | 18.2         | 85    | 0.00     | 1.11 |
| 7   | dichlorodifluoromethane  | 0.499 | 0.626 | -25.5        | 125   | 0.00     | 1.08 |
| 8   | chloromethane            | 0.620 | 0.743 | -19.8        | 130   | 0.00     | 1.24 |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | vinyl chloride           | 0.593 | 0.630 | -6.2         | 109   | 0.00     | 1.30 |
| 11  | bromomethane             | 0.336 | 0.248 | 26.2         | 94    | 0.00     | 1.54 |
| 12  | chloroethane             | 0.356 | 0.358 | -0.6         | 104   | 0.00     | 1.62 |
| 13  | vinyl Bromide            | 0.375 | 0.365 | 2.7          | 99    | 0.00     | 1.75 |
| 14  | trichlorofluoromethane   | 0.608 | 0.601 | 1.2          | 102   | 0.00     | 1.78 |
| 15  | ethyl ether              | 0.283 | 0.280 | 1.1          | 98    | 0.00     | 2.00 |
| 16  | 2-chloropropane          | 0.176 | 0.187 | -6.3         | 104   | 0.00     | 2.08 |
| 17  | acrolein                 | 0.085 | 0.088 | -3.5         | 100   | 0.00     | 2.16 |
| 18  | freon 113                | 0.313 | 0.313 | 0.0          | 99    | 0.00     | 2.14 |
| 19  | 1,1-dichloroethene       | 0.408 | 0.375 | 8.1          | 92    | 0.00     | 2.17 |
| 20  | acetone                  | 0.036 | 0.038 | -5.6         | 103   | 0.00     | 2.27 |
| 21  | acetonitrile             |       |       | -----NA----- |       |          |      |
| 22  | iodomethane              | 0.216 | 0.341 | -57.9#       | 130   | 0.00     | 2.30 |
| 23  | carbon disulfide         | 1.268 | 1.339 | -5.6         | 110   | 0.00     | 2.32 |
| 24  | methylene chloride       | 0.466 | 0.449 | 3.6          | 97    | 0.00     | 2.58 |
| 25  | methyl acetate           | 0.367 | 0.343 | 6.5          | 94    | 0.00     | 2.48 |
| 26  | methyl tert butyl ether  | 1.314 | 1.281 | 2.5          | 99    | 0.00     | 2.73 |
| 27  | trans-1,2-dichloroethene | 0.451 | 0.444 | 1.6          | 99    | 0.00     | 2.75 |
| 28  | hexane                   | 0.855 | 0.775 | 9.4          | 96    | 0.00     | 2.89 |
| 29  | di-isopropyl ether       | 1.658 | 1.662 | -0.2         | 102   | 0.00     | 3.10 |
| 30  | ethyl tert-butyl ether   | 1.537 | 1.515 | 1.4          | 101   | 0.00     | 3.39 |
| 31  | 2-butanone               | 0.052 | 0.053 | -1.9         | 103   | 0.00     | 3.62 |
| 32  | 1,1-dichloroethane       | 0.864 | 0.851 | 1.5          | 101   | 0.00     | 3.11 |
| 33  | chloroprene              | 0.772 | 0.797 | -3.2         | 105   | 0.00     | 3.15 |
| 34  | acrylonitrile            | 0.146 | 0.154 | -5.5         | 104   | 0.00     | 2.82 |
| 35  | vinyl acetate            | 0.094 | 0.105 | -11.7        | 110   | 0.00     | 3.14 |
| 36  | ethyl acetate            | 0.072 | 0.075 | -4.2         | 100   | 0.00     | 3.64 |
| 37  | 2,2-dichloropropane      | 0.683 | 0.671 | 1.8          | 102   | 0.00     | 3.56 |
| 38  | cis-1,2-dichloroethene   | 0.498 | 0.507 | -1.8         | 104   | 0.00     | 3.59 |
| 39  | propionitrile            | 0.072 | 0.071 | 1.4          | 99    | 0.00     | 3.75 |
| 40  | bromochloromethane       | 0.268 | 0.270 | -0.7         | 102   | 0.00     | 3.80 |
| 41  | tetrahydrofuran          | 0.052 | 0.053 | -1.9         | 99    | 0.00     | 3.81 |

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICV6518  
**Lab FileID:** 3C143891.D

|      |                           |       |       |              |     |      |      |
|------|---------------------------|-------|-------|--------------|-----|------|------|
| 42   | chloroform                | 0.778 | 0.761 | 2.2          | 101 | 0.00 | 3.86 |
| 43   | tert-Butyl Formate        | 0.426 | 0.318 | 25.4         | 72  | 0.00 | 3.88 |
| 44   | isobutyl alcohol          |       |       | -----NA----- |     |      |      |
| 45 S | dibromofluoromethane (s)  | 0.423 | 0.421 | 0.5          | 101 | 0.00 | 4.01 |
| 46   | methacrylonitrile         | 0.182 | 0.189 | -3.8         | 102 | 0.00 | 3.84 |
| 47   | 1,1,1-trichloroethane     | 0.651 | 0.640 | 1.7          | 100 | 0.00 | 3.98 |
| 48   | cyclohexane               | 0.747 | 0.740 | 0.9          | 102 | 0.00 | 3.96 |
| 49   | 1,1-dichloropropene       | 0.224 | 0.226 | -0.9         | 103 | 0.00 | 4.13 |
| 50   | tert-amyl alcohol         | 0.310 | 0.303 | 2.3          | 99  | 0.00 | 4.39 |
| 51   | carbon tetrachloride      | 0.508 | 0.505 | 0.6          | 104 | 0.00 | 4.09 |
| 52 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 101 | 0.00 | 4.71 |
| 53 S | 1,2-dichloroethane-d4 (s) | 0.306 | 0.304 | 0.7          | 98  | 0.00 | 4.33 |
| 54   | 2,2,4-trimethylpentane    | 1.377 | 1.372 | 0.4          | 100 | 0.00 | 4.29 |
| 55   | tert-amyl methyl ether    | 0.270 | 0.273 | -1.1         | 100 | 0.00 | 4.39 |
| 56   | n-butyl alcohol           | 0.010 | 0.010 | 0.0          | 103 | 0.00 | 4.93 |
| 57   | benzene                   | 1.223 | 1.214 | 0.7          | 102 | 0.00 | 4.31 |
| 58   | heptane                   | 0.294 | 0.330 | -12.2        | 113 | 0.00 | 4.48 |
| 59   | isopropyl acetate         |       |       | -----NA----- |     |      |      |
| 60   | 1,2-dichloroethane        | 0.390 | 0.370 | 5.1          | 102 | 0.00 | 4.40 |
| 61   | trichloroethene           | 0.285 | 0.290 | -1.8         | 103 | 0.00 | 4.92 |
| 62   | ethyl acrylate            | 0.366 | 0.386 | -5.5         | 102 | 0.00 | 5.07 |
| 63   | 2-nitropropane            | 0.096 | 0.102 | -6.2         | 107 | 0.00 | 5.78 |
| 64   | 2-chloroethyl vinyl ether | 0.196 | 0.209 | -6.6         | 105 | 0.00 | 5.80 |
| 65   | methyl methacrylate       | 0.076 | 0.080 | -5.3         | 104 | 0.00 | 5.30 |
| 66   | 1,2-dichloropropane       | 0.314 | 0.318 | -1.3         | 101 | 0.00 | 5.20 |
| 67   | methylcyclohexane         | 0.580 | 0.567 | 2.2          | 97  | 0.00 | 5.03 |
| 68   | dibromomethane            | 0.152 | 0.160 | -5.3         | 103 | 0.00 | 5.32 |
| 69   | bromodichloromethane      | 0.345 | 0.361 | -4.6         | 101 | 0.00 | 5.47 |
| 70   | epichlorohydrin           | 0.031 | 0.032 | -3.2         | 100 | 0.00 | 5.87 |
| 71   | cis-1,3-dichloropropene   | 0.495 | 0.517 | -4.4         | 102 | 0.00 | 5.92 |
| 72   | 4-methyl-2-pentanone      | 0.046 | 0.052 | -13.0        | 107 | 0.00 | 6.07 |
| 73   | 3-methyl-1-butanol        | 0.014 | 0.014 | 0.0          | 102 | 0.00 | 6.14 |
| 74 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 101 | 0.00 | 7.42 |
| 75 S | toluene-d8 (s)            | 1.299 | 1.316 | -1.3         | 102 | 0.00 | 6.11 |
| 76   | toluene                   | 0.845 | 0.860 | -1.8         | 104 | 0.00 | 6.17 |
| 77   | trans-1,3-dichloropropene | 0.471 | 0.476 | -1.1         | 99  | 0.00 | 6.46 |
| 78   | ethyl methacrylate        | 0.419 | 0.433 | -3.3         | 98  | 0.00 | 6.50 |
| 79   | 1,1,2-trichloroethane     | 0.230 | 0.238 | -3.5         | 101 | 0.00 | 6.62 |
| 80   | 2-hexanone                | 0.123 | 0.130 | -5.7         | 103 | 0.00 | 6.83 |
| 81   | tetrachloroethene         |       |       | -----NA----- |     |      |      |
| 82   | 1,3-dichloropropane       | 0.490 | 0.514 | -4.9         | 104 | 0.00 | 6.77 |
| 83   | butyl acetate             | 0.238 | 0.243 | -2.1         | 106 | 0.00 | 6.92 |
| 84   | dibromochloromethane      | 0.252 | 0.285 | -13.1        | 107 | 0.00 | 6.94 |
| 85   | 1,2-dibromoethane         | 0.276 | 0.285 | -3.3         | 101 | 0.00 | 7.04 |
| 86   | n-butyl ether             | 1.644 | 1.660 | -1.0         | 101 | 0.00 | 7.50 |
| 87   | chlorobenzene             | 0.894 | 0.889 | 0.6          | 104 | 0.00 | 7.44 |
| 88   | 1,1,1,2-tetrachloroethane | 0.273 | 0.296 | -8.4         | 104 | 0.00 | 7.53 |
| 89   | ethylbenzene              | 1.587 | 1.607 | -1.3         | 103 | 0.00 | 7.52 |
| 90   | m,p-xylene                | 0.611 | 0.614 | -0.5         | 104 | 0.00 | 7.62 |
| 91   | o-xylene                  | 1.235 | 1.253 | -1.5         | 103 | 0.00 | 7.96 |
| 92   | styrene                   | 0.998 | 1.029 | -3.1         | 103 | 0.00 | 7.98 |
| 93   | bromoform                 | 0.151 | 0.172 | -13.9        | 111 | 0.00 | 8.15 |
| 94   | butyl acrylate            | 0.622 | 0.670 | -7.7         | 101 | 0.00 | 7.96 |
| 95   | isopropylbenzene          | 1.518 | 1.541 | -1.5         | 103 | 0.00 | 8.25 |
| 96   | cis-1,4-dichloro-2-butene | 0.126 | 0.130 | -3.2         | 98  | 0.00 | 8.38 |
| 97 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 99  | 0.00 | 9.35 |
| 98 S | 4-bromofluorobenzene (s)  | 0.885 | 0.903 | -2.0         | 101 | 0.00 | 8.42 |

6.8.2  
6



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICV6518  
**Lab FileID:** 3C143891.D

|     |                           |       |       |       |     |      |       |
|-----|---------------------------|-------|-------|-------|-----|------|-------|
| 99  | bromobenzene              | 0.702 | 0.717 | -2.1  | 103 | 0.00 | 8.53  |
| 100 | 1,1,2,2-tetrachloroethane | 0.668 | 0.725 | -8.5  | 102 | 0.00 | 8.57  |
| 101 | trans-1,4-dichloro-2-bute | 0.093 | 0.106 | -14.0 | 111 | 0.00 | 8.63  |
| 102 | 1,2,3-trichloropropane    | 0.195 | 0.206 | -5.6  | 101 | 0.00 | 8.61  |
| 103 | n-propylbenzene           | 3.599 | 3.733 | -3.7  | 103 | 0.00 | 8.59  |
| 104 | 2-chlorotoluene           | 0.690 | 0.699 | -1.3  | 102 | 0.00 | 8.68  |
| 105 | 4-chlorotoluene           | 0.694 | 0.726 | -4.6  | 106 | 0.00 | 8.78  |
| 106 | 1,3,5-trimethylbenzene    | 2.477 | 2.535 | -2.3  | 103 | 0.00 | 8.75  |
| 107 | tert-butylbenzene         | 2.179 | 2.244 | -3.0  | 104 | 0.00 | 9.00  |
| 108 | 1,2,4-trimethylbenzene    | 2.501 | 2.596 | -3.8  | 103 | 0.00 | 9.05  |
| 109 | sec-butylbenzene          | 3.291 | 3.416 | -3.8  | 104 | 0.00 | 9.17  |
| 110 | 1,3-dichlorobenzene       | 1.357 | 1.386 | -2.1  | 102 | 0.00 | 9.29  |
| 111 | p-isopropyltoluene        | 2.795 | 2.874 | -2.8  | 102 | 0.00 | 9.29  |
| 112 | 1,4-dichlorobenzene       | 1.390 | 1.372 | 1.3   | 100 | 0.00 | 9.37  |
| 113 | 1,2-dichlorobenzene       | 1.288 | 1.312 | -1.9  | 102 | 0.00 | 9.66  |
| 114 | n-butylbenzene            | 1.496 | 1.566 | -4.7  | 102 | 0.00 | 9.61  |
| 115 | 1,2-dibromo-3-chloropropa | 0.145 | 0.156 | -7.6  | 98  | 0.00 | 10.30 |
| 116 | 1,3,5-Trichlorobenzene    | 1.198 | 1.209 | -0.9  | 99  | 0.00 | 10.41 |
| 117 | 1,2,4-trichlorobenzene    | 1.065 | 1.097 | -3.0  | 100 | 0.00 | 10.91 |
| 118 | hexachlorobutadiene       | 0.596 | 0.621 | -4.2  | 99  | 0.00 | 11.00 |
| 119 | naphthalene               | 2.449 | 2.588 | -5.7  | 101 | 0.00 | 11.10 |
| 120 | 1,2,3-trichlorobenzene    | 1.015 | 1.050 | -3.4  | 99  | 0.00 | 11.29 |
| 121 | hexachloroethane          | 0.330 | 0.391 | -18.5 | 111 | 0.00 | 9.82  |
| 122 | Benzyl chloride           | 1.273 | 1.112 | 12.6  | 81  | 0.00 | 9.49  |
| 123 | 2-ethylhexyl acrylate     | 0.929 | 1.105 | -18.9 | 109 | 0.00 | 11.05 |
| 124 | 2-methylnaphthalene       | 1.754 | 1.765 | -0.6  | 95  | 0.00 | 11.97 |

(#) = Out of Range  
 3C143886.D M3C6518.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 09:47:37 2018 MS3C

6.8.2  
 6

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICV6518  
**Lab FileID:** 3C143892.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3C6518\3C143892.D Vial: 15  
 Acq On : 29 Apr 2018 12:09 am Operator: Gabriela  
 Sample : ICV6518-50 Inst : MS3C  
 Misc : MS25850,V3C6518,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6518.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 Last Update : Mon Apr 30 09:56:33 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 97    | 0.00     | 2.59 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 102   | 0.00     | 4.05 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 8   | chloromethane            |       |       | -----NA----- |       |          |      |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 11  | bromomethane             |       |       | -----NA----- |       |          |      |
| 12  | chloroethane             |       |       | -----NA----- |       |          |      |
| 13  | vinyl Bromide            |       |       | -----NA----- |       |          |      |
| 14  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 15  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 16  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 17  | acrolein                 |       |       | -----NA----- |       |          |      |
| 18  | freon 113                |       |       | -----NA----- |       |          |      |
| 19  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 20  | acetone                  |       |       | -----NA----- |       |          |      |
| 21  | acetonitrile             | 0.063 | 0.057 | 9.5          | 95    | 0.00     | 2.53 |
| 22  | iodomethane              |       |       | -----NA----- |       |          |      |
| 23  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 24  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 25  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 26  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 27  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 28  | hexane                   |       |       | -----NA----- |       |          |      |
| 29  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 30  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 31  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 32  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 33  | chloroprene              |       |       | -----NA----- |       |          |      |
| 34  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 35  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 36  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 37  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 38  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 39  | propionitrile            |       |       | -----NA----- |       |          |      |
| 40  | bromochloromethane       |       |       | -----NA----- |       |          |      |
| 41  | tetrahydrofuran          |       |       | -----NA----- |       |          |      |

# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V3C6518-ICV6518  
 Lab FileID: 3C143892.D

|      |                           |       |       |      |     |      |      |  |
|------|---------------------------|-------|-------|------|-----|------|------|--|
| 42   | chloroform                |       |       |      |     |      |      |  |
| 43   | tert-Butyl Formate        |       |       |      |     |      |      |  |
| 44   | isobutyl alcohol          |       |       |      |     |      |      |  |
| 45 S | dibromofluoromethane (s)  | 0.423 | 0.414 | 2.1  | 98  | 0.00 | 4.01 |  |
| 46   | methacrylonitrile         |       |       |      |     |      |      |  |
| 47   | 1,1,1-trichloroethane     |       |       |      |     |      |      |  |
| 48   | cyclohexane               |       |       |      |     |      |      |  |
| 49   | 1,1-dichloropropene       |       |       |      |     |      |      |  |
| 50   | tert-amyl alcohol         |       |       |      |     |      |      |  |
| 51   | carbon tetrachloride      |       |       |      |     |      |      |  |
| 52 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 101 | 0.00 | 4.71 |  |
| 53 S | 1,2-dichloroethane-d4 (s) | 0.306 | 0.299 | 2.3  | 97  | 0.00 | 4.33 |  |
| 54   | 2,2,4-trimethylpentane    |       |       |      |     |      |      |  |
| 55   | tert-amyl methyl ether    |       |       |      |     |      |      |  |
| 56   | n-butyl alcohol           |       |       |      |     |      |      |  |
| 57   | benzene                   |       |       |      |     |      |      |  |
| 58   | heptane                   |       |       |      |     |      |      |  |
| 59   | isopropyl acetate         |       |       |      |     |      |      |  |
| 60   | 1,2-dichloroethane        |       |       |      |     |      |      |  |
| 61   | trichloroethene           |       |       |      |     |      |      |  |
| 62   | ethyl acrylate            |       |       |      |     |      |      |  |
| 63   | 2-nitropropane            |       |       |      |     |      |      |  |
| 64   | 2-chloroethyl vinyl ether |       |       |      |     |      |      |  |
| 65   | methyl methacrylate       |       |       |      |     |      |      |  |
| 66   | 1,2-dichloropropane       |       |       |      |     |      |      |  |
| 67   | methylcyclohexane         |       |       |      |     |      |      |  |
| 68   | dibromomethane            |       |       |      |     |      |      |  |
| 69   | bromodichloromethane      |       |       |      |     |      |      |  |
| 70   | epichlorohydrin           |       |       |      |     |      |      |  |
| 71   | cis-1,3-dichloropropene   |       |       |      |     |      |      |  |
| 72   | 4-methyl-2-pentanone      |       |       |      |     |      |      |  |
| 73   | 3-methyl-1-butanol        |       |       |      |     |      |      |  |
| 74 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 99  | 0.00 | 7.42 |  |
| 75 S | toluene-d8 (s)            | 1.299 | 1.302 | -0.2 | 99  | 0.00 | 6.11 |  |
| 76   | toluene                   |       |       |      |     |      |      |  |
| 77   | trans-1,3-dichloropropene |       |       |      |     |      |      |  |
| 78   | ethyl methacrylate        |       |       |      |     |      |      |  |
| 79   | 1,1,2-trichloroethane     |       |       |      |     |      |      |  |
| 80   | 2-hexanone                |       |       |      |     |      |      |  |
| 81   | tetrachloroethene         | 0.338 | 0.342 | -1.2 | 100 | 0.00 | 6.64 |  |
| 82   | 1,3-dichloropropane       |       |       |      |     |      |      |  |
| 83   | butyl acetate             |       |       |      |     |      |      |  |
| 84   | dibromochloromethane      |       |       |      |     |      |      |  |
| 85   | 1,2-dibromoethane         |       |       |      |     |      |      |  |
| 86   | n-butyl ether             |       |       |      |     |      |      |  |
| 87   | chlorobenzene             |       |       |      |     |      |      |  |
| 88   | 1,1,1,2-tetrachloroethane |       |       |      |     |      |      |  |
| 89   | ethylbenzene              |       |       |      |     |      |      |  |
| 90   | m,p-xylene                |       |       |      |     |      |      |  |
| 91   | o-xylene                  |       |       |      |     |      |      |  |
| 92   | styrene                   |       |       |      |     |      |      |  |
| 93   | bromoform                 |       |       |      |     |      |      |  |
| 94   | butyl acrylate            |       |       |      |     |      |      |  |
| 95   | isopropylbenzene          |       |       |      |     |      |      |  |
| 96   | cis-1,4-dichloro-2-butene |       |       |      |     |      |      |  |
| 97 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 100 | 0.00 | 9.35 |  |
| 98 S | 4-bromofluorobenzene (s)  | 0.885 | 0.889 | -0.5 | 100 | 0.00 | 8.42 |  |

6.8.3

6



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6518-ICV6518  
**Lab FileID:** 3C143892.D

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|     |                           |              |
|-----|---------------------------|--------------|
| 99  | bromobenzene              | -----NA----- |
| 100 | 1,1,2,2-tetrachloroethane | -----NA----- |
| 101 | trans-1,4-dichloro-2-bute | -----NA----- |
| 102 | 1,2,3-trichloropropane    | -----NA----- |
| 103 | n-propylbenzene           | -----NA----- |
| 104 | 2-chlorotoluene           | -----NA----- |
| 105 | 4-chlorotoluene           | -----NA----- |
| 106 | 1,3,5-trimethylbenzene    | -----NA----- |
| 107 | tert-butylbenzene         | -----NA----- |
| 108 | 1,2,4-trimethylbenzene    | -----NA----- |
| 109 | sec-butylbenzene          | -----NA----- |
| 110 | 1,3-dichlorobenzene       | -----NA----- |
| 111 | p-isopropyltoluene        | -----NA----- |
| 112 | 1,4-dichlorobenzene       | -----NA----- |
| 113 | 1,2-dichlorobenzene       | -----NA----- |
| 114 | n-butylbenzene            | -----NA----- |
| 115 | 1,2-dibromo-3-chloropropa | -----NA----- |
| 116 | 1,3,5-Trichlorobenzene    | -----NA----- |
| 117 | 1,2,4-trichlorobenzene    | -----NA----- |
| 118 | hexachlorobutadiene       | -----NA----- |
| 119 | naphthalene               | -----NA----- |
| 120 | 1,2,3-trichlorobenzene    | -----NA----- |
| 121 | hexachloroethane          | -----NA----- |
| 122 | Benzyl chloride           | -----NA----- |
| 123 | 2-ethylhexyl acrylate     | -----NA----- |
| 124 | 2-methylnaphthalene       | -----NA----- |

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(#) = Out of Range  
3C143886.D M3C6518.M

SPPC's out = 0 CCC's out = 0  
Tue May 01 14:21:06 2018 MS3C

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6521-CC6518  
**Lab FileID:** 3C143951.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\05...ta\v3c6521\3c143951.d Vial: 3  
 Acq On : 2 May 2018 8:11 am Operator: Gabriela  
 Sample : cc6518-20 Inst : MS3C  
 Misc : MS23682,V3C6521,5.0,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6518.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 123   | 0.00     | 2.59 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   | 1.124 | 1.252 | -11.4        | 128   | 0.00     | 2.66 |
| 4   | 1,4-dioxane              | 0.117 | 0.136 | -16.2        | 130   | 0.00     | 5.33 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 126   | 0.00     | 4.05 |
| 6   | chlorodifluoromethane    | 0.538 | 0.423 | 21.4#        | 94    | 0.00     | 1.11 |
| 7   | dichlorodifluoromethane  | 0.499 | 0.411 | 17.6         | 97    | 0.00     | 1.08 |
| 8   | chloromethane            | 0.620 | 0.528 | 14.8         | 107   | 0.00     | 1.23 |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | vinyl chloride           | 0.593 | 0.501 | 15.5         | 102   | 0.00     | 1.30 |
| 11  | bromomethane             | 0.336 | 0.325 | 3.3          | 121   | 0.00     | 1.54 |
| 12  | chloroethane             | 0.356 | 0.307 | 13.8         | 105   | 0.00     | 1.62 |
| 13  | vinyl Bromide            | 0.375 | 0.302 | 19.5         | 95    | 0.00     | 1.75 |
| 14  | trichlorofluoromethane   | 0.608 | 0.515 | 15.3         | 103   | 0.00     | 1.78 |
| 15  | ethyl ether              | 0.283 | 0.267 | 5.7          | 113   | 0.00     | 2.00 |
| 16  | 2-chloropropane          | 0.176 | 0.156 | 11.4         | 103   | 0.00     | 2.08 |
| 17  | acrolein                 | 0.085 | 0.082 | 3.5          | 120   | 0.00     | 2.15 |
| 18  | freon 113                | 0.313 | 0.241 | 23.0#        | 90    | 0.00     | 2.15 |
| 19  | 1,1-dichloroethene       | 0.408 | 0.338 | 17.2         | 98    | 0.00     | 2.17 |
| 20  | acetone                  | 0.036 | 0.036 | 0.0          | 124   | 0.00     | 2.27 |
| 21  | acetonitrile             | 0.063 | 0.061 | 3.2          | 125   | 0.00     | 2.53 |
| 22  | iodomethane              | 0.216 | 0.167 | 22.7#        | 117   | 0.00     | 2.30 |
| 23  | carbon disulfide         | 1.268 | 1.017 | 19.8         | 98    | 0.00     | 2.32 |
| 24  | methylene chloride       | 0.466 | 0.442 | 5.2          | 114   | 0.00     | 2.58 |
| 25  | methyl acetate           | 0.367 | 0.366 | 0.3          | 124   | 0.00     | 2.48 |
| 26  | methyl tert butyl ether  | 1.314 | 1.269 | 3.4          | 117   | 0.00     | 2.73 |
| 27  | trans-1,2-dichloroethene | 0.451 | 0.398 | 11.8         | 105   | 0.00     | 2.75 |
| 28  | hexane                   | 0.855 | 0.637 | 25.5#        | 91    | 0.00     | 2.89 |
| 29  | di-isopropyl ether       | 1.658 | 1.573 | 5.1          | 114   | 0.00     | 3.10 |
| 30  | ethyl tert-butyl ether   | 1.537 | 1.470 | 4.4          | 115   | 0.00     | 3.39 |
| 31  | 2-butanone               | 0.052 | 0.051 | 1.9          | 121   | 0.00     | 3.63 |
| 32  | 1,1-dichloroethane       | 0.864 | 0.783 | 9.4          | 109   | 0.00     | 3.11 |
| 33  | chloroprene              | 0.772 | 0.667 | 13.6         | 102   | 0.00     | 3.15 |
| 34  | acrylonitrile            | 0.146 | 0.147 | -0.7         | 118   | 0.00     | 2.82 |
| 35  | vinyl acetate            | 0.094 | 0.086 | 8.5          | 112   | 0.00     | 3.14 |
| 36  | ethyl acetate            | 0.072 | 0.077 | -6.9         | 124   | 0.00     | 3.64 |
| 37  | 2,2-dichloropropane      | 0.683 | 0.609 | 10.8         | 108   | 0.00     | 3.56 |
| 38  | cis-1,2-dichloroethene   | 0.498 | 0.461 | 7.4          | 111   | 0.00     | 3.59 |
| 39  | propionitrile            | 0.072 | 0.072 | 0.0          | 124   | 0.00     | 3.75 |
| 40  | bromochloromethane       | 0.268 | 0.262 | 2.2          | 119   | 0.00     | 3.80 |
| 41  | tetrahydrofuran          | 0.052 | 0.055 | -5.8         | 126   | 0.00     | 3.81 |

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6521-CC6518  
**Lab FileID:** 3C143951.D

|      |                           |       |       |      |     |              |      |
|------|---------------------------|-------|-------|------|-----|--------------|------|
| 42   | chloroform                | 0.778 | 0.715 | 8.1  | 113 | 0.00         | 3.86 |
| 43   | tert-Butyl Formate        | 0.426 | 0.401 | 5.9  | 115 | 0.00         | 3.88 |
| 44   | isobutyl alcohol          |       |       |      |     | -----NA----- |      |
| 45 S | dibromofluoromethane (s)  | 0.423 | 0.406 | 4.0  | 121 | 0.00         | 4.01 |
| 46   | methacrylonitrile         | 0.182 | 0.180 | 1.1  | 119 | 0.00         | 3.84 |
| 47   | 1,1,1-trichloroethane     | 0.651 | 0.571 | 12.3 | 104 | 0.00         | 3.98 |
| 48   | cyclohexane               | 0.747 | 0.604 | 19.1 | 98  | 0.00         | 3.96 |
| 49   | 1,1-dichloropropene       | 0.224 | 0.191 | 14.7 | 100 | 0.00         | 4.13 |
| 50   | tert-amyl alcohol         | 0.310 | 0.297 | 4.2  | 117 | 0.00         | 4.39 |
| 51   | carbon tetrachloride      | 0.508 | 0.430 | 15.4 | 105 | 0.00         | 4.09 |
| 52 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 120 | 0.00         | 4.71 |
| 53 S | 1,2-dichloroethane-d4 (s) | 0.306 | 0.309 | -1.0 | 123 | 0.00         | 4.33 |
| 54   | 2,2,4-trimethylpentane    | 1.377 | 1.141 | 17.1 | 95  | 0.00         | 4.29 |
| 55   | tert-amyl methyl ether    | 0.270 | 0.275 | -1.9 | 117 | 0.00         | 4.39 |
| 56   | n-butyl alcohol           | 0.010 | 0.010 | 0.0  | 127 | 0.00         | 4.92 |
| 57   | benzene                   | 1.223 | 1.162 | 5.0  | 110 | 0.00         | 4.31 |
| 58   | heptane                   | 0.294 | 0.238 | 19.0 | 92  | 0.00         | 4.48 |
| 59   | isopropyl acetate         |       |       |      |     | -----NA----- |      |
| 60   | 1,2-dichloroethane        | 0.390 | 0.382 | 2.1  | 120 | 0.00         | 4.40 |
| 61   | trichloroethene           | 0.285 | 0.271 | 4.9  | 109 | 0.00         | 4.92 |
| 62   | ethyl acrylate            | 0.366 | 0.376 | -2.7 | 117 | 0.00         | 5.07 |
| 63   | 2-nitropropane            | 0.096 | 0.098 | -2.1 | 128 | 0.00         | 5.79 |
| 64   | 2-chloroethyl vinyl ether | 0.196 | 0.202 | -3.1 | 119 | 0.00         | 5.79 |
| 65   | methyl methacrylate       | 0.076 | 0.081 | -6.6 | 118 | 0.00         | 5.30 |
| 66   | 1,2-dichloropropane       | 0.314 | 0.312 | 0.6  | 114 | 0.00         | 5.19 |
| 67   | methylcyclohexane         | 0.580 | 0.487 | 16.0 | 94  | 0.00         | 5.03 |
| 68   | dibromomethane            | 0.152 | 0.159 | -4.6 | 119 | 0.00         | 5.32 |
| 69   | bromodichloromethane      | 0.345 | 0.359 | -4.1 | 118 | 0.00         | 5.47 |
| 70   | epichlorohydrin           | 0.031 | 0.033 | -6.5 | 125 | 0.00         | 5.87 |
| 71   | cis-1,3-dichloropropene   | 0.495 | 0.501 | -1.2 | 115 | 0.00         | 5.92 |
| 72   | 4-methyl-2-pentanone      | 0.046 | 0.049 | -6.5 | 122 | 0.00         | 6.06 |
| 73   | 3-methyl-1-butanol        | 0.014 | 0.014 | 0.0  | 123 | 0.00         | 6.14 |
| 74 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 121 | 0.00         | 7.42 |
| 75 S | toluene-d8 (s)            | 1.299 | 1.300 | -0.1 | 120 | 0.00         | 6.11 |
| 76   | toluene                   | 0.845 | 0.807 | 4.5  | 111 | 0.00         | 6.17 |
| 77   | trans-1,3-dichloropropene | 0.471 | 0.491 | -4.2 | 121 | 0.00         | 6.46 |
| 78   | ethyl methacrylate        | 0.419 | 0.435 | -3.8 | 117 | 0.00         | 6.50 |
| 79   | 1,1,2-trichloroethane     | 0.230 | 0.234 | -1.7 | 118 | 0.00         | 6.62 |
| 80   | 2-hexanone                | 0.123 | 0.130 | -5.7 | 121 | 0.00         | 6.83 |
| 81   | tetrachloroethene         | 0.338 | 0.308 | 8.9  | 104 | 0.00         | 6.64 |
| 82   | 1,3-dichloropropane       | 0.490 | 0.495 | -1.0 | 117 | 0.00         | 6.77 |
| 83   | butyl acetate             | 0.238 | 0.232 | 2.5  | 119 | 0.00         | 6.92 |
| 84   | dibromochloromethane      | 0.252 | 0.263 | -4.4 | 121 | 0.00         | 6.94 |
| 85   | 1,2-dibromoethane         | 0.276 | 0.287 | -4.0 | 117 | 0.00         | 7.04 |
| 86   | n-butyl ether             | 1.644 | 1.594 | 3.0  | 112 | 0.00         | 7.50 |
| 87   | chlorobenzene             | 0.894 | 0.848 | 5.1  | 113 | 0.00         | 7.44 |
| 88   | 1,1,1,2-tetrachloroethane | 0.273 | 0.276 | -1.1 | 114 | 0.00         | 7.53 |
| 89   | ethylbenzene              | 1.587 | 1.494 | 5.9  | 109 | 0.00         | 7.52 |
| 90   | m,p-xylene                | 0.611 | 0.574 | 6.1  | 110 | 0.00         | 7.62 |
| 91   | o-xylene                  | 1.235 | 1.194 | 3.3  | 112 | 0.00         | 7.96 |
| 92   | styrene                   | 0.998 | 0.985 | 1.3  | 113 | 0.00         | 7.98 |
| 93   | bromoform                 | 0.151 | 0.154 | -2.0 | 123 | 0.00         | 8.15 |
| 94   | butyl acrylate            | 0.622 | 0.641 | -3.1 | 119 | 0.00         | 7.96 |
| 95   | isopropylbenzene          | 1.518 | 1.436 | 5.4  | 110 | 0.00         | 8.25 |
| 96   | cis-1,4-dichloro-2-butene | 0.126 | 0.136 | -7.9 | 126 | 0.00         | 8.38 |
| 97 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 118 | 0.00         | 9.35 |
| 98 S | 4-bromofluorobenzene (s)  | 0.885 | 0.902 | -1.9 | 119 | 0.00         | 8.42 |

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V3C6521-CC6518  
**Lab FileID:** 3C143951.D

|     |                           |       |       |       |     |      |       |
|-----|---------------------------|-------|-------|-------|-----|------|-------|
| 99  | bromobenzene              | 0.702 | 0.708 | -0.9  | 114 | 0.00 | 8.53  |
| 100 | 1,1,2,2-tetrachloroethane | 0.668 | 0.738 | -10.5 | 121 | 0.00 | 8.57  |
| 101 | trans-1,4-dichloro-2-bute | 0.093 | 0.096 | -3.2  | 123 | 0.00 | 8.63  |
| 102 | 1,2,3-trichloropropane    | 0.195 | 0.214 | -9.7  | 123 | 0.00 | 8.61  |
| 103 | n-propylbenzene           | 3.599 | 3.498 | 2.8   | 109 | 0.00 | 8.59  |
| 104 | 2-chlorotoluene           | 0.690 | 0.679 | 1.6   | 112 | 0.00 | 8.68  |
| 105 | 4-chlorotoluene           | 0.694 | 0.691 | 0.4   | 114 | 0.00 | 8.78  |
| 106 | 1,3,5-trimethylbenzene    | 2.477 | 2.406 | 2.9   | 110 | 0.00 | 8.75  |
| 107 | tert-butylbenzene         | 2.179 | 2.059 | 5.5   | 107 | 0.00 | 8.99  |
| 108 | 1,2,4-trimethylbenzene    | 2.501 | 2.433 | 2.7   | 111 | 0.00 | 9.04  |
| 109 | sec-butylbenzene          | 3.291 | 3.101 | 5.8   | 107 | 0.00 | 9.17  |
| 110 | 1,3-dichlorobenzene       | 1.357 | 1.346 | 0.8   | 114 | 0.00 | 9.28  |
| 111 | p-isopropyltoluene        | 2.795 | 2.647 | 5.3   | 109 | 0.00 | 9.29  |
| 112 | 1,4-dichlorobenzene       | 1.390 | 1.373 | 1.2   | 116 | 0.00 | 9.37  |
| 113 | 1,2-dichlorobenzene       | 1.288 | 1.316 | -2.2  | 118 | 0.00 | 9.66  |
| 114 | n-butylbenzene            | 1.496 | 1.442 | 3.6   | 111 | 0.00 | 9.61  |
| 115 | 1,2-dibromo-3-chloropropa | 0.145 | 0.152 | -4.8  | 124 | 0.00 | 10.30 |
| 116 | 1,3,5-Trichlorobenzene    | 1.198 | 1.163 | 2.9   | 115 | 0.00 | 10.41 |
| 117 | 1,2,4-trichlorobenzene    | 1.065 | 1.048 | 1.6   | 116 | 0.00 | 10.91 |
| 118 | hexachlorobutadiene       | 0.596 | 0.536 | 10.1  | 104 | 0.00 | 11.00 |
| 119 | naphthalene               | 2.449 | 2.566 | -4.8  | 122 | 0.00 | 11.10 |
| 120 | 1,2,3-trichlorobenzene    | 1.015 | 1.029 | -1.4  | 118 | 0.00 | 11.29 |
| 121 | hexachloroethane          | 0.330 | 0.295 | 10.6  | 105 | 0.00 | 9.82  |
| 122 | Benzyl chloride           | 1.273 | 1.397 | -9.7  | 124 | 0.00 | 9.49  |
| 123 | 2-ethylhexyl acrylate     | 0.929 | 0.880 | 5.3   | 113 | 0.00 | 11.05 |
| 124 | 2-methylnaphthalene       | 1.754 | 1.908 | -8.8  | 123 | 0.00 | 11.97 |

(#) = Out of Range  
 3C143885.D M3C6518.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 12:52:09 2018

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICC8822  
**Lab FileID:** I219388.D

## Response Factor Report GCMSI

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Tue May 08 11:42:16 2018  
 Response via : Initial Calibration

### Calibration Files

0.5 =I219382.D 1 =I219383.D 2 =I219384.D 8 =I219386.D  
 4 =I219385.D 20 =I219387.D 50 =I219388.D 100 =I219389.D  
 200 =I219390.D = = = =

| Compound                                  | 0.5   | 1     | 2     | 8     | 4     | 20    | 50    | 100   | 200   | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 2) tertiary butyl alcohol                 | 0.731 | 0.921 | 1.026 | 0.963 | 0.988 | 1.069 | 1.045 | 1.034 |       | 0.972 | 11.18 |
| 3) 1,4-dioxane                            |       | 0.082 | 0.110 | 0.101 | 0.103 | 0.111 | 0.107 | 0.102 |       | 0.102 | 9.65  |
| 4) I pentafluorobenzene -----ISTD-----    |       |       |       |       |       |       |       |       |       |       |       |
| 5) dichlorodifluoromethane                | 0.757 | 0.647 | 0.678 | 0.624 | 0.639 | 0.684 | 0.656 | 0.626 |       | 0.664 | 6.59  |
| 6) chlorodifluoromethane                  | 0.651 | 0.769 | 0.716 | 0.738 | 0.672 | 0.699 | 0.727 | 0.689 | 0.680 | 0.705 | 5.20  |
| 7) chloromethane                          | 0.886 | 1.017 | 0.938 | 0.907 | 0.851 | 0.832 | 0.830 | 0.790 | 0.789 | 0.871 | 8.52  |
| 8) vinyl chloride                         | 0.721 | 0.680 | 0.690 | 0.638 | 0.651 | 0.677 | 0.657 | 0.634 |       | 0.669 | 4.40  |
| 9) 1,3-butadiene                          |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 10) bromomethane                          | 0.303 | 0.363 | 0.343 | 0.382 | 0.346 | 0.356 | 0.363 | 0.345 | 0.326 | 0.347 | 6.55  |
| 11) chloroethane                          | 0.397 | 0.383 | 0.397 | 0.373 | 0.375 | 0.384 | 0.365 | 0.358 |       | 0.379 | 3.73  |
| 12) vinyl bromide                         | 0.410 | 0.394 | 0.421 | 0.380 | 0.394 | 0.408 | 0.392 | 0.383 |       | 0.398 | 3.56  |
| 13) trichlorofluoromethane                | 0.705 | 0.658 | 0.692 | 0.635 | 0.655 | 0.701 | 0.689 | 0.680 |       | 0.677 | 3.72  |
| 14) ethyl ether                           | 0.187 | 0.205 | 0.244 | 0.220 | 0.247 | 0.244 | 0.237 | 0.237 |       | 0.228 | 9.54  |
| 15) 2-chloropropane                       | 0.156 | 0.174 | 0.192 | 0.170 | 0.183 | 0.189 | 0.171 | 0.156 |       | 0.174 | 7.89  |
| 16) acrolein                              |       |       | 0.096 | 0.079 | 0.100 | 0.099 | 0.100 | 0.098 |       | 0.095 | 8.72  |
| 17) freon 113                             | 0.219 | 0.225 | 0.257 | 0.235 | 0.245 | 0.265 | 0.255 | 0.251 |       | 0.244 | 6.66  |
| 18) 1,1-dichloroethene                    | 0.610 | 0.728 | 0.671 | 0.743 | 0.674 | 0.697 | 0.717 | 0.683 | 0.682 | 0.689 | 5.69  |
| 19) acetone                               |       | 0.035 | 0.040 | 0.036 | 0.041 | 0.041 | 0.041 | 0.040 |       | 0.039 | 6.68  |
| 20) iodomethane                           |       |       | 0.294 | 0.240 | 0.308 | 0.346 | 0.353 | 0.342 |       | 0.314 | 13.77 |
| 21) carbon disulfide                      |       | 1.441 | 1.373 | 1.324 | 1.270 | 1.289 | 1.233 | 1.224 |       | 1.308 | 5.99  |
| 22) acetonitrile                          |       | 0.086 | 0.086 | 0.083 | 0.084 | 0.080 | 0.080 | 0.077 |       | 0.082 | 4.05  |
| 23) methyl acetate                        |       |       |       |       |       |       |       |       |       |       |       |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICC8822  
**Lab FileID:** I219388.D

|     |                           |                |       |       |       |       |       |       |       |       |       |      |
|-----|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|     |                           | 0.061          | 0.053 | 0.069 | 0.070 | 0.070 | 0.071 |       | 0.066 | 10.79 |       |      |
| 24) | methylene chloride        |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.446          | 0.552 | 0.498 | 0.451 | 0.472 | 0.470 | 0.451 | 0.453 | 0.474 | 7.56  |      |
| 25) | acrylonitrile             |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.130          | 0.167 | 0.157 | 0.178 | 0.171 | 0.171 | 0.169 |       | 0.163 | 9.71  |      |
| 26) | methyl tert butyl ether   |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 1.297          | 1.128 | 1.162 | 1.278 | 1.184 | 1.266 | 1.248 | 1.214 | 1.208 | 1.221 | 4.62 |
| 27) | trans-1,2-dichloroethene  |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.676          | 0.719 | 0.697 | 0.752 | 0.705 | 0.711 | 0.717 | 0.686 | 0.675 | 0.704 | 3.46 |
| 28) | hexane                    |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.800          | 0.763 | 0.703 | 0.729 | 0.652 | 0.694 | 0.765 | 0.729 | 0.704 | 0.727 | 6.15 |
| 29) | 1,1-dichloroethane        |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.897          | 0.895 | 0.853 | 0.967 | 0.873 | 0.907 | 0.899 | 0.858 | 0.848 | 0.888 | 4.16 |
| 30) | vinyl acetate             |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.063          |       | 0.073 | 0.074 | 0.074 | 0.074 |       |       | 0.072 | 6.48  |      |
| 31) | di-isopropyl ether        |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 1.951          | 1.674 | 1.673 | 1.886 | 1.732 | 1.851 | 1.847 | 1.773 | 1.749 | 1.793 | 5.38 |
| 32) | chloroprene               |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.670          | 0.793 | 0.752 | 0.812 | 0.731 | 0.766 | 0.794 | 0.754 | 0.746 | 0.758 | 5.55 |
| 33) | ethyl tert-butyl ether    |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 1.562          | 1.392 | 1.449 | 1.608 | 1.466 | 1.589 | 1.589 | 1.536 | 1.529 | 1.524 | 4.85 |
| 34) | 2-butanone                |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.040          | 0.048 | 0.045 | 0.052 | 0.052 | 0.053 | 0.051 |       | 0.049 | 9.86  |      |
| 35) | 2,2-dichloropropane       |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.710          | 0.739 | 0.703 | 0.738 | 0.666 | 0.693 | 0.704 | 0.677 | 0.670 | 0.700 | 3.81 |
| 36) | ethyl acetate             |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.063          | 0.080 | 0.072 | 0.083 | 0.081 | 0.081 | 0.079 |       | 0.077 | 9.47  |      |
| 37) | cis-1,2-dichloroethene    |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.622          | 0.488 | 0.491 | 0.527 | 0.487 | 0.494 | 0.484 | 0.463 | 0.459 | 0.502 | 9.78 |
| 38) | propionitrile             |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.088          | 0.072 | 0.079 | 0.088 | 0.083 | 0.088 | 0.086 | 0.087 | 0.085 | 0.084 | 6.39 |
| 39) | methyl acrylate           |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.059          | 0.044 | 0.064 | 0.065 | 0.065 | 0.065 |       |       | 0.060 | 13.64 |      |
| 40) | methacrylonitrile         |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.158          | 0.181 | 0.170 | 0.187 | 0.187 | 0.185 | 0.185 |       | 0.179 | 6.18  |      |
| 41) | bromochloromethane        |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.177          | 0.154 | 0.186 | 0.217 | 0.195 | 0.207 | 0.202 | 0.197 | 0.199 | 0.193 | 9.60 |
| 42) | tetrahydrofuran           |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.056          | 0.053 | 0.058 | 0.056 | 0.057 | 0.057 |       |       | 0.056 | 2.87  |      |
| 43) | chloroform                |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.921          | 0.821 | 0.813 | 0.887 | 0.818 | 0.826 | 0.825 | 0.791 | 0.786 | 0.832 | 5.29 |
| 44) | carbon tetrachloride      |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.427          | 0.482 | 0.495 | 0.551 | 0.495 | 0.520 | 0.551 | 0.533 | 0.530 | 0.509 | 7.78 |
| 45) | 1,1-dichloropropene       |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.577          | 0.689 | 0.635 | 0.663 | 0.612 | 0.629 | 0.649 | 0.622 | 0.619 | 0.633 | 5.06 |
| 46) | isobutyl alcohol          |                |       |       |       |       |       |       |       |       |       |      |
|     |                           |                |       |       |       |       |       |       |       | 0.000 | -1.00 |      |
| 47) | dibromofluoromethane (s)  |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.497          | 0.495 | 0.504 | 0.498 | 0.495 | 0.499 | 0.493 | 0.487 | 0.485 | 0.495 | 1.17 |
| 48) | 1,1,1-trichloroethane     |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.605          | 0.684 | 0.655 | 0.699 | 0.656 | 0.661 | 0.678 | 0.649 | 0.645 | 0.659 | 4.08 |
| 49) | cyclohexane               |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.633          | 0.558 | 0.630 | 0.587 | 0.584 | 0.628 | 0.605 | 0.582 |       | 0.601 | 4.57 |
| 50) | tert-amyl alcohol         |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.017          | 0.021 | 0.020 | 0.021 | 0.021 | 0.021 | 0.022 | 0.022 |       | 0.020 | 9.24 |
| 51) | I 1,4-difluorobenzene     | -----ISTD----- |       |       |       |       |       |       |       |       |       |      |
| 52) | 1,2-dichloroethane-d4 (s) |                |       |       |       |       |       |       |       |       |       |      |
|     |                           | 0.369          | 0.365 | 0.374 | 0.368 | 0.373 | 0.375 | 0.369 | 0.360 | 0.365 | 0.369 | 1.28 |
| 53) | isopropyl acetate         |                |       |       |       |       |       |       |       |       |       |      |

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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICC8822  
**Lab FileID:** I219388.D

|     |                           |                |       |       |       |       |       |       |       |       |
|-----|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
|     |                           | 0.049          | 0.042 | 0.050 | 0.051 | 0.051 | 0.053 |       | 0.050 | 7.56  |
| 54) | 1,2-dichloroethane        |                |       |       |       |       |       |       |       |       |
|     |                           | 0.416          | 0.420 | 0.418 | 0.406 | 0.401 | 0.396 | 0.379 | 0.383 | 3.88  |
| 55) | benzene                   |                |       |       |       |       |       |       |       |       |
|     |                           | 1.250          | 1.162 | 1.105 | 1.204 | 1.129 | 1.145 | 1.146 | 1.091 | 1.089 |
| 56) | 2,2,4-trimethylpentane    |                |       |       |       |       |       |       |       |       |
|     |                           | 1.002          | 1.247 | 1.132 | 1.240 | 1.102 | 1.172 | 1.300 | 1.242 | 1.221 |
| 57) | tert-amyl methyl ether    |                |       |       |       |       |       |       |       |       |
|     |                           | 0.145          | 0.146 | 0.154 | 0.180 | 0.167 | 0.179 | 0.182 | 0.178 | 0.183 |
| 58) | heptane                   |                |       |       |       |       |       |       |       |       |
|     |                           | 0.194          | 0.257 | 0.238 | 0.255 | 0.231 | 0.241 | 0.266 | 0.256 | 0.253 |
| 59) | n-butyl alcohol           |                |       |       |       |       |       |       |       |       |
|     |                           | 0.008          | 0.010 | 0.009 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 12.20 |
| 60) | trichloroethene           |                |       |       |       |       |       |       |       |       |
|     |                           | 0.269          | 0.271 | 0.273 | 0.289 | 0.266 | 0.276 | 0.277 | 0.266 | 0.268 |
| 61) | ethyl acrylate            |                |       |       |       |       |       |       |       |       |
|     |                           | 0.315          | 0.331 | 0.369 | 0.344 | 0.375 | 0.374 | 0.375 | 0.378 | 6.76  |
| 62) | methylcyclohexane         |                |       |       |       |       |       |       |       |       |
|     |                           | 0.469          | 0.430 | 0.474 | 0.425 | 0.452 | 0.492 | 0.472 | 0.465 | 5.01  |
| 63) | 1,2-dichloropropane       |                |       |       |       |       |       |       |       |       |
|     |                           | 0.334          | 0.292 | 0.303 | 0.341 | 0.319 | 0.326 | 0.323 | 0.312 | 0.312 |
| 64) | methyl methacrylate       |                |       |       |       |       |       |       |       |       |
|     |                           | 0.045          | 0.058 | 0.052 | 0.061 | 0.062 | 0.063 | 0.063 | 0.064 | 11.82 |
| 65) | dibromomethane            |                |       |       |       |       |       |       |       |       |
|     |                           | 0.139          | 0.142 | 0.154 | 0.169 | 0.160 | 0.168 | 0.165 | 0.161 | 0.165 |
| 66) | bromodichloromethane      |                |       |       |       |       |       |       |       |       |
|     |                           | 0.390          | 0.365 | 0.364 | 0.394 | 0.378 | 0.385 | 0.386 | 0.374 | 0.384 |
| 67) | 2-nitropropane            |                |       |       |       |       |       |       |       |       |
|     |                           | 0.081          | 0.073 | 0.076 | 0.073 | 0.072 | 0.073 | 0.073 | 0.072 | 4.31  |
| 68) | 2-chloroethyl vinyl ether |                |       |       |       |       |       |       |       |       |
|     |                           | 0.194          | 0.170 | 0.179 | 0.194 | 0.183 | 0.194 | 0.192 | 0.187 | 0.186 |
| 69) | epichlorohydrin           |                |       |       |       |       |       |       |       |       |
|     |                           | 0.031          | 0.033 | 0.032 | 0.034 | 0.034 | 0.034 | 0.034 | 0.033 | 3.06  |
| 70) | cis-1,3-dichloropropene   |                |       |       |       |       |       |       |       |       |
|     |                           | 0.520          | 0.443 | 0.445 | 0.486 | 0.449 | 0.477 | 0.479 | 0.462 | 0.477 |
| 71) | 4-methyl-2-pentanone      |                |       |       |       |       |       |       |       |       |
|     |                           | 0.094          | 0.087 | 0.099 | 0.107 | 0.099 | 0.108 | 0.109 | 0.108 | 0.107 |
| 72) | 3-methyl-1-butanol        |                |       |       |       |       |       |       |       |       |
|     |                           | 0.006          | 0.007 | 0.007 | 0.007 | 0.007 | 0.008 | 0.008 | 0.009 | 14.26 |
| 73) | I chlorobenzene-d5        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 74) | toluene-d8 (s)            |                |       |       |       |       |       |       |       |       |
|     |                           | 1.317          | 1.313 | 1.315 | 1.314 | 1.320 | 1.323 | 1.327 | 1.316 | 1.301 |
| 75) | toluene                   |                |       |       |       |       |       |       |       |       |
|     |                           | 0.879          | 0.776 | 0.758 | 0.803 | 0.746 | 0.763 | 0.765 | 0.737 | 0.721 |
| 76) | trans-1,3-dichloropropene |                |       |       |       |       |       |       |       |       |
|     |                           | 0.529          | 0.450 | 0.479 | 0.503 | 0.478 | 0.505 | 0.502 | 0.496 | 0.490 |
| 77) | ethyl methacrylate        |                |       |       |       |       |       |       |       |       |
|     |                           | 0.374          | 0.336 | 0.372 | 0.399 | 0.372 | 0.401 | 0.401 | 0.400 | 0.393 |
| 78) | 1,1,2-trichloroethane     |                |       |       |       |       |       |       |       |       |
|     |                           | 0.225          | 0.208 | 0.225 | 0.245 | 0.226 | 0.242 | 0.240 | 0.236 | 0.235 |
| 79) | 1,3-dichloropropane       |                |       |       |       |       |       |       |       |       |
|     |                           | 0.441          | 0.433 | 0.439 | 0.476 | 0.446 | 0.471 | 0.467 | 0.457 | 0.451 |
| 80) | tetrachloroethene         |                |       |       |       |       |       |       |       |       |
|     |                           | 0.270          | 0.293 | 0.272 | 0.297 | 0.283 | 0.287 | 0.292 | 0.285 | 0.277 |
| 81) | 2-hexanone                |                |       |       |       |       |       |       |       |       |
|     |                           | 0.114          | 0.101 | 0.109 | 0.124 | 0.119 | 0.127 | 0.126 | 0.127 | 0.120 |
| 82) | butyl acetate             |                |       |       |       |       |       |       |       |       |
|     |                           | 0.160          | 0.201 | 0.217 | 0.218 | 0.213 | 0.214 | 0.215 | 0.211 | 9.33  |
| 83) | n-butyl ether             |                |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICC8822  
**Lab FileID:** I219388.D

|       |                                      |       |       |       |       |       |       |       |       |       |       |
|-------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|       | 1.648                                | 1.523 | 1.539 | 1.628 | 1.496 | 1.556 | 1.543 | 1.503 | 1.467 | 1.545 | 3.86  |
| 84)   | dibromochloromethane                 |       |       |       |       |       |       |       |       |       |       |
|       | 0.274                                | 0.246 | 0.258 | 0.293 | 0.273 | 0.291 | 0.294 | 0.292 | 0.295 | 0.279 | 6.41  |
| 85)   | 1,2-dibromoethane                    |       |       |       |       |       |       |       |       |       |       |
|       | 0.262                                | 0.248 | 0.250 | 0.286 | 0.270 | 0.287 | 0.285 | 0.283 | 0.282 | 0.272 | 5.70  |
| 86)   | chlorobenzene                        |       |       |       |       |       |       |       |       |       |       |
|       | 0.808                                | 0.770 | 0.731 | 0.797 | 0.750 | 0.752 | 0.759 | 0.740 | 0.744 | 0.761 | 3.40  |
| 87)   | 1,1,1,2-tetrachloroethane            |       |       |       |       |       |       |       |       |       |       |
|       | 0.242                                | 0.244 | 0.246 | 0.270 | 0.259 | 0.271 | 0.274 | 0.269 | 0.275 | 0.261 | 5.22  |
| 88)   | ethylbenzene                         |       |       |       |       |       |       |       |       |       |       |
|       | 1.556                                | 1.482 | 1.392 | 1.480 | 1.399 | 1.402 | 1.405 | 1.364 | 1.350 | 1.426 | 4.67  |
| 89)   | m,p-xylene                           |       |       |       |       |       |       |       |       |       |       |
|       | 0.572                                | 0.527 | 0.512 | 0.538 | 0.504 | 0.511 | 0.511 | 0.497 | 0.493 | 0.519 | 4.72  |
| 90)   | o-xylene                             |       |       |       |       |       |       |       |       |       |       |
|       | 0.533                                | 0.490 | 0.488 | 0.526 | 0.491 | 0.498 | 0.495 | 0.489 | 0.488 | 0.500 | 3.40  |
| 91)   | styrene                              |       |       |       |       |       |       |       |       |       |       |
|       | 0.902                                | 0.826 | 0.834 | 0.914 | 0.842 | 0.867 | 0.864 | 0.855 | 0.854 | 0.862 | 3.42  |
| 92)   | butyl acrylate                       |       |       |       |       |       |       |       |       |       |       |
|       | 0.618                                | 0.547 | 0.605 | 0.645 | 0.604 | 0.656 | 0.658 | 0.668 | 0.681 | 0.631 | 6.63  |
| 93)   | cis-1,4-dichloro-2-butene            |       |       |       |       |       |       |       |       |       |       |
|       | 0.100                                | 0.108 | 0.120 | 0.112 | 0.128 | 0.133 | 0.137 | 0.143 |       | 0.123 | 12.50 |
| 94)   | bromoform                            |       |       |       |       |       |       |       |       |       |       |
|       | 0.141                                | 0.147 | 0.167 | 0.158 | 0.172 | 0.178 | 0.185 | 0.196 |       | 0.168 | 11.06 |
| 95)   | isopropylbenzene                     |       |       |       |       |       |       |       |       |       |       |
|       | 1.333                                | 1.295 | 1.272 | 1.333 | 1.251 | 1.251 | 1.278 | 1.266 | 1.277 | 1.284 | 2.41  |
| 96) I | 1,4-dichlorobenzene-d -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 97)   | 4-bromofluorobenzene (s)             |       |       |       |       |       |       |       |       |       |       |
|       | 1.031                                | 1.032 | 1.019 | 1.024 | 1.017 | 0.997 | 0.974 | 0.942 | 0.925 | 0.996 | 4.01  |
| 98)   | ethylenimine                         |       |       |       |       |       |       |       |       |       |       |
|       |                                      |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 99)   | 1,1,2,2-tetrachloroethane            |       |       |       |       |       |       |       |       |       |       |
|       | 0.715                                | 0.658 | 0.658 | 0.738 | 0.682 | 0.716 | 0.725 | 0.691 | 0.685 | 0.697 | 4.10  |
| 100)  | trans-1,4-dichloro-2-butene          |       |       |       |       |       |       |       |       |       |       |
|       | 0.195                                | 0.205 | 0.214 | 0.201 | 0.216 | 0.218 | 0.209 | 0.206 |       | 0.208 | 3.67  |
| 101)  | 1,2,3-trichloropropane               |       |       |       |       |       |       |       |       |       |       |
|       | 0.140                                | 0.165 | 0.149 | 0.169 | 0.164 | 0.158 | 0.157 |       |       | 0.158 | 6.43  |
| 102)  | bromobenzene                         |       |       |       |       |       |       |       |       |       |       |
|       | 0.676                                | 0.623 | 0.615 | 0.681 | 0.625 | 0.641 | 0.640 | 0.601 | 0.597 | 0.633 | 4.68  |
| 103)  | n-propylbenzene                      |       |       |       |       |       |       |       |       |       |       |
|       | 3.442                                | 3.414 | 3.280 | 3.479 | 3.224 | 3.255 | 3.240 | 3.066 | 2.934 | 3.259 | 5.43  |
| 104)  | 2-chlorotoluene                      |       |       |       |       |       |       |       |       |       |       |
|       | 0.593                                | 0.596 | 0.590 | 0.643 | 0.598 | 0.605 | 0.604 | 0.574 | 0.567 | 0.597 | 3.61  |
| 105)  | 4-chlorotoluene                      |       |       |       |       |       |       |       |       |       |       |
|       | 2.183                                | 2.078 | 1.960 | 2.111 | 1.954 | 2.023 | 1.993 | 1.879 | 1.843 | 2.003 | 5.46  |
| 106)  | 4-ethyltoluene                       |       |       |       |       |       |       |       |       |       |       |
|       |                                      |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 107)  | 1,3,5-trimethylbenzene               |       |       |       |       |       |       |       |       |       |       |
|       | 2.353                                | 2.221 | 2.185 | 2.270 | 2.083 | 2.166 | 2.178 | 2.099 | 2.085 | 2.182 | 4.12  |
| 108)  | tert-butylbenzene                    |       |       |       |       |       |       |       |       |       |       |
|       | 0.384                                | 0.377 | 0.401 | 0.367 | 0.382 | 0.388 | 0.376 | 0.374 |       | 0.381 | 2.70  |
| 109)  | 1,2,4-trimethylbenzene               |       |       |       |       |       |       |       |       |       |       |
|       | 2.664                                | 2.290 | 2.261 | 2.319 | 2.184 | 2.198 | 2.219 | 2.136 | 2.116 | 2.265 | 7.24  |
| 110)  | sec-butylbenzene                     |       |       |       |       |       |       |       |       |       |       |
|       | 2.736                                | 2.827 | 2.837 | 2.948 | 2.710 | 2.793 | 2.869 | 2.752 | 2.681 | 2.795 | 3.02  |
| 111)  | p-isopropyltoluene                   |       |       |       |       |       |       |       |       |       |       |
|       | 2.392                                | 2.343 | 2.333 | 2.434 | 2.246 | 2.282 | 2.360 | 2.291 | 2.222 | 2.323 | 2.96  |
| 112)  | benzyl chloride                      |       |       |       |       |       |       |       |       |       |       |
|       | 1.471                                | 1.304 | 1.299 | 1.404 | 1.322 | 1.388 | 1.414 | 1.403 | 1.384 | 1.376 | 4.16  |
| 113)  | 1,3-dichlorobenzene                  |       |       |       |       |       |       |       |       |       |       |

6.8.5  
6



# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICC8822  
**Lab FileID:** I219388.D

|      |   |                |       |
|------|---|----------------|-------|
| 114) | 1.343 1.199 1.202 1.268 1.210 1.215 1.225 1.192 1.181 | 1.226          | 4.11  |
|      | 1,4-dichlorobenzene                                   |                |       |
| 115) | 1.352 1.231 1.224 1.284 1.207 1.217 1.245 1.202 1.200 | 1.240          | 3.97  |
|      | 1,2-dichlorobenzene                                   |                |       |
| 116) | 1.122 1.074 1.150 1.223 1.150 1.174 1.185 1.163 1.153 | 1.155          | 3.56  |
|      | 1,4-diethylbenzene                                    |                |       |
|      |   | 0.000          | -1.00 |
| 117) | n-butylbenzene  |                |       |
|      | 1.328 1.392 1.365 1.443 1.316 1.351 1.401 1.357 1.307 | 1.362          | 3.23  |
| 118) | hexachloroethane                                      |                |       |
|      | 0.296 0.313 0.351 0.312 0.344 0.369 0.372 0.385       | 0.343          | 9.48  |
| 119) | 1,2-dibromo-3-chloropropane                           |                |       |
|      | 0.107 0.126 0.121 0.131 0.136 0.135 0.134             | 0.127          | 7.98  |
| 120) | 1,2,4,5-tetramethylbenzene                            |                |       |
|      |   | 0.000          | -1.00 |
| 121) | nitrobenzene  |                |       |
|      | 0.041 0.033 0.040 0.044 0.044 0.046                   | 0.041          | 11.37 |
| 122) | 1,3,5-Trichlorobenzene                                |                |       |
|      | 1.009 0.953 0.892 0.973 0.893 0.928 0.955 0.911 0.887 | 0.933          | 4.50  |
| 123) | 1,2,4-trichlorobenzene                                |                |       |
|      | 0.775 0.723 0.741 0.795 0.735 0.750 0.778 0.745 0.701 | 0.749          | 3.90  |
| 124) | 2-ethylhexyl acrylate                                 |                |       |
|      | 1.292 1.227 1.285 1.245 1.139                         | 1.238          | 4.97  |
| 125) | hexachlorobutadiene                                   |                |       |
|      | 0.378 0.403 0.408 0.450 0.414 0.424 0.453 0.435 0.414 | 0.420          | 5.67  |
| 126) | naphthalene   |                |       |
|      | 1.921 1.623 1.694 1.768 1.697 1.778 1.763 1.689 1.562 | 1.722          | 5.96  |
| 127) | 1,2,3-trichlorobenzene                                |                |       |
|      | 0.755 0.668 0.718 0.767 0.708 0.739 0.748 0.717 0.672 | 0.721          | 4.84  |
| 128) | 2-methylnaphthalene                                   |                |       |
|      | 1.203 1.237 1.337 1.261 1.334 1.320 1.206 1.068       | 1.246          | 7.25  |
| 129) | chlorobenzene-d5(a)                                   | -----ISTD----- |       |
| 130) | cyclohexanone   |                |       |
|      | 0.010 0.012 0.012 0.013 0.013 0.013 0.013 0.013       | 0.012          | 6.69  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MI8822.M

Tue May 08 11:48:08 2018

6.8.5

6

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219393.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8822\I219393.D Vial: 13  
 Acq On : 11 Apr 2018 8:56 pm Operator: Gabriela  
 Sample : icv8822-50 Inst : GCMSI  
 Misc : MS25384,VI8822,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 12 12:10:11 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 102   | -0.01    | 7.42  |
| 2   | tertiary butyl alcohol   | 0.972 | 1.052 | -8.2         | 101   | -0.01    | 7.54  |
| 3   | 1,4-dioxane              | 0.102 | 0.109 | -6.9         | 101   | 0.00     | 11.34 |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 101   | 0.00     | 9.75  |
| 5   | dichlorodifluoromethane  | 0.664 | 0.672 | -1.2         | 99    | 0.00     | 3.89  |
| 6   | chlorodifluoromethane    | 0.705 | 0.751 | -6.5         | 104   | 0.00     | 3.93  |
| 7   | chloromethane            | 0.871 | 0.791 | 9.2          | 96    | 0.00     | 4.29  |
| 8   | vinyl chloride           | 0.669 | 0.611 | 8.7          | 91    | 0.00     | 4.54  |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 10  | bromomethane             | 0.347 | 0.342 | 1.4          | 95    | 0.02     | 5.21  |
| 11  | chloroethane             | 0.379 | 0.357 | 5.8          | 94    | 0.01     | 5.42  |
| 12  | vinyl bromide            | 0.398 | 0.410 | -3.0         | 102   | 0.00     | 5.77  |
| 13  | trichlorofluoromethane   | 0.677 | 0.652 | 3.7          | 94    | 0.00     | 5.89  |
| 14  | ethyl ether              | 0.228 | 0.234 | -2.6         | 97    | 0.00     | 6.34  |
| 15  | 2-chloropropane          | 0.174 | 0.211 | -21.3        | 113   | 0.00     | 6.55  |
| 16  | acrolein                 | 0.095 | 0.120 | -26.3        | 123   | 0.00     | 6.55  |
| 17  | freon 113                | 0.244 | 0.331 | -35.7#       | 126   | 0.00     | 6.76  |
| 18  | 1,1-dichloroethene       | 0.689 | 0.701 | -1.7         | 99    | 0.00     | 6.76  |
| 19  | acetone                  | 0.039 | 0.040 | -2.6         | 99    | 0.00     | 6.76  |
| 20  | iodomethane              | 0.314 | 0.429 | -36.6#       | 125   | 0.00     | 7.01  |
| 21  | carbon disulfide         | 1.308 | 1.524 | -16.5        | 119   | 0.00     | 7.16  |
| 22  | acetonitrile             | 0.082 | 0.078 | 4.9          | 99    | 0.00     | 7.16  |
| 23  | methyl acetate           | 0.066 | 0.067 | -1.5         | 97    | 0.00     | 7.24  |
| 24  | methylene chloride       | 0.474 | 0.455 | 4.0          | 98    | 0.00     | 7.48  |
| 25  | acrylonitrile            | 0.163 | 0.171 | -4.9         | 101   | 0.00     | 7.77  |
| 26  | methyl tert butyl ether  | 1.221 | 1.207 | 1.1          | 98    | 0.00     | 7.86  |
| 27  | trans-1,2-dichloroethene | 0.704 | 0.706 | -0.3         | 100   | 0.00     | 7.89  |
| 28  | hexane                   | 0.727 | 0.684 | 5.9          | 90    | 0.00     | 8.27  |
| 29  | 1,1-dichloroethane       | 0.888 | 0.889 | -0.1         | 100   | 0.00     | 8.48  |
| 30  | vinyl acetate            | 0.072 | 0.074 | -2.8         | 101   | 0.00     | 8.42  |
| 31  | di-isopropyl ether       | 1.793 | 1.812 | -1.1         | 99    | 0.00     | 8.48  |
| 32  | chloroprene              | 0.758 | 0.826 | -9.0         | 105   | 0.00     | 8.58  |
| 33  | ethyl tert-butyl ether   | 1.524 | 1.524 | 0.0          | 97    | 0.00     | 8.94  |
| 34  | 2-butanone               | 0.049 | 0.050 | -2.0         | 98    | 0.00     | 9.13  |
| 35  | 2,2-dichloropropane      | 0.700 | 0.717 | -2.4         | 103   | 0.00     | 9.23  |
| 36  | ethyl acetate            | 0.077 | 0.081 | -5.2         | 101   | 0.00     | 9.16  |
| 37  | cis-1,2-dichloroethene   | 0.502 | 0.482 | 4.0          | 101   | 0.00     | 9.20  |
| 38  | propionitrile            | 0.084 | 0.084 | 0.0          | 98    | 0.00     | 9.19  |
| 39  | methyl acrylate          | 0.060 | 0.063 | -5.0         | 98    | 0.00     | 9.24  |
| 40  | methacrylonitrile        | 0.179 | 0.185 | -3.4         | 100   | 0.00     | 9.40  |
| 41  | bromochloromethane       | 0.193 | 0.198 | -2.6         | 99    | 0.00     | 9.50  |

6.8.6  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219393.D

|      |                           |       |       |              |     |      |       |
|------|---------------------------|-------|-------|--------------|-----|------|-------|
| 42   | tetrahydrofuran           | 0.056 | 0.055 | 1.8          | 98  | 0.00 | 9.52  |
| 43   | chloroform                | 0.832 | 0.812 | 2.4          | 99  | 0.00 | 9.59  |
| 44   | carbon tetrachloride      | 0.509 | 0.557 | -9.4         | 102 | 0.00 | 10.06 |
| 45   | 1,1-dichloropropene       | 0.633 | 0.668 | -5.5         | 104 | 0.00 | 10.03 |
| 46   | isobutyl alcohol          |       |       | -----NA----- |     |      |       |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.487 | 1.6          | 100 | 0.00 | 9.78  |
| 48   | 1,1,1-trichloroethane     | 0.659 | 0.674 | -2.3         | 101 | 0.00 | 9.85  |
| 49   | cyclohexane               | 0.601 | 0.796 | -32.4#       | 128 | 0.00 | 9.97  |
| 50   | tert-amyl alcohol         | 0.020 | 0.021 | -5.0         | 101 | 0.00 | 10.14 |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 99  | 0.00 | 10.70 |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.367 | 0.5          | 99  | 0.00 | 10.20 |
| 53   | isopropyl acetate         | 0.050 | 0.051 | -2.0         | 98  | 0.00 | 10.19 |
| 54   | 1,2-dichloroethane        | 0.402 | 0.391 | 2.7          | 98  | 0.00 | 10.30 |
| 55   | benzene                   | 1.147 | 1.154 | -0.6         | 100 | 0.00 | 10.28 |
| 56   | 2,2,4-trimethylpentane    | 1.184 | 1.342 | -13.3        | 102 | 0.00 | 10.38 |
| 57   | tert-amyl methyl ether    | 0.168 | 0.176 | -4.8         | 96  | 0.00 | 10.36 |
| 58   | heptane                   | 0.244 | 0.313 | -28.3        | 117 | 0.00 | 10.55 |
| 59   | n-butyl alcohol           | 0.010 | 0.011 | -10.0        | 98  | 0.00 | 10.73 |
| 60   | trichloroethene           | 0.273 | 0.284 | -4.0         | 102 | 0.00 | 11.01 |
| 61   | ethyl acrylate            | 0.358 | 0.379 | -5.9         | 101 | 0.00 | 10.99 |
| 62   | methylcyclohexane         | 0.460 | 0.497 | -8.0         | 100 | 0.00 | 11.31 |
| 63   | 1,2-dichloropropane       | 0.318 | 0.319 | -0.3         | 98  | 0.00 | 11.29 |
| 64   | methyl methacrylate       | 0.058 | 0.063 | -8.6         | 101 | 0.00 | 11.25 |
| 65   | dibromomethane            | 0.158 | 0.167 | -5.7         | 100 | 0.00 | 11.40 |
| 66   | bromodichloromethane      | 0.380 | 0.380 | 0.0          | 98  | 0.00 | 11.55 |
| 67   | 2-nitropropane            | 0.074 | 0.077 | -4.1         | 105 | 0.00 | 11.73 |
| 68   | 2-chloroethyl vinyl ether | 0.187 | 0.194 | -3.7         | 100 | 0.00 | 11.78 |
| 69   | epichlorohydrin           | 0.033 | 0.034 | -3.0         | 100 | 0.00 | 11.86 |
| 70   | cis-1,3-dichloropropene   | 0.471 | 0.474 | -0.6         | 98  | 0.00 | 12.00 |
| 71   | 4-methyl-2-pentanone      | 0.102 | 0.108 | -5.9         | 98  | 0.00 | 12.10 |
| 72   | 3-methyl-1-butanol        | 0.007 | 0.008 | -14.3        | 99  | 0.00 | 12.10 |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 99  | 0.00 | 13.82 |
| 74 S | toluene-d8 (s)            | 1.316 | 1.330 | -1.1         | 99  | 0.00 | 12.32 |
| 75   | toluene                   | 0.772 | 0.779 | -0.9         | 101 | 0.00 | 12.39 |
| 76   | trans-1,3-dichloropropene | 0.492 | 0.482 | 2.0          | 95  | 0.00 | 12.57 |
| 77   | ethyl methacrylate        | 0.383 | 0.384 | -0.3         | 95  | 0.00 | 12.56 |
| 78   | 1,1,2-trichloroethane     | 0.231 | 0.240 | -3.9         | 99  | 0.00 | 12.79 |
| 79   | 1,3-dichloropropane       | 0.453 | 0.472 | -4.2         | 100 | 0.00 | 12.97 |
| 80   | tetrachloroethene         | 0.284 | 0.303 | -6.7         | 103 | 0.00 | 12.94 |
| 81   | 2-hexanone                | 0.119 | 0.124 | -4.2         | 98  | 0.00 | 12.94 |
| 82   | butyl acetate             | 0.206 | 0.220 | -6.8         | 101 | 0.00 | 13.03 |
| 83   | n-butyl ether             | 1.545 | 1.516 | 1.9          | 97  | 0.00 | 13.82 |
| 84   | dibromochloromethane      | 0.279 | 0.303 | -8.6         | 102 | 0.00 | 13.22 |
| 85   | 1,2-dibromoethane         | 0.272 | 0.285 | -4.8         | 99  | 0.00 | 13.37 |
| 86   | chlorobenzene             | 0.761 | 0.766 | -0.7         | 100 | 0.00 | 13.85 |
| 87   | 1,1,1,2-tetrachloroethane | 0.261 | 0.279 | -6.9         | 101 | 0.00 | 13.91 |
| 88   | ethylbenzene              | 1.426 | 1.448 | -1.5         | 102 | 0.00 | 13.91 |
| 89   | m,p-xylene                | 0.519 | 0.523 | -0.8         | 101 | 0.00 | 14.04 |
| 90   | o-xylene                  | 0.500 | 0.504 | -0.8         | 101 | 0.00 | 14.43 |
| 91   | styrene                   | 0.862 | 0.879 | -2.0         | 101 | 0.00 | 14.45 |
| 92   | butyl acrylate            | 0.631 | 0.653 | -3.5         | 98  | 0.00 | 14.26 |
| 93   | cis-1,4-dichloro-2-butene | 0.123 | 0.128 | -4.1         | 96  | 0.00 | 14.81 |
| 94   | bromoform                 | 0.168 | 0.188 | -11.9        | 105 | 0.00 | 14.67 |
| 95   | isopropylbenzene          | 1.284 | 1.333 | -3.8         | 103 | 0.00 | 14.79 |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 100 | 0.00 | 16.17 |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 0.976 | 2.0          | 100 | 0.00 | 14.98 |
| 98   | cyclohexanone             |       |       | -----NA----- |     |      |       |

6.8.6  
6



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219393.D

|     |                           |       |       |              |     |      |       |
|-----|---------------------------|-------|-------|--------------|-----|------|-------|
| 99  | 1,1,2,2-tetrachloroethane | 0.697 | 0.715 | -2.6         | 98  | 0.00 | 15.05 |
| 100 | trans-1,4-dichloro-2-bute | 0.208 | 0.238 | -14.4        | 109 | 0.00 | 15.08 |
| 101 | 1,2,3-trichloropropane    | 0.158 | 0.165 | -4.4         | 100 | 0.00 | 15.14 |
| 102 | bromobenzene              | 0.633 | 0.644 | -1.7         | 100 | 0.00 | 15.17 |
| 103 | n-propylbenzene           | 3.259 | 3.371 | -3.4         | 104 | 0.00 | 15.20 |
| 104 | 2-chlorotoluene           | 0.597 | 0.608 | -1.8         | 100 | 0.00 | 15.33 |
| 105 | 4-chlorotoluene           | 2.003 | 2.066 | -3.1         | 103 | 0.00 | 15.44 |
| 106 | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 107 | 1,3,5-trimethylbenzene    | 2.182 | 2.232 | -2.3         | 102 | 0.00 | 15.36 |
| 108 | tert-butylbenzene         | 0.381 | 0.399 | -4.7         | 102 | 0.00 | 15.70 |
| 109 | 1,2,4-trimethylbenzene    | 2.265 | 2.297 | -1.4         | 103 | 0.00 | 15.75 |
| 110 | sec-butylbenzene          | 2.795 | 3.007 | -7.6         | 104 | 0.00 | 15.92 |
| 111 | p-isopropyltoluene        | 2.323 | 2.471 | -6.4         | 104 | 0.00 | 16.06 |
| 112 | benzyl chloride           | 1.376 | 1.177 | 14.5         | 83  | 0.00 | 16.28 |
| 113 | 1,3-dichlorobenzene       | 1.226 | 1.239 | -1.1         | 101 | 0.00 | 16.09 |
| 114 | 1,4-dichlorobenzene       | 1.240 | 1.241 | -0.1         | 99  | 0.00 | 16.19 |
| 115 | 1,2-dichlorobenzene       | 1.155 | 1.192 | -3.2         | 100 | 0.00 | 16.57 |
| 116 | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 117 | n-butylbenzene            | 1.362 | 1.470 | -7.9         | 104 | 0.00 | 16.48 |
| 118 | hexachloroethane          | 0.343 | 0.391 | -14.0        | 105 | 0.00 | 16.89 |
| 119 | 1,2-dibromo-3-chloropropa | 0.127 | 0.133 | -4.7         | 98  | 0.00 | 17.33 |
| 120 | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 | nitrobenzene              | 0.041 | 0.042 | -2.4         | 95  | 0.00 | 17.50 |
| 122 | 1,3,5-Trichlorobenzene    | 0.933 | 0.965 | -3.4         | 101 | 0.00 | 17.52 |
| 123 | 1,2,4-trichlorobenzene    | 0.749 | 0.782 | -4.4         | 100 | 0.00 | 18.04 |
| 124 | 2-ethylhexyl acrylate     | 1.238 | 1.328 | -7.3         | 103 | 0.00 | 18.05 |
| 125 | hexachlorobutadiene       | 0.420 | 0.464 | -10.5        | 102 | 0.00 | 18.14 |
| 126 | naphthalene               | 1.722 | 1.787 | -3.8         | 101 | 0.00 | 18.27 |
| 127 | 1,2,3-trichlorobenzene    | 0.721 | 0.745 | -3.3         | 99  | 0.00 | 18.45 |
| 128 | 2-methylnaphthalene       | 1.246 | 1.163 | 6.7          | 88  | 0.00 | 19.18 |

(#) = Out of Range  
 I219388.D MI8822.M

SPCC's out = 0 CCC's out = 0  
 Thu Apr 12 12:14:30 2018

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219394.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8822\I219394.D Vial: 14  
 Acq On : 11 Apr 2018 9:23 pm Operator: Gabriela  
 Sample : icv8822-50 Inst : GCMSI  
 Misc : MS25384,VI8822,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 12 12:10:11 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 94    | -0.01    | 7.42 |
| 2   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 3   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 98    | 0.00     | 9.75 |
| 5   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | chloromethane            |       |       | -----NA----- |       |          |      |
| 8   | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | bromomethane             |       |       | -----NA----- |       |          |      |
| 11  | chloroethane             |       |       | -----NA----- |       |          |      |
| 12  | vinyl bromide            |       |       | -----NA----- |       |          |      |
| 13  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 14  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 15  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 16  | acrolein                 |       |       | -----NA----- |       |          |      |
| 17  | freon 113                |       |       | -----NA----- |       |          |      |
| 18  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 19  | acetone                  |       |       | -----NA----- |       |          |      |
| 20  | iodomethane              |       |       | -----NA----- |       |          |      |
| 21  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 22  | acetonitrile             | 0.082 | 0.085 | -3.7         | 104   | 0.00     | 7.16 |
| 23  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 24  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 25  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 26  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 27  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 28  | hexane                   |       |       | -----NA----- |       |          |      |
| 29  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 30  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | chloroprene              |       |       | -----NA----- |       |          |      |
| 33  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 34  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 35  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 36  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 37  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 38  | propionitrile            |       |       | -----NA----- |       |          |      |
| 39  | methyl acrylate          |       |       | -----NA----- |       |          |      |
| 40  | methacrylonitrile        |       |       | -----NA----- |       |          |      |
| 41  | bromochloromethane       |       |       | -----NA----- |       |          |      |

# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VI8822-ICV8822  
 Lab FileID: I219394.D

|      |                           |       |       |       |     |      |       |  |
|------|---------------------------|-------|-------|-------|-----|------|-------|--|
| 42   | tetrahydrofuran           |       |       |       |     |      |       |  |
| 43   | chloroform                |       |       |       |     |      |       |  |
| 44   | carbon tetrachloride      |       |       |       |     |      |       |  |
| 45   | 1,1-dichloropropene       |       |       |       |     |      |       |  |
| 46   | isobutyl alcohol          |       |       |       |     |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.492 | 0.6   | 98  | 0.00 | 9.78  |  |
| 48   | 1,1,1-trichloroethane     |       |       |       |     |      |       |  |
| 49   | cyclohexane               |       |       |       |     |      |       |  |
| 50   | tert-amyl alcohol         |       |       |       |     |      |       |  |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 97  | 0.00 | 10.70 |  |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.370 | -0.3  | 97  | 0.00 | 10.20 |  |
| 53   | isopropyl acetate         |       |       |       |     |      |       |  |
| 54   | 1,2-dichloroethane        |       |       |       |     |      |       |  |
| 55   | benzene                   |       |       |       |     |      |       |  |
| 56   | 2,2,4-trimethylpentane    |       |       |       |     |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |       |     |      |       |  |
| 58   | heptane                   |       |       |       |     |      |       |  |
| 59   | n-butyl alcohol           |       |       |       |     |      |       |  |
| 60   | trichloroethene           |       |       |       |     |      |       |  |
| 61   | ethyl acrylate            |       |       |       |     |      |       |  |
| 62   | methylcyclohexane         |       |       |       |     |      |       |  |
| 63   | 1,2-dichloropropane       |       |       |       |     |      |       |  |
| 64   | methyl methacrylate       |       |       |       |     |      |       |  |
| 65   | dibromomethane            |       |       |       |     |      |       |  |
| 66   | bromodichloromethane      |       |       |       |     |      |       |  |
| 67   | 2-nitropropane            |       |       |       |     |      |       |  |
| 68   | 2-chloroethyl vinyl ether |       |       |       |     |      |       |  |
| 69   | epichlorohydrin           |       |       |       |     |      |       |  |
| 70   | cis-1,3-dichloropropene   |       |       |       |     |      |       |  |
| 71   | 4-methyl-2-pentanone      |       |       |       |     |      |       |  |
| 72   | 3-methyl-1-butanol        |       |       |       |     |      |       |  |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 96  | 0.00 | 13.82 |  |
| 74 S | toluene-d8 (s)            | 1.316 | 1.323 | -0.5  | 96  | 0.00 | 12.32 |  |
| 75   | toluene                   |       |       |       |     |      |       |  |
| 76   | trans-1,3-dichloropropene |       |       |       |     |      |       |  |
| 77   | ethyl methacrylate        |       |       |       |     |      |       |  |
| 78   | 1,1,2-trichloroethane     |       |       |       |     |      |       |  |
| 79   | 1,3-dichloropropane       |       |       |       |     |      |       |  |
| 80   | tetrachloroethene         | 0.284 | 0.313 | -10.2 | 103 | 0.00 | 12.95 |  |
| 81   | 2-hexanone                |       |       |       |     |      |       |  |
| 82   | butyl acetate             |       |       |       |     |      |       |  |
| 83   | n-butyl ether             |       |       |       |     |      |       |  |
| 84   | dibromochloromethane      |       |       |       |     |      |       |  |
| 85   | 1,2-dibromoethane         |       |       |       |     |      |       |  |
| 86   | chlorobenzene             |       |       |       |     |      |       |  |
| 87   | 1,1,1,2-tetrachloroethane |       |       |       |     |      |       |  |
| 88   | ethylbenzene              |       |       |       |     |      |       |  |
| 89   | m,p-xylene                |       |       |       |     |      |       |  |
| 90   | o-xylene                  |       |       |       |     |      |       |  |
| 91   | styrene                   |       |       |       |     |      |       |  |
| 92   | butyl acrylate            |       |       |       |     |      |       |  |
| 93   | cis-1,4-dichloro-2-butene |       |       |       |     |      |       |  |
| 94   | bromoform                 |       |       |       |     |      |       |  |
| 95   | isopropylbenzene          |       |       |       |     |      |       |  |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0   | 92  | 0.00 | 16.16 |  |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 1.022 | -2.6  | 97  | 0.00 | 14.98 |  |
| 98   | cyclohexanone             |       |       |       |     |      |       |  |

6.8.7  
6

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219394.D

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|     |                           |              |
|-----|---------------------------|--------------|
| 99  | 1,1,2,2-tetrachloroethane | -----NA----- |
| 100 | trans-1,4-dichloro-2-bute | -----NA----- |
| 101 | 1,2,3-trichloropropane    | -----NA----- |
| 102 | bromobenzene              | -----NA----- |
| 103 | n-propylbenzene           | -----NA----- |
| 104 | 2-chlorotoluene           | -----NA----- |
| 105 | 4-chlorotoluene           | -----NA----- |
| 106 | 4-ethyltoluene            | -----NA----- |
| 107 | 1,3,5-trimethylbenzene    | -----NA----- |
| 108 | tert-butylbenzene         | -----NA----- |
| 109 | 1,2,4-trimethylbenzene    | -----NA----- |
| 110 | sec-butylbenzene          | -----NA----- |
| 111 | p-isopropyltoluene        | -----NA----- |
| 112 | benzyl chloride           | -----NA----- |
| 113 | 1,3-dichlorobenzene       | -----NA----- |
| 114 | 1,4-dichlorobenzene       | -----NA----- |
| 115 | 1,2-dichlorobenzene       | -----NA----- |
| 116 | 1,4-diethylbenzene        | -----NA----- |
| 117 | n-butylbenzene            | -----NA----- |
| 118 | hexachloroethane          | -----NA----- |
| 119 | 1,2-dibromo-3-chloropropa | -----NA----- |
| 120 | 1,2,4,5-tetramethylbenzen | -----NA----- |
| 121 | nitrobenzene              | -----NA----- |
| 122 | 1,3,5-Trichlorobenzene    | -----NA----- |
| 123 | 1,2,4-trichlorobenzene    | -----NA----- |
| 124 | 2-ethylhexyl acrylate     | -----NA----- |
| 125 | hexachlorobutadiene       | -----NA----- |
| 126 | naphthalene               | -----NA----- |
| 127 | 1,2,3-trichlorobenzene    | -----NA----- |
| 128 | 2-methylnaphthalene       | -----NA----- |

---

(#) = Out of Range  
I219388.D MI8822.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 12 12:14:32 2018

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219397.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8822\I219397.D Vial: 3  
 Acq On : 12 Apr 2018 9:35 am Operator: Gabriela  
 Sample : icv8822-50 Inst : GCMSI  
 Misc : MS25384,VI8822,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 12 12:10:11 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 94    | -0.01    | 7.42 |
| 2   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 3   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 96    | 0.00     | 9.75 |
| 5   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | chloromethane            |       |       | -----NA----- |       |          |      |
| 8   | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | bromomethane             |       |       | -----NA----- |       |          |      |
| 11  | chloroethane             |       |       | -----NA----- |       |          |      |
| 12  | vinyl bromide            |       |       | -----NA----- |       |          |      |
| 13  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 14  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 15  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 16  | acrolein                 |       |       | -----NA----- |       |          |      |
| 17  | freon 113                | 0.244 | 0.215 | 11.9         | 78    | 0.00     | 6.76 |
| 18  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 19  | acetone                  |       |       | -----NA----- |       |          |      |
| 20  | iodomethane              |       |       | -----NA----- |       |          |      |
| 21  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 22  | acetonitrile             |       |       | -----NA----- |       |          |      |
| 23  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 24  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 25  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 26  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 27  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 28  | hexane                   |       |       | -----NA----- |       |          |      |
| 29  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 30  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | chloroprene              |       |       | -----NA----- |       |          |      |
| 33  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 34  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 35  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 36  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 37  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 38  | propionitrile            |       |       | -----NA----- |       |          |      |
| 39  | methyl acrylate          |       |       | -----NA----- |       |          |      |
| 40  | methacrylonitrile        |       |       | -----NA----- |       |          |      |
| 41  | bromochloromethane       |       |       | -----NA----- |       |          |      |



# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VI8822-ICV8822  
 Lab FileID: I219397.D

|      |                           |       |       |      |              |      |       |  |
|------|---------------------------|-------|-------|------|--------------|------|-------|--|
| 42   | tetrahydrofuran           |       |       |      | -----NA----- |      |       |  |
| 43   | chloroform                |       |       |      | -----NA----- |      |       |  |
| 44   | carbon tetrachloride      |       |       |      | -----NA----- |      |       |  |
| 45   | 1,1-dichloropropene       |       |       |      | -----NA----- |      |       |  |
| 46   | isobutyl alcohol          |       |       |      | -----NA----- |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.489 | 1.2  | 96           | 0.00 | 9.78  |  |
| 48   | 1,1,1-trichloroethane     |       |       |      | -----NA----- |      |       |  |
| 49   | cyclohexane               | 0.601 | 0.609 | -1.3 | 94           | 0.00 | 9.97  |  |
| 50   | tert-amyl alcohol         |       |       |      | -----NA----- |      |       |  |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 95           | 0.00 | 10.69 |  |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.373 | -1.1 | 96           | 0.00 | 10.20 |  |
| 53   | isopropyl acetate         |       |       |      | -----NA----- |      |       |  |
| 54   | 1,2-dichloroethane        |       |       |      | -----NA----- |      |       |  |
| 55   | benzene                   |       |       |      | -----NA----- |      |       |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      | -----NA----- |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      | -----NA----- |      |       |  |
| 58   | heptane                   |       |       |      | -----NA----- |      |       |  |
| 59   | n-butyl alcohol           |       |       |      | -----NA----- |      |       |  |
| 60   | trichloroethene           |       |       |      | -----NA----- |      |       |  |
| 61   | ethyl acrylate            |       |       |      | -----NA----- |      |       |  |
| 62   | methylcyclohexane         |       |       |      | -----NA----- |      |       |  |
| 63   | 1,2-dichloropropane       |       |       |      | -----NA----- |      |       |  |
| 64   | methyl methacrylate       |       |       |      | -----NA----- |      |       |  |
| 65   | dibromomethane            |       |       |      | -----NA----- |      |       |  |
| 66   | bromodichloromethane      |       |       |      | -----NA----- |      |       |  |
| 67   | 2-nitropropane            |       |       |      | -----NA----- |      |       |  |
| 68   | 2-chloroethyl vinyl ether |       |       |      | -----NA----- |      |       |  |
| 69   | epichlorohydrin           |       |       |      | -----NA----- |      |       |  |
| 70   | cis-1,3-dichloropropene   |       |       |      | -----NA----- |      |       |  |
| 71   | 4-methyl-2-pentanone      |       |       |      | -----NA----- |      |       |  |
| 72   | 3-methyl-1-butanol        |       |       |      | -----NA----- |      |       |  |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 94           | 0.00 | 13.82 |  |
| 74 S | toluene-d8 (s)            | 1.316 | 1.316 | 0.0  | 94           | 0.00 | 12.32 |  |
| 75   | toluene                   |       |       |      | -----NA----- |      |       |  |
| 76   | trans-1,3-dichloropropene |       |       |      | -----NA----- |      |       |  |
| 77   | ethyl methacrylate        |       |       |      | -----NA----- |      |       |  |
| 78   | 1,1,2-trichloroethane     |       |       |      | -----NA----- |      |       |  |
| 79   | 1,3-dichloropropane       |       |       |      | -----NA----- |      |       |  |
| 80   | tetrachloroethene         |       |       |      | -----NA----- |      |       |  |
| 81   | 2-hexanone                |       |       |      | -----NA----- |      |       |  |
| 82   | butyl acetate             |       |       |      | -----NA----- |      |       |  |
| 83   | n-butyl ether             |       |       |      | -----NA----- |      |       |  |
| 84   | dibromochloromethane      |       |       |      | -----NA----- |      |       |  |
| 85   | 1,2-dibromoethane         |       |       |      | -----NA----- |      |       |  |
| 86   | chlorobenzene             |       |       |      | -----NA----- |      |       |  |
| 87   | 1,1,1,2-tetrachloroethane |       |       |      | -----NA----- |      |       |  |
| 88   | ethylbenzene              |       |       |      | -----NA----- |      |       |  |
| 89   | m,p-xylene                |       |       |      | -----NA----- |      |       |  |
| 90   | o-xylene                  |       |       |      | -----NA----- |      |       |  |
| 91   | styrene                   |       |       |      | -----NA----- |      |       |  |
| 92   | butyl acrylate            |       |       |      | -----NA----- |      |       |  |
| 93   | cis-1,4-dichloro-2-butene |       |       |      | -----NA----- |      |       |  |
| 94   | bromoform                 |       |       |      | -----NA----- |      |       |  |
| 95   | isopropylbenzene          |       |       |      | -----NA----- |      |       |  |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 90           | 0.00 | 16.16 |  |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 1.016 | -2.0 | 94           | 0.00 | 14.98 |  |
| 98   | cyclohexanone             |       |       |      | -----NA----- |      |       |  |

6.8.8  
6

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8822-ICV8822  
**Lab FileID:** I219397.D

---

|     |                           |              |
|-----|---------------------------|--------------|
| 99  | 1,1,2,2-tetrachloroethane | -----NA----- |
| 100 | trans-1,4-dichloro-2-bute | -----NA----- |
| 101 | 1,2,3-trichloropropane    | -----NA----- |
| 102 | bromobenzene              | -----NA----- |
| 103 | n-propylbenzene           | -----NA----- |
| 104 | 2-chlorotoluene           | -----NA----- |
| 105 | 4-chlorotoluene           | -----NA----- |
| 106 | 4-ethyltoluene            | -----NA----- |
| 107 | 1,3,5-trimethylbenzene    | -----NA----- |
| 108 | tert-butylbenzene         | -----NA----- |
| 109 | 1,2,4-trimethylbenzene    | -----NA----- |
| 110 | sec-butylbenzene          | -----NA----- |
| 111 | p-isopropyltoluene        | -----NA----- |
| 112 | benzyl chloride           | -----NA----- |
| 113 | 1,3-dichlorobenzene       | -----NA----- |
| 114 | 1,4-dichlorobenzene       | -----NA----- |
| 115 | 1,2-dichlorobenzene       | -----NA----- |
| 116 | 1,4-diethylbenzene        | -----NA----- |
| 117 | n-butylbenzene            | -----NA----- |
| 118 | hexachloroethane          | -----NA----- |
| 119 | 1,2-dibromo-3-chloropropa | -----NA----- |
| 120 | 1,2,4,5-tetramethylbenzen | -----NA----- |
| 121 | nitrobenzene              | -----NA----- |
| 122 | 1,3,5-Trichlorobenzene    | -----NA----- |
| 123 | 1,2,4-trichlorobenzene    | -----NA----- |
| 124 | 2-ethylhexyl acrylate     | -----NA----- |
| 125 | hexachlorobutadiene       | -----NA----- |
| 126 | naphthalene               | -----NA----- |
| 127 | 1,2,3-trichlorobenzene    | -----NA----- |
| 128 | 2-methylnaphthalene       | -----NA----- |

---

(#) = Out of Range  
I219388.D MI8822.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 12 12:14:34 2018

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8838-CC8822  
**Lab FileID:** I219793.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\michellc\vi8838\i219793.d Vial: 3  
 Acq On : 30 Apr 2018 8:28 am Operator: Gabriela  
 Sample : cc8822-20 Inst : GCMSI  
 Misc : MS25905,VI8838,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 110   | -0.01    | 7.42  |
| 2   | tertiary butyl alcohol   | 0.972 | 1.006 | -3.5         | 112   | -0.01    | 7.54  |
| 3   | 1,4-dioxane              | 0.102 | 0.102 | 0.0          | 109   | 0.00     | 11.34 |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 111   | 0.00     | 9.75  |
| 5   | dichlorodifluoromethane  | 0.664 | 0.466 | 29.8#        | 81    | 0.00     | 3.89  |
| 6   | chlorodifluoromethane    | 0.705 | 0.576 | 18.3         | 92    | 0.00     | 3.93  |
| 7   | chloromethane            | 0.871 | 0.701 | 19.5         | 94    | 0.00     | 4.29  |
| 8   | vinyl chloride           | 0.669 | 0.542 | 19.0         | 93    | 0.00     | 4.54  |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 10  | bromomethane             | 0.347 | 0.280 | 19.3         | 87    | 0.02     | 5.21  |
| 11  | chloroethane             | 0.379 | 0.317 | 16.4         | 94    | 0.01     | 5.42  |
| 12  | vinyl bromide            | 0.398 | 0.301 | 24.4#        | 85    | 0.00     | 5.77  |
| 13  | trichlorofluoromethane   | 0.677 | 0.515 | 23.9#        | 87    | 0.00     | 5.89  |
| 14  | ethyl ether              | 0.228 | 0.227 | 0.4          | 102   | 0.00     | 6.34  |
| 15  | 2-chloropropane          | 0.174 | 0.154 | 11.5         | 94    | 0.00     | 6.54  |
| 16  | acrolein                 | 0.095 | 0.085 | 10.5         | 95    | 0.00     | 6.55  |
| 17  | freon 113                | 0.244 | 0.196 | 19.7         | 89    | 0.00     | 6.75  |
| 18  | 1,1-dichloroethene       | 0.689 | 0.593 | 13.9         | 95    | 0.00     | 6.76  |
| 19  | acetone                  | 0.039 | 0.039 | 0.0          | 106   | 0.00     | 6.76  |
| 20  | iodomethane              | 0.314 | 0.282 | 10.2         | 102   | 0.00     | 7.01  |
| 21  | carbon disulfide         | 1.308 | 1.040 | 20.5#        | 91    | 0.00     | 7.16  |
| 22  | acetonitrile             | 0.082 | 0.083 | -1.2         | 110   | 0.00     | 7.16  |
| 23  | methyl acetate           | 0.066 | 0.069 | -4.5         | 111   | 0.00     | 7.24  |
| 24  | methylene chloride       | 0.474 | 0.417 | 12.0         | 98    | 0.00     | 7.48  |
| 25  | acrylonitrile            | 0.163 | 0.164 | -0.6         | 102   | 0.00     | 7.77  |
| 26  | methyl tert butyl ether  | 1.221 | 1.149 | 5.9          | 101   | 0.00     | 7.86  |
| 27  | trans-1,2-dichloroethene | 0.704 | 0.611 | 13.2         | 96    | 0.00     | 7.89  |
| 28  | hexane                   | 0.727 | 0.575 | 20.9#        | 92    | 0.00     | 8.27  |
| 29  | 1,1-dichloroethane       | 0.888 | 0.774 | 12.8         | 95    | 0.00     | 8.47  |
| 30  | vinyl acetate            | 0.072 | 0.060 | 16.7         | 92    | 0.00     | 8.42  |
| 31  | di-isopropyl ether       | 1.793 | 1.689 | 5.8          | 101   | 0.00     | 8.47  |
| 32  | chloroprene              | 0.758 | 0.642 | 15.3         | 93    | 0.00     | 8.58  |
| 33  | ethyl tert-butyl ether   | 1.524 | 1.428 | 6.3          | 100   | 0.00     | 8.94  |
| 34  | 2-butanone               | 0.049 | 0.047 | 4.1          | 101   | 0.00     | 9.13  |
| 35  | 2,2-dichloropropane      | 0.700 | 0.584 | 16.6         | 94    | 0.00     | 9.23  |
| 36  | ethyl acetate            | 0.077 | 0.079 | -2.6         | 105   | 0.00     | 9.16  |
| 37  | cis-1,2-dichloroethene   | 0.502 | 0.418 | 16.7         | 94    | 0.00     | 9.20  |
| 38  | propionitrile            | 0.084 | 0.085 | -1.2         | 107   | 0.00     | 9.19  |
| 39  | methyl acrylate          | 0.060 | 0.058 | 3.3          | 100   | 0.00     | 9.24  |
| 40  | methacrylonitrile        | 0.179 | 0.175 | 2.2          | 104   | 0.00     | 9.40  |
| 41  | bromochloromethane       | 0.193 | 0.185 | 4.1          | 99    | 0.00     | 9.50  |

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8838-CC8822  
**Lab FileID:** I219793.D

|      |                           |       |       |       |     |      |       |
|------|---------------------------|-------|-------|-------|-----|------|-------|
| 42   | tetrahydrofuran           | 0.056 | 0.056 | 0.0   | 107 | 0.00 | 9.52  |
| 43   | chloroform                | 0.832 | 0.719 | 13.6  | 97  | 0.00 | 9.59  |
| 44   | carbon tetrachloride      | 0.509 | 0.440 | 13.6  | 94  | 0.00 | 10.06 |
| 45   | 1,1-dichloropropene       | 0.633 | 0.537 | 15.2  | 95  | 0.00 | 10.03 |
| 46   | isobutyl alcohol          |       |       |       |     |      |       |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.480 | 3.0   | 107 | 0.00 | 9.78  |
| 48   | 1,1,1-trichloroethane     | 0.659 | 0.560 | 15.0  | 94  | 0.00 | 9.85  |
| 49   | cyclohexane               | 0.601 | 0.506 | 15.8  | 96  | 0.00 | 9.97  |
| 50   | tert-amyl alcohol         | 0.020 | 0.021 | -5.0  | 108 | 0.00 | 10.14 |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 109 | 0.00 | 10.69 |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.361 | 2.2   | 105 | 0.00 | 10.20 |
| 53   | isopropyl acetate         | 0.050 | 0.048 | 4.0   | 103 | 0.00 | 10.19 |
| 54   | 1,2-dichloroethane        | 0.402 | 0.363 | 9.7   | 99  | 0.00 | 10.29 |
| 55   | benzene                   | 1.147 | 1.007 | 12.2  | 96  | 0.00 | 10.28 |
| 56   | 2,2,4-trimethylpentane    | 1.184 | 1.005 | 15.1  | 93  | 0.00 | 10.38 |
| 57   | tert-amyl methyl ether    | 0.168 | 0.166 | 1.2   | 101 | 0.00 | 10.36 |
| 58   | heptane                   | 0.244 | 0.207 | 15.2  | 94  | 0.00 | 10.55 |
| 59   | n-butyl alcohol           | 0.010 | 0.012 | -20.0 | 111 | 0.00 | 10.73 |
| 60   | trichloroethene           | 0.273 | 0.235 | 13.9  | 93  | 0.00 | 11.01 |
| 61   | ethyl acrylate            | 0.358 | 0.353 | 1.4   | 103 | 0.00 | 10.99 |
| 62   | methylcyclohexane         | 0.460 | 0.382 | 17.0  | 92  | 0.00 | 11.31 |
| 63   | 1,2-dichloropropane       | 0.318 | 0.294 | 7.5   | 99  | 0.00 | 11.29 |
| 64   | methyl methacrylate       | 0.058 | 0.057 | 1.7   | 102 | 0.00 | 11.25 |
| 65   | dibromomethane            | 0.158 | 0.153 | 3.2   | 100 | 0.00 | 11.40 |
| 66   | bromodichloromethane      | 0.380 | 0.351 | 7.6   | 100 | 0.00 | 11.55 |
| 67   | 2-nitropropane            | 0.074 | 0.074 | 0.0   | 110 | 0.00 | 11.73 |
| 68   | 2-chloroethyl vinyl ether | 0.187 | 0.183 | 2.1   | 103 | 0.00 | 11.78 |
| 69   | epichlorohydrin           | 0.033 | 0.033 | 0.0   | 105 | 0.00 | 11.86 |
| 70   | cis-1,3-dichloropropene   | 0.471 | 0.442 | 6.2   | 101 | 0.00 | 12.00 |
| 71   | 4-methyl-2-pentanone      | 0.102 | 0.108 | -5.9  | 109 | 0.00 | 12.10 |
| 72   | 3-methyl-1-butanol        | 0.007 | 0.008 | -14.3 | 121 | 0.00 | 12.10 |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 112 | 0.00 | 13.82 |
| 74 S | toluene-d8 (s)            | 1.316 | 1.315 | 0.1   | 111 | 0.00 | 12.32 |
| 75   | toluene                   | 0.772 | 0.668 | 13.5  | 98  | 0.00 | 12.39 |
| 76   | trans-1,3-dichloropropene | 0.492 | 0.465 | 5.5   | 103 | 0.00 | 12.56 |
| 77   | ethyl methacrylate        | 0.383 | 0.367 | 4.2   | 103 | 0.00 | 12.56 |
| 78   | 1,1,2-trichloroethane     | 0.231 | 0.222 | 3.9   | 102 | 0.00 | 12.79 |
| 79   | 1,3-dichloropropane       | 0.453 | 0.433 | 4.4   | 103 | 0.00 | 12.97 |
| 80   | tetrachloroethene         | 0.284 | 0.243 | 14.4  | 94  | 0.00 | 12.94 |
| 81   | 2-hexanone                | 0.119 | 0.125 | -5.0  | 111 | 0.00 | 12.94 |
| 82   | butyl acetate             | 0.206 | 0.215 | -4.4  | 113 | 0.00 | 13.03 |
| 83   | n-butyl ether             | 1.545 | 1.416 | 8.3   | 102 | 0.00 | 13.81 |
| 84   | dibromochloromethane      | 0.279 | 0.270 | 3.2   | 104 | 0.00 | 13.21 |
| 85   | 1,2-dibromoethane         | 0.272 | 0.264 | 2.9   | 103 | 0.00 | 13.37 |
| 86   | chlorobenzene             | 0.761 | 0.684 | 10.1  | 102 | 0.00 | 13.85 |
| 87   | 1,1,1,2-tetrachloroethane | 0.261 | 0.246 | 5.7   | 101 | 0.00 | 13.91 |
| 88   | ethylbenzene              | 1.426 | 1.234 | 13.5  | 98  | 0.00 | 13.91 |
| 89   | m,p-xylene                | 0.519 | 0.452 | 12.9  | 99  | 0.00 | 14.03 |
| 90   | o-xylene                  | 0.500 | 0.449 | 10.2  | 101 | 0.00 | 14.43 |
| 91   | styrene                   | 0.862 | 0.760 | 11.8  | 98  | 0.00 | 14.45 |
| 92   | butyl acrylate            | 0.631 | 0.608 | 3.6   | 104 | 0.00 | 14.26 |
| 93   | cis-1,4-dichloro-2-butene | 0.123 | 0.129 | -4.9  | 113 | 0.00 | 14.81 |
| 94   | bromoform                 | 0.168 | 0.167 | 0.6   | 108 | 0.00 | 14.67 |
| 95   | isopropylbenzene          | 1.284 | 1.102 | 14.2  | 99  | 0.00 | 14.79 |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0   | 116 | 0.00 | 16.16 |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 0.961 | 3.5   | 112 | 0.00 | 14.98 |
| 98   | cyclohexanone             |       |       |       |     |      |       |

6.8.9

6

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8838-CC8822  
**Lab FileID:** I219793.D

|     |                           |       |       |              |     |      |       |
|-----|---------------------------|-------|-------|--------------|-----|------|-------|
| 99  | 1,1,2,2-tetrachloroethane | 0.697 | 0.689 | 1.1          | 112 | 0.00 | 15.05 |
| 100 | trans-1,4-dichloro-2-bute | 0.208 | 0.208 | 0.0          | 112 | 0.00 | 15.08 |
| 101 | 1,2,3-trichloropropane    | 0.158 | 0.155 | 1.9          | 107 | 0.00 | 15.14 |
| 102 | bromobenzene              | 0.633 | 0.565 | 10.7         | 103 | 0.00 | 15.16 |
| 103 | n-propylbenzene           | 3.259 | 2.799 | 14.1         | 100 | 0.00 | 15.20 |
| 104 | 2-chlorotoluene           | 0.597 | 0.531 | 11.1         | 102 | 0.00 | 15.33 |
| 105 | 4-chlorotoluene           | 2.003 | 1.761 | 12.1         | 101 | 0.00 | 15.44 |
| 106 | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 107 | 1,3,5-trimethylbenzene    | 2.182 | 1.901 | 12.9         | 102 | 0.00 | 15.36 |
| 108 | tert-butylbenzene         | 0.381 | 0.322 | 15.5         | 98  | 0.00 | 15.70 |
| 109 | 1,2,4-trimethylbenzene    | 2.265 | 1.968 | 13.1         | 104 | 0.00 | 15.75 |
| 110 | sec-butylbenzene          | 2.795 | 2.403 | 14.0         | 100 | 0.00 | 15.92 |
| 111 | p-isopropyltoluene        | 2.323 | 1.991 | 14.3         | 102 | 0.00 | 16.06 |
| 112 | benzyl chloride           | 1.376 | 1.387 | -0.8         | 116 | 0.00 | 16.28 |
| 113 | 1,3-dichlorobenzene       | 1.226 | 1.084 | 11.6         | 104 | 0.00 | 16.09 |
| 114 | 1,4-dichlorobenzene       | 1.240 | 1.110 | 10.5         | 106 | 0.00 | 16.19 |
| 115 | 1,2-dichlorobenzene       | 1.155 | 1.076 | 6.8          | 107 | 0.00 | 16.57 |
| 116 | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 117 | n-butylbenzene            | 1.362 | 1.190 | 12.6         | 102 | 0.00 | 16.48 |
| 118 | hexachloroethane          | 0.343 | 0.319 | 7.0          | 108 | 0.00 | 16.89 |
| 119 | 1,2-dibromo-3-chloropropa | 0.127 | 0.127 | 0.0          | 113 | 0.00 | 17.33 |
| 120 | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 | nitrobenzene              | 0.041 | 0.058 | -41.5#       | 170 | 0.00 | 17.50 |
| 122 | 1,3,5-Trichlorobenzene    | 0.933 | 0.831 | 10.9         | 104 | 0.00 | 17.51 |
| 123 | 1,2,4-trichlorobenzene    | 0.749 | 0.655 | 12.6         | 102 | 0.00 | 18.04 |
| 124 | 2-ethylhexyl acrylate     | 1.238 | 0.822 | 33.6#        | 78  | 0.00 | 18.05 |
| 125 | hexachlorobutadiene       | 0.420 | 0.346 | 17.6         | 95  | 0.00 | 18.14 |
| 126 | naphthalene               | 1.722 | 1.609 | 6.6          | 105 | 0.00 | 18.27 |
| 127 | 1,2,3-trichlorobenzene    | 0.721 | 0.614 | 14.8         | 97  | 0.00 | 18.45 |
| 128 | 2-methylnaphthalene       | 1.246 | 0.669 | 46.3#        | 58  | 0.00 | 19.18 |

(#) = Out of Range  
 I219387.D MI8822.M

SPCC's out = 0 CCC's out = 0  
 Wed May 02 04:48:12 2018

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8839-CC8822  
**Lab FileID:** I219817.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\05-02-18\vi8839\i219817.d Vial: 1  
 Acq On : 1 May 2018 6:49 am Operator: Gabriela  
 Sample : cc8822-20 Inst : GCMSI  
 Misc : MS23682,VI8839,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF   | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|--------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000  | 0.0          | 101   | -0.02    | 7.41  |
| 2   | tertiary butyl alcohol   | 0.972 | 1.100  | -13.2        | 113   | -0.02    | 7.53  |
| 3   | 1,4-dioxane              | 0.102 | 0.110  | -7.8         | 109   | 0.00     | 11.34 |
| 4 I | pentafluorobenzene       | 1.000 | 1.000  | 0.0          | 100   | 0.00     | 9.75  |
| 5   | dichlorodifluoromethane  | 0.664 | 0.505  | 23.9#        | 79    | 0.00     | 3.89  |
| 6   | chlorodifluoromethane    | 0.705 | 0.738  | -4.7         | 105   | 0.00     | 3.93  |
| 7   | chloromethane            | 0.871 | 0.806  | 7.5          | 96    | 0.00     | 4.29  |
| 8   | vinyl chloride           | 0.669 | 0.622  | 7.0          | 95    | 0.00     | 4.54  |
| 9   | 1,3-butadiene            |       |        | -----NA----- |       |          |       |
| 10  | bromomethane             | 0.347 | 0.327  | 5.8          | 92    | 0.02     | 5.21  |
| 11  | chloroethane             | 0.379 | 0.347  | 8.4          | 92    | 0.01     | 5.42  |
| 12  | vinyl bromide            | 0.398 | 0.336  | 15.6         | 85    | 0.00     | 5.76  |
| 13  | trichlorofluoromethane   | 0.677 | 0.583  | 13.9         | 89    | 0.00     | 5.89  |
| 14  | ethyl ether              | 0.228 | 0.261  | -14.5        | 105   | 0.00     | 6.33  |
| 15  | 2-chloropropane          | 0.174 | 0.182  | -4.6         | 99    | 0.00     | 6.54  |
| 16  | acrolein                 | 0.095 | 0.098  | -3.2         | 98    | 0.00     | 6.55  |
| 17  | freon 113                | 0.244 | 0.229  | 6.1          | 93    | 0.00     | 6.75  |
| 18  | 1,1-dichloroethene       | 0.689 | 0.695  | -0.9         | 99    | 0.00     | 6.75  |
| 19  | acetone                  | 0.039 | 0.046# | -17.9        | 110   | 0.00     | 6.75  |
| 20  | iodomethane              | 0.314 | 0.286  | 8.9          | 92    | 0.00     | 7.00  |
| 21  | carbon disulfide         | 1.308 | 1.243  | 5.0          | 98    | 0.00     | 7.15  |
| 22  | acetonitrile             | 0.082 | 0.096  | -17.1        | 113   | 0.00     | 7.16  |
| 23  | methyl acetate           | 0.066 | 0.076  | -15.2        | 109   | 0.00     | 7.24  |
| 24  | methylene chloride       | 0.474 | 0.481  | -1.5         | 102   | 0.00     | 7.48  |
| 25  | acrylonitrile            | 0.163 | 0.189  | -16.0        | 106   | 0.00     | 7.77  |
| 26  | methyl tert butyl ether  | 1.221 | 1.314  | -7.6         | 103   | 0.00     | 7.85  |
| 27  | trans-1,2-dichloroethene | 0.704 | 0.711  | -1.0         | 100   | 0.00     | 7.89  |
| 28  | hexane                   | 0.727 | 0.688  | 5.4          | 99    | 0.00     | 8.27  |
| 29  | 1,1-dichloroethane       | 0.888 | 0.903  | -1.7         | 99    | 0.00     | 8.47  |
| 30  | vinyl acetate            | 0.072 | 0.071  | 1.4          | 97    | 0.00     | 8.41  |
| 31  | di-isopropyl ether       | 1.793 | 1.974  | -10.1        | 106   | 0.00     | 8.47  |
| 32  | chloroprene              | 0.758 | 0.739  | 2.5          | 96    | 0.00     | 8.58  |
| 33  | ethyl tert-butyl ether   | 1.524 | 1.623  | -6.5         | 102   | 0.00     | 8.94  |
| 34  | 2-butanone               | 0.049 | 0.054  | -10.2        | 104   | 0.00     | 9.13  |
| 35  | 2,2-dichloropropane      | 0.700 | 0.675  | 3.6          | 97    | 0.00     | 9.23  |
| 36  | ethyl acetate            | 0.077 | 0.090  | -16.9        | 108   | 0.00     | 9.15  |
| 37  | cis-1,2-dichloroethene   | 0.502 | 0.472  | 6.0          | 95    | 0.00     | 9.19  |
| 38  | propionitrile            | 0.084 | 0.096  | -14.3        | 109   | -0.01    | 9.18  |
| 39  | methyl acrylate          | 0.060 | 0.067  | -11.7        | 104   | 0.00     | 9.24  |
| 40  | methacrylonitrile        | 0.179 | 0.195  | -8.9         | 104   | 0.00     | 9.39  |
| 41  | bromochloromethane       | 0.193 | 0.206  | -6.7         | 99    | 0.00     | 9.50  |

6.8.10  
6

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8839-CC8822  
**Lab FileID:** I219817.D

|      |                           |       |        |              |     |       |       |
|------|---------------------------|-------|--------|--------------|-----|-------|-------|
| 42   | tetrahydrofuran           | 0.056 | 0.065  | -16.1        | 112 | 0.00  | 9.52  |
| 43   | chloroform                | 0.832 | 0.818  | 1.7          | 99  | 0.00  | 9.59  |
| 44   | carbon tetrachloride      | 0.509 | 0.514  | -1.0         | 98  | 0.00  | 10.06 |
| 45   | 1,1-dichloropropene       | 0.633 | 0.617  | 2.5          | 98  | 0.00  | 10.03 |
| 46   | isobutyl alcohol          |       |        | -----NA----- |     |       |       |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.512  | -3.4         | 102 | 0.00  | 9.77  |
| 48   | 1,1,1-trichloroethane     | 0.659 | 0.641  | 2.7          | 97  | 0.00  | 9.85  |
| 49   | cyclohexane               | 0.601 | 0.563  | 6.3          | 96  | 0.00  | 9.97  |
| 50   | tert-amyl alcohol         | 0.020 | 0.024# | -20.0        | 113 | -0.01 | 10.14 |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000  | 0.0          | 101 | 0.00  | 10.69 |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.371  | -0.5         | 100 | 0.00  | 10.20 |
| 53   | isopropyl acetate         | 0.050 | 0.052  | -4.0         | 105 | 0.00  | 10.18 |
| 54   | 1,2-dichloroethane        | 0.402 | 0.405  | -0.7         | 102 | 0.00  | 10.29 |
| 55   | benzene                   | 1.147 | 1.115  | 2.8          | 99  | 0.00  | 10.27 |
| 56   | 2,2,4-trimethylpentane    | 1.184 | 1.133  | 4.3          | 98  | 0.00  | 10.38 |
| 57   | tert-amyl methyl ether    | 0.168 | 0.180  | -7.1         | 102 | 0.00  | 10.36 |
| 58   | heptane                   | 0.244 | 0.233  | 4.5          | 98  | 0.00  | 10.55 |
| 59   | n-butyl alcohol           | 0.010 | 0.013# | -30.0#       | 112 | 0.00  | 10.73 |
| 60   | trichloroethene           | 0.273 | 0.258  | 5.5          | 95  | 0.00  | 11.00 |
| 61   | ethyl acrylate            | 0.358 | 0.382  | -6.7         | 103 | 0.00  | 10.99 |
| 62   | methylcyclohexane         | 0.460 | 0.426  | 7.4          | 95  | 0.00  | 11.31 |
| 63   | 1,2-dichloropropane       | 0.318 | 0.325  | -2.2         | 101 | 0.00  | 11.29 |
| 64   | methyl methacrylate       | 0.058 | 0.061  | -5.2         | 100 | 0.00  | 11.25 |
| 65   | dibromomethane            | 0.158 | 0.169  | -7.0         | 102 | 0.00  | 11.39 |
| 66   | bromodichloromethane      | 0.380 | 0.388  | -2.1         | 102 | 0.00  | 11.55 |
| 67   | 2-nitropropane            | 0.074 | 0.080  | -8.1         | 111 | 0.00  | 11.73 |
| 68   | 2-chloroethyl vinyl ether | 0.187 | 0.202  | -8.0         | 105 | 0.00  | 11.78 |
| 69   | epichlorohydrin           | 0.033 | 0.036# | -9.1         | 106 | 0.00  | 11.86 |
| 70   | cis-1,3-dichloropropene   | 0.471 | 0.484  | -2.8         | 103 | 0.00  | 12.00 |
| 71   | 4-methyl-2-pentanone      | 0.102 | 0.120  | -17.6        | 112 | 0.00  | 12.10 |
| 72   | 3-methyl-1-butanol        | 0.007 | 0.009# | -28.6#       | 120 | 0.00  | 12.09 |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000  | 0.0          | 106 | 0.00  | 13.81 |
| 74 S | toluene-d8 (s)            | 1.316 | 1.310  | 0.5          | 105 | 0.00  | 12.31 |
| 75   | toluene                   | 0.772 | 0.715  | 7.4          | 99  | 0.00  | 12.38 |
| 76   | trans-1,3-dichloropropene | 0.492 | 0.501  | -1.8         | 105 | 0.00  | 12.56 |
| 77   | ethyl methacrylate        | 0.383 | 0.395  | -3.1         | 104 | 0.00  | 12.56 |
| 78   | 1,1,2-trichloroethane     | 0.231 | 0.240  | -3.9         | 105 | 0.00  | 12.78 |
| 79   | 1,3-dichloropropane       | 0.453 | 0.470  | -3.8         | 106 | 0.00  | 12.96 |
| 80   | tetrachloroethene         | 0.284 | 0.260  | 8.5          | 96  | 0.00  | 12.94 |
| 81   | 2-hexanone                | 0.119 | 0.135  | -13.4        | 113 | 0.00  | 12.94 |
| 82   | butyl acetate             | 0.206 | 0.234  | -13.6        | 116 | 0.00  | 13.03 |
| 83   | n-butyl ether             | 1.545 | 1.525  | 1.3          | 104 | 0.00  | 13.81 |
| 84   | dibromochloromethane      | 0.279 | 0.293  | -5.0         | 107 | 0.00  | 13.21 |
| 85   | 1,2-dibromoethane         | 0.272 | 0.280  | -2.9         | 103 | 0.00  | 13.37 |
| 86   | chlorobenzene             | 0.761 | 0.732  | 3.8          | 103 | 0.00  | 13.85 |
| 87   | 1,1,1,2-tetrachloroethane | 0.261 | 0.266  | -1.9         | 104 | 0.00  | 13.91 |
| 88   | ethylbenzene              | 1.426 | 1.323  | 7.2          | 100 | 0.00  | 13.91 |
| 89   | m,p-xylene                | 0.519 | 0.481  | 7.3          | 100 | 0.00  | 14.03 |
| 90   | o-xylene                  | 0.500 | 0.472  | 5.6          | 100 | 0.00  | 14.43 |
| 91   | styrene                   | 0.862 | 0.824  | 4.4          | 101 | 0.00  | 14.44 |
| 92   | butyl acrylate            | 0.631 | 0.657  | -4.1         | 106 | 0.00  | 14.26 |
| 93   | cis-1,4-dichloro-2-butene | 0.123 | 0.140  | -13.8        | 115 | 0.00  | 14.81 |
| 94   | bromoform                 | 0.168 | 0.181  | -7.7         | 111 | 0.00  | 14.66 |
| 95   | isopropylbenzene          | 1.284 | 1.170  | 8.9          | 99  | 0.00  | 14.78 |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000  | 0.0          | 109 | 0.00  | 16.16 |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 0.964  | 3.2          | 106 | 0.00  | 14.98 |
| 98   | cyclohexanone             |       |        | -----NA----- |     |       |       |

6.8.10

6

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8839-CC8822  
**Lab FileID:** I219817.D

|     |                           |       |       |              |     |      |       |
|-----|---------------------------|-------|-------|--------------|-----|------|-------|
| 99  | 1,1,2,2-tetrachloroethane | 0.697 | 0.748 | -7.3         | 114 | 0.00 | 15.05 |
| 100 | trans-1,4-dichloro-2-bute | 0.208 | 0.226 | -8.7         | 115 | 0.00 | 15.08 |
| 101 | 1,2,3-trichloropropane    | 0.158 | 0.169 | -7.0         | 109 | 0.00 | 15.14 |
| 102 | bromobenzene              | 0.633 | 0.597 | 5.7          | 102 | 0.00 | 15.16 |
| 103 | n-propylbenzene           | 3.259 | 3.016 | 7.5          | 101 | 0.00 | 15.20 |
| 104 | 2-chlorotoluene           | 0.597 | 0.558 | 6.5          | 101 | 0.00 | 15.33 |
| 105 | 4-chlorotoluene           | 2.003 | 1.866 | 6.8          | 101 | 0.00 | 15.44 |
| 106 | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 107 | 1,3,5-trimethylbenzene    | 2.182 | 2.008 | 8.0          | 101 | 0.00 | 15.36 |
| 108 | tert-butylbenzene         | 0.381 | 0.339 | 11.0         | 97  | 0.00 | 15.70 |
| 109 | 1,2,4-trimethylbenzene    | 2.265 | 2.107 | 7.0          | 105 | 0.00 | 15.75 |
| 110 | sec-butylbenzene          | 2.795 | 2.545 | 8.9          | 100 | 0.00 | 15.92 |
| 111 | p-isopropyltoluene        | 2.323 | 2.133 | 8.2          | 102 | 0.00 | 16.06 |
| 112 | benzyl chloride           | 1.376 | 1.514 | -10.0        | 119 | 0.00 | 16.28 |
| 113 | 1,3-dichlorobenzene       | 1.226 | 1.169 | 4.6          | 105 | 0.00 | 16.09 |
| 114 | 1,4-dichlorobenzene       | 1.240 | 1.191 | 4.0          | 107 | 0.00 | 16.19 |
| 115 | 1,2-dichlorobenzene       | 1.155 | 1.141 | 1.2          | 106 | 0.00 | 16.57 |
| 116 | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 117 | n-butylbenzene            | 1.362 | 1.283 | 5.8          | 104 | 0.00 | 16.48 |
| 118 | hexachloroethane          | 0.343 | 0.338 | 1.5          | 108 | 0.00 | 16.88 |
| 119 | 1,2-dibromo-3-chloropropa | 0.127 | 0.136 | -7.1         | 113 | 0.00 | 17.33 |
| 120 | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 | nitrobenzene              | 0.041 | 0.058 | -41.5#       | 158 | 0.00 | 17.50 |
| 122 | 1,3,5-Trichlorobenzene    | 0.933 | 0.898 | 3.8          | 106 | 0.00 | 17.51 |
| 123 | 1,2,4-trichlorobenzene    | 0.749 | 0.730 | 2.5          | 107 | 0.00 | 18.04 |
| 124 | 2-ethylhexyl acrylate     | 1.238 | 0.984 | 20.5#        | 88  | 0.00 | 18.05 |
| 125 | hexachlorobutadiene       | 0.420 | 0.374 | 11.0         | 97  | 0.00 | 18.14 |
| 126 | naphthalene               | 1.722 | 1.711 | 0.6          | 105 | 0.00 | 18.27 |
| 127 | 1,2,3-trichlorobenzene    | 0.721 | 0.678 | 6.0          | 100 | 0.00 | 18.45 |
| 128 | 2-methylnaphthalene       | 1.246 | 0.769 | 38.3#        | 63  | 0.00 | 19.17 |

(#) = Out of Range  
 I219387.D MI8822.M

SPCC's out = 0 CCC's out = 0  
 Wed May 02 11:40:06 2018

6.8.10  
 6



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8845-ICV8822  
**Lab FileID:** I219972.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8845\I219972.D Vial: 37  
 Acq On : 8 May 2018 2:56 am Operator: Gabriela  
 Sample : icv8822-50 Inst : GCMSI  
 Misc : MS26055,VI8845,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Tue May 08 11:42:16 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 94    | 0.00     | 7.42 |
| 2   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 3   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 87    | 0.00     | 9.75 |
| 5   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | chloromethane            |       |       | -----NA----- |       |          |      |
| 8   | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 10  | bromomethane             |       |       | -----NA----- |       |          |      |
| 11  | chloroethane             |       |       | -----NA----- |       |          |      |
| 12  | vinyl bromide            |       |       | -----NA----- |       |          |      |
| 13  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 14  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 15  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 16  | acrolein                 |       |       | -----NA----- |       |          |      |
| 17  | freon 113                |       |       | -----NA----- |       |          |      |
| 18  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 19  | acetone                  |       |       | -----NA----- |       |          |      |
| 20  | iodomethane              |       |       | -----NA----- |       |          |      |
| 21  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 22  | acetonitrile             |       |       | -----NA----- |       |          |      |
| 23  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 24  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 25  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 26  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 27  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 28  | hexane                   |       |       | -----NA----- |       |          |      |
| 29  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 30  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | chloroprene              |       |       | -----NA----- |       |          |      |
| 33  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 34  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 35  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 36  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 37  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 38  | propionitrile            |       |       | -----NA----- |       |          |      |
| 39  | methyl acrylate          |       |       | -----NA----- |       |          |      |
| 40  | methacrylonitrile        |       |       | -----NA----- |       |          |      |
| 41  | bromochloromethane       |       |       | -----NA----- |       |          |      |

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8845-ICV8822  
**Lab FileID:** I219972.D

|      |                           |       |       |      |    |      |       |  |
|------|---------------------------|-------|-------|------|----|------|-------|--|
| 42   | tetrahydrofuran           |       |       |      |    |      |       |  |
| 43   | chloroform                |       |       |      |    |      |       |  |
| 44   | carbon tetrachloride      |       |       |      |    |      |       |  |
| 45   | 1,1-dichloropropene       |       |       |      |    |      |       |  |
| 46   | isobutyl alcohol          |       |       |      |    |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.502 | -1.4 | 89 | 0.00 | 9.78  |  |
| 48   | 1,1,1-trichloroethane     |       |       |      |    |      |       |  |
| 49   | cyclohexane               |       |       |      |    |      |       |  |
| 50   | tert-amyl alcohol         |       |       |      |    |      |       |  |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 84 | 0.00 | 10.69 |  |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.365 | 1.1  | 83 | 0.00 | 10.20 |  |
| 53   | isopropyl acetate         |       |       |      |    |      |       |  |
| 54   | 1,2-dichloroethane        |       |       |      |    |      |       |  |
| 55   | benzene                   |       |       |      |    |      |       |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      |    |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      |    |      |       |  |
| 58   | heptane                   |       |       |      |    |      |       |  |
| 59   | n-butyl alcohol           |       |       |      |    |      |       |  |
| 60   | trichloroethene           |       |       |      |    |      |       |  |
| 61   | ethyl acrylate            |       |       |      |    |      |       |  |
| 62   | methylcyclohexane         |       |       |      |    |      |       |  |
| 63   | 1,2-dichloropropane       |       |       |      |    |      |       |  |
| 64   | methyl methacrylate       |       |       |      |    |      |       |  |
| 65   | dibromomethane            |       |       |      |    |      |       |  |
| 66   | bromodichloromethane      |       |       |      |    |      |       |  |
| 67   | 2-nitropropane            |       |       |      |    |      |       |  |
| 68   | 2-chloroethyl vinyl ether |       |       |      |    |      |       |  |
| 69   | epichlorohydrin           |       |       |      |    |      |       |  |
| 70   | cis-1,3-dichloropropene   |       |       |      |    |      |       |  |
| 71   | 4-methyl-2-pentanone      |       |       |      |    |      |       |  |
| 72   | 3-methyl-1-butanol        |       |       |      |    |      |       |  |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 92 | 0.00 | 13.82 |  |
| 74 S | toluene-d8 (s)            | 1.316 | 1.252 | 4.9  | 86 | 0.00 | 12.31 |  |
| 75   | toluene                   |       |       |      |    |      |       |  |
| 76   | trans-1,3-dichloropropene |       |       |      |    |      |       |  |
| 77   | ethyl methacrylate        |       |       |      |    |      |       |  |
| 78   | 1,1,2-trichloroethane     |       |       |      |    |      |       |  |
| 79   | 1,3-dichloropropane       |       |       |      |    |      |       |  |
| 80   | tetrachloroethene         |       |       |      |    |      |       |  |
| 81   | 2-hexanone                |       |       |      |    |      |       |  |
| 82   | butyl acetate             |       |       |      |    |      |       |  |
| 83   | n-butyl ether             |       |       |      |    |      |       |  |
| 84   | dibromochloromethane      |       |       |      |    |      |       |  |
| 85   | 1,2-dibromoethane         |       |       |      |    |      |       |  |
| 86   | chlorobenzene             |       |       |      |    |      |       |  |
| 87   | 1,1,1,2-tetrachloroethane |       |       |      |    |      |       |  |
| 88   | ethylbenzene              |       |       |      |    |      |       |  |
| 89   | m,p-xylene                |       |       |      |    |      |       |  |
| 90   | o-xylene                  |       |       |      |    |      |       |  |
| 91   | styrene                   |       |       |      |    |      |       |  |
| 92   | butyl acrylate            |       |       |      |    |      |       |  |
| 93   | cis-1,4-dichloro-2-butene |       |       |      |    |      |       |  |
| 94   | bromoform                 |       |       |      |    |      |       |  |
| 95   | isopropylbenzene          |       |       |      |    |      |       |  |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 94 | 0.00 | 16.16 |  |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 0.945 | 5.1  | 92 | 0.00 | 14.98 |  |
| 98   | ethylenimine              |       |       |      |    |      |       |  |

6.8.11  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8845-ICV8822  
**Lab FileID:** I219972.D

|     |                           |              |       |       |     |     |      |       |
|-----|---------------------------|--------------|-------|-------|-----|-----|------|-------|
| 99  | 1,1,2,2-tetrachloroethane | -----NA----- |       |       |     |     |      |       |
| 100 | trans-1,4-dichloro-2-bute | -----NA----- |       |       |     |     |      |       |
| 101 | 1,2,3-trichloropropane    | -----NA----- |       |       |     |     |      |       |
| 102 | bromobenzene              | -----NA----- |       |       |     |     |      |       |
| 103 | n-propylbenzene           | -----NA----- |       |       |     |     |      |       |
| 104 | 2-chlorotoluene           | -----NA----- |       |       |     |     |      |       |
| 105 | 4-chlorotoluene           | -----NA----- |       |       |     |     |      |       |
| 106 | 4-ethyltoluene            | -----NA----- |       |       |     |     |      |       |
| 107 | 1,3,5-trimethylbenzene    | -----NA----- |       |       |     |     |      |       |
| 108 | tert-butylbenzene         | -----NA----- |       |       |     |     |      |       |
| 109 | 1,2,4-trimethylbenzene    | -----NA----- |       |       |     |     |      |       |
| 110 | sec-butylbenzene          | -----NA----- |       |       |     |     |      |       |
| 111 | p-isopropyltoluene        | -----NA----- |       |       |     |     |      |       |
| 112 | benzyl chloride           | -----NA----- |       |       |     |     |      |       |
| 113 | 1,3-dichlorobenzene       | -----NA----- |       |       |     |     |      |       |
| 114 | 1,4-dichlorobenzene       | -----NA----- |       |       |     |     |      |       |
| 115 | 1,2-dichlorobenzene       | -----NA----- |       |       |     |     |      |       |
| 116 | 1,4-diethylbenzene        | -----NA----- |       |       |     |     |      |       |
| 117 | n-butylbenzene            | -----NA----- |       |       |     |     |      |       |
| 118 | hexachloroethane          | -----NA----- |       |       |     |     |      |       |
| 119 | 1,2-dibromo-3-chloropropa | -----NA----- |       |       |     |     |      |       |
| 120 | 1,2,4,5-tetramethylbenzen | -----NA----- |       |       |     |     |      |       |
| 121 | nitrobenzene              | -----NA----- |       |       |     |     |      |       |
| 122 | 1,3,5-Trichlorobenzene    | -----NA----- |       |       |     |     |      |       |
| 123 | 1,2,4-trichlorobenzene    | -----NA----- |       |       |     |     |      |       |
| 124 | 2-ethylhexyl acrylate     | -----NA----- |       |       |     |     |      |       |
| 125 | hexachlorobutadiene       | -----NA----- |       |       |     |     |      |       |
| 126 | naphthalene               | -----NA----- |       |       |     |     |      |       |
| 127 | 1,2,3-trichlorobenzene    | -----NA----- |       |       |     |     |      |       |
| 128 | 2-methylnaphthalene       | -----NA----- |       |       |     |     |      |       |
| 129 | chlorobenzene-d5(a)       |              | 1.000 | 1.000 | 0.0 | 104 | 0.00 | 13.82 |
| 130 | cyclohexanone             |              | 0.012 | 0.012 | 0.0 | 102 | 0.00 | 14.90 |

(#) = Out of Range  
 I219388.D MI8822.M

SPCC's out = 0 CCC's out = 0  
 Tue May 08 11:45:43 2018

6.8.11 6

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8852-CC8822  
**Lab FileID:** I220084.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\vi8852\i220084.d Vial: 1  
 Acq On : 11 May 2018 7:15 am Operator: Gabriela  
 Sample : cc8822-20 Inst : GCMSI  
 Misc : MS26129,VI8852,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8822.M (RTE Integrator)  
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 95    | -0.01    | 7.42  |
| 2   | tertiary butyl alcohol   | 0.972 | 1.066 | -9.7         | 102   | -0.01    | 7.54  |
| 3   | 1,4-dioxane              | 0.102 | 0.104 | -2.0         | 96    | -0.01    | 11.33 |
| 4 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 91    | 0.00     | 9.75  |
| 5   | dichlorodifluoromethane  | 0.664 | 0.604 | 9.0          | 86    | 0.00     | 3.89  |
| 6   | chlorodifluoromethane    | 0.705 | 0.603 | 14.5         | 79    | 0.00     | 3.93  |
| 7   | chloromethane            | 0.871 | 0.920 | -5.6         | 101   | 0.00     | 4.29  |
| 8   | vinyl chloride           | 0.669 | 0.649 | 3.0          | 91    | 0.00     | 4.54  |
| 9   | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 10  | bromomethane             | 0.347 | 0.322 | 7.2          | 82    | 0.02     | 5.21  |
| 11  | chloroethane             | 0.379 | 0.370 | 2.4          | 90    | 0.01     | 5.42  |
| 12  | vinyl bromide            | 0.398 | 0.367 | 7.8          | 85    | 0.00     | 5.77  |
| 13  | trichlorofluoromethane   | 0.677 | 0.612 | 9.6          | 85    | 0.00     | 5.89  |
| 14  | ethyl ether              | 0.228 | 0.248 | -8.8         | 91    | 0.00     | 6.34  |
| 15  | 2-chloropropane          | 0.174 | 0.191 | -9.8         | 95    | 0.00     | 6.54  |
| 16  | acrolein                 | 0.095 | 0.097 | -2.1         | 88    | 0.00     | 6.55  |
| 17  | freon 113                | 0.244 | 0.241 | 1.2          | 89    | 0.00     | 6.75  |
| 18  | 1,1-dichloroethene       | 0.689 | 0.709 | -2.9         | 93    | 0.00     | 6.76  |
| 19  | acetone                  | 0.039 | 0.046 | -17.9        | 101   | 0.00     | 6.75  |
| 20  | iodomethane              | 0.314 | 0.275 | 12.4         | 81    | 0.00     | 7.00  |
| 21  | carbon disulfide         | 1.308 | 1.319 | -0.8         | 94    | 0.00     | 7.15  |
| 22  | acetonitrile             | 0.082 | 0.096 | -17.1        | 104   | 0.00     | 7.16  |
| 23  | methyl acetate           | 0.066 | 0.072 | -9.1         | 95    | 0.00     | 7.24  |
| 24  | methylene chloride       | 0.474 | 0.473 | 0.2          | 91    | 0.00     | 7.48  |
| 25  | acrylonitrile            | 0.163 | 0.186 | -14.1        | 95    | 0.00     | 7.77  |
| 26  | methyl tert butyl ether  | 1.221 | 1.259 | -3.1         | 90    | 0.00     | 7.86  |
| 27  | trans-1,2-dichloroethene | 0.704 | 0.721 | -2.4         | 92    | 0.00     | 7.89  |
| 28  | hexane                   | 0.727 | 0.682 | 6.2          | 89    | 0.00     | 8.27  |
| 29  | 1,1-dichloroethane       | 0.888 | 0.912 | -2.7         | 91    | 0.00     | 8.47  |
| 30  | vinyl acetate            | 0.072 | 0.066 | 8.3          | 82    | 0.00     | 8.41  |
| 31  | di-isopropyl ether       | 1.793 | 1.871 | -4.4         | 92    | 0.00     | 8.47  |
| 32  | chloroprene              | 0.758 | 0.737 | 2.8          | 88    | 0.00     | 8.58  |
| 33  | ethyl tert-butyl ether   | 1.524 | 1.524 | 0.0          | 87    | 0.00     | 8.94  |
| 34  | 2-butanone               | 0.049 | 0.054 | -10.2        | 95    | 0.00     | 9.13  |
| 35  | 2,2-dichloropropane      | 0.700 | 0.689 | 1.6          | 90    | 0.00     | 9.22  |
| 36  | ethyl acetate            | 0.077 | 0.088 | -14.3        | 96    | 0.00     | 9.16  |
| 37  | cis-1,2-dichloroethene   | 0.502 | 0.462 | 8.0          | 85    | 0.00     | 9.19  |
| 38  | propionitrile            | 0.084 | 0.096 | -14.3        | 99    | -0.01    | 9.18  |
| 39  | methyl acrylate          | 0.060 | 0.064 | -6.7         | 90    | 0.00     | 9.24  |
| 40  | methacrylonitrile        | 0.179 | 0.192 | -7.3         | 94    | 0.00     | 9.39  |
| 41  | bromochloromethane       | 0.193 | 0.204 | -5.7         | 90    | 0.00     | 9.49  |

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8852-CC8822  
**Lab FileID:** I220084.D

|      |                           |       |       |              |     |       |       |
|------|---------------------------|-------|-------|--------------|-----|-------|-------|
| 42   | tetrahydrofuran           | 0.056 | 0.061 | -8.9         | 97  | 0.00  | 9.53  |
| 43   | chloroform                | 0.832 | 0.817 | 1.8          | 90  | 0.00  | 9.59  |
| 44   | carbon tetrachloride      | 0.509 | 0.542 | -6.5         | 95  | 0.00  | 10.05 |
| 45   | 1,1-dichloropropene       | 0.633 | 0.637 | -0.6         | 92  | 0.00  | 10.03 |
| 46   | isobutyl alcohol          |       |       | -----NA----- |     |       |       |
| 47 S | dibromofluoromethane (s)  | 0.495 | 0.505 | -2.0         | 92  | 0.00  | 9.77  |
| 48   | 1,1,1-trichloroethane     | 0.659 | 0.666 | -1.1         | 92  | 0.00  | 9.85  |
| 49   | cyclohexane               | 0.601 | 0.573 | 4.7          | 89  | 0.00  | 9.97  |
| 50   | tert-amyl alcohol         | 0.020 | 0.024 | -20.0        | 101 | 0.00  | 10.14 |
| 51 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 89  | 0.00  | 10.69 |
| 52 S | 1,2-dichloroethane-d4 (s) | 0.369 | 0.392 | -6.2         | 94  | 0.00  | 10.20 |
| 53   | isopropyl acetate         | 0.050 | 0.052 | -4.0         | 91  | 0.00  | 10.18 |
| 54   | 1,2-dichloroethane        | 0.402 | 0.410 | -2.0         | 91  | 0.00  | 10.29 |
| 55   | benzene                   | 1.147 | 1.167 | -1.7         | 91  | 0.00  | 10.27 |
| 56   | 2,2,4-trimethylpentane    | 1.184 | 1.208 | -2.0         | 92  | 0.00  | 10.38 |
| 57   | tert-amyl methyl ether    | 0.168 | 0.177 | -5.4         | 89  | 0.00  | 10.36 |
| 58   | heptane                   | 0.244 | 0.244 | 0.0          | 90  | 0.00  | 10.55 |
| 59   | n-butyl alcohol           | 0.010 | 0.013 | -30.0#       | 102 | 0.00  | 10.73 |
| 60   | trichloroethene           | 0.273 | 0.274 | -0.4         | 89  | 0.00  | 11.00 |
| 61   | ethyl acrylate            | 0.358 | 0.379 | -5.9         | 91  | 0.00  | 10.99 |
| 62   | methylcyclohexane         | 0.460 | 0.441 | 4.1          | 87  | 0.00  | 11.31 |
| 63   | 1,2-dichloropropane       | 0.318 | 0.337 | -6.0         | 92  | 0.00  | 11.29 |
| 64   | methyl methacrylate       | 0.058 | 0.060 | -3.4         | 87  | 0.00  | 11.25 |
| 65   | dibromomethane            | 0.158 | 0.169 | -7.0         | 90  | 0.00  | 11.39 |
| 66   | bromodichloromethane      | 0.380 | 0.395 | -3.9         | 92  | 0.00  | 11.55 |
| 67   | 2-nitropropane            | 0.074 | 0.084 | -13.5        | 103 | -0.01 | 11.73 |
| 68   | 2-chloroethyl vinyl ether | 0.187 | 0.189 | -1.1         | 87  | -0.01 | 11.78 |
| 69   | epichlorohydrin           | 0.033 | 0.036 | -9.1         | 94  | -0.01 | 11.86 |
| 70   | cis-1,3-dichloropropene   | 0.471 | 0.481 | -2.1         | 90  | 0.00  | 12.00 |
| 71   | 4-methyl-2-pentanone      | 0.102 | 0.120 | -17.6        | 99  | 0.00  | 12.09 |
| 72   | 3-methyl-1-butanol        | 0.007 | 0.009 | -28.6#       | 110 | 0.00  | 12.09 |
| 73 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 92  | 0.00  | 13.81 |
| 74 S | toluene-d8 (s)            | 1.316 | 1.356 | -3.0         | 94  | 0.00  | 12.31 |
| 75   | toluene                   | 0.772 | 0.747 | 3.2          | 90  | 0.00  | 12.38 |
| 76   | trans-1,3-dichloropropene | 0.492 | 0.516 | -4.9         | 94  | 0.00  | 12.56 |
| 77   | ethyl methacrylate        | 0.383 | 0.391 | -2.1         | 90  | 0.00  | 12.56 |
| 78   | 1,1,2-trichloroethane     | 0.231 | 0.246 | -6.5         | 94  | 0.00  | 12.78 |
| 79   | 1,3-dichloropropane       | 0.453 | 0.477 | -5.3         | 93  | 0.00  | 12.96 |
| 80   | tetrachloroethene         | 0.284 | 0.281 | 1.1          | 90  | 0.00  | 12.94 |
| 81   | 2-hexanone                | 0.119 | 0.136 | -14.3        | 99  | 0.00  | 12.94 |
| 82   | butyl acetate             | 0.206 | 0.228 | -10.7        | 98  | 0.00  | 13.03 |
| 83   | n-butyl ether             | 1.545 | 1.499 | 3.0          | 88  | 0.00  | 13.81 |
| 84   | dibromochloromethane      | 0.279 | 0.303 | -8.6         | 96  | 0.00  | 13.21 |
| 85   | 1,2-dibromoethane         | 0.272 | 0.290 | -6.6         | 93  | 0.00  | 13.36 |
| 86   | chlorobenzene             | 0.761 | 0.766 | -0.7         | 94  | 0.00  | 13.84 |
| 87   | 1,1,1,2-tetrachloroethane | 0.261 | 0.279 | -6.9         | 94  | 0.00  | 13.91 |
| 88   | ethylbenzene              | 1.426 | 1.372 | 3.8          | 90  | 0.00  | 13.91 |
| 89   | m,p-xylene                | 0.519 | 0.504 | 2.9          | 91  | 0.00  | 14.03 |
| 90   | o-xylene                  | 0.500 | 0.489 | 2.2          | 90  | 0.00  | 14.43 |
| 91   | styrene                   | 0.862 | 0.839 | 2.7          | 89  | 0.00  | 14.44 |
| 92   | butyl acrylate            | 0.631 | 0.636 | -0.8         | 89  | 0.00  | 14.26 |
| 93   | cis-1,4-dichloro-2-butene | 0.123 | 0.141 | -14.6        | 101 | 0.00  | 14.80 |
| 94   | bromoform                 | 0.168 | 0.187 | -11.3        | 100 | 0.00  | 14.66 |
| 95   | isopropylbenzene          | 1.284 | 1.228 | 4.4          | 90  | 0.00  | 14.78 |
| 96 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 95  | 0.00  | 16.16 |
| 97 S | 4-bromofluorobenzene (s)  | 0.996 | 0.951 | 4.5          | 91  | 0.00  | 14.98 |
| 98   | ethylenimine              |       |       | -----NA----- |     |       |       |

6.8.12

6

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VI8852-CC8822  
**Lab FileID:** I220084.D

|     |                           |       |       |              |     |      |       |
|-----|---------------------------|-------|-------|--------------|-----|------|-------|
| 99  | 1,1,2,2-tetrachloroethane | 0.697 | 0.764 | -9.6         | 101 | 0.00 | 15.05 |
| 100 | trans-1,4-dichloro-2-bute | 0.208 | 0.231 | -11.1        | 102 | 0.00 | 15.08 |
| 101 | 1,2,3-trichloropropane    | 0.158 | 0.178 | -12.7        | 100 | 0.00 | 15.14 |
| 102 | bromobenzene              | 0.633 | 0.626 | 1.1          | 93  | 0.00 | 15.16 |
| 103 | n-propylbenzene           | 3.259 | 3.176 | 2.5          | 93  | 0.00 | 15.19 |
| 104 | 2-chlorotoluene           | 0.597 | 0.586 | 1.8          | 92  | 0.00 | 15.32 |
| 105 | 4-chlorotoluene           | 2.003 | 1.948 | 2.7          | 92  | 0.00 | 15.44 |
| 106 | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 107 | 1,3,5-trimethylbenzene    | 2.182 | 2.134 | 2.2          | 94  | 0.00 | 15.36 |
| 108 | tert-butylbenzene         | 0.381 | 0.365 | 4.2          | 91  | 0.00 | 15.70 |
| 109 | 1,2,4-trimethylbenzene    | 2.265 | 2.182 | 3.7          | 94  | 0.00 | 15.75 |
| 110 | sec-butylbenzene          | 2.795 | 2.709 | 3.1          | 92  | 0.00 | 15.92 |
| 111 | p-isopropyltoluene        | 2.323 | 2.253 | 3.0          | 94  | 0.00 | 16.05 |
| 112 | benzyl chloride           | 1.376 | 1.530 | -11.2        | 105 | 0.00 | 16.28 |
| 113 | 1,3-dichlorobenzene       | 1.226 | 1.236 | -0.8         | 97  | 0.00 | 16.09 |
| 114 | 1,4-dichlorobenzene       | 1.240 | 1.246 | -0.5         | 97  | 0.00 | 16.19 |
| 115 | 1,2-dichlorobenzene       | 1.155 | 1.195 | -3.5         | 97  | 0.00 | 16.57 |
| 116 | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 117 | n-butylbenzene            | 1.362 | 1.352 | 0.7          | 95  | 0.00 | 16.47 |
| 118 | hexachloroethane          | 0.343 | 0.370 | -7.9         | 102 | 0.00 | 16.88 |
| 119 | 1,2-dibromo-3-chloropropa | 0.127 | 0.153 | -20.5#       | 111 | 0.00 | 17.36 |
| 120 | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 | nitrobenzene              | 0.041 | 0.074 | -80.5#       | 177 | 0.00 | 17.56 |
| 122 | 1,3,5-Trichlorobenzene    | 0.933 | 1.123 | -20.4#       | 115 | 0.00 | 17.57 |
| 123 | 1,2,4-trichlorobenzene    | 0.749 | 1.019 | -36.0#       | 129 | 0.00 | 18.23 |
| 124 | 2-ethylhexyl acrylate     | 1.238 | 1.391 | -12.4        | 108 | 0.00 | 18.25 |
| 125 | hexachlorobutadiene       | 0.420 | 0.540 | -28.6#       | 121 | 0.00 | 18.35 |
| 126 | naphthalene               | 1.722 | 2.451 | -42.3#       | 131 | 0.00 | 18.52 |
| 127 | 1,2,3-trichlorobenzene    | 0.721 | 0.960 | -33.1#       | 123 | 0.00 | 18.74 |
| 128 | 2-methylnaphthalene       | 1.246 | 1.189 | 4.6          | 85  | 0.00 | 19.61 |
| 129 | chlorobenzene-d5(a)       | 1.000 | 1.000 | 0.0          | 110 | 0.00 | 13.81 |
| 130 | cyclohexanone             |       |       | -----NA----- |     |      |       |

(#) = Out of Range  
 I219387.D MI8822.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 10:43:57 2018

6.8.12  
 6

MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\vi8838\
Data File : i219810.d
Acq On : 30 Apr 2018 5:24 pm
Operator : Gabriela
Sample : JC64996-6 Inst : GCMSI
Misc : MS25940,VI8838,5.3,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M
Quant Results File: MI8822.RES
Quant Time: May 02 05:21:21 2018
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Thu Apr 12 12:10:11 2018
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (1-96), System Monitoring Compounds (47-97), and Target Compounds (19-89).

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1
7

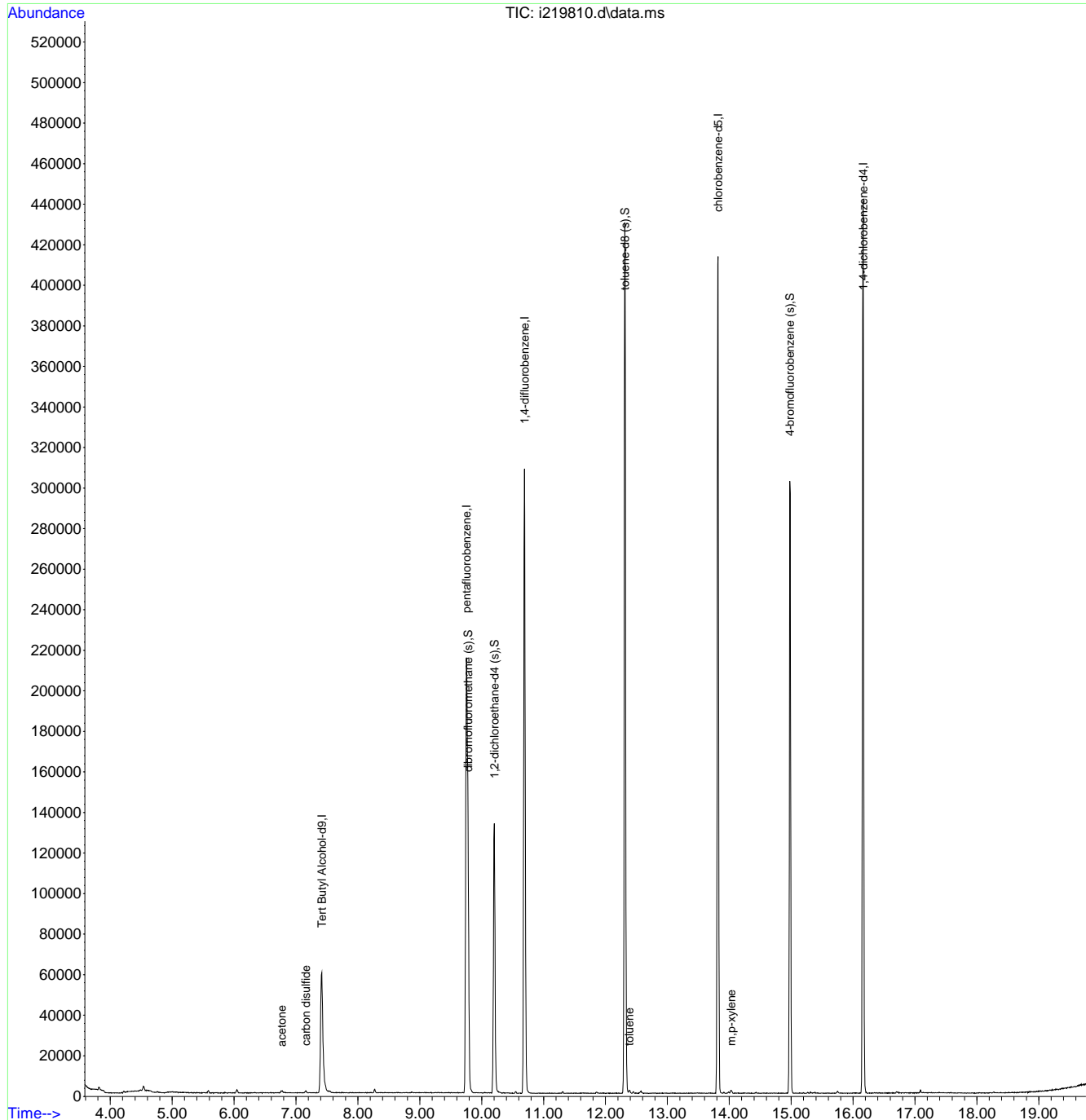


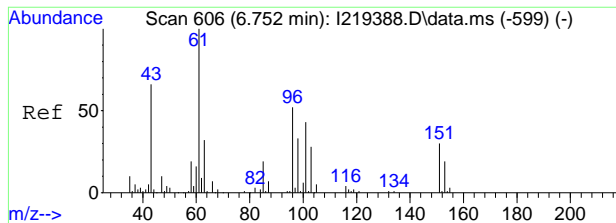


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\vi8838\  
 Data File : i219810.d  
 Acq On : 30 Apr 2018 5:24 pm  
 Operator : Gabriela  
 Sample : JC64996-6 Inst : GCMSI  
 Misc : MS25940,VI8838,5.3,,,,,1  
 ALS Vial : 20 Sample Multiplier: 1

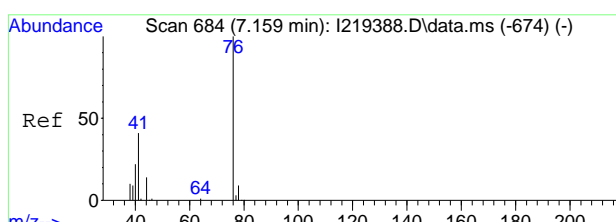
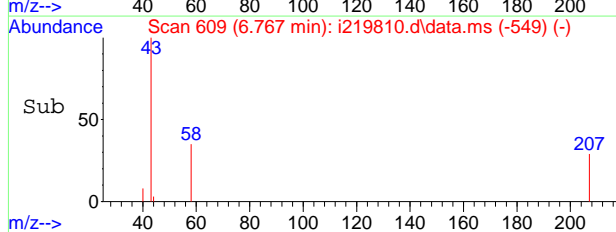
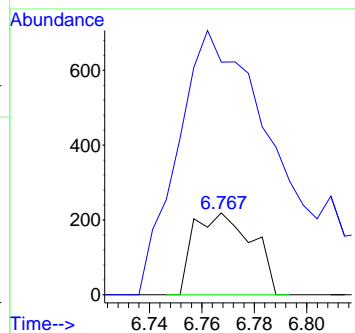
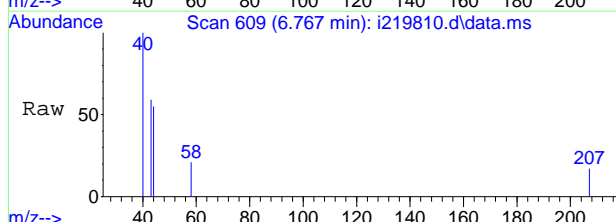
Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 02 05:21:21 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Thu Apr 12 12:10:11 2018  
 Response via : Initial Calibration





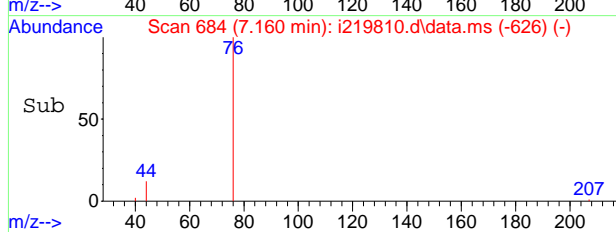
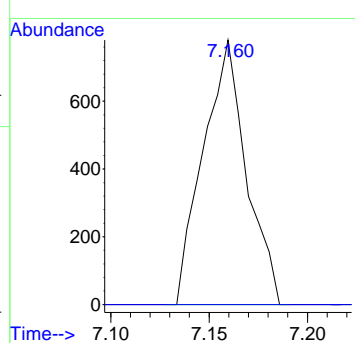
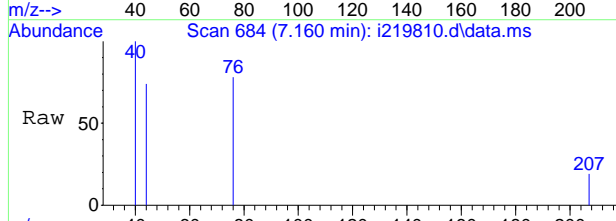
#19  
acetone  
Concen: 3.52 ug/L  
RT: 6.767 min Scan# 609  
Delta R.T. 0.011 min  
Lab File: i219810.d  
Acq: 30 Apr 2018 5:24 pm

| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 58      | 339   | 100   |        |
| 43      | 167.6 | 317.9 | 377.9# |

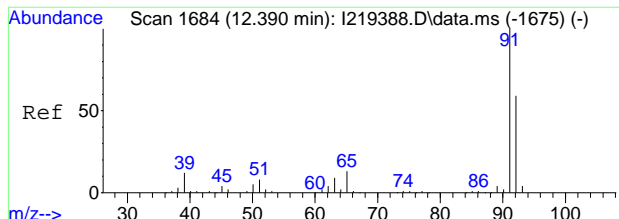


#21  
carbon disulfide  
Concen: 0.37 ug/L  
RT: 7.160 min Scan# 684  
Delta R.T. 0.005 min  
Lab File: i219810.d  
Acq: 30 Apr 2018 5:24 pm

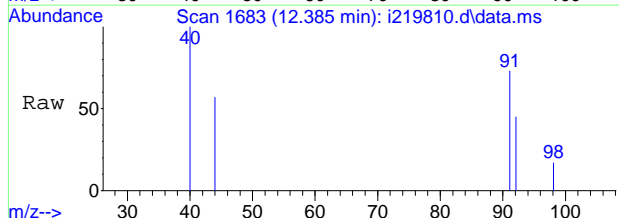
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 1190 | 100   |       |
| 78      | 0.0  | 0.0   | 29.3  |



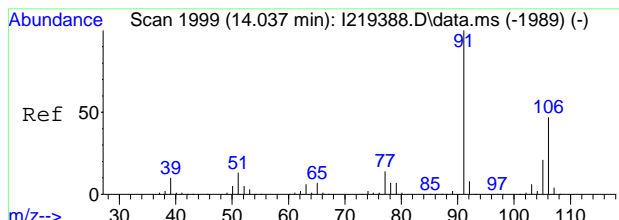
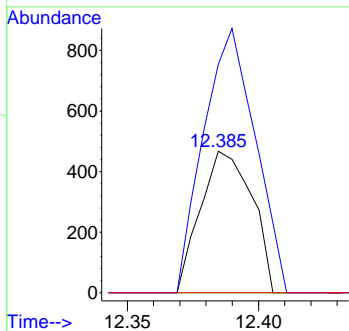
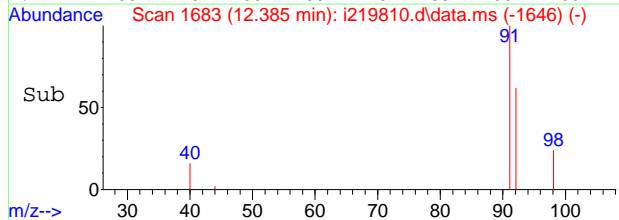
7.1.1  
7



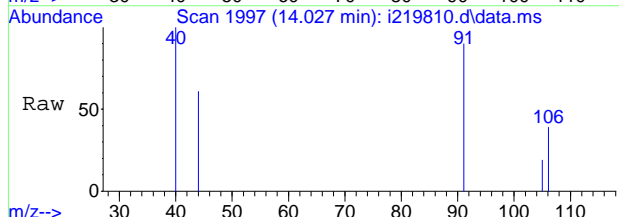
#75  
toluene  
Concen: 0.23 ug/L  
RT: 12.385 min Scan# 1683  
Delta R.T. -0.005 min  
Lab File: i219810.d  
Acq: 30 Apr 2018 5:24 pm



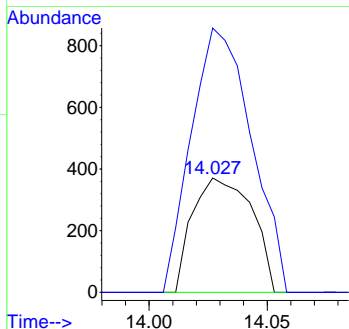
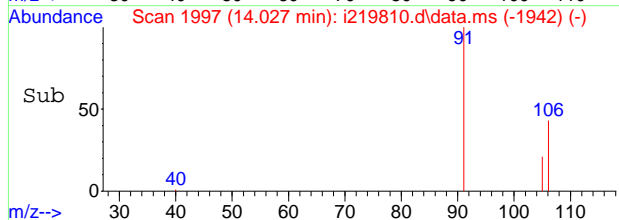
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 641   |       |       |
| 91      | 161.5 | 149.1 | 189.1 |
| 65      | 0.0   | 2.5   | 42.5# |



#89  
m,p-xylene  
Concen: 0.34 ug/L  
RT: 14.027 min Scan# 1997  
Delta R.T. -0.010 min  
Lab File: i219810.d  
Acq: 30 Apr 2018 5:24 pm



| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 651   |       |       |
| 106     | 100   |       |       |
| 91      | 231.3 | 181.5 | 241.5 |



7.1.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\vi8852\_halfway\
Data File : i220106.d
Acq On : 11 May 2018 6:18 pm
Operator : Gabriela
Sample : jc64996-7 Inst : GCMSI
Misc : MS26254,VI8852,5.3,,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M
Quant Results File: MI8822.RES
Quant Time: May 14 21:58:45 2018
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Tue May 08 11:42:16 2018
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (1-129), System Monitoring Compounds (47-97), and Target Compounds (19-95).

(#) = qualifier out of range (m) = manual integration (+) = signals summed

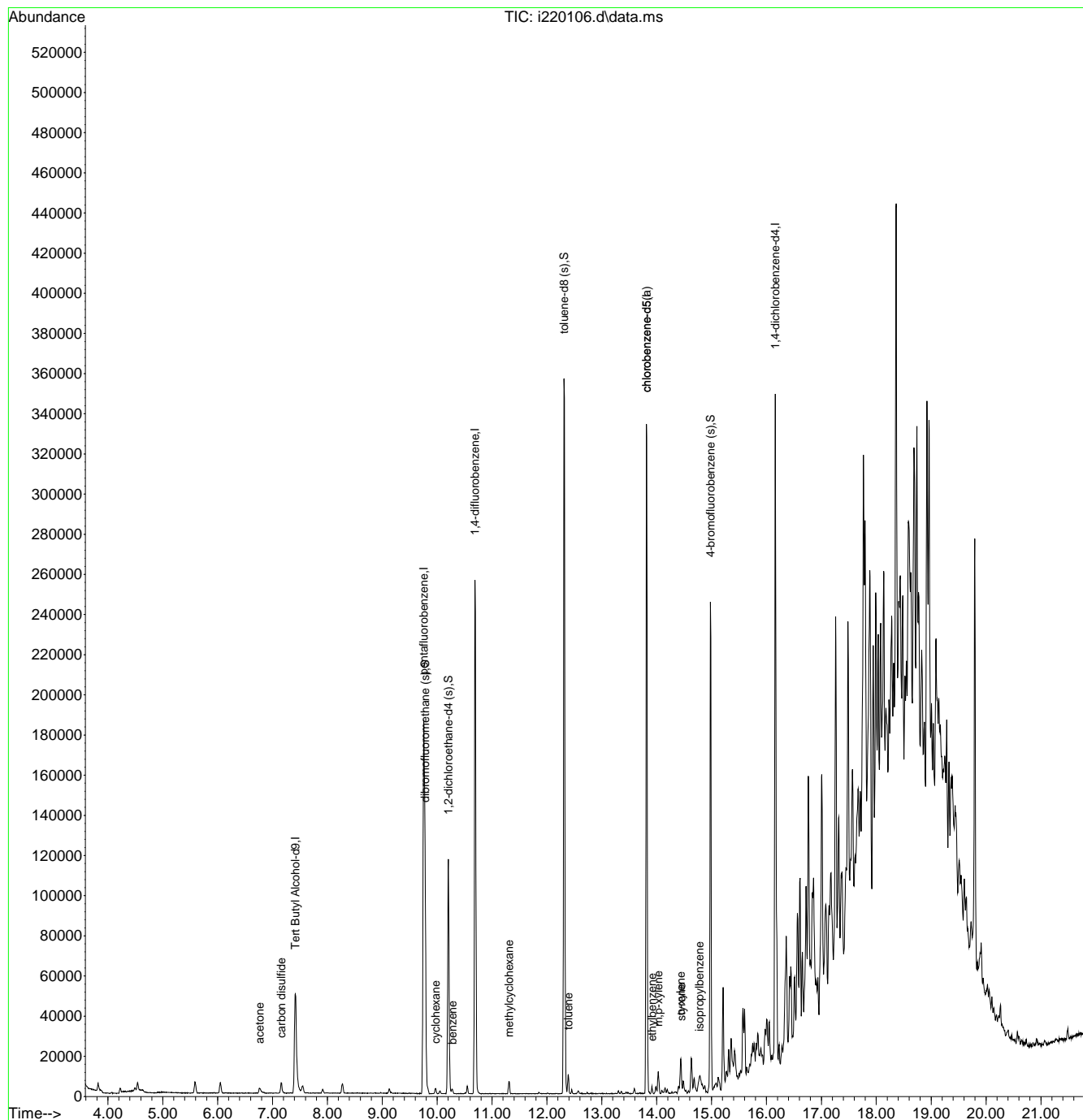
7.12
7



Quantitation Report (QT Reviewed)

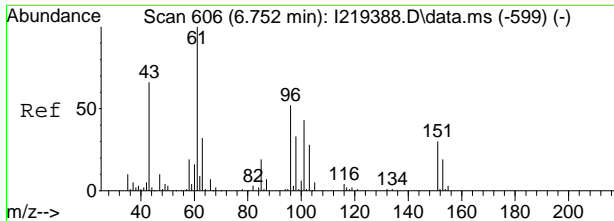
Data Path : C:\msdchem\1\data\nizele\5-15-18\vi8852\_halfway\  
 Data File : i220106.d  
 Acq On : 11 May 2018 6:18 pm  
 Operator : Gabriela  
 Sample : jc64996-7 Inst : GCMSI  
 Misc : MS26254,VI8852,5.3,,,,,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 14 21:58:45 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Tue May 08 11:42:16 2018  
 Response via : Initial Calibration



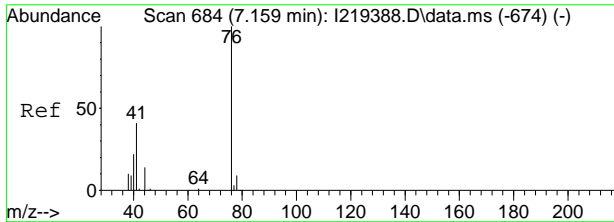
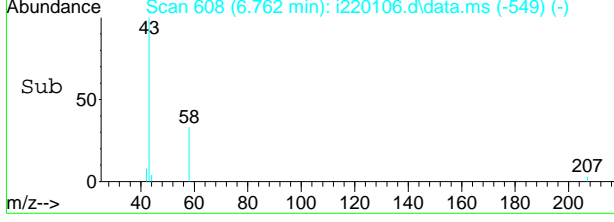
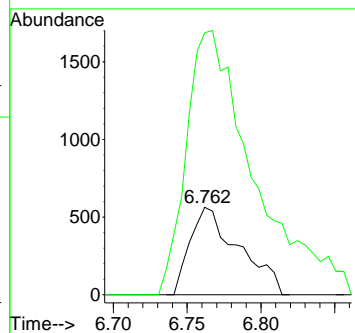
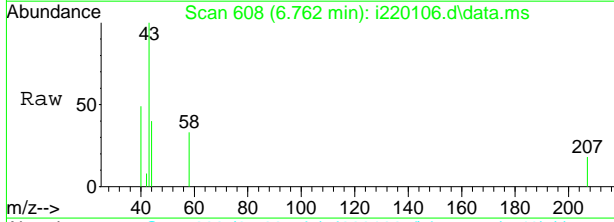
7.1.2  
7





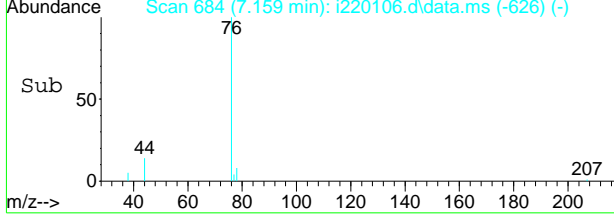
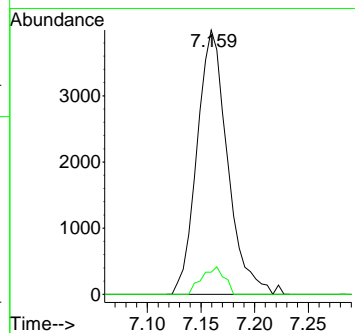
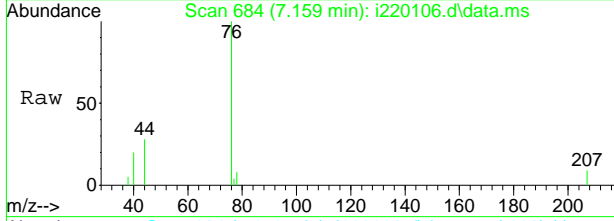
#19  
 acetone  
 Concen: 15.52 ug/L  
 RT: 6.762 min Scan# 608  
 Delta R.T. 0.006 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 58      | 1297  |       |        |
| 43      | 270.0 | 317.9 | 377.9# |



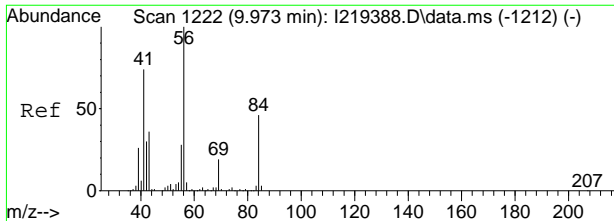
#21  
 carbon disulfide  
 Concen: 2.85 ug/L  
 RT: 7.159 min Scan# 684  
 Delta R.T. 0.005 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 7930 |       |       |
| 76      | 100  |       |       |
| 78      | 8.4  | 0.0   | 29.3  |



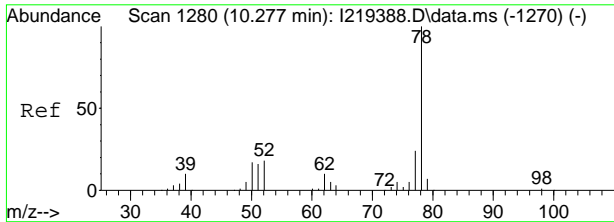
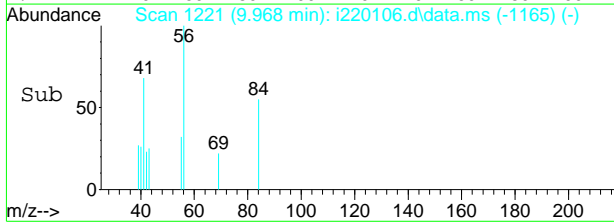
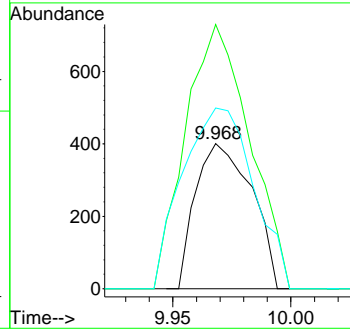
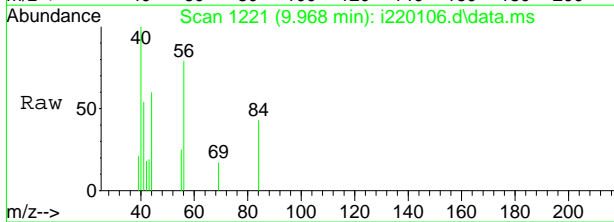
7.12  
7





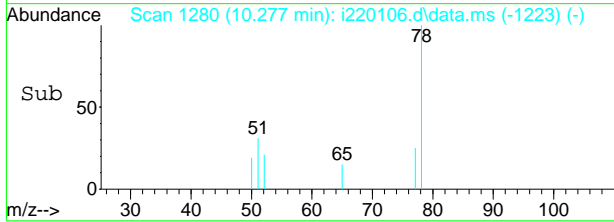
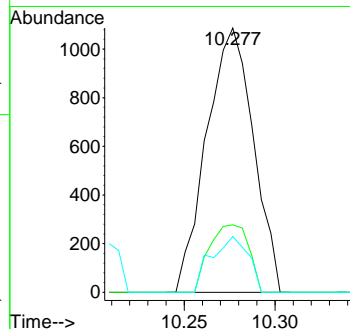
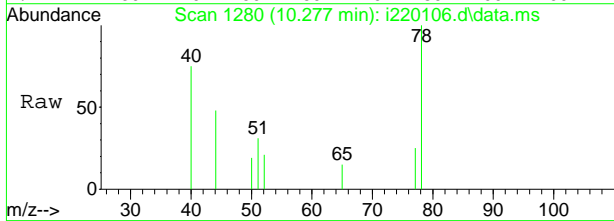
#49  
 cyclohexane  
 Concen: 0.52 ug/L  
 RT: 9.968 min Scan# 1221  
 Delta R.T. -0.005 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 84      | 100   |       |        |
| 56      | 182.0 | 186.5 | 246.5# |
| 41      | 124.4 | 129.3 | 189.3# |

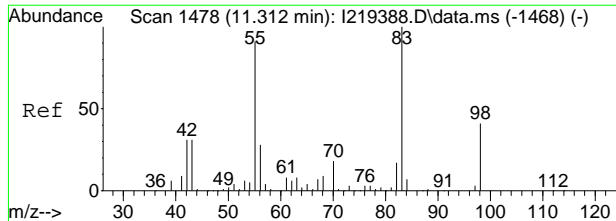


#55  
 benzene  
 Concen: 0.48 ug/L  
 RT: 10.277 min Scan# 1280  
 Delta R.T. -0.000 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 78      | 100   |       |       |
| 77      | 25.5  | 0.0   | 53.5  |
| 52      | 21.1  | 0.0   | 48.5  |

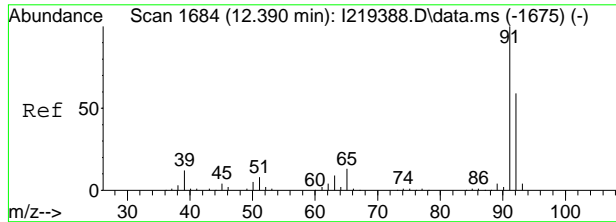
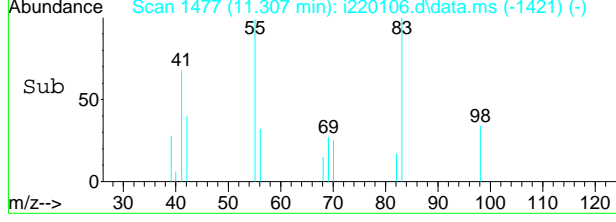
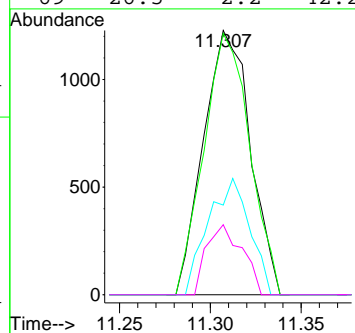
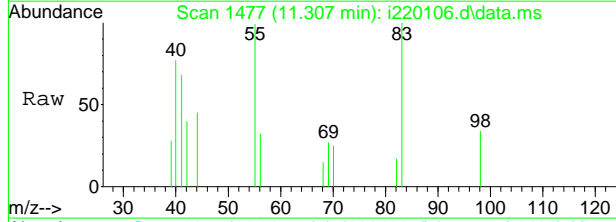


7.12  
7



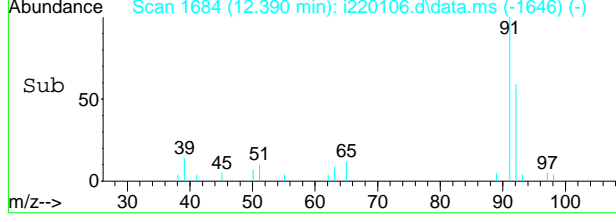
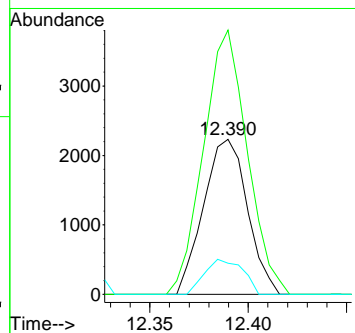
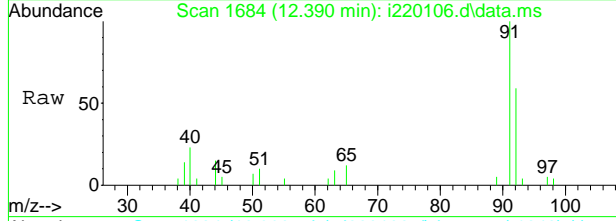
#62  
methylcyclohexane  
Concen: 1.36 ug/L  
RT: 11.307 min Scan# 1477  
Delta R.T. -0.005 min  
Lab File: i220106.d  
Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 98.8  | 74.2  | 114.2 |
| 98      | 33.9  | 20.7  | 60.7  |
| 69      | 26.5  | 2.2   | 42.2  |

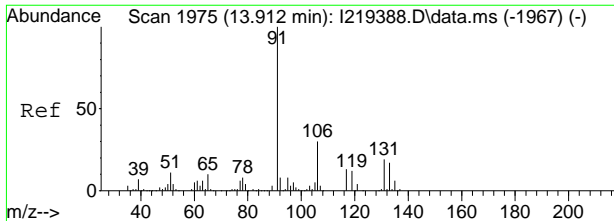


#75  
toluene  
Concen: 1.53 ug/L  
RT: 12.390 min Scan# 1684  
Delta R.T. -0.000 min  
Lab File: i220106.d  
Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 100   |       |       |
| 91      | 170.7 | 149.1 | 189.1 |
| 65      | 20.0  | 2.5   | 42.5  |

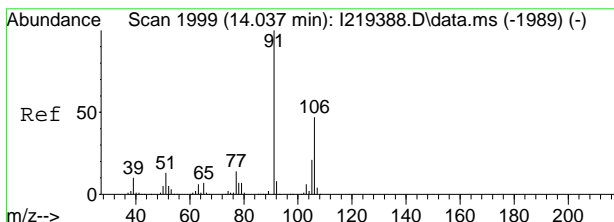
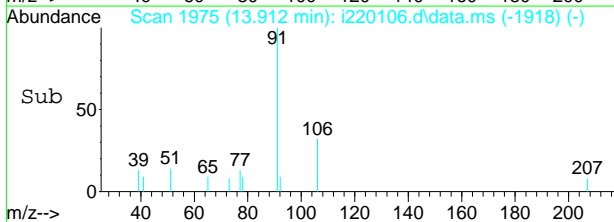
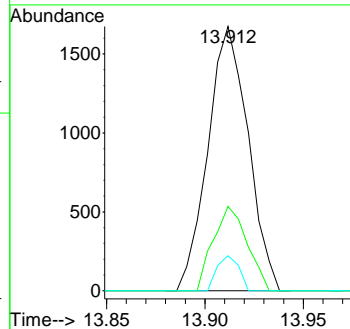
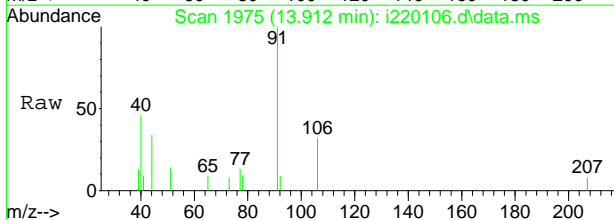






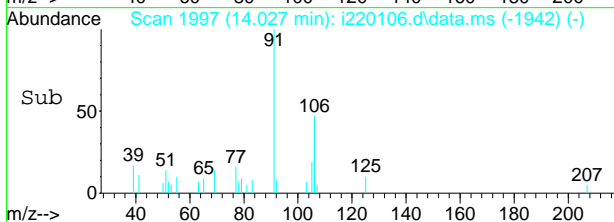
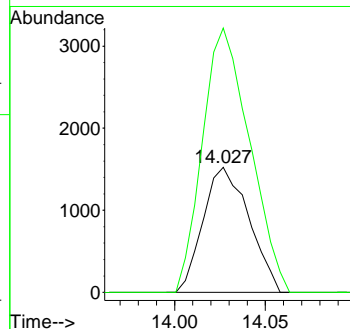
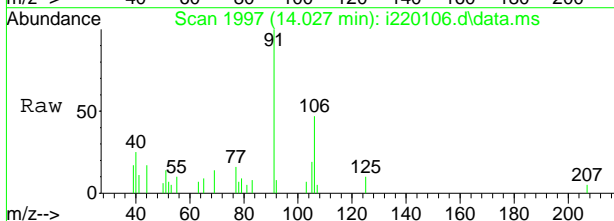
#88  
ethylbenzene  
Concen: 0.57 ug/L  
RT: 13.912 min Scan# 1975  
Delta R.T. -0.000 min  
Lab File: i220106.d  
Acq: 11 May 2018 6:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 91      | 2380 |       |       |
| 106     | 31.9 | 0.0   | 59.9  |
| 77      | 13.3 | 0.0   | 39.1  |

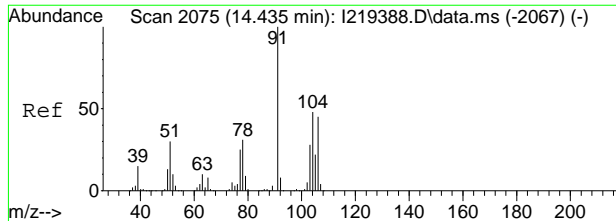


#89  
m,p-xylene  
Concen: 1.76 ug/L  
RT: 14.027 min Scan# 1997  
Delta R.T. -0.011 min  
Lab File: i220106.d  
Acq: 11 May 2018 6:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 2673  |       |       |
| 91      | 211.4 | 181.5 | 241.5 |

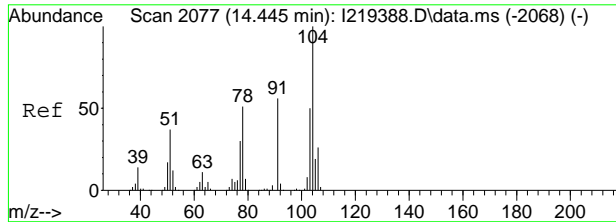
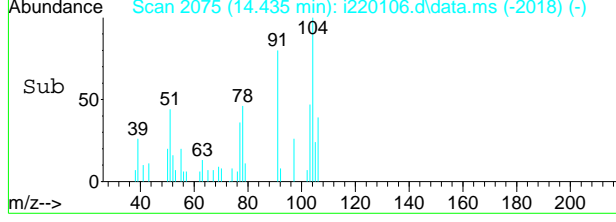
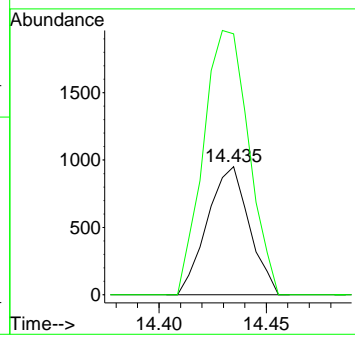
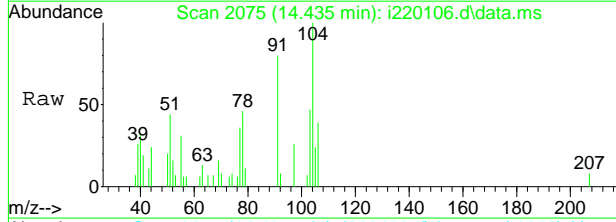


7.12  
7



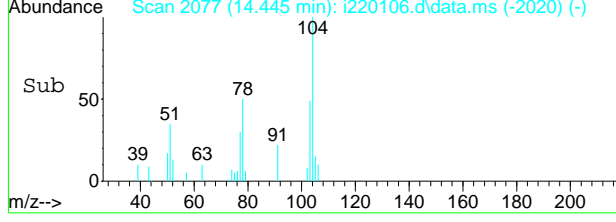
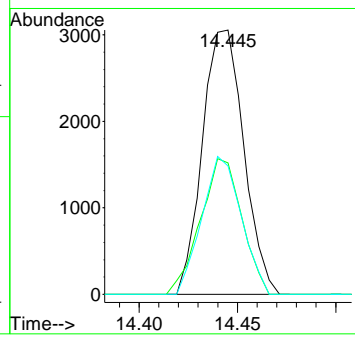
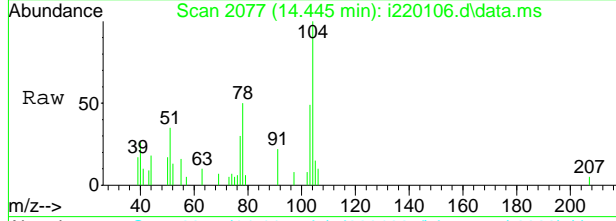
#90  
 o-xylene  
 Concen: 0.88 ug/L  
 RT: 14.435 min Scan# 2075  
 Delta R.T. -0.000 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 100   |       |       |
| 91      | 204.0 | 190.7 | 250.7 |



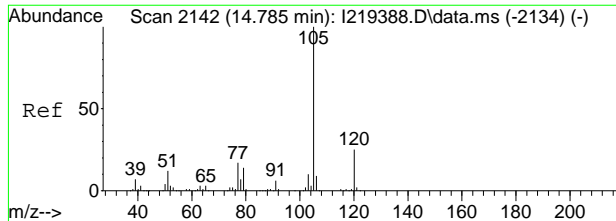
#91  
 styrene  
 Concen: 1.77 ug/L  
 RT: 14.445 min Scan# 2077  
 Delta R.T. -0.000 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 104     | 100   |       |       |
| 78      | 49.7  | 20.6  | 80.6  |
| 103     | 48.5  | 20.2  | 80.2  |



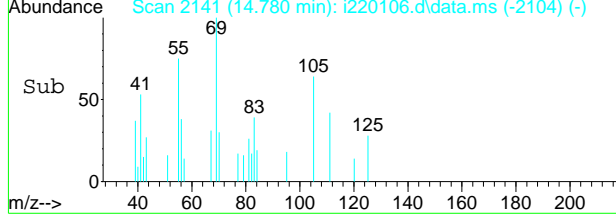
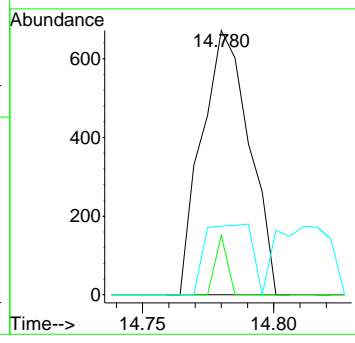
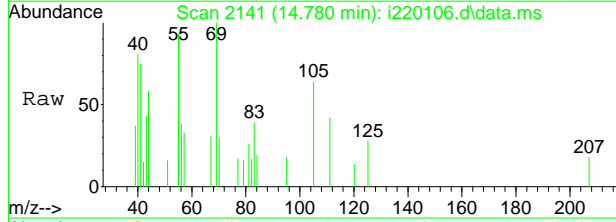
7.12  
7





#95  
 isopropylbenzene  
 Concen: 0.22 ug/L  
 RT: 14.780 min Scan# 2141  
 Delta R.T. -0.005 min  
 Lab File: i220106.d  
 Acq: 11 May 2018 6:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 22.5  | 5.2   | 45.2  |
| 77      | 26.0  | 0.0   | 37.0  |



7.1.2  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-03-18\marianng\v3c6521-rush\  
 Data File : 3c143955.d  
 Acq On : 2 May 2018 10:17 am  
 Operator : Gabriela  
 Sample : JC64996-9 Inst : MS3C  
 Misc : MS25940,V3C6521,5.6,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6518.M  
 Quant Results File: m3c6518.RES  
 Quant Time: May 02 20:41:33 2018  
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 QLast Update : Tue May 01 14:13:41 2018  
 Response via : Initial Calibration

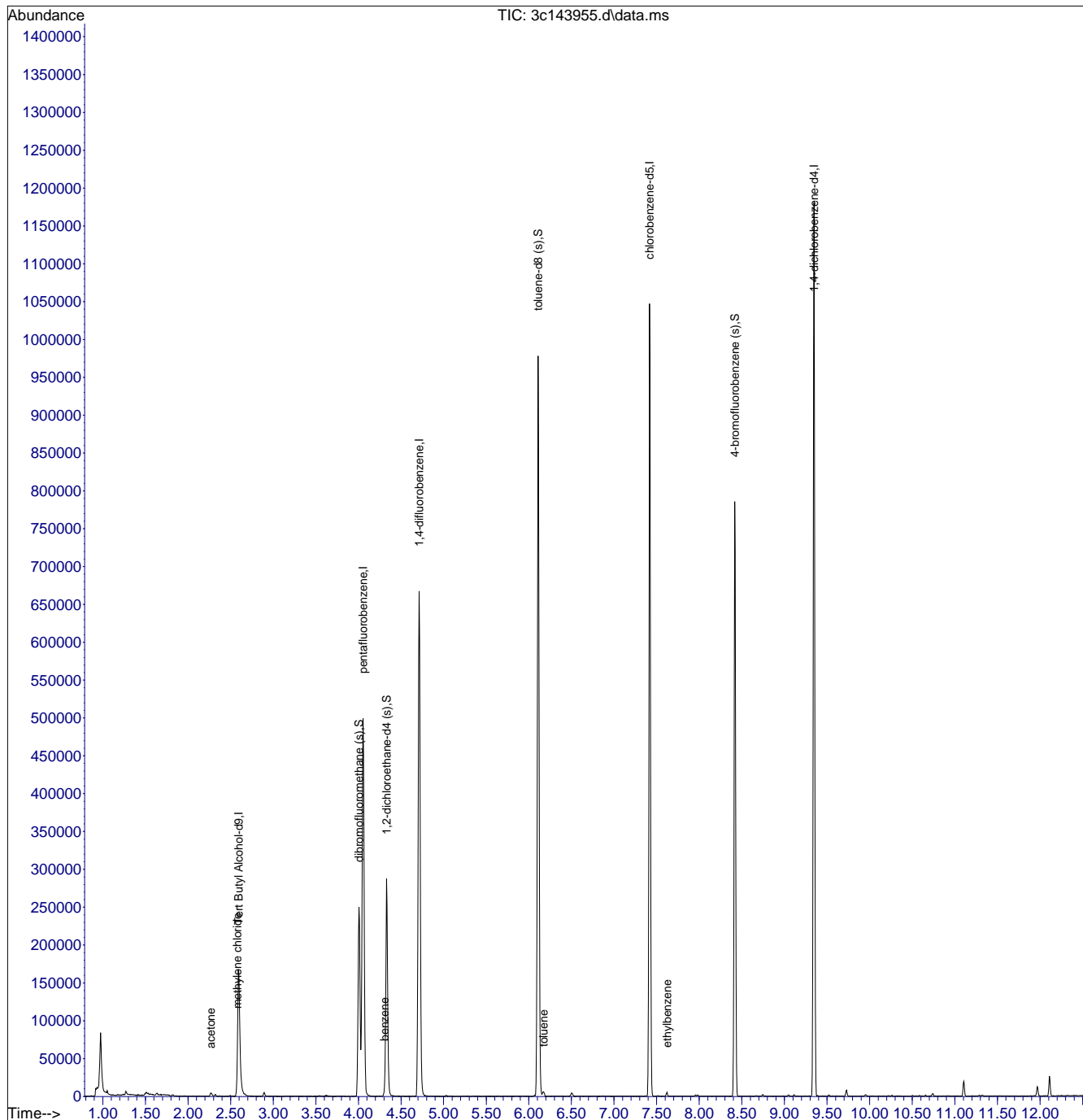
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Tert Butyl Alcohol-d9      | 2.595  | 65    | 174054   | 500.00   | ug/L   | 0.00     |
| 5) pentafluorobenzene         | 4.054  | 168   | 293843   | 50.00    | ug/L   | 0.00     |
| 52) 1,4-difluorobenzene       | 4.713  | 114   | 460472   | 50.00    | ug/L   | 0.00     |
| 74) chlorobenzene-d5          | 7.417  | 117   | 419319   | 50.00    | ug/L   | 0.00     |
| 97) 1,4-dichlorobenzene-d4    | 9.347  | 152   | 215833   | 50.00    | ug/L   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 45) dibromofluoromethane (s)  | 4.007  | 113   | 123267   | 49.63    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =      | 99.26%   |
| 53) 1,2-dichloroethane-d4 (s) | 4.331  | 65    | 155149   | 55.13    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =      | 110.26%  |
| 75) toluene-d8 (s)            | 6.110  | 98    | 533287   | 48.96    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =      | 97.92%   |
| 98) 4-bromofluorobenzene (s)  | 8.416  | 95    | 193541   | 50.68    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =      | 101.36%  |
| Target Compounds              |        |       |          |          |        |          |
| 20) acetone                   | 2.265  | 58    | 1202     | 5.72     | ug/L   | 87       |
| 24) methylene chloride        | 2.579  | 84    | 3132     | 1.14     | ug/L   | 91       |
| 57) benzene                   | 4.305  | 78    | 4811     | 0.43     | ug/L   | 98       |
| 76) toluene                   | 6.172  | 92    | 2637     | 0.37     | ug/L # | 82       |
| 89) ethylbenzene              | 7.621  | 91    | 3038     | 0.23     | ug/L   | 73       |
| -----                         |        |       |          |          |        |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

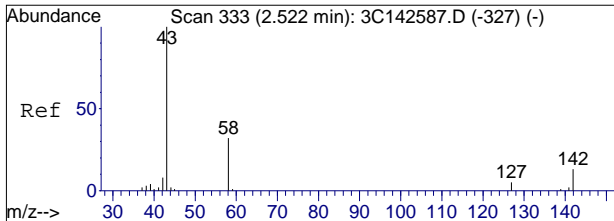
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-03-18\marianng\v3c6521-rush\  
 Data File : 3c143955.d  
 Acq On : 2 May 2018 10:17 am  
 Operator : Gabriela  
 Sample : JC64996-9 Inst : MS3C  
 Misc : MS25940,V3C6521,5.6,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6518.M  
 Quant Results File: m3c6518.RES  
 Quant Time: May 02 20:41:33 2018  
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 QLast Update : Tue May 01 14:13:41 2018  
 Response via : Initial Calibration

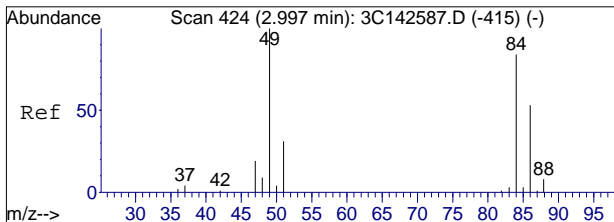
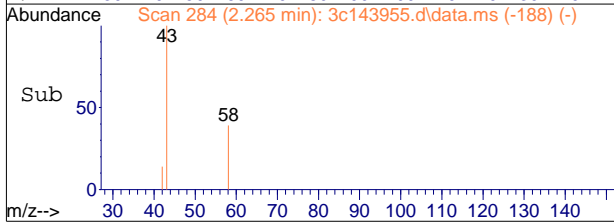
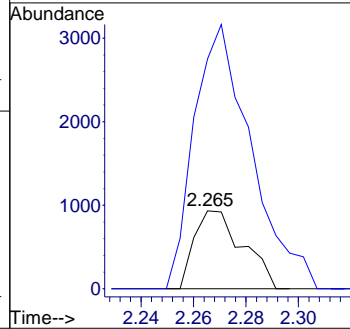
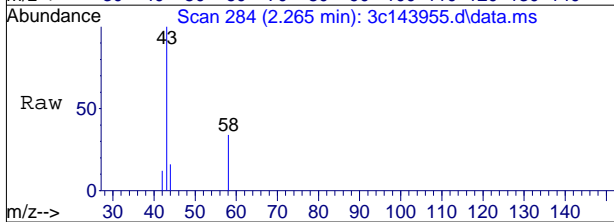


7.1.3  
7



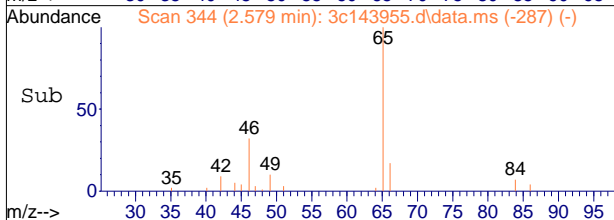
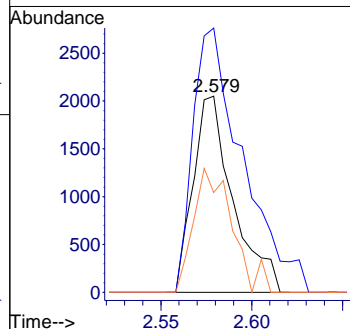
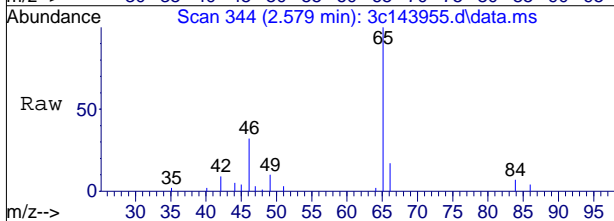
#20  
acetone  
Concen: 5.72 ug/L  
RT: 2.265 min Scan# 284  
Delta R.T. 0.000 min  
Lab File: 3c143955.d  
Acq: 2 May 2018 10:17 am

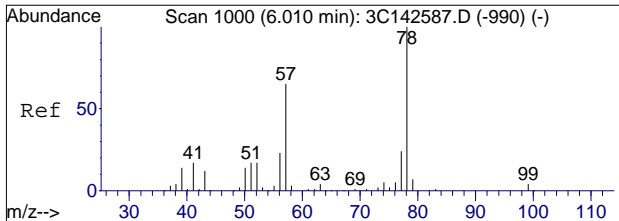
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 58      | 100   |       |       |
| 43      | 294.3 | 291.4 | 351.4 |



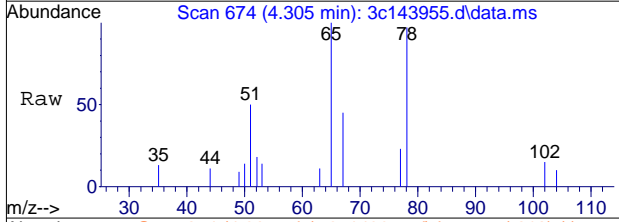
#24  
methylene chloride  
Concen: 1.14 ug/L  
RT: 2.579 min Scan# 344  
Delta R.T. 0.000 min  
Lab File: 3c143955.d  
Acq: 2 May 2018 10:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 134.8 | 97.8  | 157.8 |
| 86      | 50.9  | 31.8  | 91.8  |

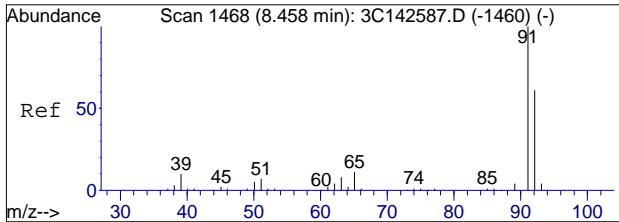
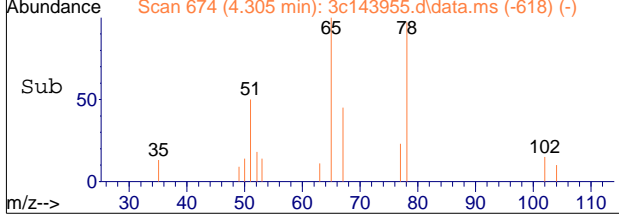
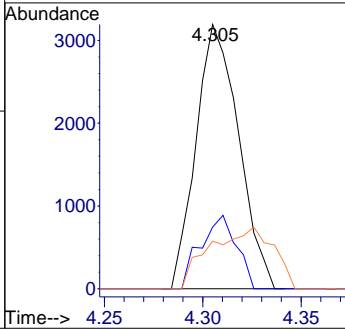




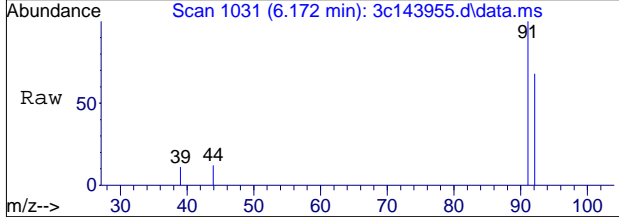
#57  
benzene  
Concen: 0.43 ug/L  
RT: 4.305 min Scan# 674  
Delta R.T. -0.005 min  
Lab File: 3c143955.d  
Acq: 2 May 2018 10:17 am



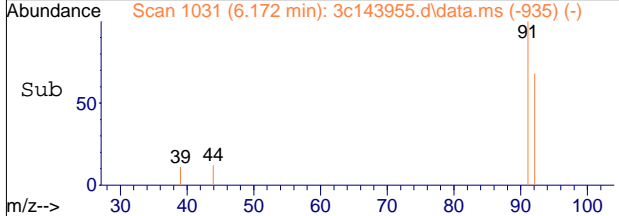
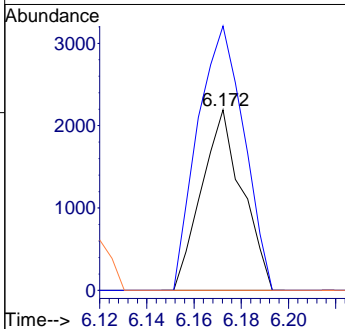
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 4811 |       |       |
| 77      | 23.4 | 0.0   | 53.9  |
| 52      | 18.0 | 0.0   | 47.1  |

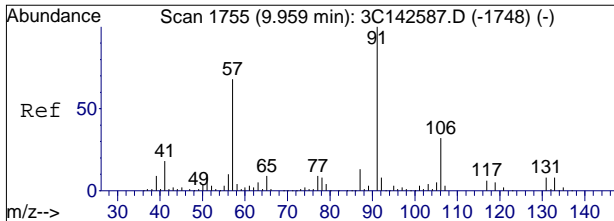


#76  
toluene  
Concen: 0.37 ug/L  
RT: 6.172 min Scan# 1031  
Delta R.T. 0.000 min  
Lab File: 3c143955.d  
Acq: 2 May 2018 10:17 am



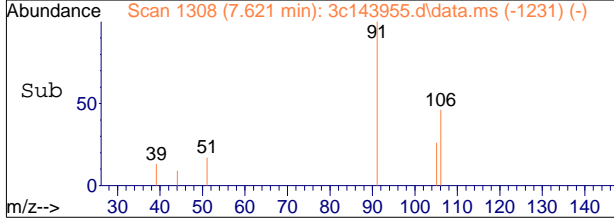
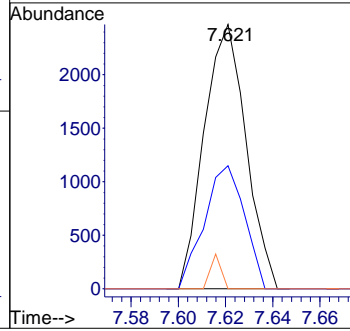
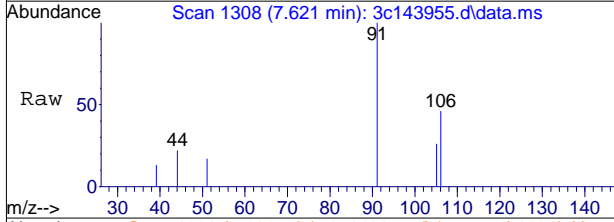
| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 92      | 2637  |       |        |
| 91      | 146.5 | 147.2 | 187.2# |
| 65      | 0.0   | 0.0   | 39.8   |





#89  
 ethylbenzene  
 Concen: 0.23 ug/L  
 RT: 7.621 min Scan# 1308  
 Delta R.T. 0.105 min  
 Lab File: 3c143955.d  
 Acq: 2 May 2018 10:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 46.5  | 1.3   | 61.3  |
| 77      | 0.0   | 0.0   | 38.8  |





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\vi8852\_halfway\  
 Data File : i220105.d  
 Acq On : 11 May 2018 5:49 pm  
 Operator : Gabriela  
 Sample : jc64996-10 Inst : GCMSI  
 Misc : MS26254,VI8852,5.3,,,,,1  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 14 21:55:01 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Tue May 08 11:42:16 2018  
 Response via : Initial Calibration

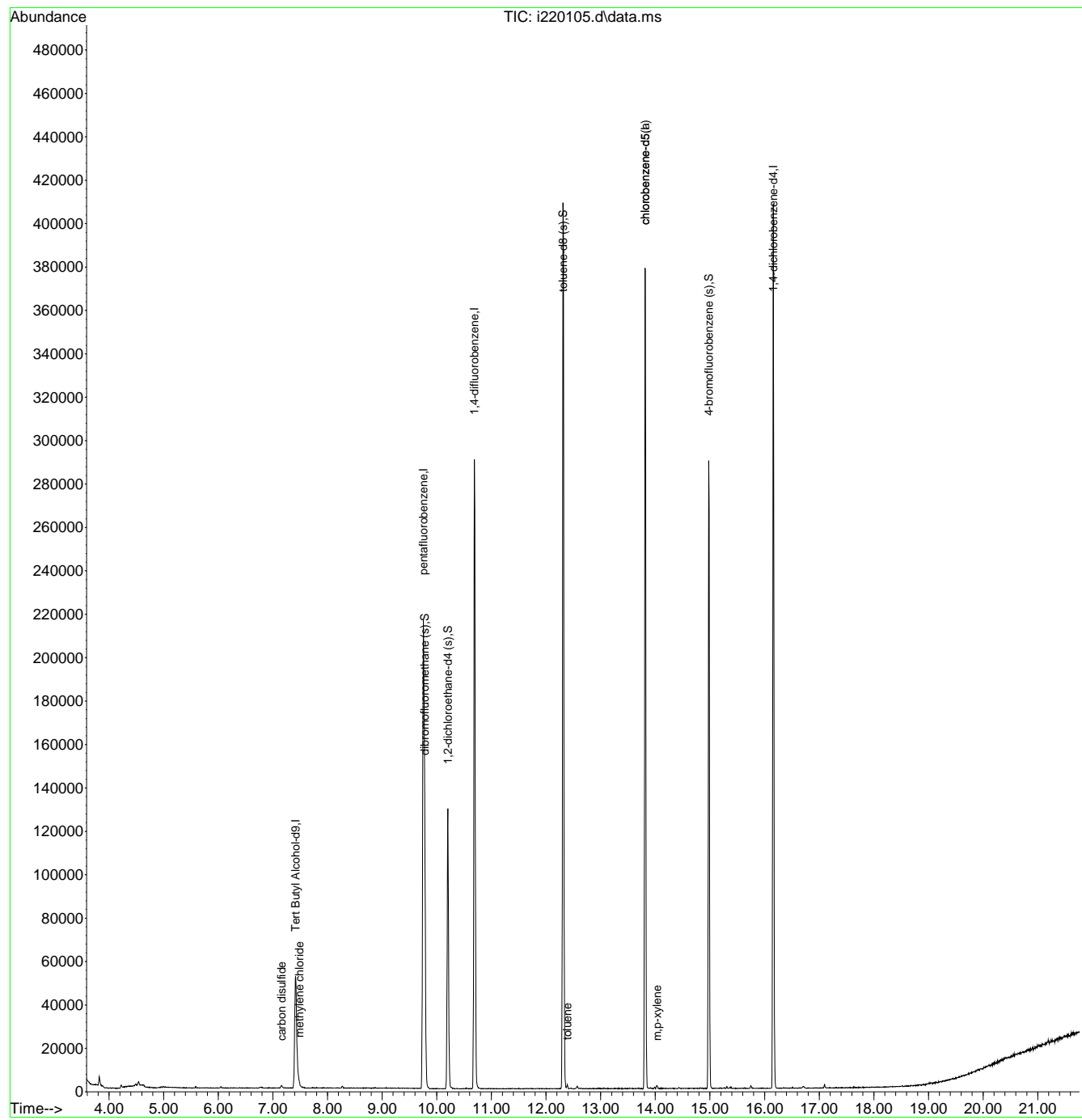
| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min)  |
|-------------------------------|--------|----------------|----------|--------|---------|-----------|
| Internal Standards            |        |                |          |        |         |           |
| 1) Tert Butyl Alcohol-d9      | 7.416  | 65             | 79163    | 500.00 | ug/L    | -0.01     |
| 4) pentafluorobenzene         | 9.754  | 168            | 122441   | 50.00  | ug/L    | 0.00      |
| 51) 1,4-difluorobenzene       | 10.690 | 114            | 199126   | 50.00  | ug/L    | 0.00      |
| 73) chlorobenzene-d5          | 13.818 | 117            | 170522   | 50.00  | ug/L    | 0.00      |
| 96) 1,4-dichlorobenzene-d4    | 16.161 | 152            | 83150    | 50.00  | ug/L    | 0.00      |
| 129) chlorobenzene-d5(a)      | 13.818 | 117            | 170522   | 50.00  | ug/L    | # 0.00    |
| System Monitoring Compounds   |        |                |          |        |         |           |
| 47) dibromofluoromethane (s)  | 9.780  | 113            | 66153    | 54.60  | ug/L    | 0.00      |
| Spiked Amount                 | 50.000 | Range 75 - 127 | Recovery | =      | 109.20% |           |
| 52) 1,2-dichloroethane-d4 (s) | 10.203 | 65             | 83267    | 56.74  | ug/L    | 0.00      |
| Spiked Amount                 | 50.000 | Range 75 - 130 | Recovery | =      | 113.48% |           |
| 74) toluene-d8 (s)            | 12.311 | 98             | 232567   | 51.80  | ug/L    | 0.00      |
| Spiked Amount                 | 50.000 | Range 80 - 120 | Recovery | =      | 103.60% |           |
| 97) 4-bromofluorobenzene (s)  | 14.979 | 95             | 81878    | 49.45  | ug/L    | 0.00      |
| Spiked Amount                 | 50.000 | Range 79 - 127 | Recovery | =      | 98.90%  |           |
| Target Compounds              |        |                |          |        |         |           |
| 21) carbon disulfide          | 7.159  | 76             | 1831     | 0.57   | ug/L    | Qvalue 74 |
| 24) methylene chloride        | 7.484  | 84             | 276      | 0.24   | ug/L    | # 61      |
| 75) toluene                   | 12.390 | 92             | 551      | 0.21   | ug/L    | # 90      |
| 89) m,p-xylene                | 14.032 | 106            | 547      | 0.31   | ug/L    | 100       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

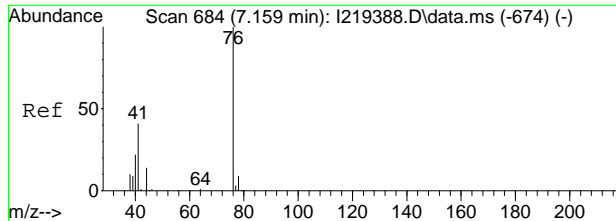
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-15-18\vi8852\_halfway\  
Data File : i220105.d  
Acq On : 11 May 2018 5:49 pm  
Operator : Gabriela  
Sample : jc64996-10 Inst : GCMSI  
Misc : MS26254,VI8852,5.3,,,,,1  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
Quant Results File: MI8822.RES  
Quant Time: May 14 21:55:01 2018  
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
QLast Update : Tue May 08 11:42:16 2018  
Response via : Initial Calibration

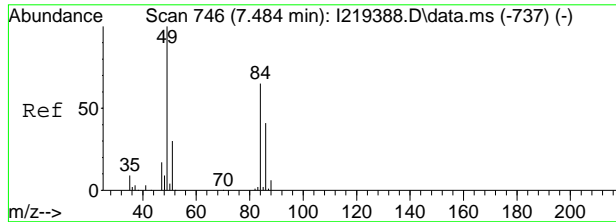
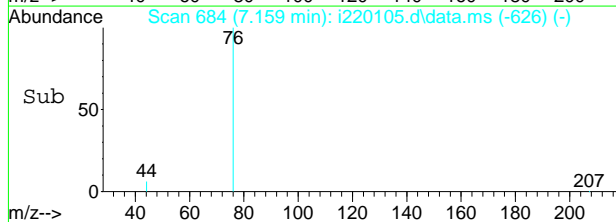
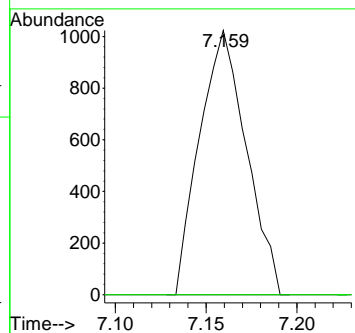
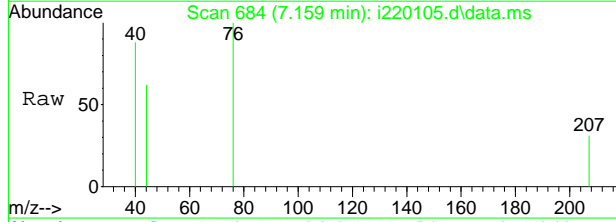


7.1.4  
7



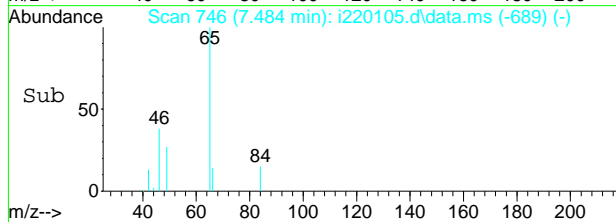
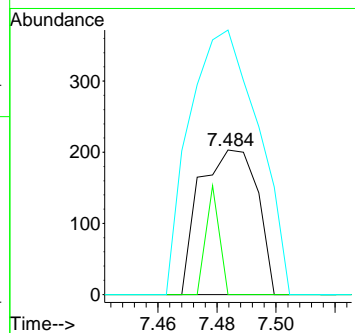
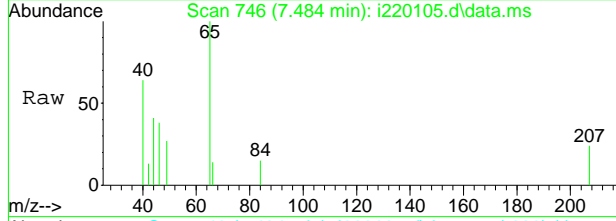
#21  
 carbon disulfide  
 Concen: 0.57 ug/L  
 RT: 7.159 min Scan# 684  
 Delta R.T. 0.005 min  
 Lab File: i220105.d  
 Acq: 11 May 2018 5:49 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 1831 | 100   |       |
| 78      | 0.0  | 0.0   | 29.3  |

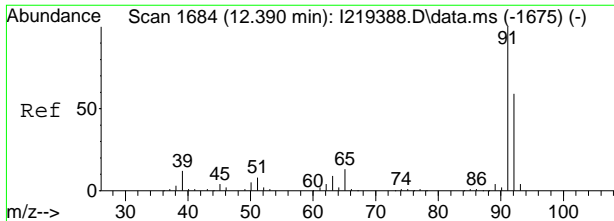


#24  
 methylene chloride  
 Concen: 0.24 ug/L  
 RT: 7.484 min Scan# 746  
 Delta R.T. -0.000 min  
 Lab File: i220105.d  
 Acq: 11 May 2018 5:49 pm

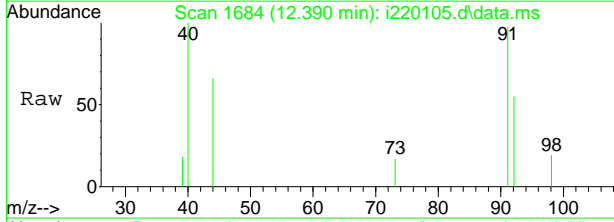
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 276   | 100   |       |
| 86      | 0.0   | 33.8  | 93.8# |
| 49      | 183.3 | 124.7 | 184.7 |



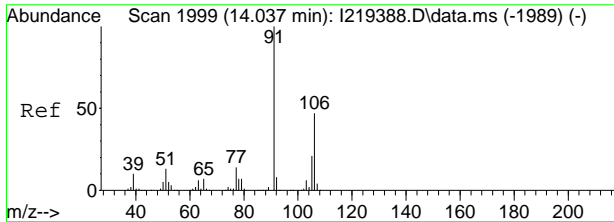
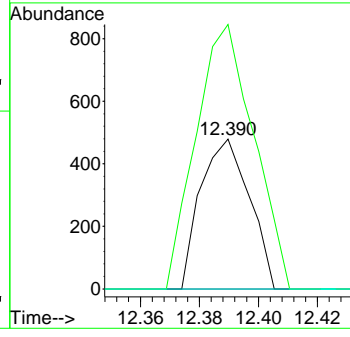
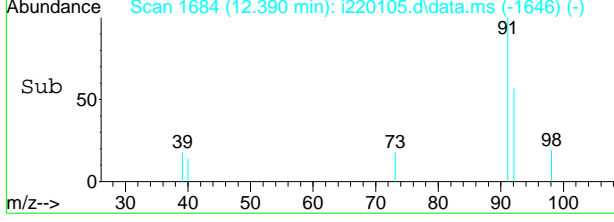
7.14  
7



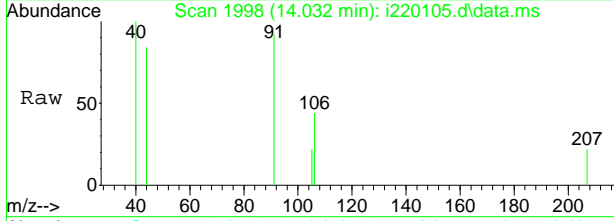
#75  
toluene  
Concen: 0.21 ug/L  
RT: 12.390 min Scan# 1684  
Delta R.T. -0.000 min  
Lab File: i220105.d  
Acq: 11 May 2018 5:49 pm



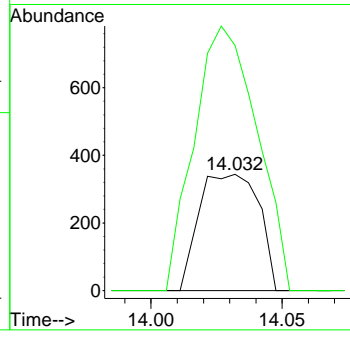
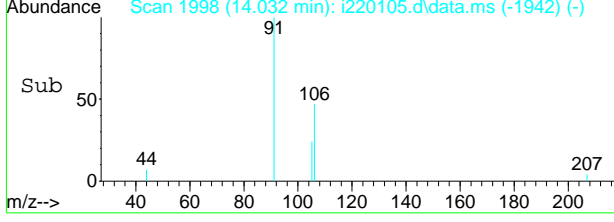
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 551   |       |       |
| 92      | 100   |       |       |
| 91      | 176.6 | 149.1 | 189.1 |
| 65      | 0.0   | 2.5   | 42.5# |



#89  
m,p-xylene  
Concen: 0.31 ug/L  
RT: 14.032 min Scan# 1998  
Delta R.T. -0.005 min  
Lab File: i220105.d  
Acq: 11 May 2018 5:49 pm



| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 547   |       |       |
| 106     | 100   |       |       |
| 91      | 210.8 | 181.5 | 241.5 |



7.14  
7

## Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\v3c6521-rush\  
 Data File : 3c143954.d  
 Acq On : 2 May 2018 9:38 am  
 Operator : Gabriela  
 Sample : mb Inst : MS3C  
 Misc : MS25973,V3C6521,5.0,,,,,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6518.M  
 Quant Results File: M3C6518.RES  
 Quant Time: May 02 14:03:57 2018  
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 QLast Update : Tue May 01 14:13:41 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 2.595  | 65    | 161887   | 500.00   | ug/L  | 0.00     |
| 5) pentafluorobenzene         | 4.054  | 168   | 365440   | 50.00    | ug/L  | 0.00     |
| 52) 1,4-difluorobenzene       | 4.713  | 114   | 561448   | 50.00    | ug/L  | 0.00     |
| 74) chlorobenzene-d5          | 7.417  | 117   | 497112   | 50.00    | ug/L  | 0.00     |
| 97) 1,4-dichlorobenzene-d4    | 9.347  | 152   | 254126   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 45) dibromofluoromethane (s)  | 4.007  | 113   | 147574   | 47.77    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 95.54%   |
| 53) 1,2-dichloroethane-d4 (s) | 4.331  | 65    | 174772   | 50.93    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 101.86%  |
| 75) toluene-d8 (s)            | 6.110  | 98    | 648830   | 50.24    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 100.48%  |
| 98) 4-bromofluorobenzene (s)  | 8.416  | 95    | 228918   | 50.92    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 101.84%  |

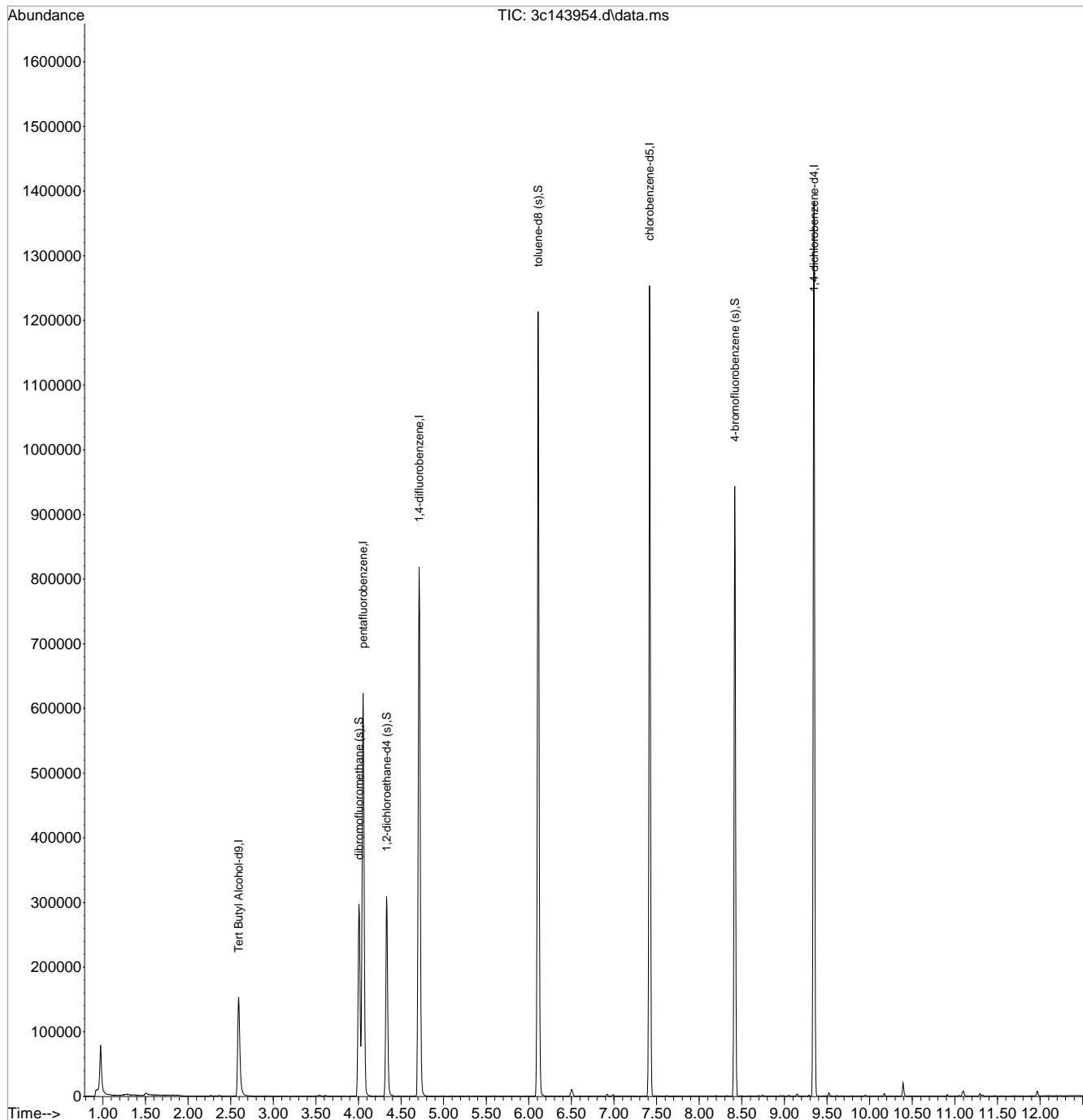
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\v3c6521-rush\  
 Data File : 3c143954.d  
 Acq On : 2 May 2018 9:38 am  
 Operator : Gabriela  
 Sample : mb Inst : MS3C  
 Misc : MS25973,V3C6521,5.0,,,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6518.M  
 Quant Results File: M3C6518.RES  
 Quant Time: May 02 14:03:57 2018  
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um  
 QLast Update : Tue May 01 14:13:41 2018  
 Response via : Initial Calibration



7.2.1  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\vi8838\  
 Data File : i219796.d  
 Acq On : 30 Apr 2018 9:58 am  
 Operator : Gabriela  
 Sample : mb Inst : GCMSI  
 Misc : MS25905,VI8838,5.0,,,,,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 02 05:03:04 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Thu Apr 12 12:10:11 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 7.416  | 65    | 90407    | 500.00   | ug/L  | -0.01    |
| 4) pentafluorobenzene         | 9.754  | 168   | 169231   | 50.00    | ug/L  | 0.00     |
| 51) 1,4-difluorobenzene       | 10.690 | 114   | 273967   | 50.00    | ug/L  | 0.00     |
| 73) chlorobenzene-d5          | 13.817 | 117   | 236883   | 50.00    | ug/L  | 0.00     |
| 96) 1,4-dichlorobenzene-d4    | 16.161 | 152   | 119798   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.780  | 113   | 84400    | 50.40    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 127 | Recovery | =     | 100.80%  |
| 52) 1,2-dichloroethane-d4 (s) | 10.203 | 65    | 100623   | 49.83    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 130 | Recovery | =     | 99.66%   |
| 74) toluene-d8 (s)            | 12.316 | 98    | 308648   | 49.49    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 98.98%   |
| 97) 4-bromofluorobenzene (s)  | 14.979 | 95    | 115860   | 48.57    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 79 - 127 | Recovery | =     | 97.14%   |

Target Compounds Qvalue

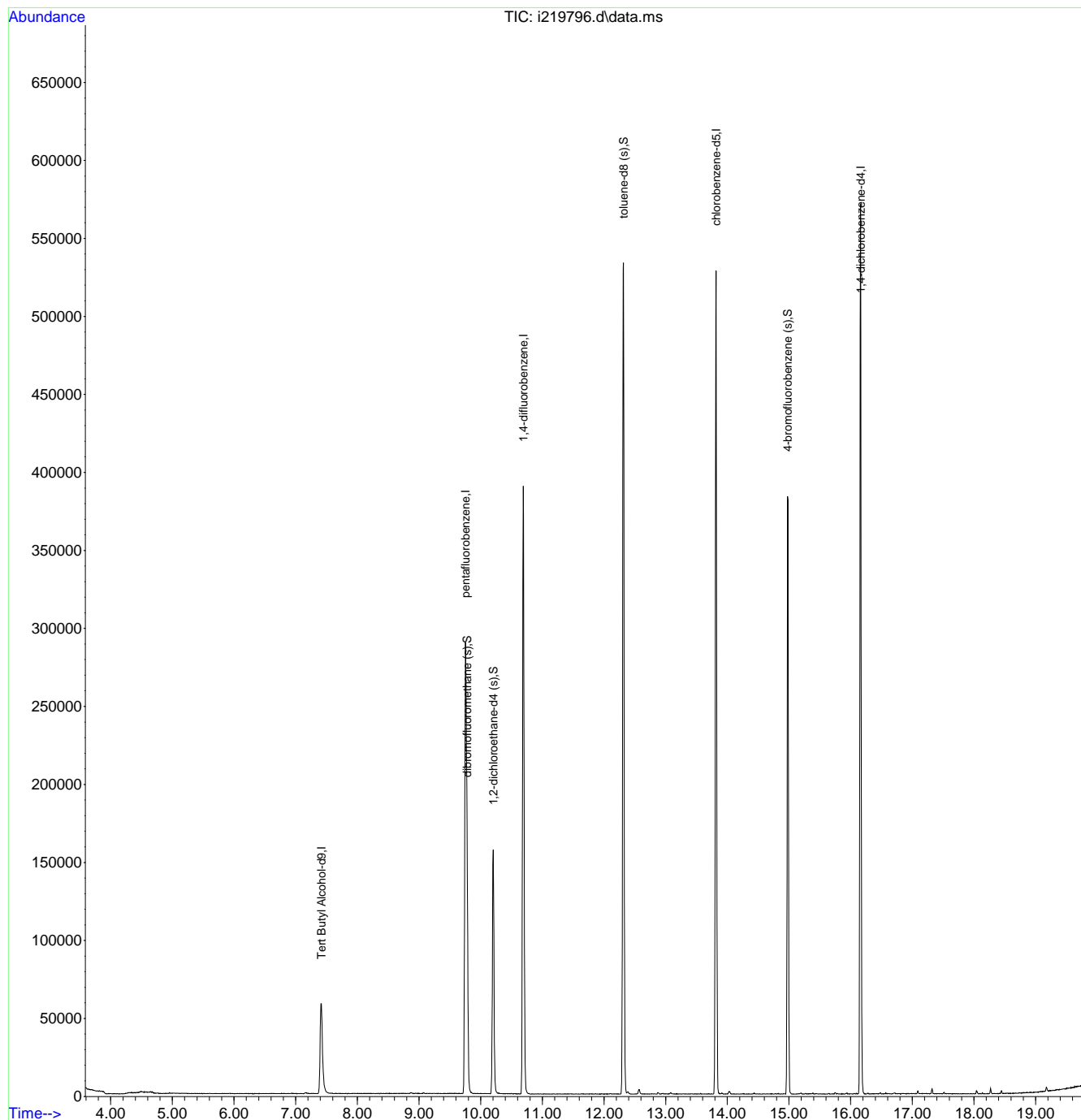
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\vi8838\  
Data File : i219796.d  
Acq On : 30 Apr 2018 9:58 am  
Operator : Gabriela  
Sample : mb Inst : GCMSI  
Misc : MS25905,VI8838,5.0,,,,,1  
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
Quant Results File: MI8822.RES  
Quant Time: May 02 05:03:04 2018  
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
QLast Update : Thu Apr 12 12:10:11 2018  
Response via : Initial Calibration





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vi8852\  
 Data File : i220087.d  
 Acq On : 11 May 2018 8:47 am  
 Operator : Gabriela  
 Sample : mb Inst : GCMSI  
 Misc : MS26129,VI8852,5.0,,,,,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 14 10:49:01 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Tue May 08 11:42:16 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| Internal Standards            |        |                |          |        |         |          |
| 1) Tert Butyl Alcohol-d9      | 7.416  | 65             | 77314    | 500.00 | ug/L    | -0.01    |
| 4) pentafluorobenzene         | 9.754  | 168            | 136467   | 50.00  | ug/L    | 0.00     |
| 51) 1,4-difluorobenzene       | 10.690 | 114            | 217423   | 50.00  | ug/L    | 0.00     |
| 73) chlorobenzene-d5          | 13.818 | 117            | 183578   | 50.00  | ug/L    | 0.00     |
| 96) 1,4-dichlorobenzene-d4    | 16.161 | 152            | 92456    | 50.00  | ug/L    | 0.00     |
| 129) chlorobenzene-d5(a)      | 13.818 | 117            | 183578   | 50.00  | ug/L    | # 0.00   |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 47) dibromofluoromethane (s)  | 9.780  | 113            | 68596    | 50.80  | ug/L    | 0.00     |
| Spiked Amount                 | 50.000 | Range 75 - 127 | Recovery | =      | 101.60% |          |
| 52) 1,2-dichloroethane-d4 (s) | 10.204 | 65             | 83257    | 51.96  | ug/L    | 0.00     |
| Spiked Amount                 | 50.000 | Range 75 - 130 | Recovery | =      | 103.92% |          |
| 74) toluene-d8 (s)            | 12.311 | 98             | 251102   | 51.95  | ug/L    | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 120 | Recovery | =      | 103.90% |          |
| 97) 4-bromofluorobenzene (s)  | 14.979 | 95             | 88936    | 48.31  | ug/L    | 0.00     |
| Spiked Amount                 | 50.000 | Range 79 - 127 | Recovery | =      | 96.62%  |          |

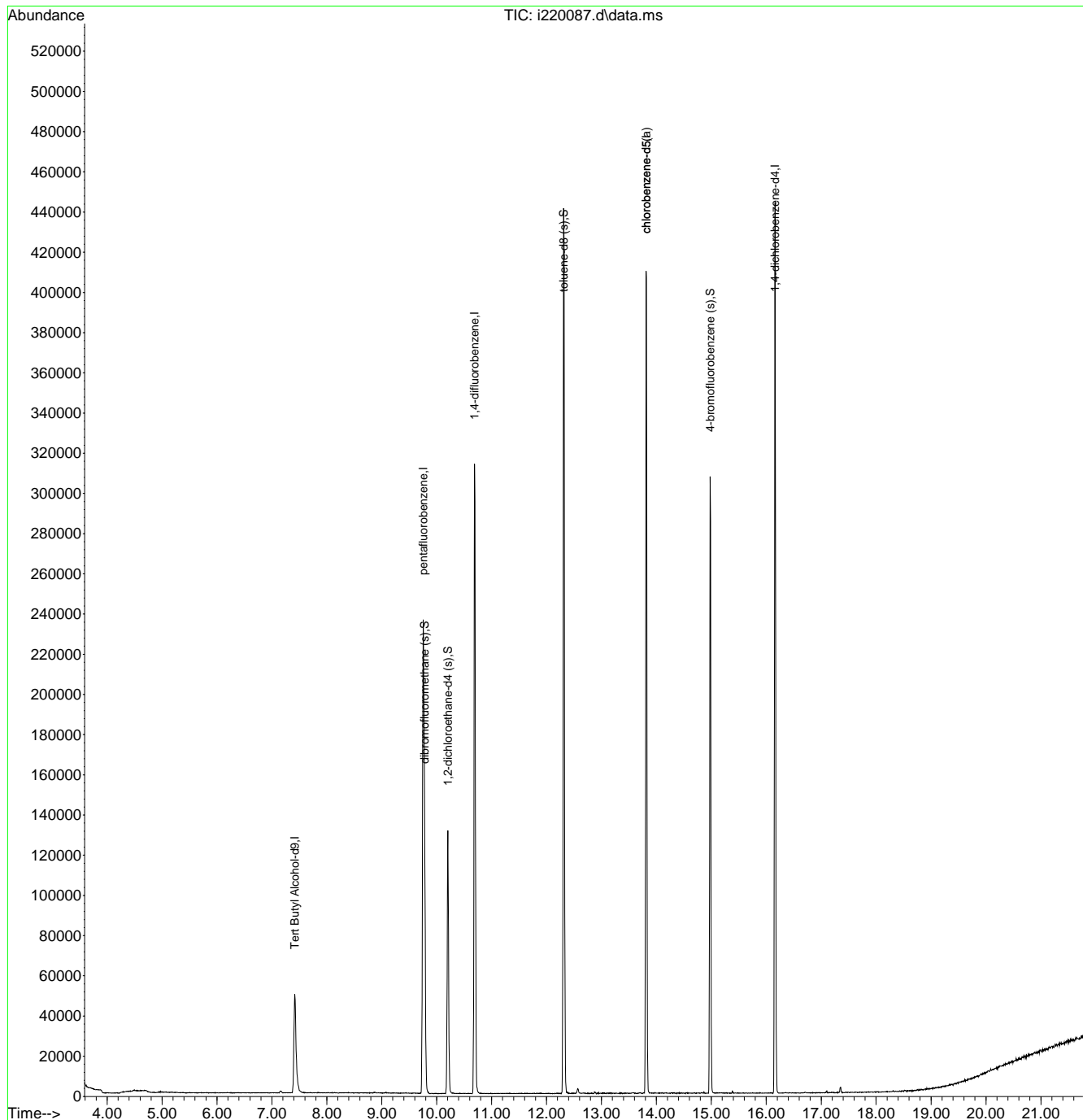
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vi8852\  
 Data File : i220087.d  
 Acq On : 11 May 2018 8:47 am  
 Operator : Gabriela  
 Sample : mb Inst : GCMSI  
 Misc : MS26129,VI8852,5.0,,,,,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8822.M  
 Quant Results File: MI8822.RES  
 Quant Time: May 14 10:49:01 2018  
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um  
 QLast Update : Tue May 08 11:42:16 2018  
 Response via : Initial Calibration



7.2.3  
7



## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MB1 | M145994.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MB1 | M145994.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |

## Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MB1 | M145994.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 68% 23-115% |
| 4165-62-2 | Phenol-d5            | 72% 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 78% 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80% 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76% 39-124% |
| 1718-51-0 | Terphenyl-d14        | 79% 36-134% |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MB1 | 2P79757.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MB1 | 2P79757.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |



## Method Blank Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MB1 | 2P79757.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 367-12-4  | 2-Fluorophenol       | 75% 23-115%  |
| 4165-62-2 | Phenol-d5            | 80% 27-114%  |
| 118-79-6  | 2,4,6-Tribromophenol | 126% 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 96% 26-134%  |
| 321-60-8  | 2-Fluorobiphenyl     | 111% 39-124% |
| 1718-51-0 | Terphenyl-d14        | 114% 36-134% |

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-BS1 | M145995.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                   | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|----------------------------|----------------|--------------|----------|--------|
| 95-57-8   | 2-Chlorophenol             | 1670           | 1330         | 80       | 44-122 |
| 59-50-7   | 4-Chloro-3-methyl phenol   | 1670           | 1430         | 86       | 50-123 |
| 120-83-2  | 2,4-Dichlorophenol         | 1670           | 1480         | 89       | 48-122 |
| 105-67-9  | 2,4-Dimethylphenol         | 1670           | 1320         | 79       | 48-124 |
| 51-28-5   | 2,4-Dinitrophenol          | 3330           | 2390         | 72       | 34-146 |
| 534-52-1  | 4,6-Dinitro-o-cresol       | 1670           | 1280         | 77       | 49-140 |
| 95-48-7   | 2-Methylphenol             | 1670           | 1250         | 75       | 40-126 |
|           | 3&4-Methylphenol           | 1670           | 1350         | 81       | 40-127 |
| 88-75-5   | 2-Nitrophenol              | 1670           | 1550         | 93       | 44-133 |
| 100-02-7  | 4-Nitrophenol              | 1670           | 1490         | 89       | 35-153 |
| 87-86-5   | Pentachlorophenol          | 1670           | 1200         | 72       | 15-149 |
| 108-95-2  | Phenol                     | 1670           | 1170         | 70       | 50-109 |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1670           | 1460         | 88       | 44-132 |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1670           | 1540         | 92       | 45-124 |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1670           | 1590         | 95       | 57-122 |
| 83-32-9   | Acenaphthene               | 1670           | 1390         | 83       | 53-119 |
| 208-96-8  | Acenaphthylene             | 1670           | 1390         | 83       | 41-125 |
| 98-86-2   | Acetophenone               | 1670           | 1350         | 81       | 52-112 |
| 120-12-7  | Anthracene                 | 1670           | 1340         | 80       | 51-120 |
| 1912-24-9 | Atrazine                   | 1670           | 1470         | 88       | 49-139 |
| 56-55-3   | Benzo(a)anthracene         | 1670           | 1420         | 85       | 54-118 |
| 50-32-8   | Benzo(a)pyrene             | 1670           | 1520         | 91       | 55-121 |
| 205-99-2  | Benzo(b)fluoranthene       | 1670           | 1490         | 89       | 57-116 |
| 191-24-2  | Benzo(g,h,i)perylene       | 1670           | 1480         | 89       | 40-124 |
| 207-08-9  | Benzo(k)fluoranthene       | 1670           | 1380         | 83       | 59-116 |
| 101-55-3  | 4-Bromophenyl phenyl ether | 1670           | 1430         | 86       | 60-122 |
| 85-68-7   | Butyl benzyl phthalate     | 1670           | 1600         | 96       | 51-134 |
| 92-52-4   | 1,1'-Biphenyl              | 1670           | 1360         | 82       | 46-122 |
| 100-52-7  | Benzaldehyde               | 1670           | 1020         | 61       | 14-139 |
| 91-58-7   | 2-Chloronaphthalene        | 1670           | 1310         | 79       | 49-120 |
| 106-47-8  | 4-Chloroaniline            | 1670           | 789          | 47       | 10-115 |
| 86-74-8   | Carbazole                  | 1670           | 1380         | 83       | 52-124 |
| 105-60-2  | Caprolactam                | 1670           | 1460         | 88       | 16-139 |
| 218-01-9  | Chrysene                   | 1670           | 1300         | 78       | 51-115 |
| 111-91-1  | bis(2-Chloroethoxy)methane | 1670           | 1340         | 80       | 36-131 |
| 111-44-4  | bis(2-Chloroethyl)ether    | 1670           | 1230         | 74       | 41-131 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-BS1 | M145995.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|------------------------------|----------------|--------------|----------|--------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 1670           | 1310         | 79       | 22-134 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 1670           | 1400         | 84       | 56-118 |
| 121-14-2  | 2,4-Dinitrotoluene           | 1670           | 1540         | 92       | 57-131 |
| 606-20-2  | 2,6-Dinitrotoluene           | 1670           | 1740         | 104      | 57-132 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 3330           | 1810         | 54       | 10-129 |
| 123-91-1  | 1,4-Dioxane                  | 1670           | 766          | 46       | 10-110 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 1670           | 1420         | 85       | 48-121 |
| 132-64-9  | Dibenzofuran                 | 1670           | 1460         | 88       | 51-119 |
| 84-74-2   | Di-n-butyl phthalate         | 1670           | 1560         | 94       | 59-125 |
| 117-84-0  | Di-n-octyl phthalate         | 1670           | 1530         | 92       | 47-147 |
| 84-66-2   | Diethyl phthalate            | 1670           | 1520         | 91       | 57-116 |
| 131-11-3  | Dimethyl phthalate           | 1670           | 1460         | 88       | 56-116 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | 1670           | 1430         | 86       | 53-133 |
| 206-44-0  | Fluoranthene                 | 1670           | 1430         | 86       | 58-117 |
| 86-73-7   | Fluorene                     | 1670           | 1420         | 85       | 56-114 |
| 118-74-1  | Hexachlorobenzene            | 1670           | 1300         | 78       | 50-128 |
| 87-68-3   | Hexachlorobutadiene          | 1670           | 1360         | 82       | 43-129 |
| 77-47-4   | Hexachlorocyclopentadiene    | 3330           | 2950         | 89       | 15-140 |
| 67-72-1   | Hexachloroethane             | 1670           | 1310         | 79       | 43-123 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 1670           | 1480         | 89       | 49-124 |
| 78-59-1   | Isophorone                   | 1670           | 1250         | 75       | 38-128 |
| 91-57-6   | 2-Methylnaphthalene          | 1670           | 1320         | 79       | 37-124 |
| 88-74-4   | 2-Nitroaniline               | 1670           | 1840         | 110      | 45-144 |
| 99-09-2   | 3-Nitroaniline               | 1670           | 1260         | 76       | 10-134 |
| 100-01-6  | 4-Nitroaniline               | 1670           | 1490         | 89       | 41-130 |
| 91-20-3   | Naphthalene                  | 1670           | 1200         | 72       | 44-116 |
| 98-95-3   | Nitrobenzene                 | 1670           | 1250         | 75       | 36-132 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | 1670           | 1340         | 80       | 38-125 |
| 86-30-6   | N-Nitrosodiphenylamine       | 1670           | 1370         | 82       | 51-122 |
| 85-01-8   | Phenanthrene                 | 1670           | 1280         | 77       | 53-119 |
| 129-00-0  | Pyrene                       | 1670           | 1380         | 83       | 54-124 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | 1670           | 1020         | 61       | 45-128 |

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-BS1 | M145995.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 367-12-4  | 2-Fluorophenol       | 79% | 23-115% |
| 4165-62-2 | Phenol-d5            | 76% | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 87% | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79% | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76% | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 88% | 36-134% |

8.2.1

8

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-BS1 | 2P79758.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                   | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|----------------------------|----------------|--------------|----------|--------|
| 95-57-8   | 2-Chlorophenol             | 1670           | 1210         | 73       | 44-122 |
| 59-50-7   | 4-Chloro-3-methyl phenol   | 1670           | 1480         | 89       | 50-123 |
| 120-83-2  | 2,4-Dichlorophenol         | 1670           | 1500         | 90       | 48-122 |
| 105-67-9  | 2,4-Dimethylphenol         | 1670           | 1650         | 99       | 48-124 |
| 51-28-5   | 2,4-Dinitrophenol          | 3330           | 2940         | 88       | 34-146 |
| 534-52-1  | 4,6-Dinitro-o-cresol       | 1670           | 1420         | 85       | 49-140 |
| 95-48-7   | 2-Methylphenol             | 1670           | 1180         | 71       | 40-126 |
|           | 3&4-Methylphenol           | 1670           | 1100         | 66       | 40-127 |
| 88-75-5   | 2-Nitrophenol              | 1670           | 1430         | 86       | 44-133 |
| 100-02-7  | 4-Nitrophenol              | 1670           | 2240         | 134      | 35-153 |
| 87-86-5   | Pentachlorophenol          | 1670           | 1120         | 67       | 15-149 |
| 108-95-2  | Phenol                     | 1670           | 1290         | 77       | 50-109 |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1670           | 1540         | 92       | 44-132 |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1670           | 1390         | 83       | 45-124 |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1670           | 1790         | 107      | 57-122 |
| 83-32-9   | Acenaphthene               | 1670           | 1660         | 100      | 53-119 |
| 208-96-8  | Acenaphthylene             | 1670           | 1460         | 88       | 41-125 |
| 98-86-2   | Acetophenone               | 1670           | 1370         | 82       | 52-112 |
| 120-12-7  | Anthracene                 | 1670           | 1520         | 91       | 51-120 |
| 1912-24-9 | Atrazine                   | 1670           | 1540         | 92       | 49-139 |
| 56-55-3   | Benzo(a)anthracene         | 1670           | 1520         | 91       | 54-118 |
| 50-32-8   | Benzo(a)pyrene             | 1670           | 1440         | 86       | 55-121 |
| 205-99-2  | Benzo(b)fluoranthene       | 1670           | 1290         | 77       | 57-116 |
| 191-24-2  | Benzo(g,h,i)perylene       | 1670           | 1560         | 94       | 40-124 |
| 207-08-9  | Benzo(k)fluoranthene       | 1670           | 1210         | 73       | 59-116 |
| 101-55-3  | 4-Bromophenyl phenyl ether | 1670           | 1710         | 103      | 60-122 |
| 85-68-7   | Butyl benzyl phthalate     | 1670           | 1600         | 96       | 51-134 |
| 92-52-4   | 1,1'-Biphenyl              | 1670           | 1440         | 86       | 46-122 |
| 100-52-7  | Benzaldehyde               | 1670           | 1210         | 73       | 14-139 |
| 91-58-7   | 2-Chloronaphthalene        | 1670           | 1430         | 86       | 49-120 |
| 106-47-8  | 4-Chloroaniline            | 1670           | 658          | 39       | 10-115 |
| 86-74-8   | Carbazole                  | 1670           | 1520         | 91       | 52-124 |
| 105-60-2  | Caprolactam                | 1670           | 1200         | 72       | 16-139 |
| 218-01-9  | Chrysene                   | 1670           | 1540         | 92       | 51-115 |
| 111-91-1  | bis(2-Chloroethoxy)methane | 1670           | 1280         | 77       | 36-131 |
| 111-44-4  | bis(2-Chloroethyl)ether    | 1670           | 1250         | 75       | 41-131 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-BS1 | 2P79758.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|------------------------------|----------------|--------------|----------|--------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 1670           | 1250         | 75       | 22-134 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 1670           | 1950         | 117      | 56-118 |
| 121-14-2  | 2,4-Dinitrotoluene           | 1670           | 1640         | 98       | 57-131 |
| 606-20-2  | 2,6-Dinitrotoluene           | 1670           | 1540         | 92       | 57-132 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 3330           | 2510         | 75       | 10-129 |
| 123-91-1  | 1,4-Dioxane                  | 1670           | 1450         | 87       | 10-110 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 1670           | 1600         | 96       | 48-121 |
| 132-64-9  | Dibenzofuran                 | 1670           | 1540         | 92       | 51-119 |
| 84-74-2   | Di-n-butyl phthalate         | 1670           | 1780         | 107      | 59-125 |
| 117-84-0  | Di-n-octyl phthalate         | 1670           | 1290         | 77       | 47-147 |
| 84-66-2   | Diethyl phthalate            | 1670           | 1760         | 106      | 57-116 |
| 131-11-3  | Dimethyl phthalate           | 1670           | 1630         | 98       | 56-116 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | 1670           | 1710         | 103      | 53-133 |
| 206-44-0  | Fluoranthene                 | 1670           | 1700         | 102      | 58-117 |
| 86-73-7   | Fluorene                     | 1670           | 1760         | 106      | 56-114 |
| 118-74-1  | Hexachlorobenzene            | 1670           | 1730         | 104      | 50-128 |
| 87-68-3   | Hexachlorobutadiene          | 1670           | 2150         | 129      | 43-129 |
| 77-47-4   | Hexachlorocyclopentadiene    | 3330           | 4500         | 135      | 15-140 |
| 67-72-1   | Hexachloroethane             | 1670           | 1520         | 91       | 43-123 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 1670           | 1630         | 98       | 49-124 |
| 78-59-1   | Isophorone                   | 1670           | 1400         | 84       | 38-128 |
| 91-57-6   | 2-Methylnaphthalene          | 1670           | 1500         | 90       | 37-124 |
| 88-74-4   | 2-Nitroaniline               | 1670           | 1650         | 99       | 45-144 |
| 99-09-2   | 3-Nitroaniline               | 1670           | 899          | 54       | 10-134 |
| 100-01-6  | 4-Nitroaniline               | 1670           | 1410         | 85       | 41-130 |
| 91-20-3   | Naphthalene                  | 1670           | 1420         | 85       | 44-116 |
| 98-95-3   | Nitrobenzene                 | 1670           | 1380         | 83       | 36-132 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | 1670           | 1300         | 78       | 38-125 |
| 86-30-6   | N-Nitrosodiphenylamine       | 1670           | 1530         | 92       | 51-122 |
| 85-01-8   | Phenanthrene                 | 1670           | 1520         | 91       | 53-119 |
| 129-00-0  | Pyrene                       | 1670           | 1400         | 84       | 54-124 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | 1670           | 1600         | 96       | 45-128 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-BS1 | 2P79758.D | 1  | 05/21/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 367-12-4  | 2-Fluorophenol       | 89%  | 23-115% |
| 4165-62-2 | Phenol-d5            | 86%  | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 115% | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 87%  | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%  | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 94%  | 36-134% |

8.2.2  
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\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MS  | M145996.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| OP11642-MSD | M145997.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| JC64996-6   | M145998.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                   | JC64996-6<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 95-57-8   | 2-Chlorophenol             | ND                 | 1840                | 1350        | 73      | 1850           | 1070         | 58       | 23  | 10-137/34         |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND                 | 1840                | 1480        | 81      | 1850           | 1170         | 63       | 23  | 11-147/35         |
| 120-83-2  | 2,4-Dichlorophenol         | ND                 | 1840                | 1500        | 82      | 1850           | 1230         | 66       | 20  | 15-140/34         |
| 105-67-9  | 2,4-Dimethylphenol         | ND                 | 1840                | 1460        | 79      | 1850           | 1120         | 61       | 26  | 10-151/34         |
| 51-28-5   | 2,4-Dinitrophenol          | ND                 | 3680                | 2980        | 81      | 3700           | 2080         | 56       | 36  | 10-148/49         |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND                 | 1840                | 1370        | 75      | 1850           | 992          | 54       | 32  | 10-150/48         |
| 95-48-7   | 2-Methylphenol             | ND                 | 1840                | 1260        | 69      | 1850           | 985          | 53       | 24  | 10-138/33         |
|           | 3&4-Methylphenol           | ND                 | 1840                | 1390        | 76      | 1850           | 1090         | 59       | 24  | 10-143/33         |
| 88-75-5   | 2-Nitrophenol              | ND                 | 1840                | 1570        | 85      | 1850           | 1280         | 69       | 20  | 10-150/39         |
| 100-02-7  | 4-Nitrophenol              | ND                 | 1840                | 1520        | 83      | 1850           | 1170         | 63       | 26  | 10-163/38         |
| 87-86-5   | Pentachlorophenol          | ND                 | 1840                | 1250        | 68      | 1850           | 942          | 51       | 28  | 10-148/39         |
| 108-95-2  | Phenol                     | ND                 | 1840                | 1220        | 66      | 1850           | 910          | 49       | 29  | 24-114/32         |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND                 | 1840                | 1540        | 84      | 1850           | 1180         | 64       | 26  | 14-140/38         |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND                 | 1840                | 1580        | 86      | 1850           | 1210         | 65       | 27  | 10-146/36         |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND                 | 1840                | 1620        | 88      | 1850           | 1260         | 68       | 25  | 16-148/36         |
| 83-32-9   | Acenaphthene               | ND                 | 1840                | 1380        | 75      | 1850           | 1130         | 61       | 20  | 21-136/34         |
| 208-96-8  | Acenaphthylene             | ND                 | 1840                | 1380        | 75      | 1850           | 1140         | 62       | 19  | 10-143/36         |
| 98-86-2   | Acetophenone               | ND                 | 1840                | 1350        | 73      | 1850           | 1110         | 60       | 20  | 24-127/31         |
| 120-12-7  | Anthracene                 | ND                 | 1840                | 1320        | 72      | 1850           | 1060         | 57       | 22  | 10-147/39         |
| 1912-24-9 | Atrazine                   | ND                 | 1840                | 1540        | 84      | 1850           | 1250         | 68       | 21  | 10-161/38         |
| 56-55-3   | Benzo(a)anthracene         | ND                 | 1840                | 1450        | 79      | 1850           | 1160         | 63       | 22  | 10-151/41         |
| 50-32-8   | Benzo(a)pyrene             | ND                 | 1840                | 1570        | 85      | 1850           | 1250         | 68       | 23  | 10-149/40         |
| 205-99-2  | Benzo(b)fluoranthene       | ND                 | 1840                | 1510        | 82      | 1850           | 1200         | 65       | 23  | 10-147/42         |
| 191-24-2  | Benzo(g,h,i)perylene       | ND                 | 1840                | 1510        | 82      | 1850           | 1170         | 63       | 25  | 10-150/41         |
| 207-08-9  | Benzo(k)fluoranthene       | ND                 | 1840                | 1410        | 77      | 1850           | 1160         | 63       | 19  | 12-142/41         |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND                 | 1840                | 1400        | 76      | 1850           | 1150         | 62       | 20  | 26-138/37         |
| 85-68-7   | Butyl benzyl phthalate     | ND                 | 1840                | 1610        | 88      | 1850           | 1310         | 71       | 21  | 24-143/36         |
| 92-52-4   | 1,1'-Biphenyl              | ND                 | 1840                | 1370        | 75      | 1850           | 1140         | 62       | 18  | 18-138/32         |
| 100-52-7  | Benzaldehyde               | ND                 | 1840                | 978         | 53      | 1850           | 827          | 45       | 17  | 10-149/37         |
| 91-58-7   | 2-Chloronaphthalene        | ND                 | 1840                | 1300        | 71      | 1850           | 1100         | 59       | 17  | 24-130/31         |
| 106-47-8  | 4-Chloroaniline            | ND                 | 1840                | 997         | 54      | 1850           | 897          | 48       | 11  | 10-111/52         |
| 86-74-8   | Carbazole                  | ND                 | 1840                | 1430        | 78      | 1850           | 1110         | 60       | 25  | 12-146/39         |
| 105-60-2  | Caprolactam                | ND                 | 1840                | 1430        | 78      | 1850           | 1200         | 65       | 17  | 10-147/40         |
| 218-01-9  | Chrysene                   | ND                 | 1840                | 1310        | 71      | 1850           | 1050         | 57       | 22  | 10-151/41         |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND                 | 1840                | 1330        | 72      | 1850           | 1110         | 60       | 18  | 10-144/35         |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND                 | 1840                | 1240        | 67      | 1850           | 1040         | 56       | 18  | 12-142/35         |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MS  | M145996.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| OP11642-MSD | M145997.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| JC64996-6   | M145998.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Compound                     | JC64996-6<br>ug/kg | Spike<br>Q | ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|------------------------------|--------------------|------------|-------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND                 |            | 1840  | 1310        | 71      | 1850           | 1050         | 57       | 22  | 10-137/33         |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND                 |            | 1840  | 1410        | 77      | 1850           | 1140         | 62       | 21  | 21-136/35         |
| 121-14-2  | 2,4-Dinitrotoluene           | ND                 |            | 1840  | 1570        | 85      | 1850           | 1280         | 69       | 20  | 14-148/41         |
| 606-20-2  | 2,6-Dinitrotoluene           | ND                 |            | 1840  | 1770        | 96      | 1850           | 1400         | 76       | 23  | 14-152/40         |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND                 |            | 3680  | 2130        | 58      | 3700           | 1790         | 48       | 17  | 10-137/47         |
| 123-91-1  | 1,4-Dioxane                  | ND                 |            | 1840  | 753         | 41      | 1850           | 639          | 35       | 16  | 10-110/40         |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND                 |            | 1840  | 1440        | 78      | 1850           | 1120         | 61       | 25  | 10-152/38         |
| 132-64-9  | Dibenzofuran                 | ND                 |            | 1840  | 1510        | 82      | 1850           | 1220         | 66       | 21  | 17-141/36         |
| 84-74-2   | Di-n-butyl phthalate         | 18.5               | J          | 1840  | 1590        | 85      | 1850           | 1290         | 69       | 21  | 26-137/35         |
| 117-84-0  | Di-n-octyl phthalate         | ND                 |            | 1840  | 1590        | 86      | 1850           | 1260         | 68       | 23  | 23-145/36         |
| 84-66-2   | Diethyl phthalate            | ND                 |            | 1840  | 1530        | 83      | 1850           | 1250         | 68       | 20  | 25-133/35         |
| 131-11-3  | Dimethyl phthalate           | ND                 |            | 1840  | 1470        | 80      | 1850           | 1200         | 65       | 20  | 21-134/36         |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND                 |            | 1840  | 1450        | 79      | 1850           | 1160         | 63       | 22  | 26-144/39         |
| 206-44-0  | Fluoranthene                 | ND                 |            | 1840  | 1440        | 78      | 1850           | 1150         | 62       | 22  | 10-151/44         |
| 86-73-7   | Fluorene                     | ND                 |            | 1840  | 1420        | 77      | 1850           | 1160         | 63       | 20  | 19-133/36         |
| 118-74-1  | Hexachlorobenzene            | ND                 |            | 1840  | 1320        | 72      | 1850           | 1050         | 57       | 23  | 18-142/37         |
| 87-68-3   | Hexachlorobutadiene          | ND                 |            | 1840  | 1390        | 76      | 1850           | 1140         | 62       | 20  | 16-137/32         |
| 77-47-4   | Hexachlorocyclopentadiene    | ND                 |            | 3680  | 2920        | 79      | 3700           | 2380         | 64       | 20  | 10-150/50         |
| 67-72-1   | Hexachloroethane             | ND                 |            | 1840  | 1290        | 70      | 1850           | 1070         | 58       | 19  | 10-131/38         |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND                 |            | 1840  | 1490        | 81      | 1850           | 1170         | 63       | 24  | 10-148/41         |
| 78-59-1   | Isophorone                   | ND                 |            | 1840  | 1250        | 68      | 1850           | 1060         | 57       | 16  | 11-142/33         |
| 91-57-6   | 2-Methylnaphthalene          | ND                 |            | 1840  | 1390        | 76      | 1850           | 1130         | 61       | 21  | 10-141/35         |
| 88-74-4   | 2-Nitroaniline               | ND                 |            | 1840  | 1940        | 106     | 1850           | 1510         | 82       | 25  | 14-156/38         |
| 99-09-2   | 3-Nitroaniline               | ND                 |            | 1840  | 1470        | 80      | 1850           | 1220         | 66       | 19  | 10-144/45         |
| 100-01-6  | 4-Nitroaniline               | ND                 |            | 1840  | 1620        | 88      | 1850           | 1200         | 65       | 30  | 10-156/44         |
| 91-20-3   | Naphthalene                  | ND                 |            | 1840  | 1220        | 66      | 1850           | 1030         | 56       | 17  | 10-136/36         |
| 98-95-3   | Nitrobenzene                 | ND                 |            | 1840  | 1270        | 69      | 1850           | 1040         | 56       | 20  | 10-142/34         |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND                 |            | 1840  | 1310        | 71      | 1850           | 1120         | 61       | 16  | 10-142/31         |
| 86-30-6   | N-Nitrosodiphenylamine       | ND                 |            | 1840  | 1370        | 75      | 1850           | 1080         | 58       | 24  | 10-156/37         |
| 85-01-8   | Phenanthrene                 | ND                 |            | 1840  | 1290        | 70      | 1850           | 1050         | 57       | 21  | 11-145/45         |
| 129-00-0  | Pyrene                       | ND                 |            | 1840  | 1410        | 77      | 1850           | 1130         | 61       | 22  | 11-155/44         |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND                 |            | 1840  | 1030        | 56      | 1850           | 859          | 46       | 18  | 23-136/32         |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11642-MS  | M145996.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| OP11642-MSD | M145997.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |
| JC64996-6   | M145998.D | 1  | 05/09/18 | CS | 04/27/18  | OP11642    | EM6203           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-1, JC64996-2, JC64996-3, JC64996-4, JC64996-6, JC64996-9

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC64996-6 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 73% | 56% | 56%       | 23-115% |
| 4165-62-2 | Phenol-d5            | 69% | 54% | 59%       | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 82% | 62% | 72%       | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 73% | 59% | 64%       | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 71% | 56% | 64%       | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84% | 64% | 70%       | 36-134% |

8.3.1  
8

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MS  | 2P79770.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| OP12122-MSD | 2P79771.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| JC66239-1   | 2P79772.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                   | JC66239-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 95-57-8   | 2-Chlorophenol             | ND                 | 1710                | 1100        | 64      | 1680           | 1210         | 72       | 10  | 10-137/34         |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND                 | 1710                | 1390        | 81      | 1680           | 1450         | 86       | 4   | 11-147/35         |
| 120-83-2  | 2,4-Dichlorophenol         | ND                 | 1710                | 1410        | 82      | 1680           | 1490         | 89       | 6   | 15-140/34         |
| 105-67-9  | 2,4-Dimethylphenol         | ND                 | 1710                | 1500        | 88      | 1680           | 1610         | 96       | 7   | 10-151/34         |
| 51-28-5   | 2,4-Dinitrophenol          | ND                 | 3420                | 637         | 19      | 3370           | 604          | 18       | 5   | 10-148/49         |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND                 | 1710                | 471         | 28      | 1680           | 463          | 28       | 2   | 10-150/48         |
| 95-48-7   | 2-Methylphenol             | ND                 | 1710                | 1120        | 66      | 1680           | 1220         | 72       | 9   | 10-138/33         |
|           | 3&4-Methylphenol           | ND                 | 1710                | 1090        | 64      | 1680           | 1160         | 69       | 6   | 10-143/33         |
| 88-75-5   | 2-Nitrophenol              | ND                 | 1710                | 1250        | 73      | 1680           | 1430         | 85       | 13  | 10-150/39         |
| 100-02-7  | 4-Nitrophenol              | ND                 | 1710                | 2510        | 147     | 1680           | 2570         | 153      | 2   | 10-163/38         |
| 87-86-5   | Pentachlorophenol          | ND                 | 1710                | 1290        | 75      | 1680           | 1390         | 83       | 7   | 10-148/39         |
| 108-95-2  | Phenol                     | ND                 | 1710                | 1140        | 67      | 1680           | 1200         | 71       | 5   | 24-114/32         |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND                 | 1710                | 1690        | 99      | 1680           | 1620         | 96       | 4   | 14-140/38         |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND                 | 1710                | 1390        | 81      | 1680           | 1510         | 90       | 8   | 10-146/36         |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND                 | 1710                | 1680        | 98      | 1680           | 1850         | 110      | 10  | 16-148/36         |
| 83-32-9   | Acenaphthene               | ND                 | 1710                | 1730        | 101     | 1680           | 1740         | 103      | 1   | 21-136/34         |
| 208-96-8  | Acenaphthylene             | ND                 | 1710                | 1390        | 81      | 1680           | 1520         | 90       | 9   | 10-143/36         |
| 98-86-2   | Acetophenone               | ND                 | 1710                | 1270        | 74      | 1680           | 1410         | 84       | 10  | 24-127/31         |
| 120-12-7  | Anthracene                 | ND                 | 1710                | 1490        | 87      | 1680           | 1600         | 95       | 7   | 10-147/39         |
| 1912-24-9 | Atrazine                   | ND                 | 1710                | 1600        | 94      | 1680           | 1780         | 106      | 11  | 10-161/38         |
| 56-55-3   | Benzo(a)anthracene         | ND                 | 1710                | 1360        | 80      | 1680           | 1400         | 83       | 3   | 10-151/41         |
| 50-32-8   | Benzo(a)pyrene             | ND                 | 1710                | 1380        | 81      | 1680           | 1470         | 87       | 6   | 10-149/40         |
| 205-99-2  | Benzo(b)fluoranthene       | ND                 | 1710                | 1320        | 77      | 1680           | 1400         | 83       | 6   | 10-147/42         |
| 191-24-2  | Benzo(g,h,i)perylene       | ND                 | 1710                | 1440        | 84      | 1680           | 1520         | 90       | 5   | 10-150/41         |
| 207-08-9  | Benzo(k)fluoranthene       | ND                 | 1710                | 1390        | 81      | 1680           | 1510         | 90       | 8   | 12-142/41         |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND                 | 1710                | 1600        | 94      | 1680           | 1750         | 104      | 9   | 26-138/37         |
| 85-68-7   | Butyl benzyl phthalate     | ND                 | 1710                | 1500        | 88      | 1680           | 1580         | 94       | 5   | 24-143/36         |
| 92-52-4   | 1,1'-Biphenyl              | ND                 | 1710                | 1370        | 80      | 1680           | 1510         | 90       | 10  | 18-138/32         |
| 100-52-7  | Benzaldehyde               | ND                 | 1710                | 2310        | 135     | 1680           | 1820         | 108      | 24  | 10-149/37         |
| 91-58-7   | 2-Chloronaphthalene        | ND                 | 1710                | 1350        | 79      | 1680           | 1480         | 88       | 9   | 24-130/31         |
| 106-47-8  | 4-Chloroaniline            | ND                 | 1710                | 776         | 45      | 1680           | 802          | 48       | 3   | 10-111/52         |
| 86-74-8   | Carbazole                  | ND                 | 1710                | 1400        | 82      | 1680           | 1560         | 93       | 11  | 12-146/39         |
| 105-60-2  | Caprolactam                | ND                 | 1710                | 1070        | 63      | 1680           | 1080         | 64       | 1   | 10-147/40         |
| 218-01-9  | Chrysene                   | ND                 | 1710                | 1580        | 92      | 1680           | 1630         | 97       | 3   | 10-151/41         |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND                 | 1710                | 1130        | 66      | 1680           | 1260         | 75       | 11  | 10-144/35         |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND                 | 1710                | 1090        | 64      | 1680           | 1220         | 72       | 11  | 12-142/35         |

\* = Outside of Control Limits.

8.3.2  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MS  | 2P79770.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| OP12122-MSD | 2P79771.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| JC66239-1   | 2P79772.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Compound                     | JC66239-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |           |
|-----------|------------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|-----------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND                 |                     | 1710        | 1180    | 69             | 1680         | 1240     | 74  | 5                 | 10-137/33 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND                 |                     | 1710        | 2030    | 119            | 1680         | 1960     | 116 | 4                 | 21-136/35 |
| 121-14-2  | 2,4-Dinitrotoluene           | ND                 |                     | 1710        | 1680    | 98             | 1680         | 1680     | 100 | 0                 | 14-148/41 |
| 606-20-2  | 2,6-Dinitrotoluene           | ND                 |                     | 1710        | 1470    | 86             | 1680         | 1600     | 95  | 8                 | 14-152/40 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND                 |                     | 3420        | 3170    | 93             | 3370         | 3360     | 100 | 6                 | 10-137/47 |
| 123-91-1  | 1,4-Dioxane                  | ND                 |                     | 1710        | 1360    | 80             | 1680         | 1370     | 81  | 1                 | 10-110/40 |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND                 |                     | 1710        | 1500    | 88             | 1680         | 1600     | 95  | 6                 | 10-152/38 |
| 132-64-9  | Dibenzofuran                 | ND                 |                     | 1710        | 1710    | 100            | 1680         | 1660     | 99  | 3                 | 17-141/36 |
| 84-74-2   | Di-n-butyl phthalate         | ND                 |                     | 1710        | 1600    | 94             | 1680         | 1740     | 103 | 8                 | 26-137/35 |
| 117-84-0  | Di-n-octyl phthalate         | ND                 |                     | 1710        | 1300    | 76             | 1680         | 1400     | 83  | 7                 | 23-145/36 |
| 84-66-2   | Diethyl phthalate            | ND                 |                     | 1710        | 1840    | 108            | 1680         | 1830     | 109 | 1                 | 25-133/35 |
| 131-11-3  | Dimethyl phthalate           | ND                 |                     | 1710        | 1570    | 92             | 1680         | 1720     | 102 | 9                 | 21-134/36 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND                 |                     | 1710        | 1820    | 106            | 1680         | 1910     | 113 | 5                 | 26-144/39 |
| 206-44-0  | Fluoranthene                 | ND                 |                     | 1710        | 1410    | 82             | 1680         | 1530     | 91  | 8                 | 10-151/44 |
| 86-73-7   | Fluorene                     | ND                 |                     | 1710        | 1890    | 111            | 1680         | 1870     | 111 | 1                 | 19-133/36 |
| 118-74-1  | Hexachlorobenzene            | ND                 |                     | 1710        | 1620    | 95             | 1680         | 1750     | 104 | 8                 | 18-142/37 |
| 87-68-3   | Hexachlorobutadiene          | ND                 |                     | 1710        | 1930    | 113            | 1680         | 2180     | 130 | 12                | 16-137/32 |
| 77-47-4   | Hexachlorocyclopentadiene    | ND                 |                     | 3420        | 1950    | 57             | 3370         | 2140     | 64  | 9                 | 10-150/50 |
| 67-72-1   | Hexachloroethane             | ND                 |                     | 1710        | 1250    | 73             | 1680         | 1380     | 82  | 10                | 10-131/38 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND                 |                     | 1710        | 1440    | 84             | 1680         | 1560     | 93  | 8                 | 10-148/41 |
| 78-59-1   | Isophorone                   | ND                 |                     | 1710        | 1220    | 71             | 1680         | 1400     | 83  | 14                | 11-142/33 |
| 91-57-6   | 2-Methylnaphthalene          | 51.0               |                     | 1710        | 1520    | 86             | 1680         | 1520     | 87  | 0                 | 10-141/35 |
| 88-74-4   | 2-Nitroaniline               | ND                 |                     | 1710        | 1650    | 97             | 1680         | 1810     | 108 | 9                 | 14-156/38 |
| 99-09-2   | 3-Nitroaniline               | ND                 |                     | 1710        | 1220    | 71             | 1680         | 1200     | 71  | 2                 | 10-144/45 |
| 100-01-6  | 4-Nitroaniline               | ND                 |                     | 1710        | 1430    | 84             | 1680         | 1400     | 83  | 2                 | 10-156/44 |
| 91-20-3   | Naphthalene                  | 37.3               |                     | 1710        | 1420    | 81             | 1680         | 1490     | 86  | 5                 | 10-136/36 |
| 98-95-3   | Nitrobenzene                 | ND                 |                     | 1710        | 1260    | 74             | 1680         | 1390     | 83  | 10                | 10-142/34 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND                 |                     | 1710        | 1210    | 71             | 1680         | 1340     | 80  | 10                | 10-142/31 |
| 86-30-6   | N-Nitrosodiphenylamine       | ND                 |                     | 1710        | 1460    | 85             | 1680         | 1400     | 83  | 4                 | 10-156/37 |
| 85-01-8   | Phenanthrene                 | 19.7               | J                   | 1710        | 1490    | 86             | 1680         | 1610     | 94  | 8                 | 11-145/45 |
| 129-00-0  | Pyrene                       | 16.9               | J                   | 1710        | 1390    | 80             | 1680         | 1450     | 85  | 4                 | 11-155/44 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND                 |                     | 1710        | 1490    | 87             | 1680         | 1620     | 96  | 8                 | 23-136/32 |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12122-MS  | 2P79770.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| OP12122-MSD | 2P79771.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |
| JC66239-1   | 2P79772.D | 1  | 05/22/18 | SA | 05/21/18  | OP12122    | E2P3514          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC64996-7, JC64996-10

| CAS No.   | Surrogate Recoveries | MS   | MSD  | JC66239-1 | Limits  |
|-----------|----------------------|------|------|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 73%  | 82%  |           | 23-115% |
| 4165-62-2 | Phenol-d5            | 76%  | 84%  |           | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 112% | 109% |           | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%  | 88%  | 84%       | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%  | 90%  | 82%       | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 96%  | 99%  | 100%      | 36-134% |

8.3.2  
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\* = Outside of Control Limits.

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3481-DFTPP  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2P79036.D | <b>Injection Time:</b> 20:08    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 100824        | 37.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1207          | 0.45 (0.86) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 140923        | 52.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 673           | 0.25 (0.48) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 151036        | 55.8                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 270763        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 19261         | 7.11                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 64885         | 24.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 8152          | 3.01                     | Pass      |
| 441 | Present, but less than mass 443    | 33955         | 12.5 (83.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 216021        | 79.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 40507         | 15.0 (18.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3481-IC3481  | 2P79037.D   | 05/01/18      | 20:33         | 00:25        | Initial cal 100             |
| E2P3481-IC3481  | 2P79038.D   | 05/01/18      | 20:55         | 00:47        | Initial cal 80              |
| E2P3481-ICC3481 | 2P79039.D   | 05/01/18      | 21:16         | 01:08        | Initial cal 50              |
| E2P3481-IC3481  | 2P79040.D   | 05/01/18      | 21:38         | 01:30        | Initial cal 25              |
| E2P3481-IC3481  | 2P79041.D   | 05/01/18      | 22:00         | 01:52        | Initial cal 10              |
| E2P3481-IC3481  | 2P79042.D   | 05/01/18      | 22:22         | 02:14        | Initial cal 5               |
| E2P3481-IC3481  | 2P79043.D   | 05/01/18      | 22:44         | 02:36        | Initial cal 2               |
| E2P3481-IC3481  | 2P79044.D   | 05/01/18      | 23:05         | 02:57        | Initial cal 1               |
| E2P3481-ICV3479 | 2P79045.D   | 05/01/18      | 23:27         | 03:19        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79046.D   | 05/01/18      | 23:49         | 03:41        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79047.D   | 05/02/18      | 00:11         | 04:03        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79048.D   | 05/02/18      | 00:32         | 04:24        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79049.D   | 05/02/18      | 00:54         | 04:46        | Initial cal verification 50 |

8.4.1  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3484-DFTPP  | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 2P79079.D | <b>Injection Time:</b> 02:24    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 47513         | 40.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1010          | 0.85 (1.56) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 64706         | 54.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 314           | 0.26 (0.49) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 69344         | 58.5                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 118616        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 8351          | 7.04                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 28589         | 24.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4437          | 3.74                     | Pass      |
| 441 | Present, but less than mass 443    | 15602         | 13.2 (80.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 100016        | 84.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 19461         | 16.4 (19.5) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3484-IC3484  | 2P79081.D   | 05/03/18      | 03:21         | 00:57        | Initial cal 100             |
| E2P3484-IC3484  | 2P79082.D   | 05/03/18      | 03:43         | 01:19        | Initial cal 80              |
| E2P3484-ICC3484 | 2P79083.D   | 05/03/18      | 04:05         | 01:41        | Initial cal 50              |
| E2P3484-IC3484  | 2P79084.D   | 05/03/18      | 04:26         | 02:02        | Initial cal 25              |
| E2P3484-IC3484  | 2P79085.D   | 05/03/18      | 04:48         | 02:24        | Initial cal 10              |
| E2P3484-IC3484  | 2P79086.D   | 05/03/18      | 05:10         | 02:46        | Initial cal 5               |
| E2P3484-IC3484  | 2P79087.D   | 05/03/18      | 05:31         | 03:07        | Initial cal 2               |
| E2P3484-IC3484  | 2P79088.D   | 05/03/18      | 05:53         | 03:29        | Initial cal 1               |
| E2P3484-ICV3484 | 2P79089.D   | 05/03/18      | 06:14         | 03:50        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79090.D   | 05/03/18      | 06:36         | 04:12        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79091.D   | 05/03/18      | 06:58         | 04:34        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79092.D   | 05/03/18      | 07:19         | 04:55        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79093.D   | 05/03/18      | 07:41         | 05:17        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79094.D   | 05/03/18      | 08:02         | 05:38        | Initial cal verification 50 |

8.4.2  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3514-DFTPP  | <b>Injection Date:</b> 05/21/18 |
| <b>Lab File ID:</b> 2P79748.D | <b>Injection Time:</b> 18:47    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 328978        | 38.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 3125          | 0.36 (0.76) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 411714        | 47.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 3634          | 0.42 (0.88) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 471381        | 54.6                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 864085        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 59155         | 6.85                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 241301        | 27.9                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 46136         | 5.34                     | Pass      |
| 441 | Present, but less than mass 443    | 138211        | 16.0 (92.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 758016        | 87.7                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 149885        | 17.3 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID     |
|----------------|-------------|---------------|---------------|--------------|----------------------|
| E2P3514-CC3484 | 2P79749.D   | 05/21/18      | 19:09         | 00:22        | Continuing cal 50    |
| E2P3514-CC3481 | 2P79750.D   | 05/21/18      | 19:31         | 00:44        | Continuing cal 50    |
| E2P3514-MB1    | 2P79752.D   | 05/21/18      | 20:37         | 01:50        | Method Blank         |
| E2P3514-BS1    | 2P79753.D   | 05/21/18      | 20:59         | 02:12        | Blank Spike          |
| E2P3514-BS     | 2P79754.D   | 05/21/18      | 21:21         | 02:34        | Blank Spike          |
| E2P3514-BS     | 2P79755.D   | 05/21/18      | 21:43         | 02:56        | Blank Spike          |
| E2P3514-BS     | 2P79756.D   | 05/21/18      | 22:05         | 03:18        | Blank Spike          |
| OP12122-MB1    | 2P79757.D   | 05/21/18      | 22:26         | 03:39        | Method Blank         |
| OP12122-BS1    | 2P79758.D   | 05/21/18      | 22:48         | 04:01        | Blank Spike          |
| JC64996-10     | 2P79759.D   | 05/21/18      | 23:10         | 04:23        | SB-106 (3-5) (11-15) |
| ZZZZZZ         | 2P79760.D   | 05/21/18      | 23:32         | 04:45        | (unrelated sample)   |
| ZZZZZZ         | 2P79761.D   | 05/21/18      | 23:54         | 05:07        | (unrelated sample)   |
| ZZZZZZ         | 2P79762.D   | 05/22/18      | 00:15         | 05:28        | (unrelated sample)   |
| ZZZZZZ         | 2P79763.D   | 05/22/18      | 00:37         | 05:50        | (unrelated sample)   |
| ZZZZZZ         | 2P79764.D   | 05/22/18      | 00:59         | 06:12        | (unrelated sample)   |
| ZZZZZZ         | 2P79765.D   | 05/22/18      | 01:20         | 06:33        | (unrelated sample)   |
| ZZZZZZ         | 2P79766.D   | 05/22/18      | 01:42         | 06:55        | (unrelated sample)   |
| ZZZZZZ         | 2P79767.D   | 05/22/18      | 02:04         | 07:17        | (unrelated sample)   |
| ZZZZZZ         | 2P79768.D   | 05/22/18      | 02:26         | 07:39        | (unrelated sample)   |

8.4.3  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3514-DFTPP  | <b>Injection Date:</b> 05/21/18 |
| <b>Lab File ID:</b> 2P79748.D | <b>Injection Time:</b> 18:47    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| ZZZZZZ        | 2P79769.D   | 05/22/18      | 02:47         | 08:00        | (unrelated sample)                          |
| OP12122-MS    | 2P79770.D   | 05/22/18      | 03:09         | 08:22        | Matrix Spike                                |
| OP12122-MSD   | 2P79771.D   | 05/22/18      | 03:31         | 08:44        | Matrix Spike Duplicate                      |
| JC66239-1     | 2P79772.D   | 05/22/18      | 03:52         | 09:05        | (used for QC only; not part of job JC64996) |
| JC64996-7     | 2P79773.D   | 05/22/18      | 04:14         | 09:27        | SB-106 (17-21)                              |

8.4.3  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3515-DFTPP  | <b>Injection Date:</b> 05/22/18 |
| <b>Lab File ID:</b> 2P79775.D | <b>Injection Time:</b> 09:01    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 300728        | 41.9                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 2310          | 0.32 (0.62) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 374163        | 52.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 3314          | 0.46 (0.89) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 413720        | 57.7                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 717547        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 49789         | 6.94                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 194432        | 27.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 33235         | 4.63                     | Pass      |
| 441 | Present, but less than mass 443    | 94661         | 13.2 (88.7) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 530283        | 73.9                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 106701        | 14.9 (20.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|----------------|-------------|---------------|---------------|--------------|--------------------|
| E2P3515-CC3484 | 2P79776.D   | 05/22/18      | 09:16         | 00:15        | Continuing cal 25  |
| E2P3515-CC3481 | 2P79778.D   | 05/22/18      | 10:00         | 00:59        | Continuing cal 25  |
| OP11999-MB1    | 2P79781.D   | 05/22/18      | 11:19         | 02:18        | Method Blank       |
| ZZZZZZ         | 2P79782.D   | 05/22/18      | 11:40         | 02:39        | (unrelated sample) |
| ZZZZZZ         | 2P79783.D   | 05/22/18      | 12:02         | 03:01        | (unrelated sample) |
| ZZZZZZ         | 2P79784.D   | 05/22/18      | 12:24         | 03:23        | (unrelated sample) |
| ZZZZZZ         | 2P79785.D   | 05/22/18      | 12:45         | 03:44        | (unrelated sample) |
| ZZZZZZ         | 2P79786.D   | 05/22/18      | 13:07         | 04:06        | (unrelated sample) |
| ZZZZZZ         | 2P79787.D   | 05/22/18      | 13:29         | 04:28        | (unrelated sample) |
| ZZZZZZ         | 2P79788.D   | 05/22/18      | 13:51         | 04:50        | (unrelated sample) |
| JC64996-7      | 2P79789.D   | 05/22/18      | 14:12         | 05:11        | SB-106 (17-21)     |
| ZZZZZZ         | 2P79790.D   | 05/22/18      | 14:34         | 05:33        | (unrelated sample) |

8.4.4  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6168-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145273.D | <b>Injection Time:</b> 03:46    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 59257         | 34.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 71939         | 41.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 174           | 0.10 (0.24) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 91976         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 173922        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11453         | 6.59                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 41398         | 23.8                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4915          | 2.83                     | Pass      |
| 441 | Present, but less than mass 443    | 18451         | 10.6 (77.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 120712        | 69.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 23676         | 13.6 (19.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6168-IC6168  | M145274.D   | 04/17/18      | 04:09         | 00:23        | Initial cal 100             |
| EM6168-IC6168  | M145275.D   | 04/17/18      | 04:38         | 00:52        | Initial cal 80              |
| EM6168-ICC6168 | M145276.D   | 04/17/18      | 05:08         | 01:22        | Initial cal 50              |
| EM6168-IC6168  | M145277.D   | 04/17/18      | 05:37         | 01:51        | Initial cal 25              |
| EM6168-IC6168  | M145278.D   | 04/17/18      | 06:06         | 02:20        | Initial cal 10              |
| EM6168-IC6168  | M145279.D   | 04/17/18      | 06:35         | 02:49        | Initial cal 5               |
| EM6168-IC6168  | M145280.D   | 04/17/18      | 07:05         | 03:19        | Initial cal 2               |
| EM6168-IC6168  | M145281.D   | 04/17/18      | 07:34         | 03:48        | Initial cal 1               |
| EM6168-ICV6168 | M145282.D   | 04/17/18      | 08:03         | 04:17        | Initial cal verification 50 |
| EM6168-ICV6168 | M145284.D   | 04/17/18      | 09:02         | 05:16        | Initial cal verification 50 |
| EM6168-ICV6168 | M145285.D   | 04/17/18      | 09:31         | 05:45        | Initial cal verification 50 |
| EM6168-ICV6168 | M145286.D   | 04/17/18      | 10:00         | 06:14        | Initial cal verification 50 |
| EM6168-ICV6168 | M145287.D   | 04/17/18      | 10:30         | 06:44        | Initial cal verification 50 |

8.4.5  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6169-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145288.D | <b>Injection Time:</b> 10:55    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 54344         | 32.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 349           | 0.21 (0.51) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 68186         | 40.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 378           | 0.22 (0.55) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 89104         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 462           | 0.27                     | Pass      |
| 198 | Base peak, 100% relative abundance | 168576        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11591         | 6.88                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 39557         | 23.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4960          | 2.94                     | Pass      |
| 441 | Present, but less than mass 443    | 18883         | 11.2 (73.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 132344        | 78.5                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 25736         | 15.3 (19.4) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6169-IC6169  | M145289.D   | 04/17/18      | 11:39         | 00:44        | Initial cal 100             |
| EM6169-IC6169  | M145290.D   | 04/17/18      | 12:08         | 01:13        | Initial cal 80              |
| EM6169-ICC6169 | M145291.D   | 04/17/18      | 12:37         | 01:42        | Initial cal 50              |
| EM6169-IC6169  | M145292.D   | 04/17/18      | 13:07         | 02:12        | Initial cal 25              |
| EM6169-IC6169  | M145293.D   | 04/17/18      | 13:36         | 02:41        | Initial cal 10              |
| EM6169-IC6169  | M145294.D   | 04/17/18      | 14:06         | 03:11        | Initial cal 5               |
| EM6169-IC6169  | M145295.D   | 04/17/18      | 14:35         | 03:40        | Initial cal 2               |
| EM6169-IC6169  | M145296.D   | 04/17/18      | 15:04         | 04:09        | Initial cal 1               |
| EM6169-ICV6169 | M145297.D   | 04/17/18      | 15:34         | 04:39        | Initial cal verification 50 |
| EM6169-ICV6169 | M145298.D   | 04/17/18      | 16:03         | 05:08        | Initial cal verification 50 |
| EM6169-ICV6169 | M145299.D   | 04/17/18      | 16:32         | 05:37        | Initial cal verification 50 |
| EM6169-ICV6169 | M145300.D   | 04/17/18      | 17:02         | 06:07        | Initial cal verification 50 |
| EM6169-ICV6169 | M145301.D   | 04/17/18      | 17:31         | 06:36        | Initial cal verification 50 |

8.4.6  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6170-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145302.D | <b>Injection Time:</b> 20:36    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 57893         | 30.8                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 73598         | 39.2                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 465           | 0.25 (0.63) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 97176         | 51.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 187690        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 13198         | 7.03                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 44914         | 23.9                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6194          | 3.30                     | Pass      |
| 441 | Present, but less than mass 443    | 24056         | 12.8 (73.3) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 165570        | 88.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 32797         | 17.5 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6170-ICV6168 | M145303.D   | 04/17/18      | 20:55         | 00:19        | Initial cal verification 50 |

8.4.7  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6203-DFTPP   | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> M145987.D | <b>Injection Time:</b> 02:13    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 46249         | 42.4                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 598           | 0.55 (1.11) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 54008         | 49.5                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 166           | 0.15 (0.31) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 62112         | 56.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 109149        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 7520          | 6.89                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 26667         | 24.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4304          | 3.94                     | Pass      |
| 441 | Present, but less than mass 443    | 12208         | 11.2 (75.6) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 89432         | 81.9                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 16147         | 14.8 (18.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| EM6203-CC6168 | M145988.D   | 05/09/18      | 02:25         | 00:12        | Continuing cal 50      |
| EM6203-CC6169 | M145989.D   | 05/09/18      | 02:55         | 00:42        | Continuing cal 50      |
| OP11642-MB1   | M145994.D   | 05/09/18      | 05:24         | 03:11        | Method Blank           |
| OP11642-BS1   | M145995.D   | 05/09/18      | 05:53         | 03:40        | Blank Spike            |
| OP11642-MS    | M145996.D   | 05/09/18      | 06:23         | 04:10        | Matrix Spike           |
| OP11642-MSD   | M145997.D   | 05/09/18      | 06:52         | 04:39        | Matrix Spike Duplicate |
| JC64996-6     | M145998.D   | 05/09/18      | 07:22         | 05:09        | SB-102 (17-21)         |
| JC64996-1     | M145999.D   | 05/09/18      | 07:51         | 05:38        | TP-101 (7-8)           |
| JC64996-2     | M146000.D   | 05/09/18      | 08:21         | 06:08        | SB-102 (19-21)         |
| JC64996-3     | M146003.D   | 05/09/18      | 09:49         | 07:36        | SB-107 (15-17)         |
| JC64996-4     | M146004.D   | 05/09/18      | 10:19         | 08:06        | SB-106 (17-20)         |
| ZZZZZZ        | M146009.D   | 05/09/18      | 12:48         | 10:35        | (unrelated sample)     |
| JC64996-9     | M146010.D   | 05/09/18      | 13:17         | 11:04        | SB-102 (0-17)          |
| ZZZZZZ        | M146013.D   | 05/09/18      | 13:47         | 11:34        | (unrelated sample)     |

8.4.8  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6204-DFTPP   | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> M146015.D | <b>Injection Time:</b> 16:03    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 54138         | 41.5                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 423           | 0.32 (0.67) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 63452         | 48.7                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 211           | 0.16 (0.33) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 72698         | 55.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 130349        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 9141          | 7.01                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 33094         | 25.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 5502          | 4.22                     | Pass      |
| 441 | Present, but less than mass 443    | 16088         | 12.3 (75.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 107029        | 82.1                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 21191         | 16.3 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EM6204-CC6168 | M146016.D   | 05/09/18      | 16:16         | 00:13        | Continuing cal 25                           |
| EM6204-CC6169 | M146017.D   | 05/09/18      | 16:46         | 00:43        | Continuing cal 25                           |
| ZZZZZZ        | M146019.D   | 05/09/18      | 17:46         | 01:43        | (unrelated sample)                          |
| ZZZZZZ        | M146020.D   | 05/09/18      | 18:16         | 02:13        | (unrelated sample)                          |
| ZZZZZZ        | M146021.D   | 05/09/18      | 18:47         | 02:44        | (unrelated sample)                          |
| ZZZZZZ        | M146022.D   | 05/09/18      | 19:17         | 03:14        | (unrelated sample)                          |
| ZZZZZZ        | M146023.D   | 05/09/18      | 19:47         | 03:44        | (unrelated sample)                          |
| ZZZZZZ        | M146024.D   | 05/09/18      | 20:17         | 04:14        | (unrelated sample)                          |
| JC64996-9     | M146026.D   | 05/09/18      | 21:17         | 05:14        | SB-102 (0-17)                               |
| JC64996-4     | M146028.D   | 05/09/18      | 22:17         | 06:14        | SB-106 (17-20)                              |
| ZZZZZZ        | M146029.D   | 05/09/18      | 22:47         | 06:44        | (unrelated sample)                          |
| ZZZZZZ        | M146030.D   | 05/09/18      | 23:17         | 07:14        | (unrelated sample)                          |
| ZZZZZZ        | M146031.D   | 05/09/18      | 23:46         | 07:43        | (unrelated sample)                          |
| ZZZZZZ        | M146037.D   | 05/10/18      | 00:17         | 08:14        | (unrelated sample)                          |
| ZZZZZZ        | M146038.D   | 05/10/18      | 00:47         | 08:44        | (unrelated sample)                          |
| JC64974-1     | M146032.D   | 05/10/18      | 01:17         | 09:14        | (used for QC only; not part of job JC64996) |
| ZZZZZZ        | M146033.D   | 05/10/18      | 01:47         | 09:44        | (unrelated sample)                          |
| ZZZZZZ        | M146034.D   | 05/10/18      | 02:17         | 10:14        | (unrelated sample)                          |

8.4.9  
8

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3514-CC3484 | <b>Injection Date:</b> 05/21/18 |
| <b>Lab File ID:</b> 2P79749.D    | <b>Injection Time:</b> 19:09    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1    |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 705470  | 4.43 | 2339116 | 5.49 | 1422836 | 6.92 | 2480384 | 8.17 | 2914310 | 11.31 | 2627555 | 13.28 |
| Upper Limit <sup>a</sup> | 1410940 | 4.93 | 4678232 | 5.99 | 2845672 | 7.42 | 4960768 | 8.67 | 5828620 | 11.81 | 5255110 | 13.78 |
| Lower Limit <sup>b</sup> | 352735  | 3.93 | 1169558 | 4.99 | 711418  | 6.42 | 1240192 | 7.67 | 1457155 | 10.81 | 1313778 | 12.78 |

| Lab Sample ID           | IS 1    |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|-------------------------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                         | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| E2P3514-MB1             | 863772  | 4.43 | 3107508 | 5.49 | 1593126 | 6.91 | 2883664 | 8.17 | 2708099 | 11.30 | 2752498 | 13.27 |
| E2P3514-BS1             | 696109  | 4.43 | 2254516 | 5.49 | 1134611 | 6.92 | 2044979 | 8.17 | 2212647 | 11.31 | 2264290 | 13.27 |
| E2P3514-BS              | 672773  | 4.43 | 2140528 | 5.49 | 1071012 | 6.92 | 1950887 | 8.17 | 2112566 | 11.31 | 2311386 | 13.27 |
| E2P3514-BS              | 768837  | 4.43 | 2400962 | 5.49 | 1228486 | 6.92 | 2234907 | 8.17 | 2385399 | 11.31 | 2411216 | 13.27 |
| E2P3514-BS              | 714715  | 4.43 | 2238767 | 5.49 | 1132194 | 6.92 | 2011432 | 8.17 | 2198809 | 11.31 | 2258245 | 13.27 |
| OP12122-MB1             | 976447  | 4.43 | 3581201 | 5.49 | 1712388 | 6.91 | 2977445 | 8.17 | 2755201 | 11.29 | 2481895 | 13.27 |
| OP12122-BS1             | 727746  | 4.43 | 2341508 | 5.49 | 1218938 | 6.92 | 2165784 | 8.17 | 2350109 | 11.31 | 2424252 | 13.27 |
| JC64996-10 <sup>c</sup> | 1078995 | 4.43 | 3881958 | 5.49 | 1782761 | 6.91 | 3072153 | 8.16 | 2802239 | 11.30 | 2521791 | 13.27 |
| ZZZZZZ                  | 953835  | 4.43 | 3352253 | 5.49 | 1531670 | 6.91 | 3008910 | 8.16 | 2591391 | 11.29 | 2607191 | 13.27 |
| ZZZZZZ                  | 984266  | 4.43 | 3427038 | 5.49 | 1547558 | 6.91 | 2884793 | 8.16 | 2407625 | 11.30 | 2210780 | 13.27 |
| ZZZZZZ                  | 904608  | 4.43 | 2929070 | 5.49 | 1218860 | 6.91 | 2370254 | 8.17 | 2191131 | 11.30 | 2018730 | 13.27 |
| ZZZZZZ                  | 940245  | 4.43 | 3266073 | 5.49 | 1410428 | 6.91 | 2712306 | 8.17 | 2256384 | 11.30 | 2057889 | 13.27 |
| ZZZZZZ                  | 903644  | 4.43 | 3177062 | 5.49 | 1351419 | 6.91 | 2520498 | 8.17 | 2162081 | 11.30 | 1956442 | 13.27 |
| ZZZZZZ                  | 939813  | 4.43 | 3143773 | 5.49 | 1416002 | 6.92 | 2729226 | 8.17 | 2319824 | 11.30 | 2065546 | 13.27 |
| ZZZZZZ                  | 857192  | 4.43 | 2984346 | 5.49 | 1256162 | 6.92 | 2375977 | 8.17 | 2071662 | 11.30 | 1836681 | 13.27 |
| ZZZZZZ                  | 878685  | 4.43 | 3020699 | 5.49 | 1276610 | 6.92 | 2404482 | 8.17 | 2126025 | 11.31 | 1906503 | 13.27 |
| ZZZZZZ                  | 903993  | 4.43 | 3189886 | 5.49 | 1386815 | 6.92 | 2561357 | 8.17 | 2119629 | 11.31 | 1869195 | 13.28 |
| ZZZZZZ                  | 893210  | 4.43 | 3196273 | 5.49 | 1404645 | 6.92 | 2532687 | 8.17 | 2030747 | 11.31 | 1792008 | 13.28 |
| OP12122-MS              | 611348  | 4.43 | 1930914 | 5.49 | 997817  | 6.92 | 1970205 | 8.17 | 1896320 | 11.31 | 1731453 | 13.28 |
| OP12122-MSD             | 615241  | 4.43 | 1924983 | 5.49 | 962658  | 6.92 | 1913791 | 8.17 | 1881047 | 11.32 | 1631468 | 13.28 |
| JC66239-1               | 817390  | 4.43 | 2481156 | 5.49 | 1338693 | 6.92 | 2347053 | 8.17 | 2003940 | 11.31 | 1778673 | 13.28 |
| JC64996-7 <sup>c</sup>  | 825110  | 4.43 | 2310965 | 5.49 | 1033464 | 6.92 | 1765458 | 8.18 | 1696593 | 11.33 | 1628730 | 13.31 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample extracted outside the holding time per client's request.

8.5.1  
8



# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3515-CC3484 | <b>Injection Date:</b> 05/22/18 |
| <b>Lab File ID:</b> 2P79776.D    | <b>Injection Time:</b> 09:16    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1    |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 632062  | 4.43 | 2138043 | 5.49 | 1251954 | 6.91 | 2152484 | 8.16 | 2194995 | 11.30 | 2190784 | 13.27 |
| Upper Limit <sup>a</sup> | 1264124 | 4.93 | 4276086 | 5.99 | 2503908 | 7.41 | 4304968 | 8.66 | 4389990 | 11.80 | 4381568 | 13.77 |
| Lower Limit <sup>b</sup> | 316031  | 3.93 | 1069022 | 4.99 | 625977  | 6.41 | 1076242 | 7.66 | 1097498 | 10.80 | 1095392 | 12.77 |

| Lab Sample ID          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                        | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP11999-MB1            | 770467 | 4.43 | 2849958 | 5.49 | 1412910 | 6.91 | 2598883 | 8.16 | 2403800 | 11.30 | 2412225 | 13.27 |
| ZZZZZZ                 | 748520 | 4.43 | 2759895 | 5.49 | 1391501 | 6.91 | 2604653 | 8.17 | 2246121 | 11.30 | 2093581 | 13.27 |
| ZZZZZZ                 | 830400 | 4.43 | 2985285 | 5.49 | 1459005 | 6.91 | 2764347 | 8.17 | 2858749 | 11.30 | 2336721 | 13.27 |
| ZZZZZZ                 | 743019 | 4.43 | 2715911 | 5.49 | 1309425 | 6.91 | 2472404 | 8.17 | 2489788 | 11.30 | 2094927 | 13.27 |
| ZZZZZZ                 | 852132 | 4.43 | 3045194 | 5.49 | 1434911 | 6.91 | 2566520 | 8.17 | 2454320 | 11.30 | 2192603 | 13.27 |
| ZZZZZZ                 | 714912 | 4.43 | 2565393 | 5.49 | 1346637 | 6.92 | 2669424 | 8.17 | 2111085 | 11.31 | 1924313 | 13.28 |
| ZZZZZZ                 | 824655 | 4.43 | 3048038 | 5.49 | 1492898 | 6.92 | 2646675 | 8.17 | 2502409 | 11.30 | 2082769 | 13.27 |
| ZZZZZZ                 | 817919 | 4.43 | 3033885 | 5.49 | 1476563 | 6.91 | 2718398 | 8.17 | 2644475 | 11.30 | 2253330 | 13.27 |
| JC64996-7 <sup>c</sup> | 772981 | 4.43 | 2578654 | 5.49 | 1125542 | 6.92 | 1917680 | 8.17 | 1799353 | 11.31 | 1847271 | 13.27 |
| ZZZZZZ                 | 698189 | 4.43 | 2543308 | 5.49 | 1142706 | 6.91 | 2259868 | 8.17 | 1732802 | 11.30 | 1575949 | 13.28 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample extracted outside the holding time per client's request.

8.5.2  
8

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6203-CC6168 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> M145988.D   | <b>Injection Time:</b> 02:25    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA   | RT    | AREA   | RT    |
| Check Std                | 113684 | 4.49 | 430887 | 5.57 | 264940 | 7.83 | 530008  | 10.41 | 485970 | 15.55 | 485484 | 18.16 |
| Upper Limit <sup>a</sup> | 227368 | 4.99 | 861774 | 6.07 | 529880 | 8.33 | 1060016 | 10.91 | 971940 | 16.05 | 970968 | 18.66 |
| Lower Limit <sup>b</sup> | 56842  | 3.99 | 215444 | 5.07 | 132470 | 7.33 | 265004  | 9.91  | 242985 | 15.05 | 242742 | 17.66 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| OP11642-MB1   | 156480 | 4.49 | 580071 | 5.57 | 299133 | 7.83 | 571856 | 10.40 | 510537 | 15.54 | 497646 | 18.15 |
| OP11642-BS1   | 134987 | 4.49 | 494267 | 5.57 | 261409 | 7.83 | 510920 | 10.41 | 447814 | 15.55 | 442101 | 18.15 |
| OP11642-MS    | 140149 | 4.49 | 495038 | 5.57 | 262765 | 7.83 | 518062 | 10.41 | 450063 | 15.54 | 433144 | 18.15 |
| OP11642-MSD   | 145377 | 4.49 | 507511 | 5.57 | 272611 | 7.83 | 536245 | 10.41 | 462906 | 15.54 | 444440 | 18.15 |
| JC64996-6     | 158282 | 4.49 | 580617 | 5.57 | 296985 | 7.83 | 559106 | 10.40 | 486531 | 15.54 | 467777 | 18.15 |
| JC64996-1     | 160233 | 4.49 | 585982 | 5.57 | 295791 | 7.83 | 560305 | 10.41 | 486894 | 15.54 | 466196 | 18.14 |
| JC64996-2     | 152124 | 4.49 | 556865 | 5.57 | 282498 | 7.82 | 549086 | 10.40 | 483731 | 15.54 | 488573 | 18.15 |
| JC64996-3     | 128673 | 4.49 | 375059 | 5.57 | 198841 | 7.84 | 366536 | 10.42 | 297913 | 15.55 | 298363 | 18.15 |
| JC64996-4     | 156936 | 4.49 | 529312 | 5.57 | 238113 | 7.83 | 438309 | 10.40 | 339808 | 15.55 | 357402 | 18.15 |
| ZZZZZZ        | 155001 | 4.49 | 566559 | 5.57 | 298805 | 7.83 | 556535 | 10.41 | 443647 | 15.55 | 413296 | 18.16 |
| JC64996-9     | 149961 | 4.49 | 537964 | 5.57 | 260693 | 7.83 | 475302 | 10.41 | 372896 | 15.56 | 383005 | 18.17 |
| ZZZZZZ        | 140782 | 4.49 | 513905 | 5.57 | 261056 | 7.83 | 458590 | 10.41 | 364009 | 15.60 | 312276 | 18.22 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.3  
8

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6204-CC6168 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> M146016.D   | <b>Injection Time:</b> 16:16    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA   | RT    | AREA   | RT    |
| Check Std                | 121415 | 4.49 | 450096 | 5.57 | 271133 | 7.83 | 517820  | 10.41 | 482965 | 15.55 | 439979 | 18.17 |
| Upper Limit <sup>a</sup> | 242830 | 4.99 | 900192 | 6.07 | 542266 | 8.33 | 1035640 | 10.91 | 965930 | 16.05 | 879958 | 18.67 |
| Lower Limit <sup>b</sup> | 60708  | 3.99 | 225048 | 5.07 | 135567 | 7.33 | 258910  | 9.91  | 241483 | 15.05 | 219990 | 17.67 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| ZZZZZZ        | 133874 | 4.49 | 492904 | 5.57 | 258849 | 7.83 | 500281 | 10.41 | 448949 | 15.55 | 424542 | 18.16 |
| ZZZZZZ        | 138366 | 4.49 | 517225 | 5.57 | 268229 | 7.83 | 515820 | 10.41 | 457404 | 15.55 | 437791 | 18.17 |
| ZZZZZZ        | 143209 | 4.49 | 493454 | 5.58 | 264254 | 7.83 | 541129 | 10.41 | 542518 | 15.55 | 543092 | 18.16 |
| ZZZZZZ        | 136152 | 4.49 | 477948 | 5.57 | 262086 | 7.83 | 507983 | 10.41 | 490751 | 15.55 | 501104 | 18.16 |
| ZZZZZZ        | 129368 | 4.49 | 427435 | 5.58 | 254451 | 7.83 | 512323 | 10.41 | 506687 | 15.55 | 511214 | 18.16 |
| ZZZZZZ        | 125497 | 4.49 | 420867 | 5.57 | 255257 | 7.83 | 508372 | 10.41 | 491971 | 15.55 | 497486 | 18.17 |
| JC64996-9     | 153112 | 4.49 | 572079 | 5.57 | 296675 | 7.83 | 568052 | 10.41 | 498786 | 15.55 | 490745 | 18.17 |
| JC64996-4     | 151130 | 4.49 | 555054 | 5.57 | 266588 | 7.83 | 513699 | 10.40 | 479578 | 15.55 | 502614 | 18.17 |
| ZZZZZZ        | 133615 | 4.49 | 497615 | 5.57 | 257645 | 7.83 | 491143 | 10.40 | 440002 | 15.55 | 427754 | 18.16 |
| ZZZZZZ        | 140739 | 4.49 | 528492 | 5.57 | 269261 | 7.83 | 521374 | 10.41 | 470708 | 15.54 | 462433 | 18.16 |
| ZZZZZZ        | 145776 | 4.49 | 543742 | 5.57 | 285656 | 7.83 | 550390 | 10.40 | 472295 | 15.54 | 457747 | 18.16 |
| ZZZZZZ        | 130068 | 4.49 | 471883 | 5.57 | 265181 | 7.83 | 494142 | 10.40 | 354536 | 15.55 | 346791 | 18.16 |
| ZZZZZZ        | 171599 | 4.49 | 639660 | 5.57 | 339662 | 7.83 | 663995 | 10.40 | 625023 | 15.55 | 604968 | 18.16 |
| JC64974-1     | 161450 | 4.49 | 594062 | 5.57 | 303115 | 7.83 | 555894 | 10.40 | 427853 | 15.55 | 398540 | 18.17 |
| ZZZZZZ        | 107088 | 4.49 | 377398 | 5.58 | 229478 | 7.83 | 467684 | 10.41 | 328504 | 15.57 | 303450 | 18.18 |
| ZZZZZZ        | 143412 | 4.49 | 516382 | 5.57 | 264544 | 7.83 | 488154 | 10.41 | 334543 | 15.57 | 311950 | 18.20 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.4  
8

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8270D | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3  | S4 | S5  | S6  |
|---------------|-------------|----|----|-----|----|-----|-----|
| JC64996-1     | M145999.D   | 62 | 64 | 83  | 71 | 71  | 75  |
| JC64996-2     | M146000.D   | 59 | 62 | 75  | 68 | 68  | 72  |
| JC64996-3     | M146003.D   | 71 | 71 | 91  | 91 | 76  | 84  |
| JC64996-4     | M146028.D   | 47 | 52 | 63  | 54 | 56  | 60  |
| JC64996-4     | M146004.D   | 49 | 50 | 66  | 60 | 58  | 66  |
| JC64996-6     | M145998.D   | 56 | 59 | 72  | 64 | 64  | 70  |
| JC64996-7     | 2P79773.D   | 59 | 60 | 116 | 91 | 88  | 80  |
| JC64996-7     | 2P79789.D   | 50 | 51 | 81  | 74 | 68  | 70  |
| JC64996-9     | M146026.D   | 53 | 59 | 69  | 64 | 66  | 67  |
| JC64996-9     | M146010.D   | 57 | 61 | 73  | 68 | 70  | 75  |
| JC64996-10    | 2P79759.D   | 68 | 69 | 111 | 84 | 97  | 101 |
| OP11642-BS1   | M145995.D   | 79 | 76 | 87  | 79 | 76  | 88  |
| OP11642-MB1   | M145994.D   | 68 | 72 | 78  | 80 | 76  | 79  |
| OP11642-MS    | M145996.D   | 73 | 69 | 82  | 73 | 71  | 84  |
| OP11642-MSD   | M145997.D   | 56 | 54 | 62  | 59 | 56  | 64  |
| OP12122-BS1   | 2P79758.D   | 89 | 86 | 115 | 87 | 87  | 94  |
| OP12122-MB1   | 2P79757.D   | 75 | 80 | 126 | 96 | 111 | 114 |
| OP12122-MS    | 2P79770.D   | 73 | 76 | 112 | 79 | 81  | 96  |
| OP12122-MSD   | 2P79771.D   | 82 | 84 | 109 | 88 | 90  | 99  |

**Surrogate Compounds**

**Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = 2-Fluorophenol       | 23-115% |
| S2 = Phenol-d5            | 27-114% |
| S3 = 2,4,6-Tribromophenol | 19-152% |
| S4 = Nitrobenzene-d5      | 26-134% |
| S5 = 2-Fluorobiphenyl     | 39-124% |
| S6 = Terphenyl-d14        | 36-134% |

8.6.1  
8

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICC3481  
**Lab FileID:** 2P79039.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D  
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

| Compound   | 2     | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg    | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d                           |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde                                      | 1.115 | 1.081 | 1.036 | 1.024 | 1.044 | 1.038 | 1.056 | 1.066 | 1.057  | 2.79  |
| 103) I Naphthalene-d8a                                 |       |       |       |       |       |       |       |       |        |       |
| 104) Hydroquinone                                      | 0.289 | 0.310 | 0.347 | 0.329 | 0.312 | 0.345 | 0.229 | 0.334 | 0.312  | 12.37 |
| 105) I Acenaphthene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 106) Atrazine  | 0.172 | 0.177 | 0.176 | 0.169 | 0.156 | 0.178 | 0.173 | 0.173 | 0.172  | 4.10  |
| 107) 1,2,4,5-Tetr                                      | 0.659 | 0.629 | 0.576 | 0.507 | 0.483 | 0.539 | 0.633 | 0.595 | 0.577  | 10.94 |
| 108) I Chrysene-d12a                                   |       |       |       |       |       |       |       |       |        |       |
| 109) Benzidine   | 0.331 | 0.474 | 0.558 | 0.508 | 0.488 | 0.551 | 0.227 | 0.601 | 0.467  | 27.02 |
| ----- Quadratic regression -----                       |       |       |       |       |       |       |       |       |        |       |
| Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 110) I Phenanthrene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 111) 1-Chloroocta                                      | 0.291 | 0.300 | 0.294 | 0.277 | 0.271 | 0.295 | 0.273 | 0.309 | 0.289  | 4.71  |
| 112) o-terphenyl                                       | 0.546 | 0.547 | 0.535 | 0.511 | 0.499 | 0.537 | 0.553 | 0.561 | 0.536  | 3.94  |
| 113) Pentachloron                                      | 0.040 | 0.044 | 0.047 | 0.047 | 0.045 | 0.047 | 0.040 | 0.046 | 0.044# | 6.91  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79046.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11  
Acq On : 1 May 2018 11:49 pm Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                  | AvgRF   | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|---------------------------|---------|--------|---------|-------|----------|-------|
| 105 I | Acenaphthene-d10a         | 1.000   | 1.000  | 0.0     | 100   | 0.00     | 7.11  |
| 107   | 1,2,4,5-Tetrachlorobenzen | 0.577   | 0.708  | -22.7   | 132   | 0.00     | 6.39  |
| 108 I | Chrysene-d12a             | 1.000   | 1.000  | 0.0     | 84    | 0.00     | 11.59 |
|       |                           | True    | Calc.  | % Drift |       |          |       |
| 109   | Benzidine                 | 100.000 | 82.100 | 17.9    | 128   | 0.00     | 9.91  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:41 2018 RPT1

8.7.2  
8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79047.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12  
Acq On : 2 May 2018 12:11 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-------|-------------------------|-------|-------|-------|-------|----------|------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0   | 118   | 0.00     | 4.62 |
| 102   | Benzaldehyde            | 1.057 | 0.996 | 5.8   | 113   | 0.00     | 4.28 |
| 105 I | Acenaphthene-d10a       | 1.000 | 1.000 | 0.0   | 105   | 0.00     | 7.11 |
| 106   | Atrazine                | 0.172 | 0.218 | -26.7 | 129   | 0.00     | 8.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

8.7.3  
8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79048.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13  
Acq On : 2 May 2018 12:32 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 110 I Phenanthrene-d10a     | 1.000 | 1.000  | 0.0  | 116   | 0.00     | 8.38 |
| 113 Pentachloronitrobenzene | 0.044 | 0.048# | -9.1 | 118   | 0.00     | 8.22 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:45 2018 RPT1

8.7.4

8



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79049.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14  
Acq On : 2 May 2018 12:54 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|-------|-------|----------|------|
| 103 I Naphthalene-d8a | 1.000 | 1.000 | 0.0   | 134   | 0.00     | 5.67 |
| 104 Hydroquinone      | 0.312 | 0.353 | -13.1 | 138   | -0.02    | 6.13 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

8.7.5

8

# Initial Calibration Summary

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3484-ICC3484  
Lab FileID: 2P79083.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D  
100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

| Compound                   | 2   | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg   | %RSD                 |
|----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 1) I 1,4-Dichlorobenzene-d | -----ISTD-----  |       |       |       |       |       |       |       |       |                      |
| 2) 1,4-Dioxane             | 0.559   | 0.542 | 0.656 | 0.782 | 0.943 | 0.662 | 0.339 | 0.613 | 0.637 | 27.84                |
|                            | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       | Coefficient = 0.9974 |
|                            | Response Ratio = 0.02544 + 0.37596 *A + 0.21544 *A^2  |       |       |       |       |       |       |       |       |                      |
| 3) Pyridine                | 1.381   | 1.345 | 1.578 | 1.740 | 2.026 | 1.670 | 1.495 | 1.302 | 1.567 | 15.45                |
| 4) N-Nitrosodim            | 0.694   | 0.699 | 0.952 | 1.106 | 1.158 | 0.961 | 0.614 | 0.855 | 0.880 | 22.69                |
|                            | ----- Linear regression -----                         |       |       |       |       |       |       |       |       | Coefficient = 0.9948 |
|                            | Response Ratio = -0.07189 + 1.14713 *A                |       |       |       |       |       |       |       |       |                      |
| 5) 2-Fluorophen            | 1.291   | 1.363 | 1.649 | 1.887 |       | 1.773 |       | 1.510 | 1.579 | 14.77                |
| 6) Indene                  | 2.056   | 2.057 | 2.089 | 2.046 | 1.969 | 2.057 | 2.057 | 2.157 | 2.061 | 2.51                 |
| 7) Cumene                  | 3.433   | 3.540 | 3.999 | 4.094 | 4.067 | 4.020 | 3.617 | 3.825 | 3.824 | 6.83                 |
| 8) Phenol-d5               | 1.540   | 1.599 | 1.737 | 1.701 | 1.660 | 1.689 | 1.476 | 1.687 | 1.636 | 5.48                 |
| 9) Phenol                  | 1.575   | 1.674 | 1.745 | 1.651 | 1.644 | 1.675 | 1.687 | 1.733 | 1.673 | 3.18                 |
| 10) Aniline                | 1.838   | 1.955 | 2.321 | 2.428 | 2.318 | 2.373 | 1.877 | 2.137 | 2.156 | 11.01                |
| 11) bis(2-Chloro           | 1.283   | 1.342 | 1.370 | 1.315 | 1.360 | 1.300 | 1.202 | 1.356 | 1.316 | 4.21                 |
| 12) 2-Chlorophen           | 1.461   | 1.485 | 1.411 | 1.310 | 1.267 | 1.326 | 1.469 | 1.476 | 1.401 | 6.20                 |
| 13) Decane                 | 1.357   | 1.268 | 1.236 | 1.131 | 1.101 | 1.135 | 1.324 | 1.289 | 1.230 | 7.85                 |
| 14) 1,3-Dichloro           | 1.674   | 1.649 | 1.593 | 1.555 | 1.508 | 1.532 | 1.699 | 1.658 | 1.609 | 4.45                 |
| 15) 1,4-Dichloro           | 1.493   | 1.474 | 1.466 | 1.471 | 1.447 | 1.445 | 1.526 | 1.505 | 1.478 | 1.90                 |
| 16) Benzyl alcoh           | 0.478   | 0.607 | 0.700 | 0.707 | 0.691 | 0.708 |       | 0.677 | 0.652 | 12.98                |
| 17) 1,2-Dichloro           | 1.380   | 1.450 | 1.495 | 1.546 | 1.504 | 1.492 | 1.464 | 1.521 | 1.481 | 3.43                 |
| 18) Acetophenone           | 1.730   | 1.705 | 1.714 | 1.686 | 1.635 | 1.666 | 1.698 | 1.811 | 1.706 | 3.04                 |
| 19) 2-Methylphen           | 1.112   | 1.079 | 1.163 | 1.158 | 1.102 | 1.137 | 1.042 | 1.229 | 1.128 | 5.11                 |
| 20) 2,2'-oxybis(           | 0.265   | 0.324 | 0.317 | 0.295 | 0.289 | 0.299 | 0.340 | 0.343 | 0.309 | 8.67                 |
| 21) 3&4-Methylph           | 1.108   | 1.144 | 1.149 | 1.103 | 1.097 | 1.128 | 1.018 | 1.227 | 1.122 | 5.25                 |
| 22) n-Nitroso-di           | 0.796   | 0.806 | 0.805 | 0.766 | 0.737 | 0.774 | 0.779 | 0.852 | 0.790 | 4.32                 |
| 23) Hexachloroet           | 0.464   | 0.450 | 0.457 | 0.467 | 0.452 | 0.453 | 0.486 | 0.480 | 0.464 | 2.90                 |
| 24) I Naphthalene-d8       | -----ISTD-----  |       |       |       |       |       |       |       |       |                      |
| 25) Nitrobenzene           | 0.353   | 0.371 | 0.372 | 0.366 | 0.366 | 0.374 | 0.360 | 0.387 | 0.369 | 2.78                 |
| 26) Nitrobenzene           | 0.361   | 0.369 | 0.352 | 0.339 | 0.335 | 0.351 | 0.386 | 0.376 | 0.359 | 4.95                 |
| 27) Quinoline              | 0.659   | 0.700 | 0.721 | 0.764 | 0.767 | 0.756 | 0.665 | 0.747 | 0.722 | 6.03                 |
| 28) Isophorone             | 0.560   | 0.598 | 0.632 | 0.654 | 0.663 | 0.665 | 0.547 | 0.633 | 0.619 | 7.44                 |
| 29) 2-Nitropheno           |   | 0.189 | 0.206 | 0.203 | 0.202 | 0.207 |       | 0.206 | 0.202 | 3.32                 |
| 30) 2,4-Dimethyl           | 0.342   | 0.358 | 0.361 | 0.358 | 0.352 | 0.365 | 0.320 | 0.376 | 0.354 | 4.81                 |
| 31) Benzoic acid           | 0.074   | 0.093 | 0.168 | 0.207 | 0.217 | 0.207 |       | 0.133 | 0.157 | 36.86                |
|                            | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       | Coefficient = 0.9990 |
|                            | Response Ratio = -0.01219 + 0.19449 *A + 0.01053 *A^2 |       |       |       |       |       |       |       |       |                      |
| 32) bis(2-Chloro           | 0.362   | 0.363 | 0.347 | 0.342 | 0.339 | 0.354 | 0.364 | 0.369 | 0.355 | 3.21                 |
| 33) 2,4-Dichloro           | 0.287   | 0.300 | 0.317 | 0.329 | 0.330 | 0.329 | 0.264 | 0.315 | 0.309 | 7.67                 |
| 34) 2,6-Dichloro           | 0.250   | 0.266 | 0.290 | 0.304 | 0.306 | 0.301 | 0.236 | 0.287 | 0.280 | 9.35                 |
| 35) 1,3,5-Trichl           | 0.364   | 0.362 | 0.362 | 0.364 | 0.357 | 0.367 | 0.373 | 0.373 | 0.365 | 1.48                 |
| 36) 1,2,4-Trichl           | 0.336   | 0.338 | 0.319 | 0.317 | 0.317 | 0.323 | 0.362 | 0.345 | 0.332 | 4.86                 |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

|     |                                  |  |       |       |       |       |       |       |       |       |       |
|-----|----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 37) | 1,2,3-Trichl                     | 0.301                                  | 0.291 | 0.287 | 0.278 | 0.276 | 0.287 | 0.300 | 0.307 | 0.291 | 3.77  |
| 38) | Naphthalene                      | 0.974                                  | 0.951 | 0.955 | 0.954 | 0.935 | 0.968 | 1.002 | 1.001 | 0.968 | 2.47  |
| 39) | 4-Chloroanil                     | 0.403                                  | 0.419 | 0.435 | 0.432 | 0.421 | 0.444 | 0.425 | 0.459 | 0.430 | 3.93  |
| 40) | 2,3-Dichloro                     | 0.364                                  | 0.374 | 0.370 | 0.376 | 0.375 | 0.377 | 0.359 | 0.386 | 0.373 | 2.21  |
| 41) | Caprolactam                      | 0.075                                  | 0.092 | 0.112 | 0.123 | 0.122 | 0.118 |       | 0.110 | 0.107 | 16.51 |
| 42) | Hexachlorobu                     | 0.158                                  | 0.162 | 0.157 | 0.156 | 0.153 | 0.160 | 0.158 | 0.166 | 0.159 | 2.53  |
| 43) | 4-Chloro-3-m                     | 0.278                                  | 0.296 | 0.327 | 0.340 | 0.338 | 0.340 | 0.264 | 0.326 | 0.314 | 9.59  |
| 44) | 2-Methylnaph                     | 0.608                                  | 0.608 | 0.616 | 0.598 | 0.589 | 0.619 | 0.600 | 0.645 | 0.611 | 2.78  |
| 45) | 1-Methylnaph                     | 0.650                                  | 0.640 | 0.641 | 0.619 | 0.616 | 0.640 | 0.662 | 0.675 | 0.643 | 3.09  |
| 46) | Dimethylnaph                     | 0.621                                  | 0.596 | 0.587 | 0.608 | 0.612 | 0.609 | 0.623 | 0.630 | 0.611 | 2.30  |
| 47) | I Acenaphthene-d10               | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy                     | 0.243                                  | 0.273 | 0.331 | 0.331 | 0.324 | 0.336 |       | 0.317 | 0.308 | 11.53 |
| 49) | 2,4,6-Trichl                     | 0.339                                  | 0.364 | 0.402 | 0.394 | 0.389 | 0.400 | 0.335 | 0.392 | 0.377 | 7.20  |
| 50) | 2,4,5-Trichl                     | 0.367                                  | 0.385 | 0.394 | 0.368 | 0.354 | 0.383 | 0.329 | 0.405 | 0.373 | 6.42  |
| 51) | 2-Fluorobiph                     | 1.485                                  | 1.450 | 1.358 | 1.212 | 1.151 | 1.262 | 1.601 | 1.458 | 1.372 | 11.20 |
| 52) | 2-Chloronaph                     | 1.258                                  | 1.200 | 1.079 | 0.954 | 0.931 | 1.005 | 1.254 | 1.216 | 1.112 | 12.27 |
| 53) | Biphenyl                         | 1.713                                  | 1.650 | 1.529 | 1.404 | 1.367 | 1.445 | 1.716 | 1.632 | 1.557 | 8.97  |
| 54) | 2-Nitroanili                     | 0.291                                  | 0.328 | 0.332 | 0.303 | 0.288 | 0.315 | 0.279 | 0.355 | 0.311 | 8.32  |
| 55) | Dimethylphth                     | 1.331                                  | 1.334 | 1.302 | 1.247 | 1.225 | 1.277 | 1.335 | 1.385 | 1.305 | 4.02  |
| 56) | Acenaphthyle                     | 1.957                                  | 2.009 | 1.905 | 1.711 | 1.664 | 1.810 | 1.899 | 2.030 | 1.873 | 7.15  |
| 57) | 2,6-Dinitrot                     | 0.242                                  | 0.272 | 0.302 | 0.289 | 0.291 | 0.297 | 0.211 | 0.304 | 0.276 | 12.03 |
| 58) | 3-Nitroanili                     | 0.267                                  | 0.297 | 0.333 | 0.320 | 0.307 | 0.335 | 0.238 | 0.334 | 0.304 | 11.62 |
| 59) | Acenaphthene                     | 1.129                                  | 1.138 | 1.156 | 1.131 | 1.110 | 1.165 | 1.199 | 1.189 | 1.152 | 2.68  |
| 60) | 2,4-Dinitrop                     | 0.042                                  | 0.069 | 0.134 | 0.162 | 0.161 | 0.152 | 0.030 | 0.101 | 0.106 | 50.75 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9993                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.01619 + 0.14975 *A + 0.00329 *A^2$ |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno                     | 0.161                                  | 0.196 | 0.186 | 0.183 | 0.188 |       | 0.189 | 0.184 |       | 6.42  |
| 62) | Dibenzofuran                     | 1.582                                  | 1.619 | 1.645 | 1.556 | 1.527 | 1.600 | 1.600 | 1.689 | 1.602 | 3.16  |
| 63) | 2,4-Dinitrot                     | 0.306                                  | 0.340 | 0.373 | 0.352 | 0.341 | 0.364 | 0.234 | 0.375 | 0.336 | 13.97 |
| 64) | 2,3,4,6-Tetr                     | 0.268                                  | 0.278 | 0.319 | 0.330 | 0.327 | 0.325 | 0.233 | 0.314 | 0.299 | 11.87 |
| 65) | Diethylphtha                     | 1.308                                  | 1.343 | 1.344 | 1.239 | 1.210 | 1.268 | 1.274 | 1.411 | 1.300 | 5.00  |
| 66) | Fluorene                         | 1.313                                  | 1.330 | 1.304 | 1.197 | 1.139 | 1.271 | 1.336 | 1.396 | 1.286 | 6.40  |
| 67) | 4-Chlorophen                     | 0.586                                  | 0.577 | 0.592 | 0.584 | 0.565 | 0.594 | 0.574 | 0.623 | 0.587 | 2.94  |
| 68) | 4-Nitroanili                     | 0.296                                  | 0.338 | 0.361 | 0.347 | 0.336 | 0.350 | 0.266 | 0.374 | 0.333 | 10.65 |
| 69) | I Phenanthrene-d10               | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-                     | 0.043                                  | 0.067 | 0.109 | 0.123 | 0.125 | 0.120 | 0.036 | 0.091 | 0.089 | 40.74 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9997                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.00500 + 0.11879 *A + 0.00328 *A^2$ |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip                     | 0.569                                  | 0.561 | 0.521 | 0.504 | 0.489 | 0.511 | 0.576 | 0.567 | 0.537 | 6.42  |
| 72) | 1,2-Diphenyl                     | 0.822                                  | 0.815 | 0.745 | 0.643 | 0.620 | 0.690 | 0.807 | 0.833 | 0.747 | 11.51 |
| 73) | 2,4,6-Tribr                      | 0.107                                  | 0.113 | 0.125 | 0.136 | 0.140 | 0.134 | 0.097 | 0.124 | 0.122 | 12.39 |
| 74) | 4-Bromopheny                     | 0.199                                  | 0.206 | 0.215 | 0.226 | 0.231 | 0.225 | 0.199 | 0.220 | 0.215 | 5.93  |
| 75) | Hexachlorobe                     | 0.259                                  | 0.266 | 0.267 | 0.271 | 0.271 | 0.270 | 0.281 | 0.278 | 0.270 | 2.59  |
| 76) | Pentachlorop                     | 0.055                                  | 0.081 | 0.112 | 0.134 | 0.136 | 0.130 | 0.048 | 0.099 | 0.099 | 35.16 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9995                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.00956 + 0.12388 *A + 0.00287 *A^2$ |       |       |       |       |       |       |       |       |       |
| 77) | Phenanthrene                     | 1.022                                  | 1.003 | 0.991 | 1.008 | 0.993 | 1.021 | 1.070 | 1.035 | 1.018 | 2.54  |
| 78) | Anthracene                       | 0.978                                  | 1.009 | 1.007 | 0.974 | 0.959 | 1.001 | 0.948 | 1.052 | 0.991 | 3.37  |
| 79) | Carbazole                        | 1.018                                  | 1.061 | 1.082 | 1.079 | 1.064 | 1.108 | 1.012 | 1.118 | 1.068 | 3.56  |
| 80) | Di-n-butylph                     | 1.135                                  | 1.299 | 1.465 | 1.460 | 1.444 | 1.497 | 1.034 | 1.453 | 1.348 | 13.01 |
| 81) | Fluoranthene                     | 1.201                                  | 1.266 | 1.407 | 1.411 | 1.397 | 1.435 | 1.174 | 1.381 | 1.334 | 7.78  |
| 82) | Octadecane                       | 0.317                                  | 0.333 | 0.332 | 0.311 | 0.299 | 0.328 | 0.296 | 0.349 | 0.320 | 5.70  |
| 83) | I Chrysene-d12                   | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene                           | 1.365                                  | 1.385 | 1.317 | 1.266 | 1.266 | 1.327 | 1.363 | 1.440 | 1.341 | 4.45  |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

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|  |                |       |       |       |       |       |       |       |       |               |        |
|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|--------|
| 85)  | Terphenyl-d1   | 0.853 | 0.846 | 0.844 | 0.889 | 0.878 | 0.873 | 0.874 | 0.901 | 0.870         | 2.36   |
| 86)  | Butylbenzylp   | 0.520 | 0.607 | 0.701 | 0.748 | 0.744 | 0.746 |       | 0.700 | 0.681         | 12.67  |
| 87)  | Benzo[a]anth   | 1.164 | 1.185 | 1.258 | 1.336 | 1.323 | 1.324 | 1.130 | 1.278 | 1.250         | 6.40   |
| 88)  | 3,3'-Dichlor   | 0.292 | 0.330 | 0.378 | 0.408 | 0.412 | 0.403 |       | 0.373 | 0.371         | 12.09  |
| 89)  | Chrysene       | 1.025 | 1.006 | 0.971 | 0.928 | 0.915 | 0.965 | 1.043 | 1.034 | 0.986         | 4.92   |
| 90)  | bis(2-Ethylh   | 0.546 | 0.636 | 0.714 | 0.703 | 0.692 | 0.717 | 0.465 | 0.731 | 0.650         | 14.82  |
| 91)  | I Perylene-d12 |       |       |       |       |       |       |       |       |               |        |
| -----ISTD-----   |                |       |       |       |       |       |       |       |       |               |        |
| 92)  | Di-n-octylph   | 0.934 | 1.253 | 1.742 | 1.851 | 1.823 | 1.835 | 0.761 | 1.583 | 1.473         | 29.55  |
| ----- Quadratic regression -----                       |                |       |       |       |       |       |       |       |       |               |        |
|  |                |       |       |       |       |       |       |       |       | Coefficient = | 0.9998 |
| Response Ratio = -0.06116 + 1.89887 *A + -0.01697 *A^2 |                |       |       |       |       |       |       |       |       |               |        |
| 93)  | Benzo[b]fluo   | 1.323 | 1.293 | 1.359 | 1.332 | 1.348 | 1.350 | 1.276 | 1.419 | 1.338         | 3.28   |
| 94)  | Benzo[k]fluo   | 1.119 | 1.136 | 1.067 | 0.975 | 0.927 | 1.031 | 1.128 | 1.157 | 1.068         | 7.82   |
| 95)  | Benzo[alpyre   | 0.951 | 1.031 | 1.156 | 1.173 | 1.162 | 1.175 | 0.964 | 1.137 | 1.094         | 8.78   |
| 96)  | Indeno[1,2,3   | 1.019 | 1.102 | 1.264 | 1.325 | 1.317 | 1.320 | 0.992 | 1.234 | 1.197         | 11.59  |
| 97)  | Dibenz(a,h)a   | 0.717 | 0.810 | 0.952 | 1.052 | 1.055 | 1.017 | 0.668 | 0.894 | 0.896         | 16.84  |
| 98)  | Dibenz[a,h]a   | 0.846 | 0.909 | 1.006 | 1.025 | 1.025 | 1.023 | 0.850 | 1.004 | 0.961         | 8.29   |
| 99)  | 7,12-Dimethy   | 0.498 | 0.549 | 0.614 | 0.620 | 0.629 | 0.624 | 0.473 | 0.620 | 0.578         | 10.93  |
| 100)   | Benzo[g,h,i]   | 0.860 | 0.858 | 0.994 | 1.047 | 1.038 | 1.044 | 0.845 | 0.970 | 0.957         | 9.28   |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79089.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11  
Acq On : 3 May 2018 6:14 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 4.61  |
| 5 S  | 2-Fluorophenol         | 1.579 | 1.555 | 1.5  | 151   | 0.00     | 3.59  |
| 8 S  | Phenol-d5              | 1.636 | 1.614 | 1.3  | 165   | 0.00     | 4.42  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 187   | 0.00     | 5.66  |
| 25 S | Nitrobenzene-d5        | 0.369 | 0.380 | -3.0 | 190   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 7.09  |
| 51 S | 2-Fluorobiphenyl       | 1.372 | 1.371 | 0.1  | 188   | 0.00     | 6.55  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 161   | 0.00     | 8.36  |
| 73 S | 2,4,6-Tribromophenol   | 0.122 | 0.127 | -4.1 | 153   | 0.00     | 7.75  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 149   | 0.00     | 11.56 |
| 85 S | Terphenyl-d14          | 0.870 | 0.915 | -5.2 | 156   | 0.00     | 10.14 |

(#) = Out of Range  
2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 12:39:22 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79090.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12  
 Acq On : 3 May 2018 6:36 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 152   | 0.00     | 4.61 |
| 9 t  | Phenol                         | 1.673  | 1.903  | -13.7 | 173   | 0.00     | 4.43 |
| 12 t | 2-Chlorophenol                 | 1.401  | 1.531  | -9.3  | 176   | 0.00     | 4.47 |
| 19 t | 2-Methylphenol                 | 1.128  | 1.161  | -2.9  | 155   | 0.00     | 4.90 |
| 21 t | 3&4-Methylphenol               | 1.122  | 1.176  | -4.8  | 159   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 135   | 0.00     | 5.66 |
| 29 t | 2-Nitrophenol                  | 0.202  | 0.240  | -18.8 | 157   | 0.00     | 5.37 |
| 30 t | 2,4-Dimethylphenol             | 0.354  | 0.369  | -4.2  | 136   | 0.00     | 5.44 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 31 t | Benzoic acid                   | 50.000 | 27.287 | 45.4# | 66    | 0.00     | 5.60 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 33 t | 2,4-Dichlorophenol             | 0.309  | 0.320  | -3.6  | 131   | 0.00     | 5.58 |
| 34 t | 2,6-Dichlorophenol             | 0.280  | 0.304  | -8.6  | 137   | 0.00     | 5.76 |
| 43 t | 4-Chloro-3-methylphenol        | 0.314  | 0.331  | -5.4  | 132   | -0.01    | 6.20 |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 134   | 0.00     | 7.09 |
| 49 t | 2,4,6-Trichlorophenol          | 0.377  | 0.403  | -6.9  | 135   | 0.00     | 6.50 |
| 50 t | 2,4,5-Trichlorophenol          | 0.373  | 0.380  | -1.9  | 133   | -0.01    | 6.54 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 48.263 | 3.5   | 122   | 0.00     | 7.18 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 61 t | 4-Nitrophenol                  | 0.184  | 0.196  | -6.5  | 140   | 0.00     | 7.32 |
| 64   | 2,3,4,6-Tetrachlorophenol      | 0.299  | 0.302  | -1.0  | 125   | 0.00     | 7.38 |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 132   | 0.00     | 8.36 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 52.365 | -4.7  | 137   | 0.00     | 7.60 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 76 t | Pentachlorophenol              | 50.000 | 59.284 | -18.6 | 151   | 0.00     | 8.21 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79083a.D M2P3484.M Thu May 03 12:39:24 2018 RPT1

87.8  
 8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79091.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13  
Acq On : 3 May 2018 6:58 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 141   | 0.00     | 4.61 |
| 3 t  | Pyridine               | 1.567 | 1.173 | 25.1  | 99    | 0.14     | 2.49 |
| 10   | Aniline                | 2.156 | 2.116 | 1.9   | 125   | 0.01     | 4.39 |
| 16 t | Benzyl alcohol         | 0.652 | 0.721 | -10.6 | 143   | 0.00     | 4.78 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 165   | 0.00     | 5.66 |
| 39 t | 4-Chloroaniline        | 0.430 | 0.371 | 13.7  | 138   | 0.00     | 5.77 |
| 44 t | 2-Methylnaphthalene    | 0.611 | 0.517 | 15.4  | 138   | 0.00     | 6.24 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 145   | 0.00     | 7.09 |
| 54 t | 2-Nitroaniline         | 0.311 | 0.343 | -10.3 | 157   | 0.00     | 6.78 |
| 58 t | 3-Nitroaniline         | 0.304 | 0.306 | -0.7  | 132   | 0.00     | 7.12 |
| 62 t | Dibenzofuran           | 1.602 | 1.452 | 9.4   | 131   | 0.00     | 7.26 |
| 68 t | 4-Nitroaniline         | 0.333 | 0.329 | 1.2   | 136   | 0.00     | 7.64 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 138   | 0.00     | 8.36 |
| 79 t | Carbazole              | 1.068 | 1.029 | 3.7   | 128   | 0.00     | 8.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:26 2018 RPT1

8.7.9

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14  
 Acq On : 3 May 2018 7:19 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 146   | 0.00     | 4.61 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 27.362  | 45.3# | 86    | 0.01     | 2.30 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.389   | -5.5  | 156   | 0.00     | 4.41 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.690   | -5.0  | 161   | 0.00     | 4.56 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.358   | 8.1   | 137   | 0.00     | 4.62 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.347   | 9.0   | 131   | 0.00     | 4.75 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.314   | -1.6  | 153   | 0.00     | 4.84 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.732   | 7.3   | 138   | -0.01    | 4.96 |
| 23 t | Hexachloroethane          | 0.464  | 0.447   | 3.7   | 144   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 5.66 |
| 26 t | Nitrobenzene              | 0.359  | 0.336   | 6.4   | 134   | 0.00     | 5.11 |
| 28 t | Isophorone                | 0.619  | 0.592   | 4.4   | 125   | 0.00     | 5.29 |
| 32 t | bis(2-Chloroethoxy)methan | 0.355  | 0.388   | -9.3  | 153   | 0.00     | 5.48 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332  | 0.344   | -3.6  | 149   | 0.00     | 5.61 |
| 38 t | Naphthalene               | 0.968  | 0.909   | 6.1   | 131   | 0.00     | 5.68 |
| 42 t | Hexachlorobutadiene       | 0.159  | 0.171   | -7.5  | 149   | 0.00     | 5.78 |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 130   | 0.00     | 7.10 |
| 48 t | Hexachlorocyclopentadiene | 0.308  | 0.361   | -17.2 | 127   | 0.00     | 6.37 |
| 52 t | 2-Chloronaphthalene       | 1.112  | 1.271   | -14.3 | 165   | 0.00     | 6.64 |
| 55 t | Dimethylphthalate         | 1.305  | 1.374   | -5.3  | 140   | 0.00     | 6.90 |
| 56 t | Acenaphthylene            | 1.873  | 1.768   | 5.6   | 127   | 0.00     | 6.98 |
| 57 t | 2,6-Dinitrotoluene        | 0.276  | 0.283   | -2.5  | 124   | 0.00     | 6.95 |
| 59 t | Acenaphthene              | 1.152  | 1.079   | 6.3   | 121   | 0.00     | 7.12 |
| 63 t | 2,4-Dinitrotoluene        | 0.336  | 0.361   | -7.4  | 129   | 0.00     | 7.28 |
| 65 t | Diethylphthalate          | 1.300  | 1.340   | -3.1  | 137   | 0.00     | 7.46 |
| 66 t | Fluorene                  | 1.286  | 1.206   | 6.2   | 123   | 0.00     | 7.54 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587  | 0.572   | 2.6   | 125   | 0.00     | 7.53 |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 8.36 |
| 71 t | n-Nitrosodiphenylamine    | 0.537  | 0.449   | 16.4  | 123   | 0.00     | 7.65 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747  | 0.612   | 18.1  | 124   | 0.00     | 7.67 |
| 74 t | 4-Bromophenyl-phenylether | 0.215  | 0.199   | 7.4   | 124   | 0.00     | 7.95 |
| 75 t | Hexachlorobenzene         | 0.270  | 0.236   | 12.6  | 122   | 0.00     | 8.01 |
| 77 t | Phenanthrene              | 1.018  | 0.921   | 9.5   | 126   | 0.00     | 8.39 |
| 78 t | Anthracene                | 0.991  | 0.857   | 13.5  | 120   | 0.00     | 8.44 |
| 80 t | Di-n-butylphthalate       | 1.348  | 1.282   | 4.9   | 120   | 0.00     | 8.95 |

8.7.10

8



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

|       |                           |             |        |         |       |      |       |
|-------|---------------------------|-------------|--------|---------|-------|------|-------|
| 81 t  | Fluoranthene              | 1.334       | 1.206  | 9.6     | 117   | 0.00 | 9.66  |
| 83 I  | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 117   | 0.00 | 11.56 |
| 84 t  | Pyrene                    | 1.341       | 1.268  | 5.4     | 112   | 0.00 | 9.94  |
| 86 t  | Butylbenzylphthalate      | 0.681       | 0.746  | -9.5    | 117   | 0.00 | 10.81 |
| 87 t  | Benzo[a]anthracene        | 1.250       | 1.285  | -2.8    | 113   | 0.00 | 11.54 |
| 89 t  | Chrysene                  | 0.986       | 0.877  | 11.1    | 106   | 0.00 | 11.60 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650       | 0.647  | 0.5     | 105   | 0.00 | 11.60 |
| 91 I  | Perylene-d12              | 1.000       | 1.000  | 0.0     | 119   | 0.00 | 13.54 |
|       |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92 t  | Di-n-octylphthalate       | 50.000      | 46.822 | 6.4     | 111   | 0.00 | 12.51 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338       | 1.276  | 4.6     | 113   | 0.00 | 13.03 |
| 94 t  | Benzo[k]fluoranthene      | 1.068       | 1.073  | -0.5    | 124   | 0.00 | 13.07 |
| 95 t  | Benzo[a]pyrene            | 1.094       | 1.126  | -2.9    | 114   | 0.00 | 13.46 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197       | 1.361  | -13.7   | 123   | 0.00 | 14.86 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961       | 1.025  | -6.7    | 120   | 0.00 | 14.88 |
| 100 t | Benzo[g,h,i]perylene      | 0.957       | 1.092  | -14.1   | 125   | 0.00 | 15.23 |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 12:39:28 2018 RPT1

8.7.10  
8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79093.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15  
 Acq On : 3 May 2018 7:41 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T.  |
|------|---------------------------|--------|---------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 151   | 0.00     | 4.61  |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 2 t  | 1,4-Dioxane               | 50.000 | 51.921  | -3.8  | 160   | 0.01     | 1.96  |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 6 t  | Indene                    | 2.061  | 2.197   | -6.6  | 162   | 0.00     | 4.82  |
| 7 t  | Cumene                    | 3.824  | 3.688   | 3.6   | 139   | 0.00     | 3.92  |
| 13 t | Decane                    | 1.230  | 1.136   | 7.6   | 151   | 0.00     | 4.45  |
| 18 t | Acetophenone              | 1.706  | 1.554   | 8.9   | 141   | 0.00     | 4.96  |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 174   | 0.00     | 5.66  |
| 27 t | Quinoline                 | 0.722  | 0.618   | 14.4  | 142   | -0.01    | 5.97  |
| 40 t | 2,3-Dichloroaniline       | 0.373  | 0.267   | 28.4  | 123   | 0.00     | 6.51  |
| 41 t | Caprolactam               | 0.107  | 0.081   | 24.3  | 120   | -0.03    | 6.06  |
| 45 t | 1-Methylnaphthalene       | 0.643  | 0.470   | 26.9  | 128   | 0.00     | 6.32  |
| 46 t | Dimethylnaphthalene       | 0.611  | 0.451   | 26.2  | 129   | 0.00     | 6.74  |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 7.09  |
| 53 t | Biphenyl                  | 1.557  | 1.517   | 2.6   | 136   | 0.00     | 6.63  |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 8.36  |
| 82 t | Octadecane                | 0.320  | 0.310   | 3.1   | 122   | 0.00     | 8.20  |
| 91 I | Perylene-d12              | 1.000  | 1.000   | 0.0   | 125   | 0.00     | 13.53 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.378   | 34.6# | 76    | -0.01    | 13.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79083a.D M2P3484.M Thu May 03 12:39:30 2018 RPT1

8.7.11

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79094.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16  
Acq On : 3 May 2018 8:02 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 152   | 0.00     | 11.56 |
| 88 t 3,3'-Dichlorobenzidine | 0.371 | 0.353 | 4.9  | 133   | 0.00     | 11.58 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:32 2018 RPT1

8.7.12  
8

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3514-CC3484  
 Lab FileID: 2P79749.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3514\2p79749.D Vial: 2  
 Acq On : 21 May 2018 7:09 pm Operator: sufiyana  
 Sample : cc3484-50 Inst : MS2P  
 Misc : op10929,e2p3514,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev   | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|--------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0    | 129   | -0.05    | 4.43 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 2 t  | 1,4-Dioxane               | 50.000 | 71.256  | -42.5# | 215   | -0.05    | 1.73 |
|      | ----- AvgRF               | CCRF   | % Dev   | -----  |       |          |      |
| 3 t  | Pyridine                  | 1.567  | 1.819   | -16.1  | 141   | -0.07    | 2.08 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 51.835  | -3.7   | 152   | -0.07    | 2.05 |
|      | ----- AvgRF               | CCRF   | % Dev   | -----  |       |          |      |
| 5 S  | 2-Fluorophenol            | 1.579  | 1.710   | -8.3   | 125   | -0.07    | 3.41 |
| 6 t  | Indene                    | 2.061  | 1.955   | 5.1    | 123   | -0.04    | 4.65 |
| 7 t  | Cumene                    | 3.824  | 4.278   | -11.9  | 138   | -0.08    | 3.73 |
| 8 S  | Phenol-d5                 | 1.636  | 1.830   | -11.9  | 140   | -0.03    | 4.27 |
| 9 t  | Phenol                    | 1.673  | 1.624   | 2.9    | 125   | -0.03    | 4.27 |
| 10   | Aniline                   | 2.156  | 1.742   | 19.2   | 95    | -0.05    | 4.21 |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.210   | 8.1    | 120   | -0.05    | 4.23 |
| 12 t | 2-Chlorophenol            | 1.401  | 1.257   | 10.3   | 123   | -0.05    | 4.30 |
| 13 t | Decane                    | 1.230  | 1.343   | -9.2   | 153   | -0.05    | 4.27 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.521   | 5.5    | 128   | -0.05    | 4.38 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.480   | -0.1   | 132   | -0.05    | 4.44 |
| 16 t | Benzyl alcohol            | 0.652  | 0.639   | 2.0    | 117   | -0.04    | 4.61 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.537   | -3.8   | 133   | -0.04    | 4.58 |
| 18 t | Acetophenone              | 1.706  | 1.792   | -5.0   | 139   | -0.03    | 4.80 |
| 19 t | 2-Methylphenol            | 1.128  | 1.059   | 6.1    | 120   | -0.01    | 4.75 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.273   | 11.7   | 118   | -0.04    | 4.67 |
| 21 t | 3&4-Methylphenol          | 1.122  | 1.014   | 9.6    | 116   | -0.01    | 4.88 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.789   | 0.1    | 132   | -0.03    | 4.80 |
| 23 t | Hexachloroethane          | 0.464  | 0.505   | -8.8   | 144   | -0.04    | 4.84 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0    | 132   | -0.05    | 5.49 |
| 25 S | Nitrobenzene-d5           | 0.369  | 0.387   | -4.9   | 137   | -0.06    | 4.93 |
| 26 t | Nitrobenzene              | 0.359  | 0.347   | 3.3    | 131   | -0.05    | 4.95 |
| 27 t | Quinoline                 | 0.722  | 0.730   | -1.1   | 128   | -0.03    | 5.82 |
| 28 t | Isophorone                | 0.619  | 0.645   | -4.2   | 128   | -0.06    | 5.12 |
| 29 t | 2-Nitrophenol             | 0.202  | 0.195   | 3.5    | 124   | -0.05    | 5.20 |
| 30 t | 2,4-Dimethylphenol        | 0.354  | 0.373   | -5.4   | 135   | -0.04    | 5.28 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 31 t | Benzoic acid              | 50.000 | 58.122  | -16.2  | 150   | 0.00     | 5.49 |

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3514-CC3484  
**Lab FileID:** 2P79749.D

|      |                           | AvgRF   | CCRF    | % Dev  |      |       |      |
|------|---------------------------|---------|---------|--------|------|-------|------|
| 32 t | bis(2-Chloroethoxy)methan | 0.355   | 0.313   | 11.8   | 117  | -0.05 | 5.31 |
| 33 t | 2,4-Dichlorophenol        | 0.309   | 0.343   | -11.0  | 138  | -0.04 | 5.42 |
| 34 t | 2,6-Dichlorophenol        | 0.280   | 0.332   | -18.6  | 146  | -0.04 | 5.60 |
| 35   | 1,3,5-Trichlorobenzene    | 0.365   | 0.397   | -8.8   | 143  | -0.06 | 5.17 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332   | 0.353   | -6.3   | 145  | -0.05 | 5.44 |
| 37   | 1,2,3-Trichlorobenzene    | 0.291   | 0.302   | -3.8   | 139  | -0.05 | 5.64 |
| 38 t | Naphthalene               | 0.968   | 0.955   | 1.3    | 130  | -0.05 | 5.51 |
| 39 t | 4-Chloroaniline           | 0.430   | 0.461   | -7.2   | 137  | -0.04 | 5.60 |
| 40 t | 2,3-Dichloroaniline       | 0.373   | 0.462   | -23.9# | 162  | -0.03 | 6.34 |
| 41 t | Caprolactam               | 0.107   | 0.101   | 5.6    | 113  | -0.03 | 5.93 |
| 42 t | Hexachlorobutadiene       | 0.159   | 0.235   | -47.8# | 194  | -0.05 | 5.61 |
| 43 t | 4-Chloro-3-methylphenol   | 0.314   | 0.373   | -18.8  | 145  | -0.01 | 6.06 |
| 44 t | 2-Methylnaphthalene       | 0.611   | 0.710   | -16.2  | 152  | -0.04 | 6.07 |
| 45 t | 1-Methylnaphthalene       | 0.643   | 0.695   | -8.1   | 143  | -0.03 | 6.15 |
| 46 t | Dimethylnaphthalene       | 0.611   | 0.708   | -15.9  | 153  | -0.02 | 6.58 |
| 47 I | Acenaphthene-d10          | 1.000   | 1.000   | 0.0    | 143  | -0.05 | 6.92 |
| 48 t | Hexachlorocyclopentadiene | 0.308   | 0.412   | -33.8# | 176  | -0.07 | 6.20 |
| 49 t | 2,4,6-Trichlorophenol     | 0.377   | 0.467   | -23.9# | 167  | -0.05 | 6.34 |
| 50 t | 2,4,5-Trichlorophenol     | 0.373   | 0.356   | 4.6    | 133  | -0.05 | 6.40 |
| 51 S | 2-Fluorobiphenyl          | 1.372   | 1.291   | 5.9    | 146  | -0.06 | 6.38 |
| 52 t | 2-Chloronaphthalene       | 1.112   | 1.021   | 8.2    | 145  | -0.06 | 6.47 |
| 53 t | Biphenyl                  | 1.557   | 1.510   | 3.0    | 150  | -0.06 | 6.46 |
| 54 t | 2-Nitroaniline            | 0.311   | 0.320   | -2.9   | 145  | -0.05 | 6.61 |
| 55 t | Dimethylphthalate         | 1.305   | 1.361   | -4.3   | 153  | -0.05 | 6.73 |
| 56 t | Acenaphthylene            | 1.873   | 1.748   | 6.7    | 138  | -0.06 | 6.81 |
| 57 t | 2,6-Dinitrotoluene        | 0.276   | 0.287   | -4.0   | 138  | -0.05 | 6.79 |
| 58 t | 3-Nitroaniline            | 0.304   | 0.286   | 5.9    | 122  | -0.04 | 6.96 |
| 59 t | Acenaphthene              | 1.152   | 1.200   | -4.2   | 148  | -0.05 | 6.95 |
| 60 t | 2,4-Dinitrophenol         | 100.000 | 100.054 | -0.1   | 143  | -0.03 | 7.03 |
| 61 t | 4-Nitrophenol             | 0.184   | 0.274   | -48.9# | 209# | -0.02 | 7.18 |
| 62 t | Dibenzofuran              | 1.602   | 1.624   | -1.4   | 145  | -0.05 | 7.09 |
| 63 t | 2,4-Dinitrotoluene        | 0.336   | 0.363   | -8.0   | 143  | -0.03 | 7.12 |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.299   | 0.340   | -13.7  | 150  | -0.04 | 7.22 |
| 65 t | Diethylphthalate          | 1.300   | 1.364   | -4.9   | 154  | -0.04 | 7.29 |
| 66 t | Fluorene                  | 1.286   | 1.413   | -9.9   | 159  | -0.05 | 7.37 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587   | 0.730   | -24.4# | 176  | -0.05 | 7.36 |
| 68 t | 4-Nitroaniline            | 0.333   | 0.334   | -0.3   | 137  | -0.03 | 7.48 |
| 69 I | Phenanthrene-d10          | 1.000   | 1.000   | 0.0    | 145  | -0.05 | 8.17 |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000  | 50.481  | -1.0   | 145  | -0.02 | 7.46 |
| 71 t | n-Nitrosodiphenylamine    | 0.537   | 0.586   | -9.1   | 167  | -0.04 | 7.49 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747   | 0.696   | 6.8    | 147  | -0.04 | 7.50 |
| 73 S | 2,4,6-Tribromophenol      | 0.122   | 0.153   | -25.4# | 166  | -0.05 | 7.58 |
| 74 t | 4-Bromophenyl-phenylether | 0.215   | 0.256   | -19.1  | 165  | -0.05 | 7.76 |
| 75 t | Hexachlorobenzene         | 0.270   | 0.310   | -14.8  | 167  | -0.05 | 7.82 |
| 76 t | Pentachlorophenol         | 100.000 | 114.952 | -15.0  | 166  | -0.04 | 8.04 |

8.7.13

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3514-CC3484  
**Lab FileID:** 2P79749.D

| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
|-------|---------------------------|--------|--------|---------|-------|-------|-------|
| 77 t  | Phenanthrene              | 1.018  | 1.017  | 0.1     | 145   | -0.06 | 8.19  |
| 78 t  | Anthracene                | 0.991  | 1.006  | -1.5    | 146   | -0.05 | 8.24  |
| 79 t  | Carbazole                 | 1.068  | 1.091  | -2.2    | 143   | -0.05 | 8.44  |
| 80 t  | Di-n-butylphthalate       | 1.348  | 1.593  | -18.2   | 155   | -0.06 | 8.74  |
| 81 t  | Fluoranthene              | 1.334  | 1.534  | -15.0   | 155   | -0.07 | 9.43  |
| 82 t  | Octadecane                | 0.320  | 0.385  | -20.3#  | 171   | -0.05 | 8.01  |
|       |                           |        |        |         |       |       |       |
| 83 I  | Chrysene-d12              | 1.000  | 1.000  | 0.0     | 172   | -0.08 | 11.31 |
| 84 t  | Pyrene                    | 1.341  | 1.204  | 10.2    | 156   | -0.08 | 9.71  |
| 85 S  | Terphenyl-d14             | 0.870  | 0.824  | 5.3     | 163   | -0.08 | 9.90  |
| 86 t  | Butylbenzylphthalate      | 0.681  | 0.658  | 3.4     | 152   | -0.08 | 10.56 |
| 87 t  | Benzo[a]anthracene        | 1.250  | 1.287  | -3.0    | 167   | -0.08 | 11.29 |
| 88 t  | 3,3'-Dichlorobenzidine    | 0.371  | 0.421  | -13.5   | 180   | -0.07 | 11.33 |
| 89 t  | Chrysene                  | 0.986  | 1.043  | -5.8    | 186   | -0.07 | 11.35 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650  | 0.747  | -14.9   | 179   | -0.07 | 11.35 |
|       |                           |        |        |         |       |       |       |
| 91 I  | Perylene-d12              | 1.000  | 1.000  | 0.0     | 173   | -0.08 | 13.28 |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |       |
| 92 t  | Di-n-octylphthalate       | 50.000 | 46.610 | 6.8     | 160   | -0.08 | 12.25 |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338  | 1.298  | 3.0     | 166   | -0.07 | 12.79 |
| 94 t  | Benzo[k]fluoranthene      | 1.068  | 1.030  | 3.6     | 173   | -0.08 | 12.82 |
| 95 t  | Benzo[a]pyrene            | 1.094  | 1.132  | -3.5    | 166   | -0.08 | 13.20 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197  | 1.350  | -12.8   | 177   | -0.08 | 14.58 |
| 97 t  | Dibenz(a,h)acridine       | 0.896  | 1.030  | -15.0   | 175   | -0.07 | 14.30 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961  | 1.130  | -17.6   | 191   | -0.09 | 14.59 |
| 99 t  | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.607  | -5.0    | 168   | -0.08 | 12.77 |
| 100 t | Benzo[g,h,i]perylene      | 0.957  | 1.025  | -7.1    | 170   | -0.10 | 14.92 |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
 Tue May 22 17:27:20 2018 RPT1

8.7.13

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3514-CC3481  
**Lab FileID:** 2P79750.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3514\2p79750.D Vial: 3  
 Acq On : 21 May 2018 7:31 pm Operator: sufiyana  
 Sample : cc3481-50 Inst : MS2P  
 Misc : op10929,e2p3514,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T.  |
|--------------------------------|--------|--------|--------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4a  | 1.000  | 1.000  | 0.0    | 84    | -0.05    | 4.43  |
| 102 Benzaldehyde               | 1.057  | 0.774  | 26.8#  | 63    | -0.05    | 4.08  |
| 103 I Naphthalene-d8a          | 1.000  | 1.000  | 0.0    | 81    | -0.02    | 5.49  |
| 104 Hydroquinone               | 0.312  | 0.267  | 14.4   | 63    | 0.00     | 5.97  |
| 105 I Acenaphthene-d10a        | 1.000  | 1.000  | 0.0    | 84    | -0.05    | 6.91  |
| 106 Atrazine                   | 0.172  | 0.180  | -4.7   | 85    | 0.00     | 7.94  |
| 107 1,2,4,5-Tetrachlorobenzen  | 0.577  | 0.597  | -3.5   | 93    | -0.05    | 6.20  |
| 108 I Chrysene-d12a            | 1.000  | 1.000  | 0.0    | 83    | -0.08    | 11.30 |
| ----- True Calc. % Drift ----- |        |        |        |       |          |       |
| 109 Benzidine                  | 50.000 | 33.367 | 33.3#  | 56    | 0.00     | 9.66  |
| ----- AvgRF CCRF % Dev -----   |        |        |        |       |          |       |
| 110 I Phenanthrene-d10a        | 1.000  | 1.000  | 0.0    | 83    | -0.06    | 8.17  |
| 111 s 1-Chlorooctadecane       | 0.289  | 0.269  | 6.9    | 76    | -0.07    | 9.24  |
| 112 s o-terphenyl              | 0.536  | 0.618  | -15.3  | 96    | -0.06    | 8.53  |
| 113 Pentachloronitrobenzene    | 0.044  | 0.057  | -29.5# | 100   | -0.06    | 8.02  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79083a.D M2P3484.M Tue May 22 11:38:56 2018 RPT1

8.7.14  
8

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3515-CC3484  
 Lab FileID: 2P79776.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3515\2p79776.D Vial: 2  
 Acq On : 22 May 2018 9:16 am Operator: johnb1  
 Sample : cc3484-25 Inst : MS2P  
 Misc : op10929,e2p3515,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev   | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|--------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0    | 101   | -0.05    | 4.43 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 2 t  | 1,4-Dioxane               | 25.000 | 36.332  | -45.3# | 134   | -0.06    | 1.72 |
|      | ----- AvgRF               | CCRF   | % Dev   | -----  |       |          |      |
| 3 t  | Pyridine                  | 1.567  | 1.129   | 28.0#  | 72    | -0.07    | 2.08 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 25.000 | 22.099  | 11.6   | 96    | -0.08    | 2.05 |
|      | ----- AvgRF               | CCRF   | % Dev   | -----  |       |          |      |
| 5 S  | 2-Fluorophenol            | 1.579  | 1.184   | 25.0#  | 73    | -0.08    | 3.41 |
| 6 t  | Indene                    | 2.061  | 1.857   | 9.9    | 90    | -0.05    | 4.64 |
| 7 t  | Cumene                    | 3.824  | 3.379   | 11.6   | 86    | -0.08    | 3.73 |
| 8 S  | Phenol-d5                 | 1.636  | 1.389   | 15.1   | 81    | -0.03    | 4.26 |
| 9 t  | Phenol                    | 1.673  | 1.337   | 20.1#  | 78    | -0.03    | 4.27 |
| 10   | Aniline                   | 2.156  | 1.297   | 39.8#  | 57    | -0.05    | 4.20 |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 0.998   | 24.2#  | 74    | -0.05    | 4.23 |
| 12 t | 2-Chlorophenol            | 1.401  | 1.193   | 14.8   | 86    | -0.05    | 4.30 |
| 13 t | Decane                    | 1.230  | 1.191   | 3.2    | 98    | -0.05    | 4.27 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.400   | 13.0   | 89    | -0.05    | 4.37 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.389   | 6.0    | 96    | -0.05    | 4.44 |
| 16 t | Benzyl alcohol            | 0.652  | 0.347   | 46.8#  | 50    | -0.04    | 4.60 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.342   | 9.4    | 91    | -0.04    | 4.58 |
| 18 t | Acetophenone              | 1.706  | 1.698   | 0.5    | 100   | -0.04    | 4.79 |
| 19 t | 2-Methylphenol            | 1.128  | 1.008   | 10.6   | 88    | -0.02    | 4.74 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.271   | 12.3   | 87    | -0.04    | 4.67 |
| 21 t | 3&4-Methylphenol          | 1.122  | 0.965   | 14.0   | 85    | -0.02    | 4.87 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.775   | 1.9    | 98    | -0.04    | 4.79 |
| 23 t | Hexachloroethane          | 0.464  | 0.485   | -4.5   | 107   | -0.04    | 4.84 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0    | 102   | -0.05    | 5.49 |
| 25 S | Nitrobenzene-d5           | 0.369  | 0.371   | -0.5   | 102   | -0.07    | 4.92 |
| 26 t | Nitrobenzene              | 0.359  | 0.358   | 0.3    | 104   | -0.07    | 4.94 |
| 27 t | Quinoline                 | 0.722  | 0.635   | 12.0   | 90    | -0.05    | 5.80 |
| 28 t | Isophorone                | 0.619  | 0.575   | 7.1    | 93    | -0.06    | 5.12 |
| 29 t | 2-Nitrophenol             | 0.202  | 0.181   | 10.4   | 90    | -0.05    | 5.20 |
| 30 t | 2,4-Dimethylphenol        | 0.354  | 0.318   | 10.2   | 90    | -0.05    | 5.28 |
|      | ----- True                | Calc.  | % Drift | -----  |       |          |      |
| 31 t | Benzoic acid              | 25.000 | 30.958  | -23.8# | 141   | -0.04    | 5.45 |

8.7.15

8





# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3515-CC3484  
**Lab FileID:** 2P79776.D

| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |      |
|-------|---------------------------|--------|--------|---------|-------|-------|------|
| 32 t  | bis(2-Chloroethoxy)methan | 0.355  | 0.289  | 18.6    | 85    | -0.06 | 5.30 |
| 33 t  | 2,4-Dichlorophenol        | 0.309  | 0.303  | 1.9     | 98    | -0.04 | 5.42 |
| 34 t  | 2,6-Dichlorophenol        | 0.280  | 0.278  | 0.7     | 98    | -0.05 | 5.59 |
| 35    | 1,3,5-Trichlorobenzene    | 0.365  | 0.364  | 0.3     | 103   | -0.06 | 5.17 |
| 36 t  | 1,2,4-Trichlorobenzene    | 0.332  | 0.339  | -2.1    | 109   | -0.05 | 5.44 |
| 37    | 1,2,3-Trichlorobenzene    | 0.291  | 0.285  | 2.1     | 102   | -0.06 | 5.63 |
| 38 t  | Naphthalene               | 0.968  | 0.896  | 7.4     | 96    | -0.05 | 5.50 |
| 39 t  | 4-Chloroaniline           | 0.430  | 0.395  | 8.1     | 93    | -0.05 | 5.60 |
| 40 t  | 2,3-Dichloroaniline       | 0.373  | 0.400  | -7.2    | 111   | -0.04 | 6.34 |
| 41 t  | Caprolactam               | 0.107  | 0.092  | 14.0    | 84    | -0.05 | 5.90 |
| 42 t  | Hexachlorobutadiene       | 0.159  | 0.216  | -35.8#  | 141   | -0.05 | 5.60 |
| 43 t  | 4-Chloro-3-methylphenol   | 0.314  | 0.319  | -1.6    | 100   | -0.03 | 6.05 |
| 44 t  | 2-Methylnaphthalene       | 0.611  | 0.645  | -5.6    | 107   | -0.04 | 6.06 |
| 45 t  | 1-Methylnaphthalene       | 0.643  | 0.631  | 1.9     | 101   | -0.04 | 6.14 |
| 46 t  | Dimethylnaphthalene       | 0.611  | 0.601  | 1.6     | 105   | -0.03 | 6.57 |
|       |                           |        |        |         |       |       |      |
| 47 I  | Acenaphthene-d10          | 1.000  | 1.000  | 0.0     | 113   | -0.06 | 6.91 |
| 48 t  | Hexachlorocyclopentadiene | 0.308  | 0.360  | -16.9   | 123   | -0.08 | 6.19 |
| 49 t  | 2,4,6-Trichlorophenol     | 0.377  | 0.395  | -4.8    | 111   | -0.06 | 6.34 |
| 50 t  | 2,4,5-Trichlorophenol     | 0.373  | 0.342  | 8.3     | 98    | -0.06 | 6.38 |
| 51 S  | 2-Fluorobiphenyl          | 1.372  | 1.248  | 9.0     | 104   | -0.07 | 6.37 |
| 52 t  | 2-Chloronaphthalene       | 1.112  | 0.963  | 13.4    | 101   | -0.07 | 6.46 |
| 53 t  | Biphenyl                  | 1.557  | 1.385  | 11.0    | 102   | -0.07 | 6.45 |
| 54 t  | 2-Nitroaniline            | 0.311  | 0.326  | -4.8    | 111   | -0.06 | 6.60 |
| 55 t  | Dimethylphthalate         | 1.305  | 1.242  | 4.8     | 108   | -0.06 | 6.72 |
| 56 t  | Acenaphthylene            | 1.873  | 1.651  | 11.9    | 98    | -0.07 | 6.80 |
| 57 t  | 2,6-Dinitrotoluene        | 0.276  | 0.270  | 2.2     | 101   | -0.06 | 6.78 |
| 58 t  | 3-Nitroaniline            | 0.304  | 0.256  | 15.8    | 87    | -0.05 | 6.95 |
| 59 t  | Acenaphthene              | 1.152  | 1.103  | 4.3     | 108   | -0.06 | 6.94 |
|       |                           |        |        |         |       |       |      |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |      |
| 60 t  | 2,4-Dinitrophenol         | 50.000 | 48.273 | 3.5     | 114   | -0.04 | 7.02 |
|       |                           |        |        |         |       |       |      |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |      |
| 61 t  | 4-Nitrophenol             | 0.184  | 0.260  | -41.3#  | 151   | -0.03 | 7.18 |
| 62 t  | Dibenzofuran              | 1.602  | 1.472  | 8.1     | 101   | -0.06 | 7.09 |
| 63 t  | 2,4-Dinitrotoluene        | 0.336  | 0.340  | -1.2    | 103   | -0.04 | 7.12 |
| 64    | 2,3,4,6-Tetrachlorophenol | 0.299  | 0.307  | -2.7    | 109   | -0.05 | 7.22 |
| 65 t  | Diethylphthalate          | 1.300  | 1.348  | -3.7    | 113   | -0.05 | 7.28 |
| 66 t  | Fluorene                  | 1.286  | 1.340  | -4.2    | 116   | -0.06 | 7.36 |
| 67 t  | 4-Chlorophenyl-phenylethe | 0.587  | 0.616  | -4.9    | 118   | -0.05 | 7.36 |
| 68 t  | 4-Nitroaniline            | 0.333  | 0.280  | 15.9    | 88    | -0.05 | 7.46 |
|       |                           |        |        |         |       |       |      |
| 69 I  | Phenanthrene-d10          | 1.000  | 1.000  | 0.0     | 111   | -0.06 | 8.16 |
|       |                           |        |        |         |       |       |      |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |      |
| 70 t  | 4,6-Dinitro-2-methylpheno | 25.000 | 23.793 | 4.8     | 109   | -0.03 | 7.45 |
|       |                           |        |        |         |       |       |      |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |      |
| 71 t  | n-Nitrosodiphenylamine    | 0.537  | 0.512  | 4.7     | 109   | -0.05 | 7.47 |
| 72 t  | 1,2-Diphenylhydrazine     | 0.747  | 0.770  | -3.1    | 115   | -0.05 | 7.49 |
| 73 S  | 2,4,6-Tribromophenol      | 0.122  | 0.137  | -12.3   | 122   | -0.05 | 7.57 |
| 74 t  | 4-Bromophenyl-phenylether | 0.215  | 0.224  | -4.2    | 116   | -0.06 | 7.75 |
| 75 t  | Hexachlorobenzene         | 0.270  | 0.284  | -5.2    | 118   | -0.05 | 7.82 |
|       |                           |        |        |         |       |       |      |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |      |
| 76 t  | Pentachlorophenol         | 50.000 | 50.717 | -1.4    | 121   | -0.05 | 8.03 |

8.7.15

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3515-CC3484  
**Lab FileID:** 2P79776.D

| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
|-------|---------------------------|--------|--------|---------|-------|-------|-------|
| 77 t  | Phenanthrene              | 1.018  | 0.926  | 9.0     | 104   | -0.07 | 8.18  |
| 78 t  | Anthracene                | 0.991  | 0.914  | 7.8     | 101   | -0.06 | 8.23  |
| 79 t  | Carbazole                 | 1.068  | 0.969  | 9.3     | 100   | -0.07 | 8.42  |
| 80 t  | Di-n-butylphthalate       | 1.348  | 1.433  | -6.3    | 109   | -0.07 | 8.73  |
| 81 t  | Fluoranthene              | 1.334  | 1.293  | 3.1     | 102   | -0.08 | 9.42  |
| 82 t  | Octadecane                | 0.320  | 0.378  | -18.1   | 127   | -0.06 | 8.01  |
| 83 I  | Chrysene-d12              | 1.000  | 1.000  | 0.0     | 113   | -0.09 | 11.30 |
| 84 t  | Pyrene                    | 1.341  | 1.241  | 7.5     | 106   | -0.09 | 9.69  |
| 85 S  | Terphenyl-d14             | 0.870  | 0.847  | 2.6     | 113   | -0.09 | 9.89  |
| 86 t  | Butylbenzylphthalate      | 0.681  | 0.662  | 2.8     | 106   | -0.09 | 10.55 |
| 87 t  | Benzo[a]anthracene        | 1.250  | 1.138  | 9.0     | 102   | -0.09 | 11.27 |
| 88 t  | 3,3'-Dichlorobenzidine    | 0.371  | 0.368  | 0.8     | 109   | -0.09 | 11.32 |
| 89 t  | Chrysene                  | 0.986  | 0.975  | 1.1     | 113   | -0.09 | 11.33 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650  | 0.765  | -17.7   | 121   | -0.09 | 11.34 |
| 91 I  | Perylene-d12              | 1.000  | 1.000  | 0.0     | 129   | -0.09 | 13.27 |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |       |
| 92 t  | Di-n-octylphthalate       | 25.000 | 21.569 | 13.7    | 113   | -0.10 | 12.24 |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338  | 1.273  | 4.9     | 121   | -0.09 | 12.77 |
| 94 t  | Benzo[k]fluoranthene      | 1.068  | 0.988  | 7.5     | 119   | -0.10 | 12.80 |
| 95 t  | Benzo[a]pyrene            | 1.094  | 1.043  | 4.7     | 116   | -0.09 | 13.18 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197  | 1.196  | 0.1     | 122   | -0.10 | 14.56 |
| 97 t  | Dibenz(a,h)acridine       | 0.896  | 0.884  | 1.3     | 120   | -0.09 | 14.28 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961  | 1.002  | -4.3    | 128   | -0.11 | 14.57 |
| 99 t  | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.536  | 7.3     | 113   | -0.10 | 12.75 |
| 100 t | Benzo[g,h,i]perylene      | 0.957  | 0.900  | 6.0     | 117   | -0.12 | 14.90 |

(#) = Out of Range  
 2p79084a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
 Tue May 22 13:15:20 2018 RPT1

8.7.15

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3515-CC3481  
**Lab FileID:** 2P79778.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3515\2p79778.D Vial: 4  
 Acq On : 22 May 2018 10:00 am Operator: johnb1  
 Sample : cc3481-25 Inst : MS2P  
 Misc : op10929,e2p3515,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a        | 1.000  | 1.000  | 0.0   | 64    | -0.05    | 4.43  |
| 102   | Benzaldehyde                   | 1.057  | 0.765  | 27.6# | 47#   | -0.05    | 4.08  |
| 103 I | Naphthalene-d8a                | 1.000  | 1.000  | 0.0   | 65    | -0.02    | 5.49  |
| 104   | Hydroquinone                   | 0.312  | 0.244  | 21.8# | 46#   | -0.01    | 5.96  |
| 105 I | Acenaphthene-d10a              | 1.000  | 1.000  | 0.0   | 69    | -0.05    | 6.91  |
| 106   | Atrazine                       | 0.172  | 0.163  | 5.2   | 64    | 0.00     | 7.93  |
| 107   | 1,2,4,5-Tetrachlorobenzen      | 0.577  | 0.550  | 4.7   | 66    | -0.05    | 6.20  |
| 108 I | Chrysene-d12a                  | 1.000  | 1.000  | 0.0   | 69    | -0.08    | 11.30 |
|       | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 109   | Benzidine                      | 25.000 | 15.472 | 38.1# | 44    | 0.00     | 9.65  |
|       | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 110 I | Phenanthrene-d10a              | 1.000  | 1.000  | 0.0   | 72    | -0.06    | 8.17  |
| 111 s | 1-Chlorooctadecane             | 0.289  | 0.234  | 19.0  | 57    | -0.08    | 9.24  |
| 112 s | o-terphenyl                    | 0.536  | 0.520  | 3.0   | 70    | -0.07    | 8.52  |
| 113   | Pentachloronitrobenzene        | 0.044  | 0.046# | -4.5  | 71    | -0.06    | 8.01  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79084a.D M2P3484.M Tue May 22 13:22:44 2018 RPT1

8.7.16  
8

# Initial Calibration Summary

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6168-ICC6168  
Lab FileID: M145276.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145280.D 5 =M145279.D 100 =M145274.D 50 =M145276.D  
1 =M145281.D 10 =M145278.D 80 =M145275.D 25 =M145277.D

| Compound                   | 2   | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg   | %RSD  |
|----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1,4-Dichlorobenzene-d | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.697   | 0.733 | 0.734 | 0.711 | 0.727 | 0.683 | 0.708 | 0.704 | 0.712 | 2.55  |
| 3) Pyridine                | 1.767   | 1.885 | 1.713 | 1.784 | 1.797 | 1.769 | 1.695 | 1.747 | 1.770 | 3.29  |
| 4) N-Nitrosodim            | 0.574   | 0.577 | 0.592 | 0.577 | 0.592 | 0.552 | 0.569 | 0.568 | 0.575 | 2.28  |
| 5) 2-Fluorophen            | 1.468   | 1.570 | 1.471 | 1.488 | 1.454 | 1.486 | 1.482 | 1.552 | 1.496 | 2.79  |
| 6) Indene                  | 2.405   | 2.362 | 1.547 | 1.764 | 2.366 | 2.119 | 1.628 | 1.961 | 2.019 | 17.18 |
| 7) Cumene                  | 3.799   | 3.925 | 2.881 | 3.183 | 3.902 | 3.514 | 2.986 | 3.454 | 3.455 | 11.81 |
| 8) Phenol-d5               | 1.856   | 1.932 | 1.682 | 1.771 | 1.635 | 1.833 | 1.710 | 1.830 | 1.781 | 5.60  |
| 9) Phenol                  | 2.273   | 2.252 | 1.604 | 1.808 | 2.096 | 2.044 | 1.699 | 1.993 | 1.971 | 12.52 |
| 10) Aniline                | 2.429   | 2.364 | 1.594 | 1.733 | 2.507 | 2.207 | 1.685 | 1.983 | 2.063 | 17.58 |
| 11) bis(2-Chloro           | 1.539   | 1.448 | 1.065 | 1.128 | 1.494 | 1.286 | 1.073 | 1.216 | 1.281 | 14.96 |
| 12) 2-Chlorophen           | 1.588   | 1.612 | 1.183 | 1.272 | 1.545 | 1.511 | 1.205 | 1.395 | 1.414 | 12.34 |
| 13) Decane                 | 1.144   | 1.039 |       | 0.735 | 1.110 | 0.898 | 0.683 | 0.831 | 0.920 | 19.78 |
| 14) 1,3-Dichloro           | 1.948   | 1.937 | 1.361 | 1.461 | 1.921 | 1.692 | 1.400 | 1.599 | 1.665 | 14.87 |
| 15) 1,4-Dichloro           | 1.779   | 1.760 | 1.296 | 1.391 | 1.894 | 1.593 | 1.329 | 1.493 | 1.567 | 14.39 |
| 16) Benzyl alcoh           | 0.893   | 0.904 | 0.822 | 0.842 | 0.851 | 0.898 | 0.823 | 0.900 | 0.867 | 4.11  |
| 17) 1,2-Dichloro           | 1.770   | 1.694 | 1.145 | 1.255 | 1.764 | 1.488 | 1.187 | 1.391 | 1.462 | 17.62 |
| 18) Acetophenone           | 2.096   | 1.973 | 1.247 | 1.397 | 1.938 | 1.728 | 1.302 | 1.599 | 1.660 | 19.60 |
| 19) 2-Methylphen           | 1.268   | 1.291 | 0.967 | 1.070 | 1.214 | 1.261 | 1.007 | 1.181 | 1.157 | 10.89 |
| 20) 2,2'-oxybis(           | 0.363   | 0.416 | 0.327 | 0.332 | 0.406 | 0.380 | 0.331 | 0.348 | 0.363 | 9.56  |
| 21) 3&4-Methylph           | 1.228   | 1.321 | 0.927 | 1.077 | 1.189 | 1.317 | 0.984 | 1.197 | 1.155 | 12.64 |
| 22) n-Nitroso-di           | 1.005   | 0.969 | 0.623 | 0.688 | 0.918 | 0.868 | 0.646 | 0.798 | 0.814 | 18.28 |
| 23) Hexachloroet           | 0.579   | 0.566 | 0.491 | 0.504 | 0.510 | 0.515 | 0.498 | 0.527 | 0.524 | 6.12  |
| 24) I Naphthalene-d8       | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.404   | 0.435 | 0.354 | 0.371 | 0.396 | 0.408 | 0.360 | 0.398 | 0.391 | 6.93  |
| 26) Nitrobenzene           | 0.426   | 0.406 | 0.302 | 0.326 | 0.387 | 0.379 | 0.310 | 0.359 | 0.362 | 12.61 |
| 27) Quinoline              | 0.757   | 0.794 | 0.711 | 0.738 | 0.682 | 0.753 | 0.718 | 0.771 | 0.740 | 4.84  |
| 28) Isophorone             | 0.737   | 0.729 | 0.613 | 0.644 | 0.685 | 0.683 | 0.621 | 0.686 | 0.675 | 6.80  |
| 29) 2-Nitropheno           | 0.160   | 0.184 | 0.197 | 0.204 | 0.139 | 0.188 | 0.200 | 0.208 | 0.185 | 13.06 |
| 30) 2,4-Dimethyl           | 0.316   | 0.357 | 0.304 | 0.321 | 0.251 | 0.359 | 0.309 | 0.331 | 0.319 | 10.67 |
| 31) Benzoic acid           | 0.061   | 0.122 | 0.269 | 0.242 |       | 0.149 | 0.252 | 0.208 | 0.186 | 41.60 |
|                            | ---- Quadratic regression ---- Coefficient = 0.9996   |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = -0.01239 + 0.21741 *A + 0.02228 *A^2 |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro           | 0.429   | 0.417 | 0.324 | 0.345 | 0.407 | 0.387 | 0.326 | 0.373 | 0.376 | 10.89 |
| 33) 2,4-Dichloro           | 0.241   | 0.308 | 0.285 | 0.307 | 0.215 | 0.312 | 0.295 | 0.321 | 0.285 | 13.26 |
| 34) 2,6-Dichloro           | 0.296   | 0.308 | 0.250 | 0.277 | 0.259 | 0.300 | 0.263 | 0.301 | 0.282 | 7.92  |
| 35) 1,3,5-Trichl           | 0.436   | 0.418 | 0.290 | 0.326 | 0.451 | 0.382 | 0.303 | 0.356 | 0.370 | 16.57 |
| 36) 1,2,4-Trichl           | 0.444   | 0.416 | 0.304 | 0.332 | 0.457 | 0.377 | 0.312 | 0.362 | 0.375 | 15.67 |
| 37) 1,2,3-Trichl           | 0.385   | 0.376 | 0.273 | 0.296 | 0.405 | 0.342 | 0.279 | 0.327 | 0.335 | 15.01 |
| 38) Naphthalene            | 1.237   | 1.164 | 0.858 | 0.939 | 1.216 | 1.074 | 0.884 | 1.032 | 1.050 | 14.11 |
| 39) 4-Chloroanil           | 0.485   | 0.504 | 0.382 | 0.418 | 0.470 | 0.471 | 0.398 | 0.458 | 0.448 | 9.73  |
| 40) 2,3-Dichloro           | 0.430   | 0.429 | 0.345 | 0.371 | 0.403 | 0.410 | 0.352 | 0.404 | 0.393 | 8.40  |
| 41) Caprolactam            | 0.099   | 0.126 | 0.130 | 0.128 | 0.089 | 0.130 | 0.131 | 0.137 | 0.121 | 14.40 |
| 42) Hexachlorobu           | 0.222   | 0.200 | 0.157 | 0.167 | 0.231 | 0.182 | 0.159 | 0.176 | 0.187 | 15.01 |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

|     |                    |  |       |       |       |       |       |       |       |       |       |
|-----|--------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 43) | 4-Chloro-3-m       | 0.309  | 0.329 | 0.307 | 0.323 | 0.283 | 0.321 | 0.313 | 0.334 | 0.315 | 5.13  |
| 44) | 2-Methylnaph       | 0.700  | 0.700 | 0.539 | 0.597 | 0.669 | 0.645 | 0.556 | 0.639 | 0.631 | 9.72  |
| 45) | 1-Methylnaph       | 0.862  | 0.858 | 0.642 | 0.695 | 0.828 | 0.772 | 0.660 | 0.768 | 0.761 | 11.41 |
| 46) | Dimethylnaph       | 0.753  | 0.743 | 0.564 | 0.619 | 0.725 | 0.680 | 0.583 | 0.680 | 0.668 | 10.85 |
| 47) | I Acenaphthene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy       | 0.278  | 0.307 | 0.301 | 0.312 | 0.250 | 0.318 | 0.308 | 0.330 | 0.300 | 8.39  |
| 49) | 2,4,6-Trichl       | 0.394  | 0.404 | 0.338 | 0.362 | 0.310 | 0.396 | 0.348 | 0.397 | 0.369 | 9.32  |
| 50) | 2,4,5-Trichl       | 0.426  | 0.424 | 0.390 | 0.407 | 0.358 | 0.433 | 0.395 | 0.427 | 0.408 | 6.30  |
| 51) | 2-Fluorobiph       | 1.850  | 1.694 | 1.249 | 1.366 | 1.882 | 1.609 | 1.292 | 1.485 | 1.553 | 15.75 |
| 52) | 2-Chloronaph       | 1.505  | 1.436 | 0.972 | 1.076 | 1.517 | 1.294 | 1.010 | 1.204 | 1.252 | 17.62 |
| 53) | Biphenyl           | 1.886  | 1.827 | 1.277 | 1.429 | 1.905 | 1.658 | 1.358 | 1.580 | 1.615 | 15.18 |
| 54) | 2-Nitroanili       | 0.230  | 0.289 | 0.304 | 0.308 | 0.204 | 0.286 | 0.300 | 0.318 | 0.280 | 14.51 |
| 55) | Dimethylphth       | 1.543  | 1.522 | 1.285 | 1.343 | 1.541 | 1.445 | 1.307 | 1.433 | 1.427 | 7.36  |
| 56) | Acenaphthyle       | 2.073  | 2.167 | 1.689 | 1.813 | 2.073 | 2.053 | 1.737 | 2.011 | 1.952 | 9.17  |
| 57) | 2,6-Dinitrot       | 0.209  | 0.244 | 0.305 | 0.306 | 0.174 | 0.272 | 0.303 | 0.305 | 0.264 | 19.32 |
| 58) | 3-Nitroanili       | 0.268  | 0.322 | 0.374 | 0.378 | 0.202 | 0.332 | 0.370 | 0.388 | 0.329 | 19.71 |
| 59) | Acenaphthene       | 1.474  | 1.334 | 1.040 | 1.109 | 1.371 | 1.227 | 1.066 | 1.202 | 1.228 | 12.64 |
| 60) | 2,4-Dinitrop       | 0.020  | 0.050 | 0.182 | 0.159 |       | 0.072 | 0.170 | 0.129 | 0.112 | 57.14 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9994    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.02314 + 0.13997 *A + 0.00934 *A^2  |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno       | 0.097  | 0.143 | 0.200 | 0.190 |       | 0.157 | 0.194 | 0.193 | 0.168 | 22.53 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00483 + 0.18802 *A + 0.00508 *A^2  |       |       |       |       |       |       |       |       |       |
| 62) | Dibenzofuran       | 2.096  | 2.025 | 1.427 | 1.571 | 2.201 | 1.807 | 1.483 | 1.746 | 1.794 | 16.23 |
| 63) | 2,4-Dinitrot       | 0.212  | 0.326 | 0.354 | 0.379 | 0.145 | 0.371 | 0.358 | 0.402 | 0.318 | 28.49 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00787 + 0.41519 *A + -0.02419 *A^2 |       |       |       |       |       |       |       |       |       |
| 64) | 2,3,4,6-Tetr       | 0.286  | 0.332 | 0.346 | 0.346 | 0.222 | 0.333 | 0.340 | 0.360 | 0.321 | 14.14 |
| 65) | Diethylphtha       | 1.485  | 1.478 | 1.280 | 1.346 | 1.392 | 1.434 | 1.293 | 1.434 | 1.393 | 5.69  |
| 66) | Fluorene           | 1.570  | 1.575 | 1.243 | 1.335 | 1.522 | 1.496 | 1.268 | 1.472 | 1.435 | 9.33  |
| 67) | 4-Chlorophen       | 0.740  | 0.771 | 0.563 | 0.606 | 0.809 | 0.689 | 0.572 | 0.654 | 0.676 | 13.70 |
| 68) | 4-Nitroanili       | 0.255  | 0.341 | 0.345 | 0.340 | 0.197 | 0.342 | 0.341 | 0.350 | 0.314 | 18.00 |
| 69) | I Phenanthrene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-       | 0.031  | 0.054 | 0.139 | 0.129 |       | 0.073 | 0.134 | 0.117 | 0.097 | 44.91 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9996    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00884 + 0.12702 *A + 0.00602 *A^2  |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip       | 0.580  | 0.588 | 0.467 | 0.494 | 0.564 | 0.551 | 0.477 | 0.535 | 0.532 | 8.88  |
| 72) | 1,2-Diphenyl       | 0.823  | 0.833 | 0.590 | 0.635 | 0.790 | 0.753 | 0.595 | 0.703 | 0.715 | 13.90 |
| 73) | 2,4,6-Tribr        | 0.097  | 0.120 | 0.120 | 0.120 | 0.076 | 0.120 | 0.120 | 0.125 | 0.112 | 15.08 |
| 74) | 4-Bromopheny       | 0.232  | 0.235 | 0.210 | 0.217 | 0.221 | 0.221 | 0.210 | 0.227 | 0.222 | 4.21  |
| 75) | Hexachlorobe       | 0.329  | 0.315 | 0.237 | 0.249 | 0.314 | 0.280 | 0.239 | 0.267 | 0.279 | 13.13 |
| 76) | Pentachlorop       | 0.107  | 0.145 | 0.160 | 0.168 |       | 0.145 | 0.160 | 0.165 | 0.150 | 14.00 |
| 77) | Phenanthrene       | 1.299  | 1.235 | 0.861 | 0.954 | 1.329 | 1.137 | 0.895 | 1.048 | 1.095 | 16.71 |
| 78) | Anthracene         | 1.232  | 1.245 | 0.929 | 1.003 | 1.171 | 1.129 | 0.954 | 1.086 | 1.094 | 11.14 |
| 79) | Carbazole          | 1.224  | 1.223 | 0.984 | 1.058 | 1.125 | 1.148 | 1.011 | 1.143 | 1.114 | 8.08  |
| 80) | Di-n-butylph       | 1.073  | 1.251 | 1.204 | 1.290 | 0.892 | 1.273 | 1.218 | 1.350 | 1.194 | 12.23 |
| 81) | Fluoranthene       | 1.193  | 1.318 | 1.128 | 1.219 | 1.163 | 1.281 | 1.158 | 1.305 | 1.221 | 5.95  |
| 82) | Octadecane         | 0.328  | 0.356 | 0.274 | 0.301 | 0.295 | 0.340 | 0.286 | 0.330 | 0.314 | 9.21  |
| 83) | I Chrysene-d12     | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene             | 1.486  | 1.556 | 1.353 | 1.377 | 1.352 | 1.443 | 1.339 | 1.439 | 1.418 | 5.41  |
| 85) | Terphenyl-d1       | 0.930  | 0.999 | 0.983 | 0.978 | 0.869 | 0.923 | 0.967 | 0.980 | 0.954 | 4.53  |
| 86) | Butylbenzylp       | 0.381  | 0.523 | 0.685 | 0.669 |       | 0.556 | 0.663 | 0.649 | 0.589 | 18.78 |
| 87) | Benzo[a]anth       | 1.114  | 1.175 | 1.244 | 1.206 | 1.099 | 1.113 | 1.213 | 1.200 | 1.170 | 4.67  |

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

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|      |                |   |       |       |               |       |        |       |       |       |       |
|------|----------------|---|-------|-------|---------------|-------|--------|-------|-------|-------|-------|
| 88)  | 3,3'-Dichlor   | 0.262   | 0.356 | 0.465 | 0.441         | 0.215 | 0.388  | 0.455 | 0.441 | 0.378 | 24.93 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9999 |       |       |       |       |
|      |                | Response Ratio = -0.00777 + 0.43234 *A + 0.01388 *A^2 |       |       |               |       |        |       |       |       |       |
| 89)  | Chrysene       | 1.221   | 1.213 | 1.061 | 1.056         | 1.223 | 1.107  | 1.046 | 1.104 | 1.129 | 6.89  |
| 90)  | bis(2-Ethylh   | 0.428   | 0.620 | 0.871 | 0.838         | 0.276 | 0.686  | 0.843 | 0.811 | 0.672 | 32.57 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9998 |       |       |       |       |
|      |                | Response Ratio = -0.02041 + 0.81486 *A + 0.02422 *A^2 |       |       |               |       |        |       |       |       |       |
| 91)  | I Perylene-d12 | -----ISTD-----  |       |       |               |       |        |       |       |       |       |
| 92)  | Di-n-octylph   | 0.494   | 0.868 | 1.355 | 1.377         |       | 1.055  | 1.382 | 1.338 | 1.124 | 30.32 |
|      | ----           | Linear regression                                     |       | ----  | Coefficient = |       | 0.9995 |       |       |       |       |
|      |                | Response Ratio = -0.05189 + 1.39253 *A                |       |       |               |       |        |       |       |       |       |
| 93)  | Benzo[b]fluo   | 1.066   | 1.223 | 1.136 | 1.195         | 0.964 | 1.179  | 1.172 | 1.261 | 1.150 | 8.24  |
| 94)  | Benzo[k]fluo   | 1.234   | 1.278 | 0.942 | 1.029         | 0.953 | 1.170  | 0.998 | 1.090 | 1.087 | 11.81 |
| 95)  | Benzo[alpyre   | 0.865   | 1.008 | 1.022 | 1.064         | 0.711 | 1.018  | 1.056 | 1.092 | 0.980 | 13.11 |
| 96)  | Indeno[1,2,3   | 0.797   | 0.951 | 1.009 | 1.033         | 0.591 | 0.979  | 1.020 | 1.102 | 0.935 | 17.58 |
| 97)  | Dibenz(a,h)a   | 0.724   | 0.910 | 0.960 | 1.018         | 0.561 | 0.950  | 0.996 | 1.064 | 0.898 | 18.93 |
| 98)  | Dibenz[a,h]a   | 0.905   | 1.084 | 0.986 | 1.048         | 0.771 | 1.057  | 1.018 | 1.121 | 0.999 | 11.31 |
| 99)  | 7,12-Dimethy   | 0.372   | 0.478 | 0.480 | 0.499         | 0.297 | 0.506  | 0.498 | 0.518 | 0.456 | 17.28 |
| 100) | Benzo[g,h,i]   | 0.920   | 1.014 | 0.989 | 1.009         | 0.762 | 1.033  | 1.003 | 1.107 | 0.980 | 10.38 |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6168.M

Wed Apr 18 15:31:16 2018

MSM

8.7.17  
8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145282.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145282.D Vial: 10  
Acq On : 17 Apr 2018 8:03 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 110   | 0.00     | 4.65  |
| 5 S  | 2-Fluorophenol         | 1.496 | 1.403 | 6.2  | 104   | 0.00     | 3.67  |
| 8 S  | Phenol-d5              | 1.781 | 1.649 | 7.4  | 102   | 0.00     | 4.38  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 25 S | Nitrobenzene-d5        | 0.391 | 0.375 | 4.1  | 107   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 104   | 0.00     | 8.10  |
| 51 S | 2-Fluorobiphenyl       | 1.553 | 1.362 | 12.3 | 104   | 0.00     | 7.11  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 10.71 |
| 73 S | 2,4,6-Tribromophenol   | 0.112 | 0.120 | -7.1 | 94    | 0.00     | 9.45  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 15.85 |
| 85 S | Terphenyl-d14          | 0.954 | 0.926 | 2.9  | 92    | 0.00     | 13.88 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:22 2018 MSM

8.7.18

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145284.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145284.D Vial: 12  
Acq On : 17 Apr 2018 9:02 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 4.66  |
| 3 t  | Pyridine               | 1.770 | 1.552 | 12.3  | 85    | 0.08     | 2.59  |
| 10 t | Aniline                | 2.063 | 2.300 | -11.5 | 129   | 0.00     | 4.41  |
| 16 t | Benzyl alcohol         | 0.867 | 0.960 | -10.7 | 111   | 0.00     | 4.76  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 107   | 0.00     | 5.78  |
| 39 t | 4-Chloroaniline        | 0.448 | 0.423 | 5.6   | 108   | 0.00     | 5.86  |
| 44 t | 2-Methylnaphthalene    | 0.631 | 0.563 | 10.8  | 101   | 0.00     | 6.61  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 104   | 0.00     | 8.11  |
| 54 t | 2-Nitroaniline         | 0.280 | 0.295 | -5.4  | 99    | 0.00     | 7.42  |
| 58 t | 3-Nitroaniline         | 0.329 | 0.341 | -3.6  | 94    | 0.00     | 8.05  |
| 62 t | Dibenzofuran           | 1.794 | 1.676 | 6.6   | 111   | 0.00     | 8.44  |
| 68 t | 4-Nitroaniline         | 0.314 | 0.344 | -9.6  | 105   | -0.01    | 9.07  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 101   | 0.00     | 10.70 |
| 79 t | Carbazole              | 1.114 | 1.087 | 2.4   | 103   | 0.00     | 11.18 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:24 2018 MSM



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145285.D Vial: 13  
 Acq On : 17 Apr 2018 9:31 am Operator: chriss2  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|---------------------------|--------|--------|------|-------|----------|-------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0  | 100   | 0.00     | 4.66  |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.412  | 28.3 | 71    | 0.02     | 2.48  |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.294  | -1.0 | 114   | 0.00     | 4.45  |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.569  | 5.8  | 107   | 0.00     | 4.62  |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.393  | 11.1 | 100   | 0.00     | 4.67  |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.387  | 5.1  | 110   | 0.00     | 4.79  |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.381  | -5.0 | 114   | 0.00     | 4.87  |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.819  | -0.6 | 119   | 0.00     | 4.97  |
| 23 t                           | Hexachloroethane          | 0.524  | 0.483  | 7.8  | 96    | 0.00     | 5.07  |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0  | 95    | 0.00     | 5.78  |
| 26 t                           | Nitrobenzene              | 0.362  | 0.316  | 12.7 | 92    | 0.00     | 5.12  |
| 28 t                           | Isophorone                | 0.675  | 0.615  | 8.9  | 91    | 0.00     | 5.33  |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.383  | -1.9 | 105   | 0.00     | 5.53  |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.344  | 8.3  | 98    | 0.00     | 5.73  |
| 38 t                           | Naphthalene               | 1.050  | 0.948  | 9.7  | 96    | 0.00     | 5.81  |
| 42 t                           | Hexachlorobutadiene       | 0.187  | 0.176  | 5.9  | 100   | 0.00     | 5.95  |
| 47 I                           | Acenaphthene-d10          | 1.000  | 1.000  | 0.0  | 91    | 0.00     | 8.11  |
| 48 t                           | Hexachlorocyclopentadiene | 0.300  | 0.292  | 2.7  | 79    | 0.00     | 6.83  |
| 52 t                           | 2-Chloronaphthalene       | 1.252  | 1.211  | 3.3  | 102   | 0.00     | 7.26  |
| 55 t                           | Dimethylphthalate         | 1.427  | 1.329  | 6.9  | 90    | 0.00     | 7.72  |
| 56 t                           | Acenaphthylene            | 1.952  | 1.796  | 8.0  | 90    | 0.00     | 7.88  |
| 57 t                           | 2,6-Dinitrotoluene        | 0.264  | 0.243  | 8.0  | 72    | 0.00     | 7.80  |
| 59 t                           | Acenaphthene              | 1.228  | 1.100  | 10.4 | 90    | 0.00     | 8.16  |
| ----- True Calc. % Drift ----- |                           |        |        |      |       |          |       |
| 63 t                           | 2,4-Dinitrotoluene        | 50.000 | 37.179 | 25.6 | 68    | 0.00     | 8.44  |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |      |       |          |       |
| 65 t                           | Diethylphthalate          | 1.393  | 1.305  | 6.3  | 88    | -0.01    | 8.91  |
| 66 t                           | Fluorene                  | 1.435  | 1.301  | 9.3  | 89    | 0.00     | 9.03  |
| 67 t                           | 4-Chlorophenyl-phenylethe | 0.676  | 0.574  | 15.1 | 86    | 0.00     | 9.06  |
| 69 I                           | Phenanthrene-d10          | 1.000  | 1.000  | 0.0  | 89    | 0.00     | 10.70 |
| 71 t                           | n-Nitrosodiphenylamine    | 0.532  | 0.486  | 8.6  | 88    | 0.00     | 9.27  |
| 72 t                           | 1,2-Diphenylhydrazine     | 0.715  | 0.638  | 10.8 | 90    | 0.00     | 9.34  |
| 74 t                           | 4-Bromophenyl-phenylether | 0.222  | 0.208  | 6.3  | 86    | 0.00     | 9.93  |
| 75 t                           | Hexachlorobenzene         | 0.279  | 0.240  | 14.0 | 86    | 0.00     | 10.01 |
| 77 t                           | Phenanthrene              | 1.095  | 0.999  | 8.8  | 93    | 0.00     | 10.75 |
| 78 t                           | Anthracene                | 1.094  | 0.975  | 10.9 | 87    | 0.00     | 10.84 |

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 80  | t | Di-n-butylphthalate       | 1.194       | 1.203  | -0.8    | 83    | 0.00  | 12.01 |
| 81  | t | Fluoranthene              | 1.221       | 1.133  | 7.2     | 83    | 0.00  | 13.03 |
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 83    | 0.00  | 15.86 |
| 84  | t | Pyrene                    | 1.418       | 1.341  | 5.4     | 81    | 0.00  | 13.45 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.643  | -9.2    | 80    | 0.00  | 14.94 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.163  | 0.6     | 80    | 0.00  | 15.84 |
| 89  | t | Chrysene                  | 1.129       | 1.017  | 9.9     | 80    | 0.00  | 15.91 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 49.012 | 2.0     | 80    | 0.00  | 16.17 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 79    | 0.00  | 18.46 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 49.824 | 0.4     | 77    | 0.00  | 17.39 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.110  | 3.5     | 74    | 0.00  | 17.82 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.074  | 1.2     | 83    | -0.01 | 17.87 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.037  | -5.8    | 77    | 0.00  | 18.36 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 1.010  | -8.0    | 77    | 0.00  | 20.15 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 0.996  | 0.3     | 75    | 0.00  | 20.21 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 1.072  | -9.4    | 84    | -0.01 | 20.59 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:26 2018 MSM

8.7.20

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145286.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145286.D Vial: 14  
Acq On : 17 Apr 2018 10:00 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 4.66  |
| 2 t  | 1,4-Dioxane               | 0.712 | 0.627 | 11.9 | 93    | 0.01     | 2.20  |
| 6 t  | Indene                    | 2.019 | 2.192 | -8.6 | 131   | 0.00     | 4.86  |
| 7 t  | Cumene                    | 3.455 | 3.173 | 8.2  | 105   | 0.00     | 4.06  |
| 13 t | Decane                    | 0.920 | 0.781 | 15.1 | 112   | 0.00     | 4.54  |
| 18 t | Acetophenone              | 1.660 | 1.650 | 0.6  | 124   | 0.00     | 4.97  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 27 t | Quinoline                 | 0.740 | 0.681 | 8.0  | 97    | -0.01    | 6.17  |
| 40 t | 2,3-Dichloroaniline       | 0.393 | 0.328 | 16.5 | 93    | 0.00     | 6.98  |
| 41 t | Caprolactam               | 0.121 | 0.103 | 14.9 | 85    | -0.03    | 6.23  |
| 45 t | 1-Methylnaphthalene       | 0.761 | 0.626 | 17.7 | 95    | 0.00     | 6.73  |
| 46 t | Dimethylnaphthalene       | 0.668 | 0.586 | 12.3 | 100   | 0.00     | 7.48  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 91    | 0.00     | 8.11  |
| 53 t | Biphenyl                  | 1.615 | 1.610 | 0.3  | 103   | 0.00     | 7.25  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 10.71 |
| 82 t | Octadecane                | 0.314 | 0.337 | -7.3 | 101   | 0.00     | 10.73 |
| 91 I | Perylene-d12              | 1.000 | 1.000 | 0.0  | 77    | 0.00     | 18.46 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.456 | 0.343 | 24.8 | 53    | -0.02    | 17.83 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:28 2018 MSM

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145287.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145287.D Vial: 15  
Acq On : 17 Apr 2018 10:30 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----------------------------|------------|--------|---------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000      | 1.000  | 0.0     | 120   | 0.00     | 15.85 |
|                             | ----- True | Calc.  | % Drift | ----- |          |       |
| 88 t 3,3'-Dichlorobenzidine | 50.000     | 40.829 | 18.3    | 98    | 0.00     | 15.87 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:30 2018 MSM

8.7.22

8

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICC6169  
**Lab FileID:** M145291.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6169.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145295.D 5 =M145294.D 100 =M145289.D 50 =M145291.D  
1 =M145296.D 10 =M145293.D 80 =M145290.D 25 =M145292.D

| Compound  | 2     | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg    | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d  |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde   | 1.324 | 1.294 | 0.907 | 1.038 | 1.291 | 1.171 | 0.983 | 1.156 | 1.145  | 13.63 |
| 103) I Acenaphthene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 104) 1,2,4,5-Tetr   | 0.715 | 0.765 | 0.581 | 0.607 | 0.682 | 0.685 | 0.614 | 0.672 | 0.665  | 9.24  |
| 105) Atrazine   | 0.134 | 0.180 | 0.207 | 0.213 | 0.120 | 0.183 | 0.212 | 0.215 | 0.183  | 20.31 |
| ---- Linear regression ---- Coefficient = 0.9995<br>Response Ratio = -0.00230 + 0.21095 *A                    |       |       |       |       |       |       |       |       |        |       |
| 106) I Chrysene-d12a  |       |       |       |       |       |       |       |       |        |       |
| 107) Benzidine  | 0.266 | 0.505 |       | 0.585 | 0.160 | 0.590 | 0.545 | 0.698 | 0.478  | 40.36 |
| ---- Quadratic regression ---- Coefficient = 0.9982<br>Response Ratio = -0.01964 + 0.73236 *A + -0.09033 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 108) 1-chloroocta   | 0.196 | 0.231 | 0.244 | 0.253 |       | 0.237 | 0.252 | 0.271 | 0.241  | 9.70  |
| 109) I Phenanthrene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 110) o-terphenyl  | 0.548 | 0.624 | 0.515 | 0.552 | 0.506 | 0.582 | 0.529 | 0.573 | 0.554  | 7.03  |
| 111) Pentachloron   |       | 0.023 | 0.041 | 0.040 |       | 0.030 | 0.041 | 0.039 | 0.036# | 20.56 |
| ---- Linear regression ---- Coefficient = 0.9999<br>Response Ratio = -0.00254 + 0.04234 *A                    |       |       |       |       |       |       |       |       |        |       |
| 112) I Naphthalene-d8a  |       |       |       |       |       |       |       |       |        |       |
| 113) Hydroquinone   |       | 0.230 | 0.372 | 0.374 |       | 0.299 | 0.358 | 0.354 | 0.331  | 17.09 |
| -----   |       |       |       |       |       |       |       |       |        |       |
| (# ) = Out of Range ### Number of calibration levels exceeded format ###                                      |       |       |       |       |       |       |       |       |        |       |

MM6168.M Wed Apr 18 15:32:44 2018 MSM

8.7.23

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145297.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145297.D Vial: 24  
Acq On : 17 Apr 2018 3:34 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 112 I Naphthalene-d8a | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 5.79 |
| 113 Hydroquinone      | 0.331 | 0.350 | -5.7 | 91    | 0.00     | 6.23 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:32 2018 MSM

8.7.24

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145298.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145298.D Vial: 12  
Acq On : 17 Apr 2018 4:03 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----------------------------|------------|--------|---------|-------|----------|-------|
| 109 I Phenanthrene-d10a     | 1.000      | 1.000  | 0.0     | 105   | 0.00     | 10.70 |
|                             | ----- True | Calc.  | % Drift | ----- |          |       |
| 111 Pentachloronitrobenzene | 50.000     | 51.100 | -2.2    | 107   | 0.00     | 10.42 |

(#) = Out of Range SPC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:34 2018 MSM

8.7.25  
8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145299.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145299.D Vial: 13  
Acq On : 17 Apr 2018 4:32 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                        | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|---------------------------------|-------|-------|------|-------|----------|------|
| 103 I Acenaphthene-d10a         | 1.000 | 1.000 | 0.0  | 96    | 0.00     | 8.11 |
| 104 I 1,2,4,5-Tetrachlorobenzen | 0.665 | 0.655 | 1.5  | 104   | 0.00     | 6.83 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:36 2018 MSM

8.7.26  
8



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145300.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145300.D Vial: 14  
Acq On : 17 Apr 2018 5:02 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|-------------------------|--------|--------|---------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000  | 1.000  | 0.0     | 94    | 0.00     | 4.65  |
| 102 t | Benzaldehyde            | 1.145  | 0.949  | 17.1    | 86    | 0.00     | 4.32  |
| 103 I | Acenaphthene-d10a       | 1.000  | 1.000  | 0.0     | 93    | 0.00     | 8.11  |
|       |                         | True   | Calc.  | % Drift |       |          |       |
| 105 t | Atrazine                | 50.000 | 50.874 | -1.7    | 93    | 0.00     | 10.31 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:38 2018 MSM

8.7.27

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145301.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145301.D Vial: 15  
Acq On : 17 Apr 2018 5:31 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound            | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|---------------------|--------|--------|---------|-------|----------|-------|
| 106 I Chrysene-d12a | 1.000  | 1.000  | 0.0     | 117   | 0.00     | 15.85 |
|                     | True   | Calc.  | % Drift |       |          |       |
| 107 t Benzidine     | 50.000 | 61.819 | -23.6   | 144   | 0.00     | 13.38 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:15:55 2018 MSM

8.7.28

8

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6170-ICV6168  
**Lab FileID:** M145303.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6170\M145303.D Vial: 2  
 Acq On : 17 Apr 2018 8:55 pm Operator: sufiyana  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6170,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 103   | 0.00     | 4.65  |
| 9 t  | Phenol                         | 1.971  | 1.806  | 8.4   | 103   | 0.00     | 4.39  |
| 12 t | 2-Chlorophenol                 | 1.414  | 1.382  | 2.3   | 112   | 0.00     | 4.49  |
| 19 t | 2-Methylphenol                 | 1.157  | 1.141  | 1.4   | 110   | 0.00     | 4.85  |
| 21 t | 3&4-Methylphenol               | 1.155  | 1.197  | -3.6  | 114   | 0.00     | 4.98  |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 92    | 0.00     | 5.78  |
| 29 t | 2-Nitrophenol                  | 0.185  | 0.222  | -20.0 | 100   | 0.00     | 5.41  |
| 30 t | 2,4-Dimethylphenol             | 0.319  | 0.345  | -8.2  | 99    | 0.00     | 5.45  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 31 t | Benzoic acid                   | 50.000 | 53.638 | -7.3  | 97    | 0.00     | 5.55  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 33 t | 2,4-Dichlorophenol             | 0.285  | 0.301  | -5.6  | 90    | 0.00     | 5.64  |
| 34 t | 2,6-Dichlorophenol             | 0.282  | 0.296  | -5.0  | 98    | 0.00     | 5.87  |
| 43 t | 4-Chloro-3-methylphenol        | 0.315  | 0.330  | -4.8  | 94    | 0.00     | 6.42  |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 85    | 0.00     | 8.10  |
| 49 t | 2,4,6-Trichlorophenol          | 0.369  | 0.429  | -16.3 | 100   | 0.00     | 6.98  |
| 50 t | 2,4,5-Trichlorophenol          | 0.408  | 0.422  | -3.4  | 88    | -0.01    | 7.03  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 59.400 | -18.8 | 106   | 0.00     | 8.22  |
| 61 t | 4-Nitrophenol                  | 50.000 | 49.997 | 0.0   | 85    | 0.00     | 8.36  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 64 t | 2,3,4,6-Tetrachlorophenol      | 0.321  | 0.332  | -3.4  | 81    | 0.00     | 8.67  |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 82    | 0.00     | 10.71 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 55.228 | -10.5 | 90    | 0.00     | 9.14  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 76 t | Pentachlorophenol              | 0.150  | 0.192  | -28.0 | 94    | 0.00     | 10.39 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Wed Apr 18 02:23:34 2018 MSM

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6203-CC6168  
**Lab FileID:** M145988.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6203\M145988.D Vial: 2  
 Acq On : 9 May 2018 2:25 am Operator: chriss2  
 Sample : cc6168-50 Inst : Instrument #1  
 Misc : op10492,em6203,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 09 11:33:15 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 55    | -0.08    | 4.49 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.674  | 5.3    | 52    | -0.17    | 1.97 |
| 3 t                            | Pyridine                  | 1.770  | 1.534  | 13.3   | 47#   | -0.14    | 2.32 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.795  | -38.3# | 76    | -0.14    | 2.28 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.480  | 1.1    | 55    | -0.07    | 3.52 |
| 6 t                            | Indene                    | 2.019  | 2.120  | -5.0   | 66    | -0.08    | 4.69 |
| 7 t                            | Cumene                    | 3.455  | 3.576  | -3.5   | 62    | -0.09    | 3.89 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.682  | 5.6    | 52    | -0.04    | 4.26 |
| 9 t                            | Phenol                    | 1.971  | 1.888  | 4.2    | 58    | -0.04    | 4.26 |
| 10 t                           | Aniline                   | 2.063  | 2.063  | 0.0    | 66    | -0.07    | 4.25 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.203  | 6.1    | 59    | -0.07    | 4.30 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.433  | -1.3   | 62    | -0.07    | 4.34 |
| 13 t                           | Decane                    | 0.920  | 1.020  | -10.9  | 76    | -0.08    | 4.38 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.590  | 4.5    | 60    | -0.08    | 4.45 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.540  | 1.7    | 61    | -0.07    | 4.50 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.870  | -0.3   | 57    | -0.07    | 4.61 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.480  | -1.2   | 65    | -0.08    | 4.62 |
| 18 t                           | Acetophenone              | 1.660  | 1.844  | -11.1  | 73    | -0.08    | 4.80 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.173  | -1.4   | 60    | -0.06    | 4.71 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.342  | 5.8    | 57    | -0.08    | 4.70 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.215  | -5.2   | 62    | -0.05    | 4.83 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.907  | -11.4  | 73    | -0.07    | 4.81 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.554  | -5.7   | 61    | -0.09    | 4.88 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 57    | -0.14    | 5.57 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.390  | 0.3    | 60    | -0.11    | 4.93 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.368  | -1.7   | 65    | -0.11    | 4.94 |
| 27 t                           | Quinoline                 | 0.740  | 0.768  | -3.8   | 60    | -0.14    | 5.96 |
| 28 t                           | Isophorone                | 0.675  | 0.671  | 0.6    | 60    | -0.12    | 5.15 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.215  | -16.2  | 61    | -0.12    | 5.22 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.361  | -13.2  | 65    | -0.10    | 5.27 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 64.373 | -28.7# | 75    | -0.09    | 5.40 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.358  | 4.8    | 59    | -0.13    | 5.34 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.319  | -11.9  | 60    | -0.11    | 5.46 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.307  | -8.9   | 64    | -0.13    | 5.67 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.362  | 2.2    | 64    | -0.13    | 5.23 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.347  | 7.5    | 60    | -0.14    | 5.52 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.329  | 1.8    | 64    | -0.14    | 5.75 |

8.7.30

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6203-CC6168  
**Lab FileID:** M145988.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.996   | 5.1     | 61    | -0.14 | 5.59  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.437   | 2.5     | 60    | -0.13 | 5.66  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.419   | -6.6    | 65    | -0.15 | 6.74  |
| 41 t | Caprolactam               | 0.121       | 0.146   | -20.7#  | 65    | -0.12 | 6.05  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.196   | -4.8    | 67    | -0.15 | 5.73  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.364   | -15.6   | 65    | -0.11 | 6.23  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.639   | -1.3    | 61    | -0.16 | 6.37  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.764   | -0.4    | 63    | -0.16 | 6.49  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.696   | -4.2    | 65    | -0.17 | 7.21  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 60    | -0.19 | 7.83  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.329   | -9.7    | 63    | -0.17 | 6.58  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.400   | -8.4    | 66    | -0.15 | 6.76  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.433   | -6.1    | 64    | -0.14 | 6.82  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.372   | 11.7    | 60    | -0.17 | 6.85  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.133   | 9.5     | 63    | -0.17 | 7.01  |
| 53 t | Biphenyl                  | 1.615       | 1.540   | 4.6     | 65    | -0.17 | 6.99  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.361   | -28.9#  | 70    | -0.16 | 7.17  |
| 55 t | Dimethylphthalate         | 1.427       | 1.448   | -1.5    | 65    | -0.17 | 7.46  |
| 56 t | Acenaphthylene            | 1.952       | 1.896   | 2.9     | 63    | -0.18 | 7.61  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.329   | -24.6#  | 65    | -0.16 | 7.54  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.369   | -12.2   | 59    | -0.15 | 7.81  |
| 59 t | Acenaphthene              | 1.228       | 1.188   | 3.3     | 64    | -0.18 | 7.89  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 115.954 | -16.0   | 70    | -0.15 | 7.98  |
| 61 t | 4-Nitrophenol             | 50.000      | 56.099  | -12.2   | 68    | -0.09 | 8.18  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.773   | 1.2     | 68    | -0.18 | 8.17  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 50.000      | 58.618  | -17.2   | 70    | -0.15 | 8.20  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.375   | -16.8   | 65    | -0.16 | 8.40  |
| 65 t | Diethylphthalate          | 1.393       | 1.502   | -7.8    | 67    | -0.18 | 8.64  |
| 66 t | Fluorene                  | 1.435       | 1.442   | -0.5    | 65    | -0.18 | 8.74  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.666   | 1.5     | 66    | -0.18 | 8.78  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.353   | -12.4   | 62    | -0.15 | 8.83  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 65    | -0.21 | 10.41 |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 53.395  | -6.8    | 69    | -0.17 | 8.89  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.535   | -0.6    | 70    | -0.20 | 9.00  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.639   | 10.6    | 65    | -0.21 | 9.05  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.125   | -11.6   | 67    | -0.20 | 9.17  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.222   | 0.0     | 66    | -0.21 | 9.64  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.252   | 9.7     | 66    | -0.21 | 9.72  |
| 76 t | Pentachlorophenol         | 0.150       | 0.149   | 0.7     | 57    | -0.18 | 10.12 |
| 77 t | Phenanthrene              | 1.095       | 0.990   | 9.6     | 67    | -0.21 | 10.45 |
| 78 t | Anthracene                | 1.094       | 1.036   | 5.3     | 67    | -0.21 | 10.55 |
| 79 t | Carbazole                 | 1.114       | 1.062   | 4.7     | 65    | -0.18 | 10.91 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.355   | -13.5   | 68    | -0.20 | 11.71 |
| 81 t | Fluoranthene              | 1.221       | 1.270   | -4.0    | 68    | -0.19 | 12.73 |
| 82 t | Octadecane                | 0.314       | 0.356   | -13.4   | 77    | -0.21 | 10.43 |

8.7.30

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6203-CC6168  
**Lab FileID:** M145988.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 67    | -0.22 | 15.55 |
| 84  | t | Pyrene                    | 1.418       | 1.376  | 3.0     | 67    | -0.24 | 13.15 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.939  | 1.6     | 65    | -0.23 | 13.57 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.680  | -15.4   | 68    | -0.23 | 14.64 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.232  | -5.3    | 69    | -0.22 | 15.53 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 50.000      | 49.828 | 0.3     | 67    | -0.21 | 15.58 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.099  | 2.7     | 70    | -0.22 | 15.60 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 52.667 | -5.3    | 70    | -0.22 | 15.86 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 61    | -0.23 | 18.16 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 56.421 | -12.8   | 68    | -0.23 | 17.09 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.298  | -12.9   | 66    | -0.23 | 17.53 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.115  | -2.6    | 66    | -0.23 | 17.58 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.148  | -17.1   | 66    | -0.22 | 18.07 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 0.991  | -6.0    | 59    | -0.25 | 19.82 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.968  | -7.8    | 58    | -0.23 | 19.49 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 1.016  | -1.7    | 59    | -0.26 | 19.87 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.572  | -25.4#  | 70    | -0.24 | 17.54 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 0.967  | 1.3     | 59    | -0.28 | 20.23 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed May 09 11:34:25 2018 MSM

8.7.30

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6203-CC6169  
**Lab FileID:** M145989.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6203\M145989.D Vial: 3  
 Acq On : 9 May 2018 2:55 am Operator: chriss2  
 Sample : cc6169-50 Inst : Instrument #1  
 Misc : op10492,em6203,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 09 11:33:15 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                        | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|---------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4a   | 1.000  | 1.000  | 0.0   | 61    | -0.10    | 4.49  |
| 102 t Benzaldehyde              | 1.145  | 0.875  | 23.6# | 51    | -0.10    | 4.17  |
| 103 I Acenaphthene-d10a         | 1.000  | 1.000  | 0.0   | 66    | -0.19    | 7.83  |
| 104 I 1,2,4,5-Tetrachlorobenzen | 0.665  | 0.601  | 9.6   | 65    | -0.17    | 6.59  |
| ----- True Calc. % Drift -----  |        |        |       |       |          |       |
| 105 t Atrazine                  | 50.000 | 50.103 | -0.2  | 65    | -0.16    | 10.04 |
| ----- AvgRF CCRF % Dev -----    |        |        |       |       |          |       |
| 106 I Chrysene-d12a             | 1.000  | 1.000  | 0.0   | 72    | -0.23    | 15.55 |
| ----- True Calc. % Drift -----  |        |        |       |       |          |       |
| 107 t Benzidine                 | 50.000 | 25.838 | 48.3# | 41    | -0.23    | 13.09 |
| ----- AvgRF CCRF % Dev -----    |        |        |       |       |          |       |
| 108 s 1-chlorooctadecane        | 0.241  | 0.254  | -5.4  | 72    | -0.24    | 12.75 |
| 109 I Phenanthrene-d10a         | 1.000  | 1.000  | 0.0   | 68    | -0.21    | 10.41 |
| 110 s o-terphenyl               | 0.554  | 0.548  | 1.1   | 67    | -0.21    | 11.22 |
| ----- True Calc. % Drift -----  |        |        |       |       |          |       |
| 111 Pentachloronitrobenzene     | 50.000 | 57.666 | -15.3 | 79    | -0.21    | 10.13 |
| ----- AvgRF CCRF % Dev -----    |        |        |       |       |          |       |
| 112 I Naphthalene-d8a           | 1.000  | 1.000  | 0.0   | 61    | -0.14    | 5.57  |
| 113 Hydroquinone                | 0.331  | 0.381  | -15.1 | 62    | -0.09    | 6.06  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Wed May 09 11:36:18 2018 MSM

8.7.31  
8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6204-CC6168  
**Lab FileID:** M146016.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6204\M146016.D Vial: 2  
 Acq On : 9 May 2018 4:16 pm Operator: johnbl  
 Sample : cc6168-25 Inst : Instrument #1  
 Misc : op10492,em6204,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue May 08 09:35:35 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 56    | -0.08    | 4.49 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.632  | 11.2   | 50    | -0.17    | 1.97 |
| 3 t                            | Pyridine                  | 1.770  | 1.586  | 10.4   | 51    | -0.13    | 2.32 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.755  | -31.3# | 75    | -0.14    | 2.28 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.464  | 2.1    | 53    | -0.07    | 3.52 |
| 6 t                            | Indene                    | 2.019  | 2.145  | -6.2   | 61    | -0.08    | 4.68 |
| 7 t                            | Cumene                    | 3.455  | 3.653  | -5.7   | 59    | -0.09    | 3.89 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.723  | 3.3    | 53    | -0.04    | 4.25 |
| 9 t                            | Phenol                    | 1.971  | 1.898  | 3.7    | 54    | -0.04    | 4.26 |
| 10 t                           | Aniline                   | 2.063  | 2.110  | -2.3   | 60    | -0.08    | 4.25 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.225  | 4.4    | 57    | -0.08    | 4.29 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.464  | -3.5   | 59    | -0.07    | 4.34 |
| 13 t                           | Decane                    | 0.920  | 1.109  | -20.5# | 75    | -0.08    | 4.37 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.619  | 2.8    | 57    | -0.08    | 4.44 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.550  | 1.1    | 58    | -0.08    | 4.50 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.860  | 0.8    | 54    | -0.07    | 4.60 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.504  | -2.9   | 61    | -0.08    | 4.61 |
| 18 t                           | Acetophenone              | 1.660  | 1.863  | -12.2  | 65    | -0.08    | 4.80 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.216  | -5.1   | 58    | -0.06    | 4.71 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.358  | 1.4    | 58    | -0.08    | 4.70 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.227  | -6.2   | 58    | -0.05    | 4.83 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.960  | -17.9  | 68    | -0.08    | 4.80 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.559  | -6.7   | 60    | -0.09    | 4.88 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 59    | -0.14    | 5.57 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.407  | -4.1   | 60    | -0.12    | 4.92 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.378  | -4.4   | 62    | -0.12    | 4.94 |
| 27 t                           | Quinoline                 | 0.740  | 0.750  | -1.4   | 57    | -0.15    | 5.95 |
| 28 t                           | Isophorone                | 0.675  | 0.685  | -1.5   | 59    | -0.12    | 5.14 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.214  | -15.7  | 60    | -0.13    | 5.21 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.370  | -16.0  | 66    | -0.11    | 5.27 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 25.000 | 34.889 | -39.6# | 88    | -0.11    | 5.38 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.373  | 0.8    | 59    | -0.13    | 5.34 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.316  | -10.9  | 58    | -0.12    | 5.45 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.298  | -5.7   | 58    | -0.13    | 5.67 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.369  | 0.3    | 61    | -0.13    | 5.22 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.349  | 6.9    | 57    | -0.14    | 5.52 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.335  | 0.0    | 60    | -0.14    | 5.75 |

8.7.32  
8



# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6204-CC6168  
**Lab FileID:** M146016.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.993  | 5.4     | 57    | -0.14 | 5.59  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.449  | -0.2    | 58    | -0.13 | 5.66  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.413  | -5.1    | 60    | -0.16 | 6.74  |
| 41 t | Caprolactam               | 0.121       | 0.148  | -22.3#  | 64    | -0.14 | 6.03  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.192  | -2.7    | 64    | -0.15 | 5.73  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.357  | -13.3   | 63    | -0.12 | 6.23  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.634  | -0.5    | 58    | -0.16 | 6.37  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.769  | -1.1    | 59    | -0.16 | 6.49  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.690  | -3.3    | 60    | -0.17 | 7.21  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 61    | -0.19 | 7.83  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.314  | -4.7    | 58    | -0.18 | 6.58  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.406  | -10.0   | 62    | -0.16 | 6.75  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.423  | -3.7    | 60    | -0.15 | 6.81  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.407  | 9.4     | 58    | -0.17 | 6.85  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.166  | 6.9     | 59    | -0.18 | 7.00  |
| 53 t | Biphenyl                  | 1.615       | 1.571  | 2.7     | 60    | -0.18 | 6.99  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.368  | -31.4#  | 70    | -0.16 | 7.17  |
| 55 t | Dimethylphthalate         | 1.427       | 1.441  | -1.0    | 61    | -0.18 | 7.46  |
| 56 t | Acenaphthylene            | 1.952       | 1.939  | 0.7     | 59    | -0.19 | 7.61  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.322  | -22.0#  | 64    | -0.16 | 7.54  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.360  | -9.4    | 56    | -0.16 | 7.80  |
| 59 t | Acenaphthene              | 1.228       | 1.192  | 2.9     | 60    | -0.18 | 7.88  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 60.151 | -20.3#  | 79    | -0.15 | 7.98  |
| 61 t | 4-Nitrophenol             | 25.000      | 29.011 | -16.0   | 68    | -0.09 | 8.17  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.789  | 0.3     | 62    | -0.19 | 8.16  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 25.000      | 28.845 | -15.4   | 67    | -0.16 | 8.19  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.359  | -11.8   | 61    | -0.17 | 8.40  |
| 65 t | Diethylphthalate          | 1.393       | 1.477  | -6.0    | 63    | -0.18 | 8.63  |
| 66 t | Fluorene                  | 1.435       | 1.446  | -0.8    | 60    | -0.18 | 8.74  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.673  | 0.4     | 63    | -0.19 | 8.77  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.349  | -11.1   | 61    | -0.16 | 8.82  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 63    | -0.21 | 10.41 |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 27.872 | -11.5   | 71    | -0.18 | 8.89  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.558  | -4.9    | 66    | -0.21 | 8.99  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.698  | 2.4     | 62    | -0.21 | 9.05  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.125  | -11.6   | 63    | -0.20 | 9.17  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.229  | -3.2    | 64    | -0.21 | 9.64  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.263  | 5.7     | 62    | -0.21 | 9.72  |
| 76 t | Pentachlorophenol         | 0.150       | 0.148  | 1.3     | 56    | -0.18 | 10.12 |
| 77 t | Phenanthrene              | 1.095       | 1.045  | 4.6     | 63    | -0.21 | 10.45 |
| 78 t | Anthracene                | 1.094       | 1.081  | 1.2     | 63    | -0.21 | 10.54 |
| 79 t | Carbazole                 | 1.114       | 1.096  | 1.6     | 60    | -0.19 | 10.90 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.411  | -18.2   | 66    | -0.20 | 11.71 |
| 81 t | Fluoranthene              | 1.221       | 1.337  | -9.5    | 64    | -0.20 | 12.73 |
| 82 t | Octadecane                | 0.314       | 0.379  | -20.7#  | 72    | -0.21 | 10.43 |

8.7.32

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6204-CC6168  
**Lab FileID:** M146016.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 63    | -0.22 | 15.55 |
| 84  | t | Pyrene                    | 1.418       | 1.410  | 0.6     | 62    | -0.23 | 13.15 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.954  | 0.0     | 61    | -0.23 | 13.58 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.697  | -18.3   | 68    | -0.22 | 14.64 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.249  | -6.8    | 66    | -0.22 | 15.53 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 25.000      | 26.671 | -6.7    | 66    | -0.21 | 15.57 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.120  | 0.8     | 64    | -0.22 | 15.60 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 25.000      | 27.389 | -9.6    | 68    | -0.22 | 15.86 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 54    | -0.22 | 18.17 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 31.260 | -25.0#  | 67    | -0.24 | 17.09 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.332  | -15.8   | 57    | -0.22 | 17.53 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.180  | -8.6    | 59    | -0.23 | 17.58 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.177  | -20.1#  | 58    | -0.23 | 18.06 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 1.030  | -10.2   | 51    | -0.25 | 19.82 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.980  | -9.1    | 50    | -0.22 | 19.50 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 1.078  | -7.9    | 52    | -0.26 | 19.87 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.587  | -28.7#  | 61    | -0.24 | 17.53 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 1.016  | -3.7    | 50    | -0.28 | 20.23 |

(#) = Out of Range  
 M145292a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
 Thu May 10 07:29:41 2018 MSM

8.7.32

8

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6204-CC6169  
**Lab FileID:** M146017.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6204\M146017.D Vial: 3  
 Acq On : 9 May 2018 4:46 pm Operator: johnbl  
 Sample : cc6169-25 Inst : Instrument #1  
 Misc : op10492,em6204,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue May 08 09:35:35 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF       | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------------|--------|---------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a   | 1.000       | 1.000  | 0.0     | 63    | -0.11    | 4.49  |
| 102 t | Benzaldehyde              | 1.145       | 0.892  | 22.1#   | 49#   | -0.11    | 4.16  |
| 103 I | Acenaphthene-d10a         | 1.000       | 1.000  | 0.0     | 68    | -0.19    | 7.83  |
| 104 I | 1,2,4,5-Tetrachlorobenzen | 0.665       | 0.637  | 4.2     | 64    | -0.17    | 6.59  |
|       |                           | ----- True  | Calc.  | % Drift | ----- |          |       |
| 105 t | Atrazine                  | 25.000      | 26.269 | -5.1    | 68    | -0.16    | 10.04 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |          |       |
| 106 I | Chrysene-d12a             | 1.000       | 1.000  | 0.0     | 73    | -0.23    | 15.55 |
|       |                           | ----- True  | Calc.  | % Drift | ----- |          |       |
| 107 t | Benzidine                 | 25.000      | 17.214 | 31.1#   | 47    | -0.21    | 13.10 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |          |       |
| 108 s | 1-chlorooctadecane        | 0.241       | 0.272  | -12.9   | 73    | -0.24    | 12.76 |
| 109 I | Phenanthrene-d10a         | 1.000       | 1.000  | 0.0     | 70    | -0.21    | 10.41 |
| 110 s | o-terphenyl               | 0.554       | 0.560  | -1.1    | 68    | -0.21    | 11.22 |
|       |                           | ----- True  | Calc.  | % Drift | ----- |          |       |
| 111   | Pentachloronitrobenzene   | 25.000      | 30.207 | -20.8#  | 84    | -0.21    | 10.13 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |          |       |
| 112 I | Naphthalene-d8a           | 1.000       | 1.000  | 0.0     | 63    | -0.14    | 5.57  |
| 113   | Hydroquinone              | 0.331       | 0.388  | -17.2   | 69    | -0.09    | 6.05  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145292a.D MM6168.M Thu May 10 01:22:08 2018 MSM

8.7.33

8

MS Semi-volatiles

Raw Data

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M145999.D  
 Acq On : 9 May 2018 7:51 am  
 Operator : chriss2  
 Sample : jc64996-1  
 Misc : op11642,em6203,31.0,,,1,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 12:01:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

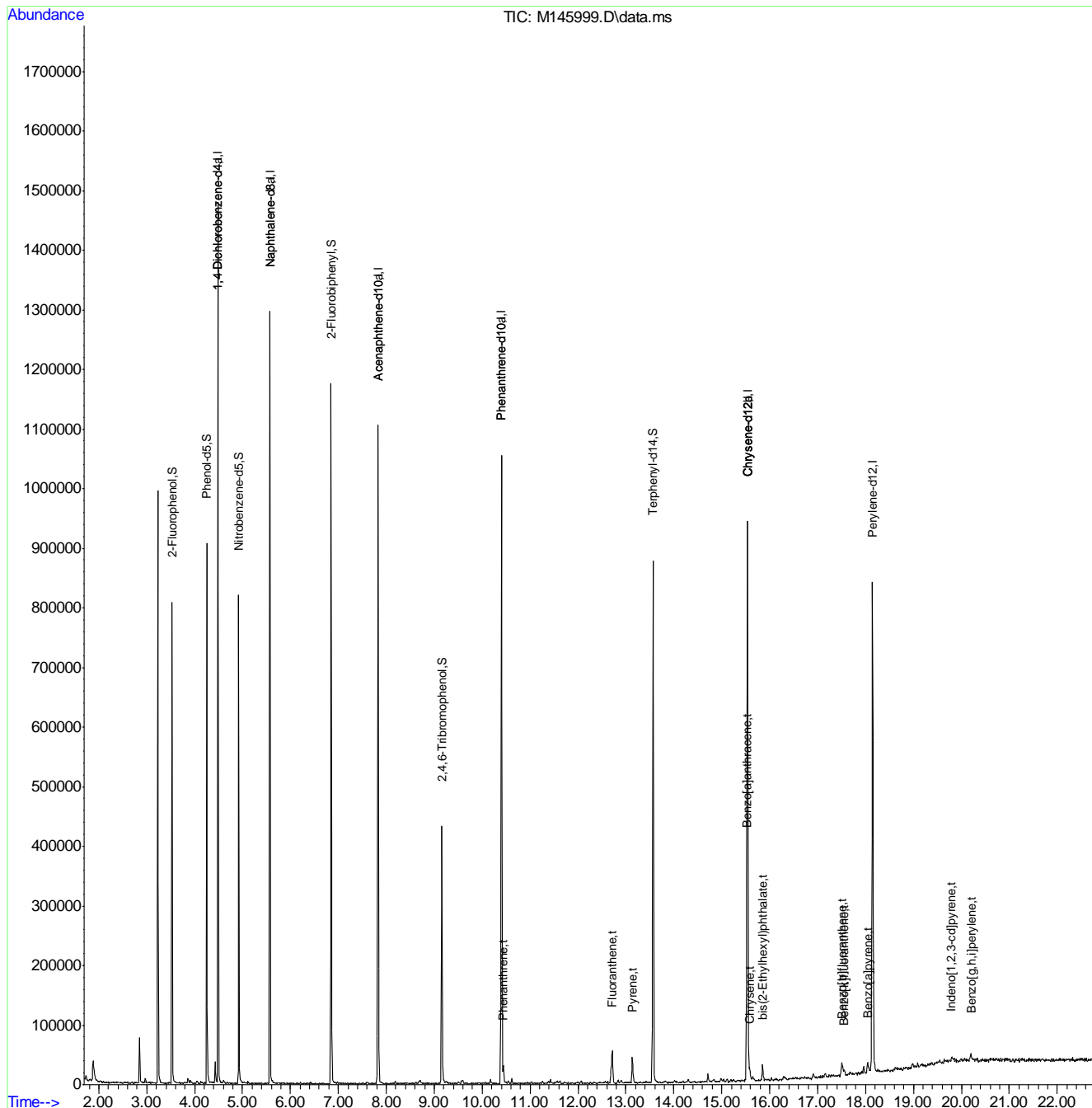
| Compound                      | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards            |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4     | 4.488  | 152  | 160233   | 40.00 | ppm    | -0.08    |
| 24) Naphthalene-d8            | 5.572  | 136  | 585982   | 40.00 | ppm    | -0.14    |
| 47) Acenaphthene-d10          | 7.826  | 164  | 295791   | 40.00 | ppm    | -0.19    |
| 69) Phenanthrene-d10          | 10.405 | 188  | 560305   | 40.00 | ppm    | -0.21    |
| 83) Chrysene-d12              | 15.538 | 240  | 486894   | 40.00 | ppm    | -0.24    |
| 91) Perylene-d12              | 18.145 | 264  | 466196   | 40.00 | ppm    | -0.24    |
| 101) 1,4-Dichlorobenzene-d4a  | 4.488  | 152  | 160233   | 40.00 | ppm    | -0.11    |
| 103) Acenaphthene-d10a        | 7.826  | 164  | 295791   | 40.00 | ppm    | -0.19    |
| 106) Chrysene-d12a            | 15.538 | 240  | 486894   | 40.00 | ppm    | -0.24    |
| 109) Phenanthrene-d10a        | 10.405 | 188  | 560305   | 40.00 | ppm    | -0.21    |
| 112) Naphthalene-d8a          | 5.572  | 136  | 585982   | 40.00 | ppm    | -0.14    |
| 114) Chrysene-d12b            | 15.538 | 240  | 486894   | 40.00 | ppm    | -0.24    |
| System Monitoring Compounds   |        |      |          |       |        |          |
| 5) 2-Fluorophenol             | 3.526  | 112  | 185488   | 30.94 | ppm    | -0.06    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 61.88% |          |
| 8) Phenol-d5                  | 4.253  | 99   | 229650   | 32.19 | ppm    | -0.04    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 64.38% |          |
| 25) Nitrobenzene-d5           | 4.920  | 82   | 201853   | 35.27 | ppm    | -0.12    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 70.54% |          |
| 51) 2-Fluorobiphenyl          | 6.848  | 172  | 409253   | 35.63 | ppm    | -0.18    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 71.26% |          |
| 73) 2,4,6-Tribromophenol      | 9.156  | 330  | 65208    | 41.49 | ppm    | -0.21    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 82.98% |          |
| 85) Terphenyl-d14             | 13.567 | 244  | 434276   | 37.41 | ppm    | -0.24    |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 74.82% |          |
| 108) 1-chlorooctadecane       | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl              | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                 | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds              |        |      |          |       |        |          |
| 77) Phenanthrene              | 10.443 | 178  | 13751    | 0.90  | ppm    | 93       |
| 81) Fluoranthene              | 12.718 | 202  | 30827    | 1.80  | ppm    | 96       |
| 84) Pyrene                    | 13.135 | 202  | 27202    | 1.58  | ppm    | 100      |
| 87) Benzo[a]anthracene        | 15.522 | 228  | 13483    | 0.95  | ppm    | 89       |
| 89) Chrysene                  | 15.581 | 228  | 11303    | 0.82  | ppm    | 91       |
| 90) bis(2-Ethylhexyl)phtha... | 15.853 | 149  | 11800    | 2.19  | ppm    | 89       |
| 93) Benzo[b]fluoranthene      | 17.514 | 252  | 13601    | 1.02  | ppm    | 98       |
| 94) Benzo[k]fluoranthene      | 17.552 | 252  | 6456     | 0.51  | ppm    | 96       |
| 95) Benzo[a]pyrene            | 18.043 | 252  | 9326     | 0.82  | ppm    | 93       |
| 96) Indeno[1,2,3-cd]pyrene    | 19.795 | 276  | 5542     | 0.51  | ppm    | 85       |
| 100) Benzo[g,h,i]perylene     | 20.212 | 276  | 5727     | 0.50  | ppm    | 81       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

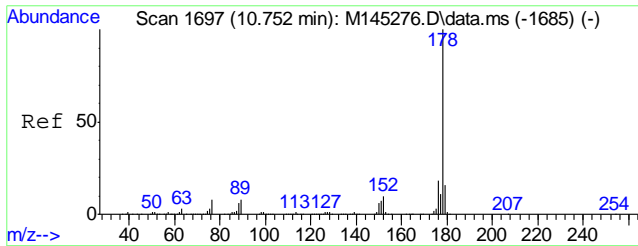
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M145999.D  
 Acq On : 9 May 2018 7:51 am  
 Operator : chriss2  
 Sample : jc64996-1  
 Misc : op11642,em6203,31.0,,,1,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 12:01:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

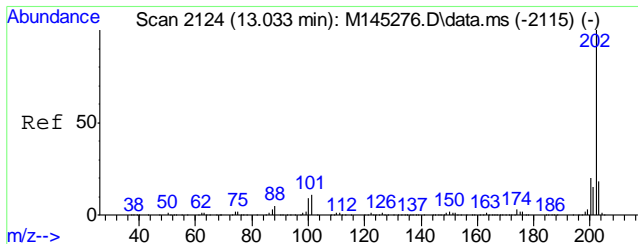
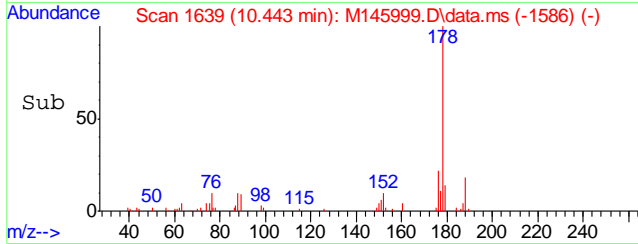
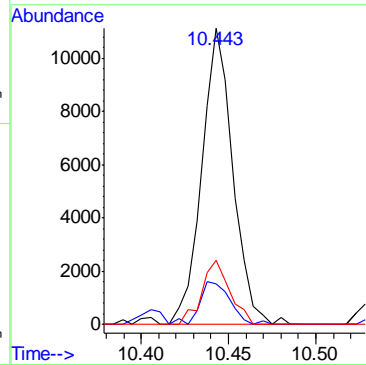
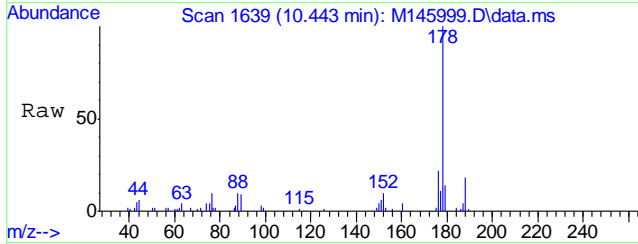


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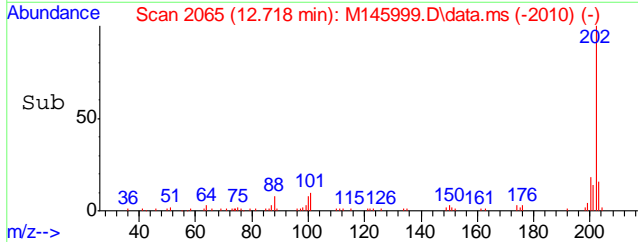
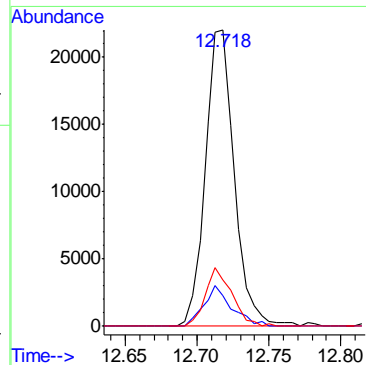
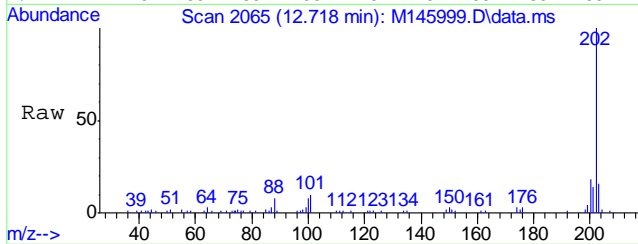
#77  
 Phenanthrene  
 Concen: 0.90 ppm  
 RT: 10.443 min Scan# 1639  
 Delta R.T. -0.219 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 13751 |       |       |
| 179     | 13.6  | 0.0   | 46.0  |
| 176     | 21.8  | 0.0   | 48.3  |

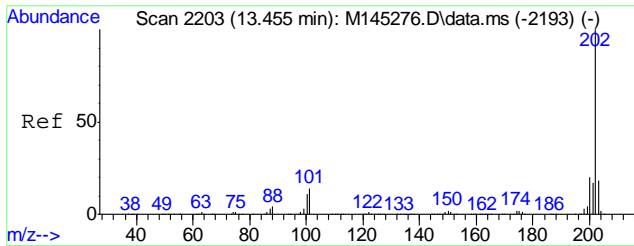


#81  
 Fluoranthene  
 Concen: 1.80 ppm  
 RT: 12.718 min Scan# 2065  
 Delta R.T. -0.205 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 30827 |       |       |
| 201     | 10.1  | 0.0   | 41.4  |
| 203     | 15.7  | 0.0   | 47.5  |

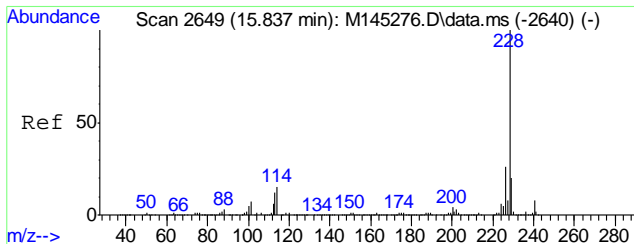
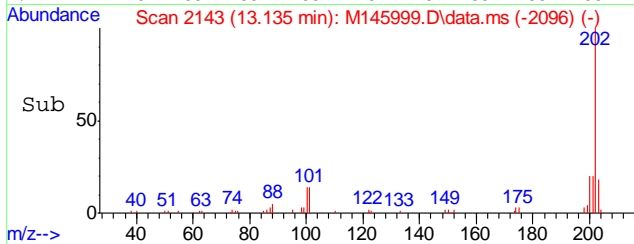
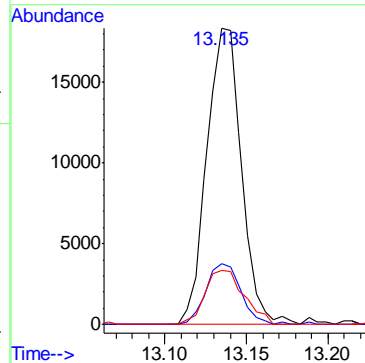
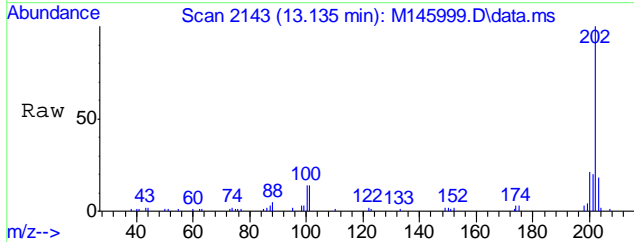


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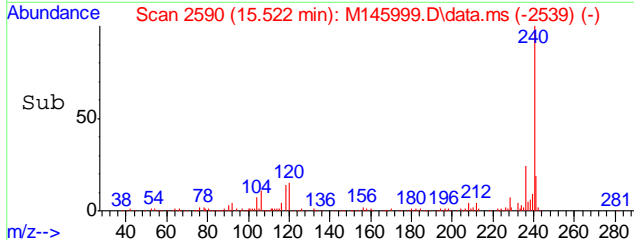
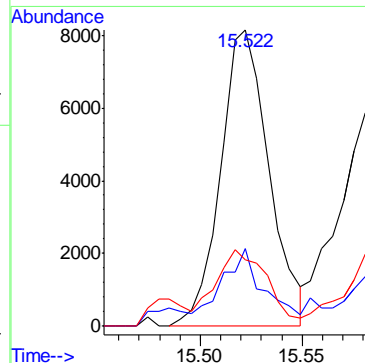
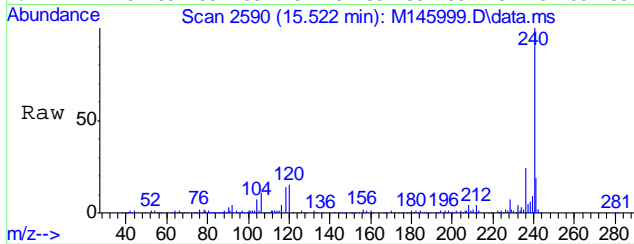
#84  
 Pyrene  
 Concen: 1.58 ppm  
 RT: 13.135 min Scan# 2143  
 Delta R.T. -0.248 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 27202 |       |       |
| 200     | 20.6  | 0.0   | 50.2  |
| 203     | 18.2  | 0.0   | 48.2  |



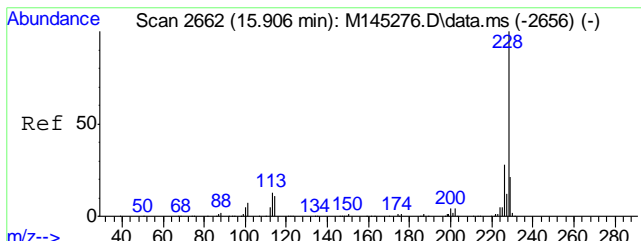
#87  
 Benzo[a]anthracene  
 Concen: 0.95 ppm  
 RT: 15.522 min Scan# 2590  
 Delta R.T. -0.230 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 13483 |       |       |
| 229     | 22.7  | 0.0   | 50.4  |
| 226     | 17.5  | 0.0   | 55.8  |



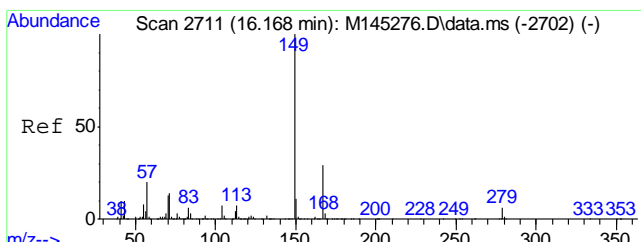
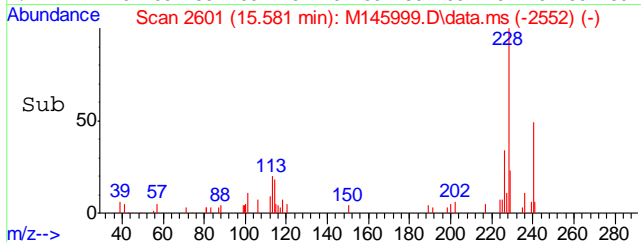
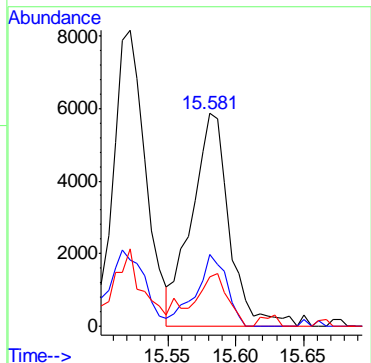
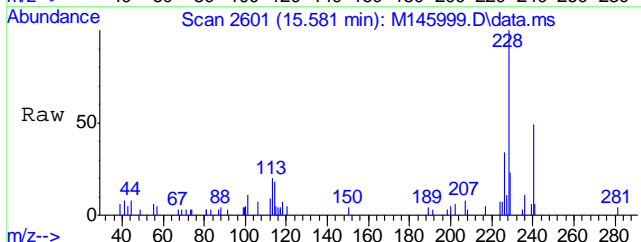
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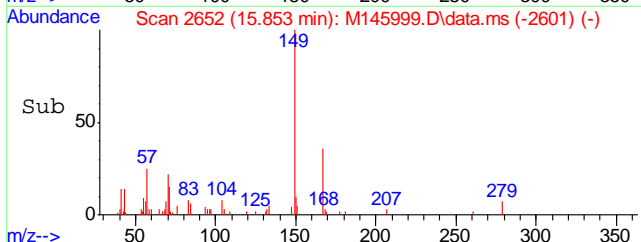
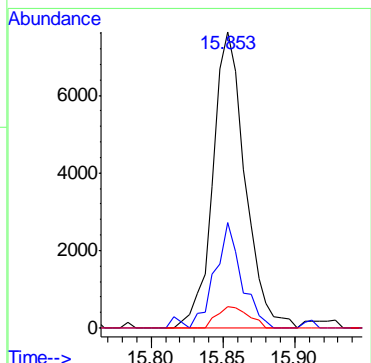
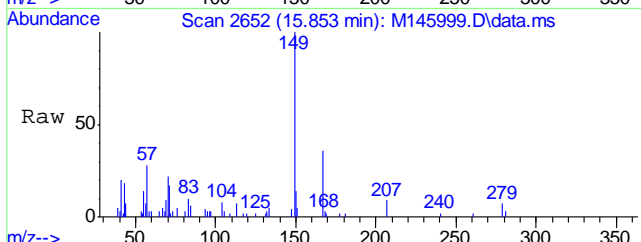
#89  
 Chrysene  
 Concen: 0.82 ppm  
 RT: 15.581 min Scan# 2601  
 Delta R.T. -0.240 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

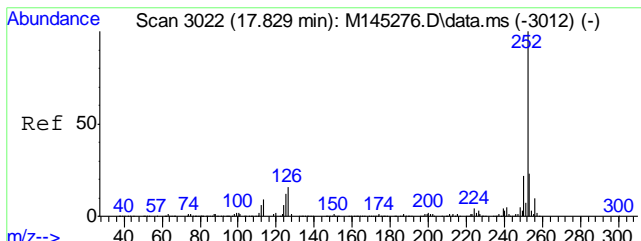
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 11303 |       |       |
| 226     | 35.3  | 0.0   | 58.6  |
| 229     | 22.7  | 0.0   | 50.6  |



#90  
 bis(2-Ethylhexyl)phthalate  
 Concen: 2.19 ppm  
 RT: 15.853 min Scan# 2652  
 Delta R.T. -0.227 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

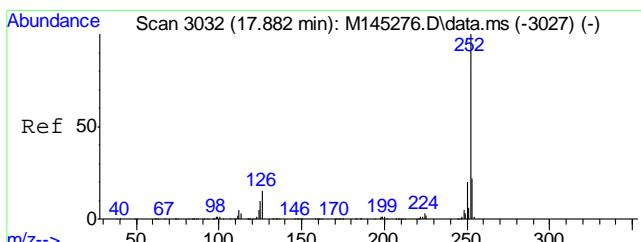
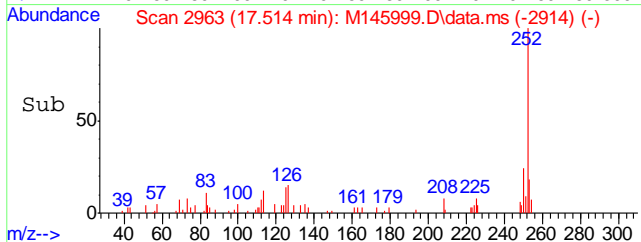
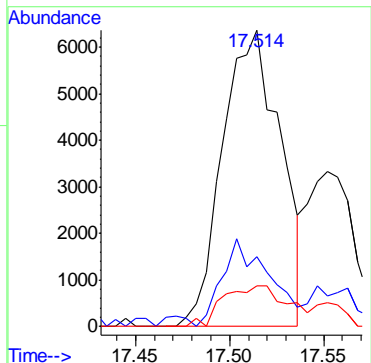
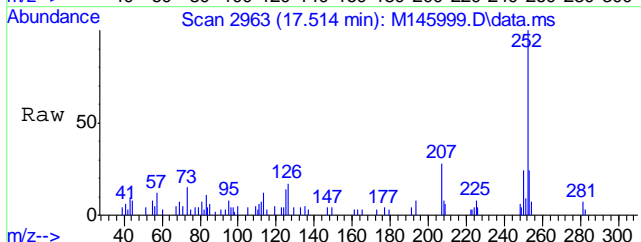
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 11800 |       |       |
| 167     | 35.7  | 0.0   | 59.4  |
| 279     | 7.4   | 0.0   | 35.9  |





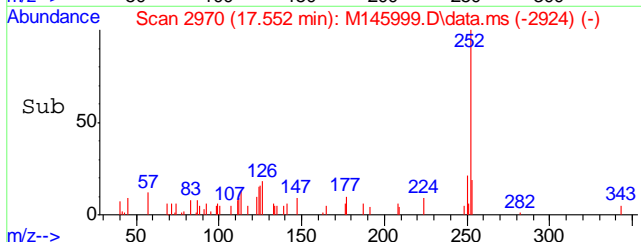
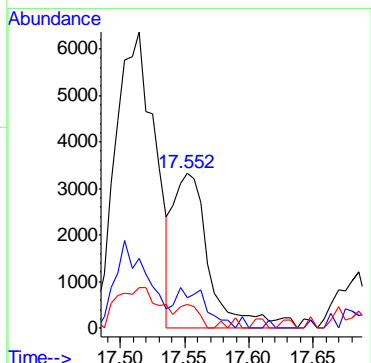
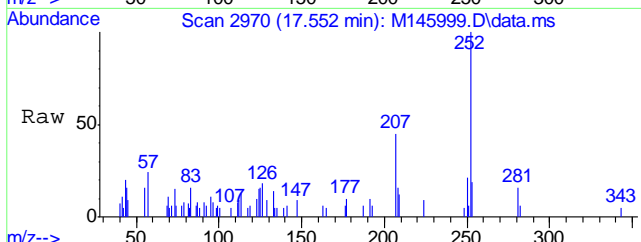
#93  
 Benzo[b]fluoranthene  
 Concen: 1.02 ppm  
 RT: 17.514 min Scan# 2963  
 Delta R.T. -0.238 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 13601 |       |       |
| 253     | 23.0  | 0.0   | 52.1  |
| 125     | 12.1  | 0.0   | 41.0  |

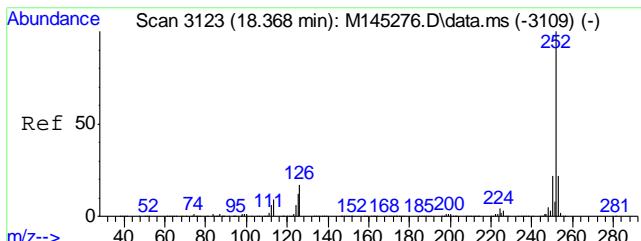


#94  
 Benzo[k]fluoranthene  
 Concen: 0.51 ppm  
 RT: 17.552 min Scan# 2970  
 Delta R.T. -0.254 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 6456 |       |       |
| 253     | 20.5 | 0.0   | 52.4  |
| 125     | 12.4 | 0.0   | 41.0  |

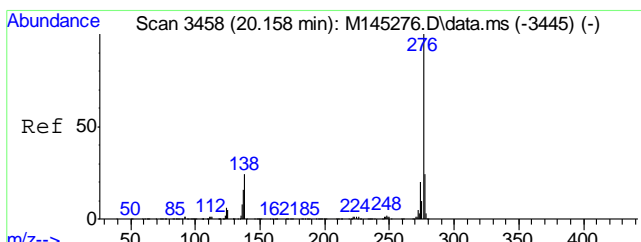
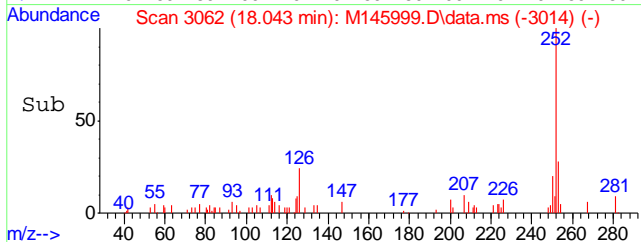
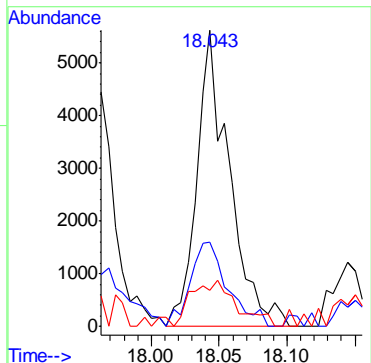
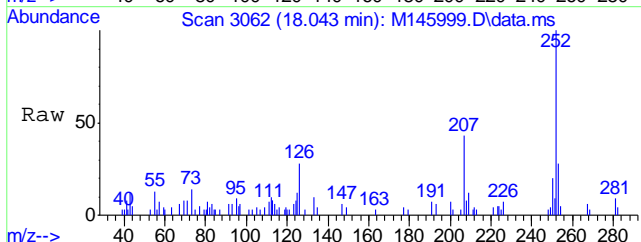


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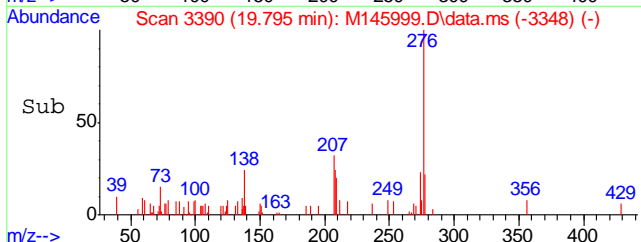
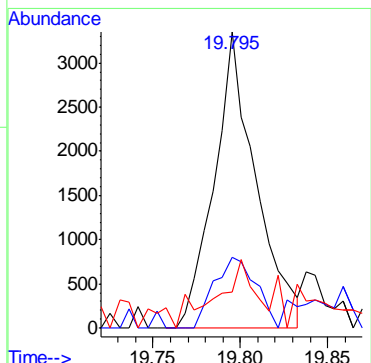
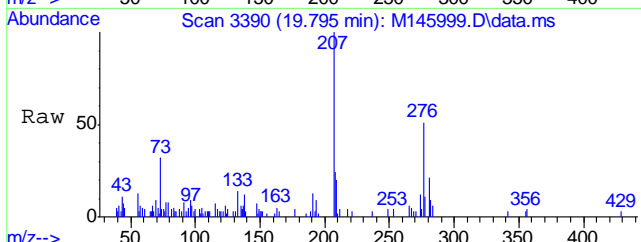
#95  
 Benzo[a]pyrene  
 Concen: 0.82 ppm  
 RT: 18.043 min Scan# 3062  
 Delta R.T. -0.246 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 26.7 | 0.0   | 52.4  |
| 125     | 10.6 | 0.0   | 42.3  |

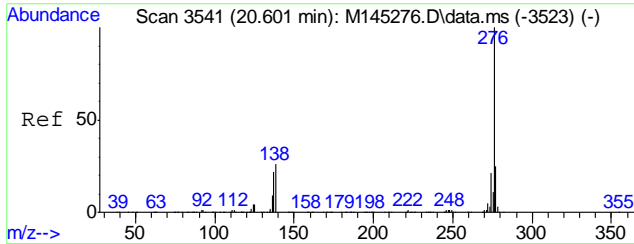


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 0.51 ppm  
 RT: 19.795 min Scan# 3390  
 Delta R.T. -0.276 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 21.5 | 0.0   | 52.4  |
| 137     | 1.5  | 0.0   | 45.7  |

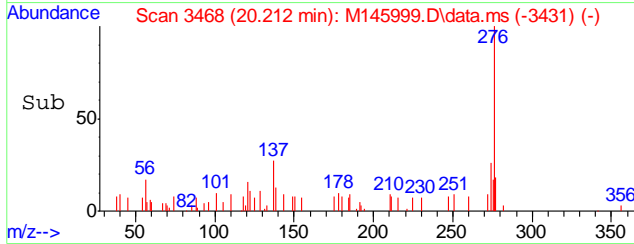
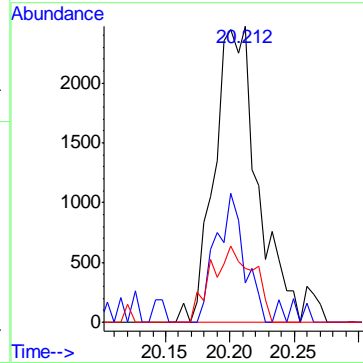
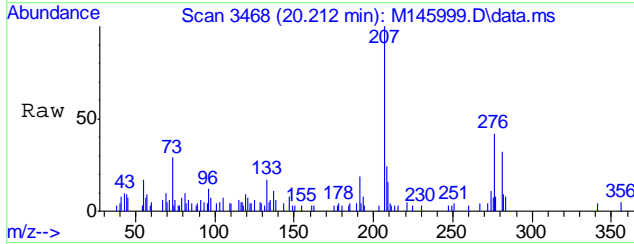


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#100  
 Benzo[g,h,i]perylene  
 Concen: 0.50 ppm  
 RT: 20.212 min Scan# 3468  
 Delta R.T. -0.301 min  
 Lab File: M145999.D  
 Acq: 9 May 2018 7:51 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 13.2  | 0.0   | 55.9  |
| 277     | 18.1  | 0.0   | 54.7  |



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146000.D  
 Acq On : 9 May 2018 8:21 am  
 Operator : chriss2  
 Sample : jc64996-2  
 Misc : op11642,em6203,30.5,,,1,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 09 12:02:48 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

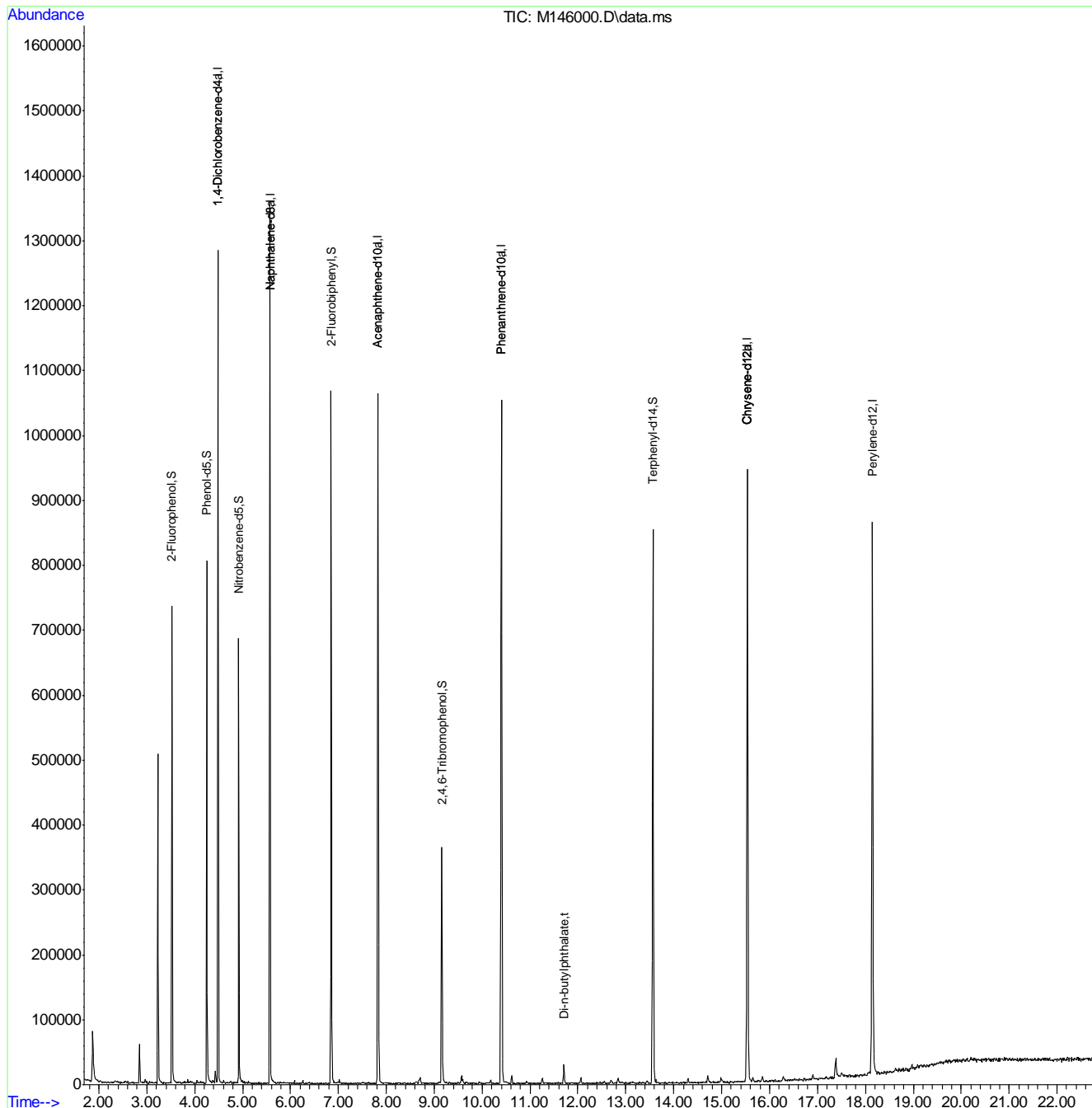
| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min)     |
|------------------------------|--------|------|----------|-------|--------|--------------|
| Internal Standards           |        |      |          |       |        |              |
| 1) 1,4-Dichlorobenzene-d4    | 4.486  | 152  | 152124   | 40.00 | ppm    | -0.08        |
| 24) Naphthalene-d8           | 5.570  | 136  | 556865   | 40.00 | ppm    | -0.14        |
| 47) Acenaphthene-d10         | 7.824  | 164  | 282498   | 40.00 | ppm    | -0.19        |
| 69) Phenanthrene-d10         | 10.404 | 188  | 549086   | 40.00 | ppm    | -0.22        |
| 83) Chrysene-d12             | 15.537 | 240  | 483731   | 40.00 | ppm    | -0.24        |
| 91) Perylene-d12             | 18.149 | 264  | 488573   | 40.00 | ppm    | -0.24        |
| 101) 1,4-Dichlorobenzene-d4a | 4.486  | 152  | 152124   | 40.00 | ppm    | -0.11        |
| 103) Acenaphthene-d10a       | 7.824  | 164  | 282498   | 40.00 | ppm    | -0.19        |
| 106) Chrysene-d12a           | 15.537 | 240  | 483731   | 40.00 | ppm    | -0.24        |
| 109) Phenanthrene-d10a       | 10.404 | 188  | 549086   | 40.00 | ppm    | -0.22        |
| 112) Naphthalene-d8a         | 5.570  | 136  | 556865   | 40.00 | ppm    | -0.14        |
| 114) Chrysene-d12b           | 15.537 | 240  | 483731   | 40.00 | ppm    | -0.24        |
| System Monitoring Compounds  |        |      |          |       |        |              |
| 5) 2-Fluorophenol            | 3.525  | 112  | 168124   | 29.54 | ppm    | -0.06        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 59.08% |              |
| 8) Phenol-d5                 | 4.251  | 99   | 209395   | 30.91 | ppm    | -0.04        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 61.82% |              |
| 25) Nitrobenzene-d5          | 4.919  | 82   | 184240   | 33.88 | ppm    | -0.12        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 67.76% |              |
| 51) 2-Fluorobiphenyl         | 6.847  | 172  | 374219   | 34.11 | ppm    | -0.18        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 68.22% |              |
| 73) 2,4,6-Tribromophenol     | 9.160  | 330  | 57665    | 37.44 | ppm    | -0.21        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 74.88% |              |
| 85) Terphenyl-d14            | 13.566 | 244  | 412687   | 35.78 | ppm    | -0.24        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.56% |              |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |              |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |              |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |              |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |              |
| Target Compounds             |        |      |          |       |        |              |
| 80) Di-n-butylphthalate      | 11.707 | 149  | 22972    | 1.40  | ppm    | Qvalue<br>98 |

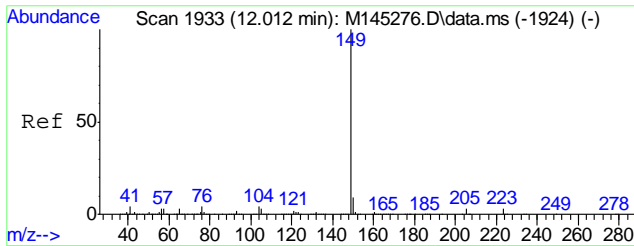
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
Data File : M146000.D  
Acq On : 9 May 2018 8:21 am  
Operator : chriss2  
Sample : jc64996-2  
Misc : op11642,em6203,30.5,,,1,1  
ALS Vial : 14 Sample Multiplier: 1

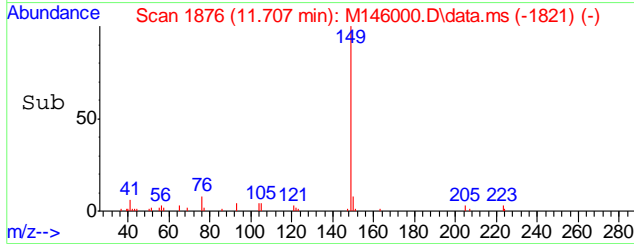
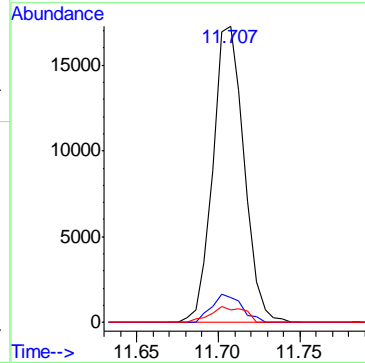
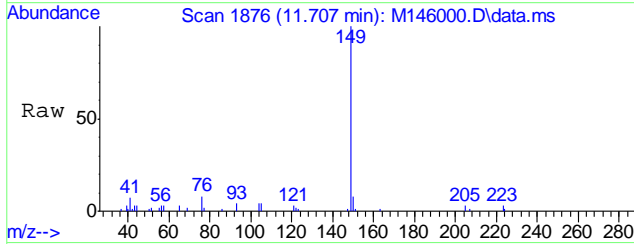
Quant Time: May 09 12:02:48 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
QLast Update : Tue May 08 09:35:35 2018  
Response via : Initial Calibration





#80  
 Di-n-butylphthalate  
 Concen: 1.40 ppm  
 RT: 11.707 min Scan# 1876  
 Delta R.T. -0.204 min  
 Lab File: M146000.D  
 Acq: 9 May 2018 8:21 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 150     | 8.5   | 0.0   | 39.3  |
| 104     | 4.3   | 0.0   | 34.4  |



9.1.2  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146003.D  
 Acq On : 9 May 2018 9:49 am  
 Operator : chriss2  
 Sample : jc64996-3  
 Misc : op11642,em6203,30.3,,,1,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 09 12:12:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.490  | 152  | 128673   | 40.00 | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.569  | 136  | 375059   | 40.00 | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.839  | 164  | 198841   | 40.00 | ppm    | -0.18    |
| 69) Phenanthrene-d10         | 10.418 | 188  | 366536   | 40.00 | ppm    | -0.20    |
| 83) Chrysene-d12             | 15.546 | 240  | 297913   | 40.00 | ppm    | -0.23    |
| 91) Perylene-d12             | 18.152 | 264  | 298363   | 40.00 | ppm    | -0.23    |
| 101) 1,4-Dichlorobenzene-d4a | 4.490  | 152  | 128673   | 40.00 | ppm    | -0.10    |
| 103) Acenaphthene-d10a       | 7.839  | 164  | 198841   | 40.00 | ppm    | -0.18    |
| 106) Chrysene-d12a           | 15.546 | 240  | 297913   | 40.00 | ppm    | -0.23    |
| 109) Phenanthrene-d10a       | 10.418 | 188  | 366536   | 40.00 | ppm    | -0.20    |
| 112) Naphthalene-d8a         | 5.569  | 136  | 375059   | 40.00 | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.546 | 240  | 297913   | 40.00 | ppm    | -0.23    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.523  | 112  | 171885   | 35.71 | ppm    | -0.07    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.42% |          |
| 8) Phenol-d5                 | 4.249  | 99   | 204109   | 35.62 | ppm    | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.24% |          |
| 25) Nitrobenzene-d5          | 4.922  | 82   | 166234   | 45.39 | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 90.78% |          |
| 51) 2-Fluorobiphenyl         | 6.856  | 172  | 293268   | 37.98 | ppm    | -0.17    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 75.96% |          |
| 73) 2,4,6-Tribromophenol     | 9.174  | 330  | 46831    | 45.55 | ppm    | -0.20    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 91.10% |          |
| 85) Terphenyl-d14            | 13.575 | 244  | 298093   | 41.97 | ppm    | -0.23    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.94% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 38) Naphthalene              | 5.590  | 128  | 29786m   | 3.02  | ppm    |          |
| 56) Acenaphthylene           | 7.609  | 152  | 29609    | 3.05  | ppm    | 96       |
| 59) Acenaphthene             | 7.887  | 153  | 189624   | 31.07 | ppm    | 97       |
| 66) Fluorene                 | 8.741  | 166  | 26746    | 3.75  | ppm    | 73       |
| 77) Phenanthrene             | 10.456 | 178  | 30186    | 3.01  | ppm    | 93       |
| 78) Anthracene               | 10.552 | 178  | 80944    | 8.08  | ppm    | 91       |
| 79) Carbazole                | 10.899 | 167  | 7624     | 0.75  | ppm    | 87       |
| 81) Fluoranthene             | 12.731 | 202  | 139791   | 12.50 | ppm    | 98       |
| 84) Pyrene                   | 13.153 | 202  | 319796   | 30.28 | ppm    | 99       |
| 87) Benzo[a]anthracene       | 15.530 | 228  | 86516    | 9.92  | ppm    | 89       |
| 89) Chrysene                 | 15.589 | 228  | 88585    | 10.54 | ppm    | 98       |
| 93) Benzo[b]fluoranthene     | 17.517 | 252  | 92430    | 10.78 | ppm    | 97       |
| 94) Benzo[k]fluoranthene     | 17.559 | 252  | 31809    | 3.92  | ppm    | 93       |
| 95) Benzo[a]pyrene           | 18.051 | 252  | 80661    | 11.04 | ppm    | 97       |
| 96) Indeno[1,2,3-cd]pyrene   | 19.797 | 276  | 59795    | 8.57  | ppm    | 96       |
| 98) Dibenz[a,h]anthracene    | 19.845 | 278  | 11348    | 1.52  | ppm    | 91       |
| 100) Benzo[g,h,i]perylene    | 20.209 | 276  | 61589    | 8.43  | ppm    | 92       |



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
Data File : M146003.D  
Acq On : 9 May 2018 9:49 am  
Operator : chriss2  
Sample : jc64996-3  
Misc : op11642,em6203,30.3,,,1,1  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 09 12:12:28 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
QLast Update : Tue May 08 09:35:35 2018  
Response via : Initial Calibration

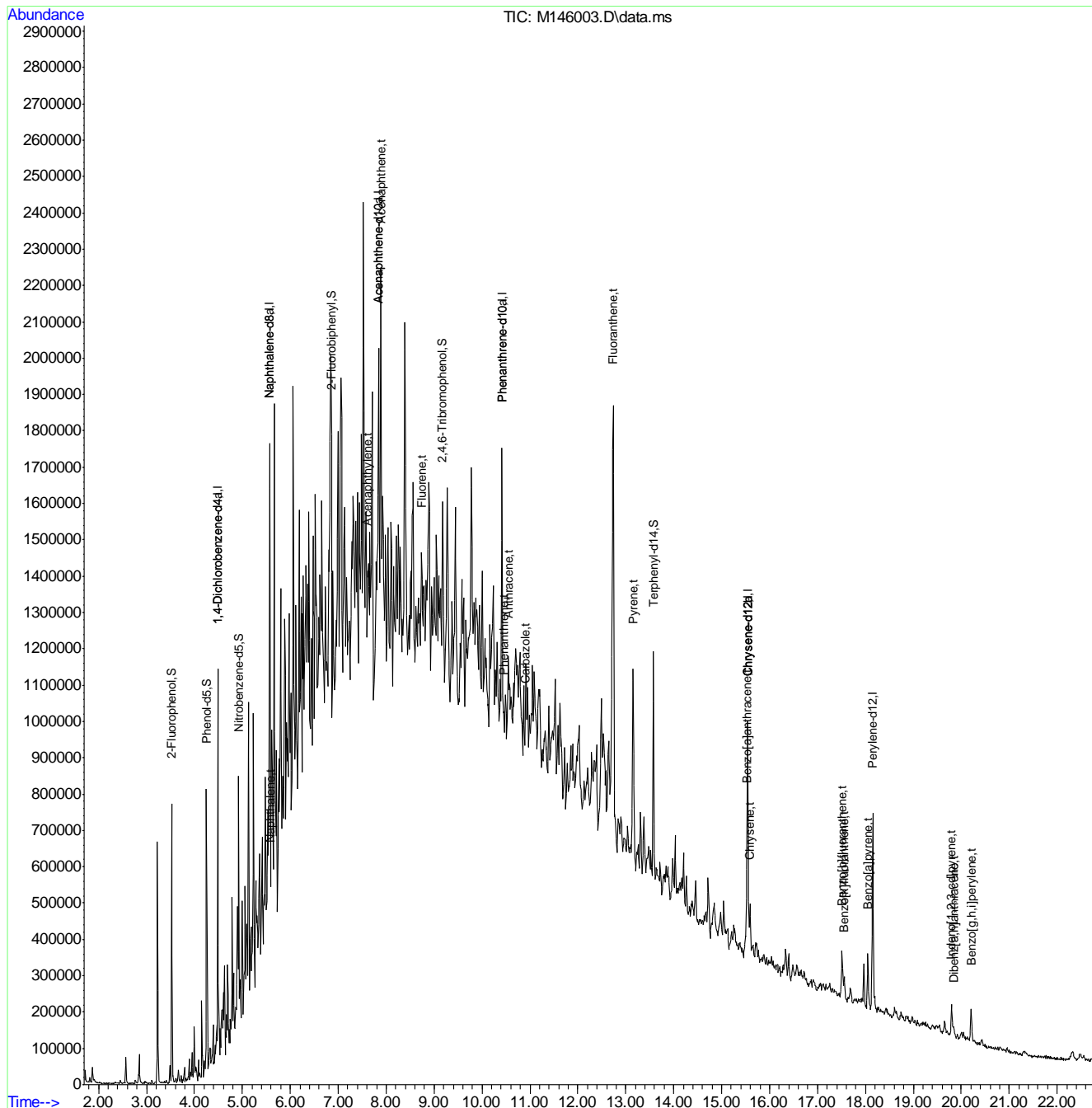
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

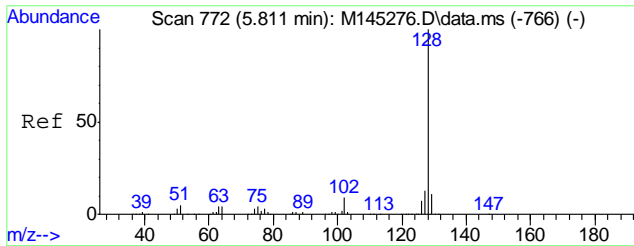
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146003.D  
 Acq On : 9 May 2018 9:49 am  
 Operator : chriss2  
 Sample : jc64996-3  
 Misc : op11642,em6203,30.3,,,1,1  
 ALS Vial : 17 Sample Multiplier: 1

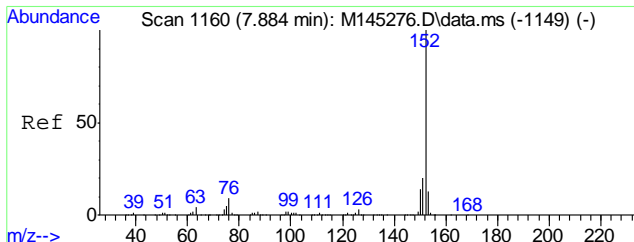
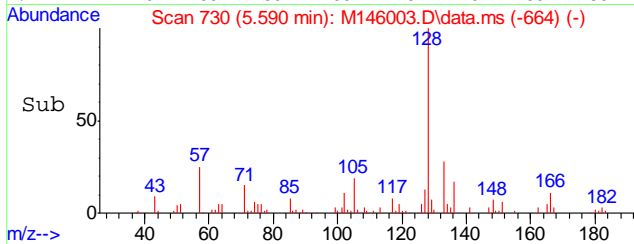
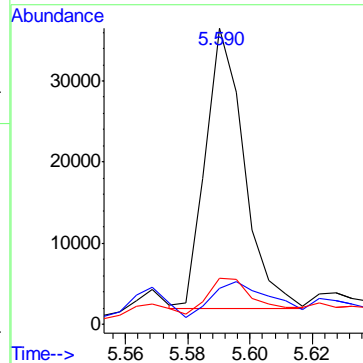
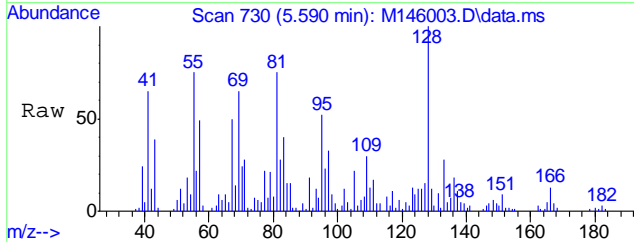
Quant Time: May 09 12:12:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration





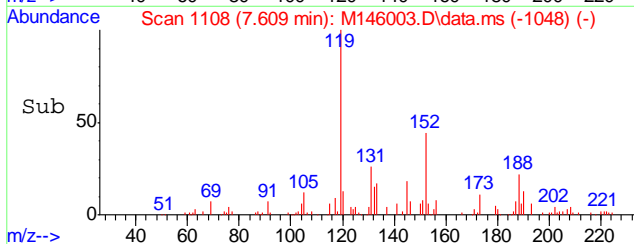
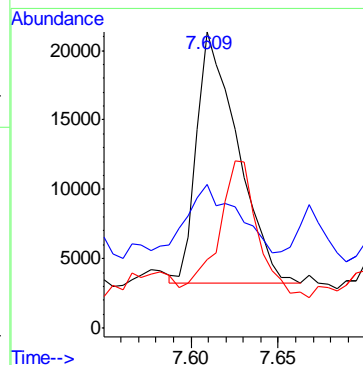
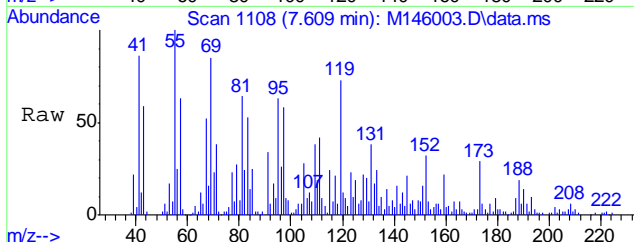
#38  
 Naphthalene  
 Concen: 3.02 ppm m  
 RT: 5.590 min Scan# 730  
 Delta R.T. -0.147 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 128     | 100  |       |       |
| 129     | 12.3 | 0.0   | 41.4  |
| 127     | 15.5 | 0.0   | 42.8  |

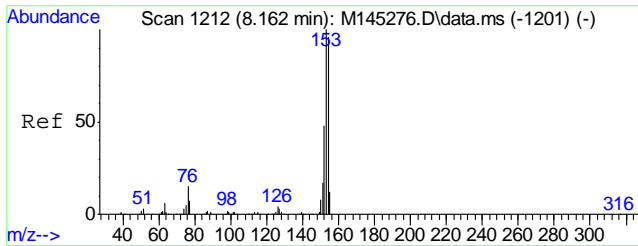


#56  
 Acenaphthylene  
 Concen: 3.05 ppm  
 RT: 7.609 min Scan# 1108  
 Delta R.T. -0.182 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 20.4 | 0.0   | 49.8  |
| 153     | 10.0 | 0.0   | 43.1  |

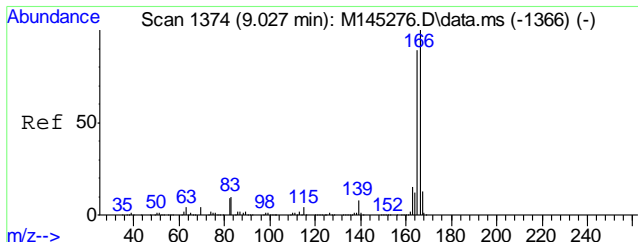
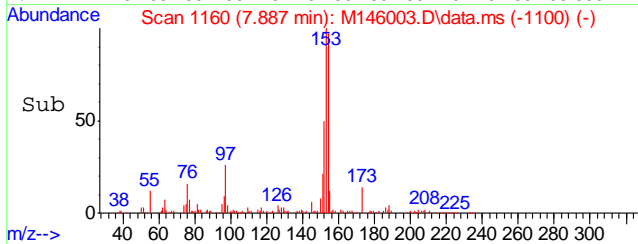
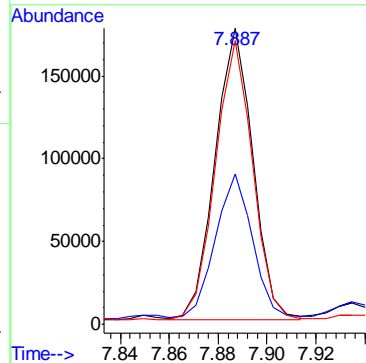
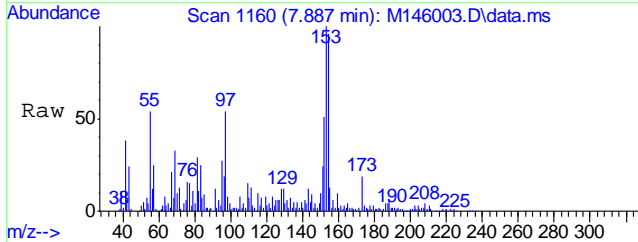


9.1.3  
 9



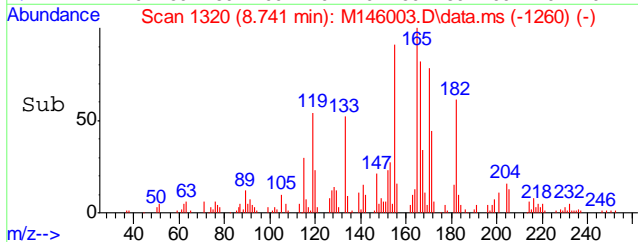
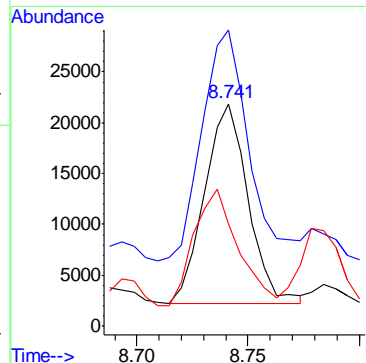
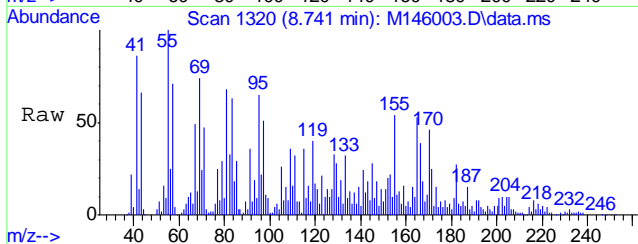
#59  
 Acenaphthene  
 Concen: 31.07 ppm  
 RT: 7.887 min Scan# 1160  
 Delta R.T. -0.179 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 189624 | 100   |       |
| 152     | 49.3   | 18.1  | 78.1  |
| 154     | 96.3   | 62.2  | 122.2 |

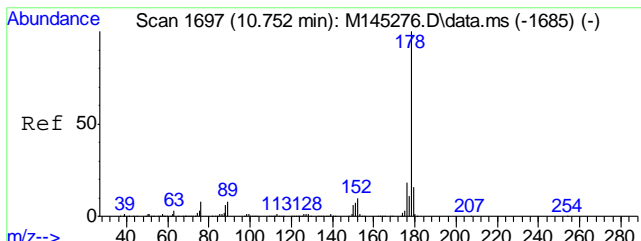


#66  
 Fluorene  
 Concen: 3.75 ppm  
 RT: 8.741 min Scan# 1320  
 Delta R.T. -0.179 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 26746 | 100   |       |
| 165     | 112.0 | 59.1  | 119.1 |
| 167     | 31.7  | 0.0   | 43.0  |

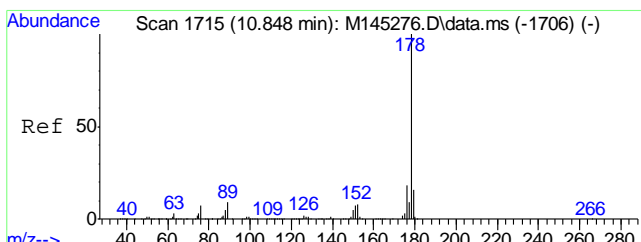
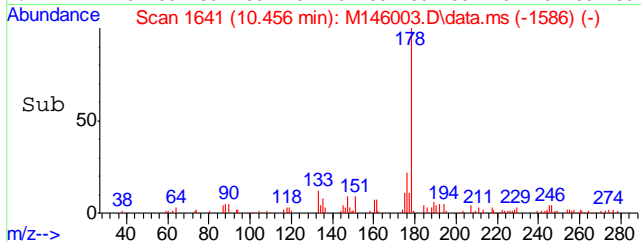
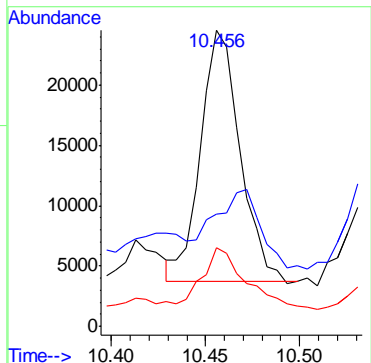
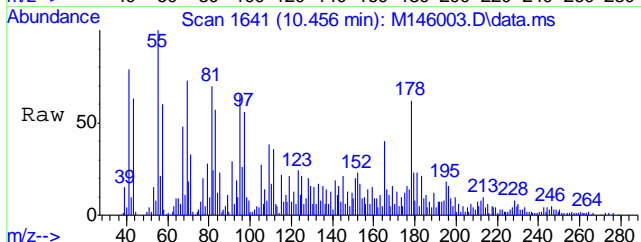


9.13  
 9



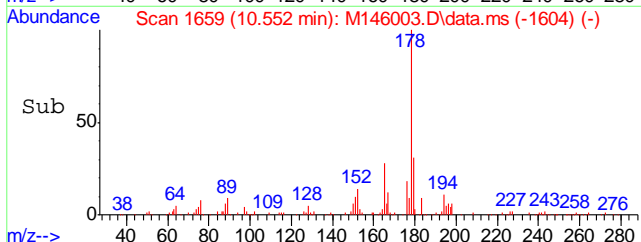
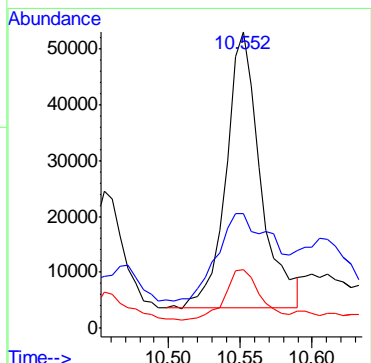
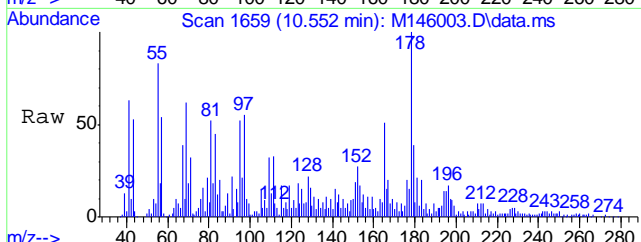
#77  
 Phenanthrene  
 Concen: 3.01 ppm  
 RT: 10.456 min Scan# 1641  
 Delta R.T. -0.206 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 30186 | 100   |       |
| 179     | 14.8  | 0.0   | 46.0  |
| 176     | 23.3  | 0.0   | 48.3  |

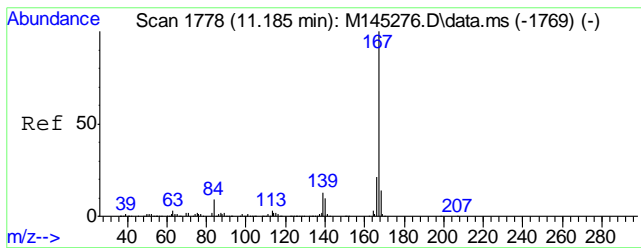


#78  
 Anthracene  
 Concen: 8.08 ppm  
 RT: 10.552 min Scan# 1659  
 Delta R.T. -0.205 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 80944 | 100   |       |
| 179     | 23.8  | 0.0   | 45.9  |
| 176     | 17.6  | 0.0   | 48.0  |

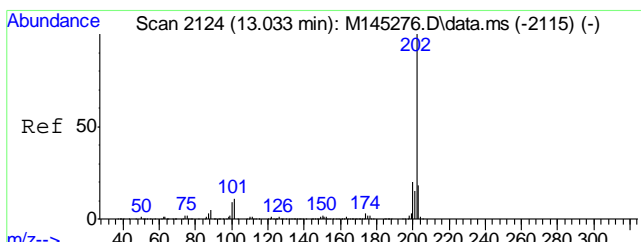
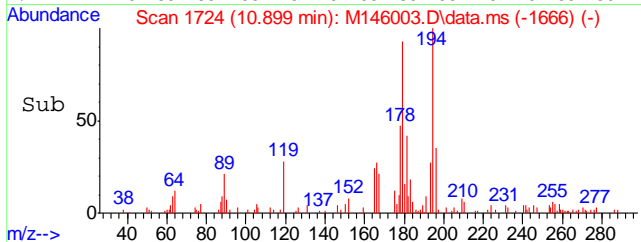
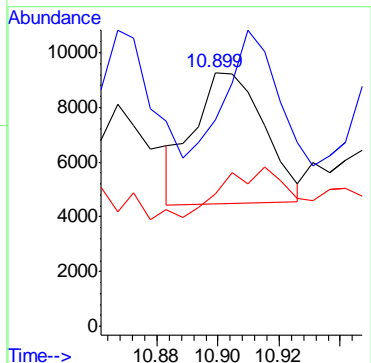
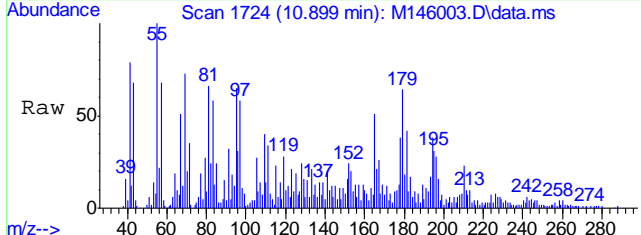


9.13  
 9



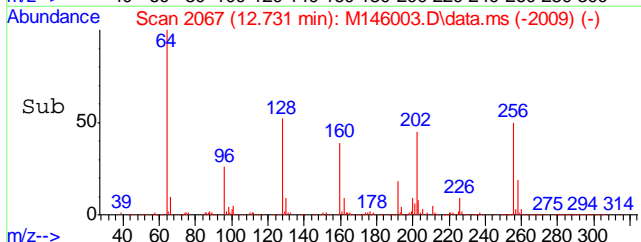
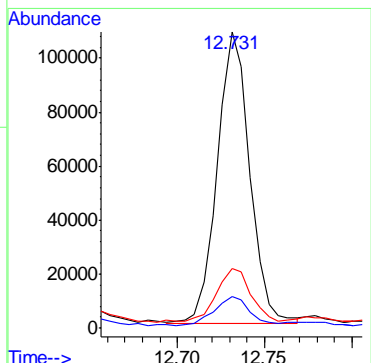
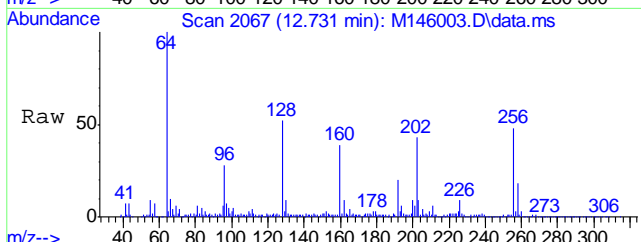
#79  
 Carbazole  
 Concen: 0.75 ppm  
 RT: 10.899 min Scan# 1724  
 Delta R.T. -0.191 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 7624 | 100   |       |
| 166     | 12.5 | 0.0   | 50.7  |
| 139     | 10.4 | 0.0   | 42.5  |

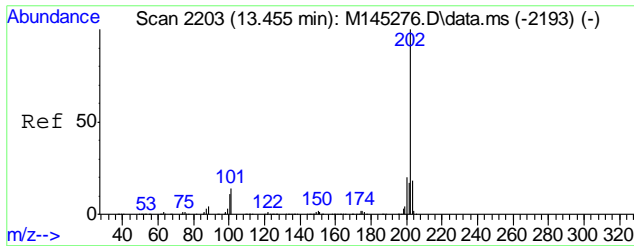


#81  
 Fluoranthene  
 Concen: 12.50 ppm  
 RT: 12.731 min Scan# 2067  
 Delta R.T. -0.192 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 139791 | 100   |       |
| 101     | 9.6    | 0.0   | 41.4  |
| 203     | 17.6   | 0.0   | 47.5  |

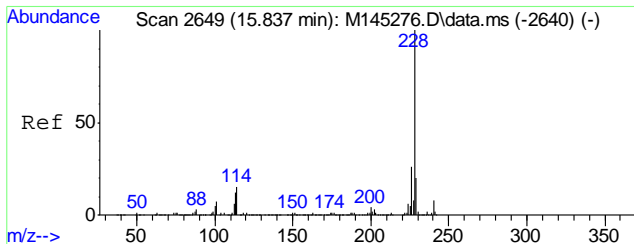
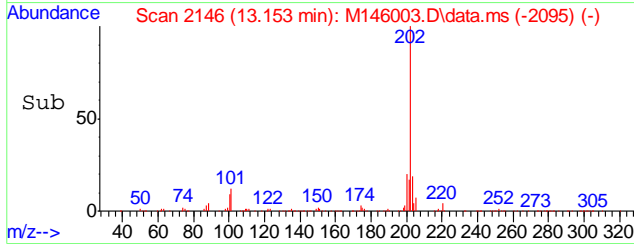
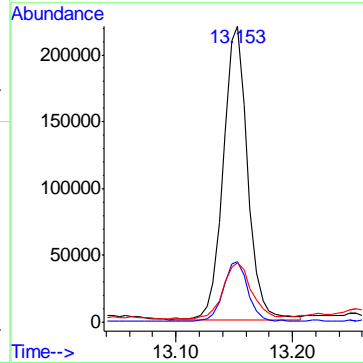
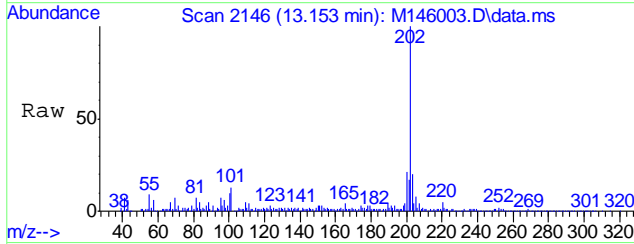


9.13  
 9



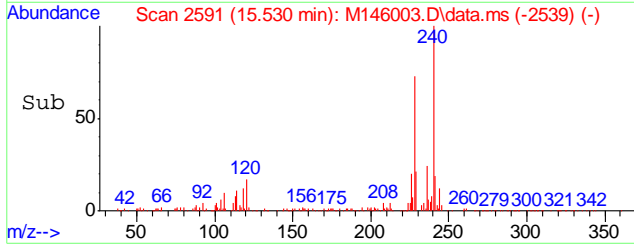
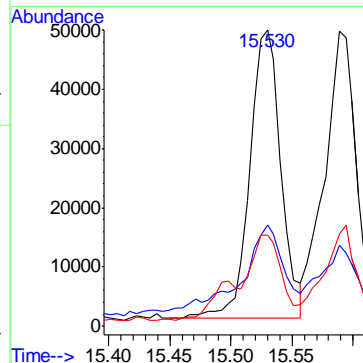
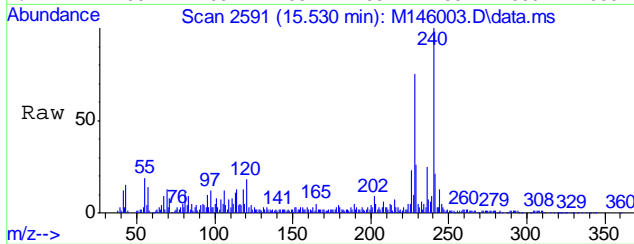
#84  
 Pyrene  
 Concen: 30.28 ppm  
 RT: 13.153 min Scan# 2146  
 Delta R.T. -0.230 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 319796 | 100   |       |
| 200     | 20.5   | 0.0   | 50.2  |
| 203     | 18.5   | 0.0   | 48.2  |

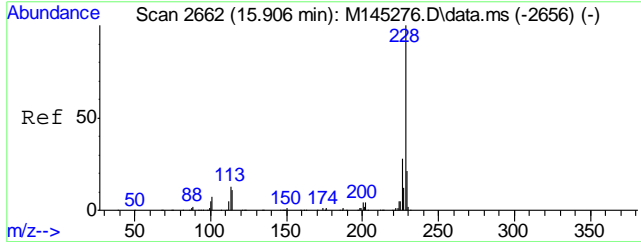


#87  
 Benzo[a]anthracene  
 Concen: 9.92 ppm  
 RT: 15.530 min Scan# 2591  
 Delta R.T. -0.222 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 86516 | 100   |       |
| 229     | 28.5  | 0.0   | 50.4  |
| 226     | 28.5  | 0.0   | 55.8  |

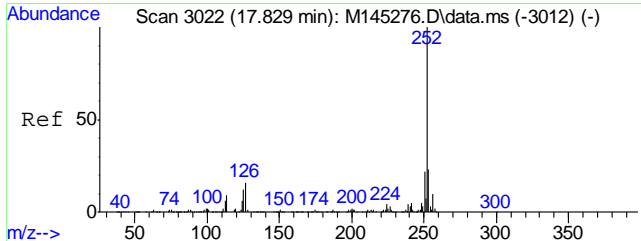
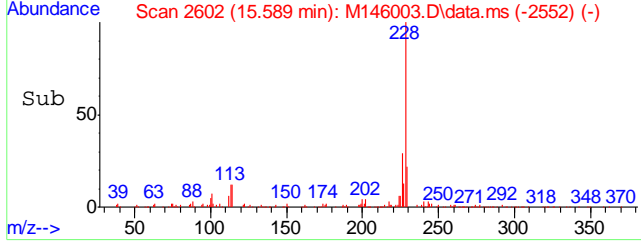
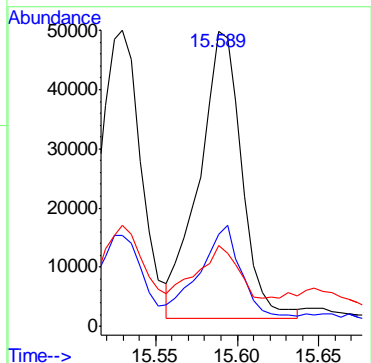
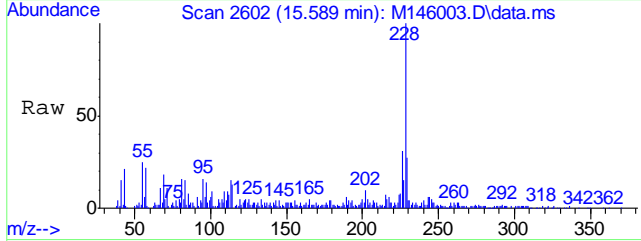


9.13  
 9



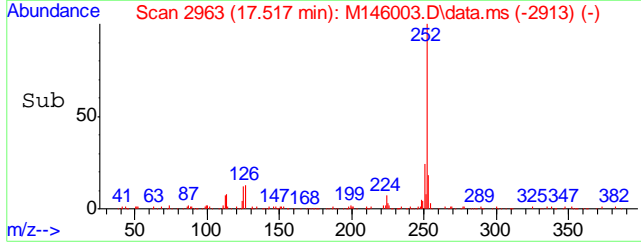
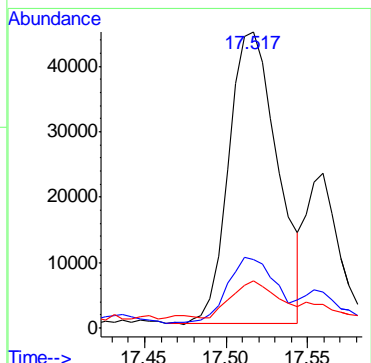
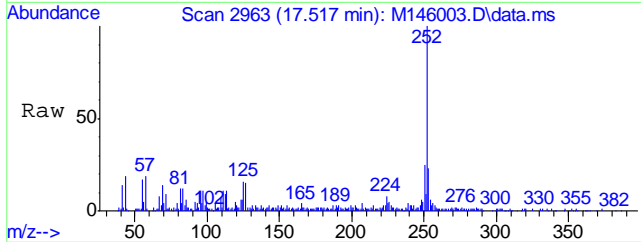
#89  
 Chrysene  
 Concen: 10.54 ppm  
 RT: 15.589 min Scan# 2602  
 Delta R.T. -0.233 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 228     | 100  |       |       |
| 226     | 28.5 | 0.0   | 58.6  |
| 229     | 18.4 | 0.0   | 50.6  |

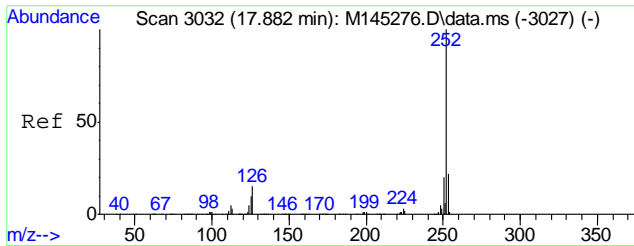


#93  
 Benzo[b]fluoranthene  
 Concen: 10.78 ppm  
 RT: 17.517 min Scan# 2963  
 Delta R.T. -0.236 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.1 | 0.0   | 52.1  |
| 125     | 12.7 | 0.0   | 41.0  |

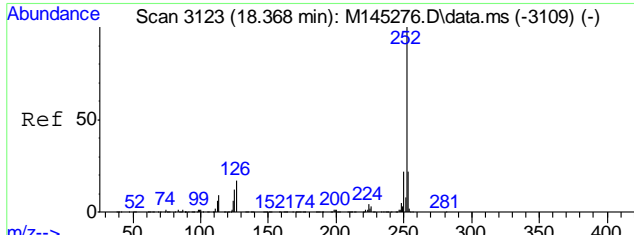
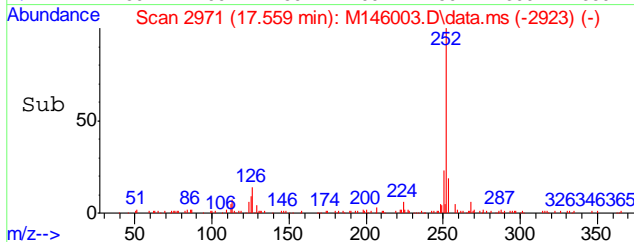
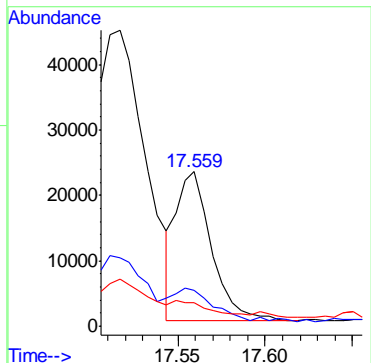
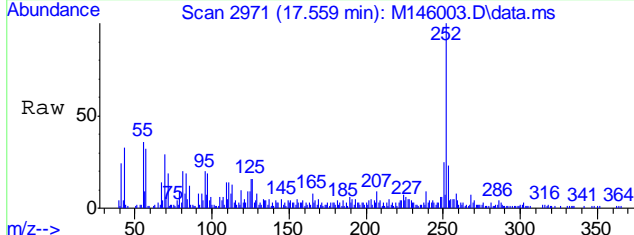






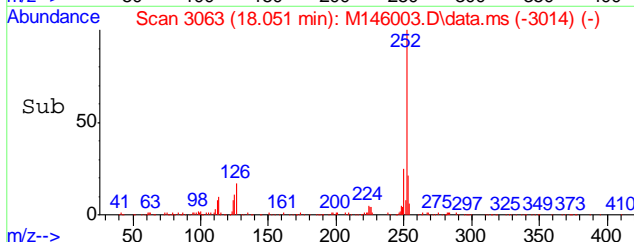
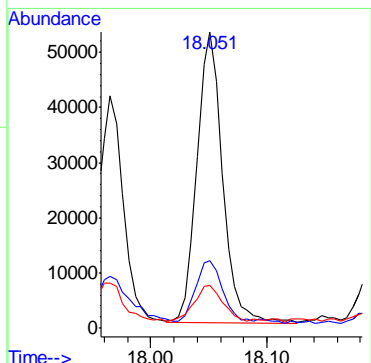
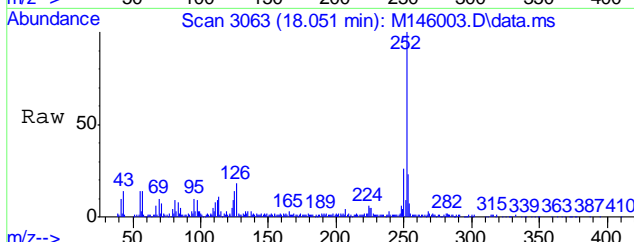
#94  
 Benzo[k]fluoranthene  
 Concen: 3.92 ppm  
 RT: 17.559 min Scan# 2971  
 Delta R.T. -0.246 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 19.0 | 0.0   | 52.4  |
| 125     | 8.4  | 0.0   | 41.0  |

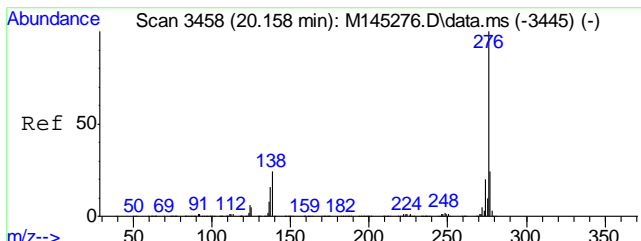


#95  
 Benzo[a]pyrene  
 Concen: 11.04 ppm  
 RT: 18.051 min Scan# 3063  
 Delta R.T. -0.239 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 20.7 | 0.0   | 52.4  |
| 125     | 11.8 | 0.0   | 42.3  |

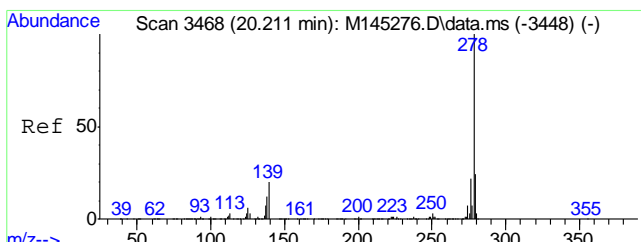
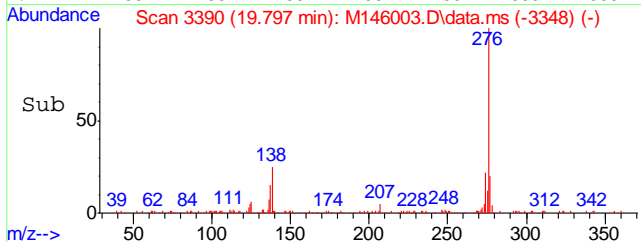
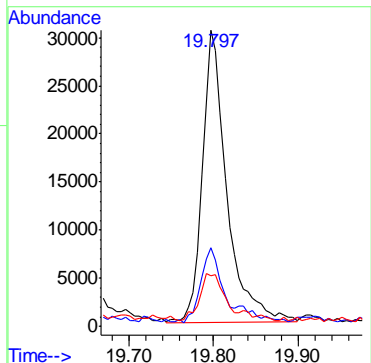
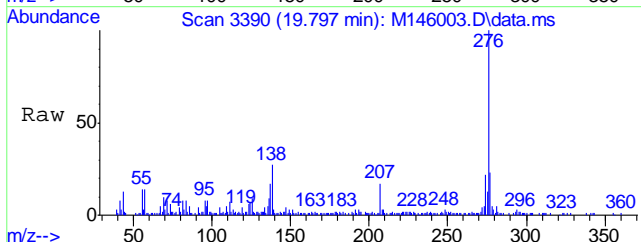


9.1.3  
 9



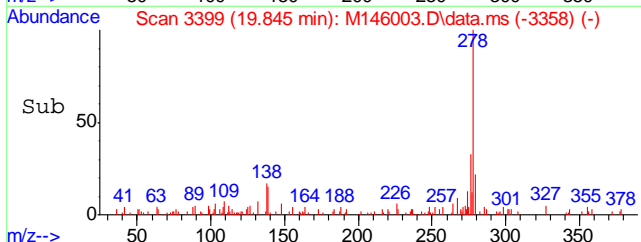
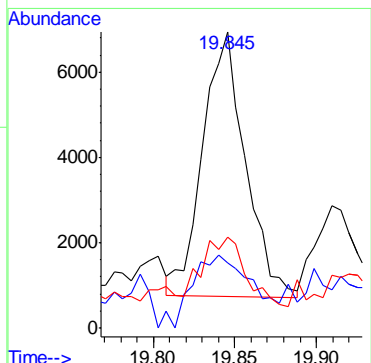
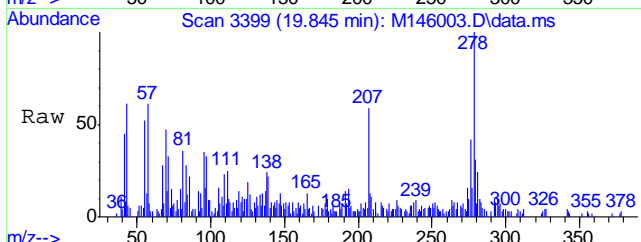
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 8.57 ppm  
 RT: 19.797 min Scan# 3390  
 Delta R.T. -0.274 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.3  | 0.0   | 52.4  |
| 137     | 14.2  | 0.0   | 45.7  |

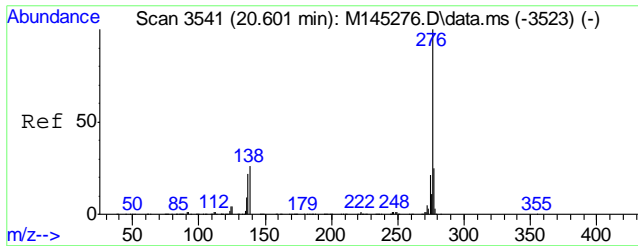


#98  
 Dibenz[a,h]anthracene  
 Concen: 1.52 ppm  
 RT: 19.845 min Scan# 3399  
 Delta R.T. -0.279 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 17.5  | 0.0   | 49.8  |
| 279     | 18.0  | 0.0   | 54.2  |

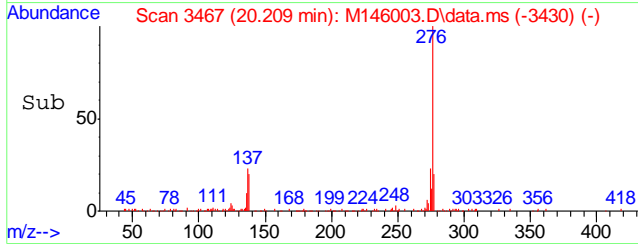
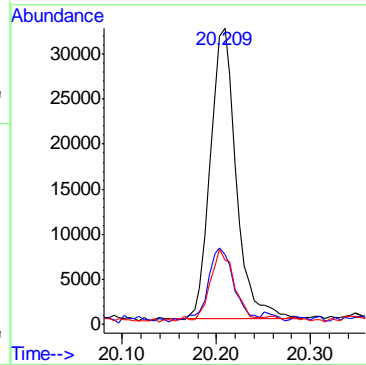
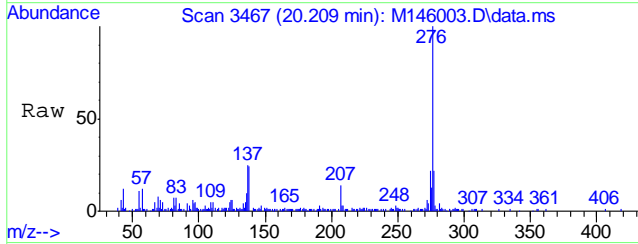


9.13  
 9



#100  
 Benzo[g,h,i]perylene  
 Concen: 8.43 ppm  
 RT: 20.209 min Scan# 3467  
 Delta R.T. -0.304 min  
 Lab File: M146003.D  
 Acq: 9 May 2018 9:49 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.4  | 0.0   | 55.9  |
| 277     | 20.5  | 0.0   | 54.7  |



9.13  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146004.D  
 Acq On : 9 May 2018 10:19 am  
 Operator : chriss2  
 Sample : jc64996-4  
 Misc : op11642,em6203,30.4,,,1,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 09 12:16:41 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|------------------------------|--------|------|----------|--------|--------|----------|
| Internal Standards           |        |      |          |        |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.486  | 152  | 156936   | 40.00  | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.571  | 136  | 529312   | 40.00  | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.830  | 164  | 238113   | 40.00  | ppm    | -0.19    |
| 69) Phenanthrene-d10         | 10.404 | 188  | 438309   | 40.00  | ppm    | -0.21    |
| 83) Chrysene-d12             | 15.548 | 240  | 339808   | 40.00  | ppm    | -0.23    |
| 91) Perylene-d12             | 18.154 | 264  | 357402   | 40.00  | ppm    | -0.23    |
| 101) 1,4-Dichlorobenzene-d4a | 4.486  | 152  | 156936   | 40.00  | ppm    | -0.11    |
| 103) Acenaphthene-d10a       | 7.830  | 164  | 238113   | 40.00  | ppm    | -0.19    |
| 106) Chrysene-d12a           | 15.548 | 240  | 339808   | 40.00  | ppm    | -0.23    |
| 109) Phenanthrene-d10a       | 10.404 | 188  | 438309   | 40.00  | ppm    | -0.21    |
| 112) Naphthalene-d8a         | 5.571  | 136  | 529312   | 40.00  | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.548 | 240  | 339808   | 40.00  | ppm    | -0.23    |
| System Monitoring Compounds  |        |      |          |        |        |          |
| 5) 2-Fluorophenol            | 3.525  | 112  | 143692   | 24.47  | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 48.94% |          |
| 8) Phenol-d5                 | 4.251  | 99   | 173761   | 24.87  | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 49.74% |          |
| 25) Nitrobenzene-d5          | 4.919  | 82   | 154246   | 29.84  | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 59.68% |          |
| 51) 2-Fluorobiphenyl         | 6.847  | 172  | 270277   | 29.23  | ppm    | -0.18    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 58.46% |          |
| 73) 2,4,6-Tribromophenol     | 9.160  | 330  | 40798    | 33.19  | ppm    | -0.21    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 66.38% |          |
| 85) Terphenyl-d14            | 13.572 | 244  | 269049   | 33.21  | ppm    | -0.24    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 66.42% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00   | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =      | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00   | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =      | 0.00%  |          |
| Target Compounds             |        |      |          |        |        |          |
|                              |        |      |          |        |        | Qvalue   |
| 38) Naphthalene              | 5.592  | 128  | 13180    | 0.95   | ppm    | 93       |
| 44) 2-Methylnaphthalene      | 6.366  | 141  | 3541     | 0.42   | ppm    | 95       |
| 53) Biphenyl                 | 6.981  | 154  | 17581    | 1.83   | ppm    | 97       |
| 56) Acenaphthylene           | 7.606  | 152  | 168917   | 14.54  | ppm    | 99       |
| 59) Acenaphthene             | 7.878  | 153  | 69612    | 9.52   | ppm    | 93       |
| 62) Dibenzofuran             | 8.161  | 168  | 8983     | 0.84   | ppm    | 94       |
| 66) Fluorene                 | 8.732  | 166  | 63048    | 7.38   | ppm    | 93       |
| 77) Phenanthrene             | 10.447 | 178  | 380890   | 31.75  | ppm    | 98       |
| 78) Anthracene               | 10.543 | 178  | 134297   | 11.21  | ppm    | 99       |
| 81) Fluoranthene             | 12.733 | 202  | 1630638  | 121.93 | ppm    | 98       |
| 84) Pyrene                   | 13.166 | 202  | 2617715  | 217.30 | ppm    | 95       |
| 87) Benzo[a]anthracene       | 15.532 | 228  | 674703   | 67.85  | ppm    | 99       |
| 89) Chrysene                 | 15.596 | 228  | 591008   | 61.62  | ppm    | 99       |
| 93) Benzo[b]fluoranthene     | 17.524 | 252  | 676299   | 65.84  | ppm    | 98       |
| 94) Benzo[k]fluoranthene     | 17.561 | 252  | 205109   | 21.13  | ppm    | 98       |
| 95) Benzo[a]pyrene           | 18.063 | 252  | 863909   | 98.71  | ppm    | 99       |
| 96) Indeno[1,2,3-cd]pyrene   | 19.810 | 276  | 447737   | 53.57  | ppm    | 99       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
Data File : M146004.D  
Acq On : 9 May 2018 10:19 am  
Operator : chriss2  
Sample : jc64996-4  
Misc : op11642,em6203,30.4,,,1,1  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 09 12:16:41 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
QLast Update : Tue May 08 09:35:35 2018  
Response via : Initial Calibration

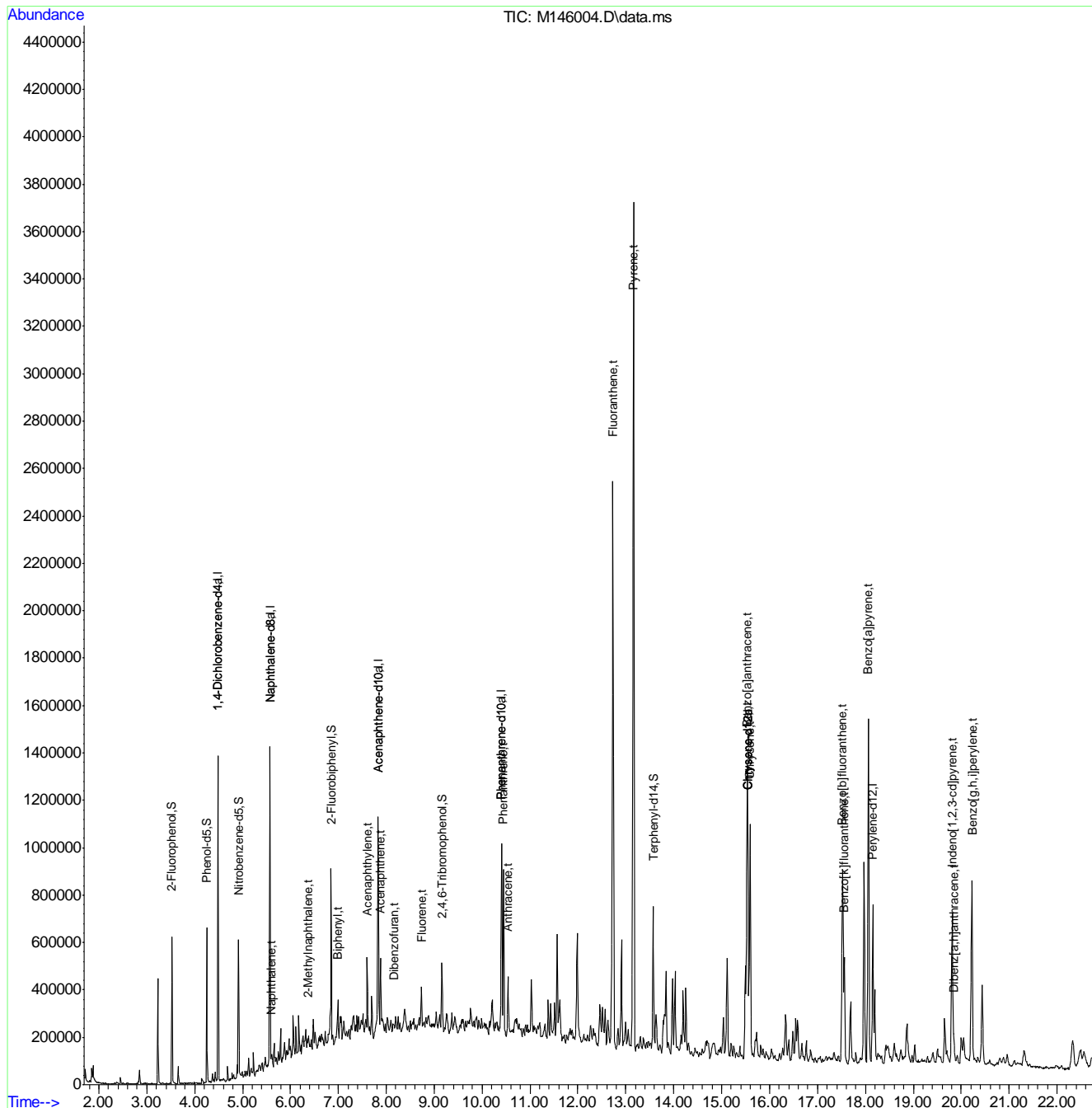
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 19.847 | 278  | 73094    | 8.19  | ppm   | 93       |
| 100) Benzo[g,h,i]perylene | 20.226 | 276  | 570549   | 65.17 | ppm   | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

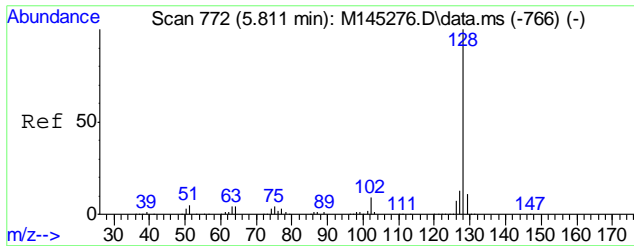
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146004.D  
 Acq On : 9 May 2018 10:19 am  
 Operator : chriss2  
 Sample : jc64996-4  
 Misc : op11642,em6203,30.4,,,1,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 09 12:16:41 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

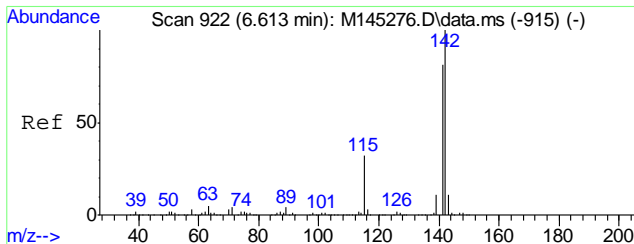
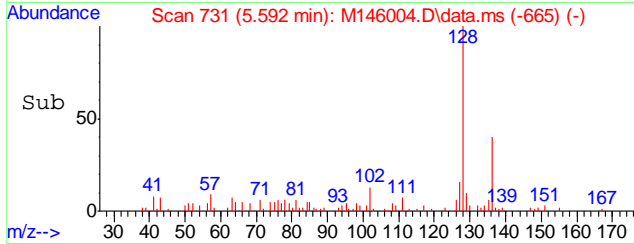
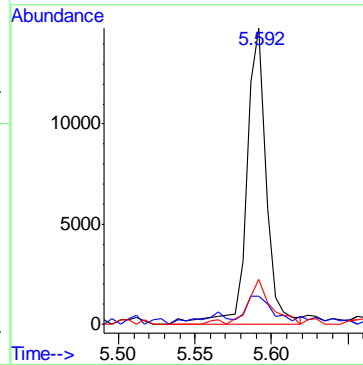
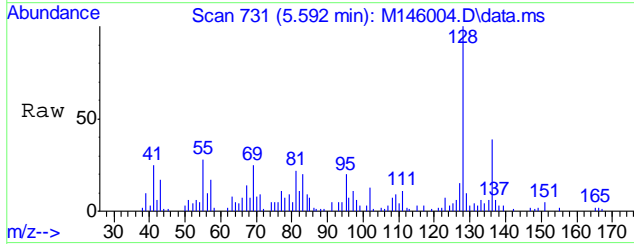


9.1.4  
9



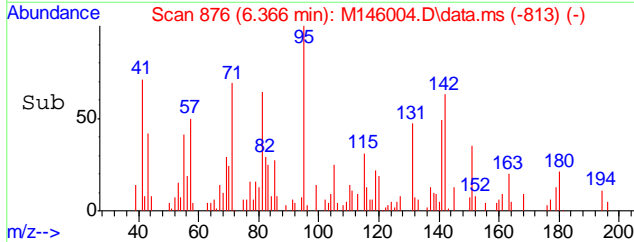
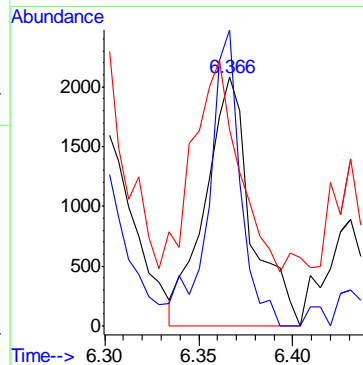
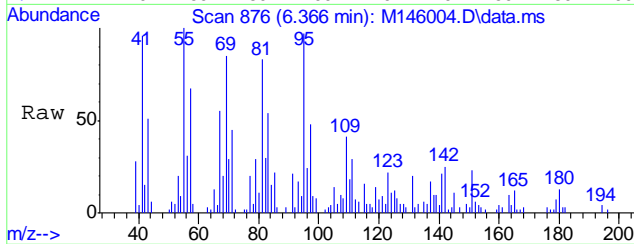
#38  
 Naphthalene  
 Concen: 0.95 ppm  
 RT: 5.592 min Scan# 731  
 Delta R.T. -0.145 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 8.5   | 0.0   | 41.4  |
| 127     | 15.5  | 0.0   | 42.8  |

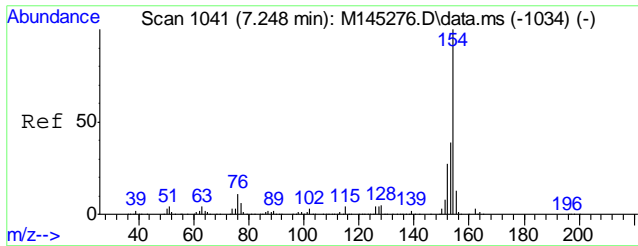


#44  
 2-Methylnaphthalene  
 Concen: 0.42 ppm  
 RT: 6.366 min Scan# 876  
 Delta R.T. -0.162 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 121.1 | 93.2  | 153.2 |
| 115     | 48.8  | 9.5   | 69.5  |

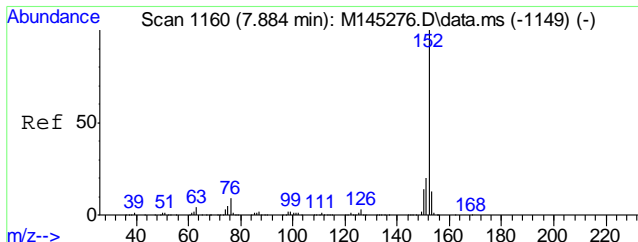
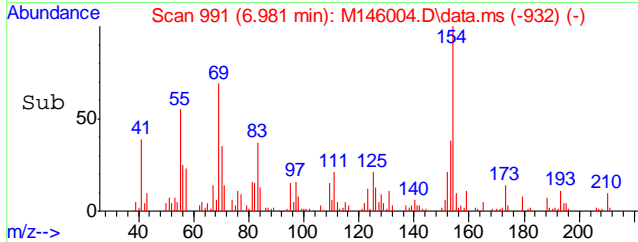
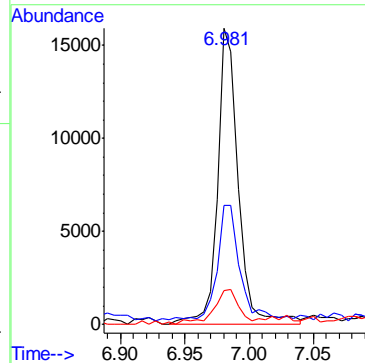
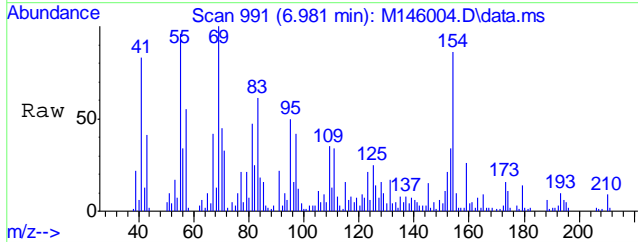


9.14  
9



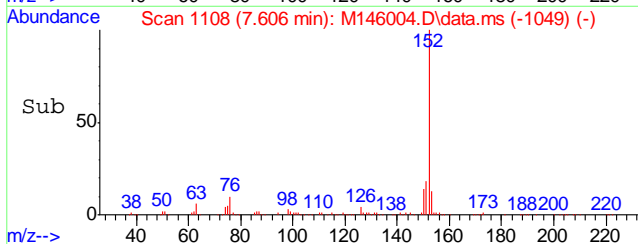
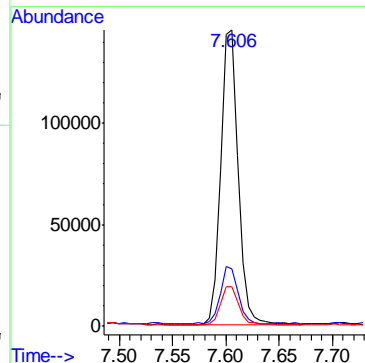
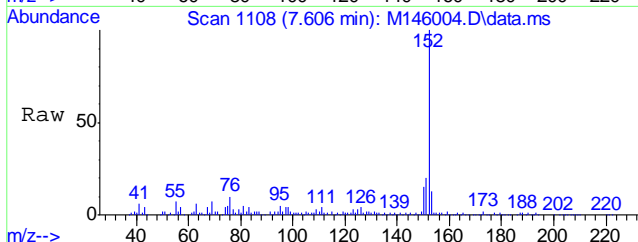
#53  
 Biphenyl  
 Concen: 1.83 ppm  
 RT: 6.981 min Scan# 991  
 Delta R.T. -0.182 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 17581 | 100   |       |
| 153     | 38.1  | 9.1   | 69.1  |
| 155     | 10.5  | 0.0   | 43.3  |



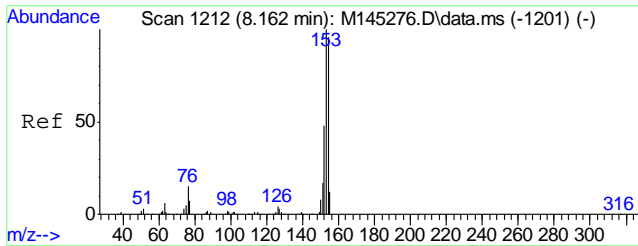
#56  
 Acenaphthylene  
 Concen: 14.54 ppm  
 RT: 7.606 min Scan# 1108  
 Delta R.T. -0.186 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 168917 | 100   |       |
| 151     | 18.8   | 0.0   | 49.8  |
| 153     | 13.1   | 0.0   | 43.1  |



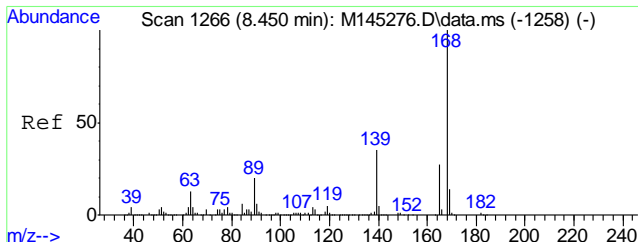
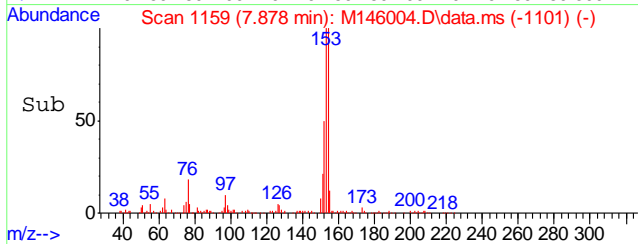
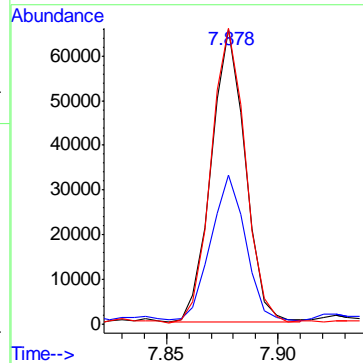
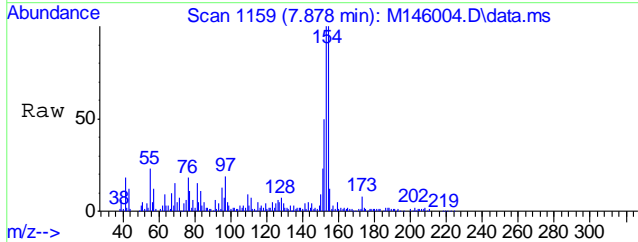
9.14  
 9





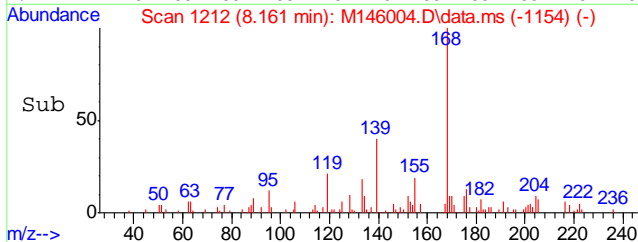
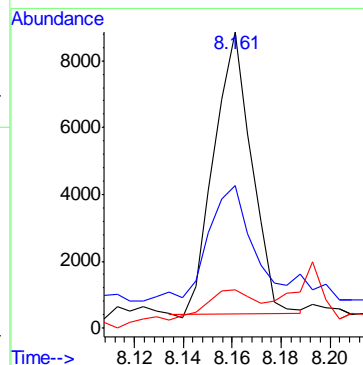
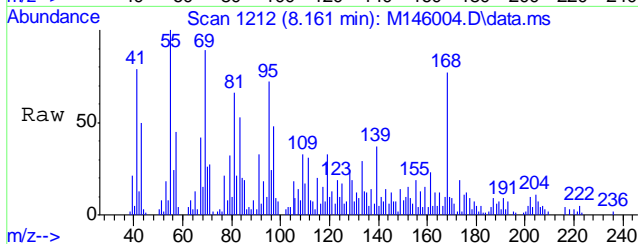
#59  
 Acenaphthene  
 Concen: 9.52 ppm  
 RT: 7.878 min Scan# 1159  
 Delta R.T. -0.188 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 69612 | 100   |       |
| 152     | 49.7  | 18.1  | 78.1  |
| 154     | 100.7 | 62.2  | 122.2 |

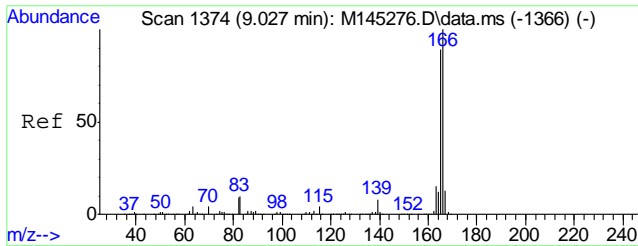


#62  
 Dibenzofuran  
 Concen: 0.84 ppm  
 RT: 8.161 min Scan# 1212  
 Delta R.T. -0.190 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 8983 | 100   |       |
| 139     | 35.2 | 5.0   | 65.0  |
| 169     | 6.1  | 0.0   | 43.9  |

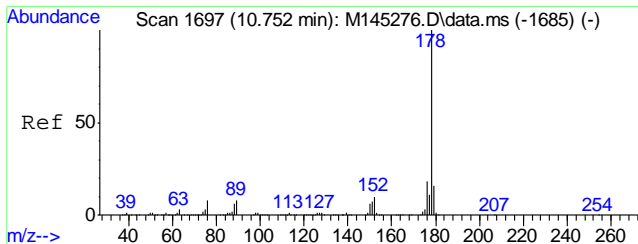
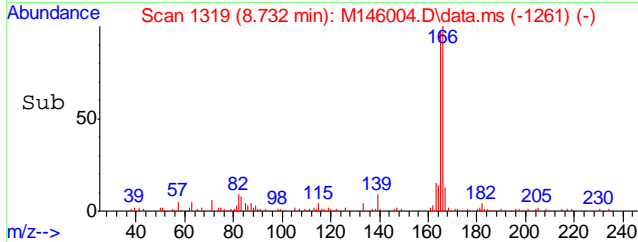
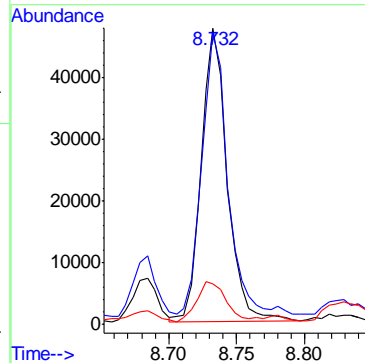
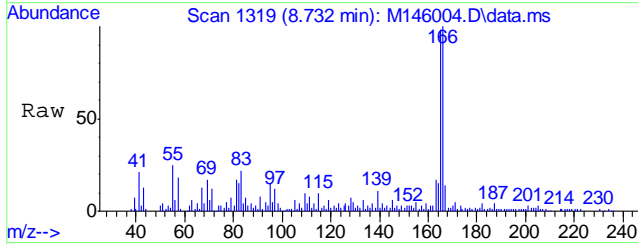


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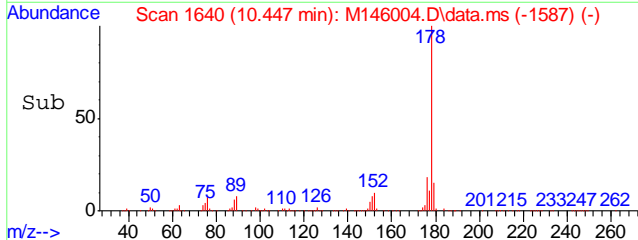
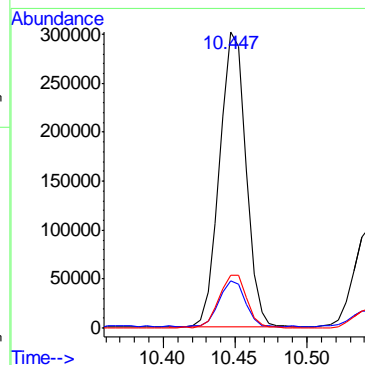
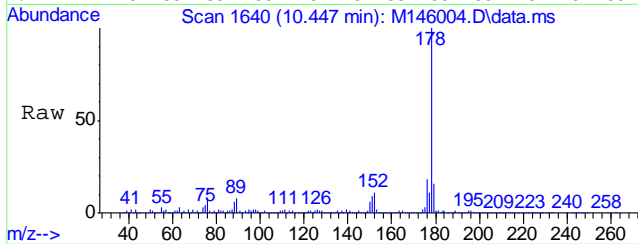
#66  
 Fluorene  
 Concen: 7.38 ppm  
 RT: 8.732 min Scan# 1319  
 Delta R.T. -0.188 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 63048 | 100   |       |
| 165     | 96.3  | 59.1  | 119.1 |
| 167     | 12.6  | 0.0   | 43.0  |

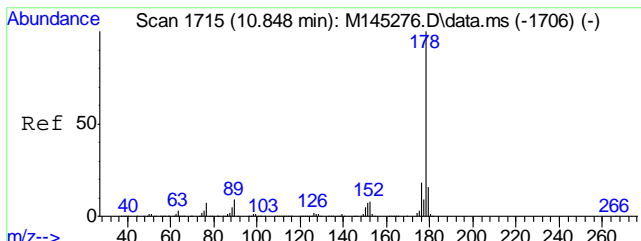


#77  
 Phenanthrene  
 Concen: 31.75 ppm  
 RT: 10.447 min Scan# 1640  
 Delta R.T. -0.215 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 380890 | 100   |       |
| 179     | 15.4   | 0.0   | 46.0  |
| 176     | 17.6   | 0.0   | 48.3  |

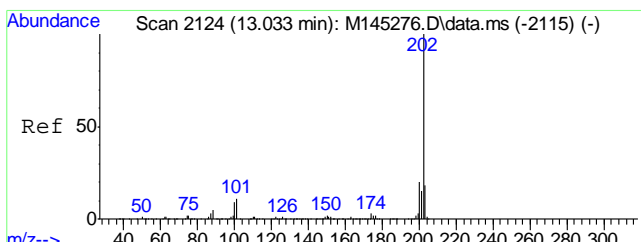
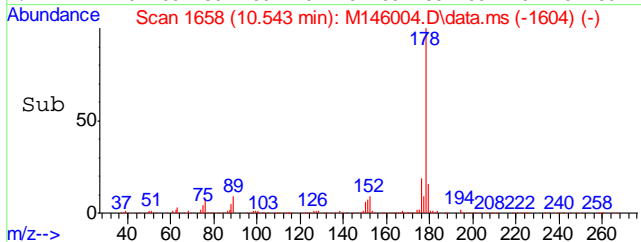
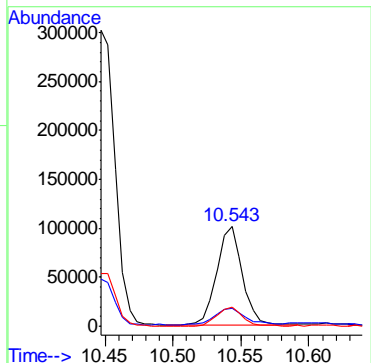
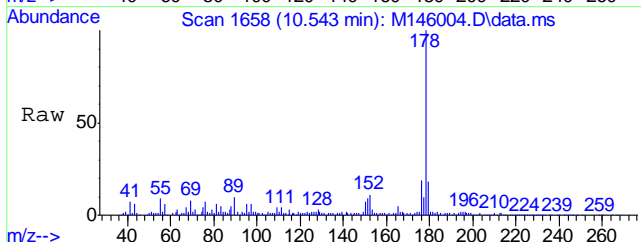


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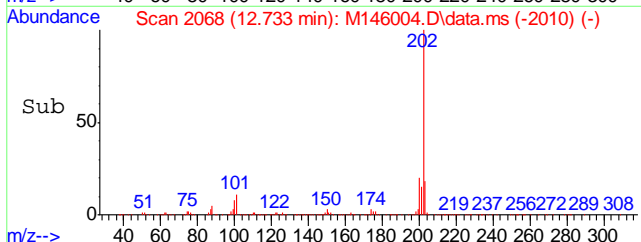
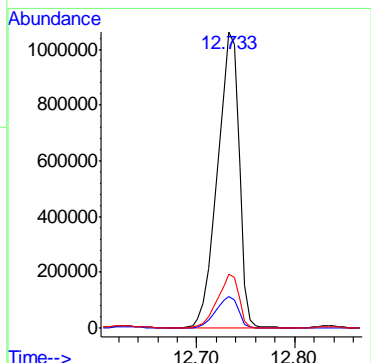
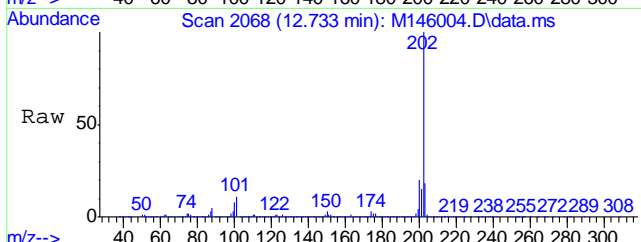
#78  
 Anthracene  
 Concen: 11.21 ppm  
 RT: 10.543 min Scan# 1658  
 Delta R.T. -0.214 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 134297 | 100   |       |
| 179     | 15.7   | 0.0   | 45.9  |
| 176     | 18.6   | 0.0   | 48.0  |

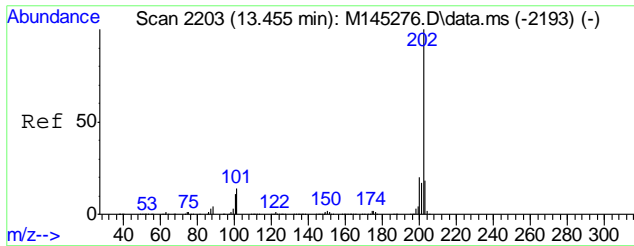


#81  
 Fluoranthene  
 Concen: 121.93 ppm  
 RT: 12.733 min Scan# 2068  
 Delta R.T. -0.190 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1630638 | 100   |       |
| 101     | 10.5    | 0.0   | 41.4  |
| 203     | 18.3    | 0.0   | 47.5  |

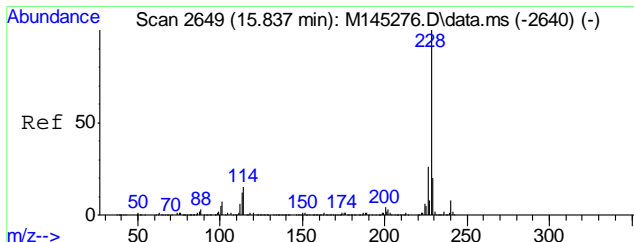
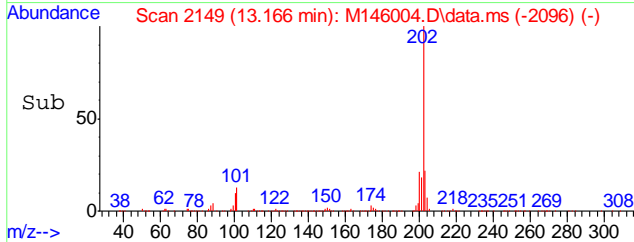
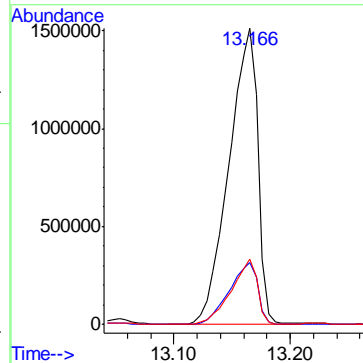
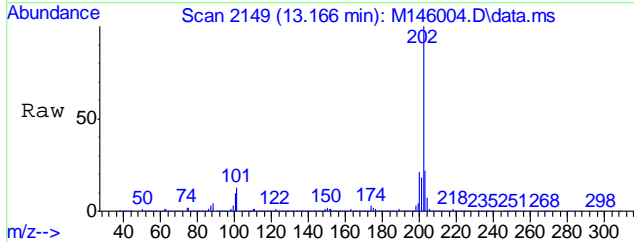


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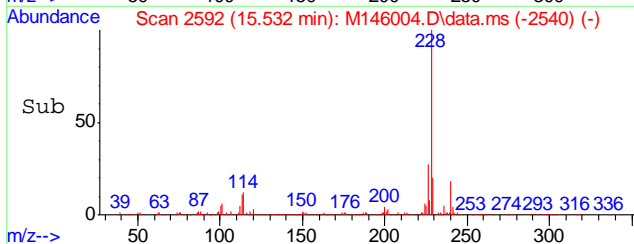
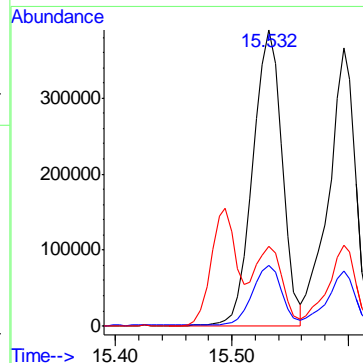
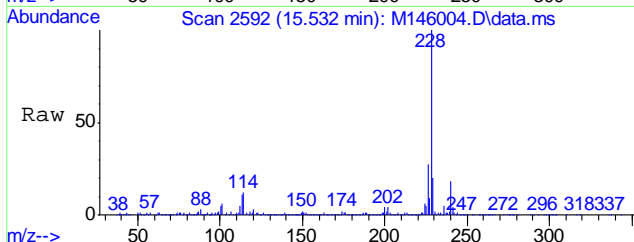
#84  
 Pyrene  
 Concen: 217.30 ppm  
 RT: 13.166 min Scan# 2149  
 Delta R.T. -0.217 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

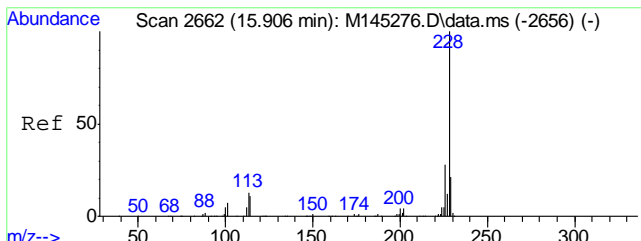
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 2617715 | 100   |       |
| 200     | 20.9    | 0.0   | 50.2  |
| 203     | 22.0    | 0.0   | 48.2  |



#87  
 Benzo[a]anthracene  
 Concen: 67.85 ppm  
 RT: 15.532 min Scan# 2592  
 Delta R.T. -0.220 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

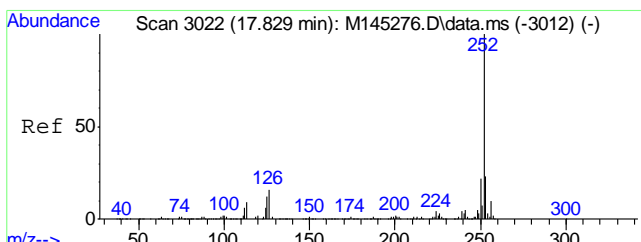
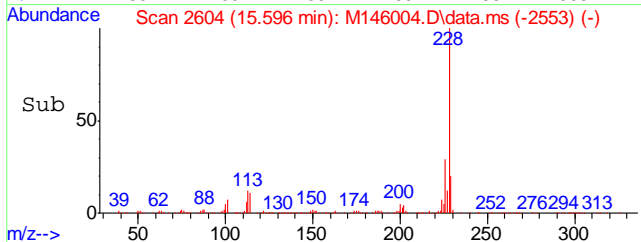
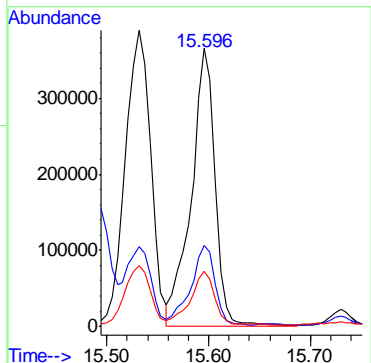
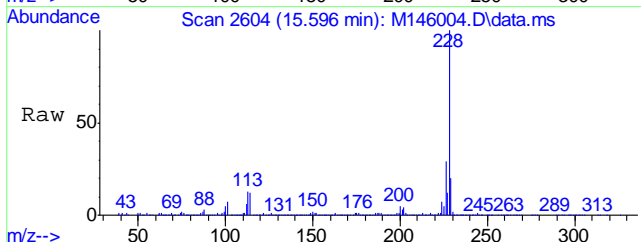
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 674703 | 100   |       |
| 229     | 20.1   | 0.0   | 50.4  |
| 226     | 26.8   | 0.0   | 55.8  |





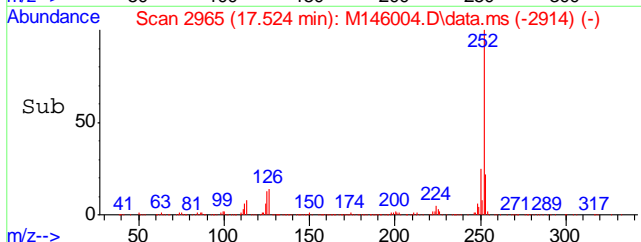
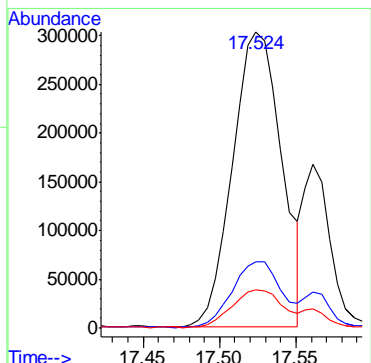
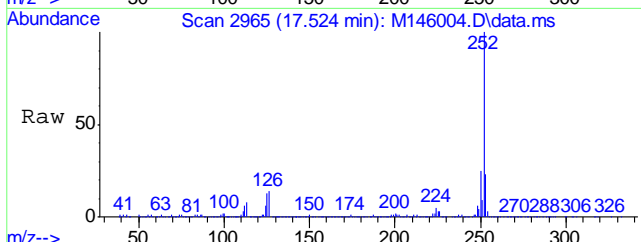
#89  
 Chrysene  
 Concen: 61.62 ppm  
 RT: 15.596 min Scan# 2604  
 Delta R.T. -0.225 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 591008 |       |       |
| 226     | 28.9   | 0.0   | 58.6  |
| 229     | 19.5   | 0.0   | 50.6  |

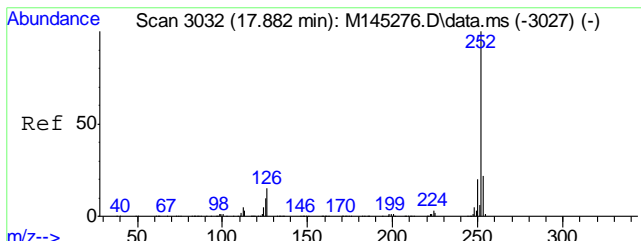


#93  
 Benzo[b]fluoranthene  
 Concen: 65.84 ppm  
 RT: 17.524 min Scan# 2965  
 Delta R.T. -0.228 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 676299 |       |       |
| 253     | 22.2   | 0.0   | 52.1  |
| 125     | 12.8   | 0.0   | 41.0  |

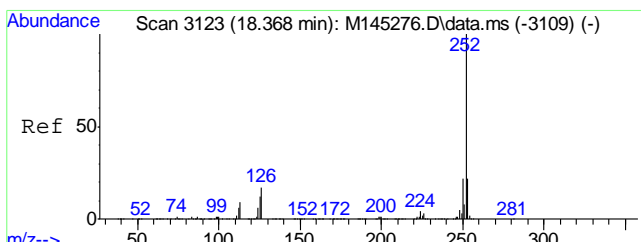
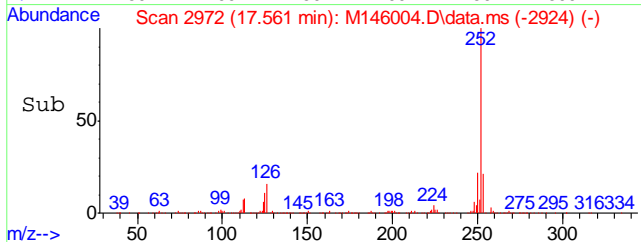
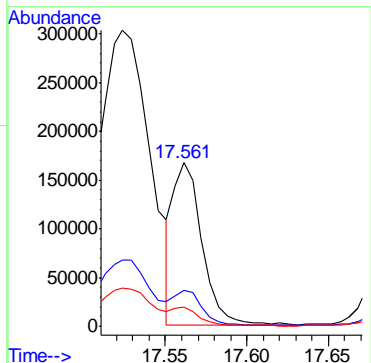
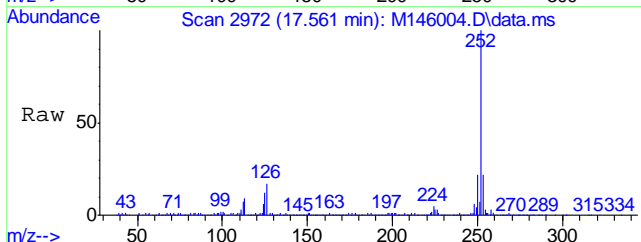


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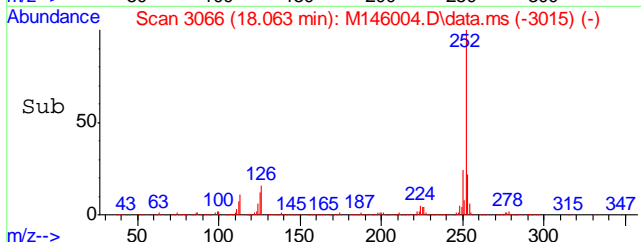
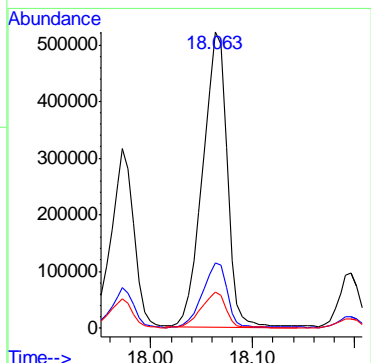
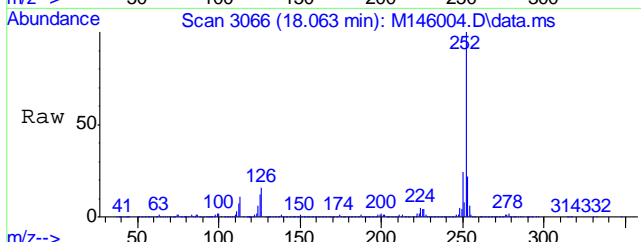
#94  
 Benzo[k]fluoranthene  
 Concen: 21.13 ppm  
 RT: 17.561 min Scan# 2972  
 Delta R.T. -0.244 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 20.9 | 0.0   | 52.4  |
| 125     | 10.9 | 0.0   | 41.0  |

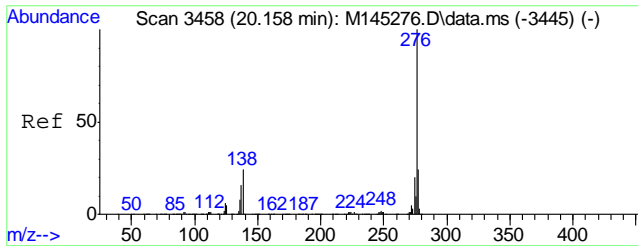


#95  
 Benzo[a]pyrene  
 Concen: 98.71 ppm  
 RT: 18.063 min Scan# 3066  
 Delta R.T. -0.226 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.0 | 0.0   | 52.4  |
| 125     | 12.2 | 0.0   | 42.3  |

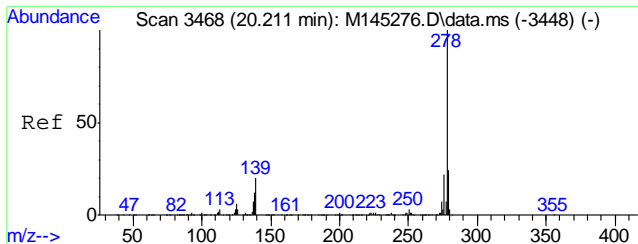
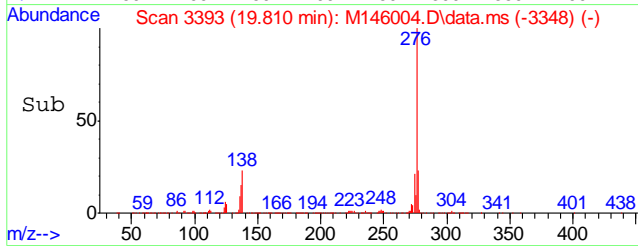
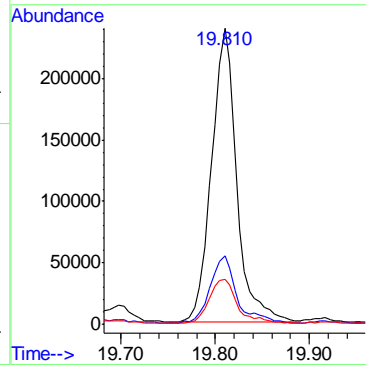
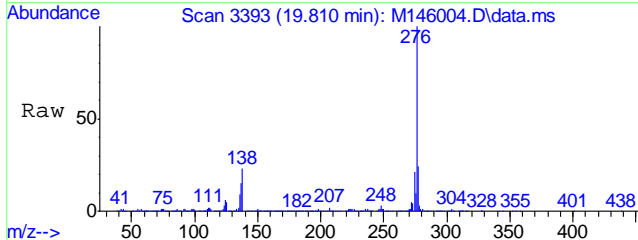


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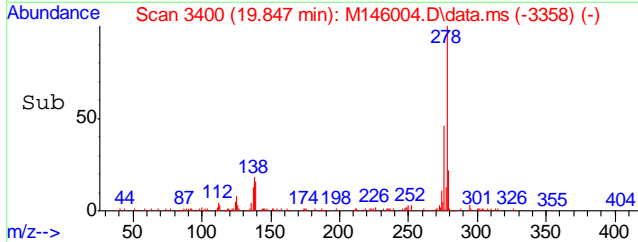
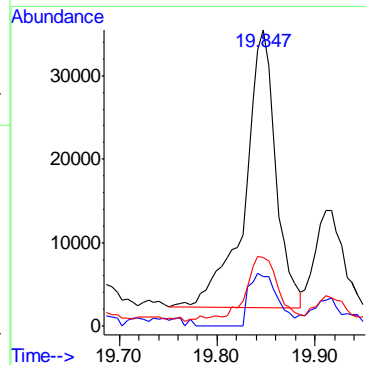
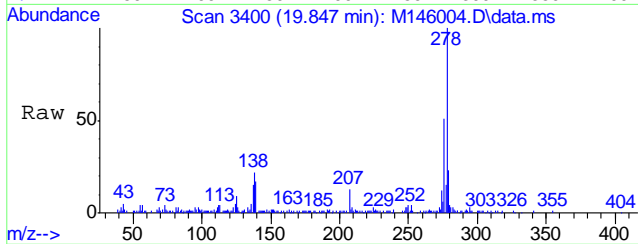
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 53.57 ppm  
 RT: 19.810 min Scan# 3393  
 Delta R.T. -0.261 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 447737 |       |       |
| 138     | 22.8   | 0.0   | 52.4  |
| 137     | 14.8   | 0.0   | 45.7  |

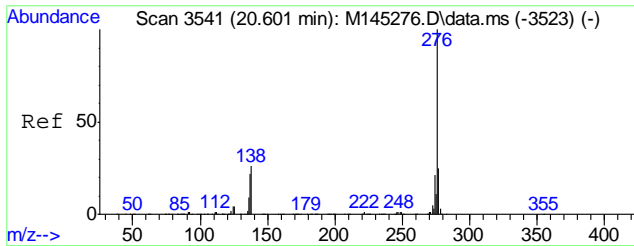


#98  
 Dibenz[a,h]anthracene  
 Concen: 8.19 ppm  
 RT: 19.847 min Scan# 3400  
 Delta R.T. -0.277 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 73094 |       |       |
| 139     | 15.1  | 0.0   | 49.8  |
| 279     | 21.7  | 0.0   | 54.2  |

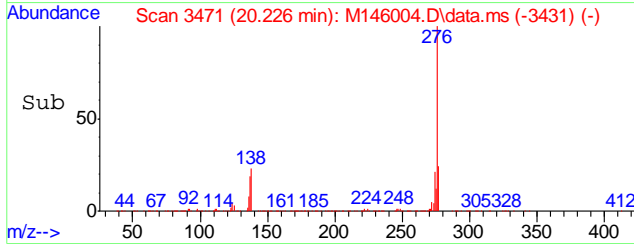
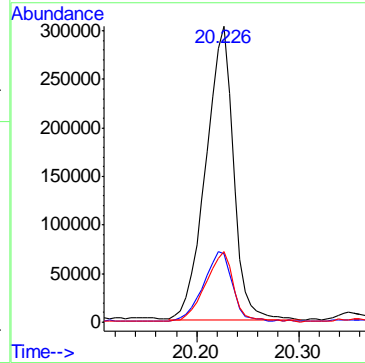
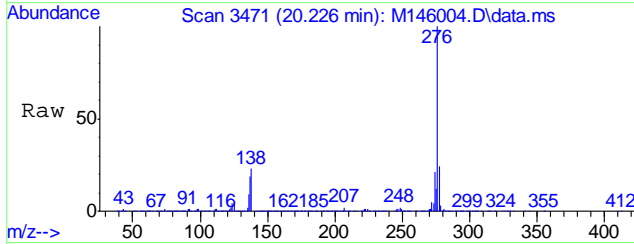


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#100  
 Benzo[g,h,i]perylene  
 Concen: 65.17 ppm  
 RT: 20.226 min Scan# 3471  
 Delta R.T. -0.286 min  
 Lab File: M146004.D  
 Acq: 9 May 2018 10:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.8  | 0.0   | 55.9  |
| 277     | 23.9  | 0.0   | 54.7  |



9.1.4  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
 Data File : M146028.D  
 Acq On : 9 May 2018 10:17 pm  
 Operator : johnbl  
 Sample : jc64996-4  
 Misc : op11642,em6204,30.4,,,1,5  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 10 07:26:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.487  | 152  | 151130   | 40.00 | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.571  | 136  | 555054   | 40.00 | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.831  | 164  | 266588   | 40.00 | ppm    | -0.19    |
| 69) Phenanthrene-d10         | 10.405 | 188  | 513699   | 40.00 | ppm    | -0.21    |
| 83) Chrysene-d12             | 15.548 | 240  | 479578   | 40.00 | ppm    | -0.22    |
| 91) Perylene-d12             | 18.166 | 264  | 502614   | 40.00 | ppm    | -0.22    |
| 101) 1,4-Dichlorobenzene-d4a | 4.487  | 152  | 151130   | 40.00 | ppm    | -0.11    |
| 103) Acenaphthene-d10a       | 7.831  | 164  | 266588   | 40.00 | ppm    | -0.19    |
| 106) Chrysene-d12a           | 15.548 | 240  | 479578   | 40.00 | ppm    | -0.22    |
| 109) Phenanthrene-d10a       | 10.405 | 188  | 513699   | 40.00 | ppm    | -0.21    |
| 112) Naphthalene-d8a         | 5.571  | 136  | 555054   | 40.00 | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.548 | 240  | 479578   | 40.00 | ppm    | -0.22    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.520  | 112  | 26843    | 4.75  | ppm    | -0.07    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 9.50%  |          |
| 8) Phenol-d5                 | 4.252  | 99   | 35025    | 5.20  | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 10.40% |          |
| 25) Nitrobenzene-d5          | 4.925  | 82   | 29310    | 5.41  | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 10.82% |          |
| 51) 2-Fluorobiphenyl         | 6.853  | 172  | 58336    | 5.63  | ppm    | -0.17    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.26% |          |
| 73) 2,4,6-Tribromophenol     | 9.166  | 330  | 9076     | 6.30  | ppm    | -0.20    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 12.60% |          |
| 85) Terphenyl-d14            | 13.572 | 244  | 68076    | 5.95  | ppm    | -0.24    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.90% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 56) Acenaphthylene           | 7.606  | 152  | 40668    | 3.13  | ppm    | 99       |
| 59) Acenaphthene             | 7.879  | 153  | 14437    | 1.76  | ppm    | 91       |
| 66) Fluorene                 | 8.733  | 166  | 15340    | 1.60  | ppm    | 93       |
| 77) Phenanthrene             | 10.448 | 178  | 88620    | 6.30  | ppm    | 99       |
| 78) Anthracene               | 10.544 | 178  | 29996    | 2.14  | ppm    | 96       |
| 81) Fluoranthene             | 12.723 | 202  | 416083   | 26.55 | ppm    | 99       |
| 84) Pyrene                   | 13.145 | 202  | 677050   | 39.82 | ppm    | 99       |
| 87) Benzo[a]anthracene       | 15.532 | 228  | 182486   | 13.00 | ppm    | 99       |
| 89) Chrysene                 | 15.597 | 228  | 157670   | 11.65 | ppm    | 98       |
| 93) Benzo[b]fluoranthene     | 17.525 | 252  | 190603   | 13.19 | ppm    | 98       |
| 94) Benzo[k]fluoranthene     | 17.567 | 252  | 61960    | 4.54  | ppm    | 97       |
| 95) Benzo[a]pyrene           | 18.059 | 252  | 236711   | 19.23 | ppm    | 100      |
| 96) Indeno[1,2,3-cd]pyrene   | 19.811 | 276  | 115725   | 9.85  | ppm    | 95       |
| 98) Dibenz[a,h]anthracene    | 19.853 | 278  | 17711    | 1.41  | ppm    | 85       |
| 100) Benzo[g,h,i]perylene    | 20.217 | 276  | 143441   | 11.65 | ppm    | 96       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
Data File : M146028.D  
Acq On : 9 May 2018 10:17 pm  
Operator : johnbl  
Sample : jc64996-4  
Misc : op11642,em6204,30.4,,,1,5  
ALS Vial : 14 Sample Multiplier: 1

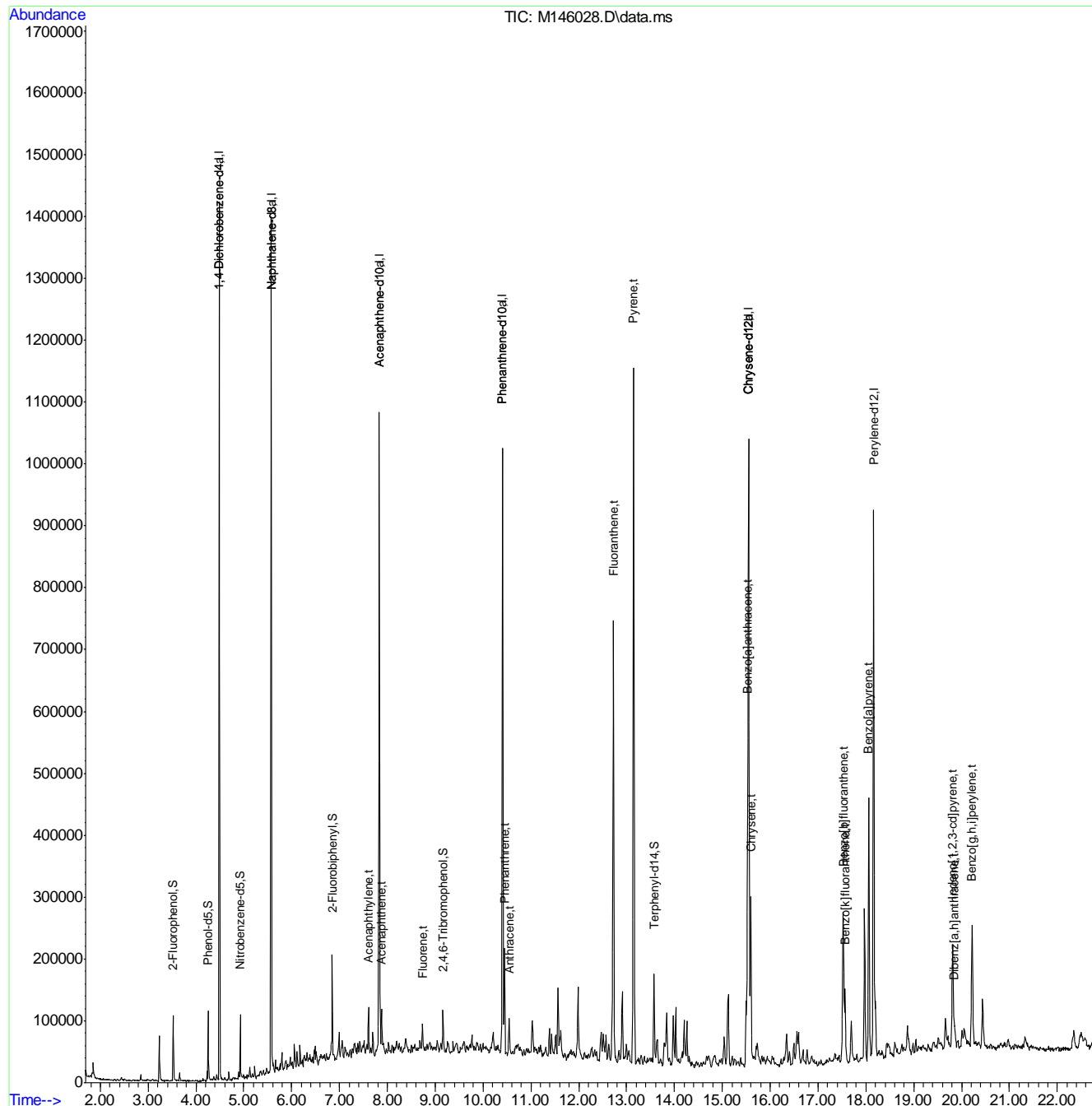
Quant Time: May 10 07:26:53 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
QLast Update : Tue May 08 09:35:35 2018  
Response via : Initial Calibration

| Compound   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--|------|------|----------|------|-------|----------|
| -----  |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

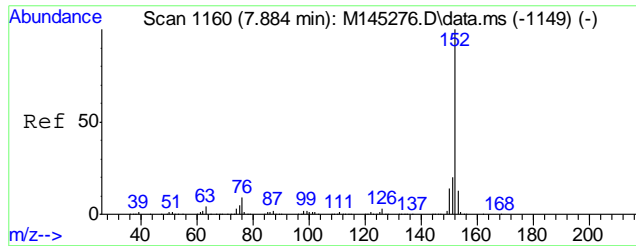
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
 Data File : M146028.D  
 Acq On : 9 May 2018 10:17 pm  
 Operator : johnbl  
 Sample : jc64996-4  
 Misc : op11642,em6204,30.4,,,1,5  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 10 07:26:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

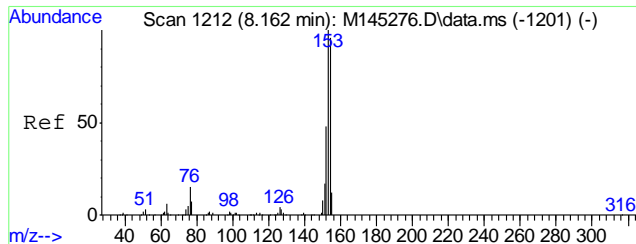
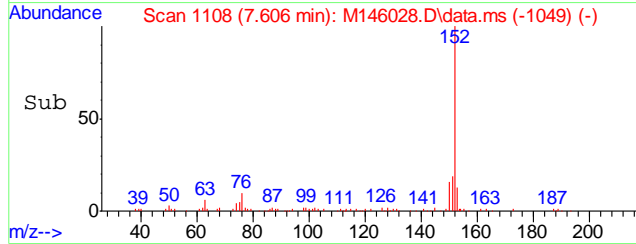
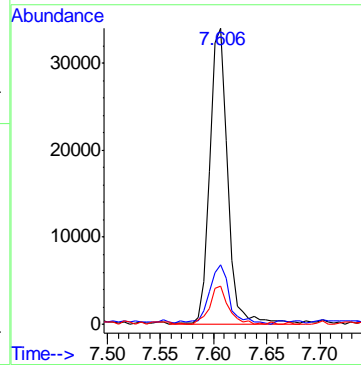
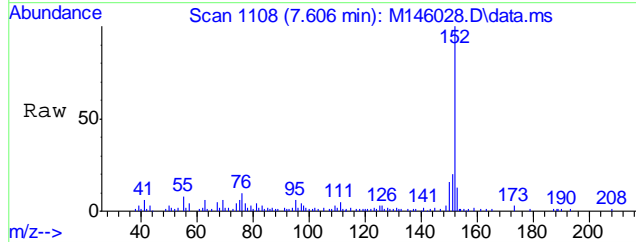


9.15  
9



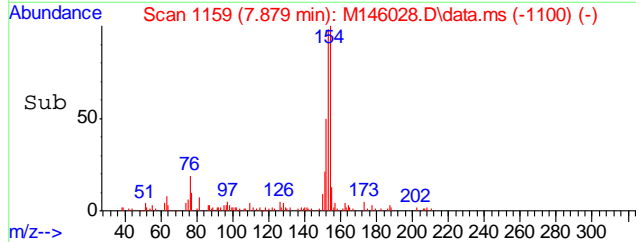
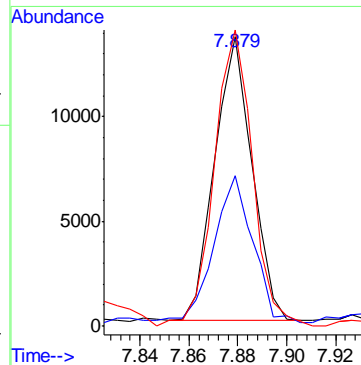
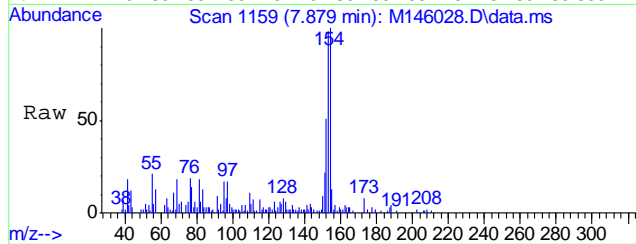
#56  
 Acenaphthylene  
 Concen: 3.13 ppm  
 RT: 7.606 min Scan# 1108  
 Delta R.T. -0.185 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

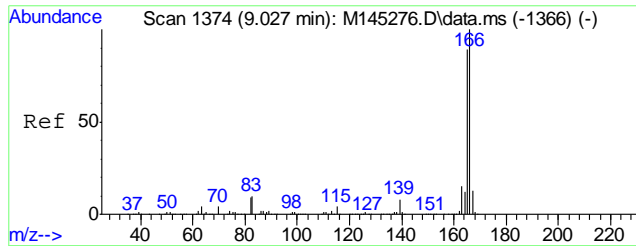
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 40668 |       |       |
| 151     | 19.3  | 0.0   | 49.8  |
| 153     | 13.6  | 0.0   | 43.1  |



#59  
 Acenaphthene  
 Concen: 1.76 ppm  
 RT: 7.879 min Scan# 1159  
 Delta R.T. -0.187 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

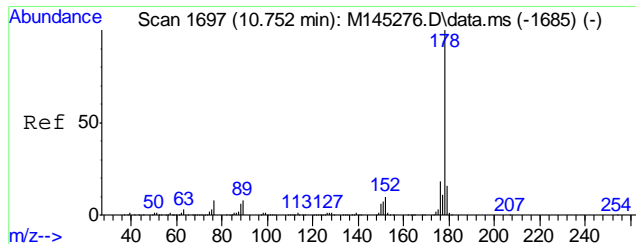
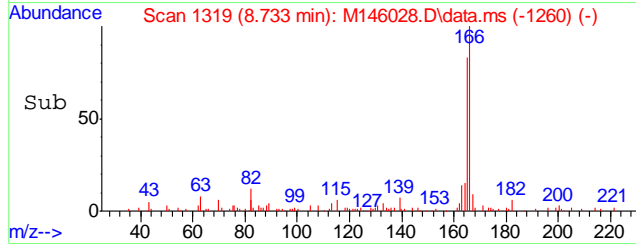
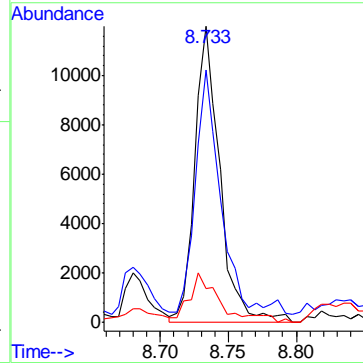
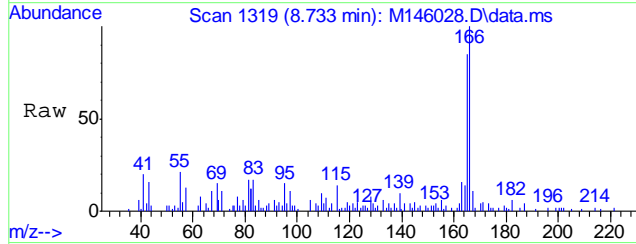
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 14437 |       |       |
| 152     | 51.2  | 18.1  | 78.1  |
| 154     | 102.7 | 62.2  | 122.2 |





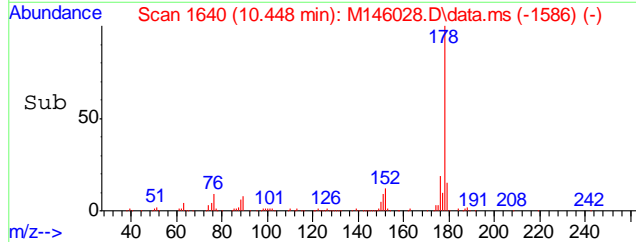
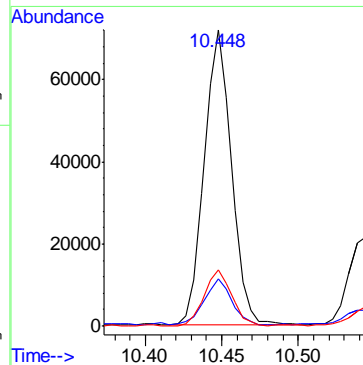
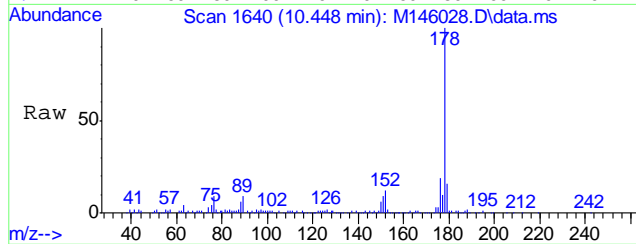
#66  
 Fluorene  
 Concen: 1.60 ppm  
 RT: 8.733 min Scan# 1319  
 Delta R.T. -0.187 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

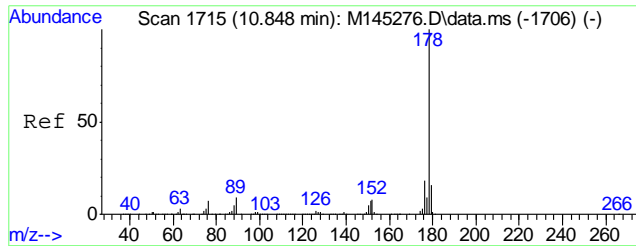
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 15340 |       |       |
| 165     | 82.6  | 59.1  | 119.1 |
| 167     | 10.6  | 0.0   | 43.0  |



#77  
 Phenanthrene  
 Concen: 6.30 ppm  
 RT: 10.448 min Scan# 1640  
 Delta R.T. -0.214 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

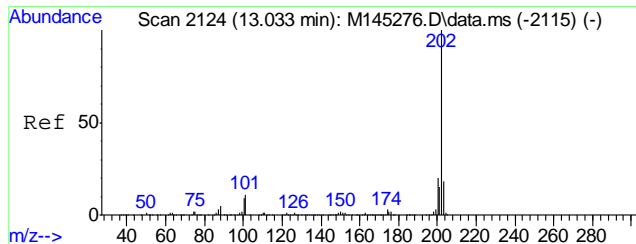
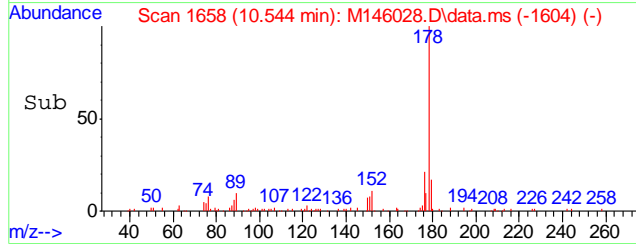
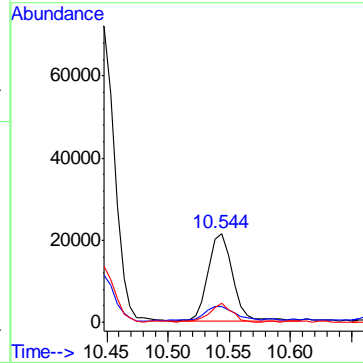
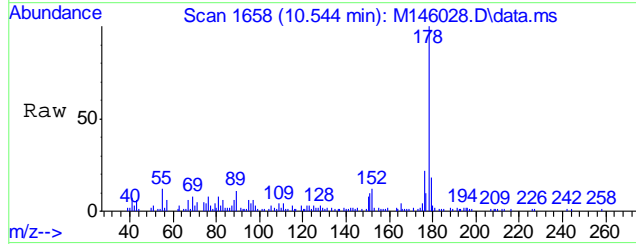
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 88620 |       |       |
| 179     | 15.4  | 0.0   | 46.0  |
| 176     | 18.7  | 0.0   | 48.3  |





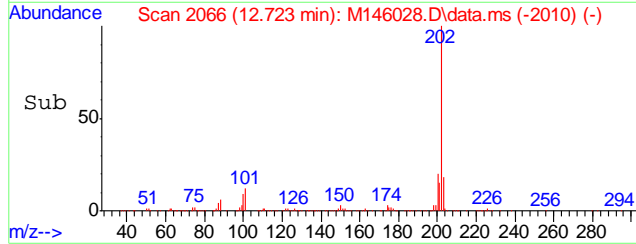
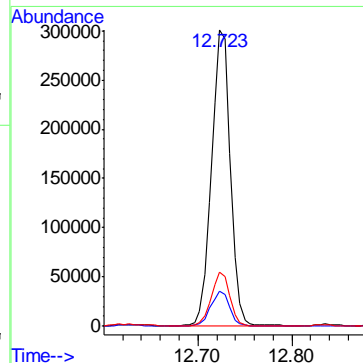
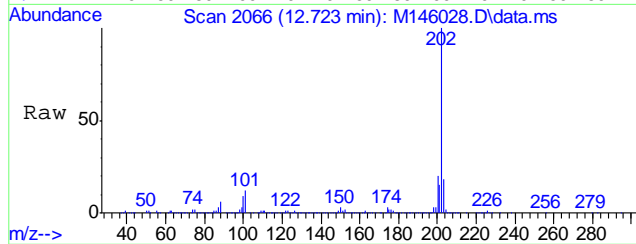
#78  
 Anthracene  
 Concen: 2.14 ppm  
 RT: 10.544 min Scan# 1658  
 Delta R.T. -0.213 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 29996 | 100   |       |
| 179     | 15.9  | 0.0   | 45.9  |
| 176     | 21.2  | 0.0   | 48.0  |

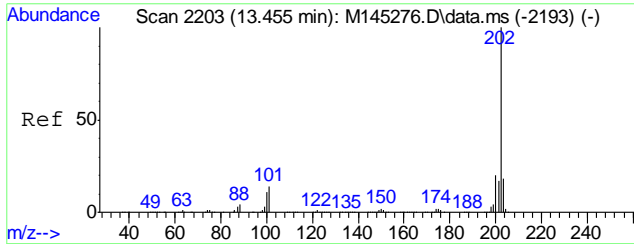


#81  
 Fluoranthene  
 Concen: 26.55 ppm  
 RT: 12.723 min Scan# 2066  
 Delta R.T. -0.200 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 416083 | 100   |       |
| 101     | 11.8   | 0.0   | 41.4  |
| 203     | 17.9   | 0.0   | 47.5  |

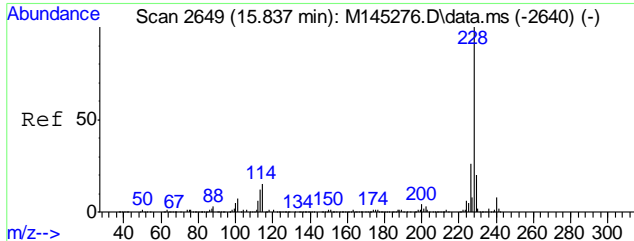
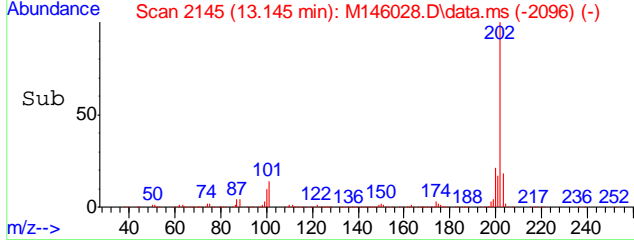
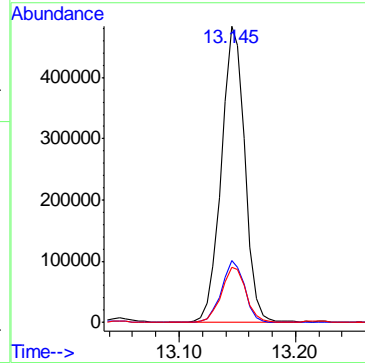
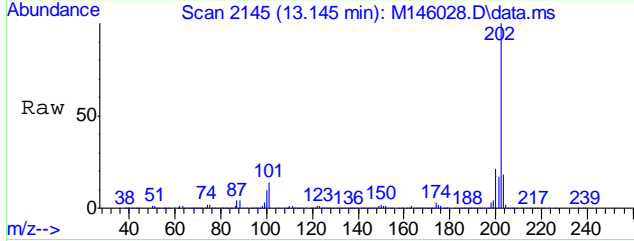


9.15  
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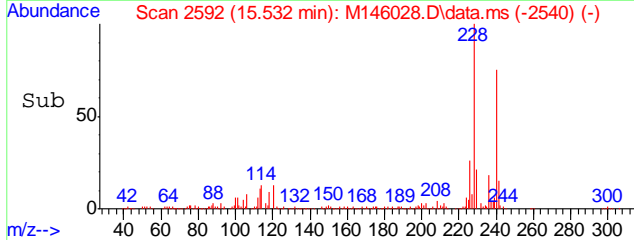
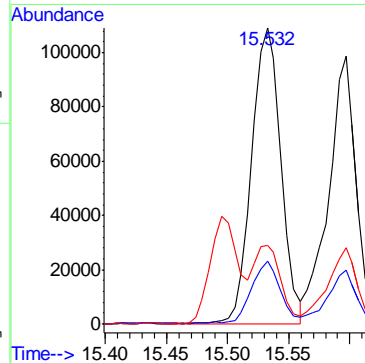
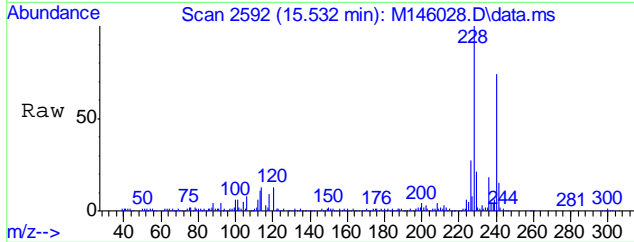
#84  
 Pyrene  
 Concen: 39.82 ppm  
 RT: 13.145 min Scan# 2145  
 Delta R.T. -0.238 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

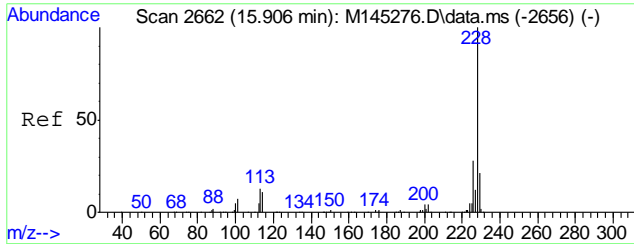
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 677050 |       |       |
| 200     | 20.8   | 0.0   | 50.2  |
| 203     | 18.4   | 0.0   | 48.2  |



#87  
 Benzo[a]anthracene  
 Concen: 13.00 ppm  
 RT: 15.532 min Scan# 2592  
 Delta R.T. -0.220 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

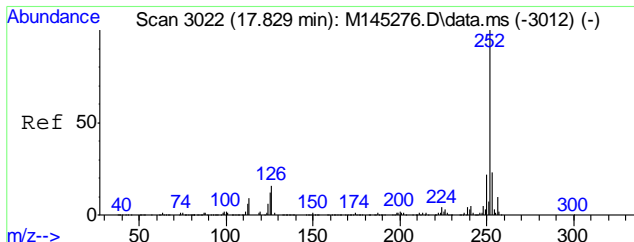
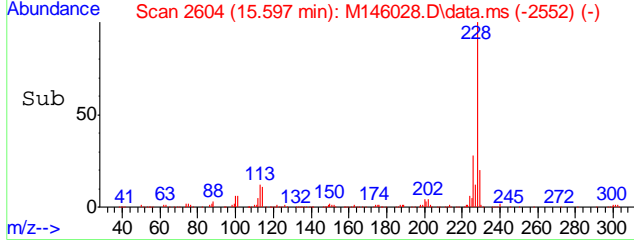
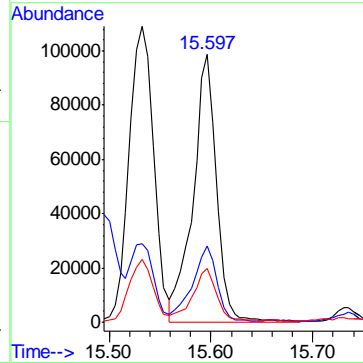
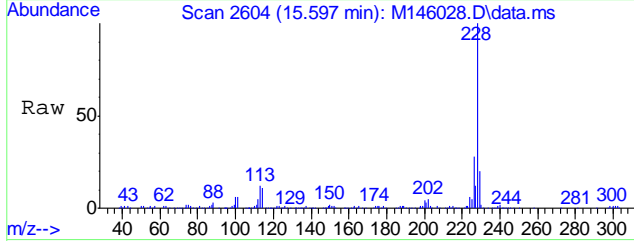
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 182486 |       |       |
| 229     | 21.0   | 0.0   | 50.4  |
| 226     | 26.3   | 0.0   | 55.8  |





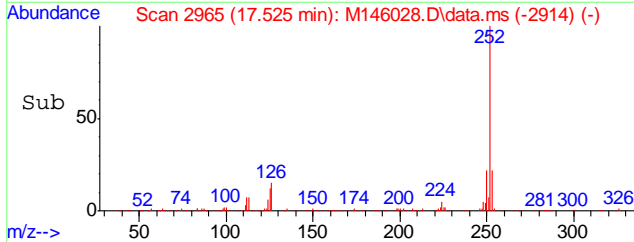
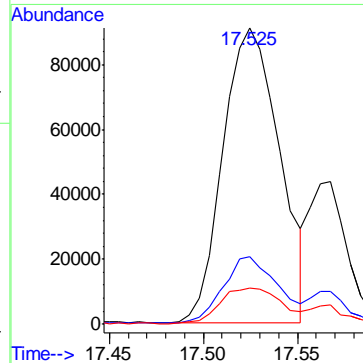
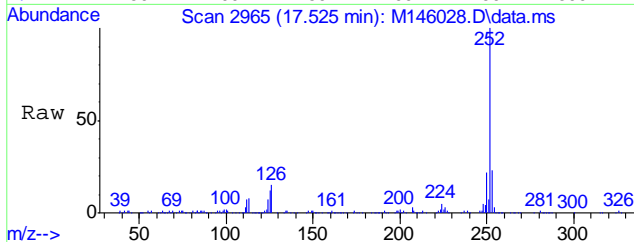
#89  
 Chrysene  
 Concen: 11.65 ppm  
 RT: 15.597 min Scan# 2604  
 Delta R.T. -0.225 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.8  | 0.0   | 58.6  |
| 229     | 19.6  | 0.0   | 50.6  |



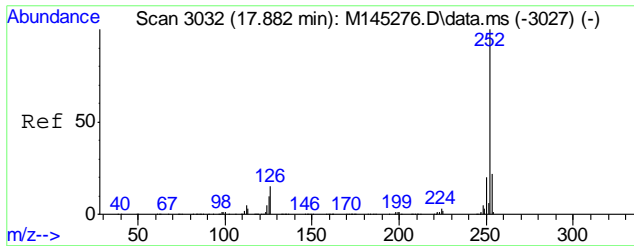
#93  
 Benzo[b]fluoranthene  
 Concen: 13.19 ppm  
 RT: 17.525 min Scan# 2965  
 Delta R.T. -0.228 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.1  | 0.0   | 52.1  |
| 125     | 11.8  | 0.0   | 41.0  |



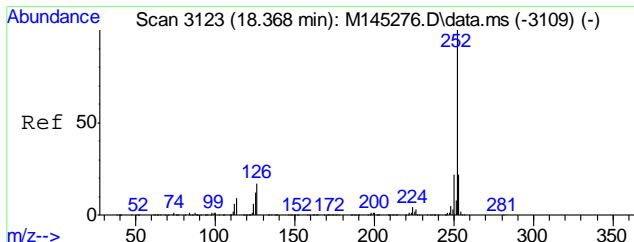
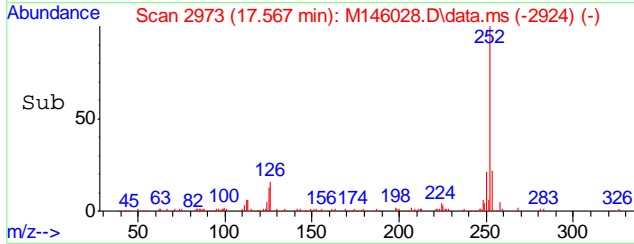
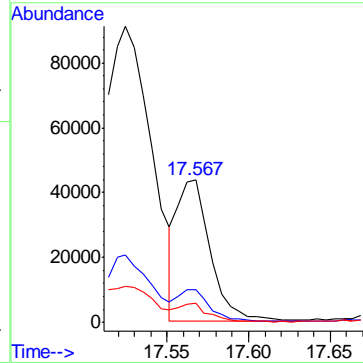
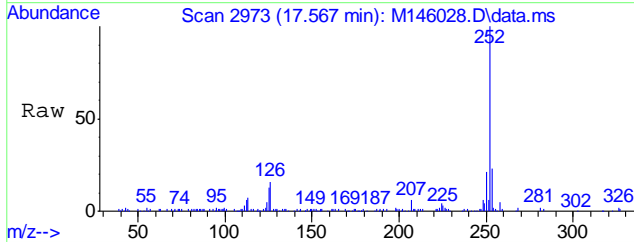
9.15  
 9





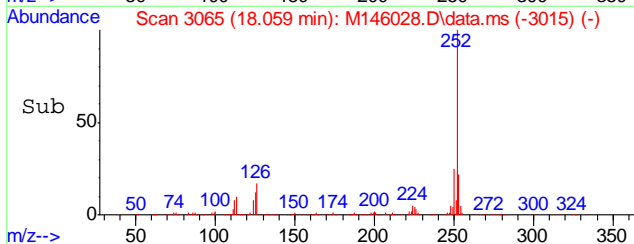
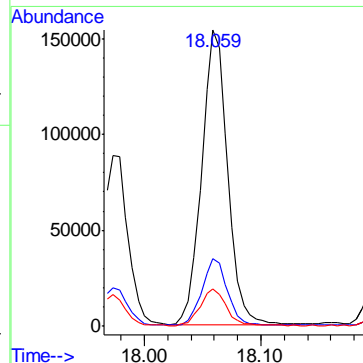
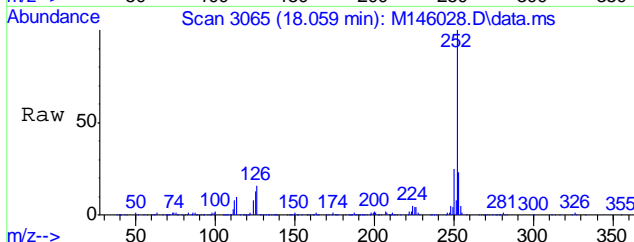
#94  
 Benzo[k]fluoranthene  
 Concen: 4.54 ppm  
 RT: 17.567 min Scan# 2973  
 Delta R.T. -0.238 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

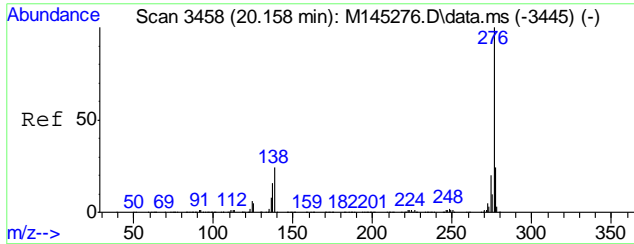
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.5 | 0.0   | 52.4  |
| 125     | 12.9 | 0.0   | 41.0  |



#95  
 Benzo[a]pyrene  
 Concen: 19.23 ppm  
 RT: 18.059 min Scan# 3065  
 Delta R.T. -0.231 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

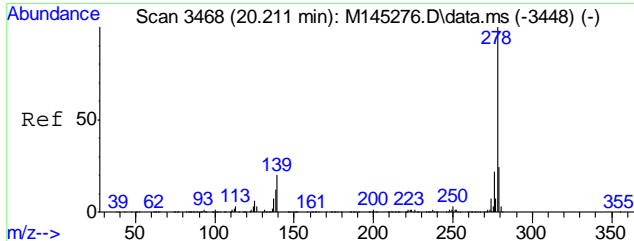
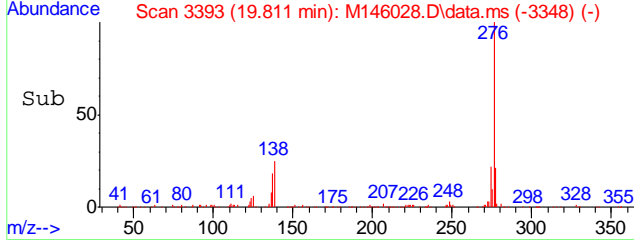
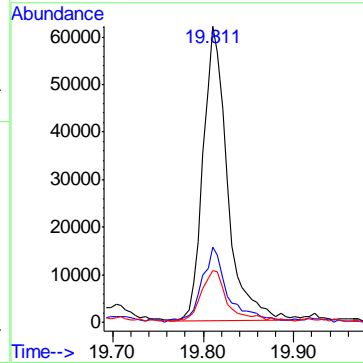
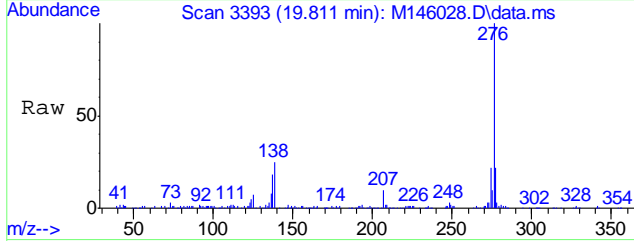
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.4 | 0.0   | 52.4  |
| 125     | 12.4 | 0.0   | 42.3  |





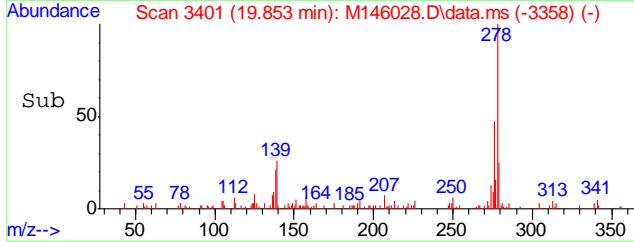
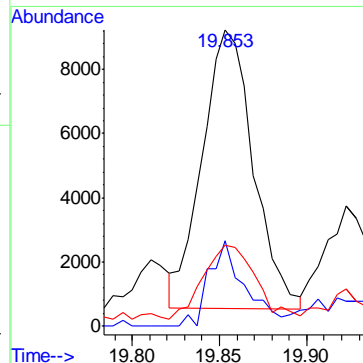
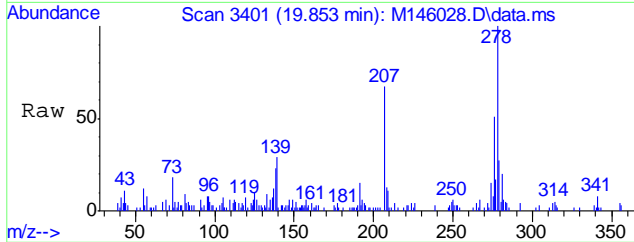
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 9.85 ppm  
 RT: 19.811 min Scan# 3393  
 Delta R.T. -0.260 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

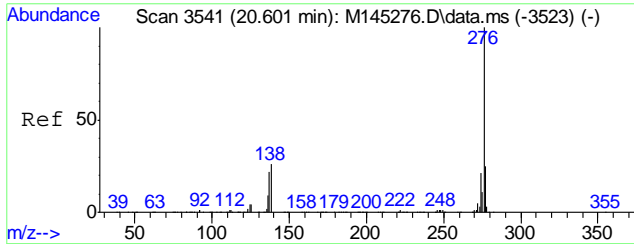
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.9  | 0.0   | 52.4  |
| 137     | 17.2  | 0.0   | 45.7  |



#98  
 Dibenz[a,h]anthracene  
 Concen: 1.41 ppm  
 RT: 19.853 min Scan# 3401  
 Delta R.T. -0.271 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

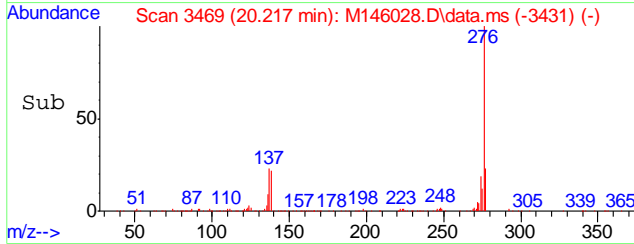
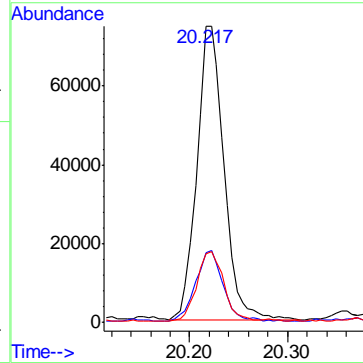
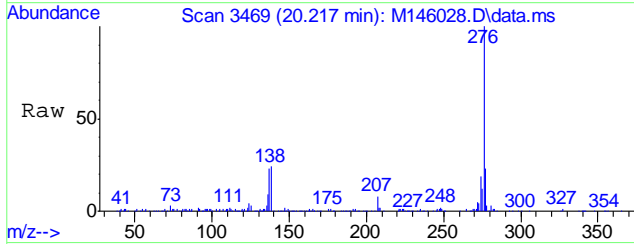
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 30.3  | 0.0   | 49.8  |
| 279     | 28.2  | 0.0   | 54.2  |





#100  
 Benzo[g,h,i]perylene  
 Concen: 11.65 ppm  
 RT: 20.217 min Scan# 3469  
 Delta R.T. -0.296 min  
 Lab File: M146028.D  
 Acq: 9 May 2018 10:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.2  | 0.0   | 55.9  |
| 277     | 23.1  | 0.0   | 54.7  |



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M145998.D  
 Acq On : 9 May 2018 7:22 am  
 Operator : chriss2  
 Sample : jc64996-6  
 Misc : op11642,em6203,30.3,,,1,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 09 11:59:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

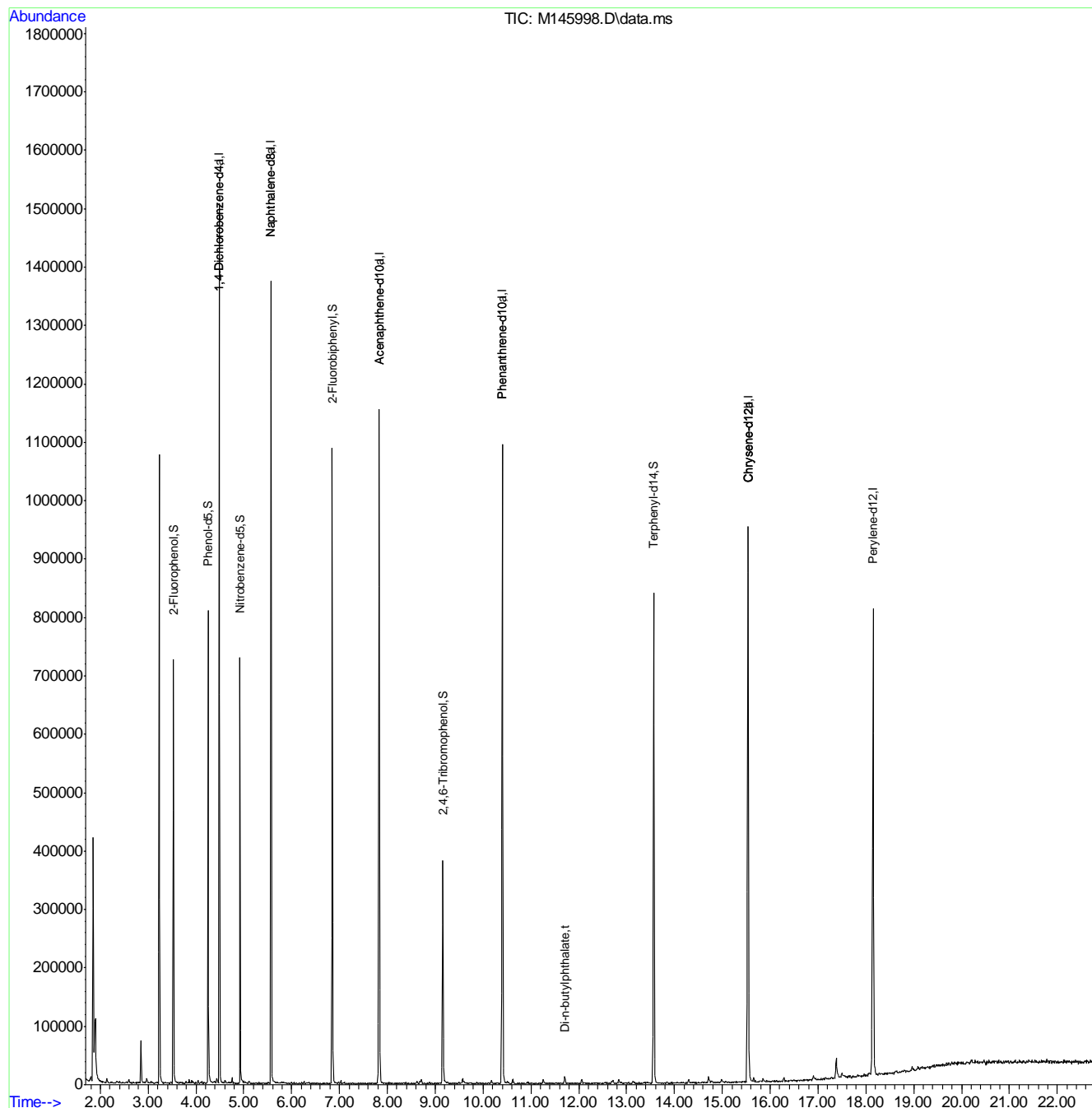
| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min)     |
|------------------------------|--------|------|----------|-------|--------|--------------|
| Internal Standards           |        |      |          |       |        |              |
| 1) 1,4-Dichlorobenzene-d4    | 4.487  | 152  | 158282   | 40.00 | ppm    | -0.08        |
| 24) Naphthalene-d8           | 5.566  | 136  | 580617   | 40.00 | ppm    | -0.14        |
| 47) Acenaphthene-d10         | 7.825  | 164  | 296985   | 40.00 | ppm    | -0.19        |
| 69) Phenanthrene-d10         | 10.400 | 188  | 559106   | 40.00 | ppm    | -0.22        |
| 83) Chrysene-d12             | 15.538 | 240  | 486531   | 40.00 | ppm    | -0.24        |
| 91) Perylene-d12             | 18.150 | 264  | 467777   | 40.00 | ppm    | -0.24        |
| 101) 1,4-Dichlorobenzene-d4a | 4.487  | 152  | 158282   | 40.00 | ppm    | -0.11        |
| 103) Acenaphthene-d10a       | 7.825  | 164  | 296985   | 40.00 | ppm    | -0.19        |
| 106) Chrysene-d12a           | 15.538 | 240  | 486531   | 40.00 | ppm    | -0.24        |
| 109) Phenanthrene-d10a       | 10.400 | 188  | 559106   | 40.00 | ppm    | -0.22        |
| 112) Naphthalene-d8a         | 5.566  | 136  | 580617   | 40.00 | ppm    | -0.14        |
| 114) Chrysene-d12b           | 15.538 | 240  | 486531   | 40.00 | ppm    | -0.24        |
| System Monitoring Compounds  |        |      |          |       |        |              |
| 5) 2-Fluorophenol            | 3.526  | 112  | 164526   | 27.79 | ppm    | -0.06        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 55.58% |              |
| 8) Phenol-d5                 | 4.252  | 99   | 207300   | 29.41 | ppm    | -0.04        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 58.82% |              |
| 25) Nitrobenzene-d5          | 4.920  | 82   | 181005   | 31.92 | ppm    | -0.12        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 63.84% |              |
| 51) 2-Fluorobiphenyl         | 6.848  | 172  | 370826   | 32.15 | ppm    | -0.18        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 64.30% |              |
| 73) 2,4,6-Tribromophenol     | 9.155  | 330  | 56734    | 36.18 | ppm    | -0.21        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 72.36% |              |
| 85) Terphenyl-d14            | 13.567 | 244  | 408050   | 35.17 | ppm    | -0.24        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 70.34% |              |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |              |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |              |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |              |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |              |
| Target Compounds             |        |      |          |       |        |              |
| 80) Di-n-butylphthalate      | 11.708 | 149  | 8265     | 0.50  | ppm    | Qvalue<br>98 |

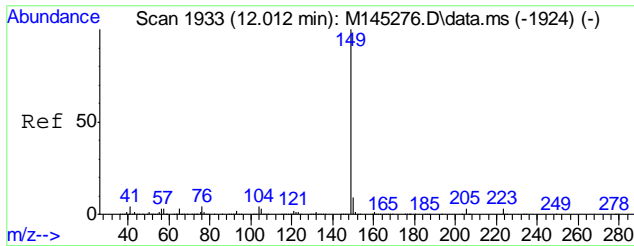
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
Data File : M145998.D  
Acq On : 9 May 2018 7:22 am  
Operator : chriss2  
Sample : jc64996-6  
Misc : op11642,em6203,30.3,,,1,1  
ALS Vial : 12 Sample Multiplier: 1

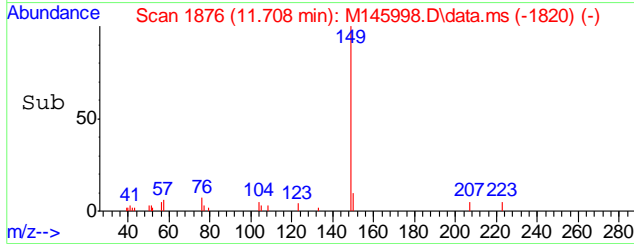
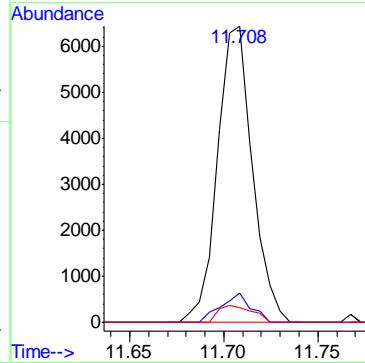
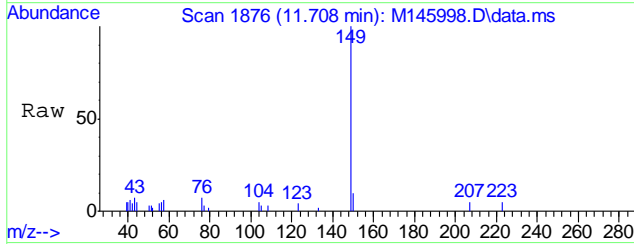
Quant Time: May 09 11:59:46 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
QLast Update : Tue May 08 09:35:35 2018  
Response via : Initial Calibration





#80  
 Di-n-butylphthalate  
 Concen: 0.50 ppm  
 RT: 11.708 min Scan# 1876  
 Delta R.T. -0.203 min  
 Lab File: M145998.D  
 Acq: 9 May 2018 7:22 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 150     | 10.0  | 0.0   | 39.3  |
| 104     | 4.8   | 0.0   | 34.4  |



9.1.6  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79773.D  
 Acq On : 22 May 2018 4:14 am  
 Operator : sufiyana  
 Sample : jc64996-7  
 Misc : op12122,e2p3514,31.0,,,1,1  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 22 12:45:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon          | Response   | Conc     | Units | Dev(Min) |
|------------------------------|--------|---------------|------------|----------|-------|----------|
| Internal Standards           |        |               |            |          |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.432  | 152           | 825110     | 40.00    | ppm   | -0.05    |
| 24) Naphthalene-d8           | 5.491  | 136           | 2310965    | 40.00    | ppm   | -0.05    |
| 47) Acenaphthene-d10         | 6.925  | 164           | 1033464    | 40.00    | ppm   | -0.05    |
| 69) Phenanthrene-d10         | 8.176  | 188           | 1765458    | 40.00    | ppm   | -0.05    |
| 83) Chrysene-d12             | 11.332 | 240           | 1696593    | 40.00    | ppm   | -0.05    |
| 91) Perylene-d12             | 13.306 | 264           | 1628730    | 40.00    | ppm   | -0.05    |
| 101) 1,4-Dichlorobenzene-d4a | 4.432  | 152           | 825110     | 40.00    | ppm   | -0.05    |
| 103) Naphthalene-d8a         | 5.491  | 136           | 2310554    | 40.00    | ppm   | #-0.01   |
| 105) Acenaphthene-d10a       | 6.925  | 164           | 1037595    | 40.00    | ppm   | -0.04    |
| 108) Chrysene-d12a           | 11.332 | 240           | 1696593    | 40.00    | ppm   | -0.05    |
| 110) Phenanthrene-d10a       | 8.176  | 188           | 1765458    | 40.00    | ppm   | -0.05    |
| 114) Chrysene-d12b           | 11.332 | 240           | 1696593    | 40.00    | ppm   | #-0.05   |
| System Monitoring Compounds  |        |               |            |          |       |          |
| 5) 2-Fluorophenol            | 3.416  | 112           | 967124     | 29.69    | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range 11 - 58 | Recovery = | 59.38%#  |       |          |
| 8) Phenol-d5                 | 4.267  | 99            | 1007906    | 29.86    | ppm   | -0.03    |
| Spiked Amount                | 50.000 | Range 10 - 59 | Recovery = | 59.72%#  |       |          |
| 25) Nitrobenzene-d5          | 4.924  | 82            | 969565     | 45.52    | ppm   | -0.06    |
| Spiked Amount                | 50.000 | Range 19 - 61 | Recovery = | 91.04%#  |       |          |
| 51) 2-Fluorobiphenyl         | 6.379  | 172           | 1562216    | 44.06    | ppm   | -0.06    |
| Spiked Amount                | 50.000 | Range 21 - 58 | Recovery = | 88.12%#  |       |          |
| 73) 2,4,6-Tribromophenol     | 7.583  | 330           | 313008     | 58.06    | ppm   | -0.04    |
| Spiked Amount                | 50.000 | Range 12 - 68 | Recovery = | 116.12%# |       |          |
| 85) Terphenyl-d14            | 9.915  | 244           | 1468137    | 39.80    | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range 16 - 65 | Recovery = | 79.60%#  |       |          |
| 111) 1-Chlorooctadecane      | 0.000  | 57            | 0d         | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00%#   |       |          |
| 112) o-terphenyl             | 0.000  | 230           | 0d         | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00%#   |       |          |
| Target Compounds             |        |               |            |          |       |          |
| 38) Naphthalene              | 5.507  | 128           | 82413      | 1.47     | ppm   | 97       |
| 53) Biphenyl                 | 6.454  | 154           | 46340      | 1.15     | ppm   | 97       |
| 56) Acenaphthylene           | 6.813  | 152           | 1522435    | 31.46    | ppm   | 99       |
| 59) Acenaphthene             | 6.952  | 153           | 838505     | 28.17    | ppm   | 96       |
| 62) Dibenzofuran             | 7.091  | 168           | 58786      | 1.42     | ppm   | 86       |
| 66) Fluorene                 | 7.369  | 166           | 430950     | 12.97    | ppm   | 98       |
| 77) Phenanthrene             | 8.198  | 178           | 1467897    | 32.68    | ppm   | 100      |
| 78) Anthracene               | 8.241  | 178           | 810823     | 18.54    | ppm   | 95       |
| 81) Fluoranthene             | 9.460  | 202           | 13078386   | 222.12   | ppm   | 92       |
| 84) Pyrene                   | 9.733  | 202           | 20583630m  | 361.85   | ppm   |          |
| 87) Benzo[a]anthracene       | 11.316 | 228           | 6346504    | 119.73   | ppm   | 80       |
| 89) Chrysene                 | 11.370 | 228           | 4754878    | 113.73   | ppm   | 99       |
| 93) Benzo[b]fluoranthene     | 12.808 | 252           | 6606814m   | 121.31   | ppm   |          |
| 94) Benzo[k]fluoranthene     | 12.835 | 252           | 1571180m   | 36.15    | ppm   |          |
| 95) Benzo[a]pyrene           | 13.242 | 252           | 8681497    | 194.95   | ppm   | 94       |
| 96) Indeno[1,2,3-cd]pyrene   | 14.611 | 276           | 4045061    | 83.02    | ppm   | 82       |
| 98) Dibenz[a,h]anthracene    | 14.611 | 278           | 870469     | 22.24    | ppm   | 91       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79773.D  
 Acq On : 22 May 2018 4:14 am  
 Operator : sufiyana  
 Sample : jc64996-7  
 Misc : op12122,e2p3514,31.0,,,1,1  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 22 12:45:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

| Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------|--------|------|----------|--------|-------|----------|
| 100) Benzo[g,h,i]perylene | 14.969 | 276  | 4951134  | 127.06 | ppm   | 85       |

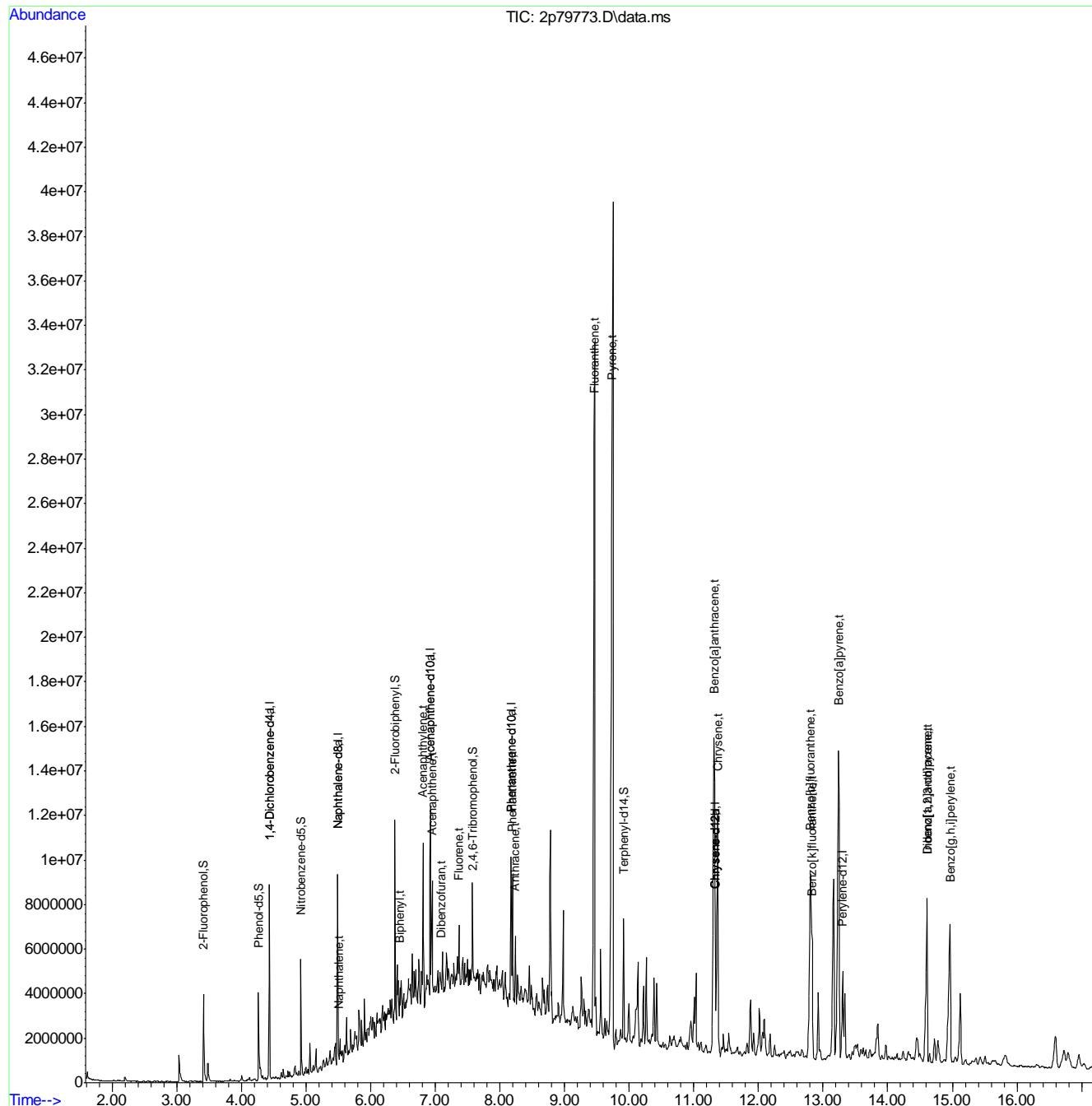
(#) = qualifier out of range (m) = manual integration (+) = signals summed

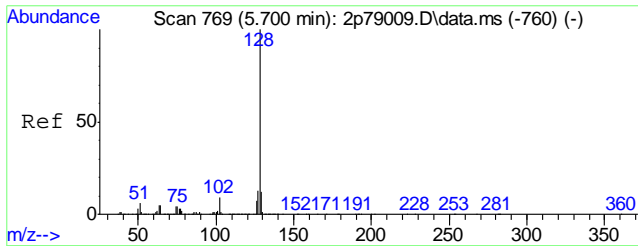


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79773.D  
 Acq On : 22 May 2018 4:14 am  
 Operator : sufiyana  
 Sample : jc64996-7  
 Misc : op12122,e2p3514,31.0,,,1,1  
 ALS Vial : 26 Sample Multiplier: 1

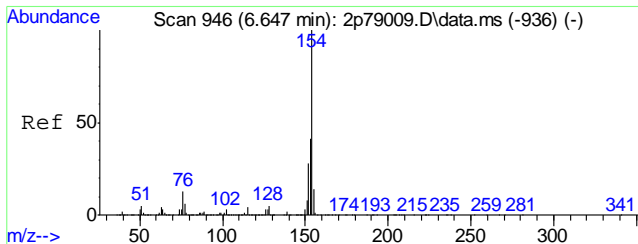
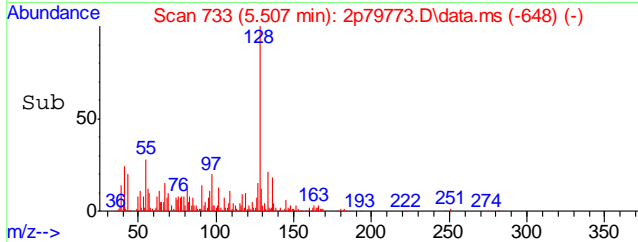
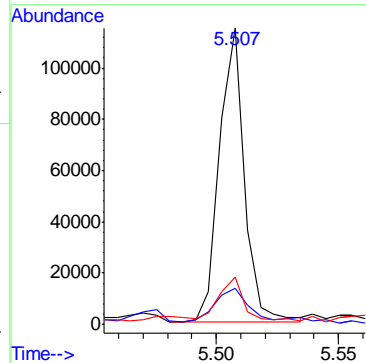
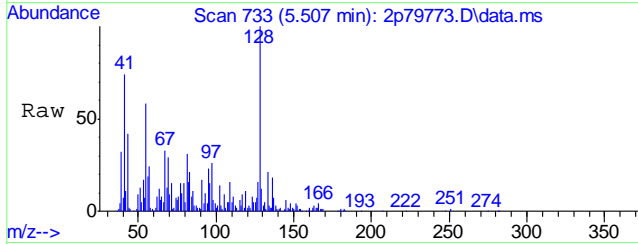
Quant Time: May 22 12:45:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration





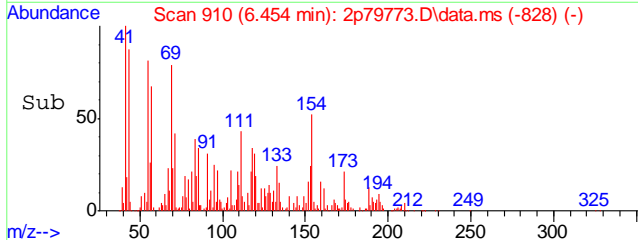
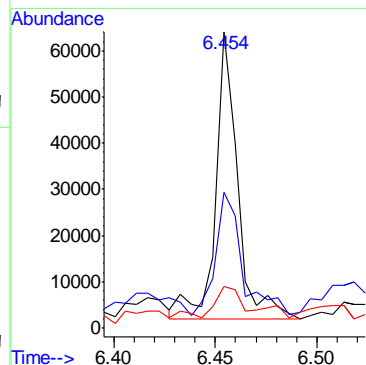
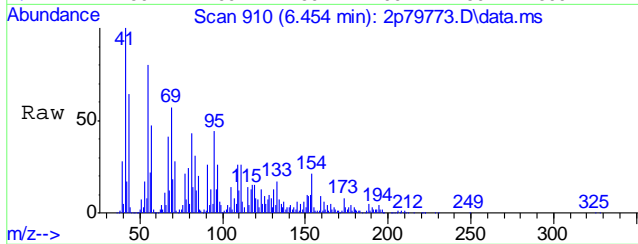
#38  
 Naphthalene  
 Concen: 1.47 ppm  
 RT: 5.507 min Scan# 733  
 Delta R.T. -0.048 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

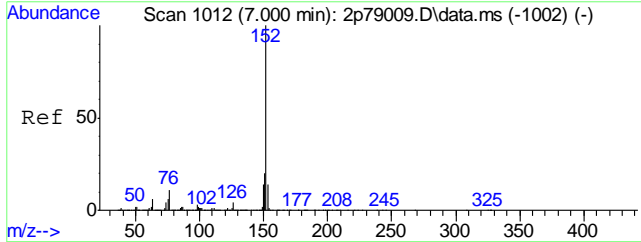
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.8  | 0.0   | 41.8  |
| 127     | 14.3  | 0.0   | 43.2  |



#53  
 Biphenyl  
 Concen: 1.15 ppm  
 RT: 6.454 min Scan# 910  
 Delta R.T. -0.061 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

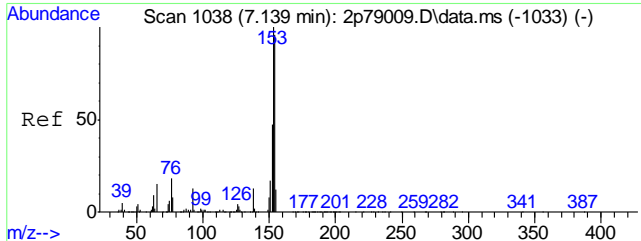
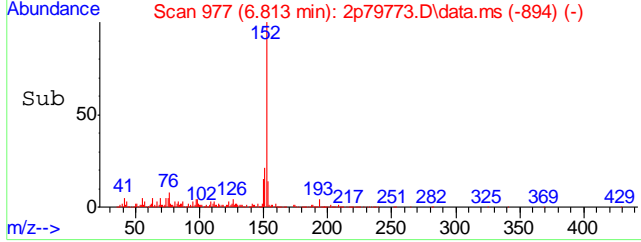
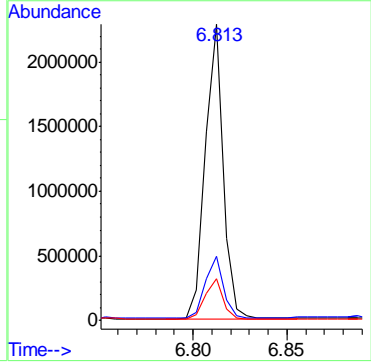
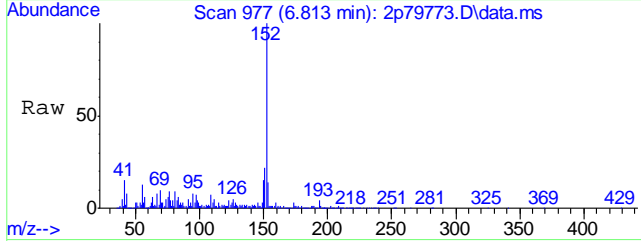
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 39.7  | 10.2  | 70.2  |
| 155     | 9.9   | 0.0   | 43.1  |





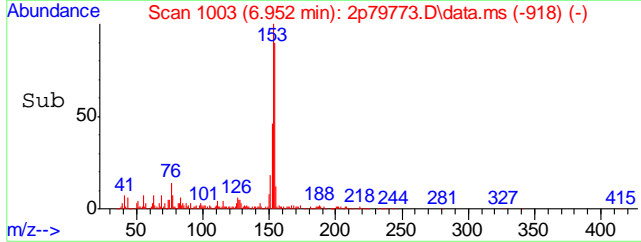
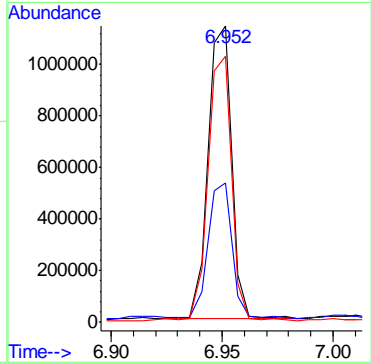
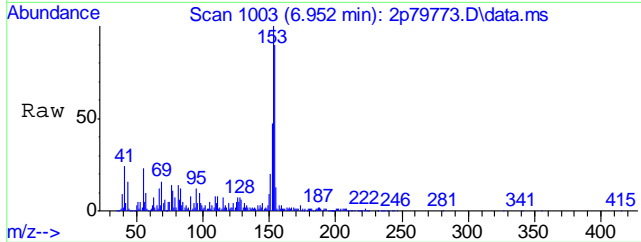
#56  
 Acenaphthylene  
 Concen: 31.46 ppm  
 RT: 6.813 min Scan# 977  
 Delta R.T. -0.055 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 152     | 1522435 |       |       |
| 151     | 20.9    | 0.0   | 50.2  |
| 153     | 13.7    | 0.0   | 43.3  |

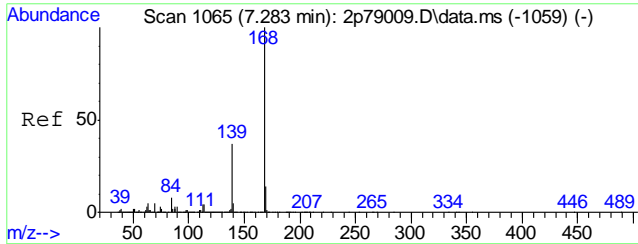


#59  
 Acenaphthene  
 Concen: 28.17 ppm  
 RT: 6.952 min Scan# 1003  
 Delta R.T. -0.048 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 838505 |       |       |
| 152     | 46.2   | 17.5  | 77.5  |
| 154     | 90.0   | 65.6  | 125.6 |

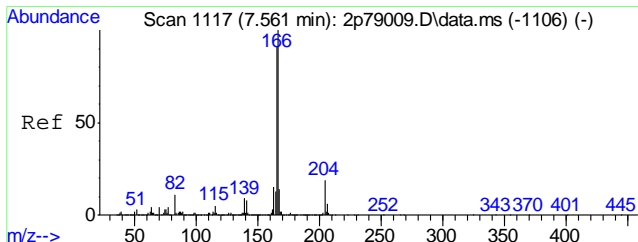
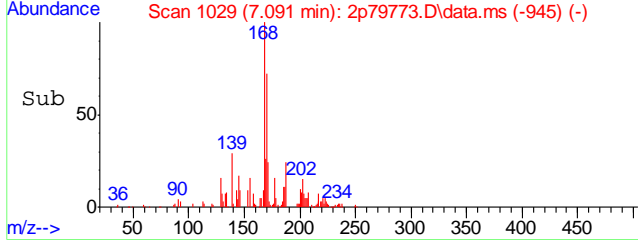
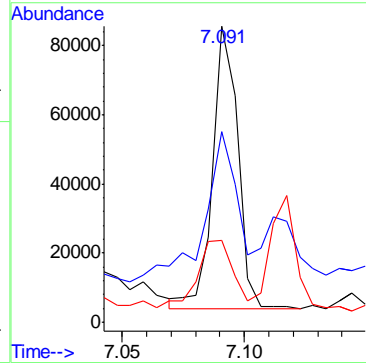
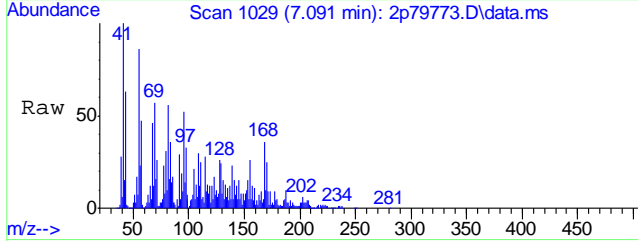


9.17  
 9



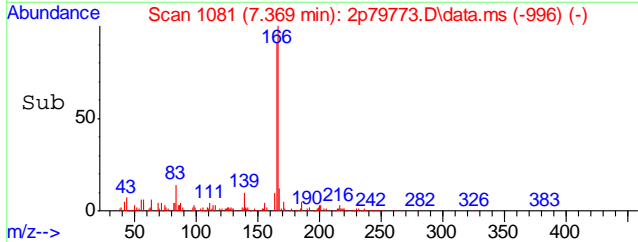
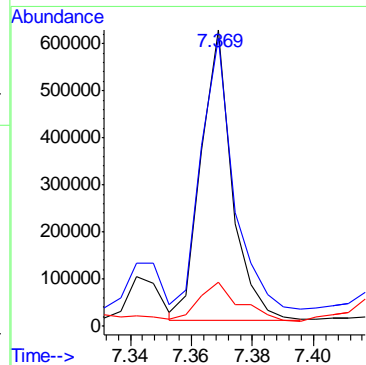
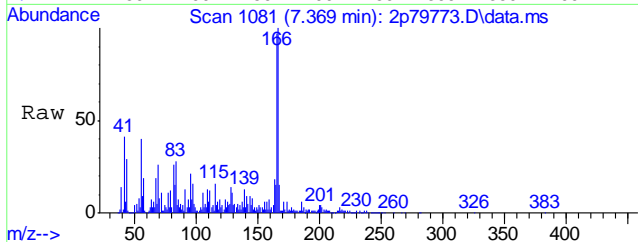
#62  
 Dibenzofuran  
 Concen: 1.42 ppm  
 RT: 7.091 min Scan# 1029  
 Delta R.T. -0.050 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

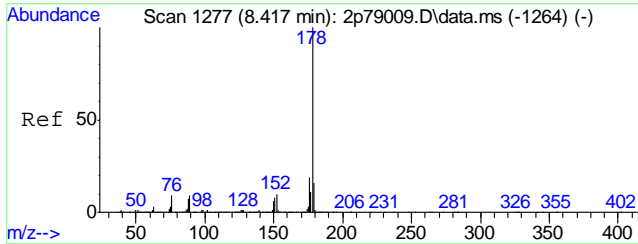
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 58786 | 100   |       |
| 139     | 46.9  | 7.5   | 67.5  |
| 169     | 17.3  | 0.0   | 43.6  |



#66  
 Fluorene  
 Concen: 12.97 ppm  
 RT: 7.369 min Scan# 1081  
 Delta R.T. -0.046 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

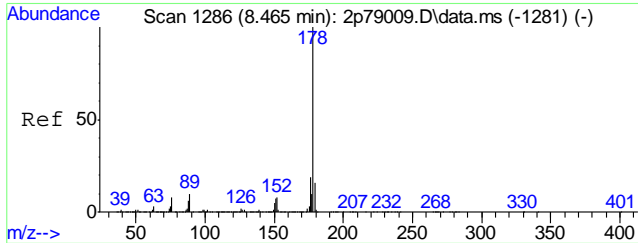
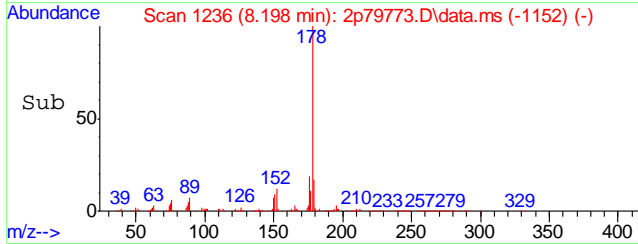
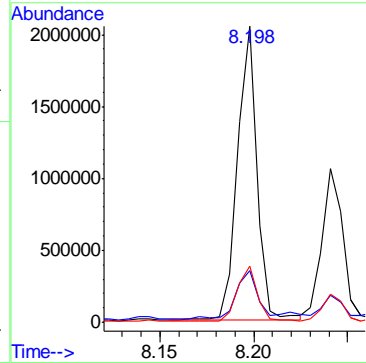
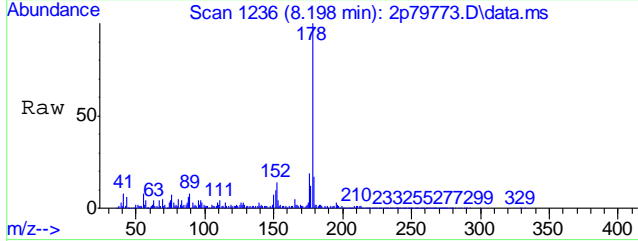
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 166     | 430950 | 100   |       |
| 165     | 94.2   | 61.9  | 121.9 |
| 167     | 13.3   | 0.0   | 43.7  |





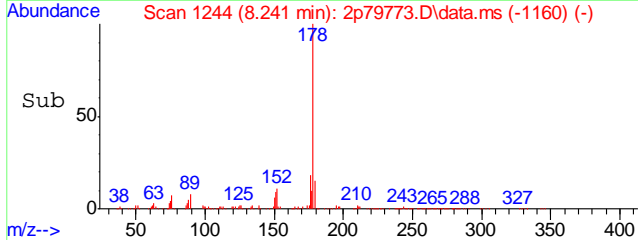
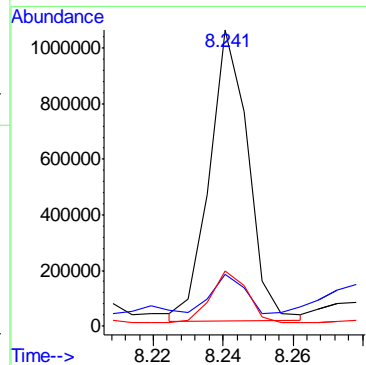
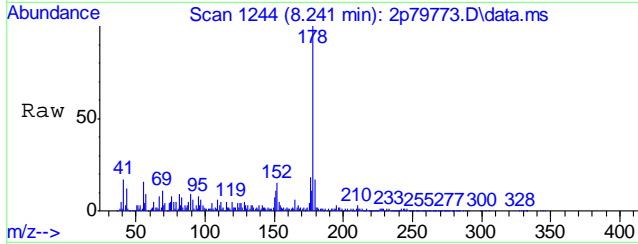
#77  
 Phenanthrene  
 Concen: 32.68 ppm  
 RT: 8.198 min Scan# 1236  
 Delta R.T. -0.053 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

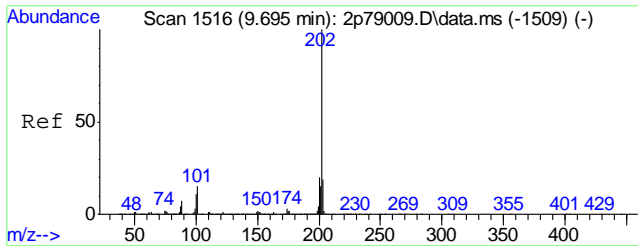
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 1467897 |       |       |
| 179     | 15.7    | 0.0   | 45.6  |
| 176     | 18.9    | 0.0   | 49.1  |



#78  
 Anthracene  
 Concen: 18.54 ppm  
 RT: 8.241 min Scan# 1244  
 Delta R.T. -0.052 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

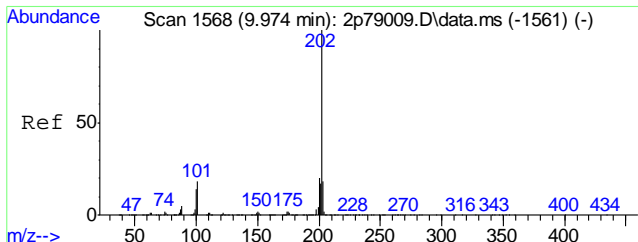
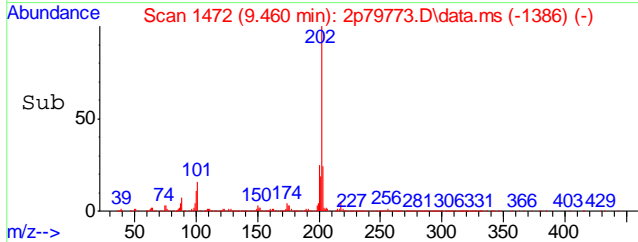
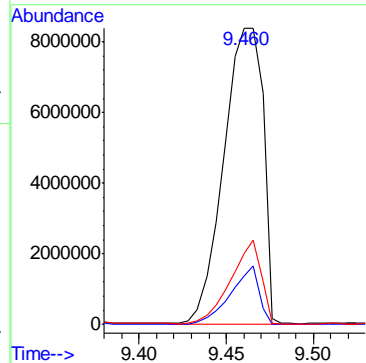
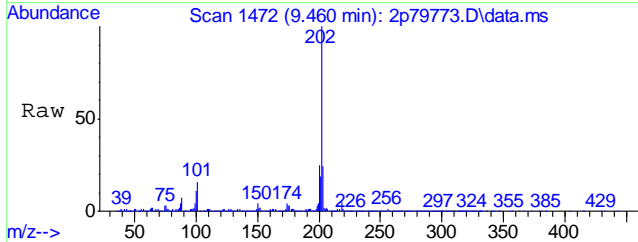
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 810823 |       |       |
| 179     | 12.0   | 0.0   | 45.7  |
| 176     | 18.0   | 0.0   | 48.8  |





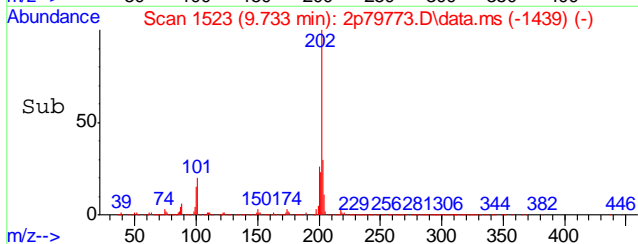
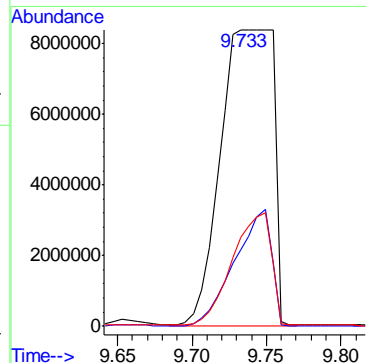
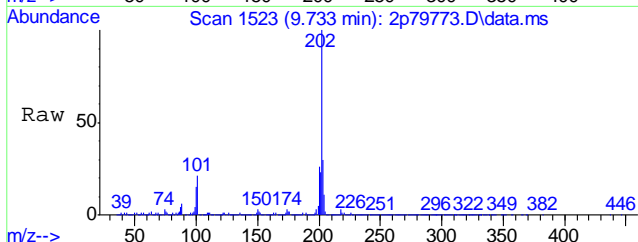
#81  
 Fluoranthene  
 Concen: 222.12 ppm  
 RT: 9.460 min Scan# 1472  
 Delta R.T. -0.043 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp     | Lower | Upper |
|---------|----------|-------|-------|
| 202     | 13078386 |       |       |
| 101     | 16.5     | 0.0   | 45.6  |
| 203     | 23.9     | 0.0   | 48.4  |

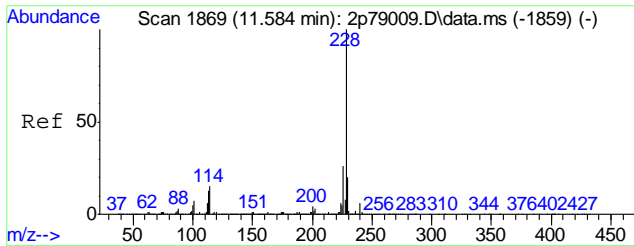


#84  
 Pyrene  
 Concen: 361.85 ppm m  
 RT: 9.733 min Scan# 1523  
 Delta R.T. -0.051 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp     | Lower | Upper |
|---------|----------|-------|-------|
| 202     | 20583630 |       |       |
| 200     | 25.9     | 0.0   | 50.7  |
| 203     | 29.9     | 0.0   | 47.7  |

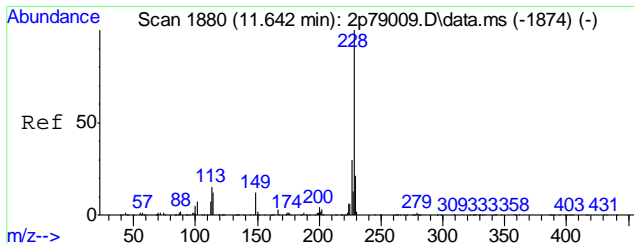
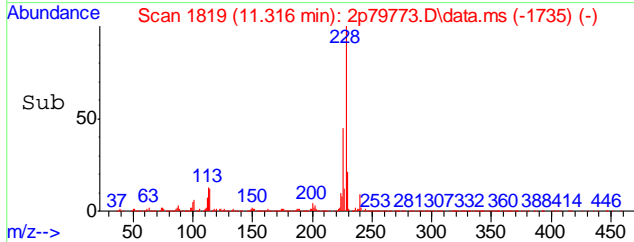
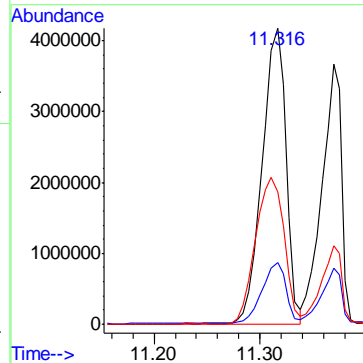
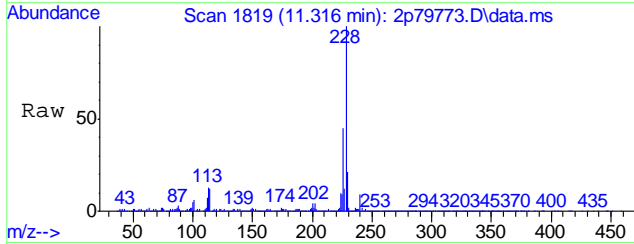


9.17  
 9



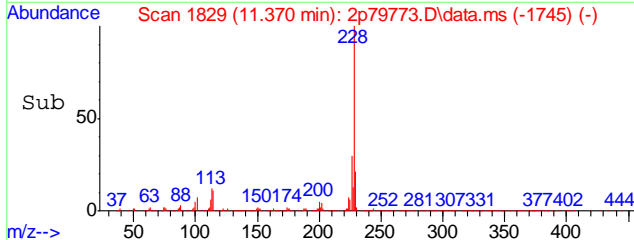
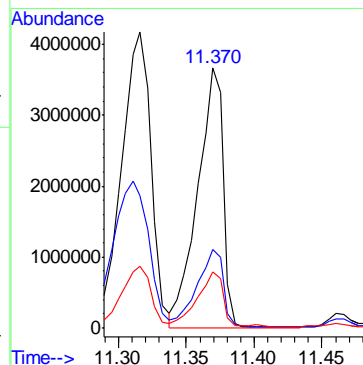
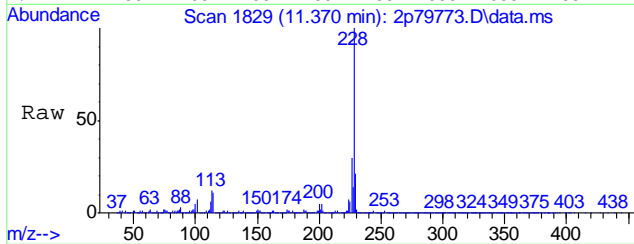
#87  
 Benzo[a]anthracene  
 Concen: 119.73 ppm  
 RT: 11.316 min Scan# 1819  
 Delta R.T. -0.048 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

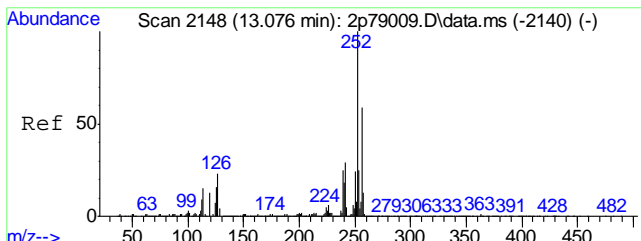
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.5  | 0.0   | 50.2  |
| 226     | 44.5  | 0.0   | 56.8  |



#89  
 Chrysene  
 Concen: 113.73 ppm  
 RT: 11.370 min Scan# 1829  
 Delta R.T. -0.053 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

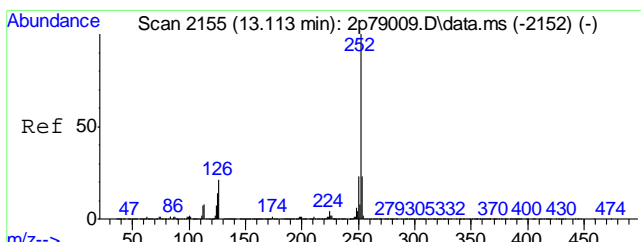
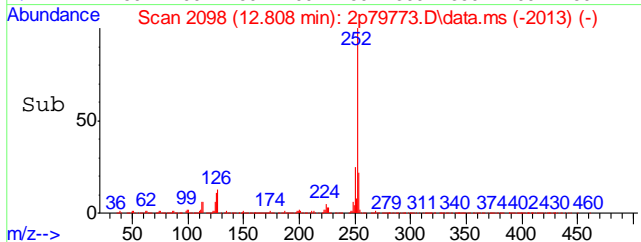
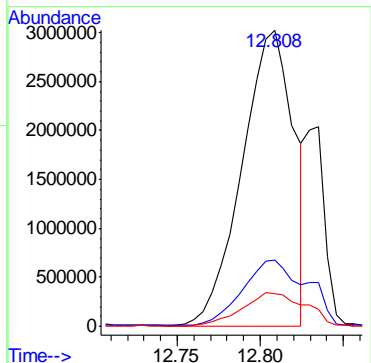
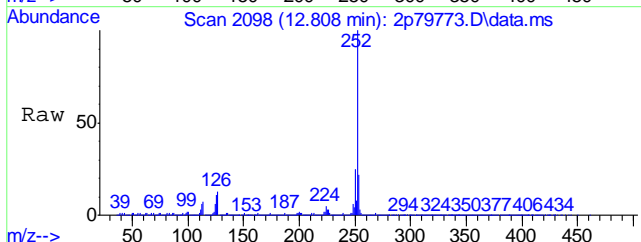
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.2  | 0.0   | 59.4  |
| 229     | 20.8  | 0.0   | 49.9  |





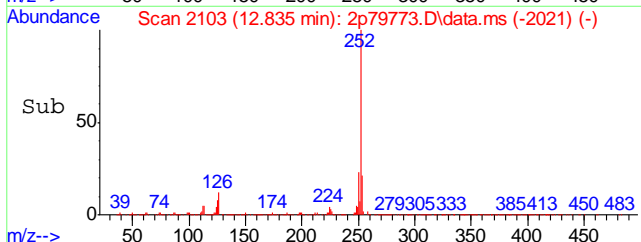
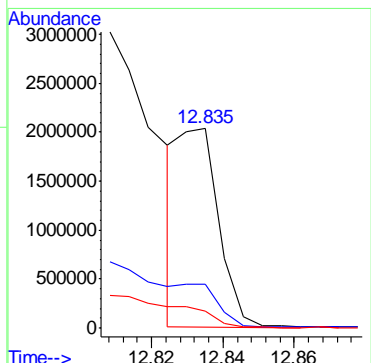
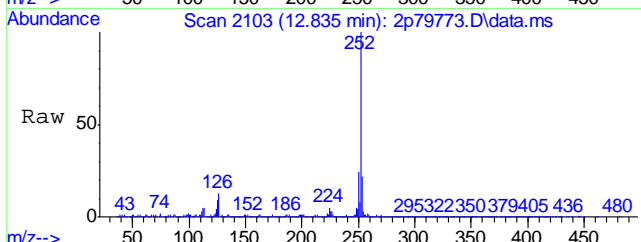
#93  
 Benzo[b]fluoranthene  
 Concen: 121.31 ppm m  
 RT: 12.808 min Scan# 2098  
 Delta R.T. -0.044 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.4 | 0.0   | 55.5  |
| 125     | 10.9 | 0.0   | 49.6  |



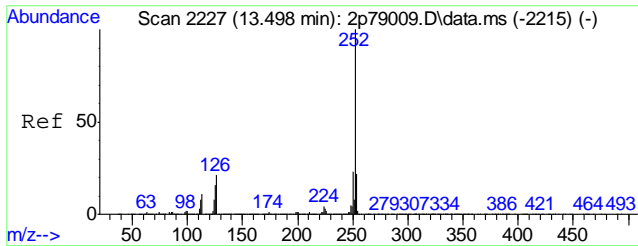
#94  
 Benzo[k]fluoranthene  
 Concen: 36.15 ppm m  
 RT: 12.835 min Scan# 2103  
 Delta R.T. -0.060 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.7 | 0.0   | 52.6  |
| 125     | 8.6  | 0.0   | 45.2  |



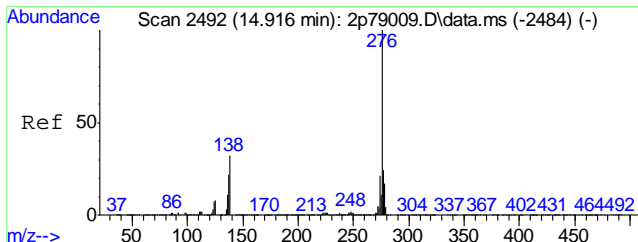
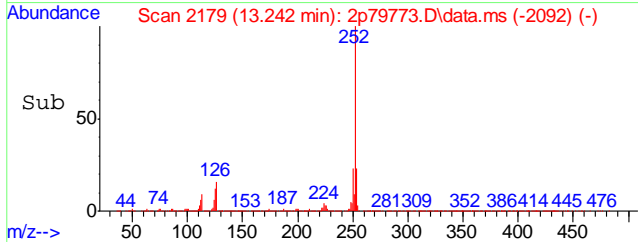
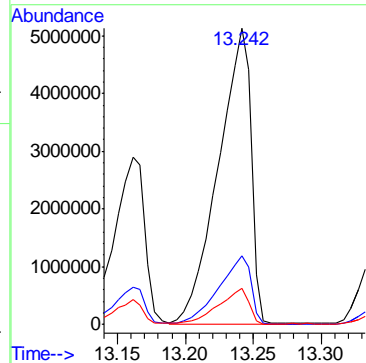
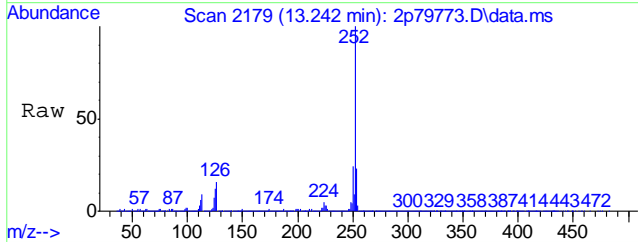
9.1.7  
 9





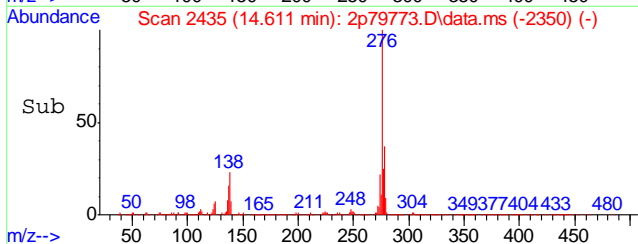
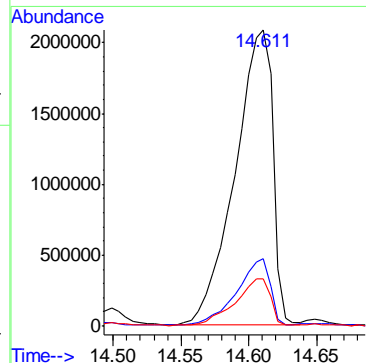
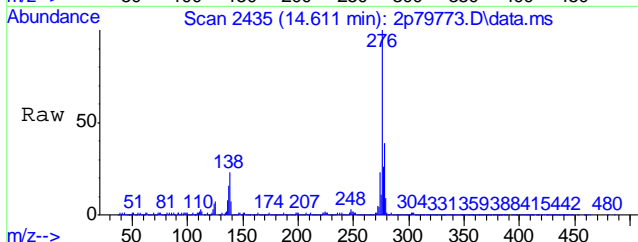
#95  
 Benzo[a]pyrene  
 Concen: 194.95 ppm  
 RT: 13.242 min Scan# 2179  
 Delta R.T. -0.033 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.1 | 0.0   | 51.5  |
| 125     | 11.9 | 0.0   | 46.4  |

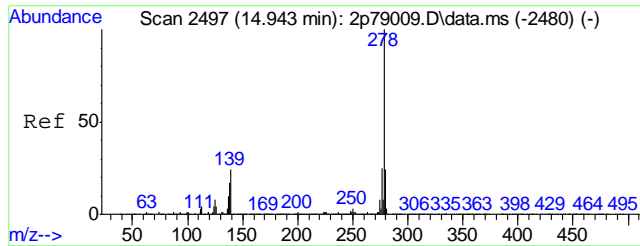


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 83.02 ppm  
 RT: 14.611 min Scan# 2435  
 Delta R.T. -0.046 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 22.6 | 3.3   | 63.3  |
| 137     | 15.6 | 0.0   | 53.5  |

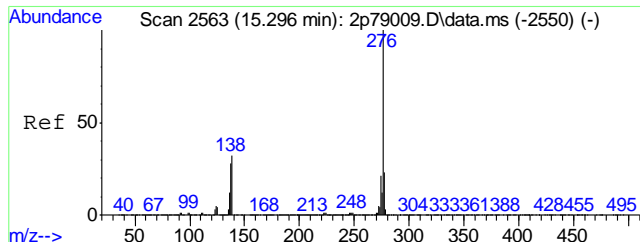
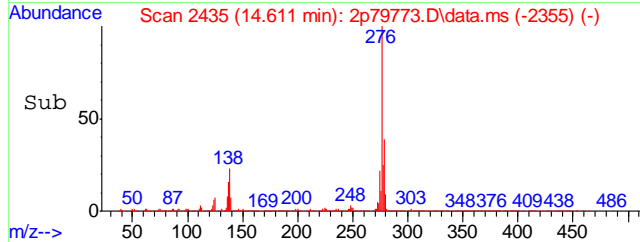
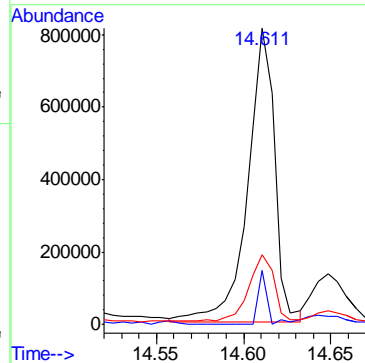
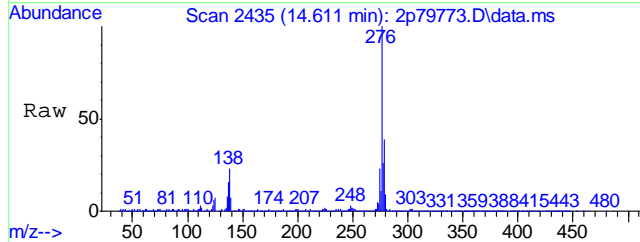


9.17  
 9



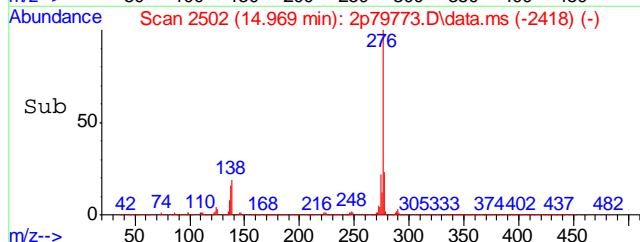
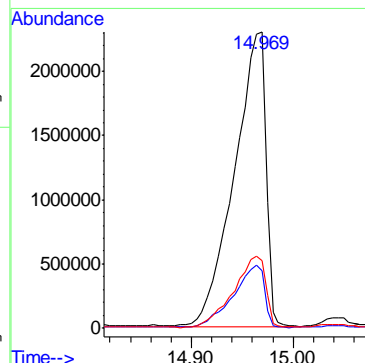
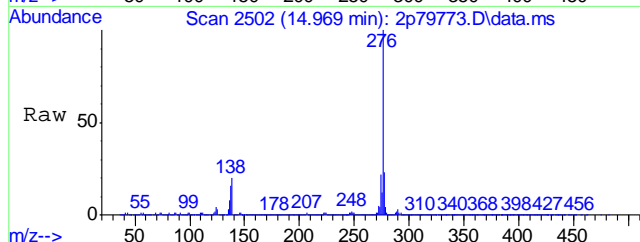
#98  
 Dibenz[a,h]anthracene  
 Concen: 22.24 ppm  
 RT: 14.611 min Scan# 2435  
 Delta R.T. -0.073 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 870469 |       |       |
| 139     | 17.5   | 0.0   | 55.1  |
| 279     | 23.2   | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 127.06 ppm  
 RT: 14.969 min Scan# 2502  
 Delta R.T. -0.052 min  
 Lab File: 2p79773.D  
 Acq: 22 May 2018 4:14 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 276     | 4951134 |       |       |
| 138     | 19.4    | 2.9   | 62.9  |
| 277     | 22.6    | 0.0   | 53.6  |



9.17  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3515\  
 Data File : 2p79789.D  
 Acq On : 22 May 2018 2:12 pm  
 Operator : johnbl  
 Sample : jc64996-7  
 Misc : op12122,e2p3515,31.0,,,1,5  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 22 15:04:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards           |        |       |          |          |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.427  | 152   | 772981   | 40.00    | ppm   | -0.05    |
| 24) Naphthalene-d8           | 5.486  | 136   | 2578654  | 40.00    | ppm   | -0.05    |
| 47) Acenaphthene-d10         | 6.920  | 164   | 1125542  | 40.00    | ppm   | -0.05    |
| 69) Phenanthrene-d10         | 8.166  | 188   | 1917680  | 40.00    | ppm   | -0.06    |
| 83) Chrysene-d12             | 11.305 | 240   | 1799353  | 40.00    | ppm   | -0.08    |
| 91) Perylene-d12             | 13.274 | 264   | 1847271  | 40.00    | ppm   | -0.08    |
| 101) 1,4-Dichlorobenzene-d4a | 4.475  | 152   | 4306     | 40.00    | ppm   | 0.00     |
| 103) Naphthalene-d8a         | 5.486  | 136   | 2578654  | 40.00    | ppm   | -0.02    |
| 105) Acenaphthene-d10a       | 6.920  | 164   | 1125542  | 40.00    | ppm   | -0.05    |
| 108) Chrysene-d12a           | 11.305 | 240   | 1798350  | 40.00    | ppm   | -0.07    |
| 110) Phenanthrene-d10a       | 8.166  | 188   | 1918617  | 40.00    | ppm   | #-0.06   |
| 114) Chrysene-d12b           | 11.305 | 240   | 1798350  | 40.00    | ppm   | -0.07    |
| System Monitoring Compounds  |        |       |          |          |       |          |
| 5) 2-Fluorophenol            | 3.411  | 112   | 152363   | 4.99     | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range | 11 - 58  | Recovery | =     | 9.98%#   |
| 8) Phenol-d5                 | 4.267  | 99    | 161235   | 5.10     | ppm   | -0.03    |
| Spiked Amount                | 50.000 | Range | 10 - 59  | Recovery | =     | 10.20%   |
| 25) Nitrobenzene-d5          | 4.925  | 82    | 175345   | 7.38     | ppm   | -0.06    |
| Spiked Amount                | 50.000 | Range | 19 - 61  | Recovery | =     | 14.76%#  |
| 51) 2-Fluorobiphenyl         | 6.374  | 172   | 262237   | 6.79     | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range | 21 - 58  | Recovery | =     | 13.58%#  |
| 73) 2,4,6-Tribromophenol     | 7.572  | 330   | 47459    | 8.10     | ppm   | -0.05    |
| Spiked Amount                | 50.000 | Range | 12 - 68  | Recovery | =     | 16.20%   |
| 85) Terphenyl-d14            | 9.899  | 244   | 274202   | 7.01     | ppm   | -0.09    |
| Spiked Amount                | 50.000 | Range | 16 - 65  | Recovery | =     | 14.02%#  |
| 111) 1-Chlorooctadecane      | 0.000  | 57    | 0d       | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range | 20 - 70  | Recovery | =     | 0.00%#   |
| 112) o-terphenyl             | 0.000  | 230   | 0d       | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range | 20 - 70  | Recovery | =     | 0.00%#   |
| Target Compounds             |        |       |          |          |       |          |
| 56) Acenaphthylene           | 6.807  | 152   | 259148   | 4.92     | ppm   | 97       |
| 59) Acenaphthene             | 6.941  | 153   | 142585   | 4.40     | ppm   | 91       |
| 66) Fluorene                 | 7.358  | 166   | 78406    | 2.17     | ppm   | 89       |
| 77) Phenanthrene             | 8.187  | 178   | 257557   | 5.28     | ppm   | 97       |
| 78) Anthracene               | 8.230  | 178   | 128857   | 2.71     | ppm   | 94       |
| 81) Fluoranthene             | 9.433  | 202   | 2534027  | 39.62    | ppm   | 94       |
| 84) Pyrene                   | 9.706  | 202   | 4698141  | 77.87    | ppm   | 98       |
| 87) Benzo[a]anthracene       | 11.284 | 228   | 1137712m | 20.24    | ppm   |          |
| 89) Chrysene                 | 11.338 | 228   | 805406   | 18.16    | ppm   | 97       |
| 93) Benzo[b]fluoranthene     | 12.766 | 252   | 1174956m | 19.02    | ppm   |          |
| 94) Benzo[k]fluoranthene     | 12.792 | 252   | 336823m  | 6.83     | ppm   |          |
| 95) Benzo[a]pyrene           | 13.194 | 252   | 1512953  | 29.96    | ppm   | 93       |
| 96) Indeno[1,2,3-cd]pyrene   | 14.557 | 276   | 727777   | 13.17    | ppm   | 78       |
| 98) Dibenz[a,h]anthracene    | 14.563 | 278   | 143093   | 3.22     | ppm   | 68       |
| 100) Benzo[g,h,i]perylene    | 14.905 | 276   | 906312   | 20.51    | ppm   | 84       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3515\  
Data File : 2p79789.D  
Acq On : 22 May 2018 2:12 pm  
Operator : johnbl  
Sample : jc64996-7  
Misc : op12122,e2p3515,31.0,,,1,5  
ALS Vial : 15 Sample Multiplier: 1

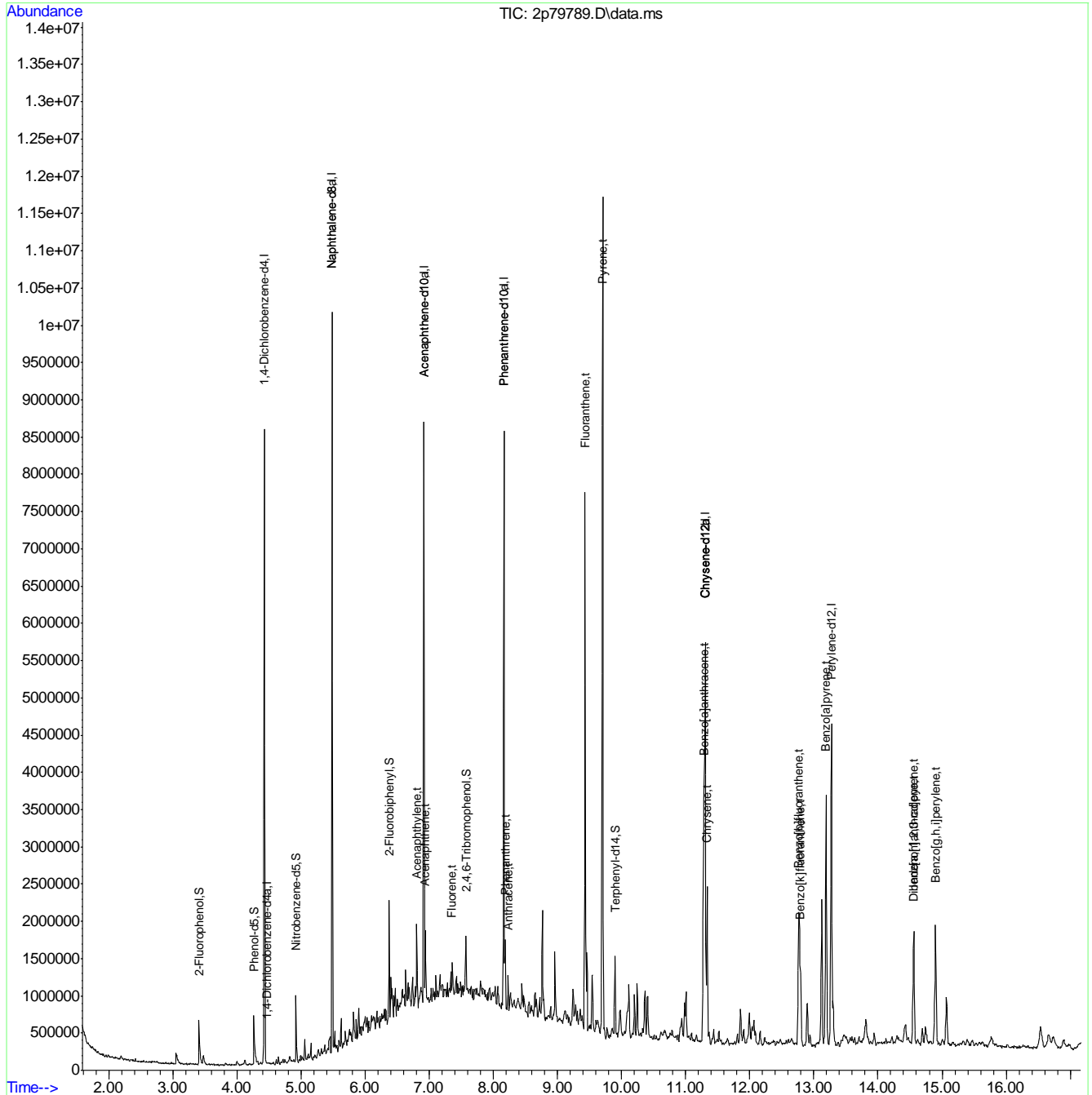
Quant Time: May 22 15:04:21 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Thu May 17 21:22:18 2018  
Response via : Initial Calibration

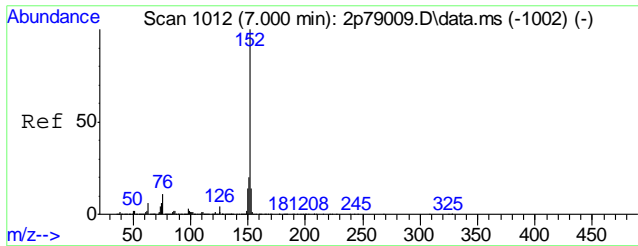
| Compound   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--|------|------|----------|------|-------|----------|
| -----  |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3515\  
 Data File : 2p79789.D  
 Acq On : 22 May 2018 2:12 pm  
 Operator : johnbl  
 Sample : jc64996-7  
 Misc : op12122,e2p3515,31.0,,,1,5  
 ALS Vial : 15 Sample Multiplier: 1

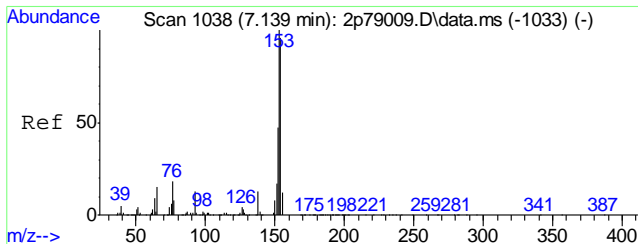
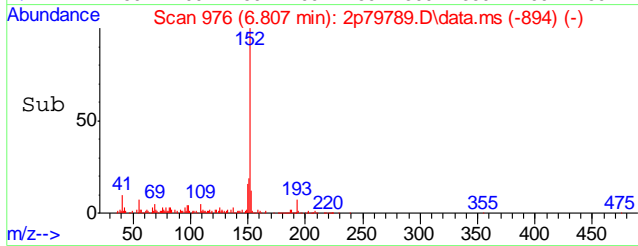
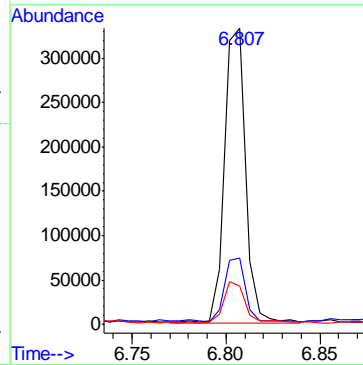
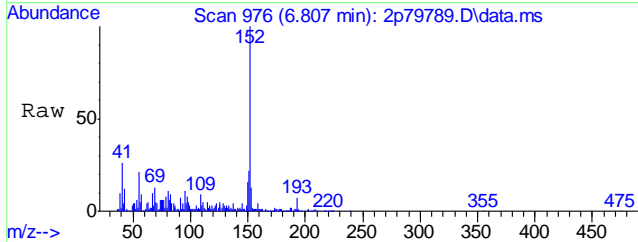
Quant Time: May 22 15:04:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration





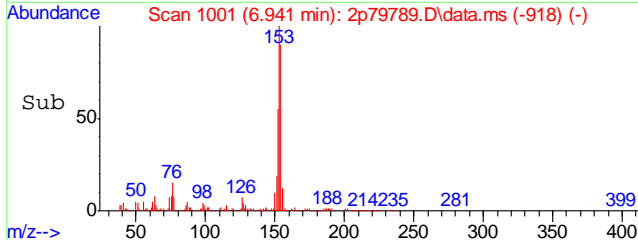
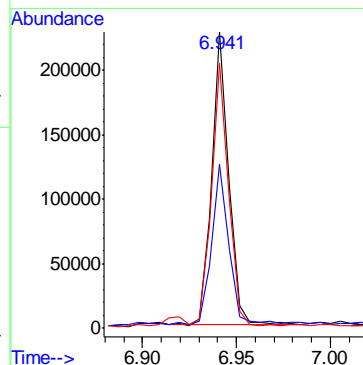
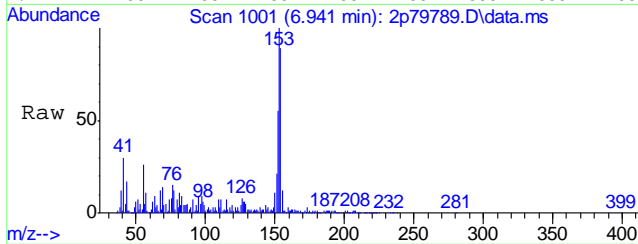
#56  
 Acenaphthylene  
 Concen: 4.92 ppm  
 RT: 6.807 min Scan# 976  
 Delta R.T. -0.061 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 259148 | 100   |       |
| 151     | 21.5   | 0.0   | 50.2  |
| 153     | 12.1   | 0.0   | 43.3  |

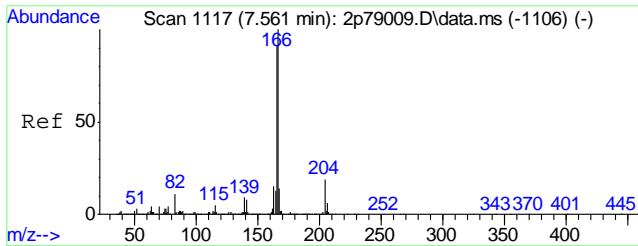


#59  
 Acenaphthene  
 Concen: 4.40 ppm  
 RT: 6.941 min Scan# 1001  
 Delta R.T. -0.058 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 142585 | 100   |       |
| 152     | 54.3   | 17.5  | 77.5  |
| 154     | 88.1   | 65.6  | 125.6 |

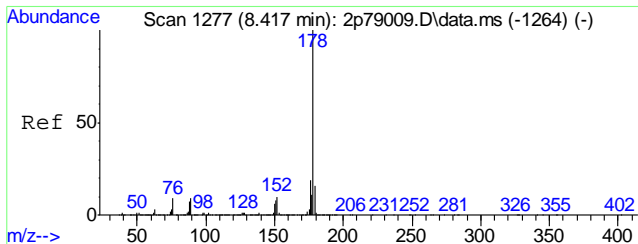
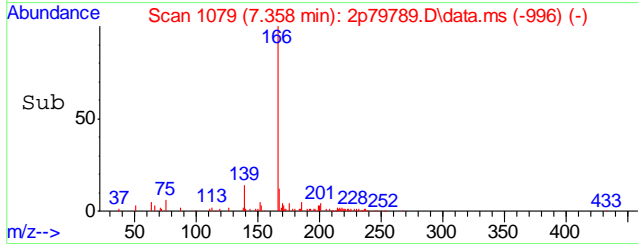
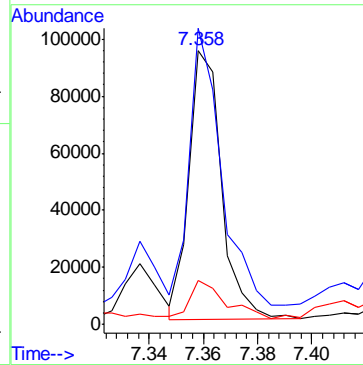
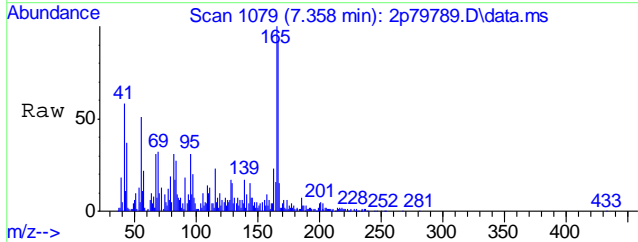


9.1.8  
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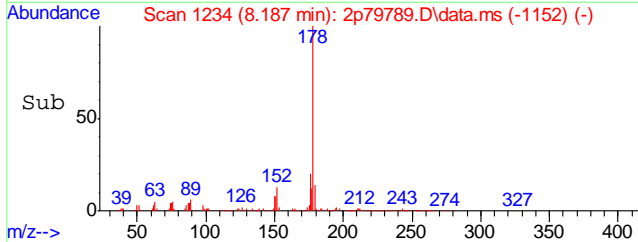
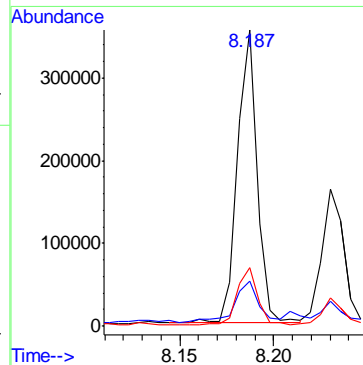
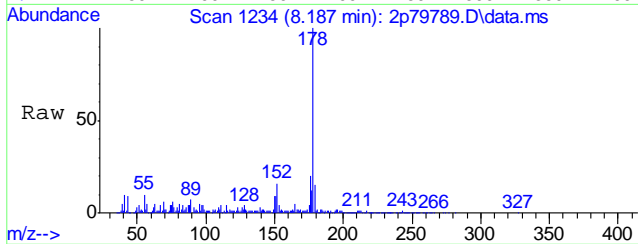
#66  
 Fluorene  
 Concen: 2.17 ppm  
 RT: 7.358 min Scan# 1079  
 Delta R.T. -0.057 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 103.4 | 61.9  | 121.9 |
| 167     | 13.8  | 0.0   | 43.7  |

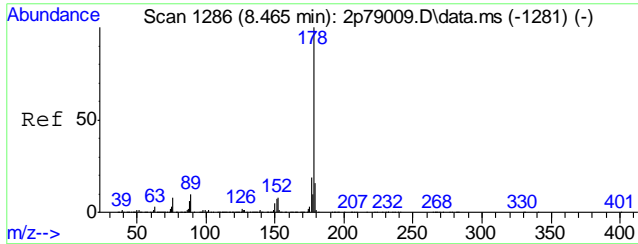


#77  
 Phenanthrene  
 Concen: 5.28 ppm  
 RT: 8.187 min Scan# 1234  
 Delta R.T. -0.064 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 12.9 | 0.0   | 45.6  |
| 176     | 19.5 | 0.0   | 49.1  |

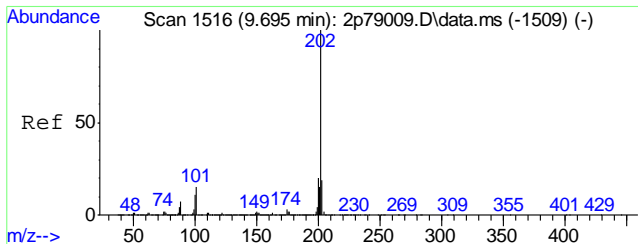
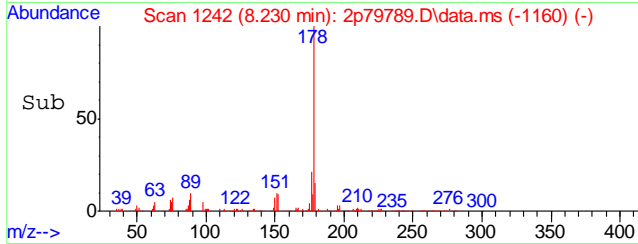
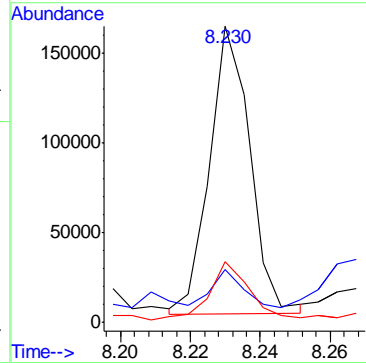
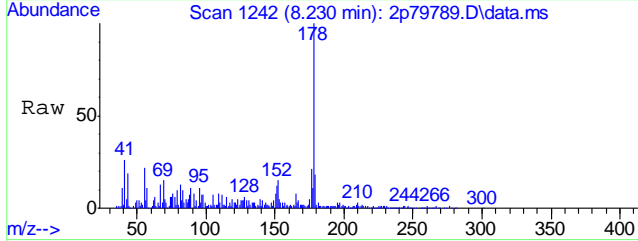


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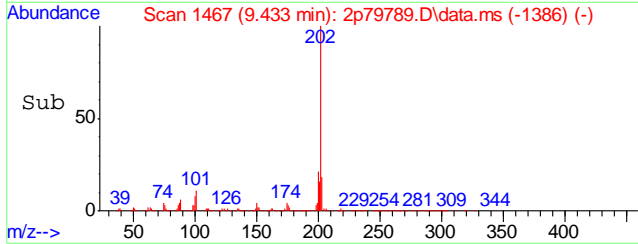
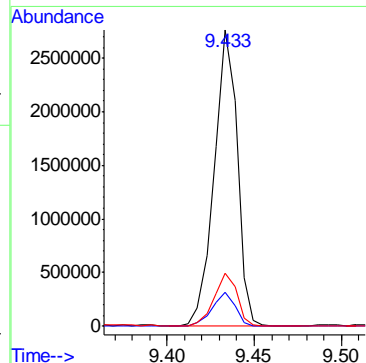
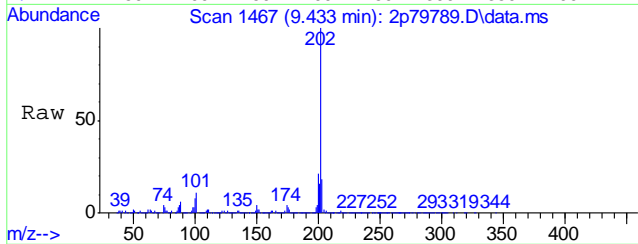
#78  
 Anthracene  
 Concen: 2.71 ppm  
 RT: 8.230 min Scan# 1242  
 Delta R.T. -0.063 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 128857 |       |       |
| 179     | 11.1   | 0.0   | 45.7  |
| 176     | 19.9   | 0.0   | 48.8  |



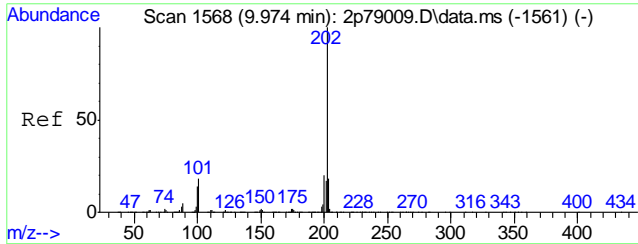
#81  
 Fluoranthene  
 Concen: 39.62 ppm  
 RT: 9.433 min Scan# 1467  
 Delta R.T. -0.069 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 2534027 |       |       |
| 101     | 11.3    | 0.0   | 45.6  |
| 203     | 17.6    | 0.0   | 48.4  |



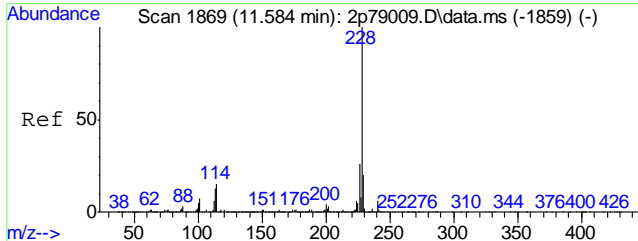
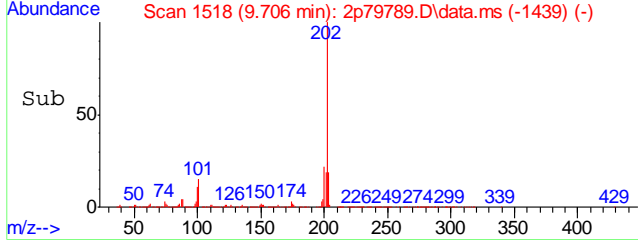
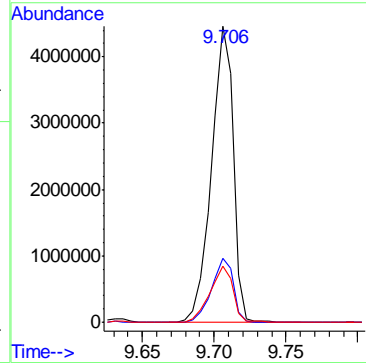
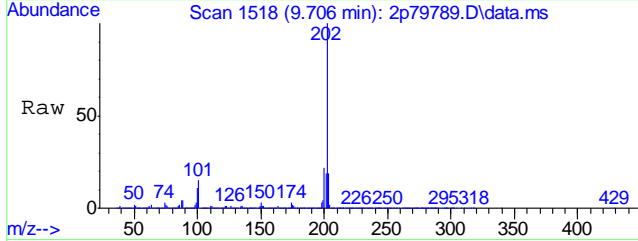
9.18  
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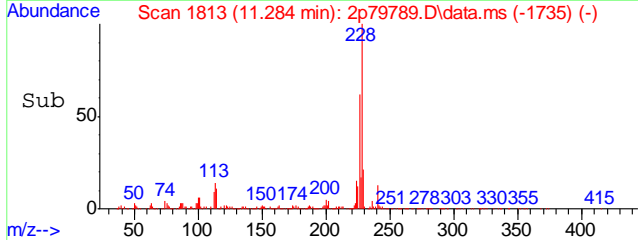
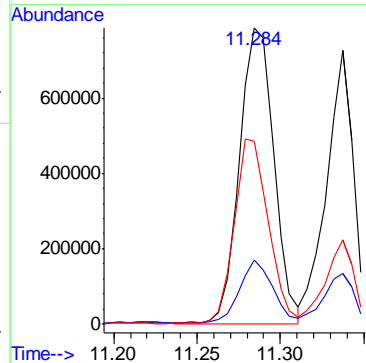
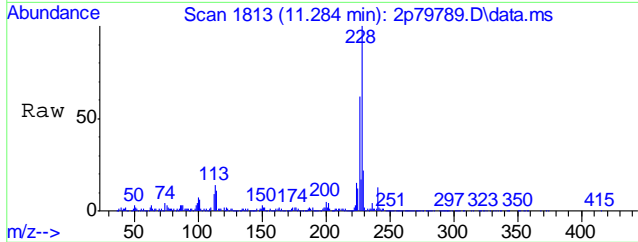
#84  
 Pyrene  
 Concen: 77.87 ppm  
 RT: 9.706 min Scan# 1518  
 Delta R.T. -0.078 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 4698141 |       |       |
| 200     | 21.6    | 0.0   | 50.7  |
| 203     | 19.0    | 0.0   | 47.7  |

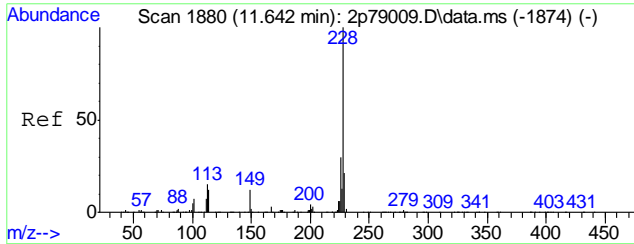


#87  
 Benzo[a]anthracene  
 Concen: 20.24 ppm m  
 RT: 11.284 min Scan# 1813  
 Delta R.T. -0.080 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1137712 |       |       |
| 229     | 21.5    | 0.0   | 50.2  |
| 226     | 61.8    | 0.0   | 56.8# |

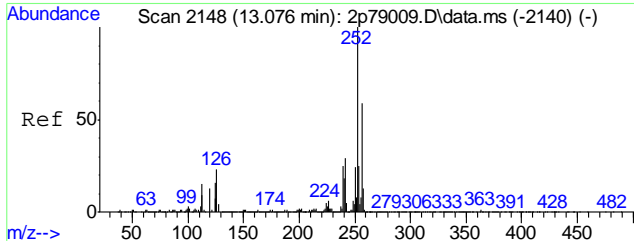
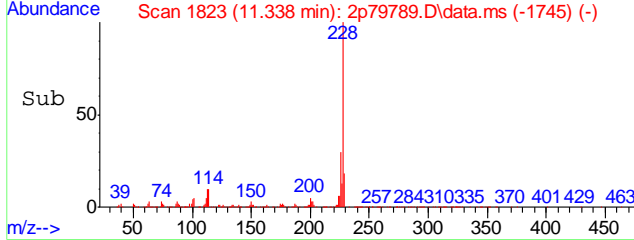
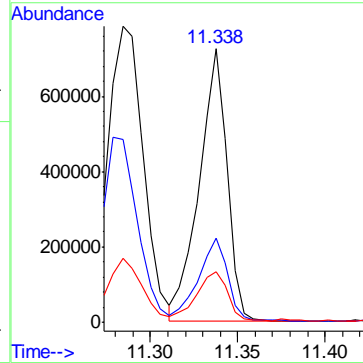
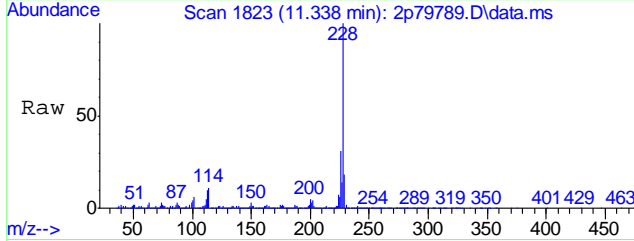


9.18  
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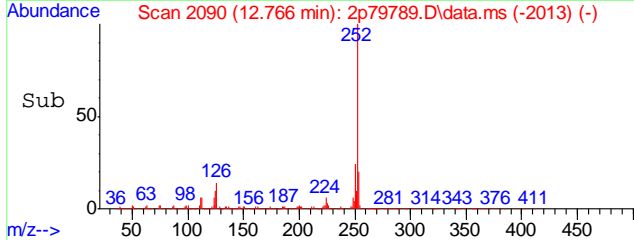
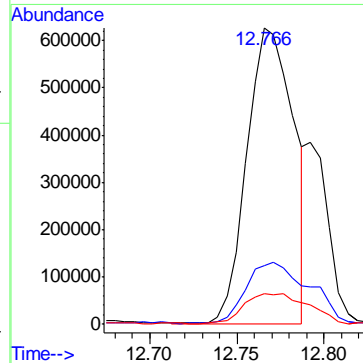
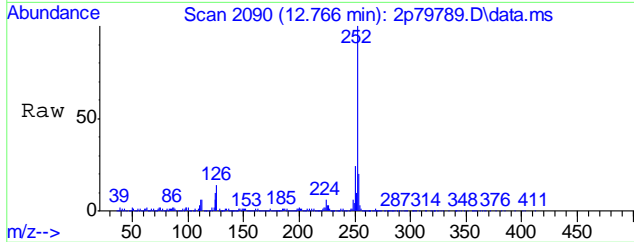
#89  
 Chrysene  
 Concen: 18.16 ppm  
 RT: 11.338 min Scan# 1823  
 Delta R.T. -0.085 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 228     | 100  |       |       |
| 226     | 30.1 | 0.0   | 59.4  |
| 229     | 17.6 | 0.0   | 49.9  |

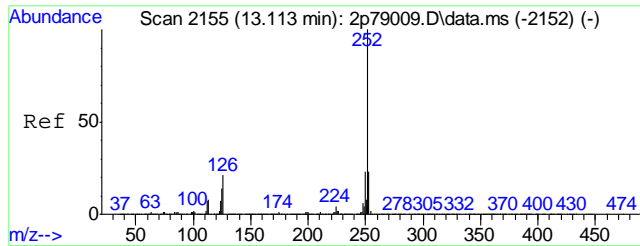


#93  
 Benzo[b]fluoranthene  
 Concen: 19.02 ppm m  
 RT: 12.766 min Scan# 2090  
 Delta R.T. -0.087 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 19.7 | 0.0   | 55.5  |
| 125     | 10.3 | 0.0   | 49.6  |

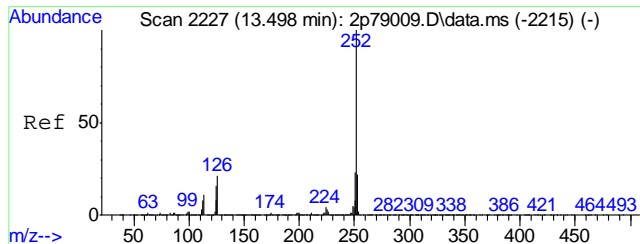
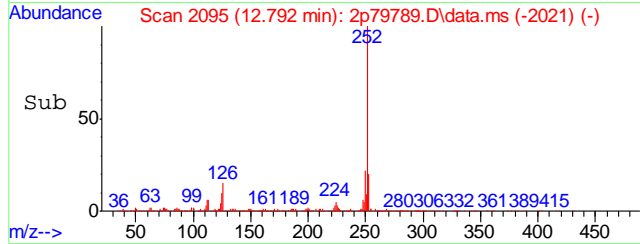
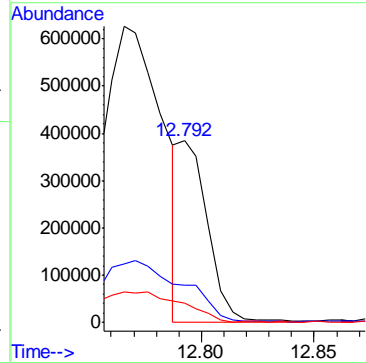
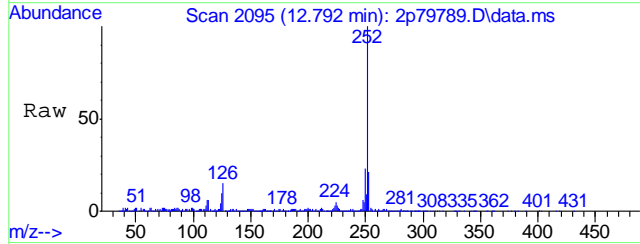


9.1.8  
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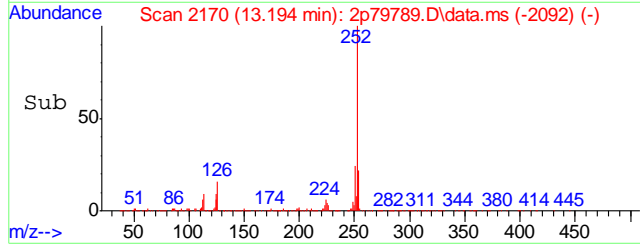
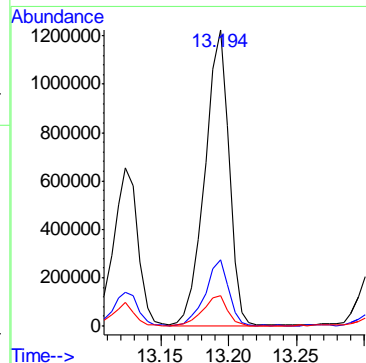
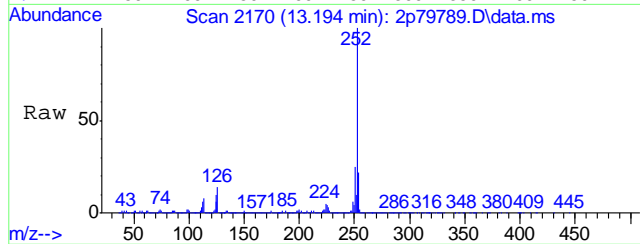
#94  
 Benzo[k]fluoranthene  
 Concen: 6.83 ppm  
 RT: 12.792 min Scan# 2095  
 Delta R.T. -0.102 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

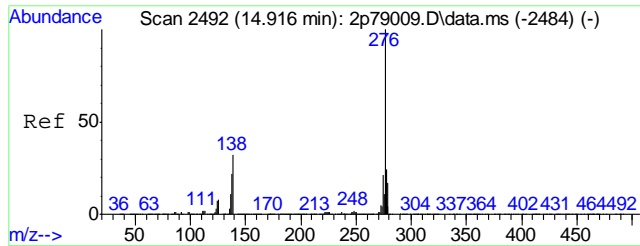
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 20.6 | 0.0   | 52.6  |
| 125     | 10.5 | 0.0   | 45.2  |



#95  
 Benzo[a]pyrene  
 Concen: 29.96 ppm  
 RT: 13.194 min Scan# 2170  
 Delta R.T. -0.081 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

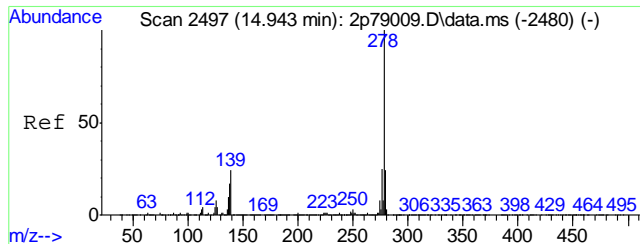
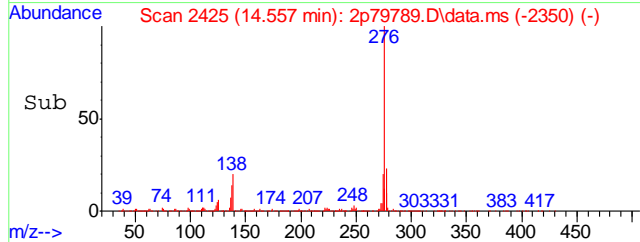
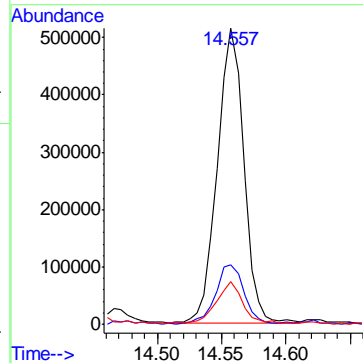
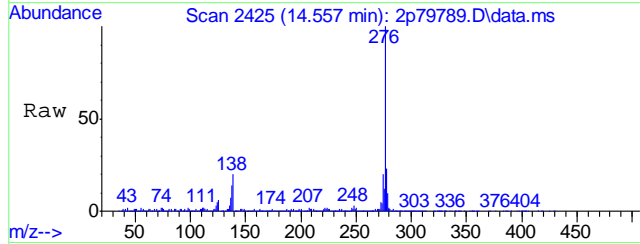
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.2 | 0.0   | 51.5  |
| 125     | 10.1 | 0.0   | 46.4  |





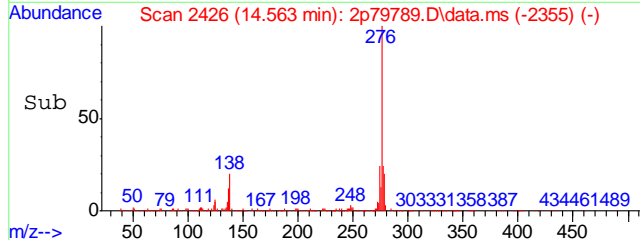
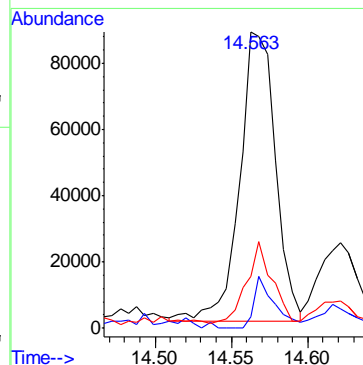
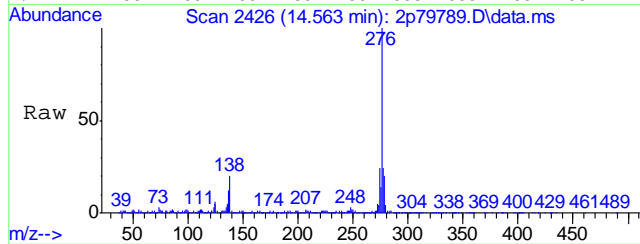
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 13.17 ppm  
 RT: 14.557 min Scan# 2425  
 Delta R.T. -0.100 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

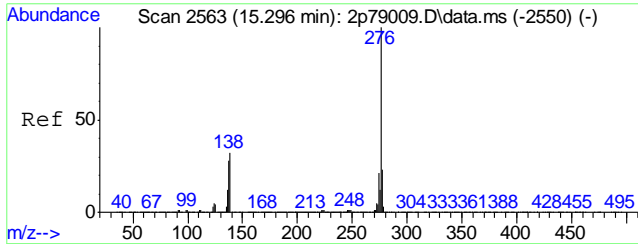
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 727777 |       |       |
| 138     | 19.6   | 3.3   | 63.3  |
| 137     | 13.9   | 0.0   | 53.5  |



#98  
 Dibenzo[a,h]anthracene  
 Concen: 3.22 ppm  
 RT: 14.563 min Scan# 2426  
 Delta R.T. -0.121 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

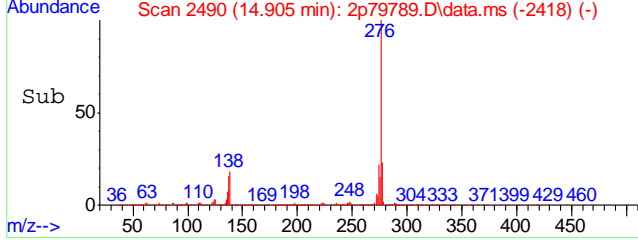
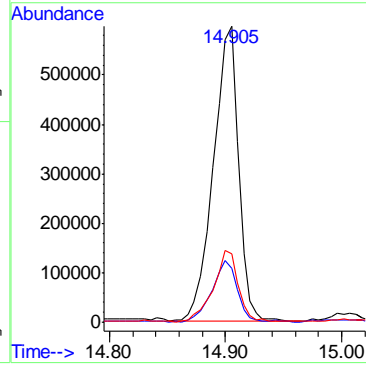
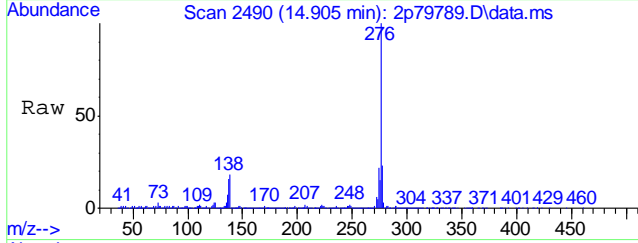
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 143093 |       |       |
| 139     | 1.7    | 0.0   | 55.1  |
| 279     | 16.0   | 0.0   | 54.3  |





#100  
 Benzo[g,h,i]perylene  
 Concen: 20.51 ppm  
 RT: 14.905 min Scan# 2490  
 Delta R.T. -0.116 min  
 Lab File: 2p79789.D  
 Acq: 22 May 2018 2:12 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 18.0  | 2.9   | 62.9  |
| 277     | 22.8  | 0.0   | 53.6  |



9.1.8  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146010.D  
 Acq On : 9 May 2018 1:17 pm  
 Operator : chriss2  
 Sample : jc64996-9  
 Misc : op11642,em6203,30.5,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 09 15:39:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|------------------------------|--------|------|----------|--------|--------|----------|
| Internal Standards           |        |      |          |        |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.491  | 152  | 149961   | 40.00  | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.570  | 136  | 537964   | 40.00  | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.829  | 164  | 260693   | 40.00  | ppm    | -0.19    |
| 69) Phenanthrene-d10         | 10.409 | 188  | 475302   | 40.00  | ppm    | -0.21    |
| 83) Chrysene-d12             | 15.558 | 240  | 372896   | 40.00  | ppm    | -0.22    |
| 91) Perylene-d12             | 18.170 | 264  | 383005   | 40.00  | ppm    | -0.22    |
| 101) 1,4-Dichlorobenzene-d4a | 4.491  | 152  | 149961   | 40.00  | ppm    | -0.10    |
| 103) Acenaphthene-d10a       | 7.829  | 164  | 260693   | 40.00  | ppm    | -0.19    |
| 106) Chrysene-d12a           | 15.558 | 240  | 372896   | 40.00  | ppm    | -0.22    |
| 109) Phenanthrene-d10a       | 10.409 | 188  | 475302   | 40.00  | ppm    | -0.21    |
| 112) Naphthalene-d8a         | 5.570  | 136  | 537964   | 40.00  | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.558 | 240  | 372896   | 40.00  | ppm    | -0.22    |
| System Monitoring Compounds  |        |      |          |        |        |          |
| 5) 2-Fluorophenol            | 3.524  | 112  | 161069   | 28.71  | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 57.42% |          |
| 8) Phenol-d5                 | 4.256  | 99   | 202613   | 30.34  | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 60.68% |          |
| 25) Nitrobenzene-d5          | 4.924  | 82   | 178853   | 34.04  | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 68.08% |          |
| 51) 2-Fluorobiphenyl         | 6.852  | 172  | 354155   | 34.98  | ppm    | -0.17    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 69.96% |          |
| 73) 2,4,6-Tribromophenol     | 9.165  | 330  | 48913    | 36.69  | ppm    | -0.20    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 73.38% |          |
| 85) Terphenyl-d14            | 13.576 | 244  | 335591   | 37.74  | ppm    | -0.23    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 75.48% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00   | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =      | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00   | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =      | 0.00%  |          |
| Target Compounds             |        |      |          |        |        |          |
| 9) Phenol                    | 4.267  | 94   | 8432     | 1.14   | ppm    | 82       |
| 18) Acetophenone             | 4.801  | 105  | 3762     | 0.60   | ppm    | 83       |
| 19) 2-Methylphenol           | 4.705  | 108  | 2640     | 0.61   | ppm    | 95       |
| 21) 3&4-Methylphenol         | 4.833  | 108  | 8403     | 1.94   | ppm    | # 52     |
| 38) Naphthalene              | 5.591  | 128  | 277986   | 19.68  | ppm    | 99       |
| 44) 2-Methylnaphthalene      | 6.366  | 141  | 42558    | 5.02   | ppm    | 97       |
| 53) Biphenyl                 | 6.985  | 154  | 22303    | 2.12   | ppm    | 95       |
| 56) Acenaphthylene           | 7.605  | 152  | 375725   | 29.53  | ppm    | 100      |
| 59) Acenaphthene             | 7.877  | 153  | 34259    | 4.28   | ppm    | 97       |
| 62) Dibenzofuran             | 8.161  | 168  | 123307   | 10.54  | ppm    | 95       |
| 66) Fluorene                 | 8.732  | 166  | 137087   | 14.66  | ppm    | 96       |
| 77) Phenanthrene             | 10.463 | 178  | 1802214  | 138.56 | ppm    | 99       |
| 78) Anthracene               | 10.548 | 178  | 639316   | 49.20  | ppm    | 99       |
| 79) Carbazole                | 10.895 | 167  | 86682    | 6.55   | ppm    | 97       |
| 80) Di-n-butylphthalate      | 11.712 | 149  | 7084     | 0.50   | ppm    | 95       |
| 81) Fluoranthene             | 12.749 | 202  | 3184605  | 219.59 | ppm    | 98       |
| 84) Pyrene                   | 13.170 | 202  | 2841214  | 214.92 | ppm    | 96       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146010.D  
 Acq On : 9 May 2018 1:17 pm  
 Operator : chriss2  
 Sample : jc64996-9  
 Misc : op11642,em6203,30.5,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 09 15:39:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

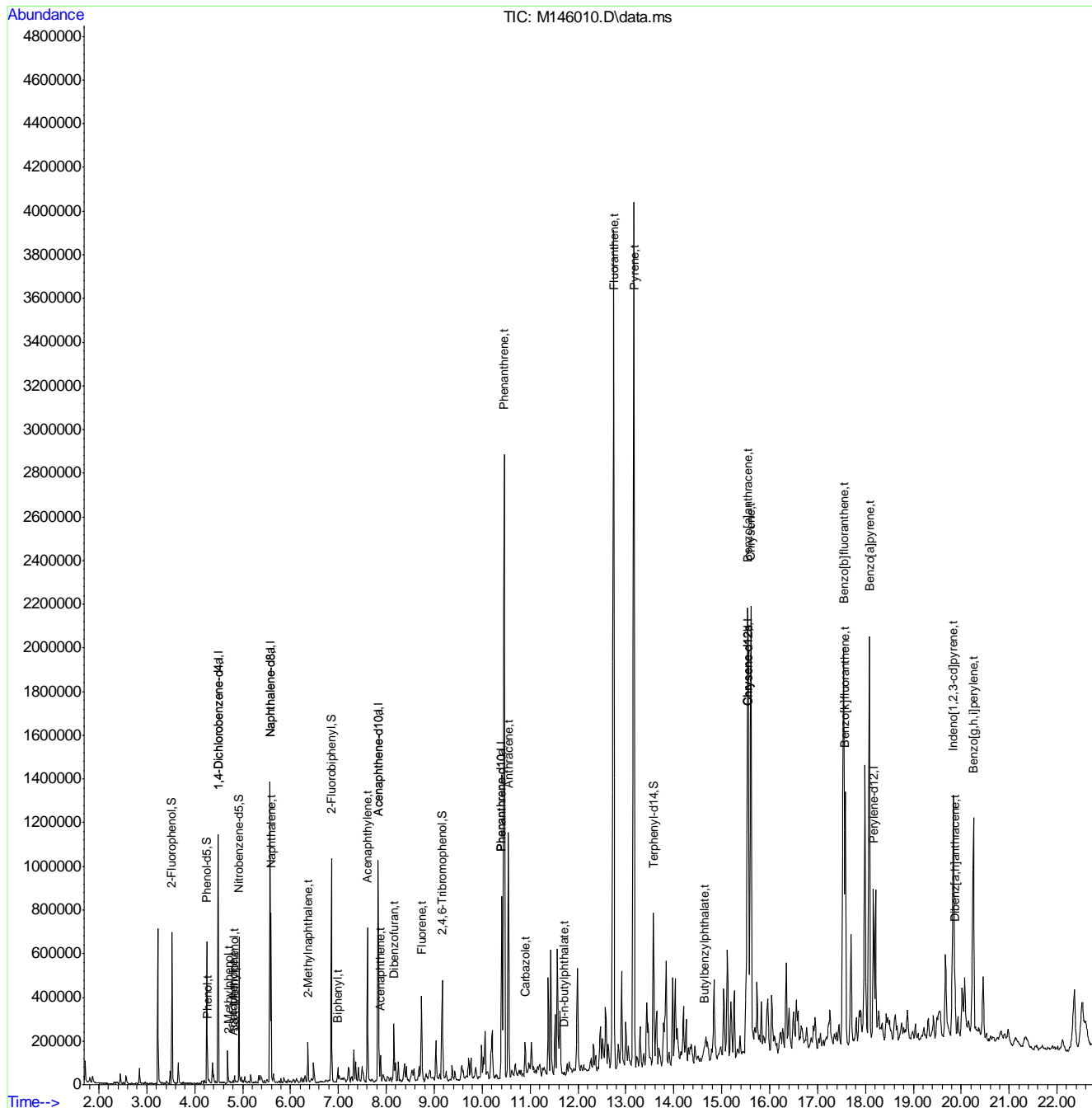
| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 86) Butylbenzylphthalate   | 14.634 | 149  | 9298     | 1.69   | ppm   | 85       |
| 87) Benzo[a]anthracene     | 15.547 | 228  | 1333404  | 122.20 | ppm   | 99       |
| 89) Chrysene               | 15.611 | 228  | 1147065  | 108.98 | ppm   | 98       |
| 93) Benzo[b]fluoranthene   | 17.545 | 252  | 1530443  | 139.03 | ppm   | 97       |
| 94) Benzo[k]fluoranthene   | 17.582 | 252  | 576006   | 55.36  | ppm   | 97       |
| 95) Benzo[a]pyrene         | 18.084 | 252  | 1124513  | 119.90 | ppm   | 97       |
| 96) Indeno[1,2,3-cd]pyrene | 19.836 | 276  | 854427   | 95.40  | ppm   | 99       |
| 98) Dibenz[a,h]anthracene  | 19.863 | 278  | 169048   | 17.68  | ppm   | 91       |
| 100) Benzo[g,h,i]perylene  | 20.253 | 276  | 805415   | 85.85  | ppm   | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

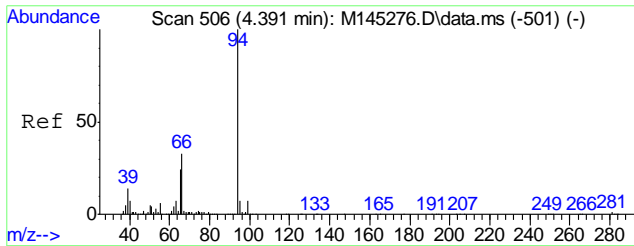
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M146010.D  
 Acq On : 9 May 2018 1:17 pm  
 Operator : chriss2  
 Sample : jc64996-9  
 Misc : op11642,em6203,30.5,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 09 15:39:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

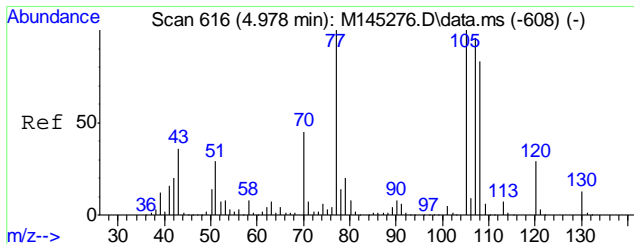
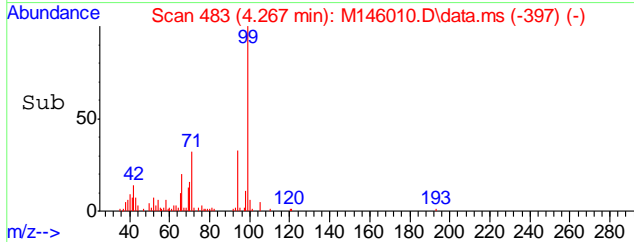
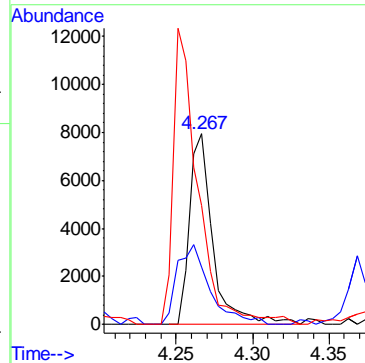
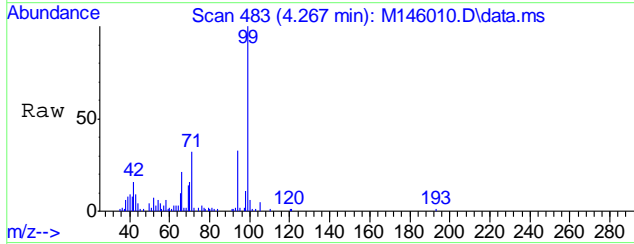






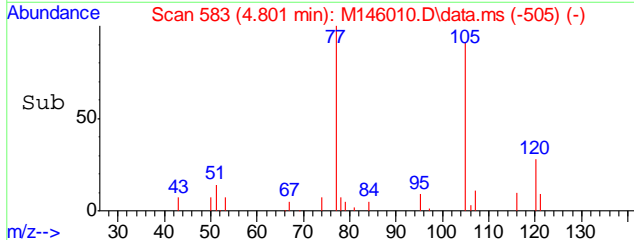
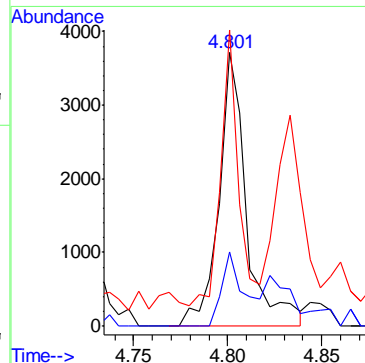
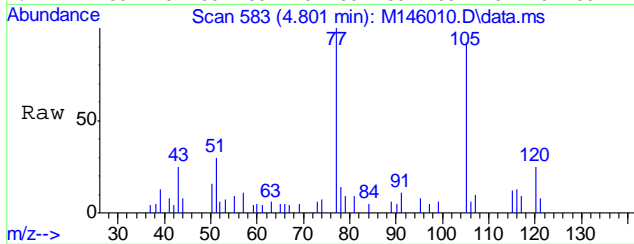
#9  
 Phenol  
 Concen: 1.14 ppm  
 RT: 4.267 min Scan# 483  
 Delta R.T. -0.040 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

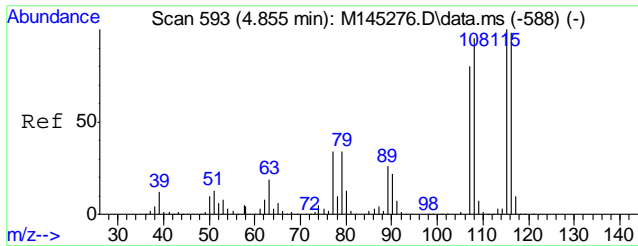
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 94      | 8432 | 100   |       |
| 65      | 26.1 | 0.0   | 54.4  |
| 66      | 49.3 | 2.6   | 62.6  |



#18  
 Acetophenone  
 Concen: 0.60 ppm  
 RT: 4.801 min Scan# 583  
 Delta R.T. -0.082 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

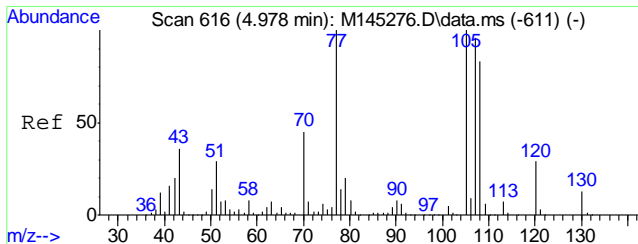
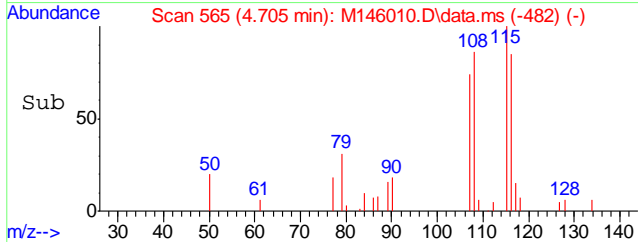
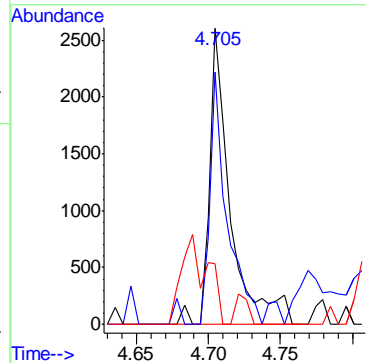
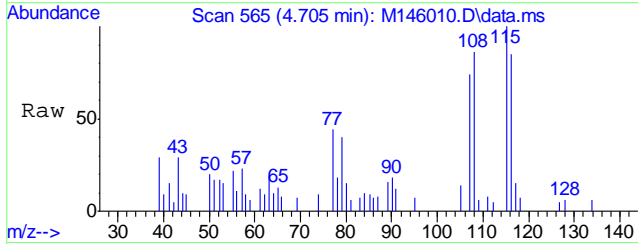
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 105     | 3762 | 100   |       |
| 120     | 25.4 | 0.0   | 58.4  |
| 77      | 79.8 | 70.3  | 130.3 |





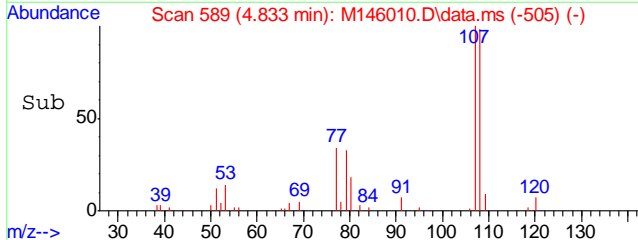
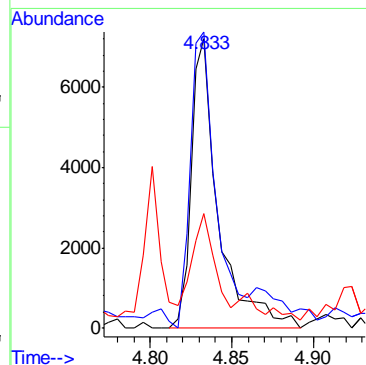
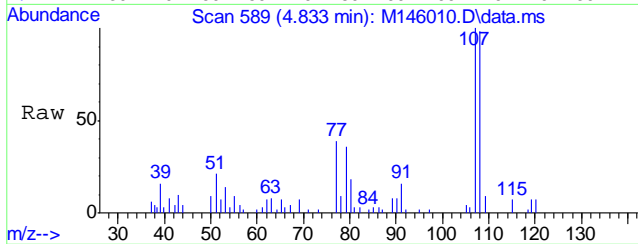
#19  
 2-Methylphenol  
 Concen: 0.61 ppm  
 RT: 4.705 min Scan# 565  
 Delta R.T. -0.057 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 100   |       |       |
| 107     | 79.0  | 53.8  | 113.8 |
| 90      | 20.7  | 0.0   | 53.5  |

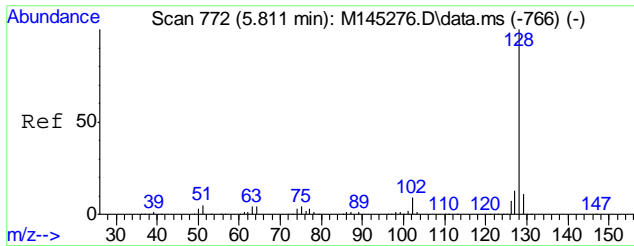


#21  
 3&4-Methylphenol  
 Concen: 1.94 ppm  
 RT: 4.833 min Scan# 589  
 Delta R.T. -0.050 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 108     | 100   |       |        |
| 107     | 97.8  | 86.3  | 146.3  |
| 77      | 33.9  | 90.8  | 150.8# |

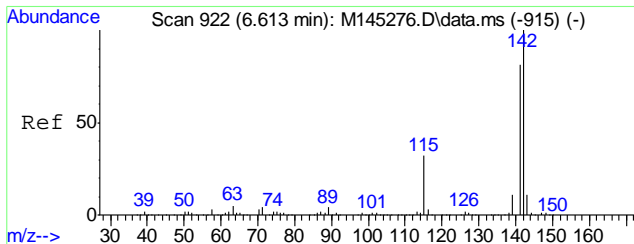
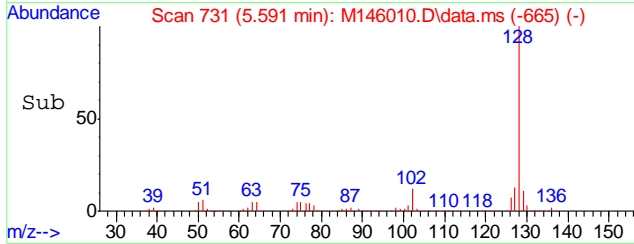
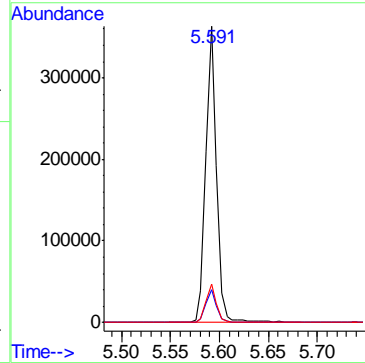
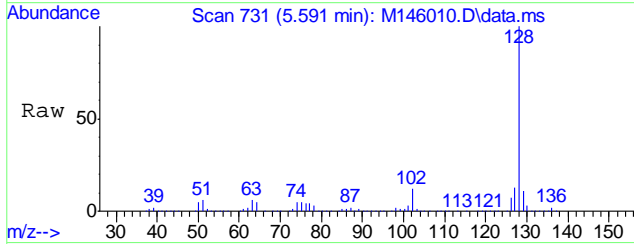


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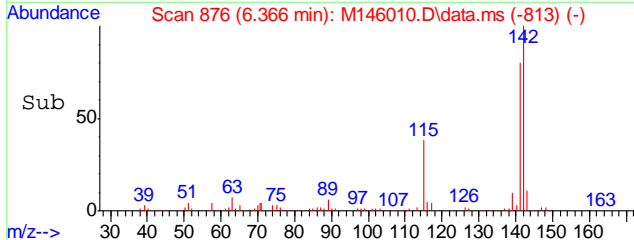
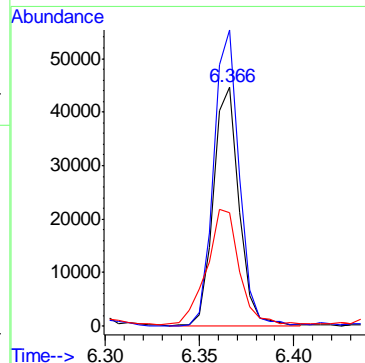
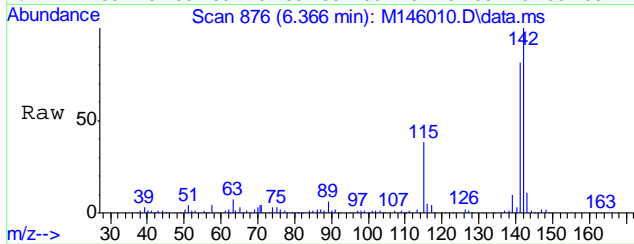
#38  
 Naphthalene  
 Concen: 19.68 ppm  
 RT: 5.591 min Scan# 731  
 Delta R.T. -0.146 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

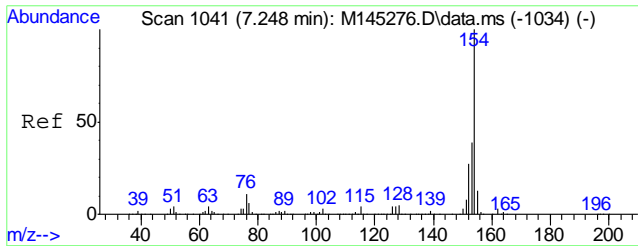
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.1  | 0.0   | 41.4  |
| 127     | 12.9  | 0.0   | 42.8  |



#44  
 2-Methylnaphthalene  
 Concen: 5.02 ppm  
 RT: 6.366 min Scan# 876  
 Delta R.T. -0.162 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

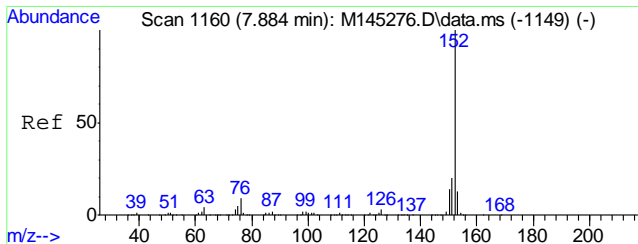
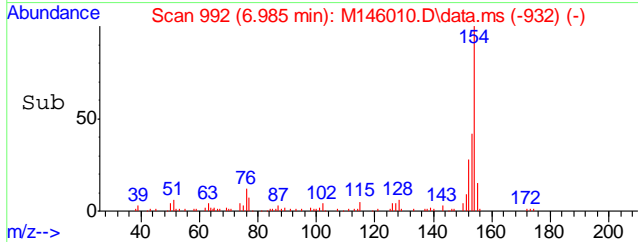
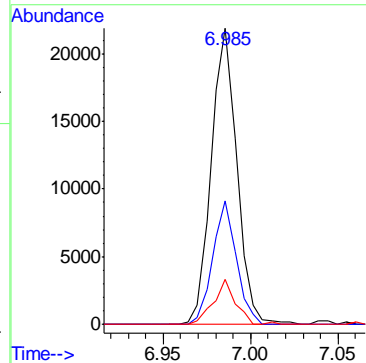
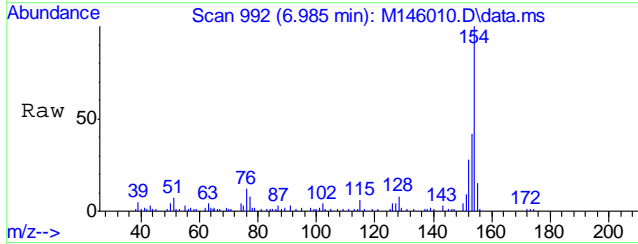
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 123.7 | 93.2  | 153.2 |
| 115     | 46.5  | 9.5   | 69.5  |





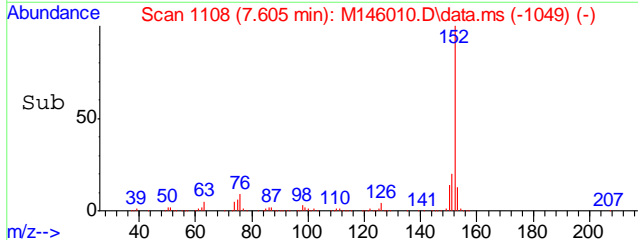
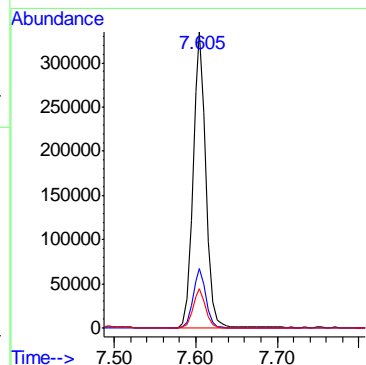
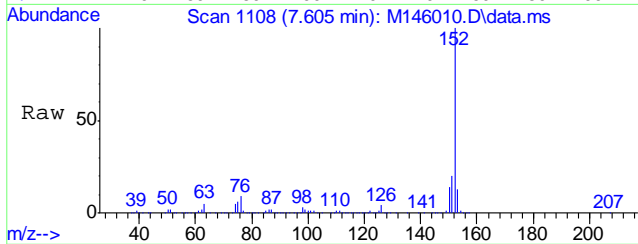
#53  
 Biphenyl  
 Concen: 2.12 ppm  
 RT: 6.985 min Scan# 992  
 Delta R.T. -0.178 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 22303 |       |       |
| 153     | 41.9  | 9.1   | 69.1  |
| 155     | 15.2  | 0.0   | 43.3  |

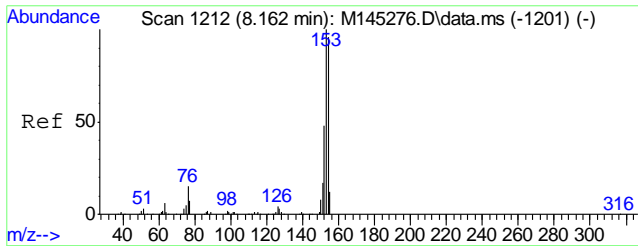


#56  
 Acenaphthylene  
 Concen: 29.53 ppm  
 RT: 7.605 min Scan# 1108  
 Delta R.T. -0.186 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 375725 |       |       |
| 151     | 20.2   | 0.0   | 49.8  |
| 153     | 13.1   | 0.0   | 43.1  |

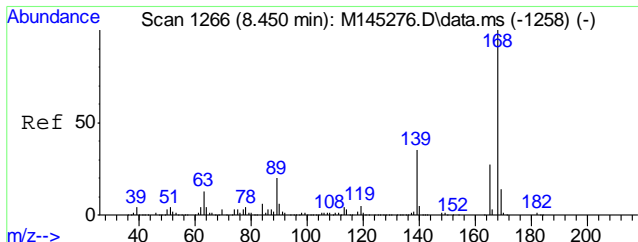
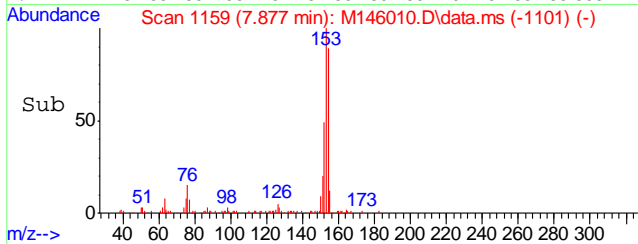
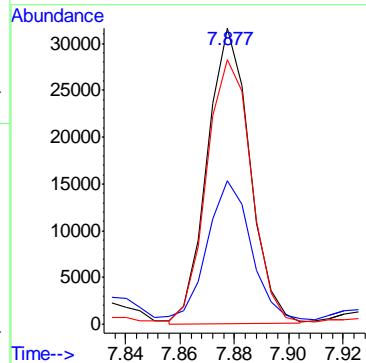
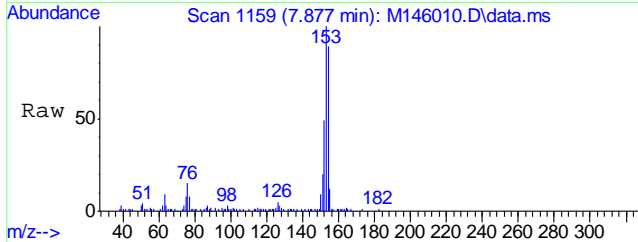


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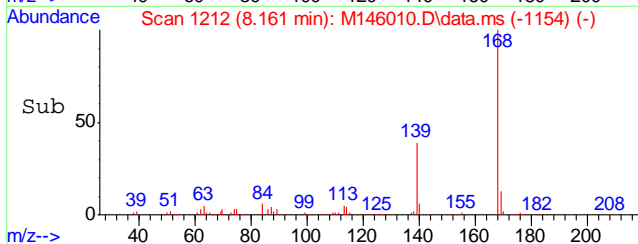
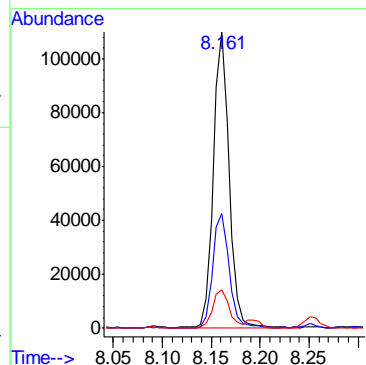
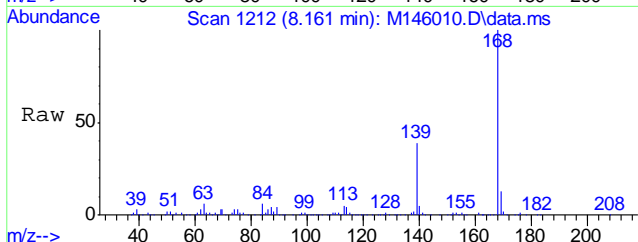
#59  
 Acenaphthene  
 Concen: 4.28 ppm  
 RT: 7.877 min Scan# 1159  
 Delta R.T. -0.188 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 34259 | 100   |       |
| 152     | 46.8  | 18.1  | 78.1  |
| 154     | 89.1  | 62.2  | 122.2 |

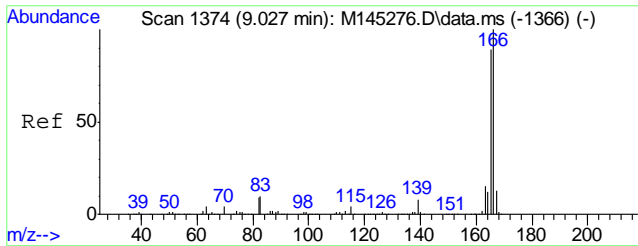


#62  
 Dibenzofuran  
 Concen: 10.54 ppm  
 RT: 8.161 min Scan# 1212  
 Delta R.T. -0.190 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 123307 | 100   |       |
| 139     | 38.3   | 5.0   | 65.0  |
| 169     | 12.4   | 0.0   | 43.9  |

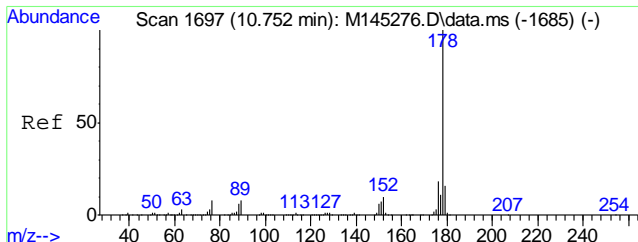
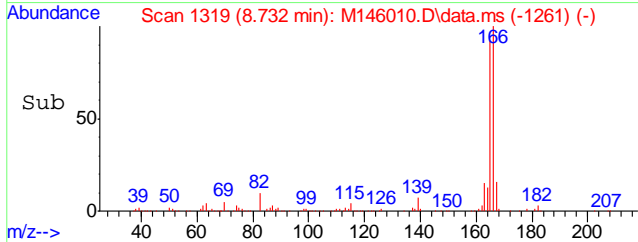
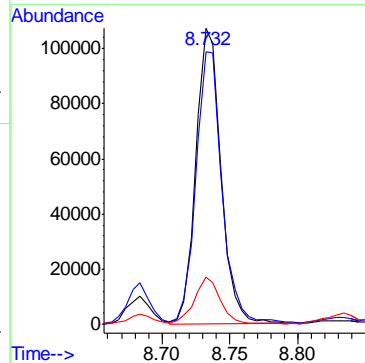
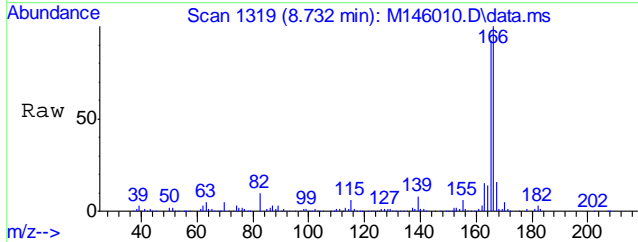


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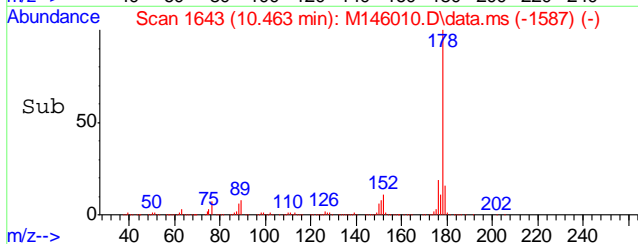
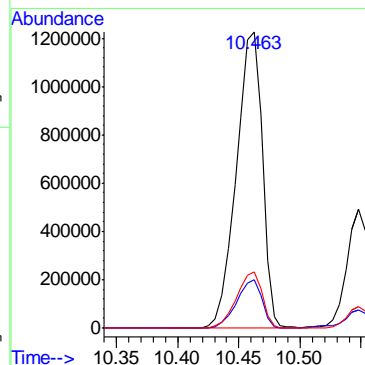
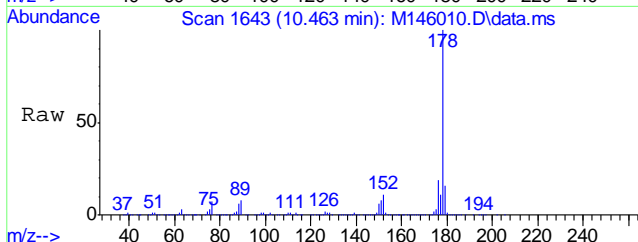
#66  
 Fluorene  
 Concen: 14.66 ppm  
 RT: 8.732 min Scan# 1319  
 Delta R.T. -0.189 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

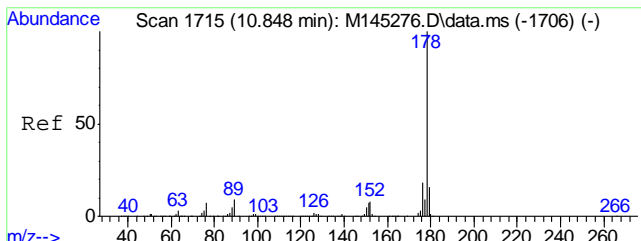
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 166     | 137087 |       |       |
| 165     | 92.0   | 59.1  | 119.1 |
| 167     | 15.8   | 0.0   | 43.0  |



#77  
 Phenanthrene  
 Concen: 138.56 ppm  
 RT: 10.463 min Scan# 1643  
 Delta R.T. -0.199 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

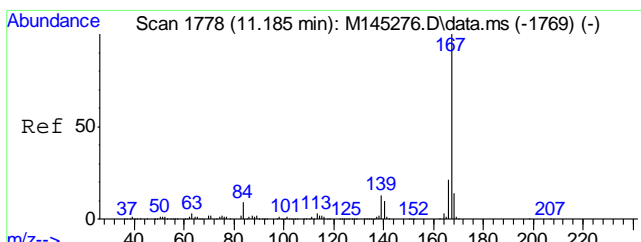
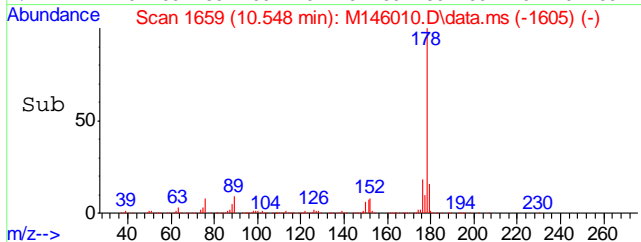
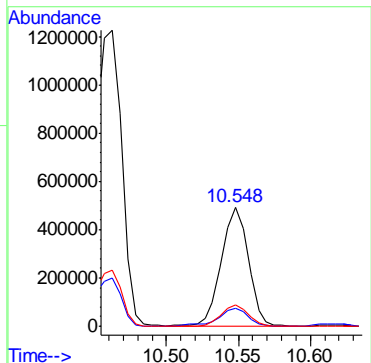
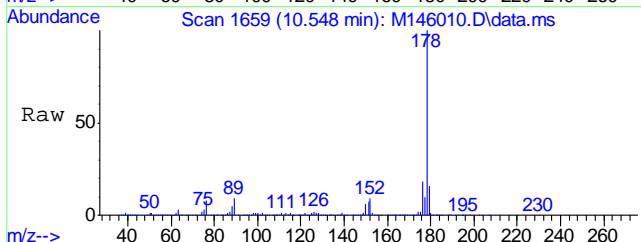
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 1802214 |       |       |
| 179     | 16.3    | 0.0   | 46.0  |
| 176     | 18.9    | 0.0   | 48.3  |





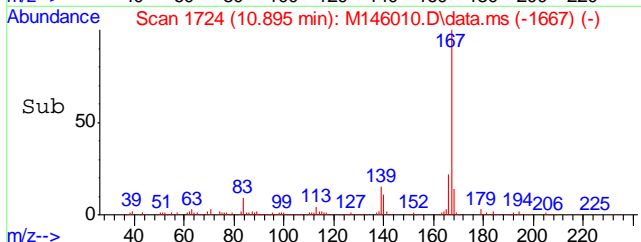
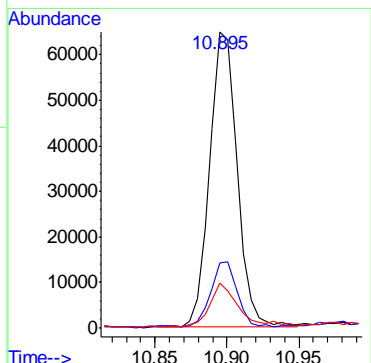
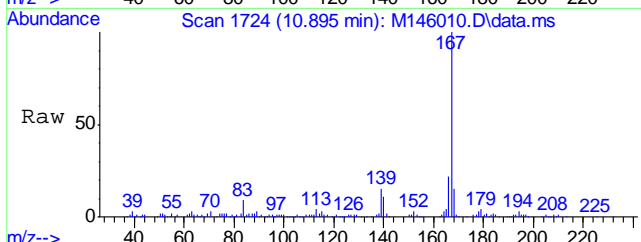
#78  
 Anthracene  
 Concen: 49.20 ppm  
 RT: 10.548 min Scan# 1659  
 Delta R.T. -0.209 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 639316 |       |       |
| 179     | 15.4   | 0.0   | 45.9  |
| 176     | 18.0   | 0.0   | 48.0  |

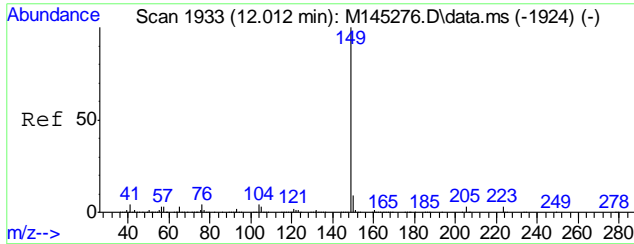


#79  
 Carbazole  
 Concen: 6.55 ppm  
 RT: 10.895 min Scan# 1724  
 Delta R.T. -0.195 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 86682 |       |       |
| 166     | 21.3  | 0.0   | 50.7  |
| 139     | 14.6  | 0.0   | 42.5  |

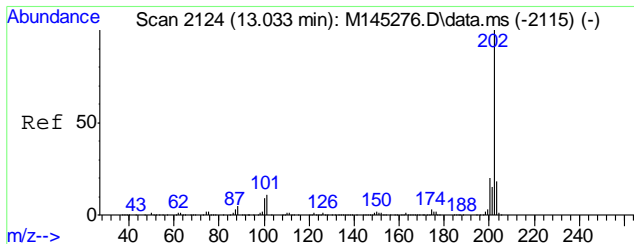
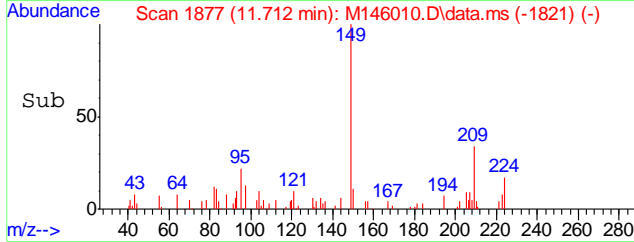
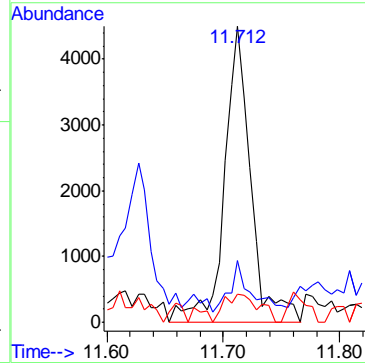
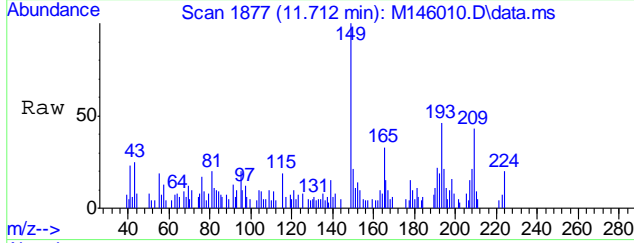


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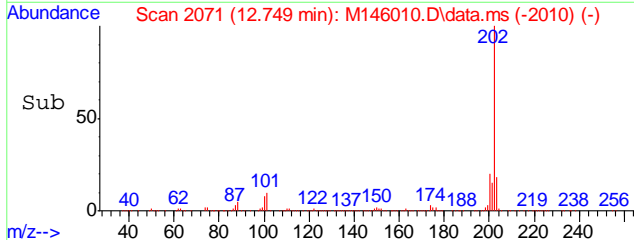
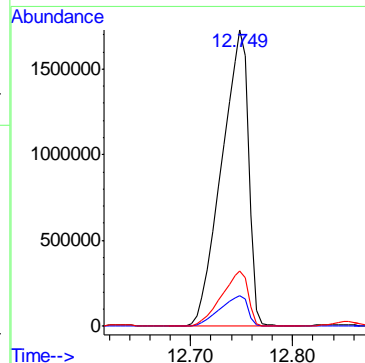
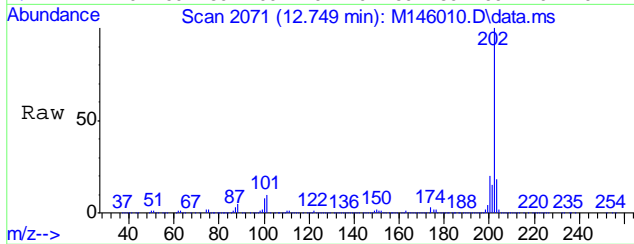
#80  
 Di-n-butylphthalate  
 Concen: 0.50 ppm  
 RT: 11.712 min Scan# 1877  
 Delta R.T. -0.199 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 149     | 7084 | 100   |       |
| 150     | 11.8 | 0.0   | 39.3  |
| 104     | 4.0  | 0.0   | 34.4  |



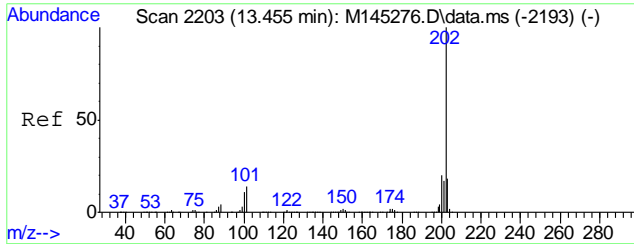
#81  
 Fluoranthene  
 Concen: 219.59 ppm  
 RT: 12.749 min Scan# 2071  
 Delta R.T. -0.175 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 3184605 | 100   |       |
| 101     | 10.4    | 0.0   | 41.4  |
| 203     | 18.5    | 0.0   | 47.5  |



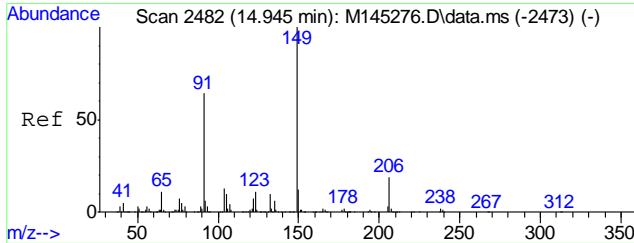
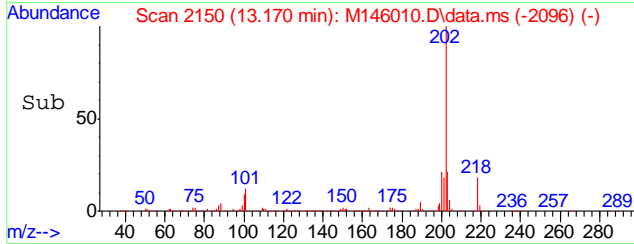
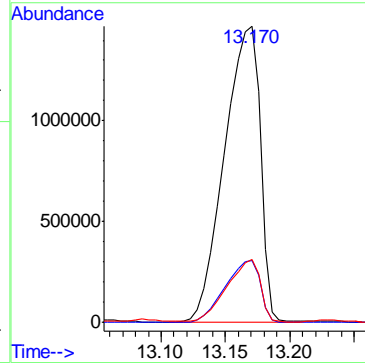
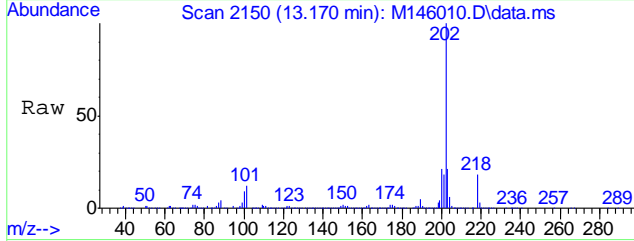
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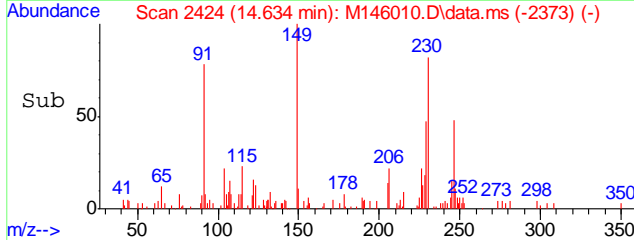
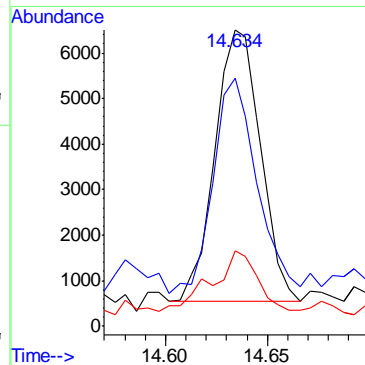
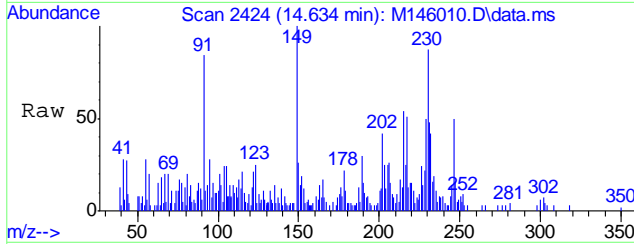
#84  
 Pyrene  
 Concen: 214.92 ppm  
 RT: 13.170 min Scan# 2150  
 Delta R.T. -0.212 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 21.0 | 0.0   | 50.2  |
| 203     | 20.9 | 0.0   | 48.2  |

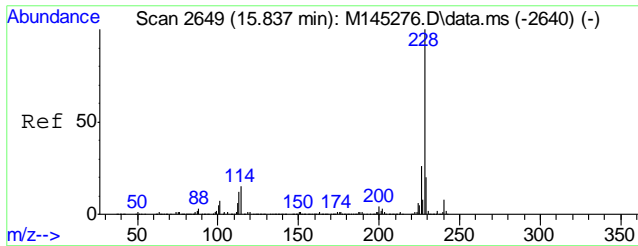


#86  
 Butylbenzylphthalate  
 Concen: 1.69 ppm  
 RT: 14.634 min Scan# 2424  
 Delta R.T. -0.230 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 149     | 100  |       |       |
| 91      | 78.0 | 34.4  | 94.4  |
| 206     | 21.4 | 0.0   | 49.1  |

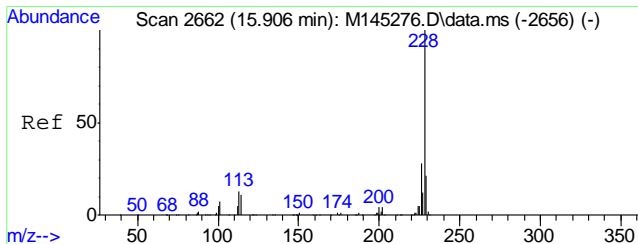
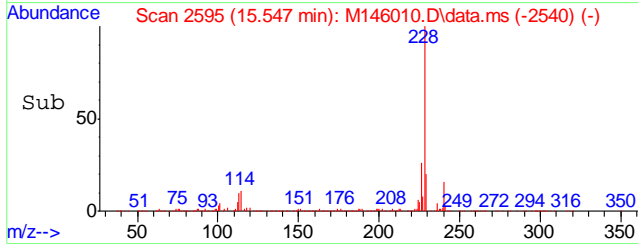
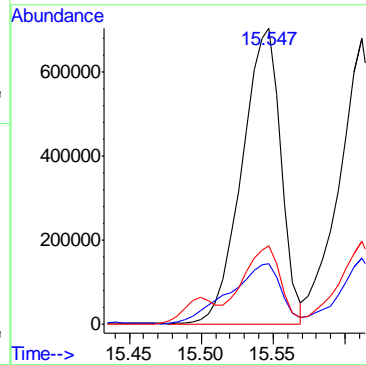
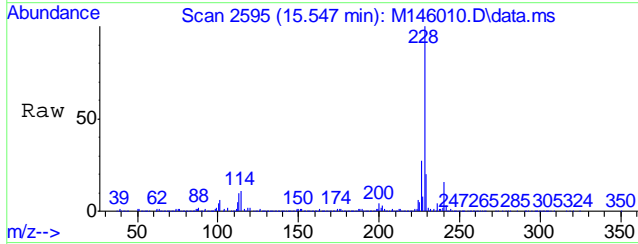


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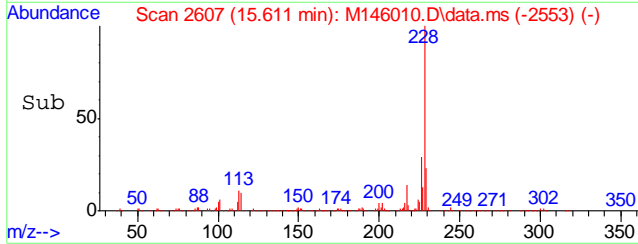
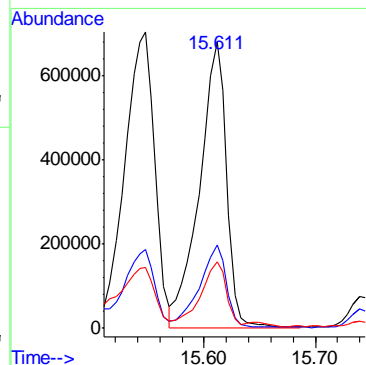
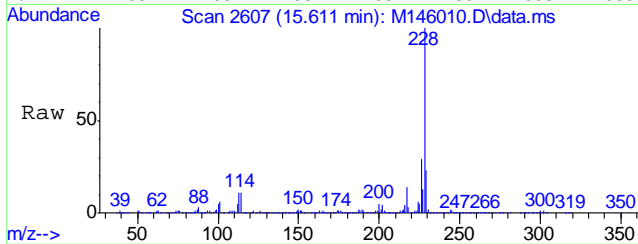
#87  
 Benzo[a]anthracene  
 Concen: 122.20 ppm  
 RT: 15.547 min Scan# 2595  
 Delta R.T. -0.205 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1333404 | 100   |       |
| 229     | 19.7    | 0.0   | 50.4  |
| 226     | 25.9    | 0.0   | 55.8  |

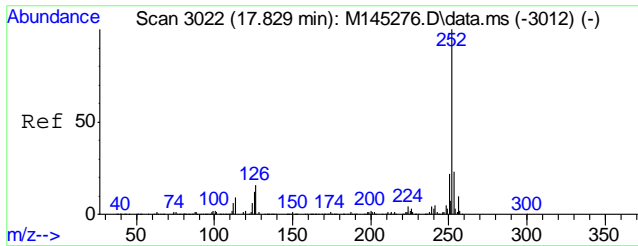


#89  
 Chrysene  
 Concen: 108.98 ppm  
 RT: 15.611 min Scan# 2607  
 Delta R.T. -0.210 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1147065 | 100   |       |
| 226     | 29.0    | 0.0   | 58.6  |
| 229     | 22.4    | 0.0   | 50.6  |

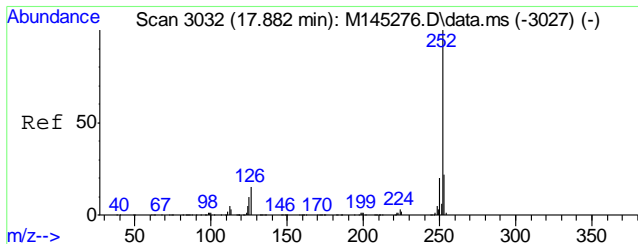
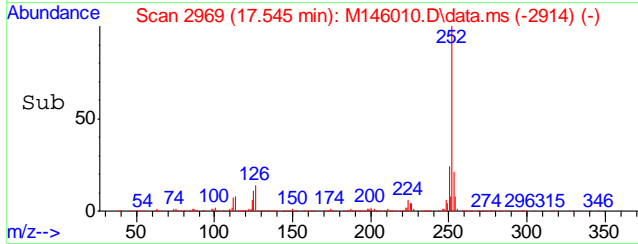
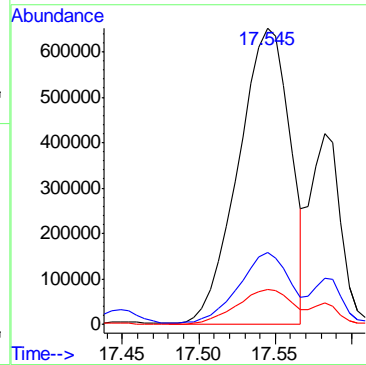
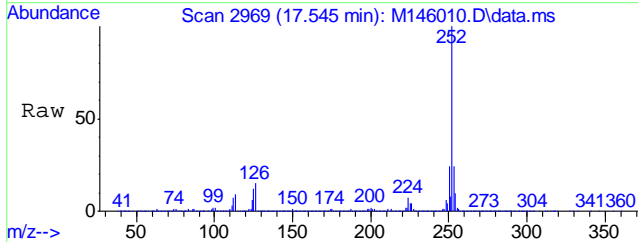


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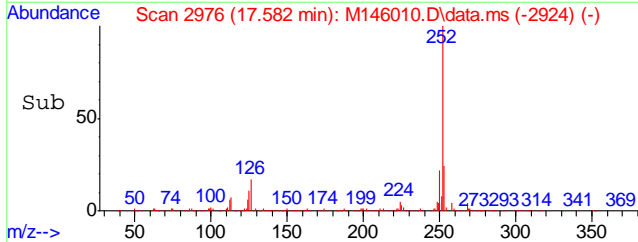
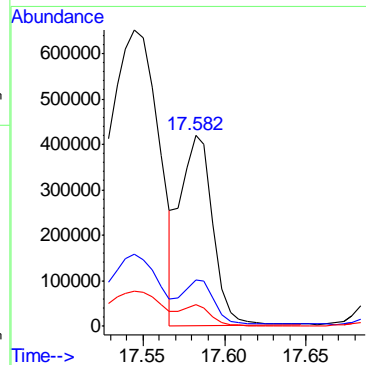
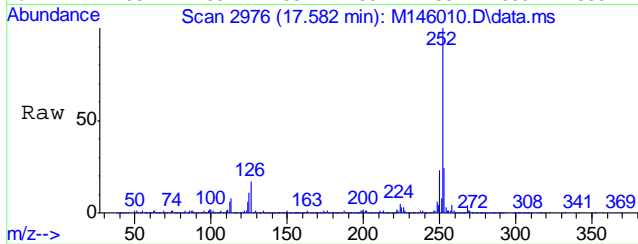
#93  
 Benzo[b]fluoranthene  
 Concen: 139.03 ppm  
 RT: 17.545 min Scan# 2969  
 Delta R.T. -0.207 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.3 | 0.0   | 52.1  |
| 125     | 11.2 | 0.0   | 41.0  |

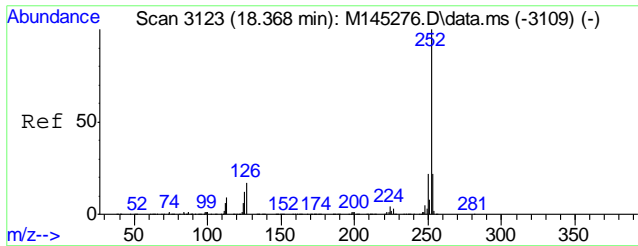


#94  
 Benzo[k]fluoranthene  
 Concen: 55.36 ppm  
 RT: 17.582 min Scan# 2976  
 Delta R.T. -0.223 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.1 | 0.0   | 52.4  |
| 125     | 10.5 | 0.0   | 41.0  |

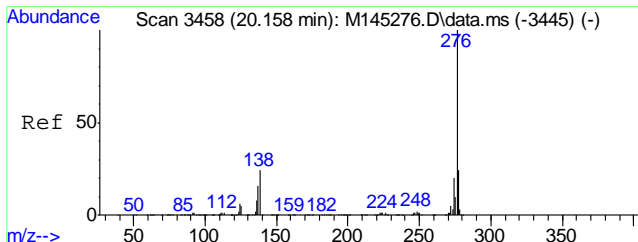
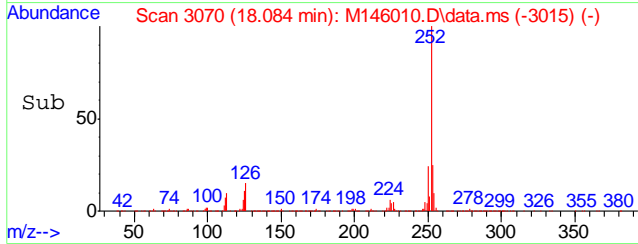
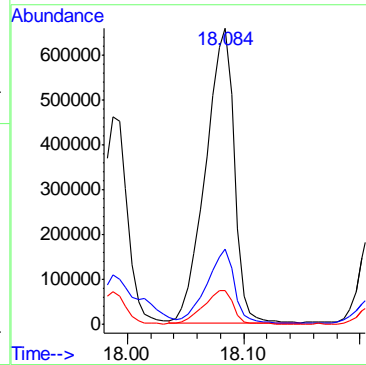
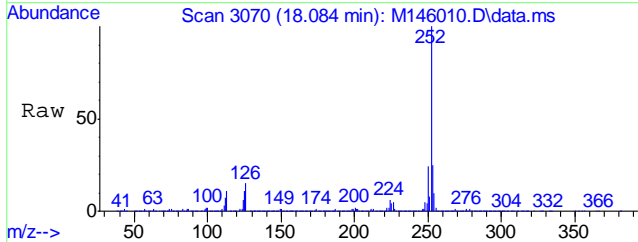


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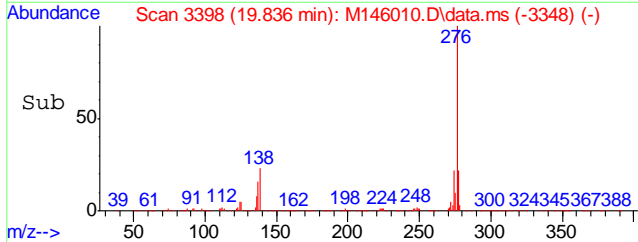
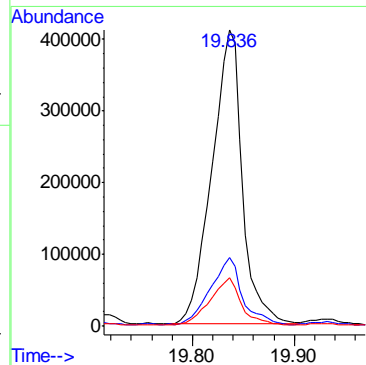
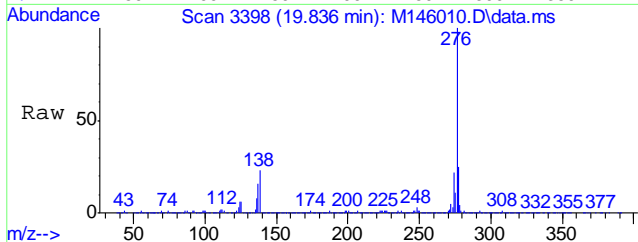
#95  
 Benzo[a]pyrene  
 Concen: 119.90 ppm  
 RT: 18.084 min Scan# 3070  
 Delta R.T. -0.205 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1124513 | 100   |       |
| 253     | 24.2    | 0.0   | 52.4  |
| 125     | 11.1    | 0.0   | 42.3  |

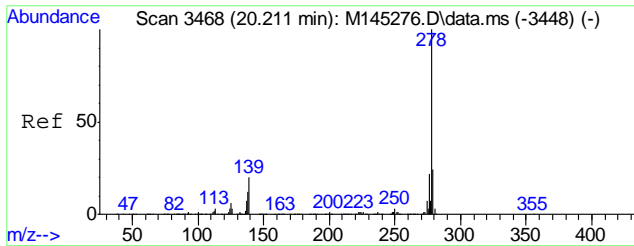


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 95.40 ppm  
 RT: 19.836 min Scan# 3398  
 Delta R.T. -0.235 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 854427 | 100   |       |
| 138     | 22.6   | 0.0   | 52.4  |
| 137     | 16.0   | 0.0   | 45.7  |

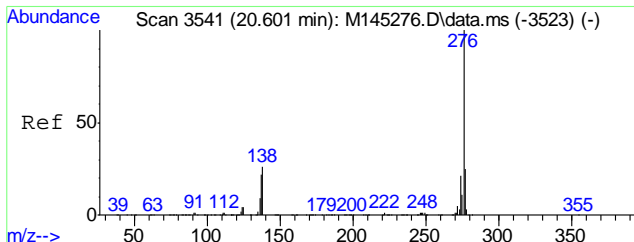
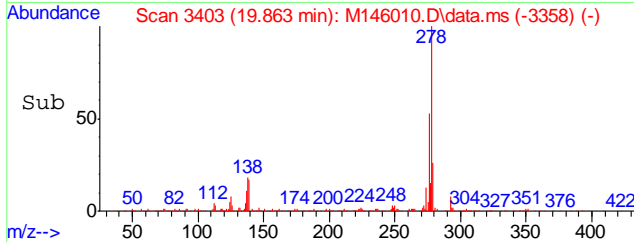
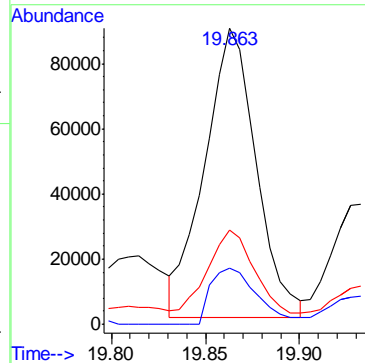
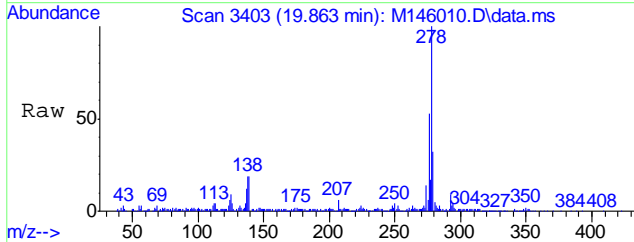


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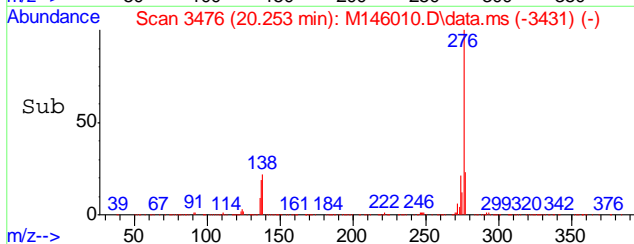
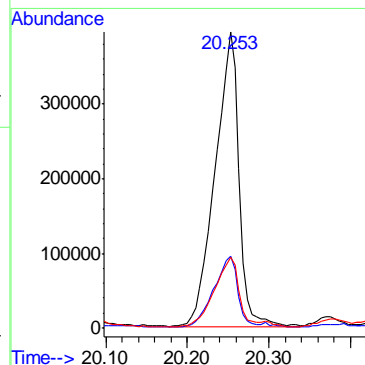
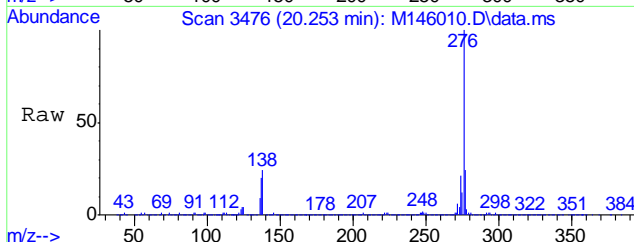
#98  
 Dibenz[a,h]anthracene  
 Concen: 17.68 ppm  
 RT: 19.863 min Scan# 3403  
 Delta R.T. -0.261 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 20.3  | 0.0   | 49.8  |
| 279     | 31.7  | 0.0   | 54.2  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 85.85 ppm  
 RT: 20.253 min Scan# 3476  
 Delta R.T. -0.260 min  
 Lab File: M146010.D  
 Acq: 9 May 2018 1:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.9  | 0.0   | 55.9  |
| 277     | 23.4  | 0.0   | 54.7  |



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
 Data File : M146026.D  
 Acq On : 9 May 2018 9:17 pm  
 Operator : johnbl  
 Sample : jc64996-9  
 Misc : op11642,em6204,30.5,,,1,5  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 10 07:25:29 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.488  | 152  | 153112   | 40.00 | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.572  | 136  | 572079   | 40.00 | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.832  | 164  | 296675   | 40.00 | ppm    | -0.19    |
| 69) Phenanthrene-d10         | 10.406 | 188  | 568052   | 40.00 | ppm    | -0.21    |
| 83) Chrysene-d12             | 15.555 | 240  | 498786   | 40.00 | ppm    | -0.22    |
| 91) Perylene-d12             | 18.167 | 264  | 490745   | 40.00 | ppm    | -0.22    |
| 101) 1,4-Dichlorobenzene-d4a | 4.488  | 152  | 153112   | 40.00 | ppm    | -0.11    |
| 103) Acenaphthene-d10a       | 7.832  | 164  | 296675   | 40.00 | ppm    | -0.19    |
| 106) Chrysene-d12a           | 15.555 | 240  | 498786   | 40.00 | ppm    | -0.22    |
| 109) Phenanthrene-d10a       | 10.406 | 188  | 568052   | 40.00 | ppm    | -0.21    |
| 112) Naphthalene-d8a         | 5.572  | 136  | 572079   | 40.00 | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.555 | 240  | 498786   | 40.00 | ppm    | -0.22    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.521  | 112  | 30493    | 5.32  | ppm    | -0.07    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 10.64% |          |
| 8) Phenol-d5                 | 4.253  | 99   | 40390    | 5.92  | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.84% |          |
| 25) Nitrobenzene-d5          | 4.921  | 82   | 36000    | 6.44  | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 12.88% |          |
| 51) 2-Fluorobiphenyl         | 6.849  | 172  | 76040    | 6.60  | ppm    | -0.18    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 13.20% |          |
| 73) 2,4,6-Tribromophenol     | 9.162  | 330  | 10968    | 6.88  | ppm    | -0.21    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 13.76% |          |
| 85) Terphenyl-d14            | 13.573 | 244  | 80049    | 6.73  | ppm    | -0.23    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 13.46% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 38) Naphthalene              | 5.594  | 128  | 54362    | 3.62  | ppm    | 98       |
| 44) 2-Methylnaphthalene      | 6.368  | 141  | 7868     | 0.87  | ppm    | 97       |
| 56) Acenaphthylene           | 7.602  | 152  | 76232    | 5.27  | ppm    | 98       |
| 59) Acenaphthene             | 7.880  | 153  | 6691     | 0.73  | ppm    | 90       |
| 62) Dibenzofuran             | 8.163  | 168  | 26663    | 2.00  | ppm    | 95       |
| 66) Fluorene                 | 8.734  | 166  | 28311    | 2.66  | ppm    | 95       |
| 77) Phenanthrene             | 10.449 | 178  | 449971   | 28.95 | ppm    | 98       |
| 78) Anthracene               | 10.545 | 178  | 145741   | 9.38  | ppm    | 97       |
| 79) Carbazole                | 10.897 | 167  | 18503    | 1.17  | ppm    | 96       |
| 81) Fluoranthene             | 12.729 | 202  | 865418   | 49.93 | ppm    | 99       |
| 84) Pyrene                   | 13.151 | 202  | 751217   | 42.48 | ppm    | 99       |
| 87) Benzo[a]anthracene       | 15.533 | 228  | 334823   | 22.94 | ppm    | 98       |
| 89) Chrysene                 | 15.598 | 228  | 283573   | 20.14 | ppm    | 99       |
| 93) Benzo[b]fluoranthene     | 17.531 | 252  | 391017   | 27.72 | ppm    | 98       |
| 94) Benzo[k]fluoranthene     | 17.568 | 252  | 153297   | 11.50 | ppm    | 94       |
| 95) Benzo[a]pyrene           | 18.065 | 252  | 281246   | 23.40 | ppm    | 99       |
| 96) Indeno[1,2,3-cd]pyrene   | 19.817 | 276  | 205798   | 17.93 | ppm    | 97       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
 Data File : M146026.D  
 Acq On : 9 May 2018 9:17 pm  
 Operator : johnbl  
 Sample : jc64996-9  
 Misc : op11642,em6204,30.5,,,1,5  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 10 07:25:29 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

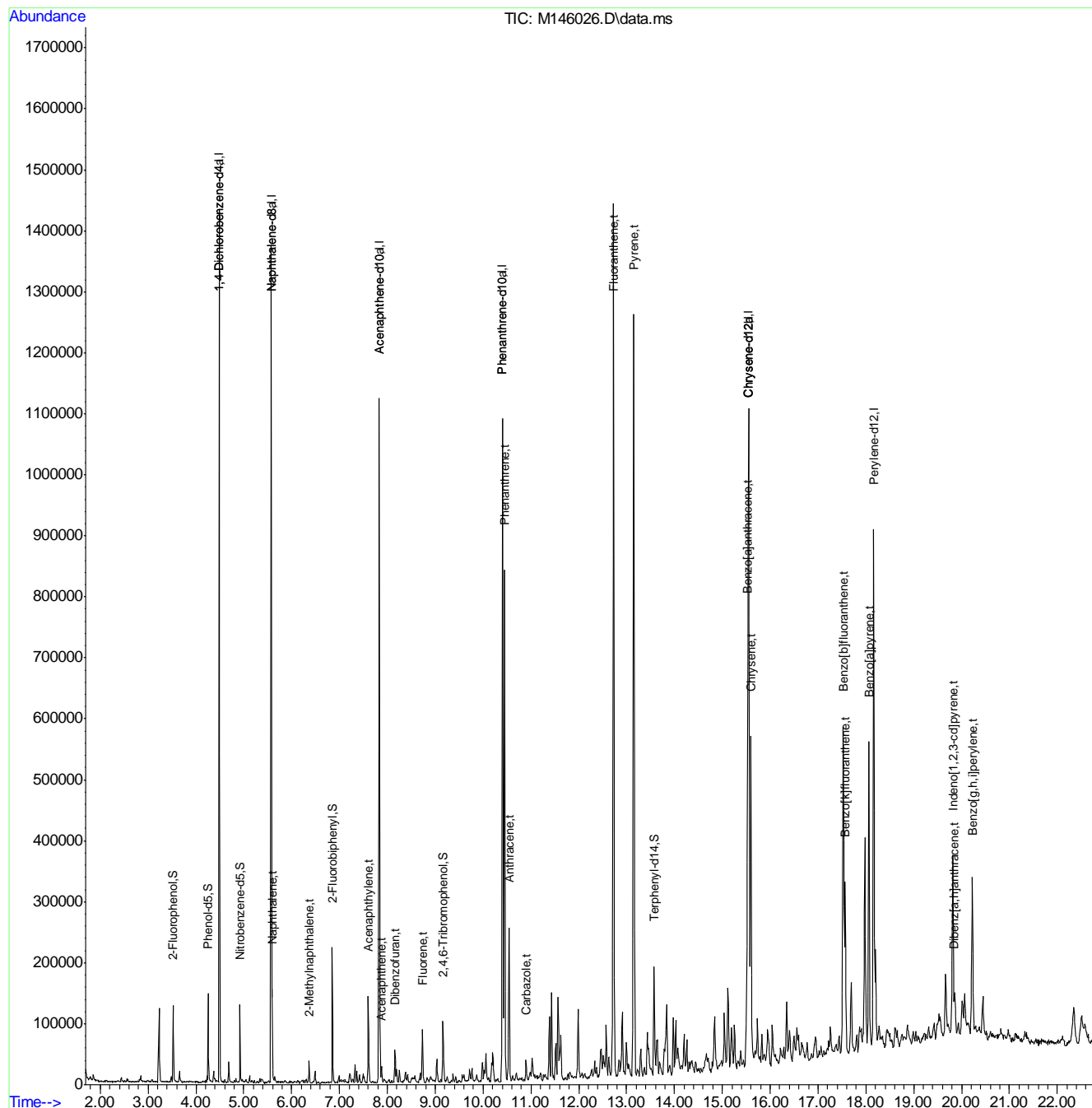
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 19.854 | 278  | 39572    | 3.23  | ppm   | 94       |
| 100) Benzo[g,h,i]perylene | 20.228 | 276  | 189579   | 15.77 | ppm   | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

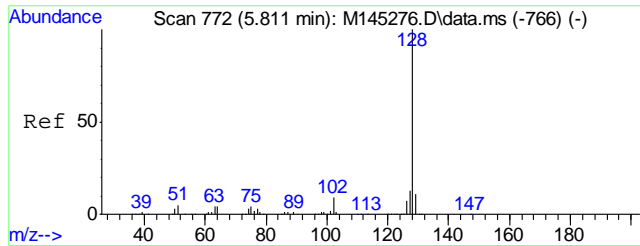
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6204\  
 Data File : M146026.D  
 Acq On : 9 May 2018 9:17 pm  
 Operator : johnbl  
 Sample : jc64996-9  
 Misc : op11642,em6204,30.5,,,1,5  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 10 07:25:29 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

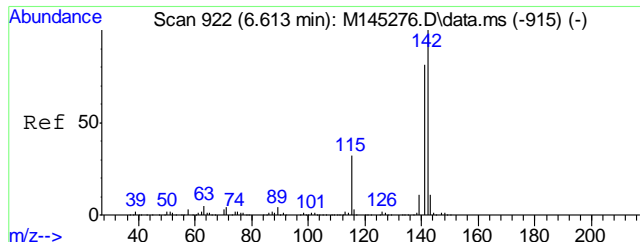
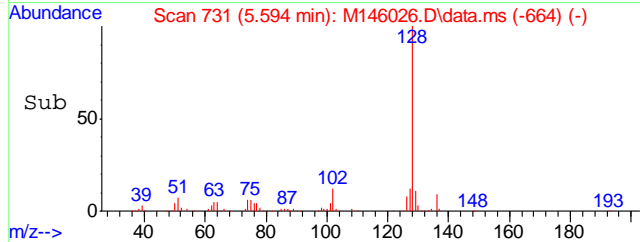
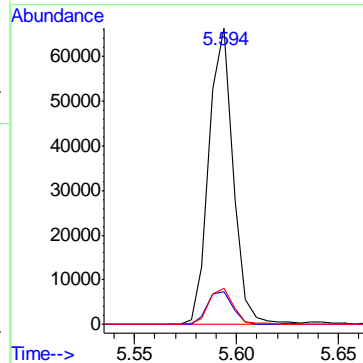
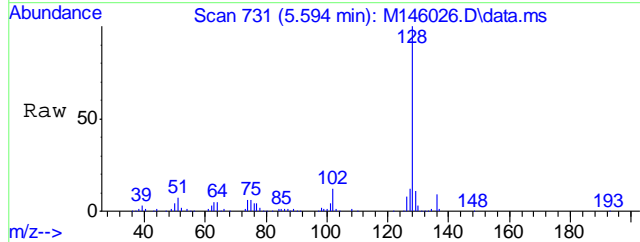






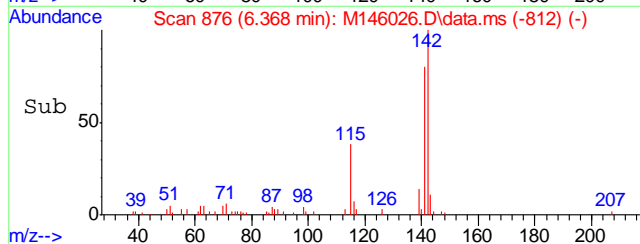
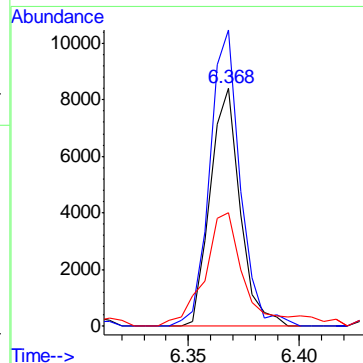
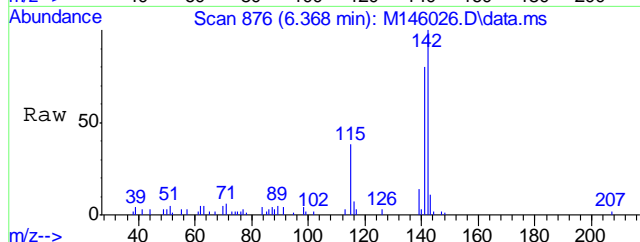
#38  
 Naphthalene  
 Concen: 3.62 ppm  
 RT: 5.594 min Scan# 731  
 Delta R.T. -0.143 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 54362 |       |       |
| 129     | 10.9  | 0.0   | 41.4  |
| 127     | 12.1  | 0.0   | 42.8  |

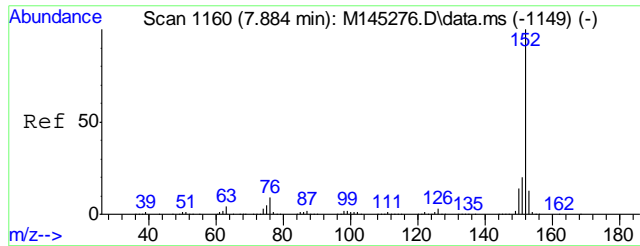


#44  
 2-Methylnaphthalene  
 Concen: 0.87 ppm  
 RT: 6.368 min Scan# 876  
 Delta R.T. -0.160 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 7868  |       |       |
| 142     | 124.4 | 93.2  | 153.2 |
| 115     | 44.2  | 9.5   | 69.5  |

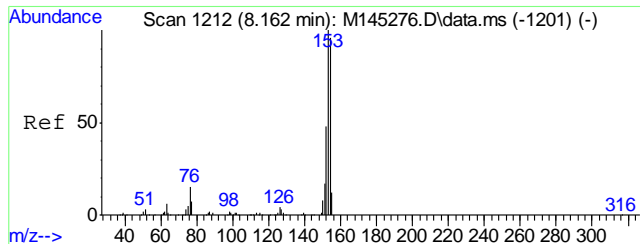
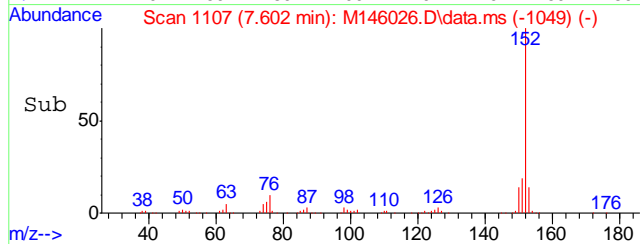
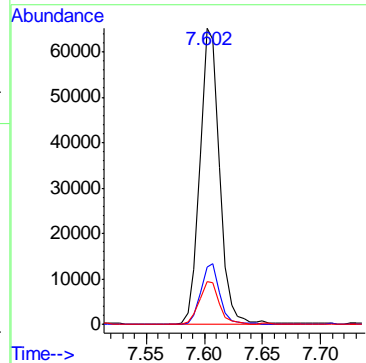
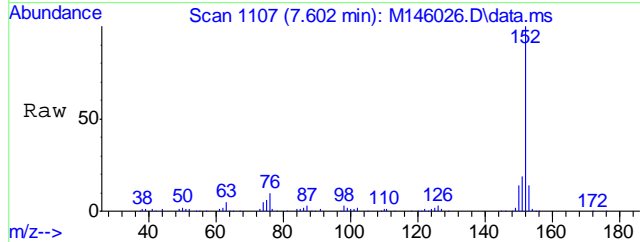


9.110  
 9



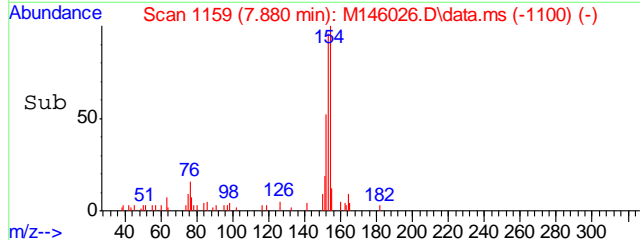
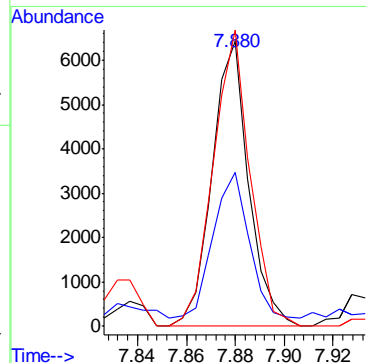
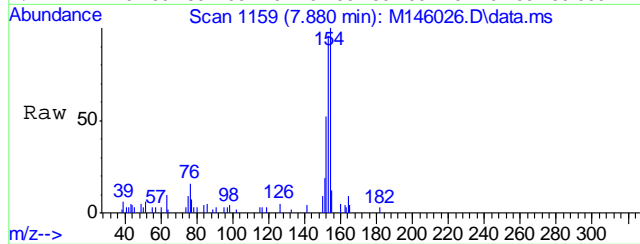
#56  
 Acenaphthylene  
 Concen: 5.27 ppm  
 RT: 7.602 min Scan# 1107  
 Delta R.T. -0.189 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 76232 |       |       |
| 151     | 19.3  | 0.0   | 49.8  |
| 153     | 14.4  | 0.0   | 43.1  |

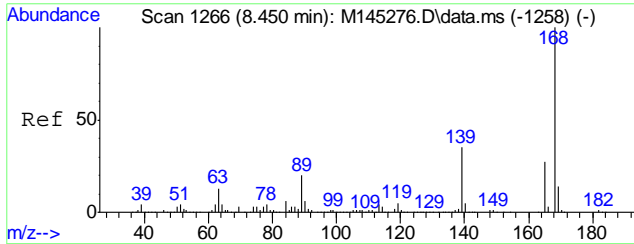


#59  
 Acenaphthene  
 Concen: 0.73 ppm  
 RT: 7.880 min Scan# 1159  
 Delta R.T. -0.186 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 6691  |       |       |
| 152     | 51.1  | 18.1  | 78.1  |
| 154     | 104.0 | 62.2  | 122.2 |

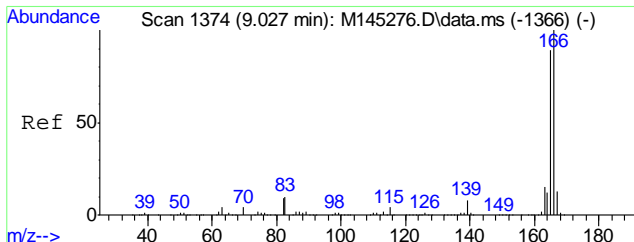
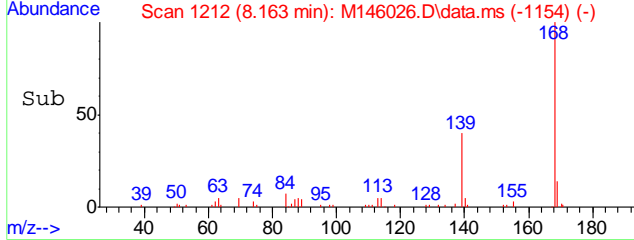
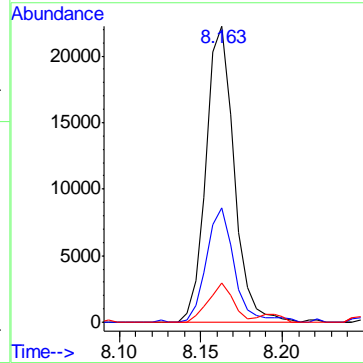
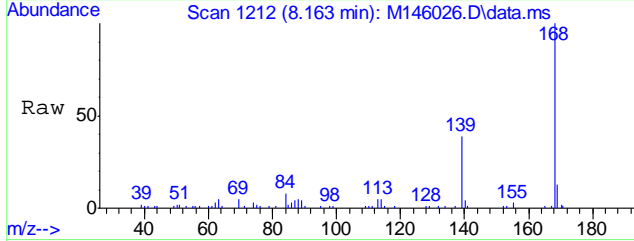


9.1.10  
9



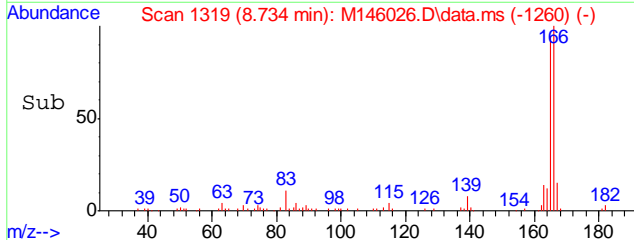
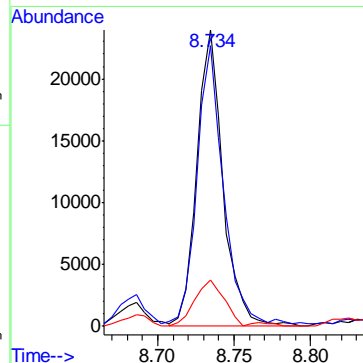
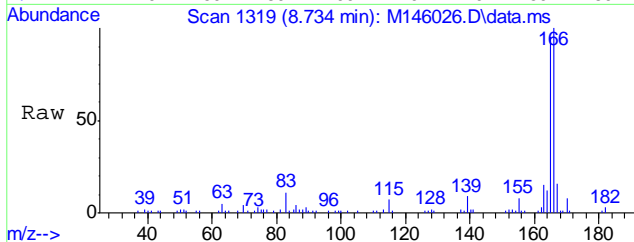
#62  
 Dibenzofuran  
 Concen: 2.00 ppm  
 RT: 8.163 min Scan# 1212  
 Delta R.T. -0.188 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

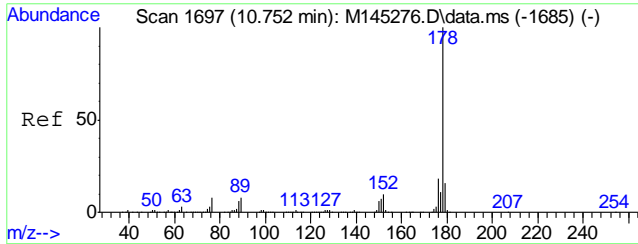
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 26663 |       |       |
| 139     | 38.6  | 5.0   | 65.0  |
| 169     | 13.2  | 0.0   | 43.9  |



#66  
 Fluorene  
 Concen: 2.66 ppm  
 RT: 8.734 min Scan# 1319  
 Delta R.T. -0.186 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

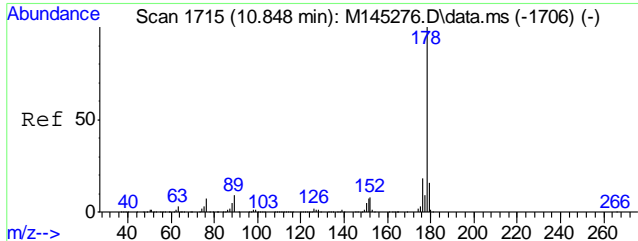
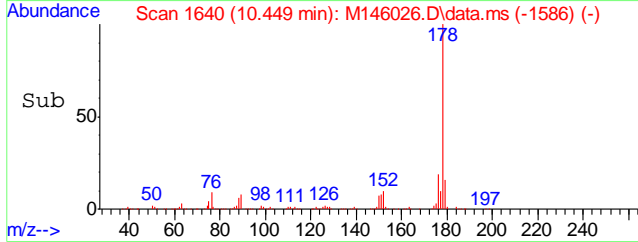
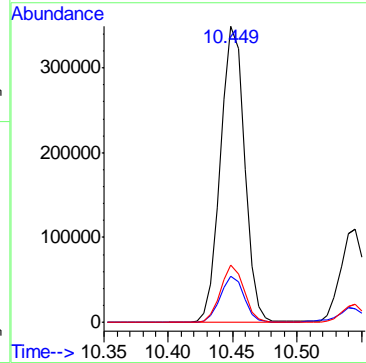
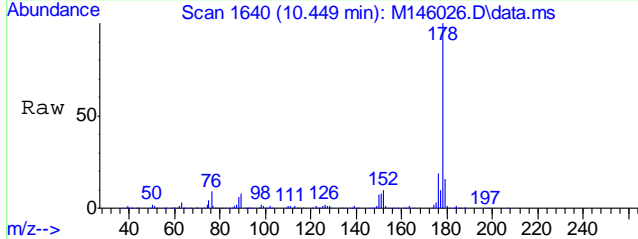
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 28311 |       |       |
| 165     | 94.0  | 59.1  | 119.1 |
| 167     | 15.6  | 0.0   | 43.0  |





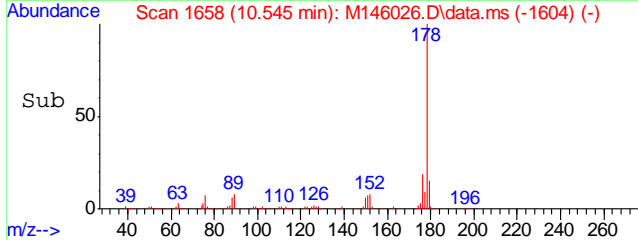
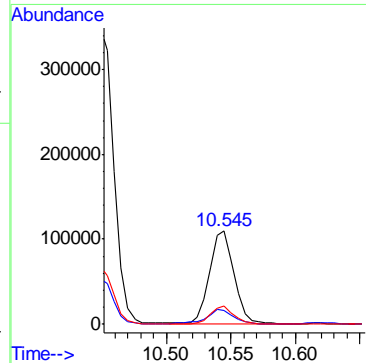
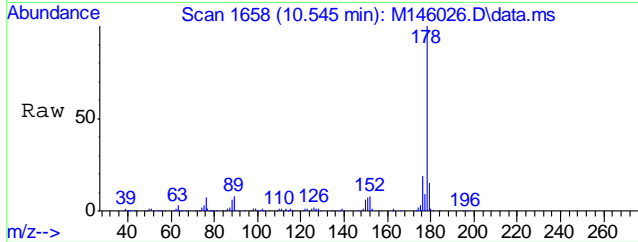
#77  
 Phenanthrene  
 Concen: 28.95 ppm  
 RT: 10.449 min Scan# 1640  
 Delta R.T. -0.213 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

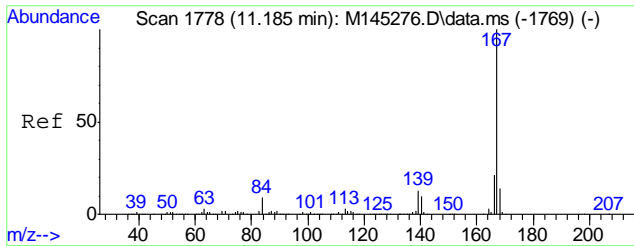
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 449971 |       |       |
| 179     | 15.5   | 0.0   | 46.0  |
| 176     | 19.3   | 0.0   | 48.3  |



#78  
 Anthracene  
 Concen: 9.38 ppm  
 RT: 10.545 min Scan# 1658  
 Delta R.T. -0.212 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

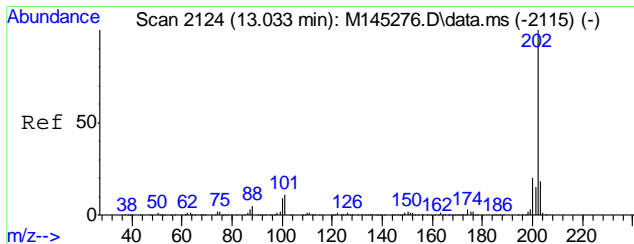
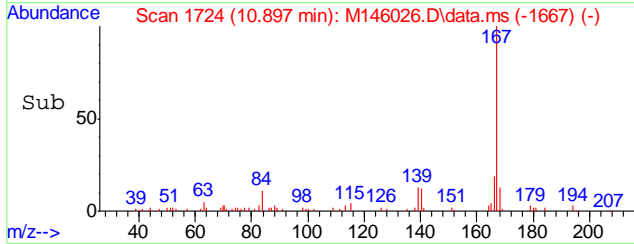
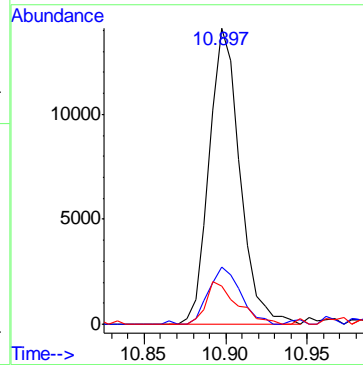
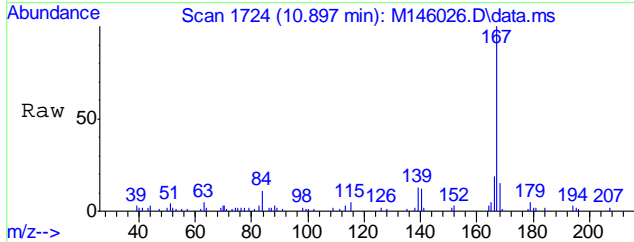
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 145741 |       |       |
| 179     | 14.5   | 0.0   | 45.9  |
| 176     | 19.1   | 0.0   | 48.0  |





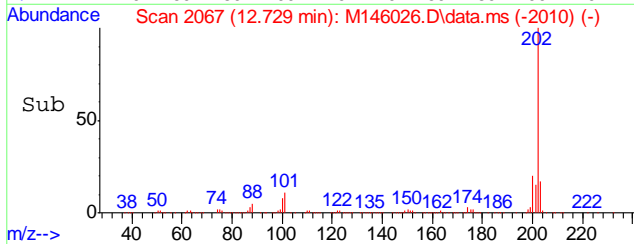
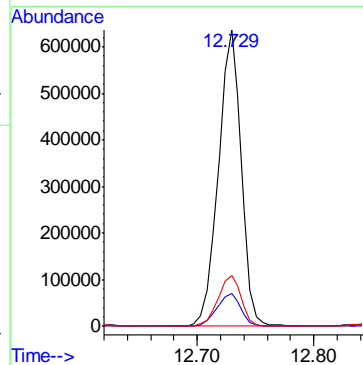
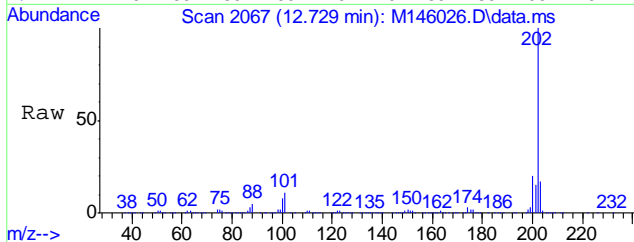
#79  
 Carbazole  
 Concen: 1.17 ppm  
 RT: 10.897 min Scan# 1724  
 Delta R.T. -0.193 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 18503 |       |       |
| 166     | 18.1  | 0.0   | 50.7  |
| 139     | 11.9  | 0.0   | 42.5  |

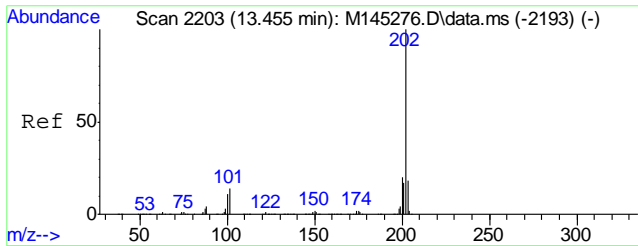


#81  
 Fluoranthene  
 Concen: 49.93 ppm  
 RT: 12.729 min Scan# 2067  
 Delta R.T. -0.194 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 865418 |       |       |
| 201     | 11.0   | 0.0   | 41.4  |
| 203     | 17.2   | 0.0   | 47.5  |

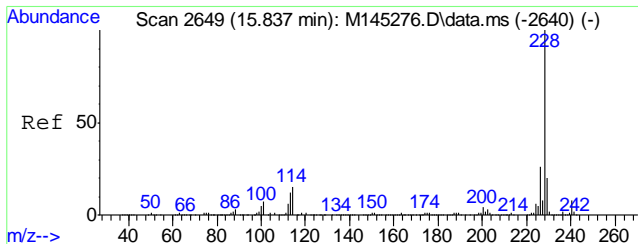
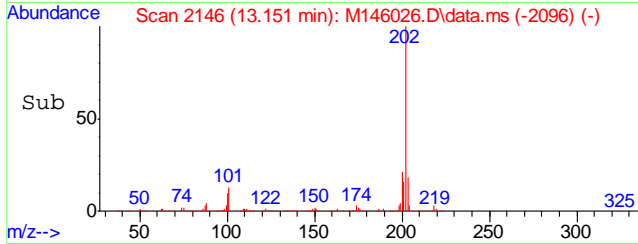
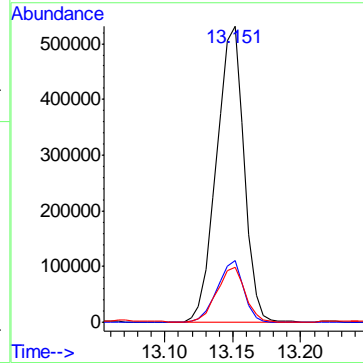
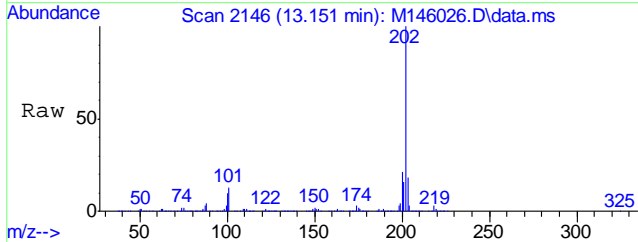


9.1.10  
 9



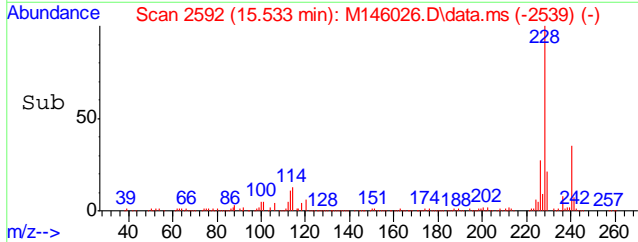
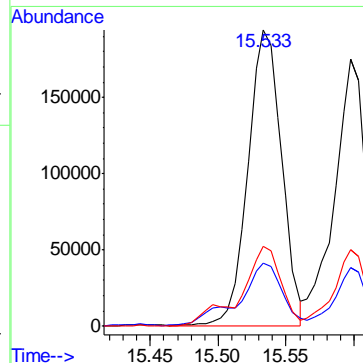
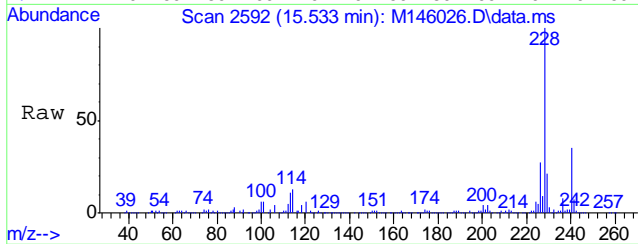
#84  
 Pyrene  
 Concen: 42.48 ppm  
 RT: 13.151 min Scan# 2146  
 Delta R.T. -0.231 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

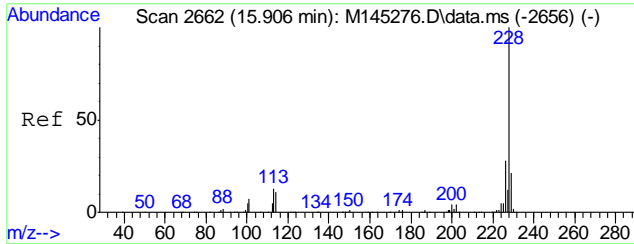
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 751217 | 100   |       |
| 200     | 20.7   | 0.0   | 50.2  |
| 203     | 18.3   | 0.0   | 48.2  |



#87  
 Benzo[a]anthracene  
 Concen: 22.94 ppm  
 RT: 15.533 min Scan# 2592  
 Delta R.T. -0.219 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

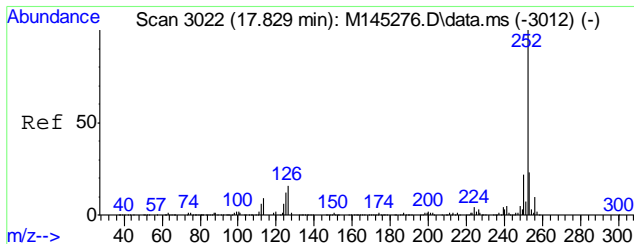
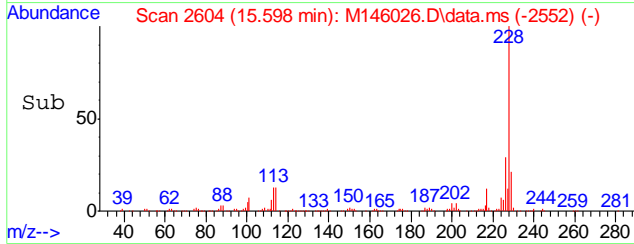
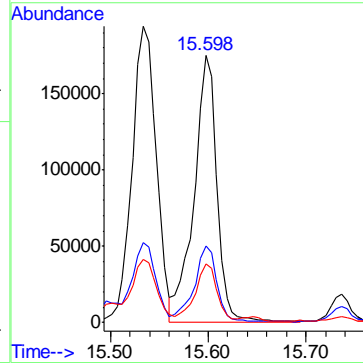
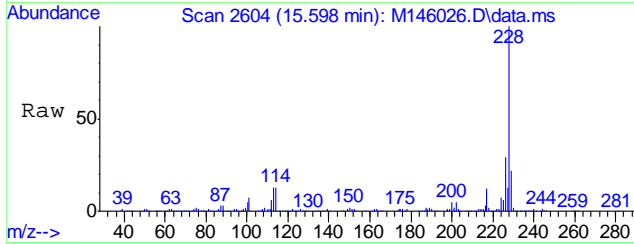
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 334823 | 100   |       |
| 229     | 20.8   | 0.0   | 50.4  |
| 226     | 27.0   | 0.0   | 55.8  |





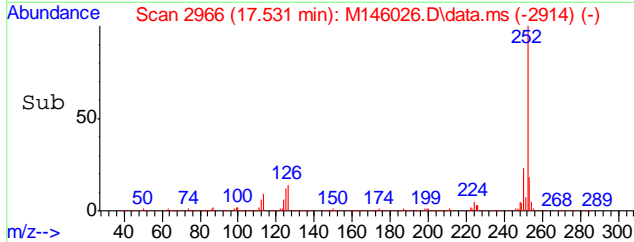
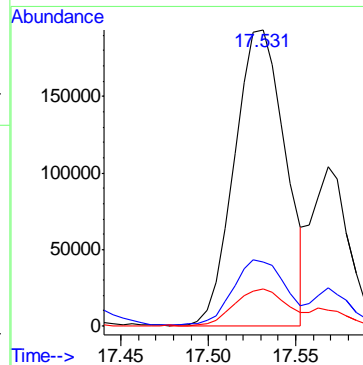
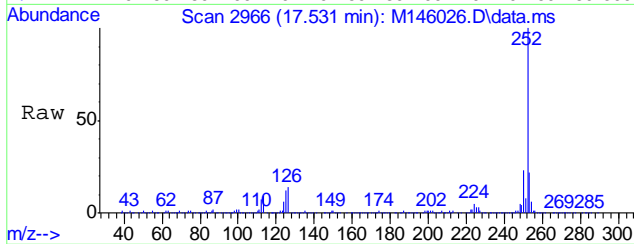
#89  
 Chrysene  
 Concen: 20.14 ppm  
 RT: 15.598 min Scan# 2604  
 Delta R.T. -0.224 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.8  | 0.0   | 58.6  |
| 229     | 21.0  | 0.0   | 50.6  |

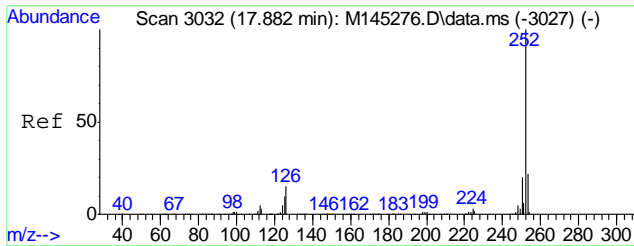


#93  
 Benzo[b]fluoranthene  
 Concen: 27.72 ppm  
 RT: 17.531 min Scan# 2966  
 Delta R.T. -0.221 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.5  | 0.0   | 52.1  |
| 125     | 12.1  | 0.0   | 41.0  |

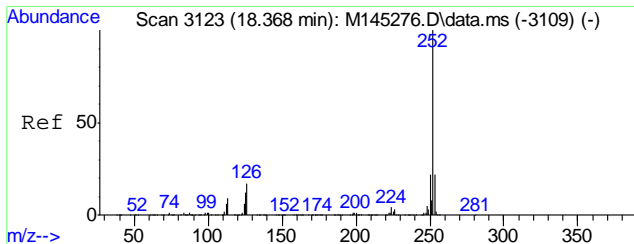
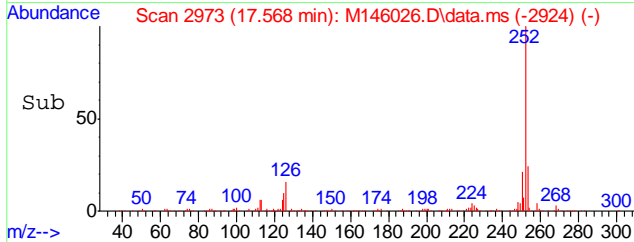
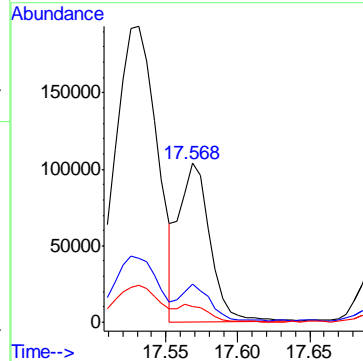
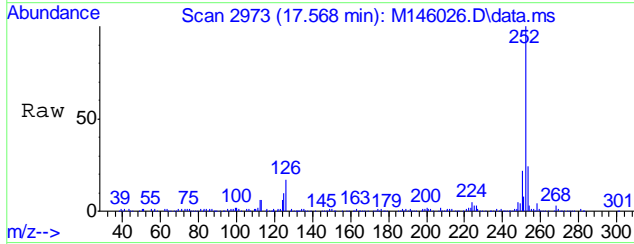


9.1.10  
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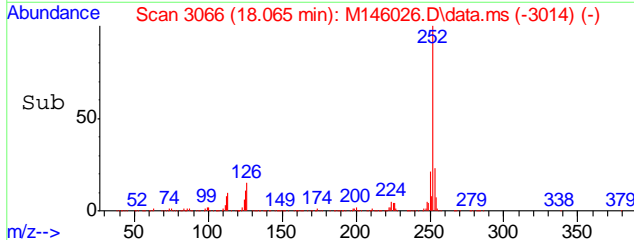
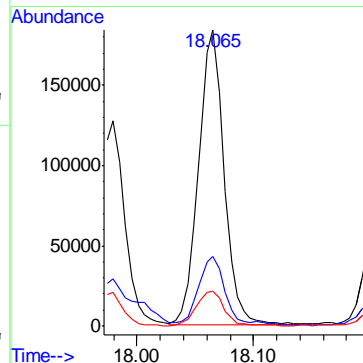
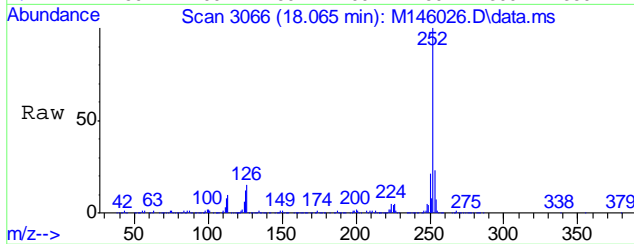
#94  
 Benzo[k]fluoranthene  
 Concen: 11.50 ppm  
 RT: 17.568 min Scan# 2973  
 Delta R.T. -0.237 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.1  | 0.0   | 52.4  |
| 125     | 8.3   | 0.0   | 41.0  |



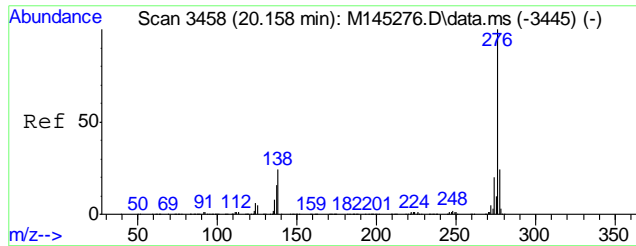
#95  
 Benzo[a]pyrene  
 Concen: 23.40 ppm  
 RT: 18.065 min Scan# 3066  
 Delta R.T. -0.224 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.7  | 0.0   | 52.4  |
| 125     | 11.4  | 0.0   | 42.3  |



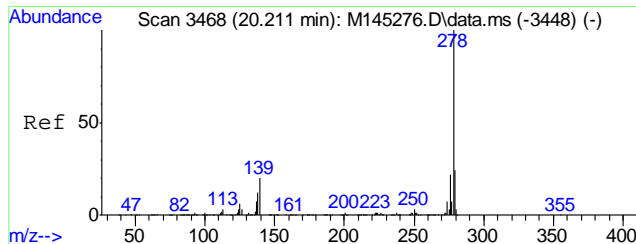
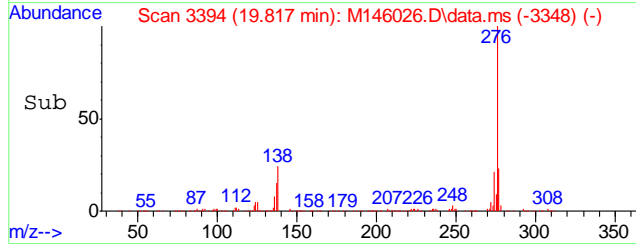
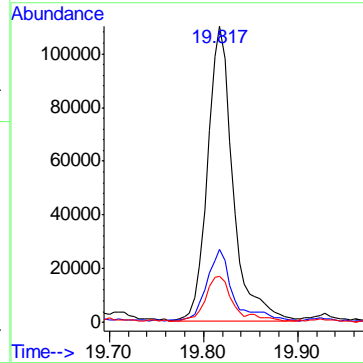
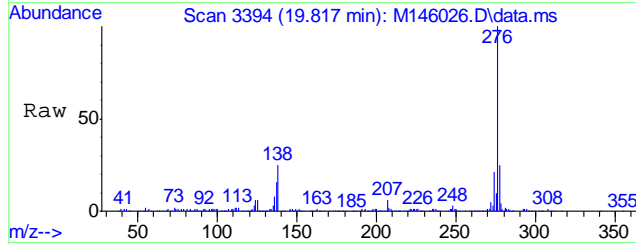
9.1.10  
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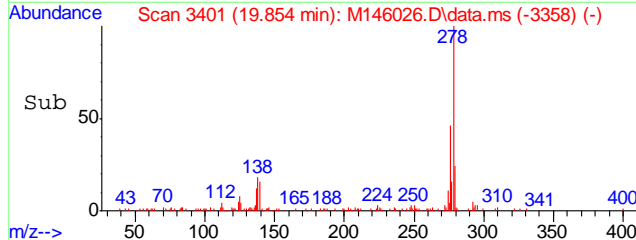
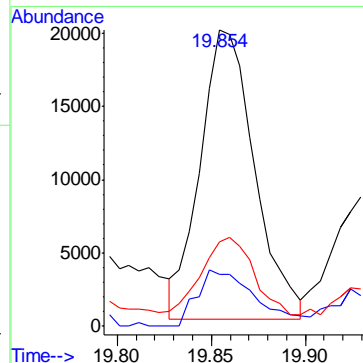
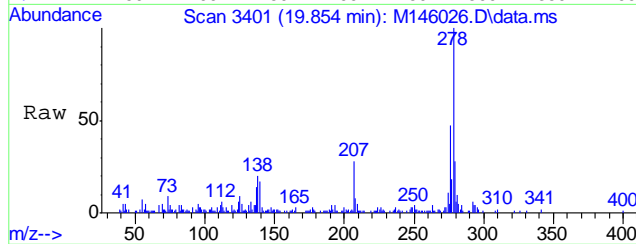
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 17.93 ppm  
 RT: 19.817 min Scan# 3394  
 Delta R.T. -0.254 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

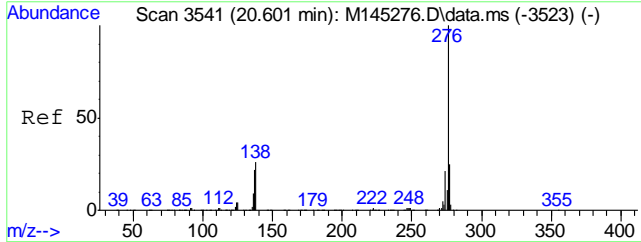
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.2  | 0.0   | 52.4  |
| 137     | 15.1  | 0.0   | 45.7  |



#98  
 Dibenz[a,h]anthracene  
 Concen: 3.23 ppm  
 RT: 19.854 min Scan# 3401  
 Delta R.T. -0.270 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

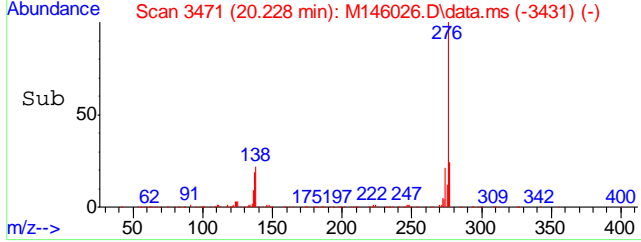
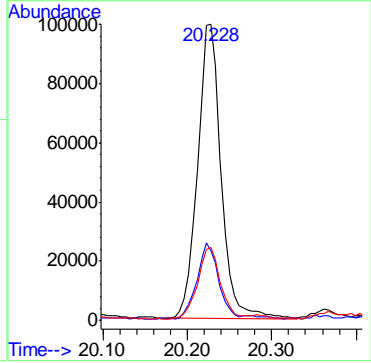
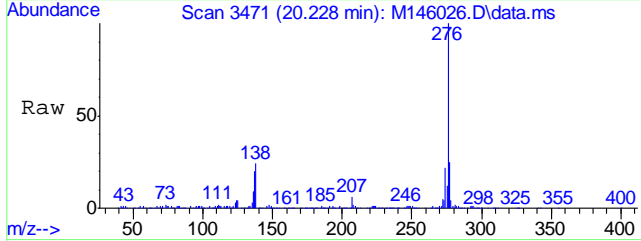
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 17.9  | 0.0   | 49.8  |
| 279     | 27.5  | 0.0   | 54.2  |





#100  
 Benzo[g,h,i]perylene  
 Concen: 15.77 ppm  
 RT: 20.228 min Scan# 3471  
 Delta R.T. -0.284 min  
 Lab File: M146026.D  
 Acq: 9 May 2018 9:17 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.3  | 0.0   | 55.9  |
| 277     | 24.5  | 0.0   | 54.7  |



9.1.10  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79759.D  
 Acq On : 21 May 2018 11:10 pm  
 Operator : sufiyana  
 Sample : jc64996-10  
 Misc : op12122,e2p3514,30.4,,,1,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 22 12:13:33 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

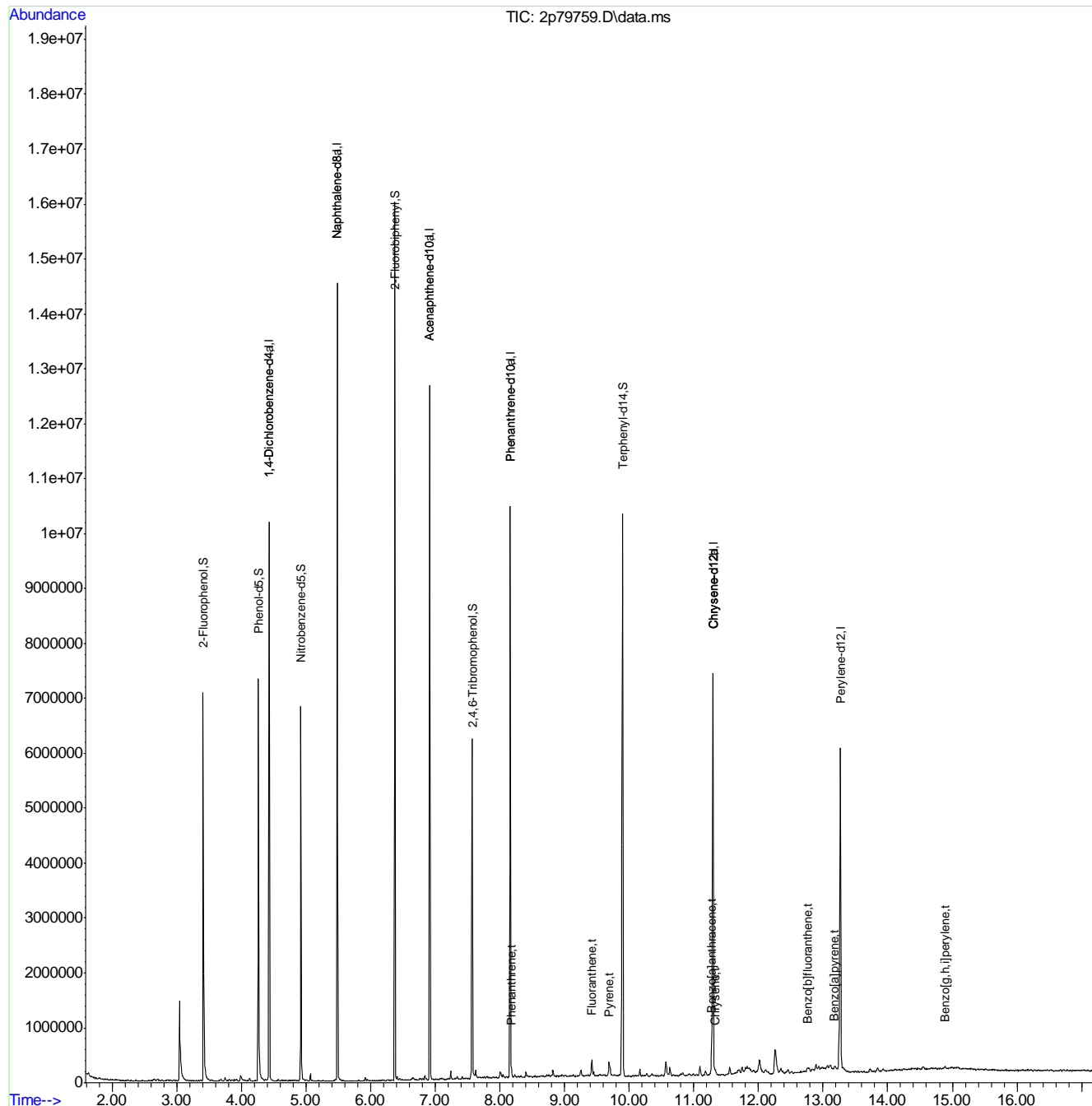
| Compound                     | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards           |        |       |          |          |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.427  | 152   | 1078995  | 40.00    | ppm   | -0.05    |
| 24) Naphthalene-d8           | 5.486  | 136   | 3881958  | 40.00    | ppm   | -0.05    |
| 47) Acenaphthene-d10         | 6.914  | 164   | 1782761  | 40.00    | ppm   | -0.06    |
| 69) Phenanthrene-d10         | 8.160  | 188   | 3072153  | 40.00    | ppm   | -0.06    |
| 83) Chrysene-d12             | 11.300 | 240   | 2802239  | 40.00    | ppm   | -0.09    |
| 91) Perylene-d12             | 13.268 | 264   | 2521791  | 40.00    | ppm   | -0.09    |
| 101) 1,4-Dichlorobenzene-d4a | 4.427  | 152   | 1078995  | 40.00    | ppm   | -0.05    |
| 103) Naphthalene-d8a         | 5.486  | 136   | 3881958  | 40.00    | ppm   | #-0.02   |
| 105) Acenaphthene-d10a       | 6.914  | 164   | 1782761  | 40.00    | ppm   | -0.05    |
| 108) Chrysene-d12a           | 11.300 | 240   | 2802239  | 40.00    | ppm   | -0.08    |
| 110) Phenanthrene-d10a       | 8.160  | 188   | 3072153  | 40.00    | ppm   | #-0.06   |
| 114) Chrysene-d12b           | 11.300 | 240   | 2802239  | 40.00    | ppm   | #-0.08   |
| System Monitoring Compounds  |        |       |          |          |       |          |
| 5) 2-Fluorophenol            | 3.411  | 112   | 1439749  | 33.80    | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range | 11 - 58  | Recovery | =     | 67.60%#  |
| 8) Phenol-d5                 | 4.261  | 99    | 1529895  | 34.67    | ppm   | -0.03    |
| Spiked Amount                | 50.000 | Range | 10 - 59  | Recovery | =     | 69.34%#  |
| 25) Nitrobenzene-d5          | 4.924  | 82    | 1497519  | 41.86    | ppm   | -0.06    |
| Spiked Amount                | 50.000 | Range | 19 - 61  | Recovery | =     | 83.72%#  |
| 51) 2-Fluorobiphenyl         | 6.374  | 172   | 2978847  | 48.71    | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range | 21 - 58  | Recovery | =     | 97.42%#  |
| 73) 2,4,6-Tribromophenol     | 7.572  | 330   | 520986   | 55.53    | ppm   | -0.05    |
| Spiked Amount                | 50.000 | Range | 12 - 68  | Recovery | =     | 111.06%# |
| 85) Terphenyl-d14            | 9.899  | 244   | 3081848  | 50.58    | ppm   | -0.09    |
| Spiked Amount                | 50.000 | Range | 16 - 65  | Recovery | =     | 101.16%# |
| 111) 1-Chlorooctadecane      | 0.000  | 57    | 0d       | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range | 20 - 70  | Recovery | =     | 0.00%#   |
| 112) o-terphenyl             | 0.000  | 230   | 0        | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range | 20 - 70  | Recovery | =     | 0.00%#   |
| Target Compounds             |        |       |          |          |       |          |
| 77) Phenanthrene             | 8.182  | 178   | 27736    | 0.35     | ppm   | 94       |
| 81) Fluoranthene             | 9.423  | 202   | 97123    | 0.95     | ppm   | 94       |
| 84) Pyrene                   | 9.690  | 202   | 95194    | 1.01     | ppm   | 95       |
| 87) Benzo[a]anthracene       | 11.273 | 228   | 35647    | 0.41     | ppm   | 84       |
| 89) Chrysene                 | 11.332 | 228   | 27510    | 0.40     | ppm   | 94       |
| 93) Benzo[b]fluoranthene     | 12.760 | 252   | 41700m   | 0.49     | ppm   |          |
| 95) Benzo[a]pyrene           | 13.177 | 252   | 27138    | 0.39     | ppm   | 86       |
| 100) Benzo[g,h,i]perylene    | 14.884 | 276   | 24166    | 0.40     | ppm   | 70       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

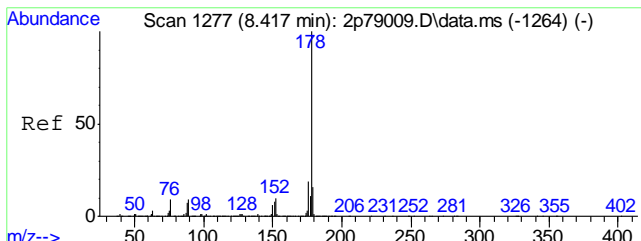
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79759.D  
 Acq On : 21 May 2018 11:10 pm  
 Operator : sufiyana  
 Sample : jc64996-10  
 Misc : op12122,e2p3514,30.4,,,1,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 22 12:13:33 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

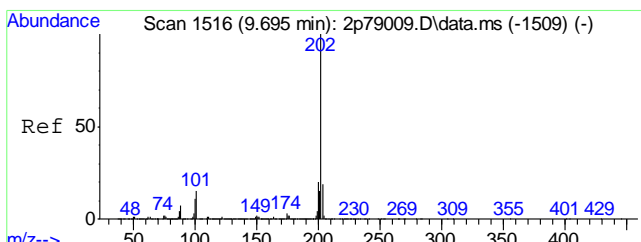
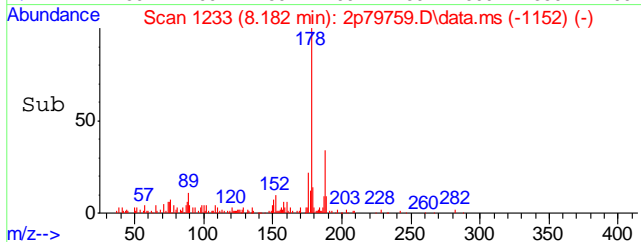
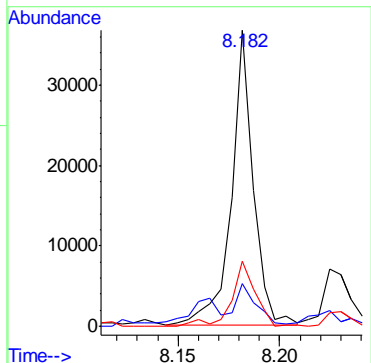
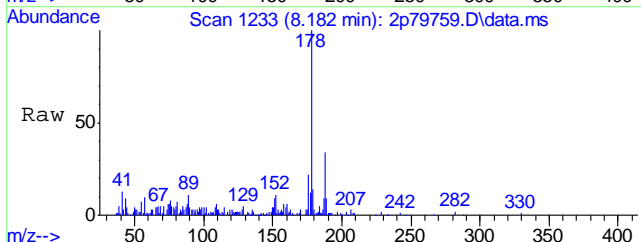


9.1.11  
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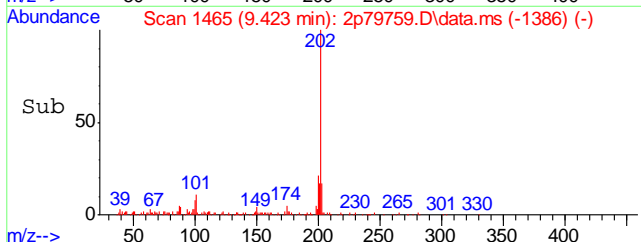
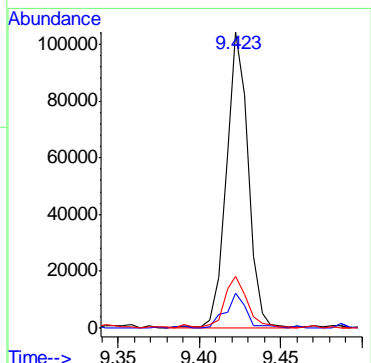
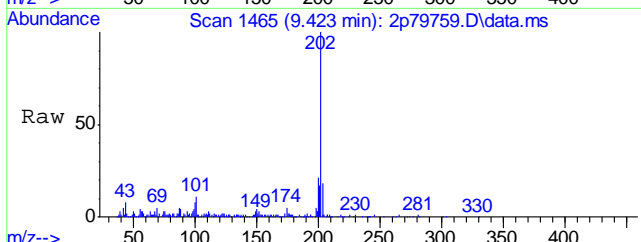
#77  
 Phenanthrene  
 Concen: 0.35 ppm  
 RT: 8.182 min Scan# 1233  
 Delta R.T. -0.069 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 27736 |       |       |
| 179     | 12.9  | 0.0   | 45.6  |
| 176     | 21.7  | 0.0   | 49.1  |

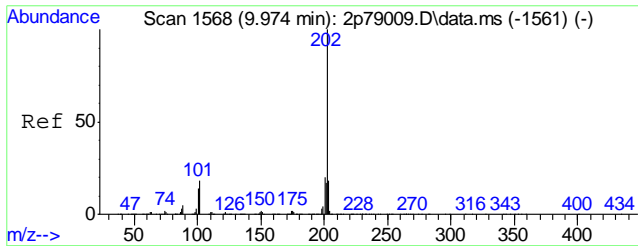


#81  
 Fluoranthene  
 Concen: 0.95 ppm  
 RT: 9.423 min Scan# 1465  
 Delta R.T. -0.080 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 97123 |       |       |
| 101     | 11.4  | 0.0   | 45.6  |
| 203     | 17.4  | 0.0   | 48.4  |

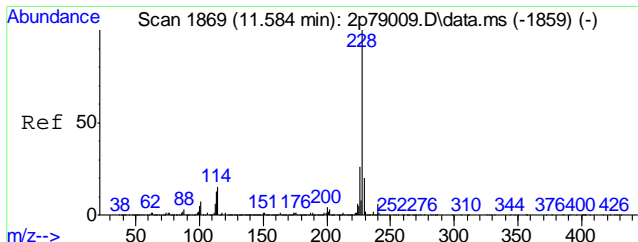
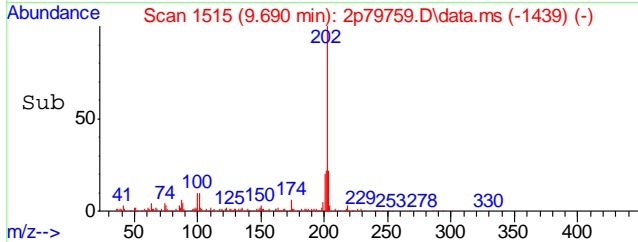
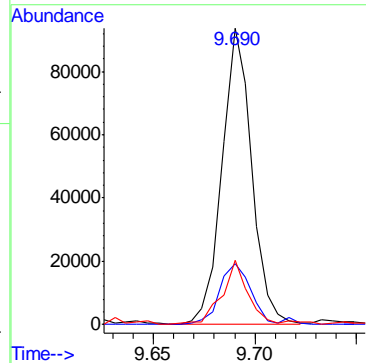
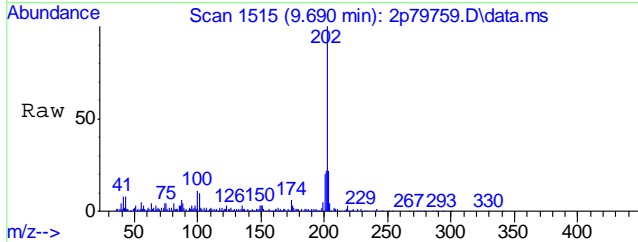


9.1.11  
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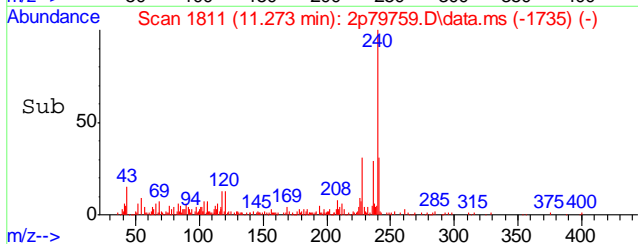
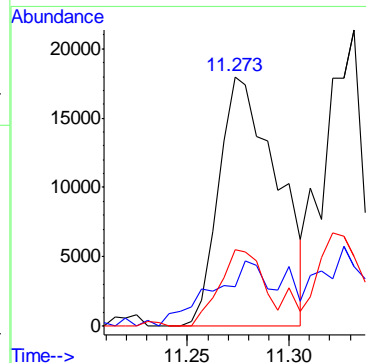
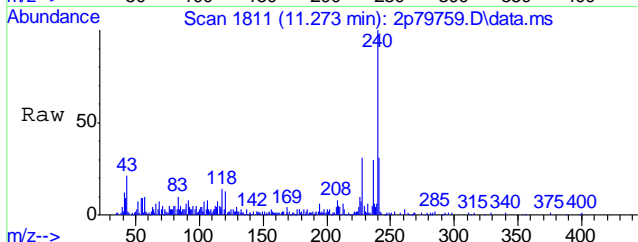
#84  
 Pyrene  
 Concen: 1.01 ppm  
 RT: 9.690 min Scan# 1515  
 Delta R.T. -0.094 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 95194 |       |       |
| 200     | 20.1  | 0.0   | 50.7  |
| 203     | 21.4  | 0.0   | 47.7  |

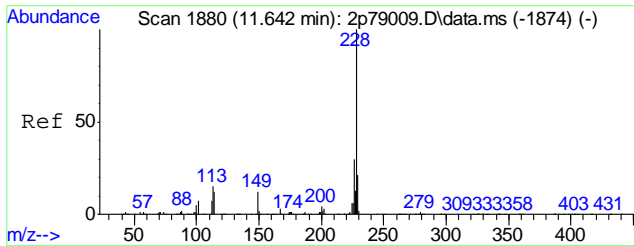


#87  
 Benzo[a]anthracene  
 Concen: 0.41 ppm  
 RT: 11.273 min Scan# 1811  
 Delta R.T. -0.091 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 35647 |       |       |
| 229     | 10.5  | 0.0   | 50.2  |
| 226     | 33.5  | 0.0   | 56.8  |

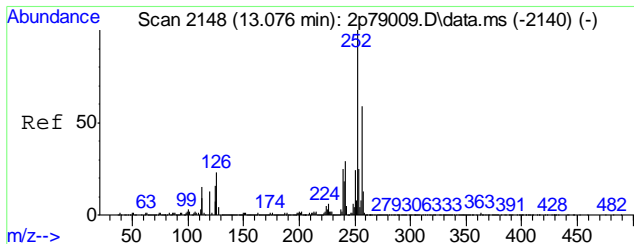
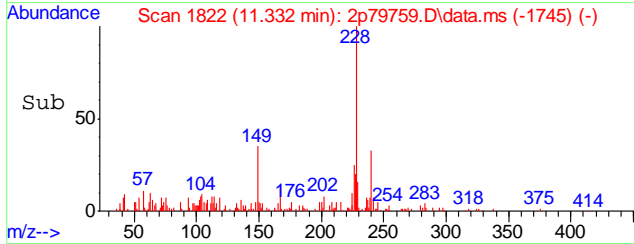
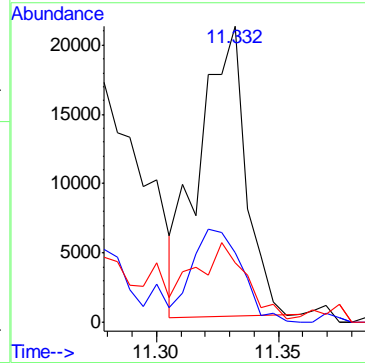
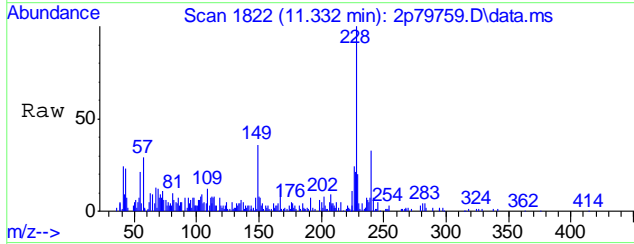


9.1.11  
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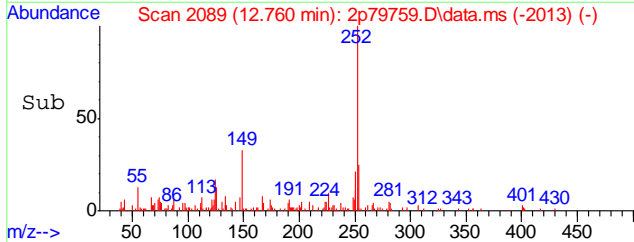
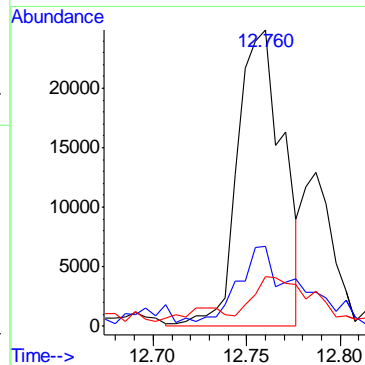
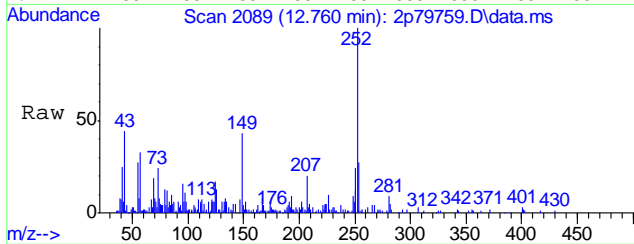
#89  
 Chrysene  
 Concen: 0.40 ppm  
 RT: 11.332 min Scan# 1822  
 Delta R.T. -0.090 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 27510 |       |       |
| 226     | 25.2  | 0.0   | 59.4  |
| 229     | 18.1  | 0.0   | 49.9  |

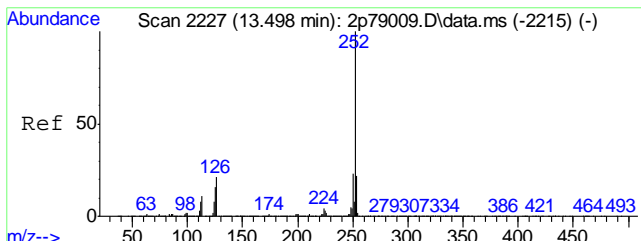


#93  
 Benzo[b]fluoranthene  
 Concen: 0.49 ppm m  
 RT: 12.760 min Scan# 2089  
 Delta R.T. -0.092 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 41700 |       |       |
| 253     | 26.9  | 0.0   | 55.5  |
| 125     | 16.7  | 0.0   | 49.6  |

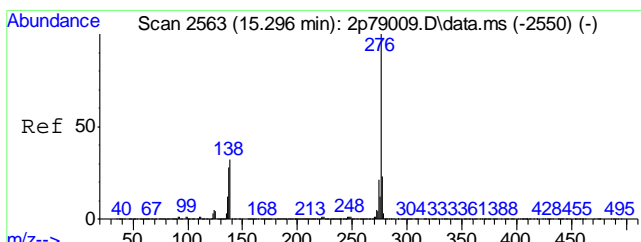
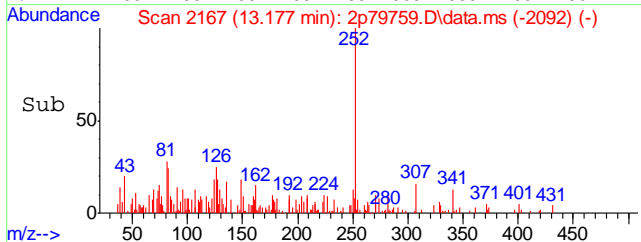
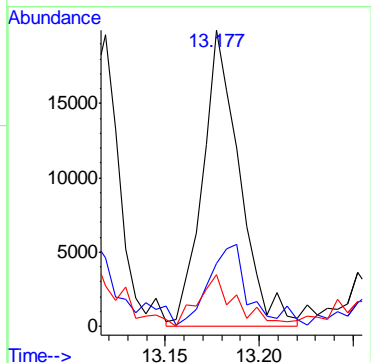
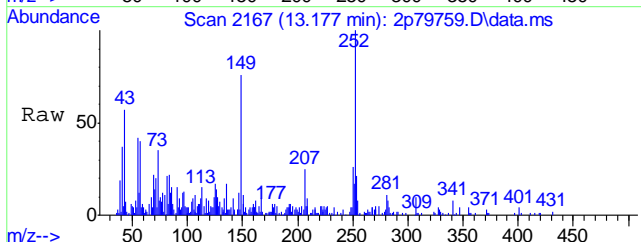


9.1.11  
 9



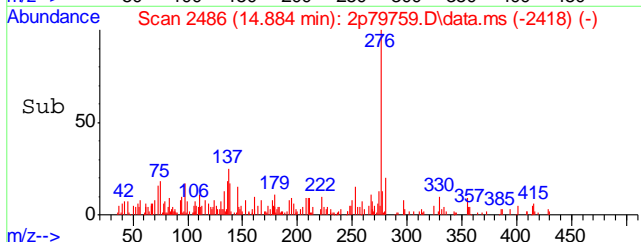
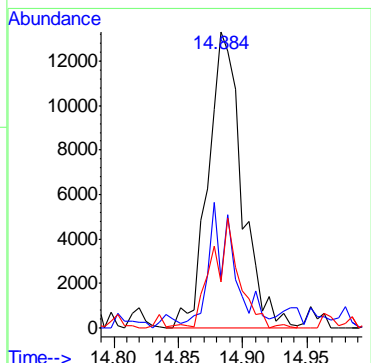
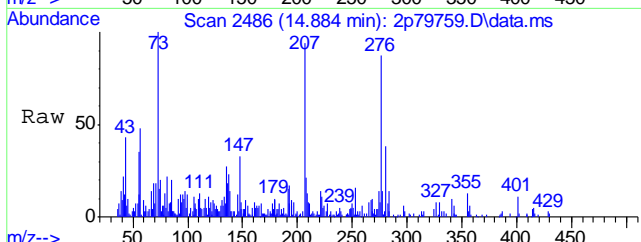
#95  
 Benzo[a]pyrene  
 Concen: 0.39 ppm  
 RT: 13.177 min Scan# 2167  
 Delta R.T. -0.097 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 27138 |       |       |
| 253     | 16.2  | 0.0   | 51.5  |
| 125     | 23.8  | 0.0   | 46.4  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 0.40 ppm  
 RT: 14.884 min Scan# 2486  
 Delta R.T. -0.138 min  
 Lab File: 2p79759.D  
 Acq: 21 May 2018 11:10 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 24166 |       |       |
| 138     | 10.6  | 2.9   | 62.9  |
| 277     | 15.6  | 0.0   | 53.6  |



9.1.11  
 9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79757.D  
 Acq On : 21 May 2018 10:26 pm  
 Operator : sufiyana  
 Sample : op12122-mb1  
 Misc : op12122,e2p3514,30.0,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 22 12:04:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon          | Response   | Conc   | Units | Dev(Min) |
|------------------------------|--------|---------------|------------|--------|-------|----------|
| Internal Standards           |        |               |            |        |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.427  | 152           | 976447     | 40.00  | ppm   | -0.05    |
| 24) Naphthalene-d8           | 5.486  | 136           | 3581201    | 40.00  | ppm   | -0.05    |
| 47) Acenaphthene-d10         | 6.914  | 164           | 1712388    | 40.00  | ppm   | -0.06    |
| 69) Phenanthrene-d10         | 8.166  | 188           | 2977445    | 40.00  | ppm   | -0.06    |
| 83) Chrysene-d12             | 11.295 | 240           | 2755201    | 40.00  | ppm   | -0.09    |
| 91) Perylene-d12             | 13.268 | 264           | 2481895    | 40.00  | ppm   | -0.09    |
| 101) 1,4-Dichlorobenzene-d4a | 4.427  | 152           | 976447     | 40.00  | ppm   | -0.05    |
| 103) Naphthalene-d8a         | 5.486  | 136           | 3581201    | 40.00  | ppm   | -0.02    |
| 105) Acenaphthene-d10a       | 6.914  | 164           | 1712388    | 40.00  | ppm   | -0.05    |
| 108) Chrysene-d12a           | 11.295 | 240           | 2755201    | 40.00  | ppm   | -0.09    |
| 110) Phenanthrene-d10a       | 8.166  | 188           | 2977445    | 40.00  | ppm   | #-0.06   |
| 114) Chrysene-d12b           | 11.295 | 240           | 2755201    | 40.00  | ppm   | #-0.09   |
| System Monitoring Compounds  |        |               |            |        |       |          |
| 5) 2-Fluorophenol            | 3.411  | 112           | 1437228    | 37.29  | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range 11 - 58 | Recovery = | 74.58  | %#    |          |
| 8) Phenol-d5                 | 4.261  | 99            | 1587927    | 39.76  | ppm   | -0.03    |
| Spiked Amount                | 50.000 | Range 10 - 59 | Recovery = | 79.52  | %#    |          |
| 25) Nitrobenzene-d5          | 4.924  | 82            | 1582147    | 47.94  | ppm   | -0.06    |
| Spiked Amount                | 50.000 | Range 19 - 61 | Recovery = | 95.88  | %#    |          |
| 51) 2-Fluorobiphenyl         | 6.374  | 172           | 3250241    | 55.33  | ppm   | -0.07    |
| Spiked Amount                | 50.000 | Range 21 - 58 | Recovery = | 110.66 | %#    |          |
| 73) 2,4,6-Tribromophenol     | 7.572  | 330           | 571366     | 62.84  | ppm   | -0.05    |
| Spiked Amount                | 50.000 | Range 12 - 68 | Recovery = | 125.68 | %#    |          |
| 85) Terphenyl-d14            | 9.899  | 244           | 3422349    | 57.13  | ppm   | -0.09    |
| Spiked Amount                | 50.000 | Range 16 - 65 | Recovery = | 114.26 | %#    |          |
| 111) 1-Chlorooctadecane      | 0.000  | 57            | 0d         | 0.00   | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00   | %#    |          |
| 112) o-terphenyl             | 0.000  | 230           | 0          | 0.00   | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00   | %#    |          |

Target Compounds Qvalue

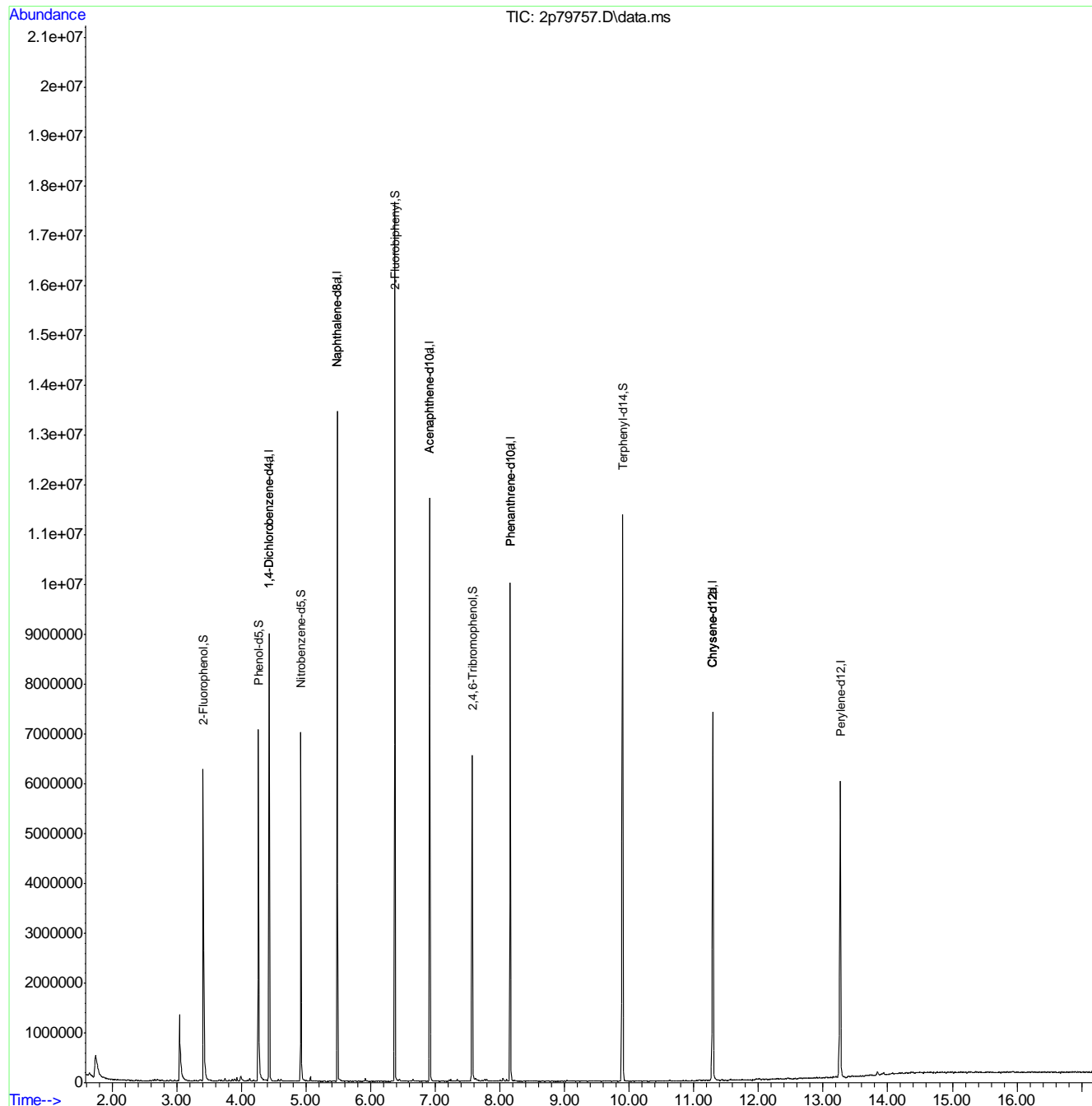
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3514\  
 Data File : 2p79757.D  
 Acq On : 21 May 2018 10:26 pm  
 Operator : sufiyana  
 Sample : op12122-mb1  
 Misc : op12122,e2p3514,30.0,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 22 12:04:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 17 21:22:18 2018  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M145994.D  
 Acq On : 9 May 2018 5:24 am  
 Operator : chriss2  
 Sample : op11642-mb1  
 Misc : op11642,em6203,30.0,,,1,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 09 11:53:57 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.486  | 152  | 156480   | 40.00 | ppm    | -0.08    |
| 24) Naphthalene-d8           | 5.570  | 136  | 580071   | 40.00 | ppm    | -0.14    |
| 47) Acenaphthene-d10         | 7.829  | 164  | 299133   | 40.00 | ppm    | -0.19    |
| 69) Phenanthrene-d10         | 10.404 | 188  | 571856   | 40.00 | ppm    | -0.22    |
| 83) Chrysene-d12             | 15.542 | 240  | 510537   | 40.00 | ppm    | -0.23    |
| 91) Perylene-d12             | 18.154 | 264  | 497646   | 40.00 | ppm    | -0.23    |
| 101) 1,4-Dichlorobenzene-d4a | 4.486  | 152  | 156480   | 40.00 | ppm    | -0.11    |
| 103) Acenaphthene-d10a       | 7.829  | 164  | 299133   | 40.00 | ppm    | -0.19    |
| 106) Chrysene-d12a           | 15.542 | 240  | 510537   | 40.00 | ppm    | -0.23    |
| 109) Phenanthrene-d10a       | 10.404 | 188  | 571856   | 40.00 | ppm    | -0.22    |
| 112) Naphthalene-d8a         | 5.570  | 136  | 580071   | 40.00 | ppm    | -0.14    |
| 114) Chrysene-d12b           | 15.542 | 240  | 510537   | 40.00 | ppm    | -0.23    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.525  | 112  | 198821   | 33.96 | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 67.92% |          |
| 8) Phenol-d5                 | 4.251  | 99   | 250974   | 36.02 | ppm    | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 72.04% |          |
| 25) Nitrobenzene-d5          | 4.924  | 82   | 225934   | 39.88 | ppm    | -0.12    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.76% |          |
| 51) 2-Fluorobiphenyl         | 6.852  | 172  | 439520   | 37.84 | ppm    | -0.17    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 75.68% |          |
| 73) 2,4,6-Tribromophenol     | 9.159  | 330  | 62613    | 39.04 | ppm    | -0.21    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.08% |          |
| 85) Terphenyl-d14            | 13.571 | 244  | 483685   | 39.73 | ppm    | -0.24    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.46% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |

Target Compounds Qvalue

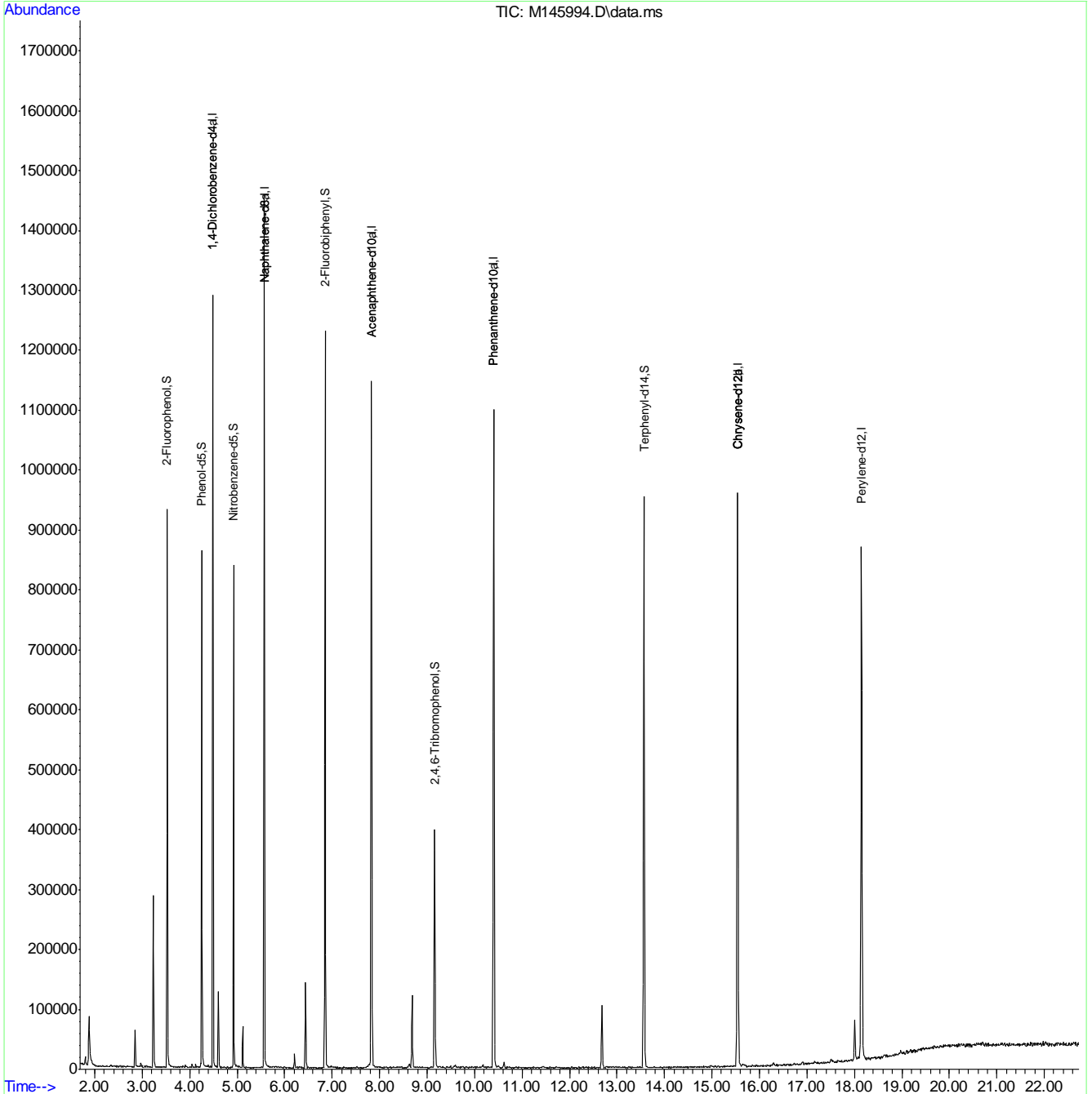
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.22  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6203\  
 Data File : M145994.D  
 Acq On : 9 May 2018 5:24 am  
 Operator : chriss2  
 Sample : op11642-mb1  
 Misc : op11642,em6203,30.0,,,1,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 09 11:53:57 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Tue May 08 09:35:35 2018  
 Response via : Initial Calibration



9.2.2  
9

## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4599-MB1 | PF145574.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 80% 70-116% |

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4599-BS | PF145581.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | Limits |
|---------|------------------|----------------|--------------|----------|--------|
|         | TPH-GRO (C6-C10) | 400            | 334          | 84       | 75-126 |

| CAS No. | Surrogate Recoveries | BSP | Limits  |
|---------|----------------------|-----|---------|
| 98-08-8 | aaa-Trifluorotoluene | 94% | 70-116% |

10.2.1  
10

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|------------|----|----------|----|-----------|------------|------------------|
| JC64996-5QMS  | PF145579.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |
| JC64996-5QMSD | PF145580.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |
| JC64996-5Q    | PF145575.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound         | JC64996-5Q Spike<br>mg/kg | MS<br>mg/kg | MS<br>mg/kg | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|---------------------------|-------------|-------------|----------------|--------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                        | 632         | 584         | 92             | 632          | 640          | 101      | 9   | 68-128/11         |

| CAS No. | Surrogate Recoveries | MS  | MSD | JC64996-5Q Limits |
|---------|----------------------|-----|-----|-------------------|
| 98-08-8 | aaa-Trifluorotoluene | 91% | 93% | 78% 70-116%       |

10.3.1  
10

\* = Outside of Control Limits.



# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> |
|---------------|-------------|-----------------|
| JC64996-6     | PF145576.D  | 79              |
| JC64996-7     | PF145577.D  | 80              |
| GPF4599-BS    | PF145581.D  | 94              |
| GPF4599-MB1   | PF145574.D  | 80              |
| JC64996-5QMS  | PF145579.D  | 91              |
| JC64996-5QMSD | PF145580.D  | 93              |

| Surrogate Compounds | Recovery Limits |
|---------------------|-----------------|
|---------------------|-----------------|

|                           |         |
|---------------------------|---------|
| S1 = aaa-Trifluorotoluene | 70-116% |
|---------------------------|---------|

(a) Recovery from GC signal #1

10.4.1  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4599-CC4589 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> PF145572.D   | <b>Injection Time:</b> 09:01    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 11.10 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4599-MB1   | PF145574.D  | 04/30/18      | 10:01         | 11.08              |
| JC64996-5Q    | PF145575.D  | 04/30/18      | 10:36         | 11.08              |
| JC64996-6     | PF145576.D  | 04/30/18      | 11:02         | 11.07              |
| JC64996-7     | PF145577.D  | 04/30/18      | 11:28         | 11.08              |
| ZZZZZZ        | PF145578.D  | 04/30/18      | 11:54         | 11.07              |
| JC64996-5QMS  | PF145579.D  | 04/30/18      | 12:20         | 11.07              |
| JC64996-5QMSD | PF145580.D  | 04/30/18      | 12:46         | 11.07              |
| GPF4599-BS    | PF145581.D  | 04/30/18      | 13:12         | 11.07              |

## Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1  
10

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICC4589  
**Lab FileID:** PF145432.D

---

## Response Factor Report GCPF

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration

### Calibration Files

0.2 =PF145429.d 0.8 =PF145430.d 4 =PF145431.d 8 =PF145432.d  
20 =PF145433.d 40 =PF145435.d 30 =PF145434.d

| Compound              | 0.2   | 0.8   | 4     | 8     | 20    | 40    | 30    | Avg   | %RSD     |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)H TPH-GRO (C6-C10)  | 2.740 | 2.369 | 2.659 | 2.692 | 2.680 | 2.564 | 2.763 | 2.638 | E5 5.10  |
| 2)H TPH-GRO (C6-C12)  | 2.750 | 2.290 | 2.535 | 2.573 | 2.504 | 2.384 | 2.599 | 2.519 | E5 5.93  |
| 3)S a,a,a-Trifluoroto | 2.247 | 2.207 | 2.472 | 2.834 | 3.042 | 3.316 | 3.273 | 2.770 | E5 16.86 |

(#) = Out of Range

MPF4589.M

Tue Apr 24 09:12:15 2018

10.6.1  
10

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICV4589  
**Lab FileID:** PF145456.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145456.d Vial: 5  
Acq On : 19 Apr 2018 11:36 am Operator: KRIZHKAC  
Sample : ICV4589-8000 Inst : GCPF  
Misc : GC52331,GPF4589,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 275.420 E3 | -4.4  | 102   | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 265.226 E3 | -5.3  | 103   | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 318.961 E3 | -15.1 | 113   | 0.00     | 11.01 | 11.16  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145432.d MPF4589.M Tue Apr 24 09:16:15 2018

10.6.2  
10

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145572.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145572.d Vial: 4  
Acq On : 30 Apr 2018 9:01 am Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52331,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT Window   |
|-----|------------------------|---------|------------|------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 249.473 E3 | 5.4  | 94    | 0.00     | 8.04-13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 240.868 E3 | 4.4  | 95    | 0.00     | 7.72-14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 259.109 E3 | 6.5  | 105   | 0.00     | 11.02-11.17 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Tue May 01 08:31:15 2018

10.6.3  
10

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145582.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145582.d Vial: 14  
Acq On : 30 Apr 2018 13:38 pm Operator: KRIZHKAC  
Sample : CC4589-8000 Inst : GCPF  
Misc : GC52438,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 248.064 E3 | 6.0  | 92    | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 235.759 E3 | 6.4  | 92    | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 277.684 E3 | -0.2 | 98    | -0.02    | 11.00 | 11.15  |

(#) = Out of Range  
PF145432.d MPF4589.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 08:32:47 2018

10.6.4  
10

GC Volatiles

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Raw Data

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Data Path : C:\msdchem\1\data\  
 Data File : PF145576.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 11:02 am  
 Operator : KRIZHKAC  
 Sample : JC64996-6  
 Misc : GC52438,GPF4599,9.33,,100,10,1  
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:33:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.070 | 65617446   | 236.880 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 78.96%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

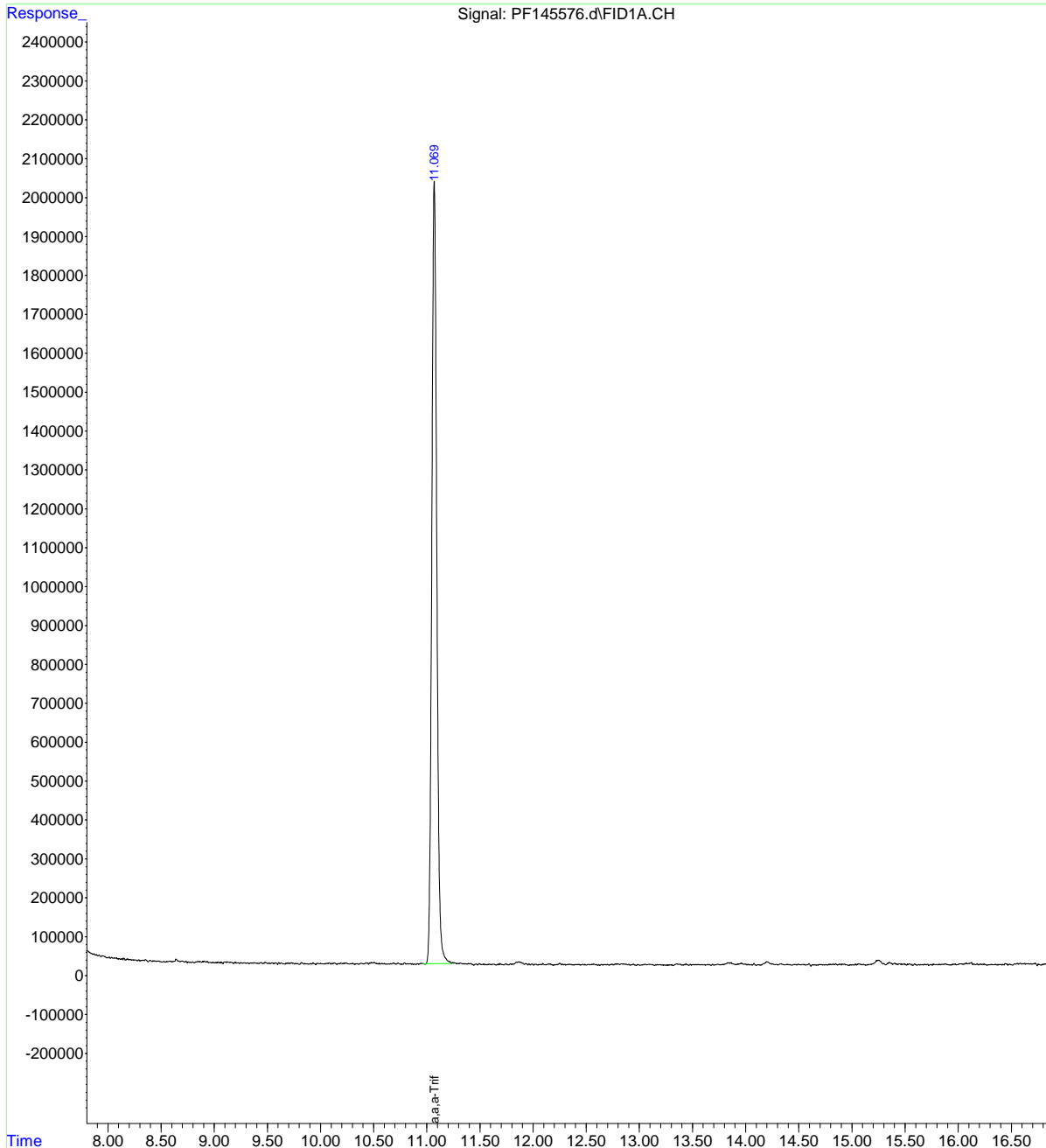
11.11  
11



Data Path : C:\msdchem\1\data\  
Data File : PF145576.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 11:02 am  
Operator : KRIZHKAC  
Sample : JC64996-6  
Misc : GC52438,GPF4599,9.33,,100,10,1  
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:33:53 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



Data Path : C:\msdchem\1\data\Data1455\  
 Data File : PF145577.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 11:28 am  
 Operator : KRIZHKAC  
 Sample : JC64996-7  
 Misc : GC52510,GPF4599,9.52,,100,10,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 14 11:59:25 2018  
 Quant Method : C:\msdchem\1\methods\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.076 | 66790426   | 241.114 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 80.37%       |
| Target Compounds            |        |            |              |
| 1) H TPH-GRO (C6-C10)       | 11.000 | 31859401   | 120.766 ug/l |
| -----                       |        |            |              |

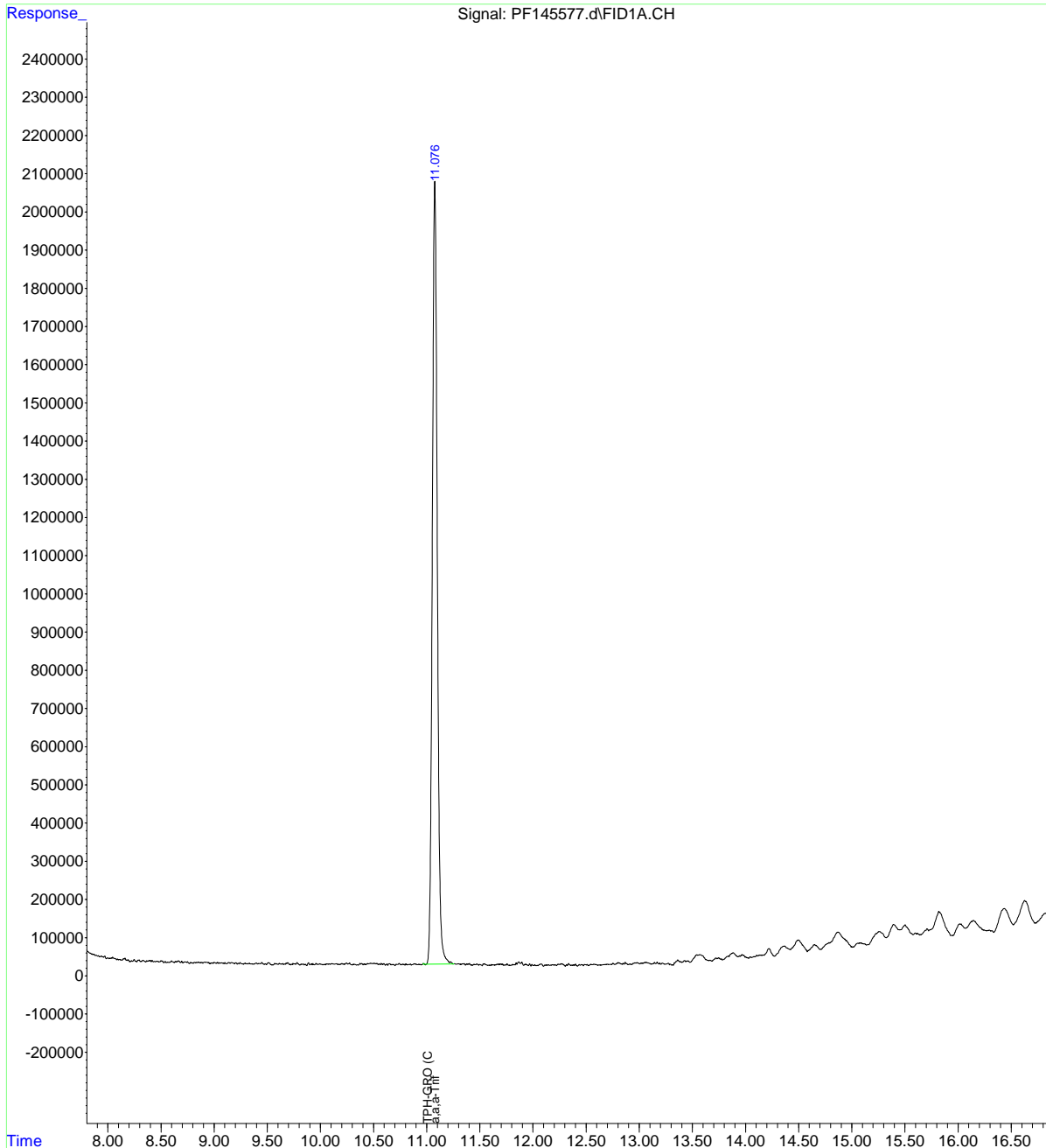
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\Data1455\  
Data File : PF145577.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 11:28 am  
Operator : KRIZHKAC  
Sample : JC64996-7  
Misc : GC52510,GPF4599,9.52,,100,10,1  
ALS Vial : 9 Sample Multiplier: 1

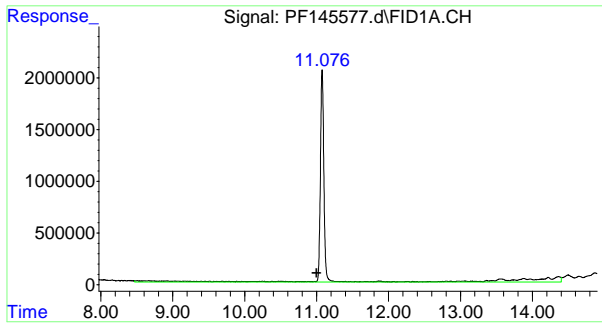
Integration File: autoint1.e  
Quant Time: May 14 11:59:25 2018  
Quant Method : C:\msdchem\1\methods\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.12  
11





#1 TPH-GRO (C6-C10)

R.T.: 11.000 min  
Delta R.T.: 0.000 min  
Response: 31859401  
Conc: 120.77 ug/l

11.12  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145574.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 10:01 am  
 Operator : KRIZHKAC  
 Sample : MB1  
 Misc : GC52331,GPF4599,10.0,,100,10,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:33:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.    | Response | Conc Units   |
|-----------------------------|---------|----------|--------------|
| System Monitoring Compounds |         |          |              |
| 3) S a,a,a-Trifluorotoluene | 11.083  | 66349799 | 239.524 ug/l |
| Spiked Amount               | 300.000 | Recovery | = 79.84%     |

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

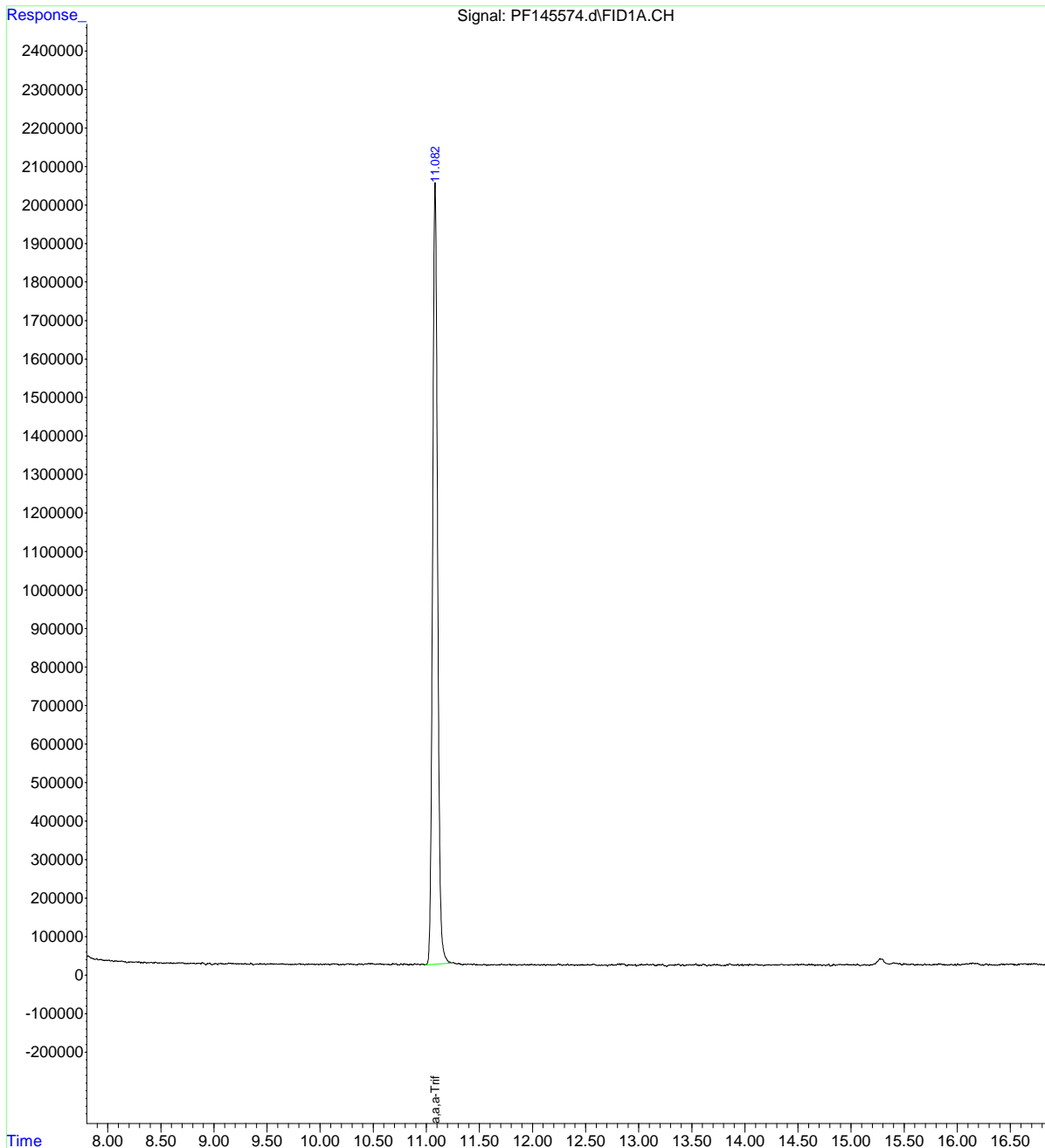
11.21  
11



Data Path : C:\msdchem\1\data\  
Data File : PF145574.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 10:01 am  
Operator : KRIZHKAC  
Sample : MB1  
Misc : GC52331,GPF4599,10.0,,100,10,1  
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:33:20 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.21  
11



## GC/LC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11638-MB1 | 3G116150.D | 1  | 04/30/18 | VDT | 04/30/18  | OP11638    | G3G4033          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC64996-9, JC64996-10

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 17   | 11   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.3  | 2.9  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.3  | 1.5  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.3  | 3.0  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.3  | 2.4  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 17   | 9.8  | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 17   | 6.6  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1700 | 1500 | ug/kg |   |
| 93-65-2   | MCPP              | ND     | 1700 | 1500 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.7  | 1.2  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 17   | 9.7  | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 91%    | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 86%    | 10-159% |



**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11640-MB1 | 1G145685.D | 1  | 04/29/18 | TL | 04/27/18  | OP11640    | G1G4633          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC64996-9, JC64996-10

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 85%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 69%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 115%   | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 85%    | 10-156% |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11639-MB1 | 2G162503.D | 1  | 04/28/18 | EAL | 04/27/18  | OP11639    | G2G4320          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-10

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 89%    | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 96%    | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 95%    | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 96%    | 10-166% |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-MB1 | XX227795.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-6

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 100%   | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   | 10-166% |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-MB1 | 2G162946.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-9

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 98%    | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   | 10-166% |

**Method Blank Summary**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12045-MB | 5G78591.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-7

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 103%   | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 91%    | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   | 10-166% |

**Method Blank Summary****Job Number:** JC64996**Account:** AGMNYF Arcadis**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11620-MB1 | ZZ88721.D | 1  | 04/27/18 | RK | 04/27/18  | OP11620    | GZZ3196          |

**The QC reported here applies to the following samples:****Method:** SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound          | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
|         | TPH-DRO (C10-C28) | ND     | 10 | 2.4 | mg/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 84-15-1    | o-Terphenyl          | 53%    | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 71%    | 25-137% |
| 438-22-2   | 5a-Androstane        | 64%    | 22-134% |

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11638-BS1 | 3G116151.D | 1  | 04/30/18 | VDT | 04/30/18  | OP11638    | G3G4033          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC64996-9, JC64996-10

| CAS No.   | Compound          | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|-------------------|----------------|--------------|----------|--------|
| 94-75-7   | 2,4-D             | 133            | 108          | 81       | 39-153 |
| 93-72-1   | 2,4,5-TP (Silvex) | 26.7           | 26.1         | 98       | 49-139 |
| 93-76-5   | 2,4,5-T           | 26.7           | 21.7         | 81       | 37-135 |
| 75-99-0   | Dalapon           | 26.7           | 13.6         | 51       | 28-144 |
| 1918-00-9 | Dicamba           | 26.7           | 24.4         | 92       | 39-151 |
| 120-36-5  | Dichloroprop      | 133            | 118          | 89       | 57-144 |
| 88-85-7   | Dinoseb           | 133            | 80.2         | 60       | 10-159 |
| 94-74-6   | MCPA              | 6670           | 5960         | 89       | 32-180 |
| 93-65-2   | MCPP              | 6670           | 7240         | 109      | 45-193 |
| 87-86-5   | Pentachlorophenol | 13.3           | 9.1          | 68       | 29-141 |
| 94-82-6   | 2,4-DB            | 133            | 129          | 97       | 23-157 |

| CAS No.    | Surrogate Recoveries | BSP | Limits  |
|------------|----------------------|-----|---------|
| 19719-28-9 | 2,4-DCAA             | 96% | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 83% | 10-159% |

\* = Outside of Control Limits.

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# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11640-BS1 | 1G145686.D | 1  | 04/30/18 | TL | 04/27/18  | OP11640    | G1G4633          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC64996-9, JC64996-10

| CAS No.    | Compound            | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|------------|---------------------|-------------|-----------|-------|--------|
| 309-00-2   | Aldrin              | 16.7        | 13.0      | 78    | 46-120 |
| 319-84-6   | alpha-BHC           | 16.7        | 11.3      | 68    | 45-116 |
| 319-85-7   | beta-BHC            | 16.7        | 13.2      | 79    | 42-121 |
| 319-86-8   | delta-BHC           | 16.7        | 13.0      | 78    | 42-121 |
| 58-89-9    | gamma-BHC (Lindane) | 16.7        | 11.7      | 70    | 46-118 |
| 5103-71-9  | alpha-Chlordane     | 16.7        | 12.5      | 75    | 49-119 |
| 5103-74-2  | gamma-Chlordane     | 16.7        | 12.4      | 74    | 48-121 |
| 60-57-1    | Dieldrin            | 16.7        | 15.6      | 94    | 48-126 |
| 72-54-8    | 4,4'-DDD            | 16.7        | 11.7      | 70    | 47-120 |
| 72-55-9    | 4,4'-DDE            | 16.7        | 13.3      | 80    | 48-121 |
| 50-29-3    | 4,4'-DDT            | 16.7        | 13.7      | 82    | 45-135 |
| 72-20-8    | Endrin              | 16.7        | 12.7      | 76    | 51-137 |
| 1031-07-8  | Endosulfan sulfate  | 16.7        | 13.8      | 83    | 48-128 |
| 7421-93-4  | Endrin aldehyde     | 16.7        | 12.6      | 76    | 46-125 |
| 959-98-8   | Endosulfan-I        | 16.7        | 12.7      | 76    | 47-118 |
| 33213-65-9 | Endosulfan-II       | 16.7        | 12.2      | 73    | 49-121 |
| 76-44-8    | Heptachlor          | 16.7        | 12.8      | 77    | 48-120 |
| 1024-57-3  | Heptachlor epoxide  | 16.7        | 12.2      | 73    | 46-122 |
| 72-43-5    | Methoxychlor        | 16.7        | 12.0      | 72    | 44-136 |
| 53494-70-5 | Endrin ketone       | 16.7        | 13.1      | 79    | 44-139 |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 81%  | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 64%  | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 112% | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 80%  | 10-156% |

\* = Outside of Control Limits.

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# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11639-BS1 | 2G162504.D | 1  | 04/28/18 | EAL | 04/27/18  | OP11639    | G2G4320          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-10

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 156          | 117      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 153          | 115      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90% | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 95% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 95% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 97% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-BS1 | XX227796.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-6

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 149          | 112      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 156          | 117      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 99%  | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 102% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 103% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 107% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-BS1 | 2G162947.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-9

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 160          | 120      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 158          | 118      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 99%  | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 105% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 101% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 110% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11620-BS1 | ZZ88722.D | 1  | 04/27/18 | RK | 04/27/18  | OP11620    | GZZ3196          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound          | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---------|-------------------|-------------|-----------|-------|--------|
|         | TPH-DRO (C10-C28) | 100         | 75.5      | 76    | 44-120 |

| CAS No.    | Surrogate Recoveries | BSP | Limits  |
|------------|----------------------|-----|---------|
| 84-15-1    | o-Terphenyl          | 58% | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 67% | 25-137% |
| 438-22-2   | 5a-Androstane        | 61% | 22-134% |

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\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12045-BS  | 5G78592.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |
| OP12045-BSD | 5G78593.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-7

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>%         | BSD<br>ug/kg | BSD<br>%         | RPD            | Limits<br>Rec/RPD |
|------------|--------------|----------------|--------------|------------------|--------------|------------------|----------------|-------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 147          | 110 <sup>a</sup> | 149          | 112 <sup>a</sup> | 1 <sup>a</sup> | 61-146/30         |
| 11104-28-2 | Aroclor 1221 |                | ND           |                  | ND           |                  | nc             | 70-130/30         |
| 11141-16-5 | Aroclor 1232 |                | ND           |                  | ND           |                  | nc             | 70-130/30         |
| 53469-21-9 | Aroclor 1242 |                | ND           |                  | ND           |                  | nc             | 70-130/30         |
| 12672-29-6 | Aroclor 1248 |                | ND           |                  | ND           |                  | nc             | 70-130/30         |
| 11097-69-1 | Aroclor 1254 |                | ND           |                  | ND           |                  | nc             | 70-130/30         |
| 11096-82-5 | Aroclor 1260 | 133            | 151          | 113 <sup>a</sup> | 152          | 114 <sup>a</sup> | 1 <sup>a</sup> | 62-148/30         |
| 11100-14-4 | Aroclor 1268 |                | ND           |                  | ND           |                  | nc             | -/30              |
| 37324-23-5 | Aroclor 1262 |                | ND           |                  | ND           |                  | nc             | -/30              |

| CAS No.   | Surrogate Recoveries | BSP  | BSD  | Limits  |
|-----------|----------------------|------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 79%  | 79%  | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 90%  | 91%  | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 92%  | 94%  | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 102% | 105% | 10-166% |

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                  | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11638-MS              | 3G116161.D | 1  | 04/30/18 | VDT | 04/30/18  | OP11638    | G3G4033          |
| OP11638-MSD             | 3G116162.D | 1  | 04/30/18 | VDT | 04/30/18  | OP11638    | G3G4033          |
| JC64996-8Q <sup>a</sup> | 3G116158.D | 1  | 04/30/18 | VDT | 04/30/18  | OP11638    | G3G4033          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC64996-9, JC64996-10

| CAS No.   | Compound          | JC64996-8Q Spike |         | MS    | MS | Spike | MSD   | MSD | RPD | Limits    |
|-----------|-------------------|------------------|---------|-------|----|-------|-------|-----|-----|-----------|
|           |                   | ug/kg            | Q ug/kg | ug/kg | %  | ug/kg | ug/kg | %   |     | Rec/RPD   |
| 94-75-7   | 2,4-D             | ND               | 141     | 67.6  | 48 | 138   | 56.3  | 41  | 18  | 10-164/54 |
| 93-72-1   | 2,4,5-TP (Silvex) | ND               | 28.1    | 16.5  | 59 | 27.6  | 19.0  | 69  | 14  | 10-159/51 |
| 93-76-5   | 2,4,5-T           | ND               | 28.1    | 12.8  | 45 | 27.6  | 12.3  | 45  | 4   | 10-144/56 |
| 75-99-0   | Dalapon           | ND               | 28.1    | 10.9  | 39 | 27.6  | 8.5   | 31  | 25  | 10-165/50 |
| 1918-00-9 | Dicamba           | ND               | 28.1    | 18.4  | 65 | 27.6  | 17.9  | 65  | 3   | 10-178/52 |
| 120-36-5  | Dichloroprop      | ND               | 141     | 82.6  | 59 | 138   | 87.8  | 64  | 6   | 10-166/55 |
| 88-85-7   | Dinoseb           | ND               | 141     | 94.1  | 67 | 138   | 107   | 78  | 13  | 10-156/44 |
| 94-74-6   | MCPA              | ND               | 7040    | 3350  | 48 | 6900  | 3340  | 48  | 0   | 10-208/51 |
| 93-65-2   | MCPP              | ND               | 7040    | 4370  | 62 | 6900  | 4810  | 70  | 10  | 10-240/52 |
| 87-86-5   | Pentachlorophenol | ND               | 14.1    | 10.5  | 75 | 13.8  | 10.2  | 74  | 3   | 10-171/47 |
| 94-82-6   | 2,4-DB            | ND               | 141     | 97.5  | 69 | 138   | 98.4  | 71  | 1   | 10-153/57 |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC64996-8Q Limits |
|------------|----------------------|-----|-----|-------------------|
| 19719-28-9 | 2,4-DCAA             | 77% | 81% | 10-159%           |
| 19719-28-9 | 2,4-DCAA             | 69% | 72% | 10-159%           |

(a) Sample used for QC purposes only.

\* = Outside of Control Limits.

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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11640-MS  | 1G145690.D | 1  | 04/30/18 | TL | 04/27/18  | OP11640    | G1G4633          |
| OP11640-MSD | 1G145691.D | 1  | 04/30/18 | TL | 04/27/18  | OP11640    | G1G4633          |
| JC64960-1   | 1G145689.D | 1  | 04/30/18 | TL | 04/27/18  | OP11640    | G1G4633          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC64996-9, JC64996-10

| CAS No.    | Compound            | JC64960-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 | 18.8                | 20.3        | 108     | 19.4           | 22.1         | 114      | 8   | 23-143/44         |
| 319-84-6   | alpha-BHC           | ND                 | 18.8                | 17.5        | 93      | 19.4           | 18.5         | 95       | 6   | 18-152/47         |
| 319-85-7   | beta-BHC            | ND                 | 18.8                | 18.2        | 97      | 19.4           | 21.1         | 109      | 15  | 7-143/48          |
| 319-86-8   | delta-BHC           | ND                 | 18.8                | 20.4        | 109     | 19.4           | 22.4         | 115      | 9   | 13-155/49         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 18.8                | 17.9        | 95      | 19.4           | 19.4         | 100      | 8   | 23-138/49         |
| 5103-71-9  | alpha-Chlordane     | ND                 | 18.8                | 17.5        | 93      | 19.4           | 18.2         | 94       | 4   | 16-149/46         |
| 5103-74-2  | gamma-Chlordane     | ND                 | 18.8                | 18.4        | 98      | 19.4           | 18.5         | 95       | 1   | 14-152/45         |
| 60-57-1    | Dieldrin            | ND                 | 18.8                | 18.8        | 100     | 19.4           | 19.0         | 98       | 1   | 14-154/46         |
| 72-54-8    | 4,4'-DDD            | ND                 | 18.8                | 16.6        | 88      | 19.4           | 17.5         | 90       | 5   | 18-149/51         |
| 72-55-9    | 4,4'-DDE            | ND                 | 18.8                | 16.7        | 89      | 19.4           | 17.9         | 92       | 7   | 10-154/49         |
| 50-29-3    | 4,4'-DDT            | ND                 | 18.8                | 21.9        | 116     | 19.4           | 23.1         | 119      | 5   | 10-170/50         |
| 72-20-8    | Endrin              | ND                 | 18.8                | 17.4        | 93      | 19.4           | 23.9         | 123      | 31  | 18-173/49         |
| 1031-07-8  | Endosulfan sulfate  | ND                 | 18.8                | 21.6        | 115     | 19.4           | 22.7         | 117      | 5   | 19-132/50         |
| 7421-93-4  | Endrin aldehyde     | ND                 | 18.8                | 20.1        | 107     | 19.4           | 21.0         | 108      | 4   | 10-160/53         |
| 959-98-8   | Endosulfan-I        | ND                 | 18.8                | 17.4        | 93      | 19.4           | 18.4         | 95       | 6   | 18-143/46         |
| 33213-65-9 | Endosulfan-II       | ND                 | 18.8                | 19.4        | 103     | 19.4           | 19.8         | 102      | 2   | 21-132/46         |
| 76-44-8    | Heptachlor          | ND                 | 18.8                | 18.0        | 96      | 19.4           | 18.0         | 93       | 0   | 22-146/46         |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 18.8                | 18.6        | 99      | 19.4           | 18.8         | 97       | 1   | 21-151/45         |
| 72-43-5    | Methoxychlor        | ND                 | 18.8                | 19.3        | 103     | 19.4           | 19.8         | 102      | 3   | 11-166/50         |
| 53494-70-5 | Endrin ketone       | ND                 | 18.8                | 19.2        | 102     | 19.4           | 20.7         | 107      | 8   | 8-179/51          |
| 8001-35-2  | Toxaphene           | ND                 |                     | ND          |         |                | ND           |          | nc  | 50-150/30         |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | JC64960-1 | Limits  |
|-----------|----------------------|------|------|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86%  | 87%  | 82%       | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 69%  | 69%  | 69%       | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 113% | 112% | 104%      | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 84%  | 84%  | 79%       | 10-156% |

\* = Outside of Control Limits.

12.4.2  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11639-MS  | 2G162506.D | 1  | 04/28/18 | EAL | 04/27/18  | OP11639    | G2G4320          |
| OP11639-MSD | 2G162507.D | 1  | 04/28/18 | EAL | 04/27/18  | OP11639    | G2G4320          |
| JC64843-1   | 2G162505.D | 1  | 04/28/18 | EAL | 04/27/18  | OP11639    | G2G4320          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-10

| CAS No.    | Compound     | JC64843-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                 | 797                 | 987         | 124     | 739            | 889          | 120      | 10  | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | ND                 | 797                 | 938         | 118     | 739            | 832          | 113      | 12  | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS   | MSD | JC64843-1 | Limits  |
|-----------|----------------------|------|-----|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 97%  | 91% | 86%       | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 101% | 95% | 93%       | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 98%  | 93% | 92%       | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 100% | 95% | 94%       | 10-166% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-MS  | XX227798.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |
| OP11668-MSD | XX227799.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |
| JC65130-1   | XX227797.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-6

| CAS No.    | Compound     | JC65130-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                 | 145                 | 187         | 129     | 145            | 181          | 125      | 3   | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | ND                 | 145                 | 212         | 146     | 145            | 173          | 119      | 20  | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS   | MSD     | JC65130-1 | Limits  |
|-----------|----------------------|------|---------|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%  | 89%     | 87%       | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 107% | 105%    | 94%       | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 74%  | 83%     | 68%       | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 166% | 178%* a | 105%      | 10-166% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

12.4.4  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-MS  | 2G162949.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |
| OP11775-MSD | 2G162950.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |
| JC65281-54  | 2G162948.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-9

| CAS No.    | Compound     | JC65281-54<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|---------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                  | 148                 | 170         | 115     | 149            | 160          | 107      | 6   | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | 224                 | 148                 | 359         | 91      | 149            | 368          | 97       | 2   | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65281-54 | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95% | 88% | 93%        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 98% | 90% | 99%        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 82% | 77% | 87%        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 83% | 75% | 91%        | 10-166% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP12045-MS  | 5G78595.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |
| OP12045-MSD | 5G78596.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |
| JC64996-7   | 5G78594.D | 1  | 05/17/18 | RK | 05/16/18  | OP12045    | G5G1867          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC64996-7

| CAS No.    | Compound     | JC64996-7<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                 | 159                 | 113         | 71      | 163            | 178          | 109      | 45  | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | ND                 | 159                 | 128         | 80      | 163            | 171          | 105      | 29  | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC64996-7 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 52% | 66% | 59%       | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 62% | 74% | 74%       | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 62% | 72% | 65%       | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 78% | 94% | 85%       | 10-166% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11620-MS  | ZZ88726.D | 1  | 04/27/18 | RK | 04/27/18  | OP11620    | GZZ3196          |
| OP11620-MSD | ZZ88727.D | 1  | 04/27/18 | RK | 04/27/18  | OP11620    | GZZ3196          |
| JC64962-1   | ZZ88725.D | 1  | 04/27/18 | RK | 04/27/18  | OP11620    | GZZ3196          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC64996-6, JC64996-7

| CAS No. | Compound          | JC64962-1<br>mg/kg | Spike<br>Q<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-DRO (C10-C28) | 12.8               | 112                 | 94.1        | 72      | 107            | 83.2         | 66       | 12  | 10-145/50         |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC64962-1 | Limits  |
|------------|----------------------|-----|-----|-----------|---------|
| 84-15-1    | o-Terphenyl          | 57% | 49% | 46%       | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 66% | 56% | 59%       | 25-137% |
| 438-22-2   | 5a-Androstane        | 61% | 53% | 55%       | 22-134% |

\* = Outside of Control Limits.

# Internal Standard Area Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4633-CC4628 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145683.D   | <b>Injection Time:</b> 23:14    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 101646460 | 2.30 | 756567233 | 1.98 |
| Upper Limit <sup>a</sup> | 203292920 | 2.80 | 151313446 | 2.48 |
| Lower Limit <sup>b</sup> | 50823230  | 1.80 | 378283617 | 1.48 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11640-MB1   | 100400459 | 2.30    | 626233790 | 1.98    |
| OP11640-BS1   | 106629693 | 2.30    | 669625208 | 1.98    |
| ZZZZZZ        | 104262961 | 2.30    | 671471502 | 1.98    |
| ZZZZZZ        | 107071767 | 2.30    | 669715416 | 1.98    |
| JC64960-1     | 105306838 | 2.30    | 675896721 | 1.98    |
| OP11640-MS    | 108809301 | 2.30    | 691639733 | 1.98    |
| OP11640-MSD   | 111052809 | 2.30    | 699264080 | 1.98    |
| ZZZZZZ        | 98957993  | 2.30    | 662530924 | 1.98    |
| JC64996-9     | 98787277  | 2.30    | 593343627 | 1.98    |
| JC64996-10    | 111182044 | 2.30    | 714238309 | 1.98    |
| ZZZZZZ        | 104960228 | 2.30    | 779283674 | 1.98    |
| ZZZZZZ        | 108422071 | 2.30    | 796437472 | 1.98    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

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# DDT/Endrin Breakdown Check

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> G1G4628-DDT     | <b>Injection Date:</b> 04/25/18 |
| <b>Lab File ID:</b> 1G145465.D | <b>Injection Time:</b> 11:55    |
| <b>Instrument ID:</b> GC1G     |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 19117068          | 3242526           |
| 4,4'-DDE | 17540271          | 2426192           |
| 4,4'-DDT | 1139549834        | 151721138         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 3.1 % | 3.6 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 6205253   | 869695    |
| Endrin ketone   | 16073186  | 1914397   |
| Endrin          | 736751809 | 103748583 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 2.9 % | 2.6 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|-----------------|-------------|---------------|---------------|--------------|------------------------------|
| G1G4628-IC4628  | 1G145467.D  | 04/25/18      | 12:29         | 00:34        | Initial cal 1                |
| G1G4628-IC4628  | 1G145468.D  | 04/25/18      | 12:46         | 00:51        | Initial cal 2                |
| G1G4628-IC4628  | 1G145469.D  | 04/25/18      | 13:04         | 01:09        | Initial cal 5                |
| G1G4628-IC4628  | 1G145470.D  | 04/25/18      | 13:21         | 01:26        | Initial cal 10               |
| G1G4628-ICC4628 | 1G145471.D  | 04/25/18      | 13:38         | 01:44        | Initial cal 25               |
| G1G4628-IC4628  | 1G145472.D  | 04/25/18      | 13:55         | 02:01        | Initial cal 50               |
| G1G4628-IC4628  | 1G145473.D  | 04/25/18      | 14:13         | 02:18        | Initial cal 75               |
| G1G4628-IC4628  | 1G145474.D  | 04/25/18      | 14:30         | 02:35        | Initial cal 100              |
| G1G4628-IC4628  | 1G145475.D  | 04/25/18      | 14:47         | 02:53        | Initial cal 500              |
| G1G4628-IC4628  | 1G145476.D  | 04/25/18      | 15:05         | 03:10        | Initial cal 500              |
| G1G4628-ICV4628 | 1G145478.D  | 04/25/18      | 15:39         | 03:45        | Initial cal verification 500 |
| G1G4628-ICV4628 | 1G145479.D  | 04/25/18      | 15:56         | 04:02        | Initial cal verification 500 |
| G1G4628-ICV4628 | 1G145481.D  | 04/25/18      | 16:31         | 04:36        | Initial cal verification 50  |

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# DDT/Endrin Breakdown Check

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> G1G4633-DDT     | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145682.D | <b>Injection Time:</b> 22:57    |
| <b>Instrument ID:</b> GC1G     |                                 |

| Compound                   | Response Signal 1 | Response Signal 2 |
|----------------------------|-------------------|-------------------|
| 4,4'-DDD                   | 17394322          | 2956347           |
| 4,4'-DDE                   | 10396265          | 2298481           |
| 4,4'-DDT                   | 1281713424        | 139364365         |
| DDT Breakdown <sup>a</sup> | 2.1 %             | 3.6 %             |

|                               |           |           |
|-------------------------------|-----------|-----------|
| Endrin aldehyde               | 5761803   | 577533    |
| Endrin ketone                 | 8226265   | 1044234   |
| Endrin                        | 825859654 | 108585345 |
| Endrin Breakdown <sup>b</sup> | 1.7 %     | 1.5 %     |

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| G1G4633-CC4628 | 1G145683.D  | 04/29/18      | 23:14         | 00:17        | Continuing cal 50                           |
| OP11640-MB1    | 1G145685.D  | 04/29/18      | 23:48         | 00:51        | Method Blank                                |
| OP11640-BS1    | 1G145686.D  | 04/30/18      | 00:06         | 01:09        | Blank Spike                                 |
| ZZZZZZ         | 1G145687.D  | 04/30/18      | 00:23         | 01:26        | (unrelated sample)                          |
| ZZZZZZ         | 1G145688.D  | 04/30/18      | 00:41         | 01:44        | (unrelated sample)                          |
| JC64960-1      | 1G145689.D  | 04/30/18      | 00:58         | 02:01        | (used for QC only; not part of job JC64996) |
| OP11640-MS     | 1G145690.D  | 04/30/18      | 01:16         | 02:19        | Matrix Spike                                |
| OP11640-MSD    | 1G145691.D  | 04/30/18      | 01:33         | 02:37        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 1G145692.D  | 04/30/18      | 01:50         | 02:54        | (unrelated sample)                          |
| JC64996-9      | 1G145694.D  | 04/30/18      | 02:24         | 03:28        | SB-102 (0-17)                               |
| JC64996-10     | 1G145695.D  | 04/30/18      | 02:42         | 03:45        | SB-106 (3-5) (11-15)                        |
| ZZZZZZ         | 1G145696.D  | 04/30/18      | 02:59         | 04:02        | (unrelated sample)                          |
| ZZZZZZ         | 1G145697.D  | 04/30/18      | 03:16         | 04:19        | (unrelated sample)                          |

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# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4033-CC4020 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116148.D   | <b>Injection Time:</b> 15:53    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11638-BS1  | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116151.D | <b>Injection Time:</b> 17:18    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.82  | 8.84  | 108  |   | ug/kg | 9.7         |
| 2,4-D             | 2              | 9.47  | 9.48  | 119  |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 1              | 9.90  | 9.91  | 26.6 |   | ug/kg | 1.9         |
| 2,4,5-TP (Silvex) | 2 <sup>a</sup> | 10.56 | 10.57 | 26.1 |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.26 | 10.28 | 21.7 |   | ug/kg | 5.4         |
| 2,4,5-T           | 2              | 11.11 | 11.12 | 22.9 |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.47  | 2.47  | 13.6 |   | ug/kg | 3.6         |
| Dalapon           | 2              | 2.44  | 2.43  | 14.1 |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.65  | 7.66  | 24.4 |   | ug/kg | 38.4        |
| Dicamba           | 2              | 8.15  | 8.15  | 36.0 | E | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.54  | 8.54  | 118  |   | ug/kg | 21.2        |
| Dichloroprop      | 2              | 9.05  | 9.05  | 146  |   | ug/kg |             |
| Dinoseb           | 1              | 12.41 | 12.41 | 84.6 |   | ug/kg | 5.3         |
| Dinoseb           | 2 <sup>a</sup> | 12.21 | 12.21 | 80.2 |   | ug/kg |             |
| MCPA              | 1 <sup>a</sup> | 8.08  | 8.09  | 5960 |   | ug/kg | 19.1        |
| MCPA              | 2              | 8.61  | 8.61  | 7220 |   | ug/kg |             |
| MCPP              | 1 <sup>a</sup> | 7.91  | 7.91  | 7240 |   | ug/kg | 18.5        |
| MCPP              | 2              | 8.30  | 8.30  | 8720 | E | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.07  | 9.08  | 9.1  |   | ug/kg | 15.2        |
| Pentachlorophenol | 2              | 9.94  | 9.94  | 10.6 |   | ug/kg |             |
| 2,4-DB            | 1              | 10.99 | 11.01 | 132  |   | ug/kg | 2.3         |
| 2,4-DB            | 2 <sup>a</sup> | 11.82 | 11.84 | 129  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.1  
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# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4033-CC4020 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116156.D   | <b>Injection Time:</b> 19:39    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11638-MS   | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116161.D | <b>Injection Time:</b> 22:01    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.82  | 8.83  | 67.6 |   | ug/kg | 3.6         |
| 2,4-D             | 2              | 9.47  | 9.48  | 70.1 |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.89  | 9.91  | 16.5 |   | ug/kg | 18.2        |
| 2,4,5-TP (Silvex) | 2              | 10.56 | 10.57 | 19.8 |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.25 | 10.28 | 12.8 |   | ug/kg | 7.5         |
| 2,4,5-T           | 2              | 11.10 | 11.12 | 13.8 |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.47  | 2.47  | 10.9 |   | ug/kg | 10.4        |
| Dalapon           | 2              | 2.45  | 2.44  | 12.1 |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.65  | 7.65  | 18.4 |   | ug/kg | 6.7         |
| Dicamba           | 2              | 8.15  | 8.15  | 17.2 |   | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.53  | 8.54  | 82.6 |   | ug/kg | 17.9        |
| Dichloroprop      | 2              | 9.04  | 9.05  | 98.8 |   | ug/kg |             |
| Dinoseb           | 1 <sup>a</sup> | 12.40 | 12.41 | 94.1 |   | ug/kg | 5.3         |
| Dinoseb           | 2              | 12.21 | 12.21 | 99.2 |   | ug/kg |             |
| MCPA              | 1 <sup>a</sup> | 8.08  | 8.08  | 3350 |   | ug/kg | 16.4        |
| MCPA              | 2              | 8.61  | 8.61  | 3950 |   | ug/kg |             |
| MCPP              | 1 <sup>a</sup> | 7.91  | 7.91  | 4370 |   | ug/kg | 14.6        |
| MCPP              | 2              | 8.30  | 8.30  | 5060 |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.07  | 9.08  | 10.5 |   | ug/kg | 20.5        |
| Pentachlorophenol | 2              | 9.94  | 9.94  | 12.9 |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 10.98 | 11.01 | 97.5 |   | ug/kg | 4.6         |
| 2,4-DB            | 2              | 11.82 | 11.84 | 93.1 |   | ug/kg |             |

(a) QC results reported from this column.

12.7.2  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4033-CC4020 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116156.D   | <b>Injection Time:</b> 19:39    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11638-MSD            | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116162.D           | <b>Injection Time:</b> 22:29    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.82  | 8.83  | 56.3 |   | ug/kg | 11.7        |
| 2,4-D             | 2              | 9.47  | 9.48  | 63.3 |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.89  | 9.91  | 19.0 |   | ug/kg | 9.5         |
| 2,4,5-TP (Silvex) | 2              | 10.56 | 10.57 | 20.9 |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.25 | 10.28 | 12.3 |   | ug/kg | 11.5        |
| 2,4,5-T           | 2              | 11.10 | 11.12 | 13.8 |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.47  | 2.47  | 8.5  |   | ug/kg | 3.6         |
| Dalapon           | 2              | 2.44  | 2.44  | 8.2  |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.65  | 7.65  | 17.9 |   | ug/kg | 4.6         |
| Dicamba           | 2              | 8.15  | 8.15  | 17.1 |   | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.54  | 8.54  | 87.8 |   | ug/kg | 10.4        |
| Dichloroprop      | 2              | 9.05  | 9.05  | 97.4 |   | ug/kg |             |
| Dinoseb           | 1 <sup>a</sup> | 12.40 | 12.41 | 107  |   | ug/kg | 9.8         |
| Dinoseb           | 2              | 12.21 | 12.21 | 118  |   | ug/kg |             |
| MCPA              | 1 <sup>a</sup> | 8.08  | 8.08  | 3340 |   | ug/kg | 8.0         |
| MCPA              | 2              | 8.61  | 8.61  | 3620 |   | ug/kg |             |
| MCPP              | 1 <sup>a</sup> | 7.91  | 7.91  | 4810 |   | ug/kg | 10.4        |
| MCPP              | 2              | 8.30  | 8.30  | 5340 |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.07  | 9.08  | 10.2 |   | ug/kg | 21.8        |
| Pentachlorophenol | 2              | 9.94  | 9.94  | 12.7 |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 10.98 | 11.01 | 98.4 |   | ug/kg | 2.6         |
| 2,4-DB            | 2              | 11.82 | 11.84 | 101  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.3  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4633-CC4628 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145683.D   | <b>Injection Time:</b> 23:14    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11640-BS1  | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 1G145686.D | <b>Injection Time:</b> 00:06    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin              | 1              | 4.13  | 4.13  | 17.5 |   | ug/kg | 29.5        |
| Aldrin              | 2 <sup>a</sup> | 5.35  | 5.35  | 13.0 |   | ug/kg |             |
| alpha-BHC           | 1              | 3.01  | 3.01  | 15.2 |   | ug/kg | 29.4        |
| alpha-BHC           | 2 <sup>a</sup> | 3.82  | 3.82  | 11.3 |   | ug/kg |             |
| beta-BHC            | 1              | 3.38  | 3.38  | 16.4 |   | ug/kg | 21.6        |
| beta-BHC            | 2 <sup>a</sup> | 4.36  | 4.36  | 13.2 |   | ug/kg |             |
| delta-BHC           | 1              | 3.57  | 3.58  | 18.1 |   | ug/kg | 32.8        |
| delta-BHC           | 2 <sup>a</sup> | 4.78  | 4.78  | 13.0 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1              | 3.30  | 3.30  | 15.4 |   | ug/kg | 27.3        |
| gamma-BHC (Lindane) | 2 <sup>a</sup> | 4.27  | 4.27  | 11.7 |   | ug/kg |             |
| alpha-Chlordane     | 1              | 5.17  | 5.17  | 14.6 |   | ug/kg | 15.5        |
| alpha-Chlordane     | 2 <sup>a</sup> | 6.71  | 6.72  | 12.5 |   | ug/kg |             |
| gamma-Chlordane     | 1              | 5.00  | 5.00  | 15.5 |   | ug/kg | 22.2        |
| gamma-Chlordane     | 2 <sup>a</sup> | 6.48  | 6.49  | 12.4 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.67  | 5.67  | 15.6 |   | ug/kg | 3.8         |
| Dieldrin            | 2              | 7.27  | 7.27  | 16.2 |   | ug/kg |             |
| 4,4'-DDD            | 1              | 6.13  | 6.13  | 14.2 |   | ug/kg | 19.3        |
| 4,4'-DDD            | 2 <sup>a</sup> | 7.94  | 7.95  | 11.7 |   | ug/kg |             |
| 4,4'-DDE            | 1              | 5.28  | 5.29  | 14.1 |   | ug/kg | 5.8         |
| 4,4'-DDE            | 2 <sup>a</sup> | 6.96  | 6.97  | 13.3 |   | ug/kg |             |
| 4,4'-DDT            | 1              | 6.54  | 6.54  | 18.5 |   | ug/kg | 29.8        |
| 4,4'-DDT            | 2 <sup>a</sup> | 8.48  | 8.48  | 13.7 |   | ug/kg |             |
| Endrin              | 1              | 5.99  | 6.00  | 19.5 |   | ug/kg | 42.2        |
| Endrin              | 2 <sup>a</sup> | 7.78  | 7.79  | 12.7 |   | ug/kg |             |
| Endosulfan sulfate  | 1              | 7.62  | 7.62  | 19.0 |   | ug/kg | 31.7        |
| Endosulfan sulfate  | 2 <sup>a</sup> | 9.20  | 9.20  | 13.8 |   | ug/kg |             |
| Endrin aldehyde     | 1              | 6.94  | 6.94  | 18.1 |   | ug/kg | 35.8        |
| Endrin aldehyde     | 2 <sup>a</sup> | 8.72  | 8.72  | 12.6 |   | ug/kg |             |
| Endosulfan-I        | 1              | 5.35  | 5.35  | 14.6 |   | ug/kg | 13.9        |
| Endosulfan-I        | 2 <sup>a</sup> | 6.82  | 6.82  | 12.7 |   | ug/kg |             |
| Endosulfan-II       | 1              | 6.32  | 6.32  | 15.9 |   | ug/kg | 26.3        |
| Endosulfan-II       | 2 <sup>a</sup> | 8.14  | 8.15  | 12.2 |   | ug/kg |             |
| Heptachlor          | 1              | 3.79  | 3.79  | 15.3 |   | ug/kg | 17.8        |
| Heptachlor          | 2 <sup>a</sup> | 4.87  | 4.87  | 12.8 |   | ug/kg |             |
| Heptachlor epoxide  | 1              | 4.83  | 4.83  | 15.5 |   | ug/kg | 23.8        |
| Heptachlor epoxide  | 2 <sup>a</sup> | 6.19  | 6.19  | 12.2 |   | ug/kg |             |
| Methoxychlor        | 1              | 7.33  | 7.33  | 16.9 |   | ug/kg | 33.9        |
| Methoxychlor        | 2 <sup>a</sup> | 9.68  | 9.68  | 12.0 |   | ug/kg |             |
| Endrin ketone       | 1              | 8.07  | 8.07  | 16.8 |   | ug/kg | 24.7        |
| Endrin ketone       | 2 <sup>a</sup> | 10.04 | 10.05 | 13.1 |   | ug/kg |             |

(a) QC results reported from this column.

12.7.4  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4633-CC4628 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145683.D   | <b>Injection Time:</b> 23:14    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11640-MS   | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 1G145690.D | <b>Injection Time:</b> 01:16    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.13  | 4.13  | 20.3 |   | ug/kg | 28.7        |
| Aldrin              | 2              | 5.35  | 5.35  | 15.2 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01  | 3.01  | 17.5 |   | ug/kg | 26.5        |
| alpha-BHC           | 2              | 3.82  | 3.82  | 13.4 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.38  | 3.38  | 18.2 |   | ug/kg | 27.5        |
| beta-BHC            | 2              | 4.36  | 4.36  | 13.8 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.57  | 3.58  | 20.4 |   | ug/kg | 29.2        |
| delta-BHC           | 2              | 4.78  | 4.78  | 15.2 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30  | 3.30  | 17.9 |   | ug/kg | 34.8        |
| gamma-BHC (Lindane) | 2              | 4.27  | 4.27  | 12.6 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.17  | 5.17  | 17.5 |   | ug/kg | 15.4        |
| alpha-Chlordane     | 2              | 6.71  | 6.72  | 15.0 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 5.00  | 5.00  | 18.4 |   | ug/kg | 22.4        |
| gamma-Chlordane     | 2              | 6.48  | 6.49  | 14.7 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.67  | 5.67  | 18.8 |   | ug/kg | 0.5         |
| Dieldrin            | 2              | 7.27  | 7.27  | 18.7 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.13  | 6.13  | 16.6 |   | ug/kg | 19.1        |
| 4,4'-DDD            | 2              | 7.94  | 7.95  | 13.7 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.28  | 5.29  | 16.7 |   | ug/kg | 10.7        |
| 4,4'-DDE            | 2              | 6.97  | 6.97  | 15.0 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.54  | 6.54  | 21.9 |   | ug/kg | 28.1        |
| 4,4'-DDT            | 2              | 8.48  | 8.48  | 16.5 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.99  | 6.00  | 17.4 |   | ug/kg | 16.8        |
| Endrin              | 2              | 7.79  | 7.79  | 14.7 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.62  | 7.62  | 21.6 |   | ug/kg | 31.6        |
| Endosulfan sulfate  | 2              | 9.20  | 9.20  | 15.7 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.94  | 6.94  | 20.1 |   | ug/kg | 35.8        |
| Endrin aldehyde     | 2              | 8.72  | 8.72  | 14.0 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.35  | 5.35  | 17.4 |   | ug/kg | 16.1        |
| Endosulfan-I        | 2              | 6.82  | 6.82  | 14.8 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.32  | 6.32  | 19.4 |   | ug/kg | 31.6        |
| Endosulfan-II       | 2              | 8.14  | 8.15  | 14.1 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.79  | 3.79  | 18.0 |   | ug/kg | 15.6        |
| Heptachlor          | 2              | 4.87  | 4.87  | 15.4 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.83  | 4.83  | 18.6 |   | ug/kg | 24.8        |
| Heptachlor epoxide  | 2              | 6.19  | 6.19  | 14.5 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.33  | 7.33  | 19.3 |   | ug/kg | 31.8        |
| Methoxychlor        | 2              | 9.68  | 9.68  | 14.0 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.07  | 8.07  | 19.2 |   | ug/kg | 25.9        |
| Endrin ketone       | 2              | 10.04 | 10.05 | 14.8 |   | ug/kg |             |

(a) QC results reported from this column.

12.7.5 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4633-CC4628 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145683.D   | <b>Injection Time:</b> 23:14    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

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|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11640-MSD            | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 1G145691.D           | <b>Injection Time:</b> 01:33    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.12  | 4.13  | 22.1 |   | ug/kg | 28.4        |
| Aldrin              | 2              | 5.35  | 5.35  | 16.6 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.00  | 3.01  | 18.5 |   | ug/kg | 26.3        |
| alpha-BHC           | 2              | 3.82  | 3.82  | 14.2 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.38  | 3.38  | 21.1 |   | ug/kg | 35.8        |
| beta-BHC            | 2              | 4.36  | 4.36  | 14.7 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.57  | 3.58  | 22.4 |   | ug/kg | 36.4        |
| delta-BHC           | 2              | 4.78  | 4.78  | 15.5 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30  | 3.30  | 19.4 |   | ug/kg | 31.0        |
| gamma-BHC (Lindane) | 2              | 4.27  | 4.27  | 14.2 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.17  | 5.17  | 18.2 |   | ug/kg | 15.4        |
| alpha-Chlordane     | 2              | 6.71  | 6.72  | 15.6 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 5.00  | 5.00  | 18.5 |   | ug/kg | 24.9        |
| gamma-Chlordane     | 2              | 6.48  | 6.49  | 14.4 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.67  | 5.67  | 19.0 |   | ug/kg | 3.1         |
| Dieldrin            | 2              | 7.27  | 7.27  | 19.6 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.13  | 6.13  | 17.5 |   | ug/kg | 18.8        |
| 4,4'-DDD            | 2              | 7.94  | 7.95  | 14.5 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.28  | 5.29  | 17.9 |   | ug/kg | 13.7        |
| 4,4'-DDE            | 2              | 6.97  | 6.97  | 15.6 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.53  | 6.54  | 23.1 |   | ug/kg | 27.0        |
| 4,4'-DDT            | 2              | 8.48  | 8.48  | 17.6 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.99  | 6.00  | 23.9 |   | ug/kg | 43.9        |
| Endrin              | 2              | 7.79  | 7.79  | 15.3 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.62  | 7.62  | 22.7 |   | ug/kg | 32.8        |
| Endosulfan sulfate  | 2              | 9.20  | 9.20  | 16.3 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.94  | 6.94  | 21.0 |   | ug/kg | 35.3        |
| Endrin aldehyde     | 2              | 8.72  | 8.72  | 14.7 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.35  | 5.35  | 18.4 |   | ug/kg | 19.0        |
| Endosulfan-I        | 2              | 6.82  | 6.82  | 15.2 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.32  | 6.32  | 19.8 |   | ug/kg | 28.9        |
| Endosulfan-II       | 2              | 8.14  | 8.15  | 14.8 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.79  | 3.79  | 18.0 |   | ug/kg | 13.0        |
| Heptachlor          | 2              | 4.87  | 4.87  | 15.8 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.83  | 4.83  | 18.8 |   | ug/kg | 21.8        |
| Heptachlor epoxide  | 2              | 6.19  | 6.19  | 15.1 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.33  | 7.33  | 19.8 |   | ug/kg | 28.9        |
| Methoxychlor        | 2              | 9.68  | 9.68  | 14.8 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.07  | 8.07  | 20.7 |   | ug/kg | 27.5        |
| Endrin ketone       | 2              | 10.05 | 10.05 | 15.7 |   | ug/kg |             |

(a) QC results reported from this column.

12.7.6 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4320-CC4311 | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162501.D   | <b>Injection Time:</b> 17:27    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

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|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11639-BS1  | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162504.D | <b>Injection Time:</b> 18:17    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 156  |   | ug/kg | 4.4         |
| Aroclor 1016 | 2              |       |       | 163  |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 188  |   | ug/kg |             |
| AR1016-A     | 2              | 4.11  | 4.12  | 203  |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 147  |   | ug/kg |             |
| AR1016-B     | 2              | 4.65  | 4.66  | 165  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.11  | 142  |   | ug/kg |             |
| AR1016-C     | 2              | 5.30  | 5.30  | 142  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.27  | 153  |   | ug/kg |             |
| AR1016-D     | 2              | 5.49  | 5.49  | 159  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.78  | 148  |   | ug/kg |             |
| AR1016-E     | 2              | 6.14  | 6.14  | 147  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 153  |   | ug/kg | 3.2         |
| Aroclor 1260 | 2              |       |       | 158  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.14  | 122  |   | ug/kg |             |
| AR1260-A     | 2              | 8.75  | 8.76  | 131  |   | ug/kg |             |
| AR1260-B     | 1              | 7.29  | 7.30  | 172  |   | ug/kg |             |
| AR1260-B     | 2              | 8.87  | 8.87  | 175  |   | ug/kg |             |
| AR1260-C     | 1              | 7.63  | 7.64  | 164  |   | ug/kg |             |
| AR1260-C     | 2              | 9.30  | 9.30  | 161  |   | ug/kg |             |
| AR1260-D     | 1              | 8.06  | 8.07  | 148  |   | ug/kg |             |
| AR1260-D     | 2              | 9.65  | 9.66  | 160  |   | ug/kg |             |
| AR1260-E     | 1              | 8.45  | 8.46  | 158  |   | ug/kg |             |
| AR1260-E     | 2              | 10.20 | 10.20 | 164  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.7  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11668-BS1  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227796.D | <b>Injection Time:</b> 17:55    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 149  |   | ug/kg | 9.6         |
| Aroclor 1016 | 2              |       |       | 164  |   | ug/kg |             |
| AR1016-A     | 1              | 3.20  | 3.19  | 168  |   | ug/kg |             |
| AR1016-A     | 2              | 4.21  | 4.21  | 199  |   | ug/kg |             |
| AR1016-B     | 1              | 3.57  | 3.57  | 159  |   | ug/kg |             |
| AR1016-B     | 2              | 4.76  | 4.76  | 159  |   | ug/kg |             |
| AR1016-C     | 1              | 4.13  | 4.12  | 131  |   | ug/kg |             |
| AR1016-C     | 2              | 5.41  | 5.40  | 152  |   | ug/kg |             |
| AR1016-D     | 1              | 4.29  | 4.28  | 146  |   | ug/kg |             |
| AR1016-D     | 2              | 5.59  | 5.59  | 159  |   | ug/kg |             |
| AR1016-E     | 1              | 4.78  | 4.77  | 143  |   | ug/kg |             |
| AR1016-E     | 2              | 6.25  | 6.25  | 151  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 156  |   | ug/kg | 1.3         |
| Aroclor 1260 | 2              |       |       | 158  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.12  | 125  |   | ug/kg |             |
| AR1260-A     | 2              | 8.86  | 8.85  | 133  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 179  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 172  |   | ug/kg |             |
| AR1260-C     | 1              | 7.61  | 7.61  | 160  |   | ug/kg |             |
| AR1260-C     | 2              | 9.41  | 9.41  | 161  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.04  | 156  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 166  |   | ug/kg |             |
| AR1260-E     | 1              | 8.44  | 8.43  | 162  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 160  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.8  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

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|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11775-BS1  | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162947.D | <b>Injection Time:</b> 10:02    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 160  |   | ug/kg | 7.2         |
| Aroclor 1016 | 2              |       |       | 172  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 185  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.09  | 224  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 159  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 165  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 143  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 147  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 157  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 170  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.76  | 154  |   | ug/kg |             |
| AR1016-E     | 2              | 6.10  | 6.09  | 156  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 158  |   | ug/kg | 2.5         |
| Aroclor 1260 | 2              |       |       | 162  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 124  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 132  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 171  |   | ug/kg |             |
| AR1260-B     | 2              | 8.81  | 8.80  | 176  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 184  |   | ug/kg |             |
| AR1260-C     | 2              | 9.24  | 9.23  | 163  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.05  | 151  |   | ug/kg |             |
| AR1260-D     | 2              | 9.59  | 9.58  | 164  |   | ug/kg |             |
| AR1260-E     | 1              | 8.44  | 8.43  | 160  |   | ug/kg |             |
| AR1260-E     | 2              | 10.13 | 10.13 | 176  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.9  
12



# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G5G1866-CC1865 | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78589.D    | <b>Injection Time:</b> 06:00    |
| <b>Instrument ID:</b> GC5G       | <b>Method:</b> SW846 8082A      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP12045-BS  | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78592.D | <b>Injection Time:</b> 07:37    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound                  | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 <sup>a</sup> | 1 <sup>b</sup> |       |       | 147  |   | ug/kg | 12.1        |
| Aroclor 1016 <sup>a</sup> | 2              |       |       | 166  |   | ug/kg |             |
| AR1016-A                  | 1              | 4.23  | 4.22  | 167  |   | ug/kg |             |
| AR1016-A                  | 2              | 5.78  | 5.77  | 191  |   | ug/kg |             |
| AR1016-B                  | 1              | 4.94  | 4.94  | 141  |   | ug/kg |             |
| AR1016-B                  | 2              | 6.83  | 6.83  | 157  |   | ug/kg |             |
| AR1016-C                  | 1              | 5.97  | 5.97  | 138  |   | ug/kg |             |
| AR1016-C                  | 2              | 8.12  | 8.12  | 152  |   | ug/kg |             |
| AR1016-D                  | 1              | 6.29  | 6.28  | 145  |   | ug/kg |             |
| AR1016-D                  | 2              | 8.51  | 8.50  | 172  |   | ug/kg |             |
| AR1016-E                  | 1              | 7.32  | 7.32  | 144  |   | ug/kg |             |
| AR1016-E                  | 2              | 9.90  | 9.90  | 157  |   | ug/kg |             |
| Aroclor 1260 <sup>a</sup> | 1 <sup>b</sup> |       |       | 151  |   | ug/kg | 5.8         |
| Aroclor 1260 <sup>a</sup> | 2              |       |       | 160  |   | ug/kg |             |
| AR1260-A                  | 1              | 12.45 | 12.45 | 124  |   | ug/kg |             |
| AR1260-A                  | 2              | 15.75 | 15.75 | 132  |   | ug/kg |             |
| AR1260-B                  | 1              | 12.84 | 12.84 | 164  |   | ug/kg |             |
| AR1260-B                  | 2              | 16.05 | 16.05 | 173  |   | ug/kg |             |
| AR1260-C                  | 1              | 13.58 | 13.58 | 164  |   | ug/kg |             |
| AR1260-C                  | 2              | 17.02 | 17.02 | 173  |   | ug/kg |             |
| AR1260-D                  | 1              | 14.59 | 14.58 | 151  |   | ug/kg |             |
| AR1260-D                  | 2              | 17.86 | 17.86 | 161  |   | ug/kg |             |
| AR1260-E                  | 1              | 15.46 | 15.45 | 153  |   | ug/kg |             |
| AR1260-E                  | 2              | 19.08 | 19.08 | 163  |   | ug/kg |             |

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) QC results reported from this column.

12.7.10 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G5G1866-CC1865 | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78589.D    | <b>Injection Time:</b> 06:00    |
| <b>Instrument ID:</b> GC5G       | <b>Method:</b> SW846 8082A      |

|   |                                 |
|---|---------------------------------|
| <b>Sample ID:</b> OP12045-BSD           | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78593.D           | <b>Injection Time:</b> 08:09    |
| <b>Client ID:</b> Blank Spike Duplicate |                                 |

| Compound                  | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 <sup>a</sup> | 1 <sup>b</sup> |       |       | 149  |   | ug/kg | 5.9         |
| Aroclor 1016 <sup>a</sup> | 2              |       |       | 158  |   | ug/kg |             |
| AR1016-A                  | 1              | 4.22  | 4.22  | 175  |   | ug/kg |             |
| AR1016-A                  | 2              | 5.78  | 5.77  | 176  |   | ug/kg |             |
| AR1016-B                  | 1              | 4.94  | 4.94  | 142  |   | ug/kg |             |
| AR1016-B                  | 2              | 6.83  | 6.83  | 159  |   | ug/kg |             |
| AR1016-C                  | 1              | 5.97  | 5.97  | 139  |   | ug/kg |             |
| AR1016-C                  | 2              | 8.13  | 8.12  | 152  |   | ug/kg |             |
| AR1016-D                  | 1              | 6.29  | 6.28  | 144  |   | ug/kg |             |
| AR1016-D                  | 2              | 8.50  | 8.50  | 148  |   | ug/kg |             |
| AR1016-E                  | 1              | 7.32  | 7.32  | 145  |   | ug/kg |             |
| AR1016-E                  | 2              | 9.90  | 9.90  | 157  |   | ug/kg |             |
| Aroclor 1260 <sup>a</sup> | 1 <sup>b</sup> |       |       | 152  |   | ug/kg | 7.0         |
| Aroclor 1260 <sup>a</sup> | 2              |       |       | 163  |   | ug/kg |             |
| AR1260-A                  | 1              | 12.45 | 12.45 | 125  |   | ug/kg |             |
| AR1260-A                  | 2              | 15.75 | 15.75 | 134  |   | ug/kg |             |
| AR1260-B                  | 1              | 12.84 | 12.84 | 163  |   | ug/kg |             |
| AR1260-B                  | 2              | 16.05 | 16.05 | 178  |   | ug/kg |             |
| AR1260-C                  | 1              | 13.59 | 13.58 | 166  |   | ug/kg |             |
| AR1260-C                  | 2              | 17.02 | 17.02 | 175  |   | ug/kg |             |
| AR1260-D                  | 1              | 14.58 | 14.58 | 151  |   | ug/kg |             |
| AR1260-D                  | 2              | 17.86 | 17.86 | 163  |   | ug/kg |             |
| AR1260-E                  | 1              | 15.46 | 15.45 | 154  |   | ug/kg |             |
| AR1260-E                  | 2              | 19.08 | 19.08 | 164  |   | ug/kg |             |

- (a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.
- (b) QC results reported from this column.

12.7.11  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4320-CC4311 | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162501.D   | <b>Injection Time:</b> 17:27    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11639-MS   | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162506.D | <b>Injection Time:</b> 18:51    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 987  |   | ug/kg | 2.3         |
| Aroclor 1016 | 2              |       |       | 1010 |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 1200 |   | ug/kg |             |
| AR1016-A     | 2              | 4.11  | 4.12  | 1360 |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 955  |   | ug/kg |             |
| AR1016-B     | 2              | 4.65  | 4.66  | 1010 |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.11  | 892  |   | ug/kg |             |
| AR1016-C     | 2              | 5.30  | 5.30  | 861  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.27  | 961  |   | ug/kg |             |
| AR1016-D     | 2              | 5.49  | 5.49  | 909  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.78  | 932  |   | ug/kg |             |
| AR1016-E     | 2              | 6.14  | 6.14  | 922  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 938  |   | ug/kg | 3.4         |
| Aroclor 1260 | 2              |       |       | 970  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.14  | 745  |   | ug/kg |             |
| AR1260-A     | 2              | 8.75  | 8.76  | 796  |   | ug/kg |             |
| AR1260-B     | 1              | 7.29  | 7.30  | 1050 |   | ug/kg |             |
| AR1260-B     | 2              | 8.87  | 8.87  | 1070 |   | ug/kg |             |
| AR1260-C     | 1              | 7.63  | 7.64  | 994  |   | ug/kg |             |
| AR1260-C     | 2              | 9.30  | 9.30  | 982  |   | ug/kg |             |
| AR1260-D     | 1              | 8.06  | 8.07  | 906  |   | ug/kg |             |
| AR1260-D     | 2              | 9.65  | 9.66  | 982  |   | ug/kg |             |
| AR1260-E     | 1              | 8.45  | 8.46  | 988  |   | ug/kg |             |
| AR1260-E     | 2              | 10.19 | 10.20 | 1020 |   | ug/kg |             |

(a) QC results reported from this column.

12.7.12 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11668-MS   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227798.D | <b>Injection Time:</b> 18:28    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 187  |   | ug/kg | 14.9        |
| Aroclor 1016 | 2              |       |       | 217  |   | ug/kg |             |
| AR1016-C     | 1              | 4.11  | 4.12  | 147  |   | ug/kg |             |
| AR1016-C     | 2              | 5.40  | 5.40  | 124  |   | ug/kg |             |
| AR1016-D     | 1              | 4.27  | 4.28  | 272  |   | ug/kg |             |
| AR1016-D     | 2              | 5.59  | 5.59  | 129  |   | ug/kg |             |
| AR1016-E     | 1              | 4.81  | 4.77  | 142  |   | ug/kg |             |
| AR1016-E     | 2              | 6.26  | 6.25  | 397  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 212  |   | ug/kg | 23.3        |
| Aroclor 1260 | 2              |       |       | 268  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 203  |   | ug/kg |             |
| AR1260-A     | 2              | 8.82  | 8.85  | 220  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 306  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 415  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.04  | 173  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 174  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 167  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 262  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.13  
12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

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|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11775-MS   | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162949.D | <b>Injection Time:</b> 10:36    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 170  |   | ug/kg | 3.0         |
| Aroclor 1016 | 2              |       |       | 165  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 190  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.09  | 206  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 174  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 171  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 153  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 147  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 166  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 151  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.76  | 167  |   | ug/kg |             |
| AR1016-E     | 2              | 6.09  | 6.09  | 151  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 359  |   | ug/kg | 25.8        |
| Aroclor 1260 | 2              |       |       | 277  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 360  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 274  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 364  |   | ug/kg |             |
| AR1260-B     | 2              | 8.80  | 8.80  | 268  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 354  |   | ug/kg |             |
| AR1260-C     | 2              | 9.23  | 9.23  | 283  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.05  | 369  |   | ug/kg |             |
| AR1260-D     | 2              | 9.58  | 9.58  | 289  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 348  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.13 | 273  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.14 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G5G1866-CC1865 | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78589.D    | <b>Injection Time:</b> 06:00    |
| <b>Instrument ID:</b> GC5G       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP12045-MS   | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78595.D  | <b>Injection Time:</b> 09:14    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 113  |   | ug/kg | 9.3         |
| Aroclor 1016 | 2              |       |       | 124  |   | ug/kg |             |
| AR1016-B     | 1              | 4.94  | 4.94  | 109  |   | ug/kg |             |
| AR1016-B     | 2              | 6.82  | 6.83  | 176  |   | ug/kg |             |
| AR1016-C     | 1              | 5.97  | 5.97  | 114  |   | ug/kg |             |
| AR1016-C     | 2              | 8.11  | 8.12  | 108  |   | ug/kg |             |
| AR1016-D     | 1              | 6.29  | 6.28  | 91.7 |   | ug/kg |             |
| AR1016-D     | 2              | 8.49  | 8.50  | 130  |   | ug/kg |             |
| AR1016-E     | 1              | 7.32  | 7.32  | 138  |   | ug/kg |             |
| AR1016-E     | 2              | 9.89  | 9.90  | 83.4 |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 128  |   | ug/kg | 33.2        |
| Aroclor 1260 | 2              |       |       | 179  |   | ug/kg |             |
| AR1260-A     | 1              | 12.45 | 12.45 | 105  |   | ug/kg |             |
| AR1260-A     | 2              | 15.70 | 15.75 | 201  |   | ug/kg |             |
| AR1260-B     | 1              | 12.83 | 12.84 | 114  |   | ug/kg |             |
| AR1260-B     | 2              | 16.04 | 16.05 | 216  |   | ug/kg |             |
| AR1260-C     | 1              | 13.58 | 13.58 | 184  |   | ug/kg |             |
| AR1260-C     | 2              | 17.02 | 17.02 | 156  |   | ug/kg |             |
| AR1260-E     | 1              | 15.45 | 15.45 | 110  |   | ug/kg |             |
| AR1260-E     | 2              | 19.08 | 19.08 | 143  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.15 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4320-CC4311 | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162501.D   | <b>Injection Time:</b> 17:27    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11639-MSD            | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162507.D           | <b>Injection Time:</b> 19:08    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 889  |   | ug/kg | 0.6         |
| Aroclor 1016 | 2              |       |       | 884  |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 1090 |   | ug/kg |             |
| AR1016-A     | 2              | 4.11  | 4.12  | 1130 |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 867  |   | ug/kg |             |
| AR1016-B     | 2              | 4.65  | 4.66  | 895  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.11  | 799  |   | ug/kg |             |
| AR1016-C     | 2              | 5.30  | 5.30  | 764  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.27  | 858  |   | ug/kg |             |
| AR1016-D     | 2              | 5.49  | 5.49  | 804  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.78  | 834  |   | ug/kg |             |
| AR1016-E     | 2              | 6.14  | 6.14  | 822  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 832  |   | ug/kg | 3.1         |
| Aroclor 1260 | 2              |       |       | 858  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.14  | 666  |   | ug/kg |             |
| AR1260-A     | 2              | 8.75  | 8.76  | 698  |   | ug/kg |             |
| AR1260-B     | 1              | 7.29  | 7.30  | 940  |   | ug/kg |             |
| AR1260-B     | 2              | 8.87  | 8.87  | 940  |   | ug/kg |             |
| AR1260-C     | 1              | 7.63  | 7.64  | 885  |   | ug/kg |             |
| AR1260-C     | 2              | 9.30  | 9.30  | 872  |   | ug/kg |             |
| AR1260-D     | 1              | 8.06  | 8.07  | 808  |   | ug/kg |             |
| AR1260-D     | 2              | 9.65  | 9.66  | 868  |   | ug/kg |             |
| AR1260-E     | 1              | 8.45  | 8.46  | 863  |   | ug/kg |             |
| AR1260-E     | 2              | 10.19 | 10.20 | 913  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.16 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11668-MSD            | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227799.D           | <b>Injection Time:</b> 18:44    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 181  |   | ug/kg | 5.7         |
| Aroclor 1016 | 2              |       |       | 171  |   | ug/kg |             |
| AR1016-C     | 1              | 4.11  | 4.12  | 138  |   | ug/kg |             |
| AR1016-C     | 2              | 5.40  | 5.40  | 114  |   | ug/kg |             |
| AR1016-D     | 1              | 4.27  | 4.28  | 295  |   | ug/kg |             |
| AR1016-D     | 2              | 5.58  | 5.59  | 130  |   | ug/kg |             |
| AR1016-E     | 1              | 4.80  | 4.77  | 111  |   | ug/kg |             |
| AR1016-E     | 2              | 6.25  | 6.25  | 269  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 173  |   | ug/kg | 22.6        |
| Aroclor 1260 | 2              |       |       | 217  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 185  |   | ug/kg |             |
| AR1260-A     | 2              | 8.81  | 8.85  | 186  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 240  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 275  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.04  | 126  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 204  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 143  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 202  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.17 12



# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11775-MSD            | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162950.D           | <b>Injection Time:</b> 10:53    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 160  |   | ug/kg | 0.6         |
| Aroclor 1016 | 2              |       |       | 159  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 178  |   | ug/kg |             |
| AR1016-A     | 2              | 4.08  | 4.09  | 196  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 164  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 161  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 145  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 142  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 160  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 151  |   | ug/kg |             |
| AR1016-E     | 1              | 4.76  | 4.76  | 153  |   | ug/kg |             |
| AR1016-E     | 2              | 6.09  | 6.09  | 143  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 368  |   | ug/kg | 8.2         |
| Aroclor 1260 | 2              |       |       | 339  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 374  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 347  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 371  |   | ug/kg |             |
| AR1260-B     | 2              | 8.80  | 8.80  | 339  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 360  |   | ug/kg |             |
| AR1260-C     | 2              | 9.23  | 9.23  | 335  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.05  | 378  |   | ug/kg |             |
| AR1260-D     | 2              | 9.58  | 9.58  | 347  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 359  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.13 | 325  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.18 12

# GC Identification Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G5G1866-CC1865 | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78589.D    | <b>Injection Time:</b> 06:00    |
| <b>Instrument ID:</b> GC5G       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP12045-MSD            | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78596.D            | <b>Injection Time:</b> 09:46    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 178  |   | ug/kg | 15.8        |
| Aroclor 1016 | 2              |       |       | 152  |   | ug/kg |             |
| AR1016-B     | 1              | 4.93  | 4.94  | 157  |   | ug/kg |             |
| AR1016-B     | 2              | 6.82  | 6.83  | 218  |   | ug/kg |             |
| AR1016-C     | 1              | 5.97  | 5.97  | 210  |   | ug/kg |             |
| AR1016-C     | 2              | 8.11  | 8.12  | 138  |   | ug/kg |             |
| AR1016-D     | 1              | 6.29  | 6.28  | 179  |   | ug/kg |             |
| AR1016-D     | 2              | 8.49  | 8.50  | 159  |   | ug/kg |             |
| AR1016-E     | 1              | 7.32  | 7.32  | 166  |   | ug/kg |             |
| AR1016-E     | 2              | 9.90  | 9.90  | 92.7 |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 171  |   | ug/kg | 24.2        |
| Aroclor 1260 | 2              |       |       | 218  |   | ug/kg |             |
| AR1260-A     | 1              | 12.45 | 12.45 | 122  |   | ug/kg |             |
| AR1260-A     | 2              | 15.70 | 15.75 | 249  |   | ug/kg |             |
| AR1260-B     | 1              | 12.83 | 12.84 | 154  |   | ug/kg |             |
| AR1260-B     | 2              | 16.04 | 16.05 | 254  |   | ug/kg |             |
| AR1260-C     | 1              | 13.58 | 13.58 | 259  |   | ug/kg |             |
| AR1260-C     | 2              | 17.02 | 17.02 | 193  |   | ug/kg |             |
| AR1260-E     | 1              | 15.45 | 15.45 | 150  |   | ug/kg |             |
| AR1260-E     | 2              | 19.08 | 19.08 | 176  |   | ug/kg |             |

(a) QC results reported from this column.

12.7.19 12

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8151A | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|
| JC64996-9     | 3G116159.D  | 94              | 84              |
| JC64996-10    | 3G116160.D  | 31              | 23              |
| OP11638-BS1   | 3G116151.D  | 96              | 83              |
| OP11638-MB1   | 3G116150.D  | 91              | 86              |
| OP11638-MS    | 3G116161.D  | 77              | 69              |
| OP11638-MSD   | 3G116162.D  | 81              | 72              |

**Surrogate Compounds**                      **Recovery Limits**

S1 = 2,4-DCAA                              10-159%

- (a) Recovery from GC signal #2
- (b) Recovery from GC signal #1

12.8.1  
12

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8081B | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|-----------------|
| JC64996-9     | 1G145694.D  | 123             | 85              | 140             | 108             |
| JC64996-10    | 1G145695.D  | 81              | 63              | 135             | 69              |
| OP11640-BS1   | 1G145686.D  | 81              | 64              | 112             | 80              |
| OP11640-MB1   | 1G145685.D  | 85              | 69              | 115             | 85              |
| OP11640-MS    | 1G145690.D  | 86              | 69              | 113             | 84              |
| OP11640-MSD   | 1G145691.D  | 87              | 69              | 112             | 84              |

| Surrogate Compounds | Recovery Limits |
|---------------------|-----------------|
|---------------------|-----------------|

|                           |         |
|---------------------------|---------|
| S1 = Tetrachloro-m-xylene | 25-135% |
| S2 = Decachlorobiphenyl   | 10-156% |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

12.8.2  
12

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8082A | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup>   | S2 <sup>b</sup>   |
|---------------|-------------|-----------------|-----------------|-------------------|-------------------|
| JC64996-6     | XX227818.D  | 91              | 97              | 85                | 86                |
| JC64996-7     | 5G78594.D   | 59              | 74              | 65                | 85                |
| JC64996-9     | 2G162951.D  | 79              | 79              | 330* <sup>c</sup> | 486* <sup>c</sup> |
| JC64996-10    | 2G162537.D  | 87              | 89              | 84                | 84                |
| OP11639-BS1   | 2G162504.D  | 90              | 95              | 95                | 97                |
| OP11639-MB1   | 2G162503.D  | 89              | 96              | 95                | 96                |
| OP11639-MS    | 2G162506.D  | 97              | 101             | 98                | 100               |
| OP11639-MSD   | 2G162507.D  | 91              | 95              | 93                | 95                |
| OP11668-BS1   | XX227796.D  | 99              | 102             | 103               | 107               |
| OP11668-MB1   | XX227795.D  | 100             | 102             | 102               | 106               |
| OP11668-MS    | XX227798.D  | 92              | 107             | 74                | 166               |
| OP11668-MSD   | XX227799.D  | 89              | 105             | 83                | 178* <sup>c</sup> |
| OP11775-BS1   | 2G162947.D  | 99              | 105             | 101               | 110               |
| OP11775-MB1   | 2G162946.D  | 90              | 98              | 94                | 100               |
| OP11775-MS    | 2G162949.D  | 95              | 98              | 82                | 83                |
| OP11775-MSD   | 2G162950.D  | 88              | 90              | 77                | 75                |
| OP12045-BS    | 5G78592.D   | 79              | 90              | 92                | 102               |
| OP12045-BSD   | 5G78593.D   | 79              | 91              | 94                | 105               |
| OP12045-MB    | 5G78591.D   | 90              | 103             | 91                | 102               |
| OP12045-MS    | 5G78595.D   | 52              | 62              | 62                | 78                |
| OP12045-MSD   | 5G78596.D   | 66              | 74              | 72                | 94                |

**Surrogate Compounds**

**Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = Tetrachloro-m-xylene | 24-152% |
| S2 = Decachlorobiphenyl   | 10-166% |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.8.3  
12

# Surrogate Recovery Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S2 <sup>a</sup> | S3 <sup>a</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|
| JC64996-6     | ZZ88738.D   | 47              | 61              | 56              |
| JC64996-7     | ZZ88739.D   | 50              | 65              | 71              |
| OP11620-BS1   | ZZ88722.D   | 58              | 67              | 61              |
| OP11620-MB1   | ZZ88721.D   | 53              | 71              | 64              |
| OP11620-MS    | ZZ88726.D   | 57              | 66              | 61              |
| OP11620-MSD   | ZZ88727.D   | 49              | 56              | 53              |

| Surrogate Compounds | Recovery Limits |
|---------------------|-----------------|
|---------------------|-----------------|

|                      |         |
|----------------------|---------|
| S1 = o-Terphenyl     | 18-132% |
| S2 = Tetracosane-d50 | 25-137% |
| S3 = 5a-Androstane   | 22-134% |

(a) Recovery from GC signal #1

12.8.4  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4033-CC4020 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116148.D   | <b>Injection Time:</b> 15:53    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11638-MB1   | 3G116150.D  | 04/30/18      | 16:49         | 7.94               | 7.47               |
| OP11638-BS1   | 3G116151.D  | 04/30/18      | 17:18         | 7.93               | 7.45               |
| ZZZZZZ        | 3G116152.D  | 04/30/18      | 17:46         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116153.D  | 04/30/18      | 18:14         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116154.D  | 04/30/18      | 18:43         | 7.93               | 7.46               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.9.1  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4033-CC4020 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 3G116156.D   | <b>Injection Time:</b> 19:39    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.45 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| JC64996-8Q    | 3G116158.D  | 04/30/18      | 20:36         |                    |                    |
| JC64996-9     | 3G116159.D  | 04/30/18      | 21:04         | 7.93               | 7.45               |
| JC64996-10    | 3G116160.D  | 04/30/18      | 21:32         | 7.95               | 7.49               |
| OP11638-MS    | 3G116161.D  | 04/30/18      | 22:01         | 7.93               | 7.45               |
| OP11638-MSD   | 3G116162.D  | 04/30/18      | 22:29         | 7.93               | 7.45               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.9.2  
12



# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4633-CC4628 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 1G145683.D   | <b>Injection Time:</b> 23:14    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 3.14                  | 9.81                  | 11.69                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11640-MB1   | 1G145685.D  | 04/29/18      | 23:48         | 2.54                  | 3.14                  | 9.80                  | 11.69                 |
| OP11640-BS1   | 1G145686.D  | 04/30/18      | 00:06         | 2.55                  | 3.14                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145687.D  | 04/30/18      | 00:23         | 2.54                  | 3.14                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145688.D  | 04/30/18      | 00:41         | 2.55                  | 3.14                  | 9.81                  | 11.69                 |
| JC64960-1     | 1G145689.D  | 04/30/18      | 00:58         | 2.55                  | 3.14                  | 9.80                  | 11.69                 |
| OP11640-MS    | 1G145690.D  | 04/30/18      | 01:16         | 2.55                  | 3.14                  | 9.80                  | 11.69                 |
| OP11640-MSD   | 1G145691.D  | 04/30/18      | 01:33         | 2.54                  | 3.14                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145692.D  | 04/30/18      | 01:50         | 2.55                  | 3.14                  | 9.80                  | 11.69                 |
| JC64996-9     | 1G145694.D  | 04/30/18      | 02:24         | 2.55                  | 3.14                  | 9.80                  | 11.68                 |
| JC64996-10    | 1G145695.D  | 04/30/18      | 02:42         | 2.54                  | 3.14                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145696.D  | 04/30/18      | 02:59         | 2.55                  | 3.14                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145697.D  | 04/30/18      | 03:16         | 2.54                  | 3.14                  | 9.80                  | 11.69                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.3  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4320-CC4311 | <b>Injection Date:</b> 04/28/18 |
| <b>Lab File ID:</b> 2G162501.D   | <b>Injection Time:</b> 17:27    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.79                  | 3.45                  | 9.99                  | 11.86                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11639-MB1   | 2G162503.D  | 04/28/18      | 18:00         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| OP11639-BS1   | 2G162504.D  | 04/28/18      | 18:17         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| JC64843-1     | 2G162505.D  | 04/28/18      | 18:34         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| OP11639-MS    | 2G162506.D  | 04/28/18      | 18:51         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| OP11639-MSD   | 2G162507.D  | 04/28/18      | 19:08         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| ZZZZZZ        | 2G162508.D  | 04/28/18      | 19:25         | 2.79                  | 3.45                  | 9.98                  | 11.86                 |
| ZZZZZZ        | 2G162509.D  | 04/28/18      | 19:42         | 2.79                  | 3.45                  | 9.98                  | 11.85                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.4  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4320-CC4311 | <b>Injection Date:</b> 04/29/18 |
| <b>Lab File ID:</b> 2G162534.D   | <b>Injection Time:</b> 02:46    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.79                  | 3.45                  | 9.98                  | 11.85                 |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC64996-10       | 2G162537.D     | 04/29/18         | 03:36            | 2.79                  | 3.45                  | 9.98                  | 11.85                 |

### Surrogate Compounds

S1 = Tetrachloro-m-xylene  
S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.5  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11775-MB1   | 2G162946.D  | 05/07/18      | 09:45         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-BS1   | 2G162947.D  | 05/07/18      | 10:02         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| JC65281-54    | 2G162948.D  | 05/07/18      | 10:19         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-MS    | 2G162949.D  | 05/07/18      | 10:36         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-MSD   | 2G162950.D  | 05/07/18      | 10:53         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| JC64996-9     | 2G162951.D  | 05/07/18      | 11:10         | 2.78                  | 3.43                  | 10.00                 | 11.79                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.6  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G5G1866-CC1865 | <b>Injection Date:</b> 05/17/18 |
| <b>Lab File ID:</b> 5G78589.D    | <b>Injection Time:</b> 06:00    |
| <b>Instrument ID:</b> GC5G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 3.57                  | 4.56                  | 19.04                 | 22.95                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP12045-MB    | 5G78591.D   | 05/17/18      | 07:04         | 3.57                  | 4.56                  | 19.04                 | 22.95                 |
| OP12045-BS    | 5G78592.D   | 05/17/18      | 07:37         | 3.57                  | 4.56                  | 19.05                 | 22.95                 |
| OP12045-BSD   | 5G78593.D   | 05/17/18      | 08:09         | 3.57                  | 4.56                  | 19.05                 | 22.95                 |
| JC64996-7     | 5G78594.D   | 05/17/18      | 08:41         | 3.57                  | 4.55                  | 19.04                 | 22.95                 |
| OP12045-MS    | 5G78595.D   | 05/17/18      | 09:14         | 3.57                  | 4.55                  | 19.04                 | 22.95                 |
| OP12045-MSD   | 5G78596.D   | 05/17/18      | 09:46         | 3.57                  | 4.55                  | 19.04                 | 22.95                 |
| ZZZZZZ        | 5G78597.D   | 05/17/18      | 10:18         | 3.58                  | 4.56                  | 19.06                 | 22.96                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.7  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11668-MB1   | XX227795.D  | 05/01/18      | 17:38         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| OP11668-BS1   | XX227796.D  | 05/01/18      | 17:55         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| JC65130-1     | XX227797.D  | 05/01/18      | 18:11         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| OP11668-MS    | XX227798.D  | 05/01/18      | 18:28         | 2.81                  | 3.55                  | 9.97                  | 11.97                 |
| OP11668-MSD   | XX227799.D  | 05/01/18      | 18:44         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227800.D  | 05/01/18      | 19:01         | 2.81                  | 3.54                  | 9.99                  | 11.95                 |
| ZZZZZZ        | XX227801.D  | 05/01/18      | 19:17         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.8  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227815.D   | <b>Injection Time:</b> 23:07    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.97                  | 11.97                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC64996-6     | XX227818.D  | 05/01/18      | 23:57         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227820.D  | 05/02/18      | 00:29         | 2.81                  | 3.55                  | 9.97                  | 11.99                 |
| ZZZZZZ        | XX227821.D  | 05/02/18      | 00:46         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227822.D  | 05/02/18      | 01:02         | 2.81                  | 3.55                  | 9.96                  | 11.98                 |
| ZZZZZZ        | XX227823.D  | 05/02/18      | 01:19         | 2.81                  | 3.55                  | 9.97                  | 11.97                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.9.9  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GZZ3195-CC3143 | <b>Injection Date:</b> 04/27/18 |
| <b>Lab File ID:</b> ZZ88718.D    | <b>Injection Time:</b> 10:51    |
| <b>Instrument ID:</b> GCZZ       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup> RT**    **S2<sup>a</sup> RT**    **S3<sup>a</sup> RT**

|           |      |       |      |
|-----------|------|-------|------|
| Check Std | 8.61 | 10.00 | 9.08 |
|-----------|------|-------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S2 <sup>a</sup> RT | S3 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|--------------------|
| GZZ3195-RT    | ZZ88719.D   | 04/27/18      | 11:24         |                    |                    |                    |
| OP11620-MB1   | ZZ88721.D   | 04/27/18      | 14:12         | 8.62               | 10.00              | 9.08               |
| OP11620-BS1   | ZZ88722.D   | 04/27/18      | 14:45         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88723.D   | 04/27/18      | 15:18         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88724.D   | 04/27/18      | 15:51         | 8.61               | 10.00              | 9.08               |
| JC64962-1     | ZZ88725.D   | 04/27/18      | 16:24         | 8.61               | 10.00              | 9.08               |
| OP11620-MS    | ZZ88726.D   | 04/27/18      | 16:57         | 8.62               | 10.00              | 9.08               |
| OP11620-MSD   | ZZ88727.D   | 04/27/18      | 17:31         | 8.61               | 10.00              | 9.08               |

## Surrogate Compounds

**S1** = o-Terphenyl  
**S2** = Tetracosane-d50  
**S3** = 5a-Androstane

(a) Retention time from GC signal #1

12.9.10  
12



# GC Surrogate Retention Time Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GZZ3196-CC3143 | <b>Injection Date:</b> 04/27/18 |
| <b>Lab File ID:</b> ZZ88729.D    | <b>Injection Time:</b> 18:37    |
| <b>Instrument ID:</b> GCZZ       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**   **S2<sup>a</sup>**   **S3<sup>a</sup>**  
**RT**   **RT**   **RT**

|           |      |       |      |
|-----------|------|-------|------|
| Check Std | 8.61 | 10.00 | 9.08 |
|-----------|------|-------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S2 <sup>a</sup> RT | S3 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|--------------------|
| ZZZZZZ        | ZZ88731.D   | 04/27/18      | 19:43         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88732.D   | 04/27/18      | 20:16         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88733.D   | 04/27/18      | 20:50         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88734.D   | 04/27/18      | 21:23         | 8.60               | 10.03              | 9.13               |
| ZZZZZZ        | ZZ88735.D   | 04/27/18      | 21:56         | 8.61               | 10.00              | 9.08               |
| ZZZZZZ        | ZZ88736.D   | 04/27/18      | 22:29         | 8.61               | 10.00              | 9.08               |
| JC64996-6     | ZZ88738.D   | 04/27/18      | 23:35         | 8.61               | 10.00              | 9.08               |
| JC64996-7     | ZZ88739.D   | 04/28/18      | 00:08         | 8.62               | 10.00              | 9.08               |

## Surrogate Compounds

**S1** = o-Terphenyl  
**S2** = Tetracosane-d50  
**S3** = 5a-Androstane

(a) Retention time from GC signal #1

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICC4628  
**Lab FileID:** 1G145471.D

## Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Initial Calibration

### Calibration Files

2 =1G145468.D 5 =1G145469.D 10 =1G145470.D 25 =1G145471.D  
50 =1G145472.D 100 =1G145474.D 1 =1G145467.D 75 =1G145473.D

| Compound  | 2              | 5     | 10    | 25    | 50    | 100   | 1     | 75    | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----   |                |       |       |       |       |       |       |       |       |       |
| 1) I 1-bromo-2-nitrobenzen                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-                                       | 0.891          | 0.950 | 0.938 | 0.944 | 1.066 | 0.950 | 0.834 | 0.969 | 0.943 | 7.02  |
| 3) Hexachlorobe                                       | 1.639          | 1.655 | 1.700 | 1.633 | 1.820 | 1.624 | 1.792 | 1.641 | 1.688 | 4.53  |
| 4) alpha-BHC  | 1.118          | 1.306 | 1.304 | 1.329 | 1.545 | 1.476 | 1.219 | 1.447 | 1.343 | 10.48 |
| 5) gamma-BHC  | 1.115          | 1.188 | 1.201 | 1.193 | 1.371 | 1.288 | 1.221 | 1.288 | 1.233 | 6.43  |
| 6) Heptachlor   | 1.112          | 1.193 | 1.215 | 1.254 | 1.435 | 1.321 | 1.411 | 1.328 | 1.284 | 8.61  |
| 7) beta-BHC   | 0.547          | 0.591 | 0.534 | 0.563 | 0.613 | 0.570 | 0.511 | 0.574 | 0.563 | 5.72  |
| 8) delta-BHC  | 0.776          | 0.904 | 0.999 | 1.151 | 1.315 | 1.249 | 1.044 | 1.247 | 1.086 | 17.32 |
| 9) Aldrin   | 1.029          | 1.126 | 1.180 | 1.153 | 1.329 | 1.243 | 1.241 | 1.239 | 1.192 | 7.68  |
| 10) Alachlor  | 0.155          | 0.126 | 0.127 | 0.127 | 0.139 | 0.135 | 0.196 | 0.135 | 0.142 | 16.60 |
| 11) Heptachlor E                                      | 0.980          | 1.076 | 1.111 | 1.092 | 1.258 | 1.145 | 1.110 | 1.158 | 1.116 | 7.07  |
| 12) gamma-Chlord                                      | 1.010          | 1.054 | 1.110 | 1.101 | 1.274 | 1.186 | 1.228 | 1.188 | 1.144 | 7.86  |
| 13) alpha-Chlord                                      | 0.960          | 1.049 | 1.079 | 1.063 | 1.220 | 1.131 | 1.108 | 1.135 | 1.093 | 6.94  |
| 14) Endosulfan I                                      | 1.053          | 1.180 | 1.206 | 1.151 | 1.319 | 1.197 | 1.223 | 1.209 | 1.192 | 6.22  |
| 15) 4,4'-DDE  | 0.893          | 0.914 | 0.919 | 0.925 | 1.065 | 1.001 | 1.178 | 0.999 | 0.987 | 9.83  |
| 16) Dieldrin  | 1.027          | 1.059 | 1.081 | 1.093 | 1.270 | 1.182 | 1.057 | 1.177 | 1.118 | 7.41  |
| 17) Endrin  | 0.923          | 0.972 | 1.009 | 1.019 | 1.176 | 1.090 | 1.012 | 1.091 | 1.036 | 7.65  |
| 18) 4,4'-DDD  | 0.716          | 0.717 | 0.760 | 0.772 | 0.919 | 0.857 | 0.794 | 0.855 | 0.799 | 9.08  |
| 19) Endosulfan I                                      | 0.861          | 0.959 | 0.996 | 0.972 | 1.120 | 1.023 | 1.076 | 1.030 | 1.005 | 7.81  |
| 20) 4,4'-DDT  | 0.622          | 0.648 | 0.693 | 0.764 | 0.890 | 0.875 | 0.528 | 0.857 | 0.735 | 18.15 |
| 21) Endrin Aldeh                                      | 0.729          | 0.812 | 0.817 | 0.808 | 0.866 | 0.845 | 0.765 | 0.842 | 0.811 | 5.53  |
| 22) Endosulfan S                                      | 0.656          | 0.759 | 0.790 | 0.802 | 0.912 | 0.853 | 0.731 | 0.848 | 0.794 | 10.05 |
| 23) Methoxychlor                                      | 0.210          | 0.239 | 0.289 | 0.332 | 0.407 | 0.395 | 0.161 | 0.390 | 0.303 | 30.77 |
| -----   |                |       |       |       |       |       |       |       |       |       |
| ---- Quadratic regression ---- Coefficient = 0.9984   |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01368 + 0.39702 *A + 0.00297 *A^2 |                |       |       |       |       |       |       |       |       |       |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 24) Mirex   | 0.747          | 0.807 | 0.826 | 0.805 | 0.878 | 0.793 | 0.818 | 0.802 | 0.810 | 4.51  |
| 25) Endrin Keton                                      | 0.835          | 0.878 | 0.917 | 0.932 | 1.066 | 0.986 | 0.890 | 0.991 | 0.937 | 7.91  |
| 26) Decachlorobi                                      | 0.948          | 0.953 | 0.978 | 0.951 | 1.045 | 0.940 | 0.985 | 0.956 | 0.970 | 3.52  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 27) I 1-bromo-2-nitrobenzen                           | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) Toxaphene{A}                                      |                |       |       |       | 0.018 |       |       |       | 0.018 | 0.00  |
| 29) Toxaphene{B}                                      |                |       |       |       | 0.044 |       |       |       | 0.044 | 0.00  |
| 30) Toxaphene{C}                                      |                |       |       |       | 0.037 |       |       |       | 0.037 | 0.00  |
| 31) Toxaphene{D}                                      |                |       |       |       | 0.025 |       |       |       | 0.025 | 0.00  |
| 32) Toxaphene{E}                                      |                |       |       |       | 0.027 |       |       |       | 0.027 | 0.00  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 33) I 1-bromo-2-nitrobenzen                           | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) Chlordane {A}                                     |                |       |       |       | 0.062 |       |       |       | 0.062 | 0.00  |
| 35) Chlordane {B}                                     |                |       |       |       | 0.026 |       |       |       | 0.026 | 0.00  |
| 36) Chlordane {C}                                     |                |       |       |       | 0.153 |       |       |       | 0.153 | 0.00  |
| 37) Chlordane {D}                                     |                |       |       |       | 0.239 |       |       |       | 0.239 | 0.00  |
| 38) Chlordane {E}                                     |                |       |       |       | 0.027 |       |       |       | 0.027 | 0.00  |

Signal #2

12.10.1 12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICC4628  
**Lab FileID:** 1G145471.D

|       |                       |       |       |       |       |       |       |       |       |       |       |
|-------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 2)    | Tetrachloro-          | 1.015 | 1.010 | 1.030 | 1.009 | 1.140 | 0.987 | 1.062 | 1.012 | 1.033 | 4.67  |
| 3)    | Hexachlorobe          | 1.367 | 1.308 | 1.308 | 1.271 | 1.437 | 1.246 | 1.840 | 1.282 | 1.382 | 14.08 |
| 4)    | alpha-BHC             | 1.299 | 1.331 | 1.346 | 1.385 | 1.643 | 1.493 | 1.355 | 1.516 | 1.421 | 8.31  |
| 5)    | gamma-BHC             | 1.214 | 1.241 | 1.259 | 1.276 | 1.487 | 1.322 | 1.188 | 1.347 | 1.292 | 7.33  |
| 6)    | Heptachlor            | 1.186 | 1.248 | 1.276 | 1.278 | 1.484 | 1.314 | 1.351 | 1.337 | 1.309 | 6.72  |
| 7)    | beta-BHC              | 0.528 | 0.562 | 0.592 | 0.582 | 0.663 | 0.567 | 0.626 | 0.587 | 0.588 | 7.00  |
| 8)    | delta-BHC             | 1.026 | 1.112 | 1.135 | 1.157 | 1.374 | 1.237 | 1.098 | 1.249 | 1.173 | 9.27  |
| 9)    | Aldrin                | 1.296 | 1.267 | 1.269 | 1.267 | 1.464 | 1.302 | 1.243 | 1.319 | 1.303 | 5.31  |
| 10)   | Alachlor              | 0.189 | 0.179 | 0.180 | 0.164 | 0.180 | 0.152 | 0.191 | 0.158 | 0.174 | 8.26  |
| 11)   | Heptachlor E          | 1.224 | 1.197 | 1.195 | 1.183 | 1.349 | 1.184 | 1.129 | 1.209 | 1.209 | 5.22  |
| 12)   | gamma-Chlord          | 1.201 | 1.193 | 1.202 | 1.180 | 1.365 | 1.204 | 1.266 | 1.226 | 1.229 | 4.94  |
| 13)   | alpha-Chlord          | 1.148 | 1.160 | 1.165 | 1.150 | 1.316 | 1.154 | 1.159 | 1.175 | 1.178 | 4.76  |
| 14)   | Endosulfan I          | 1.144 | 1.101 | 1.102 | 1.085 | 1.237 | 1.084 | 1.175 | 1.106 | 1.129 | 4.73  |
| 15)   | 4,4'-DDE              | 0.999 | 1.040 | 1.050 | 1.051 | 1.231 | 1.113 | 0.956 | 1.124 | 1.070 | 7.95  |
| 16)   | Dieldrin              | 1.186 | 1.190 | 1.201 | 1.189 | 1.379 | 1.227 | 1.281 | 1.247 | 1.237 | 5.36  |
| 17)   | Endrin                | 1.039 | 1.049 | 1.051 | 1.044 | 1.209 | 1.079 | 1.080 | 1.090 | 1.080 | 5.12  |
| 18)   | 4,4'-DDD              | 0.791 | 0.767 | 0.791 | 0.791 | 0.933 | 0.854 | 0.877 | 0.848 | 0.831 | 6.76  |
| 19)   | Endosulfan I          | 1.050 | 1.038 | 1.058 | 1.029 | 1.181 | 1.046 | 1.186 | 1.056 | 1.081 | 5.94  |
| 20)   | 4,4'-DDT              | 0.512 | 0.568 | 0.608 | 0.669 | 0.816 | 0.774 | 0.520 | 0.763 | 0.654 | 18.32 |
| 21)   | Endrin Aldeh          | 0.848 | 0.843 | 0.803 | 0.823 | 0.887 | 0.822 | 0.927 | 0.836 | 0.848 | 4.71  |
| 22)   | Endosulfan S          | 0.780 | 0.799 | 0.747 | 0.809 | 0.929 | 0.831 | 0.780 | 0.840 | 0.814 | 6.76  |
| 23)   | Methoxychlor          | 0.317 | 0.361 | 0.316 | 0.348 | 0.406 | 0.359 | 0.315 | 0.362 | 0.348 | 9.07  |
| 24)   | Mirex                 | 0.709 | 0.760 | 0.715 | 0.737 | 0.814 | 0.699 | 0.852 | 0.717 | 0.750 | 7.35  |
| 25)   | Endrin Keton          | 0.791 | 0.826 | 0.822 | 0.858 | 1.014 | 0.906 | 0.879 | 0.919 | 0.877 | 8.05  |
| 26)   | Decachlorobi          | 0.971 | 0.934 | 0.897 | 0.916 | 1.025 | 0.882 | 0.876 | 0.907 | 0.926 | 5.42  |
| 27) I | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 28)   | Toxaphene{A}          |       |       |       |       | 0.020 |       |       | 0.020 | 0.00  |       |
| 29)   | Toxaphene{B}          |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |
| 30)   | Toxaphene{C}          |       |       |       |       | 0.042 |       |       | 0.042 | 0.00  |       |
| 31)   | Toxaphene{D}          |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |
| 32)   | Toxaphene{E}          |       |       |       |       | 0.021 |       |       | 0.021 | 0.00  |       |
| 33) I | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 34)   | Chlordane {A}         |       |       |       |       | 0.057 |       |       | 0.057 | 0.00  |       |
| 35)   | Chlordane {B}         |       |       |       |       | 0.026 |       |       | 0.026 | 0.00  |       |
| 36)   | Chlordane {C}         |       |       |       |       | 0.143 |       |       | 0.143 | 0.00  |       |
| 37)   | Chlordane {D}         |       |       |       |       | 0.238 |       |       | 0.238 | 0.00  |       |
| 38)   | Chlordane {E}         |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |

(#) = Out of Range ### Number of calibration levels exceeded format ###

1PST4628.M

Thu Apr 26 09:15:45 2018

RPT1

12.10.1  
12



# Initial Calibration Verification

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4628-ICV4628  
Lab FileID: 1G145478.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD1A.CH Vial: 14  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD2B.CH  
Acq On : 4-25-18 03:39:32 PM Operator: dharas  
Sample : icv4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT Window   |
|-------|------------------------|-------|-------|-------|-------|----------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 103   | 0.00     | 1.95- 2.01  |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.964 | -2.2  | 93    | 0.00     | 2.52- 2.58  |
| 26 SA | Decachlorobiphenyl     | 0.970 | 1.009 | -4.0  | 100   | 0.00     | 9.79- 9.85  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 93    | 0.00     | 1.88- 2.08  |
| 34    | Chlordane {A}          | 0.062 | 0.071 | -14.5 | 107   | 0.00     | 3.70- 3.90  |
| 35    | Chlordane {B}          | 0.026 | 0.026 | 0.0   | 93    | 0.00     | 4.66- 4.86  |
| 36    | Chlordane {C}          | 0.153 | 0.154 | -0.7  | 94    | 0.00     | 4.91- 5.11  |
| 37    | Chlordane {D}          | 0.239 | 0.245 | -2.5  | 95    | 0.00     | 5.07- 5.27  |
| 38    | Chlordane {E}          | 0.027 | 0.030 | -11.1 | 103   | 0.00     | 5.97- 6.17  |
| ***** | Signal #2              | ***** |       |       |       |          |             |
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 110   | 0.00     | 2.27- 2.33  |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.916 | 11.3  | 88    | 0.00     | 3.11- 3.17  |
| 26 SA | Decachlorobiphenyl     | 0.926 | 0.922 | 0.4   | 99    | 0.00     | 11.68-11.74 |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 95    | 0.00     | 2.20- 2.40  |
| 34    | Chlordane {A}          | 0.057 | 0.067 | -17.5 | 111   | 0.00     | 4.78- 4.98  |
| 35    | Chlordane {B}          | 0.026 | 0.030 | -15.4 | 108   | 0.00     | 6.04- 6.24  |
| 36    | Chlordane {C}          | 0.143 | 0.144 | -0.7  | 96    | 0.00     | 6.40- 6.60  |
| 37    | Chlordane {D}          | 0.238 | 0.239 | -0.4  | 96    | 0.00     | 6.63- 6.83  |
| 38    | Chlordane {E}          | 0.025 | 0.027 | -8.0  | 104   | 0.00     | 7.82- 8.02  |

(#) = Out of Range  
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:08:59 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145479.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD1A.CH Vial: 15  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD2B.CH  
Acq On : 4-25-18 03:56:45 PM Operator: dharas  
Sample : icv4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 110   | 0.00     | 1.95- | 2.01   |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.840 | 10.9  | 87    | 0.00     | 2.52- | 2.58   |
| 26 SA | Decachlorobiphenyl     | 0.970 | 0.955 | 1.5   | 101   | 0.00     | 9.79- | 9.85   |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 1.88- | 2.08   |
| 28 L8 | Toxaphene{A}           | 0.018 | 0.019 | -5.6  | 104   | 0.00     | 5.59- | 5.79   |
| 29 L8 | Toxaphene{B}           | 0.044 | 0.046 | -4.5  | 101   | 0.00     | 6.22- | 6.42   |
| 30 L8 | Toxaphene{C}           | 0.037 | 0.039 | -5.4  | 102   | 0.00     | 6.39- | 6.59   |
| 31 L8 | Toxaphene{D}           | 0.025 | 0.030 | -20.0 | 118   | 0.00     | 6.74- | 6.94   |
| 32 L8 | Toxaphene{E}           | 0.027 | 0.029 | -7.4  | 105   | 0.00     | 7.39- | 7.59   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |        |       |
|-------|------------------------|-------|-------|------|-----|------|--------|-------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 112 | 0.00 | 2.27-  | 2.33  |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.909 | 12.0 | 89  | 0.00 | 3.11-  | 3.17  |
| 26 SA | Decachlorobiphenyl     | 0.926 | 0.900 | 2.8  | 98  | 0.00 | 11.68- | 11.74 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | 0.00 | 2.20-  | 2.40  |
| 28 L8 | Toxaphene{A}           | 0.020 | 0.020 | 0.0  | 100 | 0.00 | 7.14-  | 7.34  |
| 29 L8 | Toxaphene{B}           | 0.025 | 0.026 | -4.0 | 100 | 0.00 | 8.03-  | 8.23  |
| 30 L8 | Toxaphene{C}           | 0.042 | 0.043 | -2.4 | 100 | 0.00 | 8.20-  | 8.40  |
| 31 L8 | Toxaphene{D}           | 0.025 | 0.026 | -4.0 | 101 | 0.00 | 8.63-  | 8.83  |
| 32 L8 | Toxaphene{E}           | 0.021 | 0.021 | 0.0  | 99  | 0.00 | 9.53-  | 9.73  |

(#) = Out of Range  
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:09:00 2018 RPT1

12.10.3  
12

**Initial Calibration Verification**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145481.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD1A.CH Vial: 17  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD2B.CH  
 Acq On : 4-25-18 04:31:21 PM Operator: dharas  
 Sample : icv4628-50 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed Apr 25 15:35:08 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT Window  |
|----------------------------|-------|-------|------|-------|----------|------------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 1.95- 2.01 |
| 3 Hexachlorobenzene        | 1.688 | 1.743 | -3.3 | 100   | 0.00     | 2.85- 2.91 |
| ***** Signal #2 *****      |       |       |      |       |          |            |
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 113   | 0.00     | 2.27- 2.33 |
| 3 Hexachlorobenzene        | 1.382 | 1.329 | 3.8  | 104   | 0.00     | 3.65- 3.71 |

(#) = Out of Range  
 1G145472.D 1PST4628.M SPCC's out = 0 CCC's out = 0  
 Thu Apr 26 09:09:01 2018 RPT1

12.10.4  
12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145508.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD1A.CH Vial: 25  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD2B.CH  
Acq On : 4-25-18 06:53:01 PM Operator: dharas  
Sample : icv4628-50 Inst : GC1G  
Misc : op11477,g1g4628,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|                       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-----------------------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 116   | 0.00     | 1.95- | 2.01   |
| 10                    | Alachlor               | 0.142 | 0.126 | 11.3 | 105   | 0.00     | 4.22- | 4.28   |
| ***** Signal #2 ***** |                        |       |       |      |       |          |       |        |
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 121   | 0.00     | 2.27- | 2.33   |
| 10                    | Alachlor               | 0.174 | 0.151 | 13.2 | 101   | 0.00     | 5.09- | 5.15   |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
1G145472.D 1PST4628.M Thu Apr 26 09:09:02 2018 RPT1

12.10.5  
12

# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4628-ICV4628  
 Lab FileID: 1G145488.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD1A.CH Vial: 5  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD2B.CH  
 Acq On : 4-25-18 07:10:15 PM Operator: dharas  
 Sample : icv4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed Apr 25 15:35:08 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | RT   | Window |
|--------------------------------|--------|--------|-------|-------|----------|------|--------|
| 1 I 1-bromo-2-nitrobenzene     | 1.000  | 1.000  | 0.0   | 97    | 0.00     | 1.95 | 2.01   |
| 2 SAB Tetrachloro-m-xylene     | 0.943  | 0.835  | 11.5  | 86    | 0.00     | 2.52 | 2.58   |
| 4 A alpha-BHC                  | 1.343  | 1.359  | -1.2  | 99    | 0.00     | 2.98 | 3.04   |
| 5 MA gamma-BHC                 | 1.233  | 1.293  | -4.9  | 105   | 0.00     | 3.27 | 3.33   |
| 6 MA Heptachlor                | 1.284  | 1.312  | -2.2  | 101   | 0.00     | 3.77 | 3.83   |
| 7 B beta-BHC                   | 0.563  | 0.571  | -1.4  | 98    | 0.00     | 3.35 | 3.41   |
| 8 B delta-BHC                  | 1.086  | 1.141  | -5.1  | 96    | 0.00     | 3.54 | 3.61   |
| 9 MB Aldrin                    | 1.192  | 1.191  | 0.1   | 100   | 0.00     | 4.11 | 4.17   |
| 11 B Heptachlor Epoxide        | 1.116  | 1.105  | 1.0   | 98    | 0.00     | 4.81 | 4.87   |
| 12 B gamma-Chlordane           | 1.144  | 1.151  | -0.6  | 101   | 0.00     | 4.98 | 5.04   |
| 13 B alpha-Chlordane           | 1.093  | 1.152  | -5.4  | 105   | 0.00     | 5.15 | 5.21   |
| 14 A Endosulfan I              | 1.192  | 1.184  | 0.7   | 100   | 0.00     | 5.33 | 5.39   |
| 15 B 4,4'-DDE                  | 0.987  | 1.094  | -10.8 | 115   | 0.00     | 5.26 | 5.32   |
| 16 MA Dieldrin                 | 1.118  | 1.150  | -2.9  | 102   | 0.00     | 5.65 | 5.71   |
| 17 MA Endrin                   | 1.036  | 1.103  | -6.5  | 105   | 0.00     | 5.98 | 6.04   |
| 18 A 4,4'-DDD                  | 0.799  | 0.839  | -5.0  | 105   | 0.00     | 6.10 | 6.17   |
| 19 B Endosulfan II             | 1.005  | 0.989  | 1.6   | 99    | 0.00     | 6.30 | 6.36   |
| 20 MA 4,4'-DDT                 | 0.735  | 0.836  | -13.7 | 106   | 0.00     | 6.52 | 6.58   |
| 21 B Endrin Aldehyde           | 0.811  | 0.790  | 2.6   | 95    | 0.00     | 6.93 | 6.99   |
| 22 B Endosulfan Sulfate        | 0.794  | 0.862  | -8.6  | 104   | 0.00     | 7.61 | 7.67   |
| ----- True Calc. % Drift ----- |        |        |       |       |          |      |        |
| 23 A Methoxychlor              | 25.000 | 26.181 | -4.7  | 114   | 0.00     | 7.30 | 7.36   |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |        |
| 24 Mirex                       | 0.810  | 0.766  | 5.4   | 92    | 0.00     | 7.48 | 7.54   |
| 25 B Endrin Ketone             | 0.937  | 0.876  | 6.5   | 91    | 0.00     | 8.06 | 8.12   |
| 26 SA Decachlorobiphenyl       | 0.970  | 0.868  | 10.5  | 88    | 0.00     | 9.79 | 9.85   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |      |     |      |      |      |
|----------------------------|-------|-------|------|-----|------|------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 101 | 0.00 | 2.27 | 2.33 |
| 2 SAB Tetrachloro-m-xylene | 1.033 | 0.893 | 13.6 | 89  | 0.00 | 3.11 | 3.17 |
| 4 A alpha-BHC              | 1.421 | 1.409 | 0.8  | 103 | 0.00 | 3.80 | 3.86 |
| 5 MA gamma-BHC             | 1.292 | 1.263 | 2.2  | 100 | 0.00 | 4.25 | 4.31 |
| 6 MA Heptachlor            | 1.309 | 1.318 | -0.7 | 104 | 0.00 | 4.85 | 4.91 |

12.10.6  
12



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145488.D

|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 7  | B  | beta-BHC           | 0.588 | 0.545 | 7.3   | 95  | 0.00 | 4.34- 4.40  |
| 8  | B  | delta-BHC          | 1.173 | 1.168 | 0.4   | 102 | 0.00 | 4.76- 4.82  |
| 9  | MB | Aldrin             | 1.303 | 1.264 | 3.0   | 101 | 0.00 | 5.33- 5.39  |
| 11 | B  | Heptachlor Epoxide | 1.209 | 1.183 | 2.2   | 101 | 0.00 | 6.17- 6.23  |
| 12 | B  | gamma-Chlordane    | 1.229 | 1.184 | 3.7   | 101 | 0.00 | 6.47- 6.53  |
| 13 | B  | alpha-Chlordane    | 1.178 | 1.142 | 3.1   | 100 | 0.00 | 6.70- 6.76  |
| 14 | A  | Endosulfan I       | 1.129 | 1.103 | 2.3   | 103 | 0.00 | 6.80- 6.86  |
| 15 | B  | 4,4'-DDE           | 1.070 | 1.126 | -5.2  | 108 | 0.00 | 6.95- 7.01  |
| 16 | MA | Dieldrin           | 1.237 | 1.190 | 3.8   | 101 | 0.00 | 7.25- 7.31  |
| 17 | MA | Endrin             | 1.080 | 1.104 | -2.2  | 107 | 0.00 | 7.77- 7.83  |
| 18 | A  | 4,4'-DDD           | 0.831 | 0.851 | -2.4  | 109 | 0.00 | 7.93- 7.99  |
| 19 | B  | Endosulfan II      | 1.081 | 1.018 | 5.8   | 100 | 0.00 | 8.13- 8.19  |
| 20 | MA | 4,4'-DDT           | 0.654 | 0.753 | -15.1 | 114 | 0.00 | 8.47- 8.53  |
| 21 | B  | Endrin Aldehyde    | 0.848 | 0.801 | 5.5   | 98  | 0.00 | 8.71- 8.77  |
| 22 | B  | Endosulfan Sulfate | 0.814 | 0.891 | -9.5  | 111 | 0.00 | 9.19- 9.25  |
| 23 | A  | Methoxychlor       | 0.348 | 0.342 | 1.7   | 99  | 0.00 | 9.66- 9.72  |
| 24 |    | Mirex              | 0.750 | 0.686 | 8.5   | 94  | 0.00 | 9.98-10.04  |
| 25 | B  | Endrin Ketone      | 0.877 | 0.831 | 5.2   | 98  | 0.00 | 10.03-10.09 |
| 26 | SA | Decachlorobiphenyl | 0.926 | 0.898 | 3.0   | 99  | 0.00 | 11.68-11.74 |

(#) = Out of Range  
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:08:10 2018 RPT1

12.10.6  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4633-CC4628  
**Lab FileID:** 1G145683.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145683.D\ECD1A.CH Vial: 4  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145683.D\ECD2B.CH  
 Acq On : 29 Apr 2018 11:14 pm Operator: christp  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11520,glg4633,1.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sun Apr 29 23:14:28 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99    | 0.01     | 1.95- | 2.01   |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.915 | 3.0   | 85    | 0.00     | 2.51- | 2.57   |
| 3     | Hexachlorobenzene      | 1.688 | 1.618 | 4.1   | 88    | 0.00     | 2.84- | 2.90   |
| 4 A   | alpha-BHC              | 1.343 | 1.369 | -1.9  | 88    | 0.00     | 2.98- | 3.04   |
| 5 MA  | gamma-BHC              | 1.233 | 1.186 | 3.8   | 86    | 0.00     | 3.27- | 3.33   |
| 6 MA  | Heptachlor             | 1.284 | 1.202 | 6.4   | 83    | 0.00     | 3.76- | 3.82   |
| 7 B   | beta-BHC               | 0.563 | 0.531 | 5.7   | 86    | 0.00     | 3.35- | 3.41   |
| 8 B   | delta-BHC              | 1.086 | 1.091 | -0.5  | 82    | 0.01     | 3.55- | 3.61   |
| 9 MB  | Aldrin                 | 1.192 | 1.139 | 4.4   | 85    | 0.00     | 4.10- | 4.16   |
| 10    | Alachlor               | 0.142 | 0.129 | 9.2   | 92    | 0.00     | 4.22- | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.116 | 1.090 | 2.3   | 86    | 0.00     | 4.80- | 4.86   |
| 12 B  | gamma-Chlordane        | 1.144 | 0.992 | 13.3  | 77    | 0.00     | 4.97- | 5.03   |
| 13 B  | alpha-Chlordane        | 1.093 | 1.007 | 7.9   | 82    | 0.00     | 5.14- | 5.20   |
| 14 A  | Endosulfan I           | 1.192 | 1.132 | 5.0   | 85    | 0.00     | 5.32- | 5.38   |
| 15 B  | 4,4'-DDE               | 0.987 | 0.874 | 11.4  | 82    | 0.00     | 5.26- | 5.32   |
| 16 MA | Dieldrin               | 1.118 | 1.108 | 0.9   | 87    | 0.00     | 5.64- | 5.70   |
| 17 MA | Endrin                 | 1.036 | 1.019 | 1.6   | 86    | 0.00     | 5.97- | 6.03   |
| 18 A  | 4,4'-DDD               | 0.799 | 0.713 | 10.8  | 77    | 0.02     | 6.10- | 6.17   |
| 19 B  | Endosulfan II          | 1.005 | 0.970 | 3.5   | 86    | 0.00     | 6.29- | 6.35   |
| 20 MA | 4,4'-DDT               | 0.735 | 0.761 | -3.5  | 85    | 0.00     | 6.51- | 6.57   |
| 21 B  | Endrin Aldehyde        | 0.811 | 0.808 | 0.4   | 93    | 0.00     | 6.91- | 6.97   |
| 22 B  | Endosulfan Sulfate     | 0.794 | 0.893 | -12.5 | 97    | 0.00     | 7.59- | 7.65   |

|      |              | True   | Calc.  | % Drift |    |      |       |      |
|------|--------------|--------|--------|---------|----|------|-------|------|
| 23 A | Methoxychlor | 50.000 | 43.777 | 12.4    | 82 | 0.01 | 7.30- | 7.36 |

|       |                    | AvgRF | CCRF  | % Dev |    |      |       |      |
|-------|--------------------|-------|-------|-------|----|------|-------|------|
| 24    | Mirex              | 0.810 | 0.796 | 1.7   | 90 | 0.00 | 7.46- | 7.52 |
| 25 B  | Endrin Ketone      | 0.937 | 0.941 | -0.4  | 88 | 0.00 | 8.04- | 8.10 |
| 26 SA | Decachlorobiphenyl | 0.970 | 1.040 | -7.2  | 99 | 0.00 | 9.78- | 9.84 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |       |      |
|-------|------------------------|-------|-------|-------|-----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 112 | 0.00 | 2.27- | 2.33 |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.978 | 5.3   | 96  | 0.00 | 3.11- | 3.17 |
| 3     | Hexachlorobenzene      | 1.382 | 1.583 | -14.5 | 123 | 0.00 | 3.64- | 3.70 |
| 4 A   | alpha-BHC              | 1.421 | 1.378 | 3.0   | 94  | 0.00 | 3.79- | 3.85 |
| 5 MA  | gamma-BHC              | 1.292 | 1.213 | 6.1   | 92  | 0.00 | 4.24- | 4.30 |
| 6 MA  | Heptachlor             | 1.309 | 1.211 | 7.5   | 92  | 0.00 | 4.84- | 4.90 |
| 7 B   | beta-BHC               | 0.588 | 0.529 | 10.0  | 90  | 0.00 | 4.33- | 4.39 |
| 8 B   | delta-BHC              | 1.173 | 1.110 | 5.4   | 91  | 0.00 | 4.75- | 4.81 |

12.10.7 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4633-CC4628  
**Lab FileID:** 1G145683.D

|    |    |                    |       |       |      |    |      |             |
|----|----|--------------------|-------|-------|------|----|------|-------------|
| 9  | MB | Aldrin             | 1.303 | 1.220 | 6.4  | 93 | 0.00 | 5.32- 5.38  |
| 10 |    | Alachlor           | 0.174 | 0.141 | 19.0 | 88 | 0.00 | 5.09- 5.15  |
| 11 | B  | Heptachlor Epoxide | 1.209 | 1.104 | 8.7  | 92 | 0.00 | 6.16- 6.22  |
| 12 | B  | gamma-Chlordane    | 1.229 | 1.128 | 8.2  | 93 | 0.00 | 6.46- 6.52  |
| 13 | B  | alpha-Chlordane    | 1.178 | 1.090 | 7.5  | 93 | 0.00 | 6.69- 6.75  |
| 14 | A  | Endosulfan I       | 1.129 | 1.037 | 8.1  | 94 | 0.00 | 6.79- 6.85  |
| 15 | B  | 4,4'-DDE           | 1.070 | 1.062 | 0.7  | 97 | 0.00 | 6.94- 7.00  |
| 16 | MA | Dieldrin           | 1.237 | 1.121 | 9.4  | 91 | 0.00 | 7.24- 7.30  |
| 17 | MA | Endrin             | 1.080 | 0.990 | 8.3  | 92 | 0.00 | 7.76- 7.82  |
| 18 | A  | 4,4'-DDD           | 0.831 | 0.725 | 12.8 | 87 | 0.00 | 7.92- 7.98  |
| 19 | B  | Endosulfan II      | 1.081 | 0.969 | 10.4 | 92 | 0.00 | 8.12- 8.18  |
| 20 | MA | 4,4'-DDT           | 0.654 | 0.606 | 7.3  | 83 | 0.00 | 8.45- 8.51  |
| 21 | B  | Endrin Aldehyde    | 0.848 | 0.756 | 10.8 | 96 | 0.00 | 8.69- 8.75  |
| 22 | B  | Endosulfan Sulfate | 0.814 | 0.783 | 3.8  | 95 | 0.00 | 9.17- 9.23  |
| 23 | A  | Methoxychlor       | 0.348 | 0.317 | 8.9  | 88 | 0.00 | 9.65- 9.71  |
| 24 |    | Mirex              | 0.750 | 0.683 | 8.9  | 94 | 0.00 | 9.97-10.03  |
| 25 | B  | Endrin Ketone      | 0.877 | 0.755 | 13.9 | 83 | 0.00 | 10.02-10.08 |
| 26 | SA | Decachlorobiphenyl | 0.926 | 0.900 | 2.8  | 98 | 0.00 | 11.66-11.72 |

(#) = Out of Range  
 1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
 Mon Apr 30 01:37:39 2018 RPT1

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4634-CC4628  
 Lab FileID: 1G145702.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\1G4634\1G145702.D\ECD1A.CH Vial: 4  
 Acq On : 4-30-18 06:00:26 AM Operator: christp  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11600,g1g4634,16.4,,,10,5 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4634\1G145702.D\ECD2B.CH Vial: 4  
 Acq On : 4-30-18 06:00:25 AM Operator: christp  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11600,g1g4634,16.4,,,10,5 Multiplr: 1.00  
 IntFile : AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | RT Window  |
|--------------------------------|--------|--------|-------|-------|----------|------------|
| 1 I 1-bromo-2-nitrobenzene     | 1.000  | 1.000  | 0.0   | 94    | 0.00     | 1.95- 2.01 |
| 2 SAB Tetrachloro-m-xylene     | 0.943  | 0.872  | 7.5   | 77    | 0.00     | 2.51- 2.57 |
| 3 Hexachlorobenzene            | 1.688  | 1.506  | 10.8  | 78    | 0.00     | 2.84- 2.90 |
| 4 A alpha-BHC                  | 1.343  | 1.228  | 8.6   | 75    | 0.00     | 2.97- 3.03 |
| 5 MA gamma-BHC                 | 1.233  | 1.092  | 11.4  | 75    | 0.00     | 3.26- 3.32 |
| 6 MA Heptachlor                | 1.284  | 1.103  | 14.1  | 72    | 0.00     | 3.76- 3.82 |
| 7 B beta-BHC                   | 0.563  | 0.468  | 16.9  | 72    | 0.00     | 3.34- 3.40 |
| 8 B delta-BHC                  | 1.086  | 0.933  | 14.1  | 67    | 0.00     | 3.54- 3.60 |
| 9 MB Aldrin                    | 1.192  | 1.059  | 11.2  | 75    | 0.00     | 4.09- 4.15 |
| 10 Alachlor                    | 0.142  | 0.107  | 24.6# | 72    | 0.00     | 4.21- 4.27 |
| 11 B Heptachlor Epoxide        | 1.116  | 0.971  | 13.0  | 73    | 0.00     | 4.80- 4.86 |
| 12 B gamma-Chlordane           | 1.144  | 0.898  | 21.5# | 66    | 0.00     | 4.97- 5.03 |
| 13 B alpha-Chlordane           | 1.093  | 1.101  | -0.7  | 85    | 0.00     | 5.13- 5.19 |
| 14 A Endosulfan I              | 1.192  | 1.001  | 16.0  | 71    | 0.00     | 5.31- 5.37 |
| 15 B 4,4'-DDE                  | 0.987  | 1.017  | -3.0  | 90    | 0.00     | 5.25- 5.31 |
| 16 MA Dieldrin                 | 1.118  | 1.019  | 8.9   | 76    | 0.00     | 5.64- 5.70 |
| 17 MA Endrin                   | 1.036  | 0.958  | 7.5   | 77    | 0.00     | 5.96- 6.02 |
| 18 A 4,4'-DDD                  | 0.799  | 0.736  | 7.9   | 75    | 0.00     | 6.09- 6.16 |
| 19 B Endosulfan II             | 1.005  | 0.898  | 10.6  | 76    | 0.00     | 6.29- 6.35 |
| 20 MA 4,4'-DDT                 | 0.735  | 0.664  | 9.7   | 70    | 0.00     | 6.50- 6.56 |
| 21 B Endrin Aldehyde           | 0.811  | 0.751  | 7.4   | 82    | 0.00     | 6.91- 6.97 |
| 22 B Endosulfan Sulfate        | 0.794  | 0.735  | 7.4   | 76    | 0.00     | 7.59- 7.65 |
| ----- True Calc. % Drift ----- |        |        |       |       |          |            |
| 23 A Methoxychlor              | 50.000 | 41.948 | 16.1  | 74    | 0.00     | 7.29- 7.35 |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |            |
| 24 Mirex                       | 0.810  | 0.707  | 12.7  | 76    | 0.00     | 7.46- 7.52 |
| 25 B Endrin Ketone             | 0.937  | 0.855  | 8.8   | 76    | 0.00     | 8.04- 8.10 |
| 26 SA Decachlorobiphenyl       | 0.970  | 0.978  | -0.8  | 88    | 0.00     | 9.77- 9.83 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

1 I 1-bromo-2-nitrobenzene 1.000 1.000 0.0 110 0.00 2.27- 2.33

12.10.8 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4634-CC4628  
**Lab FileID:** 1G145702.D

|    |     |                      |       |       |       |     |      |        |       |
|----|-----|----------------------|-------|-------|-------|-----|------|--------|-------|
| 2  | SAB | Tetrachloro-m-xylene | 1.033 | 0.936 | 9.4   | 90  | 0.00 | 3.11-  | 3.17  |
| 3  |     | Hexachlorobenzene    | 1.382 | 1.483 | -7.3  | 114 | 0.00 | 3.64-  | 3.70  |
| 4  | A   | alpha-BHC            | 1.421 | 1.290 | 9.2   | 87  | 0.00 | 3.79-  | 3.85  |
| 5  | MA  | gamma-BHC            | 1.292 | 1.164 | 9.9   | 86  | 0.00 | 4.24-  | 4.30  |
| 6  | MA  | Heptachlor           | 1.309 | 1.151 | 12.1  | 86  | 0.00 | 4.84-  | 4.90  |
| 7  | B   | beta-BHC             | 0.588 | 0.511 | 13.1  | 85  | 0.00 | 4.33-  | 4.39  |
| 8  | B   | delta-BHC            | 1.173 | 1.018 | 13.2  | 82  | 0.00 | 4.75-  | 4.81  |
| 9  | MB  | Aldrin               | 1.303 | 1.167 | 10.4  | 88  | 0.00 | 5.32-  | 5.38  |
| 10 |     | Alachlor             | 0.174 | 0.132 | 24.1# | 81  | 0.00 | 5.09-  | 5.15  |
| 11 | B   | Heptachlor Epoxide   | 1.209 | 1.088 | 10.0  | 89  | 0.00 | 6.16-  | 6.22  |
| 12 | B   | gamma-Chlordane      | 1.229 | 1.078 | 12.3  | 87  | 0.00 | 6.45-  | 6.51  |
| 13 | B   | alpha-Chlordane      | 1.178 | 1.028 | 12.7  | 86  | 0.00 | 6.68-  | 6.74  |
| 14 | A   | Endosulfan I         | 1.129 | 0.958 | 15.1  | 85  | 0.00 | 6.79-  | 6.85  |
| 15 | B   | 4,4'-DDE             | 1.070 | 1.080 | -0.9  | 97  | 0.00 | 6.94-  | 7.00  |
| 16 | MA  | Dieldrin             | 1.237 | 1.094 | 11.6  | 88  | 0.00 | 7.24-  | 7.30  |
| 17 | MA  | Endrin               | 1.080 | 0.973 | 9.9   | 89  | 0.00 | 7.76-  | 7.82  |
| 18 | A   | 4,4'-DDD             | 0.831 | 0.766 | 7.8   | 91  | 0.00 | 7.91-  | 7.97  |
| 19 | B   | Endosulfan II        | 1.081 | 0.944 | 12.7  | 88  | 0.00 | 8.11-  | 8.17  |
| 20 | MA  | 4,4'-DDT             | 0.654 | 0.575 | 12.1  | 78  | 0.00 | 8.45-  | 8.51  |
| 21 | B   | Endrin Aldehyde      | 0.848 | 0.744 | 12.3  | 93  | 0.00 | 8.69-  | 8.75  |
| 22 | B   | Endosulfan Sulfate   | 0.814 | 0.703 | 13.6  | 83  | 0.00 | 9.17-  | 9.23  |
| 23 | A   | Methoxychlor         | 0.348 | 0.283 | 18.7  | 77  | 0.00 | 9.65-  | 9.71  |
| 24 |     | Mirex                | 0.750 | 0.641 | 14.5  | 87  | 0.00 | 9.97-  | 10.03 |
| 25 | B   | Endrin Ketone        | 0.877 | 0.714 | 18.6  | 78  | 0.00 | 10.01- | 10.07 |
| 26 | SA  | Decachlorobiphenyl   | 0.926 | 0.853 | 7.9   | 92  | 0.00 | 11.66- | 11.72 |

(#) = Out of Range  
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Mon Apr 30 14:32:29 2018 RPT1

12.10.8  
12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

## Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : 2PCB4311.M  
 Title :  
 Last Update : Thu Apr 19 15:41:07 2018  
 Response Via : Initial Calibration

### Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D  
 1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

|      | Compound         | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   | %RSD     |
|------|------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) S | Tetrachloro-m... | 3.853 | 3.487 | 3.538 | 3.692 | 3.667 | 3.785 | 3.670 | E6 3.81  |
| 2)   | AR1221-A         |       |       |       | 2.897 |       |       | 2.897 | E4 0.00  |
| 3)   | AR1221-B         |       |       |       | 4.202 |       |       | 4.202 | E4 0.00  |
| 4)   | AR1221-C         |       |       |       | 1.288 |       |       | 1.288 | E5 0.00  |
| 5)   | AR1221-D         |       |       |       | 1.466 |       |       | 1.466 | E4 0.00  |
| 6)   | AR1221-E         |       |       |       | 1.436 |       |       | 1.436 | E4 0.00  |
| 7)   | AR1232-A         |       |       |       | 9.734 |       |       | 9.734 | E4 0.00  |
| 8)   | AR1232-B         |       |       |       | 6.684 |       |       | 6.684 | E4 0.00  |
| 9)   | AR1232-C         |       |       |       | 1.305 |       |       | 1.305 | E5 0.00  |
| 10)  | AR1232-D         |       |       |       | 5.447 |       |       | 5.447 | E4 0.00  |
| 11)  | AR1232-E         |       |       |       | 5.149 |       |       | 5.149 | E4 0.00  |
| 12)  | AR1242-A         |       |       |       | 1.198 |       |       | 1.198 | E5 0.00  |
| 13)  | AR1242-B         |       |       |       | 2.525 |       |       | 2.525 | E5 0.00  |
| 14)  | AR1242-C         |       |       |       | 1.054 |       |       | 1.054 | E5 0.00  |
| 15)  | AR1242-D         |       |       |       | 1.090 |       |       | 1.090 | E5 0.00  |
| 16)  | AR1242-E         |       |       |       | 9.298 |       |       | 9.298 | E4 0.00  |
| 17)  | AR1248-A         |       |       |       | 5.917 |       |       | 5.917 | E4 0.00  |
| 18)  | AR1248-B         |       |       |       | 1.544 |       |       | 1.544 | E5 0.00  |
| 19)  | AR1248-C         |       |       |       | 1.652 |       |       | 1.652 | E5 0.00  |
| 20)  | AR1248-D         |       |       |       | 1.598 |       |       | 1.598 | E5 0.00  |
| 21)  | AR1248-E         |       |       |       | 1.421 |       |       | 1.421 | E5 0.00  |
| 22)  | AR1248-F         |       |       |       | 1.402 |       |       | 1.402 | E5 0.00  |
| 23)  | AR1248-G         |       |       |       | 1.572 |       |       | 1.572 | E5 0.00  |
| 24)  | AR1254-A         |       |       |       | 1.234 |       |       | 1.234 | E5 0.00  |
| 25)  | AR1254-B         |       |       |       | 2.588 |       |       | 2.588 | E5 0.00  |
| 26)  | AR1254-C         |       |       |       | 1.370 |       |       | 1.370 | E5 0.00  |
| 27)  | AR1254-D         |       |       |       | 2.459 |       |       | 2.459 | E5 0.00  |
| 28)  | AR1254-E         |       |       |       | 1.825 |       |       | 1.825 | E5 0.00  |
| 29)  | AR1254-F         |       |       |       | 1.712 |       |       | 1.712 | E5 0.00  |
| 30)  | AR1254-G         |       |       |       | 2.518 |       |       | 2.518 | E5 0.00  |
| 31)  | AR1016-A         | 9.451 | 7.869 | 7.627 | 7.558 | 7.126 | 7.105 | 7.789 | E4 11.13 |
| 32)  | AR1016-B         | 1.685 | 1.361 | 1.324 | 1.304 | 1.242 | 1.247 | 1.361 | E5 12.16 |
| 33)  | AR1016-C         | 3.261 | 2.840 | 2.792 | 2.854 | 2.797 | 2.854 | 2.900 | E5 6.18  |
| 34)  | AR1016-D         | 1.360 | 1.162 | 1.156 | 1.157 | 1.119 | 1.140 | 1.182 | E5 7.49  |
| 35)  | AR1016-E         | 1.424 | 1.227 | 1.184 | 1.176 | 1.145 | 1.161 | 1.219 | E5 8.51  |
| 36)  | AR1260-A         | 3.759 | 3.397 | 3.078 | 3.178 | 3.473 | 3.566 | 3.408 | E5 7.36  |
| 37)  | AR1260-B         | 1.602 | 1.368 | 1.501 | 1.530 | 1.316 | 1.349 | 1.444 | E5 8.00  |
| 38)  | AR1260-C         | 1.676 | 1.539 | 1.642 | 1.690 | 1.480 | 1.527 | 1.592 | E5 5.54  |
| 39)  | AR1260-D         | 3.627 | 3.372 | 3.743 | 3.953 | 3.621 | 3.712 | 3.671 | E5 5.17  |
| 40)  | AR1260-E         | 3.931 | 3.596 | 3.895 | 4.026 | 3.611 | 3.668 | 3.788 | E5 4.88  |
| 41)  | AR1262-A         |       |       |       | 1.935 |       |       | 1.935 | E5 0.00  |
| 42)  | AR1262-B         |       |       |       | 2.424 |       |       | 2.424 | E5 0.00  |
| 43)  | AR1262-C         |       |       |       | 2.270 |       |       | 2.270 | E5 0.00  |
| 44)  | AR1262-D         |       |       |       | 4.854 |       |       | 4.854 | E5 0.00  |
| 45)  | AR1262-E         |       |       |       | 5.588 |       |       | 5.588 | E5 0.00  |
| 46)  | AR1268-A         |       |       |       | 5.754 |       |       | 5.754 | E5 0.00  |

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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

|       |                  |       |       |       |       |       |       |       |    |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 47)   | AR1268-B         |       |       |       | 5.673 |       |       | 5.673 | E5 | 0.00 |
| 48)   | AR1268-C         |       |       |       | 4.730 |       |       | 4.730 | E5 | 0.00 |
| 49)   | AR1268-D         |       |       |       | 1.992 |       |       | 1.992 | E5 | 0.00 |
| 50)   | AR1268-E         |       |       |       | 1.615 |       |       | 1.615 | E6 | 0.00 |
| 51) S | Decachlorobip... | 4.697 | 4.061 | 3.924 | 3.931 | 3.825 | 3.897 | 4.056 | E6 | 7.97 |

Signal #2 Calibration Files

|      |              |      |             |      |             |
|------|--------------|------|-------------|------|-------------|
| 50   | =2G162102a.D | 250  | =2G162097.D | 500  | =2G162098.D |
| 1000 | =2G162099.D  | 2000 | =2G162100.D | 3000 | =2G162101.D |

|      | Compound         | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   |    | %RSD  |
|------|------------------|-------|-------|-------|-------|-------|-------|-------|----|-------|
| 1) S | Tetrachloro-m... | 2.359 | 2.161 | 2.233 | 2.322 | 2.300 | 2.354 | 2.288 | E7 | 3.37  |
| 2)   | AR1221-A         |       |       |       | 1.409 |       |       | 1.409 | E5 | 0.00  |
| 3)   | AR1221-B         |       |       |       | 2.507 |       |       | 2.507 | E5 | 0.00  |
| 4)   | AR1221-C         |       |       |       | 6.558 |       |       | 6.558 | E5 | 0.00  |
| 5)   | AR1221-D         |       |       |       | 1.222 |       |       | 1.222 | E5 | 0.00  |
| 6)   | AR1221-E         |       |       |       | 8.849 |       |       | 8.849 | E4 | 0.00  |
| 7)   | AR1232-A         |       |       |       | 5.020 |       |       | 5.020 | E5 | 0.00  |
| 8)   | AR1232-B         |       |       |       | 3.935 |       |       | 3.935 | E5 | 0.00  |
| 9)   | AR1232-C         |       |       |       | 8.152 |       |       | 8.152 | E5 | 0.00  |
| 10)  | AR1232-D         |       |       |       | 3.615 |       |       | 3.615 | E5 | 0.00  |
| 11)  | AR1232-E         |       |       |       | 2.173 |       |       | 2.173 | E5 | 0.00  |
| 12)  | AR1242-A         |       |       |       | 7.054 |       |       | 7.054 | E5 | 0.00  |
| 13)  | AR1242-B         |       |       |       | 1.548 |       |       | 1.548 | E6 | 0.00  |
| 14)  | AR1242-C         |       |       |       | 6.668 |       |       | 6.668 | E5 | 0.00  |
| 15)  | AR1242-D         |       |       |       | 4.564 |       |       | 4.564 | E5 | 0.00  |
| 16)  | AR1242-E         |       |       |       | 6.343 |       |       | 6.343 | E5 | 0.00  |
| 17)  | AR1248-A         |       |       |       | 3.627 |       |       | 3.627 | E5 | 0.00  |
| 18)  | AR1248-B         |       |       |       | 9.548 |       |       | 9.548 | E5 | 0.00  |
| 19)  | AR1248-C         |       |       |       | 5.697 |       |       | 5.697 | E5 | 0.00  |
| 20)  | AR1248-D         |       |       |       | 7.271 |       |       | 7.271 | E5 | 0.00  |
| 21)  | AR1248-E         |       |       |       | 8.799 |       |       | 8.799 | E5 | 0.00  |
| 22)  | AR1248-F         |       |       |       | 1.097 |       |       | 1.097 | E6 | 0.00  |
| 23)  | AR1248-G         |       |       |       | 1.220 |       |       | 1.220 | E6 | 0.00  |
| 24)  | AR1254-A         |       |       |       | 9.925 |       |       | 9.925 | E5 | 0.00  |
| 25)  | AR1254-B         |       |       |       | 9.839 |       |       | 9.839 | E5 | 0.00  |
| 26)  | AR1254-C         |       |       |       | 7.977 |       |       | 7.977 | E5 | 0.00  |
| 27)  | AR1254-D         |       |       |       | 1.634 |       |       | 1.634 | E6 | 0.00  |
| 28)  | AR1254-E         |       |       |       | 1.089 |       |       | 1.089 | E6 | 0.00  |
| 29)  | AR1254-F         |       |       |       | 1.181 |       |       | 1.181 | E6 | 0.00  |
| 30)  | AR1254-G         |       |       |       | 1.511 |       |       | 1.511 | E6 | 0.00  |
| 31)  | AR1016-A         | 4.464 | 3.663 | 3.554 | 3.667 | 3.532 | 3.597 | 3.746 | E5 | 9.50  |
| 32)  | AR1016-B         | 1.008 | 0.785 | 0.781 | 0.777 | 0.734 | 0.721 | 0.801 | E6 | 13.07 |
| 33)  | AR1016-C         | 1.870 | 1.661 | 1.687 | 1.744 | 1.719 | 1.721 | 1.734 | E6 | 4.20  |
| 34)  | AR1016-D         | 8.979 | 7.276 | 7.297 | 7.378 | 7.117 | 7.090 | 7.523 | E5 | 9.59  |
| 35)  | AR1016-E         | 5.760 | 4.925 | 4.923 | 5.029 | 5.023 | 5.124 | 5.131 | E5 | 6.19  |
| 36)  | AR1260-A         | 2.222 | 1.949 | 1.820 | 1.882 | 2.043 | 2.081 | 2.000 | E6 | 7.30  |
| 37)  | AR1260-B         | 1.009 | 0.803 | 0.897 | 0.917 | 0.804 | 0.816 | 0.874 | E6 | 9.41  |
| 38)  | AR1260-C         | 1.124 | 0.949 | 1.023 | 1.051 | 0.980 | 1.006 | 1.022 | E6 | 5.98  |
| 39)  | AR1260-D         | 2.347 | 1.930 | 2.170 | 2.256 | 2.063 | 2.114 | 2.146 | E6 | 6.84  |
| 40)  | AR1260-E         | 2.219 | 1.874 | 2.089 | 2.144 | 1.933 | 1.971 | 2.038 | E6 | 6.55  |
| 41)  | AR1262-A         |       |       |       | 1.044 |       |       | 1.044 | E6 | 0.00  |
| 42)  | AR1262-B         |       |       |       | 1.428 |       |       | 1.428 | E6 | 0.00  |
| 43)  | AR1262-C         |       |       |       | 1.336 |       |       | 1.336 | E6 | 0.00  |
| 44)  | AR1262-D         |       |       |       | 2.732 |       |       | 2.732 | E6 | 0.00  |
| 45)  | AR1262-E         |       |       |       | 3.034 |       |       | 3.034 | E6 | 0.00  |
| 46)  | AR1268-A         |       |       |       | 3.086 |       |       | 3.086 | E6 | 0.00  |
| 47)  | AR1268-B         |       |       |       | 3.099 |       |       | 3.099 | E6 | 0.00  |
| 48)  | AR1268-C         |       |       |       | 2.498 |       |       | 2.498 | E6 | 0.00  |

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# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

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|       |                  |       |       |       |       |       |       |       |          |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| 49)   | AR1268-D         |       |       |       | 1.038 |       |       |       | 1.038 E6 | 0.00 |
| 50)   | AR1268-E         |       |       |       | 8.238 |       |       |       | 8.238 E6 | 0.00 |
| 51) S | Decachlorobip... | 2.219 | 1.845 | 1.796 | 1.874 | 1.841 | 1.884 | 1.910 | E7       | 8.10 |

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(#) = Out of Range

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13  
 Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH  
 Acq On : 19 Apr 2018 3:17 pm Operator: tianweir  
 Sample : icv4311-1000 Inst : HP G1530A  
 Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Apr 19 15:41:07 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.975 E6   | -8.3         | 108   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 76.686 E3  | 1.5          | 101   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 141.949 E3 | -4.3         | 109   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 305.729 E3 | -5.4         | 107   | 0.00     | 4.08- | 4.14   |
| 34  | AR1016-D             | 118.235 | 126.283 E3 | -6.8         | 109   | 0.00     | 4.24- | 4.30   |
| 35  | AR1016-E             | 121.934 | 124.361 E3 | -2.0         | 106   | 0.00     | 4.75- | 4.81   |
| 36  | AR1260-A             | 340.850 | 344.355 E3 | -1.0         | 108   | 0.00     | 7.12- | 7.18   |
| 37  | AR1260-B             | 144.444 | 147.854 E3 | -2.4         | 97    | 0.00     | 7.28- | 7.34   |
| 38  | AR1260-C             | 159.229 | 170.106 E3 | -6.8         | 101   | 0.00     | 7.62- | 7.68   |
| 39  | AR1260-D             | 367.146 | 387.161 E3 | -5.5         | 98    | 0.00     | 8.05- | 8.11   |
| 40  | AR1260-E             | 378.788 | 394.757 E3 | -4.2         | 98    | 0.00     | 8.39- | 8.55   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4311-ICV4311  
 Lab FileID: 2G162106.D

|      |                    |       |       |    |     |     |      |            |  |
|------|--------------------|-------|-------|----|-----|-----|------|------------|--|
| 42   | AR1262-B           |       |       |    |     |     |      |            |  |
| 43   | AR1262-C           |       |       |    |     |     |      |            |  |
| 44   | AR1262-D           |       |       |    |     |     |      |            |  |
| 45   | AR1262-E           |       |       |    |     |     |      |            |  |
| 46   | AR1268-A           |       |       |    |     |     |      |            |  |
| 47   | AR1268-B           |       |       |    |     |     |      |            |  |
| 48   | AR1268-C           |       |       |    |     |     |      |            |  |
| 49   | AR1268-D           |       |       |    |     |     |      |            |  |
| 50   | AR1268-E           |       |       |    |     |     |      |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.006 | E6 | 1.2 | 102 | 0.00 | 9.98-10.04 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |             |  |
|-----|----------------------|---------|---------|----|-------|-----|------|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.201  | E6 | -10.1 | 109 | 0.00 | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |         |    |       |     |      |             |  |
| 3   | AR1221-B             |         |         |    |       |     |      |             |  |
| 4   | AR1221-C             |         |         |    |       |     |      |             |  |
| 5   | AR1221-D             |         |         |    |       |     |      |             |  |
| 6   | AR1221-E             |         |         |    |       |     |      |             |  |
| 7   | AR1232-A             |         |         |    |       |     |      |             |  |
| 8   | AR1232-B             |         |         |    |       |     |      |             |  |
| 9   | AR1232-C             |         |         |    |       |     |      |             |  |
| 10  | AR1232-D             |         |         |    |       |     |      |             |  |
| 11  | AR1232-E             |         |         |    |       |     |      |             |  |
| 12  | AR1242-A             |         |         |    |       |     |      |             |  |
| 13  | AR1242-B             |         |         |    |       |     |      |             |  |
| 14  | AR1242-C             |         |         |    |       |     |      |             |  |
| 15  | AR1242-D             |         |         |    |       |     |      |             |  |
| 16  | AR1242-E             |         |         |    |       |     |      |             |  |
| 17  | AR1248-A             |         |         |    |       |     |      |             |  |
| 18  | AR1248-B             |         |         |    |       |     |      |             |  |
| 19  | AR1248-C             |         |         |    |       |     |      |             |  |
| 20  | AR1248-D             |         |         |    |       |     |      |             |  |
| 21  | AR1248-E             |         |         |    |       |     |      |             |  |
| 22  | AR1248-F             |         |         |    |       |     |      |             |  |
| 23  | AR1248-G             |         |         |    |       |     |      |             |  |
| 24  | AR1254-A             |         |         |    |       |     |      |             |  |
| 25  | AR1254-B             |         |         |    |       |     |      |             |  |
| 26  | AR1254-C             |         |         |    |       |     |      |             |  |
| 27  | AR1254-D             |         |         |    |       |     |      |             |  |
| 28  | AR1254-E             |         |         |    |       |     |      |             |  |
| 29  | AR1254-F             |         |         |    |       |     |      |             |  |
| 30  | AR1254-G             |         |         |    |       |     |      |             |  |
| 31  | AR1016-A             | 374.605 | 415.731 | E3 | -11.0 | 113 | 0.00 | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.845   | E6 | -5.5  | 109 | 0.00 | 4.60- 4.66  |  |
| 33  | AR1016-C             | 1.734   | 1.899   | E6 | -9.5  | 109 | 0.00 | 5.25- 5.31  |  |
| 34  | AR1016-D             | 752.270 | 823.449 | E3 | -9.5  | 112 | 0.00 | 5.43- 5.49  |  |
| 35  | AR1016-E             | 513.080 | 544.014 | E3 | -6.0  | 108 | 0.00 | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 2.060   | E6 | -3.0  | 109 | 0.00 | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 0.905   | E6 | -3.5  | 99  | 0.00 | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 1.071   | E6 | -4.8  | 102 | 0.00 | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 2.253   | E6 | -5.0  | 100 | 0.00 | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 2.122   | E6 | -4.1  | 99  | 0.00 | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |       |     |      |             |  |
| 42  | AR1262-B             |         |         |    |       |     |      |             |  |
| 43  | AR1262-C             |         |         |    |       |     |      |             |  |
| 44  | AR1262-D             |         |         |    |       |     |      |             |  |
| 45  | AR1262-E             |         |         |    |       |     |      |             |  |
| 46  | AR1268-A             |         |         |    |       |     |      |             |  |
| 47  | AR1268-B             |         |         |    |       |     |      |             |  |

12.10.10 12

**Initial Calibration Verification**

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

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|      |                    |        |           |     |              |      |             |  |  |
|------|--------------------|--------|-----------|-----|--------------|------|-------------|--|--|
| 48   | AR1268-C           |        |           |     | -----NA----- |      |             |  |  |
| 49   | AR1268-D           |        |           |     | -----NA----- |      |             |  |  |
| 50   | AR1268-E           |        |           |     | -----NA----- |      |             |  |  |
| 51 S | Decachlorobiphenyl | 19.099 | 18.717 E6 | 2.0 | 100          | 0.00 | 11.78-11.84 |  |  |

---

(#) = Out of Range                                   SPCC's out = 0   CCC's out = 0  
2G162099.D 2PCB4311.M                           Thu Apr 19 15:43:22 2018   RPT1

12.10.10 12



# Initial Calibration Verification

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4311-ICV4311  
Lab FileID: 2G162107.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|    | Compound | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|----|----------|---------|------------|------|-------|----------|-------|--------|
| 2  | AR1221-A | 28.967  | 30.231 E3  | -4.4 | 104   | 0.00     | 2.18- | 2.38   |
| 3  | AR1221-B | 42.023  | 40.285 E3  | 4.1  | 96    | 0.00     | 2.85- | 3.05   |
| 4  | AR1221-C | 128.795 | 122.705 E3 | 4.7  | 95    | 0.00     | 3.05- | 3.25   |
| 5  | AR1221-D | 14.657  | 11.965 E3  | 18.4 | 82    | 0.00     | 3.46- | 3.66   |
| 6  | AR1221-E | 14.364  | 14.535 E3  | -1.2 | 101   | 0.00     | 3.60- | 3.80   |
| 24 | AR1254-A | 123.364 | 129.470 E3 | -4.9 | 105   | 0.00     | 4.78- | 5.78   |
| 25 | AR1254-B | 258.753 | 268.829 E3 | -3.9 | 104   | 0.00     | 5.52- | 5.72   |
| 26 | AR1254-C | 136.952 | 143.562 E3 | -4.8 | 105   | 0.00     | 5.88- | 6.08   |
| 27 | AR1254-D | 245.908 | 257.604 E3 | -4.8 | 105   | 0.00     | 6.04- | 6.24   |
| 28 | AR1254-E | 182.509 | 189.827 E3 | -4.0 | 104   | 0.00     | 6.42- | 6.62   |
| 29 | AR1254-F | 171.196 | 179.789 E3 | -5.0 | 105   | 0.00     | 6.67- | 6.87   |
| 30 | AR1254-G | 251.778 | 263.449 E3 | -4.6 | 105   | 0.00     | 7.05- | 7.25   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|    |          |         |             |      |     |      |       |      |
|----|----------|---------|-------------|------|-----|------|-------|------|
| 2  | AR1221-A | 140.927 | 146.033 E3  | -3.6 | 104 | 0.00 | 2.77- | 2.97 |
| 3  | AR1221-B | 250.670 | 252.257 E3  | -0.6 | 101 | 0.00 | 3.72- | 3.92 |
| 4  | AR1221-C | 655.831 | 636.187 E3  | 3.0  | 97  | 0.00 | 3.99- | 4.19 |
| 5  | AR1221-D | 122.166 | 105.889 E3  | 13.3 | 87  | 0.00 | 4.55- | 4.75 |
| 6  | AR1221-E | 88.492  | 89.522 E3   | -1.2 | 101 | 0.00 | 4.67- | 4.87 |
| 24 | AR1254-A | 992.497 | 1051.994 E3 | -6.0 | 106 | 0.00 | 6.20- | 7.20 |
| 25 | AR1254-B | 983.915 | 1037.386 E3 | -5.4 | 105 | 0.00 | 6.86- | 7.06 |
| 26 | AR1254-C | 797.725 | 839.207 E3  | -5.2 | 105 | 0.00 | 7.37- | 7.56 |
| 27 | AR1254-D | 1.634   | 1.719 E6    | -5.2 | 105 | 0.00 | 7.53- | 7.73 |
| 28 | AR1254-E | 1.089   | 1.136 E6    | -4.3 | 104 | 0.00 | 7.86- | 8.06 |
| 29 | AR1254-F | 1.181   | 1.231 E6    | -4.2 | 104 | 0.00 | 8.32- | 8.52 |
| 30 | AR1254-G | 1.511   | 1.615 E6    | -6.9 | 107 | 0.00 | 8.62- | 8.82 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:57 2018 RPT1

12.10.11  
12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162108.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 7 AR1232-A  | 97.343  | 98.365 E3  | -1.0 | 101   | 0.00     | 3.05 | 3.25   |
| 8 AR1232-B  | 66.843  | 68.498 E3  | -2.5 | 102   | 0.00     | 3.46 | 3.66   |
| 9 AR1232-C  | 130.487 | 135.897 E3 | -4.1 | 104   | 0.00     | 4.01 | 4.21   |
| 10 AR1232-D | 54.474  | 56.766 E3  | -4.2 | 104   | 0.00     | 4.17 | 4.37   |
| 11 AR1232-E | 51.489  | 53.116 E3  | -3.2 | 103   | 0.00     | 4.68 | 4.88   |
| 41 AR1262-A | 193.481 | 203.733 E3 | -5.3 | 105   | 0.00     | 6.67 | 6.87   |
| 42 AR1262-B | 242.383 | 258.534 E3 | -6.7 | 107   | 0.00     | 7.21 | 7.41   |
| 43 AR1262-C | 227.005 | 238.593 E3 | -5.1 | 105   | 0.00     | 7.55 | 7.75   |
| 44 AR1262-D | 485.357 | 514.218 E3 | -5.9 | 106   | 0.00     | 7.98 | 8.18   |
| 45 AR1262-E | 558.779 | 598.920 E3 | -7.2 | 107   | 0.00     | 8.43 | 8.63   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 7 AR1232-A  | 501.961 | 512.204 E3 | -2.0 | 102 | 0.00 | 4.00  | 4.20  |
| 8 AR1232-B  | 393.517 | 401.624 E3 | -2.1 | 102 | 0.00 | 4.54  | 4.74  |
| 9 AR1232-C  | 815.235 | 827.075 E3 | -1.5 | 101 | 0.00 | 5.18  | 5.38  |
| 10 AR1232-D | 361.545 | 372.004 E3 | -2.9 | 103 | 0.00 | 5.37  | 5.57  |
| 11 AR1232-E | 217.324 | 220.012 E3 | -1.2 | 101 | 0.00 | 6.02  | 6.22  |
| 41 AR1262-A | 1.044   | 1.084 E6   | -3.8 | 104 | 0.00 | 8.09  | 8.29  |
| 42 AR1262-B | 1.428   | 1.495 E6   | -4.7 | 105 | 0.00 | 8.73  | 8.93  |
| 43 AR1262-C | 1.336   | 1.393 E6   | -4.3 | 104 | 0.00 | 9.16  | 9.36  |
| 44 AR1262-D | 2.732   | 2.841 E6   | -4.0 | 104 | 0.00 | 9.51  | 9.71  |
| 45 AR1262-E | 3.034   | 3.169 E6   | -4.4 | 104 | 0.00 | 10.02 | 10.22 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:59 2018 RPT1

12.10.12 12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162109.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 12 AR1242-A | 119.785 | 114.904 E3 | 4.1  | 96    | 0.00     | 3.46 | 3.66   |
| 13 AR1242-B | 252.484 | 244.856 E3 | 3.0  | 97    | 0.00     | 4.01 | 4.21   |
| 14 AR1242-C | 105.443 | 101.790 E3 | 3.5  | 97    | 0.00     | 4.17 | 4.37   |
| 15 AR1242-D | 108.979 | 102.543 E3 | 5.9  | 94    | 0.00     | 4.68 | 4.88   |
| 16 AR1242-E | 92.981  | 87.846 E3  | 5.5  | 94    | 0.00     | 5.27 | 5.47   |
| 46 AR1268-A | 575.351 | 581.914 E3 | -1.1 | 101   | 0.00     | 8.42 | 8.62   |
| 47 AR1268-B | 567.310 | 583.888 E3 | -2.9 | 103   | 0.00     | 8.48 | 8.68   |
| 48 AR1268-C | 473.024 | 486.973 E3 | -2.9 | 103   | 0.00     | 8.75 | 8.95   |
| 49 AR1268-D | 199.180 | 204.671 E3 | -2.8 | 103   | 0.00     | 9.24 | 9.44   |
| 50 AR1268-E | 1.615   | 1.646 E6   | -1.9 | 102   | 0.00     | 9.64 | 9.84   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 12 AR1242-A | 705.391 | 679.662 E3 | 3.6  | 96  | 0.00 | 4.53  | 4.73  |
| 13 AR1242-B | 1.548   | 1.499 E6   | 3.2  | 97  | 0.00 | 5.18  | 5.38  |
| 14 AR1242-C | 666.761 | 667.573 E3 | -0.1 | 100 | 0.00 | 5.37  | 5.57  |
| 15 AR1242-D | 456.404 | 438.896 E3 | 3.8  | 96  | 0.00 | 6.01  | 6.21  |
| 16 AR1242-E | 634.341 | 601.296 E3 | 5.2  | 95  | 0.00 | 6.63  | 6.83  |
| 46 AR1268-A | 3.086   | 3.010 E6   | 2.5  | 98  | 0.00 | 10.02 | 10.22 |
| 47 AR1268-B | 3.099   | 3.068 E6   | 1.0  | 99  | 0.00 | 10.09 | 10.29 |
| 48 AR1268-C | 2.498   | 2.444 E6   | 2.2  | 98  | 0.00 | 10.46 | 10.66 |
| 49 AR1268-D | 1.038   | 1.042 E6   | -0.4 | 100 | 0.00 | 10.86 | 11.06 |
| 50 AR1268-E | 8.238   | 7.835 E6   | 4.9  | 95  | 0.00 | 11.33 | 11.53 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:23:22 2018 RPT1

12.10.13 12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162110.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|-------|-------|----------|------|--------|
| 17 AR1248-A | 59.174  | 55.493 E3  | 6.2   | 94    | 0.00     | 3.45 | 3.65   |
| 18 AR1248-B | 154.398 | 154.781 E3 | -0.2  | 100   | 0.00     | 4.01 | 4.21   |
| 19 AR1248-C | 165.207 | 165.431 E3 | -0.1  | 100   | 0.00     | 4.40 | 4.60   |
| 20 AR1248-D | 159.827 | 163.966 E3 | -2.6  | 103   | 0.00     | 4.68 | 4.88   |
| 21 AR1248-E | 142.066 | 146.330 E3 | -3.0  | 103   | 0.00     | 4.79 | 4.99   |
| 22 AR1248-F | 140.157 | 154.154 E3 | -10.0 | 110   | 0.00     | 5.26 | 5.46   |
| 23 AR1248-G | 157.220 | 168.971 E3 | -7.5  | 107   | 0.00     | 5.12 | 6.12   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |      |      |
|-------------|---------|------------|------|-----|------|------|------|
| 17 AR1248-A | 362.749 | 338.780 E3 | 6.6  | 93  | 0.00 | 4.53 | 4.73 |
| 18 AR1248-B | 954.786 | 932.709 E3 | 2.3  | 98  | 0.00 | 5.18 | 5.38 |
| 19 AR1248-C | 569.681 | 572.997 E3 | -0.6 | 101 | 0.00 | 5.63 | 5.83 |
| 20 AR1248-D | 727.117 | 735.665 E3 | -1.2 | 101 | 0.00 | 6.01 | 6.21 |
| 21 AR1248-E | 879.894 | 914.038 E3 | -3.9 | 104 | 0.00 | 6.19 | 6.39 |
| 22 AR1248-F | 1.097   | 1.158 E6   | -5.6 | 106 | 0.00 | 6.62 | 6.82 |
| 23 AR1248-G | 1.220   | 1.306 E6   | -7.0 | 107 | 0.00 | 6.55 | 7.55 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2G162099.D 2PCB4311.M Thu Apr 19 16:41:13 2018 RPT1

12.10.14  
12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4320-CC4311  
 Lab FileID: 2G162501.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4320\2G162501.D\ECD1A.CH Vial: 28  
 Signal #2 : C:\msdchem\1\DATA\2G4320\2G162501.D\ECD2B.CH  
 Acq On : 28 Apr 2018 5:27 pm Operator: edouarda  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11639,G2G4320,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Apr 26 16:56:44 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.013 E6   | -9.3         | 113   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 88.477 E3  | -13.6        | 116   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 148.279 E3 | -9.0         | 112   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 300.618 E3 | -3.7         | 108   | 0.00     | 4.08- | 4.14   |
| 34  | AR1016-D             | 118.235 | 130.014 E3 | -10.0        | 112   | 0.00     | 4.24- | 4.30   |
| 35  | AR1016-E             | 121.934 | 129.402 E3 | -6.1         | 109   | 0.00     | 4.75- | 4.81   |
| 36  | AR1260-A             | 340.850 | 320.413 E3 | 6.0          | 104   | 0.01     | 7.11- | 7.17   |
| 37  | AR1260-B             | 144.444 | 171.922 E3 | -19.0        | 115   | 0.00     | 7.27- | 7.33   |
| 38  | AR1260-C             | 159.229 | 175.205 E3 | -10.0        | 107   | 0.01     | 7.61- | 7.67   |
| 39  | AR1260-D             | 367.146 | 370.539 E3 | -0.9         | 99    | 0.01     | 8.04- | 8.10   |
| 40  | AR1260-E             | 378.788 | 405.437 E3 | -7.0         | 104   | 0.02     | 8.38- | 8.54   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162501.D

|      |                    |       |       |    |      |     |      |            |  |
|------|--------------------|-------|-------|----|------|-----|------|------------|--|
| 42   | AR1262-B           |       |       |    |      |     |      |            |  |
| 43   | AR1262-C           |       |       |    |      |     |      |            |  |
| 44   | AR1262-D           |       |       |    |      |     |      |            |  |
| 45   | AR1262-E           |       |       |    |      |     |      |            |  |
| 46   | AR1268-A           |       |       |    |      |     |      |            |  |
| 47   | AR1268-B           |       |       |    |      |     |      |            |  |
| 48   | AR1268-C           |       |       |    |      |     |      |            |  |
| 49   | AR1268-D           |       |       |    |      |     |      |            |  |
| 50   | AR1268-E           |       |       |    |      |     |      |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.152 | E6 | -2.4 | 106 | 0.00 | 9.96-10.02 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |        |     |      |             |  |
|-----|----------------------|---------|---------|----|--------|-----|------|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 24.780  | E6 | -8.3   | 111 | 0.00 | 3.42- 3.48  |  |
| 2   | AR1221-A             |         |         |    |        |     |      |             |  |
| 3   | AR1221-B             |         |         |    |        |     |      |             |  |
| 4   | AR1221-C             |         |         |    |        |     |      |             |  |
| 5   | AR1221-D             |         |         |    |        |     |      |             |  |
| 6   | AR1221-E             |         |         |    |        |     |      |             |  |
| 7   | AR1232-A             |         |         |    |        |     |      |             |  |
| 8   | AR1232-B             |         |         |    |        |     |      |             |  |
| 9   | AR1232-C             |         |         |    |        |     |      |             |  |
| 10  | AR1232-D             |         |         |    |        |     |      |             |  |
| 11  | AR1232-E             |         |         |    |        |     |      |             |  |
| 12  | AR1242-A             |         |         |    |        |     |      |             |  |
| 13  | AR1242-B             |         |         |    |        |     |      |             |  |
| 14  | AR1242-C             |         |         |    |        |     |      |             |  |
| 15  | AR1242-D             |         |         |    |        |     |      |             |  |
| 16  | AR1242-E             |         |         |    |        |     |      |             |  |
| 17  | AR1248-A             |         |         |    |        |     |      |             |  |
| 18  | AR1248-B             |         |         |    |        |     |      |             |  |
| 19  | AR1248-C             |         |         |    |        |     |      |             |  |
| 20  | AR1248-D             |         |         |    |        |     |      |             |  |
| 21  | AR1248-E             |         |         |    |        |     |      |             |  |
| 22  | AR1248-F             |         |         |    |        |     |      |             |  |
| 23  | AR1248-G             |         |         |    |        |     |      |             |  |
| 24  | AR1254-A             |         |         |    |        |     |      |             |  |
| 25  | AR1254-B             |         |         |    |        |     |      |             |  |
| 26  | AR1254-C             |         |         |    |        |     |      |             |  |
| 27  | AR1254-D             |         |         |    |        |     |      |             |  |
| 28  | AR1254-E             |         |         |    |        |     |      |             |  |
| 29  | AR1254-F             |         |         |    |        |     |      |             |  |
| 30  | AR1254-G             |         |         |    |        |     |      |             |  |
| 31  | AR1016-A             | 374.605 | 444.747 | E3 | -18.7  | 125 | 0.01 | 4.09- 4.15  |  |
| 32  | AR1016-B             | 0.801   | 0.872   | E6 | -8.9   | 112 | 0.01 | 4.63- 4.69  |  |
| 33  | AR1016-C             | 1.734   | 1.840   | E6 | -6.1   | 109 | 0.02 | 5.27- 5.33  |  |
| 34  | AR1016-D             | 752.270 | 864.273 | E3 | -14.9  | 118 | 0.01 | 5.46- 5.52  |  |
| 35  | AR1016-E             | 513.080 | 568.056 | E3 | -10.7  | 115 | 0.01 | 6.11- 6.17  |  |
| 36  | AR1260-A             | 2.000   | 1.986   | E6 | 0.7    | 109 | 0.01 | 8.73- 8.79  |  |
| 37  | AR1260-B             | 0.874   | 1.063   | E6 | -21.6# | 118 | 0.00 | 8.84- 8.90  |  |
| 38  | AR1260-C             | 1.022   | 1.148   | E6 | -12.3  | 112 | 0.00 | 9.27- 9.33  |  |
| 39  | AR1260-D             | 2.146   | 2.305   | E6 | -7.4   | 106 | 0.01 | 9.63- 9.69  |  |
| 40  | AR1260-E             | 2.038   | 2.312   | E6 | -13.4  | 111 | 0.01 | 10.17-10.23 |  |
| 41  | AR1262-A             |         |         |    |        |     |      |             |  |
| 42  | AR1262-B             |         |         |    |        |     |      |             |  |
| 43  | AR1262-C             |         |         |    |        |     |      |             |  |
| 44  | AR1262-D             |         |         |    |        |     |      |             |  |
| 45  | AR1262-E             |         |         |    |        |     |      |             |  |
| 46  | AR1268-A             |         |         |    |        |     |      |             |  |
| 47  | AR1268-B             |         |         |    |        |     |      |             |  |

12.10.15  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162501.D

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|      |                    |        |           |     |              |      |             |  |
|------|--------------------|--------|-----------|-----|--------------|------|-------------|--|
| 48   | AR1268-C           |        |           |     | -----NA----- |      |             |  |
| 49   | AR1268-D           |        |           |     | -----NA----- |      |             |  |
| 50   | AR1268-E           |        |           |     | -----NA----- |      |             |  |
| 51 S | Decachlorobiphenyl | 19.099 | 18.690 E6 | 2.1 | 104          | 0.00 | 11.83-11.89 |  |

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(#) = Out of Range                                  SPCC's out = 0    CCC's out = 0  
 2G162098.D 2PCB4311.M                              Sat Apr 28 21:10:31 2018    RPT1

12.10.15  
**12**

# Continuing Calibration Summary

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4320-CC4311  
Lab FileID: 2G162512.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4320\2G162512.D\ECD1A.CH Vial: 36  
Signal #2 : C:\msdchem\1\DATA\2G4320\2G162512.D\ECD2B.CH  
Acq On : 28 Apr 2018 8:33 pm Operator: edouarda  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11639,G2G4320,15.0,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 26 16:56:44 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.111 E6   | -12.0 | 111   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | NA    |       |          |       |        |
| 3   | AR1221-B             |         |            | NA    |       |          |       |        |
| 4   | AR1221-C             |         |            | NA    |       |          |       |        |
| 5   | AR1221-D             |         |            | NA    |       |          |       |        |
| 6   | AR1221-E             |         |            | NA    |       |          |       |        |
| 7   | AR1232-A             |         |            | NA    |       |          |       |        |
| 8   | AR1232-B             |         |            | NA    |       |          |       |        |
| 9   | AR1232-C             |         |            | NA    |       |          |       |        |
| 10  | AR1232-D             |         |            | NA    |       |          |       |        |
| 11  | AR1232-E             |         |            | NA    |       |          |       |        |
| 12  | AR1242-A             |         |            | NA    |       |          |       |        |
| 13  | AR1242-B             |         |            | NA    |       |          |       |        |
| 14  | AR1242-C             |         |            | NA    |       |          |       |        |
| 15  | AR1242-D             |         |            | NA    |       |          |       |        |
| 16  | AR1242-E             |         |            | NA    |       |          |       |        |
| 17  | AR1248-A             |         |            | NA    |       |          |       |        |
| 18  | AR1248-B             |         |            | NA    |       |          |       |        |
| 19  | AR1248-C             |         |            | NA    |       |          |       |        |
| 20  | AR1248-D             |         |            | NA    |       |          |       |        |
| 21  | AR1248-E             |         |            | NA    |       |          |       |        |
| 22  | AR1248-F             |         |            | NA    |       |          |       |        |
| 23  | AR1248-G             |         |            | NA    |       |          |       |        |
| 24  | AR1254-A             |         |            | NA    |       |          |       |        |
| 25  | AR1254-B             |         |            | NA    |       |          |       |        |
| 26  | AR1254-C             |         |            | NA    |       |          |       |        |
| 27  | AR1254-D             |         |            | NA    |       |          |       |        |
| 28  | AR1254-E             |         |            | NA    |       |          |       |        |
| 29  | AR1254-F             |         |            | NA    |       |          |       |        |
| 30  | AR1254-G             |         |            | NA    |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 84.574 E3  | -8.6  | 112   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 144.199 E3 | -6.0  | 111   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 306.160 E3 | -5.6  | 107   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 128.444 E3 | -8.6  | 111   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 128.322 E3 | -5.2  | 109   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 339.266 E3 | 0.5   | 107   | 0.00     | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 171.348 E3 | -18.6 | 112   | 0.00     | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 182.992 E3 | -14.9 | 108   | 0.00     | 7.60- | 7.66   |
| 39  | AR1260-D             | 367.146 | 381.097 E3 | -3.8  | 96    | 0.00     | 8.03- | 8.09   |
| 40  | AR1260-E             | 378.788 | 419.708 E3 | -10.8 | 104   | 0.00     | 8.37- | 8.53   |
| 41  | AR1262-A             |         |            | NA    |       |          |       |        |

12.10.16 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162512.D

|      |                    |       |       |    |      |     |      |  |            |  |
|------|--------------------|-------|-------|----|------|-----|------|--|------------|--|
| 42   | AR1262-B           |       |       |    |      |     |      |  |            |  |
| 43   | AR1262-C           |       |       |    |      |     |      |  |            |  |
| 44   | AR1262-D           |       |       |    |      |     |      |  |            |  |
| 45   | AR1262-E           |       |       |    |      |     |      |  |            |  |
| 46   | AR1268-A           |       |       |    |      |     |      |  |            |  |
| 47   | AR1268-B           |       |       |    |      |     |      |  |            |  |
| 48   | AR1268-C           |       |       |    |      |     |      |  |            |  |
| 49   | AR1268-D           |       |       |    |      |     |      |  |            |  |
| 50   | AR1268-E           |       |       |    |      |     |      |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.123 | E6 | -1.7 | 105 | 0.00 |  | 9.95-10.01 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |        |     |      |  |             |  |
|-----|----------------------|---------|---------|----|--------|-----|------|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.814  | E6 | -12.8  | 111 | 0.00 |  | 3.42- 3.48  |  |
| 2   | AR1221-A             |         |         |    |        |     |      |  |             |  |
| 3   | AR1221-B             |         |         |    |        |     |      |  |             |  |
| 4   | AR1221-C             |         |         |    |        |     |      |  |             |  |
| 5   | AR1221-D             |         |         |    |        |     |      |  |             |  |
| 6   | AR1221-E             |         |         |    |        |     |      |  |             |  |
| 7   | AR1232-A             |         |         |    |        |     |      |  |             |  |
| 8   | AR1232-B             |         |         |    |        |     |      |  |             |  |
| 9   | AR1232-C             |         |         |    |        |     |      |  |             |  |
| 10  | AR1232-D             |         |         |    |        |     |      |  |             |  |
| 11  | AR1232-E             |         |         |    |        |     |      |  |             |  |
| 12  | AR1242-A             |         |         |    |        |     |      |  |             |  |
| 13  | AR1242-B             |         |         |    |        |     |      |  |             |  |
| 14  | AR1242-C             |         |         |    |        |     |      |  |             |  |
| 15  | AR1242-D             |         |         |    |        |     |      |  |             |  |
| 16  | AR1242-E             |         |         |    |        |     |      |  |             |  |
| 17  | AR1248-A             |         |         |    |        |     |      |  |             |  |
| 18  | AR1248-B             |         |         |    |        |     |      |  |             |  |
| 19  | AR1248-C             |         |         |    |        |     |      |  |             |  |
| 20  | AR1248-D             |         |         |    |        |     |      |  |             |  |
| 21  | AR1248-E             |         |         |    |        |     |      |  |             |  |
| 22  | AR1248-F             |         |         |    |        |     |      |  |             |  |
| 23  | AR1248-G             |         |         |    |        |     |      |  |             |  |
| 24  | AR1254-A             |         |         |    |        |     |      |  |             |  |
| 25  | AR1254-B             |         |         |    |        |     |      |  |             |  |
| 26  | AR1254-C             |         |         |    |        |     |      |  |             |  |
| 27  | AR1254-D             |         |         |    |        |     |      |  |             |  |
| 28  | AR1254-E             |         |         |    |        |     |      |  |             |  |
| 29  | AR1254-F             |         |         |    |        |     |      |  |             |  |
| 30  | AR1254-G             |         |         |    |        |     |      |  |             |  |
| 31  | AR1016-A             | 374.605 | 432.102 | E3 | -15.3  | 118 | 0.00 |  | 4.08- 4.14  |  |
| 32  | AR1016-B             | 0.801   | 0.848   | E6 | -5.9   | 109 | 0.00 |  | 4.62- 4.68  |  |
| 33  | AR1016-C             | 1.734   | 1.895   | E6 | -9.3   | 109 | 0.00 |  | 5.27- 5.33  |  |
| 34  | AR1016-D             | 752.270 | 843.192 | E3 | -12.1  | 114 | 0.00 |  | 5.45- 5.51  |  |
| 35  | AR1016-E             | 513.080 | 574.735 | E3 | -12.0  | 114 | 0.00 |  | 6.11- 6.17  |  |
| 36  | AR1260-A             | 2.000   | 2.088   | E6 | -4.4   | 111 | 0.00 |  | 8.72- 8.78  |  |
| 37  | AR1260-B             | 0.874   | 1.062   | E6 | -21.5# | 116 | 0.00 |  | 8.84- 8.90  |  |
| 38  | AR1260-C             | 1.022   | 1.186   | E6 | -16.0  | 113 | 0.00 |  | 9.27- 9.33  |  |
| 39  | AR1260-D             | 2.146   | 2.472   | E6 | -15.2  | 110 | 0.00 |  | 9.62- 9.68  |  |
| 40  | AR1260-E             | 2.038   | 1.978   | E6 | 2.9    | 92  | 0.00 |  | 10.17-10.23 |  |
| 41  | AR1262-A             |         |         |    |        |     |      |  |             |  |
| 42  | AR1262-B             |         |         |    |        |     |      |  |             |  |
| 43  | AR1262-C             |         |         |    |        |     |      |  |             |  |
| 44  | AR1262-D             |         |         |    |        |     |      |  |             |  |
| 45  | AR1262-E             |         |         |    |        |     |      |  |             |  |
| 46  | AR1268-A             |         |         |    |        |     |      |  |             |  |
| 47  | AR1268-B             |         |         |    |        |     |      |  |             |  |

12.10.16  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162512.D

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|      |                    |        |        |    |      |     |      |  |             |              |
|------|--------------------|--------|--------|----|------|-----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |      |     |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |      |     |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |      |     |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 19.899 | E6 | -4.2 | 106 | 0.00 |  | 11.83-11.89 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162403.D 2PCB4311.M                Sat Apr 28 21:17:31 2018    RPT1

12.10.16  
12

# Continuing Calibration Summary

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4320-CC4311  
Lab FileID: 2G162534.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4320\2G162534.D\ECD1A.CH Vial: 52  
Signal #2 : C:\msdchem\1\DATA\2G4320\2G162534.D\ECD2B.CH  
Acq On : 29 Apr 2018 2:46 am Operator: edouarda  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11639,G2G4320,15.0,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Mon Apr 30 10:31:21 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.136 E6   | -12.7        | 112   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 86.041 E3  | -10.5        | 114   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 146.163 E3 | -7.4         | 112   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 313.596 E3 | -8.1         | 110   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 129.917 E3 | -9.9         | 112   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 130.193 E3 | -6.8         | 111   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 344.090 E3 | -1.0         | 108   | 0.00     | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 170.533 E3 | -18.1        | 111   | 0.00     | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 183.236 E3 | -15.1        | 108   | 0.00     | 7.60- | 7.66   |
| 39  | AR1260-D             | 367.146 | 387.528 E3 | -5.6         | 98    | 0.00     | 8.03- | 8.09   |
| 40  | AR1260-E             | 378.788 | 426.358 E3 | -12.6        | 106   | 0.00     | 8.37- | 8.52   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4320-CC4311  
 Lab FileID: 2G162534.D

|                       |                      |         |         |    |       |     |      |  |  |  |  |             |  |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|--|--|--|--|-------------|--|
| 42                    | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 48                    | AR1268-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 49                    | AR1268-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 50                    | AR1268-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 4.113   | E6 | -1.4  | 105 | 0.00 |  |  |  |  | 9.95-10.01  |  |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |  |  |  |  |             |  |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 25.991  | E6 | -13.6 | 112 | 0.00 |  |  |  |  | 3.42- 3.48  |  |
| 2                     | AR1221-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 3                     | AR1221-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 4                     | AR1221-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 5                     | AR1221-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 6                     | AR1221-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 7                     | AR1232-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 8                     | AR1232-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 9                     | AR1232-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 10                    | AR1232-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 11                    | AR1232-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 12                    | AR1242-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 13                    | AR1242-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 14                    | AR1242-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 15                    | AR1242-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 16                    | AR1242-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 17                    | AR1248-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 18                    | AR1248-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 19                    | AR1248-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 20                    | AR1248-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 21                    | AR1248-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 22                    | AR1248-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 23                    | AR1248-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 24                    | AR1254-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 25                    | AR1254-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 26                    | AR1254-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 27                    | AR1254-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 28                    | AR1254-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 29                    | AR1254-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 30                    | AR1254-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 31                    | AR1016-A             | 374.605 | 420.884 | E3 | -12.4 | 115 | 0.00 |  |  |  |  | 4.08- 4.14  |  |
| 32                    | AR1016-B             | 0.801   | 0.848   | E6 | -5.9  | 109 | 0.00 |  |  |  |  | 4.62- 4.68  |  |
| 33                    | AR1016-C             | 1.734   | 1.908   | E6 | -10.0 | 109 | 0.00 |  |  |  |  | 5.26- 5.32  |  |
| 34                    | AR1016-D             | 752.270 | 825.273 | E3 | -9.7  | 112 | 0.00 |  |  |  |  | 5.45- 5.51  |  |
| 35                    | AR1016-E             | 513.080 | 564.367 | E3 | -10.0 | 112 | 0.00 |  |  |  |  | 6.10- 6.16  |  |
| 36                    | AR1260-A             | 2.000   | 2.088   | E6 | -4.4  | 111 | 0.00 |  |  |  |  | 8.72- 8.78  |  |
| 37                    | AR1260-B             | 0.874   | 1.036   | E6 | -18.5 | 113 | 0.00 |  |  |  |  | 8.83- 8.89  |  |
| 38                    | AR1260-C             | 1.022   | 1.162   | E6 | -13.7 | 111 | 0.00 |  |  |  |  | 9.27- 9.33  |  |
| 39                    | AR1260-D             | 2.146   | 2.440   | E6 | -13.7 | 108 | 0.00 |  |  |  |  | 9.62- 9.68  |  |
| 40                    | AR1260-E             | 2.038   | 2.016   | E6 | 1.1   | 94  | 0.00 |  |  |  |  | 10.16-10.22 |  |
| 41                    | AR1262-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 42                    | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |

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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162534.D

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|      |                    |        |           |     |              |      |             |  |  |
|------|--------------------|--------|-----------|-----|--------------|------|-------------|--|--|
| 48   | AR1268-C           |        |           |     | -----NA----- |      |             |  |  |
| 49   | AR1268-D           |        |           |     | -----NA----- |      |             |  |  |
| 50   | AR1268-E           |        |           |     | -----NA----- |      |             |  |  |
| 51 S | Decachlorobiphenyl | 19.099 | 18.978 E6 | 0.6 | 101          | 0.00 | 11.82-11.88 |  |  |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162403.D 2PCB4311.M            Mon Apr 30 13:46:47 2018    RPT1

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# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4320-CC4311  
 Lab FileID: 2G162541.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4320\2G162541.D\ECD1A.CH Vial: 55  
 Signal #2 : C:\msdchem\1\DATA\2G4320\2G162541.D\ECD2B.CH  
 Acq On : 29 Apr 2018 4:44 am Operator: edouarda  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11639,G2G4320,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Mon Apr 30 10:31:21 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.417 E6   | -20.4 | # 125 | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            |       |       |          |       |        |
| 3   | AR1221-B             |         |            |       |       |          |       |        |
| 4   | AR1221-C             |         |            |       |       |          |       |        |
| 5   | AR1221-D             |         |            |       |       |          |       |        |
| 6   | AR1221-E             |         |            |       |       |          |       |        |
| 7   | AR1232-A             |         |            |       |       |          |       |        |
| 8   | AR1232-B             |         |            |       |       |          |       |        |
| 9   | AR1232-C             |         |            |       |       |          |       |        |
| 10  | AR1232-D             |         |            |       |       |          |       |        |
| 11  | AR1232-E             |         |            |       |       |          |       |        |
| 12  | AR1242-A             |         |            |       |       |          |       |        |
| 13  | AR1242-B             |         |            |       |       |          |       |        |
| 14  | AR1242-C             |         |            |       |       |          |       |        |
| 15  | AR1242-D             |         |            |       |       |          |       |        |
| 16  | AR1242-E             |         |            |       |       |          |       |        |
| 17  | AR1248-A             |         |            |       |       |          |       |        |
| 18  | AR1248-B             |         |            |       |       |          |       |        |
| 19  | AR1248-C             |         |            |       |       |          |       |        |
| 20  | AR1248-D             |         |            |       |       |          |       |        |
| 21  | AR1248-E             |         |            |       |       |          |       |        |
| 22  | AR1248-F             |         |            |       |       |          |       |        |
| 23  | AR1248-G             |         |            |       |       |          |       |        |
| 24  | AR1254-A             |         |            |       |       |          |       |        |
| 25  | AR1254-B             |         |            |       |       |          |       |        |
| 26  | AR1254-C             |         |            |       |       |          |       |        |
| 27  | AR1254-D             |         |            |       |       |          |       |        |
| 28  | AR1254-E             |         |            |       |       |          |       |        |
| 29  | AR1254-F             |         |            |       |       |          |       |        |
| 30  | AR1254-G             |         |            |       |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 92.480 E3  | -18.7 | 121   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 153.748 E3 | -13.0 | 116   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 318.644 E3 | -9.9  | 114   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 136.488 E3 | -15.4 | 118   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 135.745 E3 | -11.3 | 115   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 336.565 E3 | 1.3   | 109   | 0.00     | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 167.736 E3 | -16.1 | 112   | 0.00     | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 179.609 E3 | -12.8 | 109   | 0.00     | 7.60- | 7.66   |
| 39  | AR1260-D             | 367.146 | 380.775 E3 | -3.7  | 102   | 0.00     | 8.03- | 8.09   |
| 40  | AR1260-E             | 378.788 | 427.988 E3 | -13.0 | 110   | 0.00     | 8.37- | 8.52   |
| 41  | AR1262-A             |         |            |       |       |          |       |        |

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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162541.D

|                       |                      |         |         |    |       |     |      |             |  |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|-------------|--|
| 42                    | AR1262-B             |         |         |    |       |     |      |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |             |  |
| 48                    | AR1268-C             |         |         |    |       |     |      |             |  |
| 49                    | AR1268-D             |         |         |    |       |     |      |             |  |
| 50                    | AR1268-E             |         |         |    |       |     |      |             |  |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 3.977   | E6 | 1.9   | 101 | 0.00 | 9.95-10.01  |  |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |             |  |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 25.344  | E6 | -10.8 | 113 | 0.00 | 3.42- 3.48  |  |
| 2                     | AR1221-A             |         |         |    |       |     |      |             |  |
| 3                     | AR1221-B             |         |         |    |       |     |      |             |  |
| 4                     | AR1221-C             |         |         |    |       |     |      |             |  |
| 5                     | AR1221-D             |         |         |    |       |     |      |             |  |
| 6                     | AR1221-E             |         |         |    |       |     |      |             |  |
| 7                     | AR1232-A             |         |         |    |       |     |      |             |  |
| 8                     | AR1232-B             |         |         |    |       |     |      |             |  |
| 9                     | AR1232-C             |         |         |    |       |     |      |             |  |
| 10                    | AR1232-D             |         |         |    |       |     |      |             |  |
| 11                    | AR1232-E             |         |         |    |       |     |      |             |  |
| 12                    | AR1242-A             |         |         |    |       |     |      |             |  |
| 13                    | AR1242-B             |         |         |    |       |     |      |             |  |
| 14                    | AR1242-C             |         |         |    |       |     |      |             |  |
| 15                    | AR1242-D             |         |         |    |       |     |      |             |  |
| 16                    | AR1242-E             |         |         |    |       |     |      |             |  |
| 17                    | AR1248-A             |         |         |    |       |     |      |             |  |
| 18                    | AR1248-B             |         |         |    |       |     |      |             |  |
| 19                    | AR1248-C             |         |         |    |       |     |      |             |  |
| 20                    | AR1248-D             |         |         |    |       |     |      |             |  |
| 21                    | AR1248-E             |         |         |    |       |     |      |             |  |
| 22                    | AR1248-F             |         |         |    |       |     |      |             |  |
| 23                    | AR1248-G             |         |         |    |       |     |      |             |  |
| 24                    | AR1254-A             |         |         |    |       |     |      |             |  |
| 25                    | AR1254-B             |         |         |    |       |     |      |             |  |
| 26                    | AR1254-C             |         |         |    |       |     |      |             |  |
| 27                    | AR1254-D             |         |         |    |       |     |      |             |  |
| 28                    | AR1254-E             |         |         |    |       |     |      |             |  |
| 29                    | AR1254-F             |         |         |    |       |     |      |             |  |
| 30                    | AR1254-G             |         |         |    |       |     |      |             |  |
| 31                    | AR1016-A             | 374.605 | 424.542 | E3 | -13.3 | 119 | 0.00 | 4.08- 4.14  |  |
| 32                    | AR1016-B             | 0.801   | 0.880   | E6 | -9.9  | 113 | 0.00 | 4.62- 4.68  |  |
| 33                    | AR1016-C             | 1.734   | 1.893   | E6 | -9.2  | 112 | 0.00 | 5.27- 5.33  |  |
| 34                    | AR1016-D             | 752.270 | 836.581 | E3 | -11.2 | 115 | 0.00 | 5.45- 5.51  |  |
| 35                    | AR1016-E             | 513.080 | 563.059 | E3 | -9.7  | 114 | 0.00 | 6.11- 6.17  |  |
| 36                    | AR1260-A             | 2.000   | 2.013   | E6 | -0.6  | 111 | 0.00 | 8.72- 8.78  |  |
| 37                    | AR1260-B             | 0.874   | 1.005   | E6 | -15.0 | 112 | 0.00 | 8.83- 8.89  |  |
| 38                    | AR1260-C             | 1.022   | 1.155   | E6 | -13.0 | 113 | 0.00 | 9.27- 9.33  |  |
| 39                    | AR1260-D             | 2.146   | 2.347   | E6 | -9.4  | 108 | 0.00 | 9.62- 9.68  |  |
| 40                    | AR1260-E             | 2.038   | 2.158   | E6 | -5.9  | 103 | 0.00 | 10.16-10.22 |  |
| 41                    | AR1262-A             |         |         |    |       |     |      |             |  |
| 42                    | AR1262-B             |         |         |    |       |     |      |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |             |  |

12.10.18 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4320-CC4311  
**Lab FileID:** 2G162541.D

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|      |                    |        |        |    |     |     |      |  |             |              |
|------|--------------------|--------|--------|----|-----|-----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |     |     |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |     |     |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |     |     |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 18.747 | E6 | 1.8 | 104 | 0.00 |  | 11.83-11.89 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Mon Apr 30 13:46:08 2018    RPT1

12.10.18  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162944.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162944.D\ECD1A.CH Vial: 61  
Signal #2 : C:\msdchem\1\DATA\2G4326\2G162944.D\ECD2B.CH  
Acq On : 07 May 2018 9:11 am Operator: tianweir  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11709,G2G4326,15.0,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu May 03 08:38:56 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.049 E6   | -10.3        | 110   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 82.335 E3  | -5.7         | 109   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 143.061 E3 | -5.1         | 110   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 301.563 E3 | -4.0         | 106   | 0.00     | 4.06- | 4.12   |
| 34  | AR1016-D             | 118.235 | 128.329 E3 | -8.5         | 111   | 0.00     | 4.22- | 4.28   |
| 35  | AR1016-E             | 121.934 | 131.269 E3 | -7.7         | 112   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 343.862 E3 | -0.9         | 108   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 167.908 E3 | -16.2        | 110   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 186.253 E3 | -17.0        | 110   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 414.775 E3 | -13.0        | 105   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 425.480 E3 | -12.3        | 106   | 0.00     | 8.35- | 8.51   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.10.19  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162944.D

|      |                    |       |          |      |     |      |  |            |  |
|------|--------------------|-------|----------|------|-----|------|--|------------|--|
| 42   | AR1262-B           |       |          |      |     |      |  |            |  |
| 43   | AR1262-C           |       |          |      |     |      |  |            |  |
| 44   | AR1262-D           |       |          |      |     |      |  |            |  |
| 45   | AR1262-E           |       |          |      |     |      |  |            |  |
| 46   | AR1268-A           |       |          |      |     |      |  |            |  |
| 47   | AR1268-B           |       |          |      |     |      |  |            |  |
| 48   | AR1268-C           |       |          |      |     |      |  |            |  |
| 49   | AR1268-D           |       |          |      |     |      |  |            |  |
| 50   | AR1268-E           |       |          |      |     |      |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.202 E6 | -3.6 | 107 | 0.00 |  | 9.94-10.00 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |            |        |     |       |  |             |  |
|-----|----------------------|---------|------------|--------|-----|-------|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.447 E6  | -11.2  | 110 | 0.00  |  | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |            |        |     |       |  |             |  |
| 3   | AR1221-B             |         |            |        |     |       |  |             |  |
| 4   | AR1221-C             |         |            |        |     |       |  |             |  |
| 5   | AR1221-D             |         |            |        |     |       |  |             |  |
| 6   | AR1221-E             |         |            |        |     |       |  |             |  |
| 7   | AR1232-A             |         |            |        |     |       |  |             |  |
| 8   | AR1232-B             |         |            |        |     |       |  |             |  |
| 9   | AR1232-C             |         |            |        |     |       |  |             |  |
| 10  | AR1232-D             |         |            |        |     |       |  |             |  |
| 11  | AR1232-E             |         |            |        |     |       |  |             |  |
| 12  | AR1242-A             |         |            |        |     |       |  |             |  |
| 13  | AR1242-B             |         |            |        |     |       |  |             |  |
| 14  | AR1242-C             |         |            |        |     |       |  |             |  |
| 15  | AR1242-D             |         |            |        |     |       |  |             |  |
| 16  | AR1242-E             |         |            |        |     |       |  |             |  |
| 17  | AR1248-A             |         |            |        |     |       |  |             |  |
| 18  | AR1248-B             |         |            |        |     |       |  |             |  |
| 19  | AR1248-C             |         |            |        |     |       |  |             |  |
| 20  | AR1248-D             |         |            |        |     |       |  |             |  |
| 21  | AR1248-E             |         |            |        |     |       |  |             |  |
| 22  | AR1248-F             |         |            |        |     |       |  |             |  |
| 23  | AR1248-G             |         |            |        |     |       |  |             |  |
| 24  | AR1254-A             |         |            |        |     |       |  |             |  |
| 25  | AR1254-B             |         |            |        |     |       |  |             |  |
| 26  | AR1254-C             |         |            |        |     |       |  |             |  |
| 27  | AR1254-D             |         |            |        |     |       |  |             |  |
| 28  | AR1254-E             |         |            |        |     |       |  |             |  |
| 29  | AR1254-F             |         |            |        |     |       |  |             |  |
| 30  | AR1254-G             |         |            |        |     |       |  |             |  |
| 31  | AR1016-A             | 374.605 | 434.159 E3 | -15.9  | 118 | 0.00  |  | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.841 E6   | -5.0   | 108 | 0.00  |  | 4.59- 4.65  |  |
| 33  | AR1016-C             | 1.734   | 1.869 E6   | -7.8   | 107 | 0.00  |  | 5.23- 5.29  |  |
| 34  | AR1016-D             | 752.270 | 846.400 E3 | -12.5  | 115 | 0.00  |  | 5.42- 5.48  |  |
| 35  | AR1016-E             | 513.080 | 567.376 E3 | -10.6  | 113 | -0.01 |  | 6.06- 6.12  |  |
| 36  | AR1260-A             | 2.000   | 2.119 E6   | -6.0   | 113 | -0.02 |  | 8.66- 8.72  |  |
| 37  | AR1260-B             | 0.874   | 1.074 E6   | -22.9# | 117 | -0.02 |  | 8.77- 8.83  |  |
| 38  | AR1260-C             | 1.022   | 1.210 E6   | -18.4  | 115 | -0.02 |  | 9.20- 9.27  |  |
| 39  | AR1260-D             | 2.146   | 2.554 E6   | -19.0  | 113 | -0.02 |  | 9.55- 9.61  |  |
| 40  | AR1260-E             | 2.038   | 2.463 E6   | -20.9# | 115 | -0.02 |  | 10.10-10.16 |  |
| 41  | AR1262-A             |         |            |        |     |       |  |             |  |
| 42  | AR1262-B             |         |            |        |     |       |  |             |  |
| 43  | AR1262-C             |         |            |        |     |       |  |             |  |
| 44  | AR1262-D             |         |            |        |     |       |  |             |  |
| 45  | AR1262-E             |         |            |        |     |       |  |             |  |
| 46  | AR1268-A             |         |            |        |     |       |  |             |  |
| 47  | AR1268-B             |         |            |        |     |       |  |             |  |

12.10.19 12

# Continuing Calibration Summary

Job Number: JC64996

Sample: G2G4326-CC4311

Account: AGMNYF Arcadis

Lab FileID: 2G162944.D

Project: NYSEG - Newark Former MGP Site, Newark, NY

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|      |                    |        |        |    |       |     |       |             |              |
|------|--------------------|--------|--------|----|-------|-----|-------|-------------|--------------|
| 48   | AR1268-C           |        |        |    |       |     |       |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |       |     |       |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |       |     |       |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 21.631 | E6 | -13.3 | 115 | -0.03 | 11.75-11.81 | -----        |

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(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2G162708.D 2PCB4311.M

Mon May 07 14:54:59 2018 RPT1

12.10.19

12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
 Lab FileID: 2G162954.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162954.D\ECD1A.CH Vial: 68  
 Signal #2 : C:\msdchem\1\DATA\2G4326\2G162954.D\ECD2B.CH  
 Acq On : 07 May 2018 12:00 pm Operator: tianweir  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11775,G2G4326,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu May 03 08:38:56 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.990 E6   | -8.7         | 113   | 0.01     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 87.615 E3  | -12.5        | 115   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 150.009 E3 | -10.3        | 113   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 304.624 E3 | -5.1         | 109   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 132.705 E3 | -12.2        | 115   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 130.904 E3 | -7.4         | 111   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 335.001 E3 | 1.7          | 109   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 165.871 E3 | -14.8        | 111   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 181.576 E3 | -14.0        | 111   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 385.692 E3 | -5.1         | 103   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 413.041 E3 | -9.0         | 106   | 0.00     | 8.36- | 8.52   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.10.20 12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
 Lab FileID: 2G162954.D

|                       |                      |         |         |    |        |     |       |  |  |  |  |             |  |
|-----------------------|----------------------|---------|---------|----|--------|-----|-------|--|--|--|--|-------------|--|
| 42                    | AR1262-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 48                    | AR1268-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 49                    | AR1268-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 50                    | AR1268-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 4.128   | E6 | -1.8   | 105 | 0.00  |  |  |  |  | 9.94-10.00  |  |
| ***** Signal #2 ***** |                      |         |         |    |        |     |       |  |  |  |  |             |  |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 25.488  | E6 | -11.4  | 114 | 0.00  |  |  |  |  | 3.40- 3.46  |  |
| 2                     | AR1221-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 3                     | AR1221-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 4                     | AR1221-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 5                     | AR1221-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 6                     | AR1221-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 7                     | AR1232-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 8                     | AR1232-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 9                     | AR1232-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 10                    | AR1232-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 11                    | AR1232-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 12                    | AR1242-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 13                    | AR1242-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 14                    | AR1242-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 15                    | AR1242-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 16                    | AR1242-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 17                    | AR1248-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 18                    | AR1248-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 19                    | AR1248-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 20                    | AR1248-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 21                    | AR1248-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 22                    | AR1248-F             |         |         |    |        |     |       |  |  |  |  |             |  |
| 23                    | AR1248-G             |         |         |    |        |     |       |  |  |  |  |             |  |
| 24                    | AR1254-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 25                    | AR1254-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 26                    | AR1254-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 27                    | AR1254-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 28                    | AR1254-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 29                    | AR1254-F             |         |         |    |        |     |       |  |  |  |  |             |  |
| 30                    | AR1254-G             |         |         |    |        |     |       |  |  |  |  |             |  |
| 31                    | AR1016-A             | 374.605 | 453.131 | E3 | -21.0# | 127 | 0.00  |  |  |  |  | 4.06- 4.12  |  |
| 32                    | AR1016-B             | 0.801   | 0.884   | E6 | -10.4  | 113 | 0.00  |  |  |  |  | 4.59- 4.65  |  |
| 33                    | AR1016-C             | 1.734   | 1.897   | E6 | -9.4   | 112 | 0.00  |  |  |  |  | 5.23- 5.29  |  |
| 34                    | AR1016-D             | 752.270 | 865.178 | E3 | -15.0  | 119 | 0.00  |  |  |  |  | 5.42- 5.48  |  |
| 35                    | AR1016-E             | 513.080 | 570.483 | E3 | -11.2  | 116 | -0.01 |  |  |  |  | 6.07- 6.13  |  |
| 36                    | AR1260-A             | 2.000   | 1.969   | E6 | 1.5    | 108 | -0.02 |  |  |  |  | 8.66- 8.72  |  |
| 37                    | AR1260-B             | 0.874   | 1.019   | E6 | -16.6  | 114 | -0.02 |  |  |  |  | 8.77- 8.83  |  |
| 38                    | AR1260-C             | 1.022   | 1.138   | E6 | -11.4  | 111 | -0.02 |  |  |  |  | 9.21- 9.27  |  |
| 39                    | AR1260-D             | 2.146   | 2.304   | E6 | -7.4   | 106 | -0.02 |  |  |  |  | 9.55- 9.61  |  |
| 40                    | AR1260-E             | 2.038   | 2.228   | E6 | -9.3   | 107 | -0.02 |  |  |  |  | 10.10-10.16 |  |
| 41                    | AR1262-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 42                    | AR1262-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |        |     |       |  |  |  |  |             |  |

12.10.20 12



# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162954.D

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|      |                    |        |        |    |     |              |       |             |
|------|--------------------|--------|--------|----|-----|--------------|-------|-------------|
| 48   | AR1268-C           |        |        |    |     | -----NA----- |       |             |
| 49   | AR1268-D           |        |        |    |     | -----NA----- |       |             |
| 50   | AR1268-E           |        |        |    |     | -----NA----- |       |             |
| 51 S | Decachlorobiphenyl | 19.099 | 19.019 | E6 | 0.4 | 106          | -0.03 | 11.75-11.81 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Mon May 07 14:54:50 2018    RPT1

12.10.20  
12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICC4020  
**Lab FileID:** 3G115849.D

## Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Initial Calibration

### Calibration Files

500 =3G115851.D 400 =3G115850.D 300 =3G115849.D 200 =3G115848.D  
100 =3G115847.D 50 =3G115846.D

| Compound             | 500   | 400   | 300   | 200   | 100   | 50    | Avg      | %RSD  |
|----------------------|-------|-------|-------|-------|-------|-------|----------|-------|
| 1) Dalapon           | 7.083 | 7.185 | 7.406 | 7.854 | 8.144 | 8.279 | 7.659 E6 | 6.60  |
| 2) S 2,4-DCAA        | 3.395 | 3.459 | 3.670 | 3.877 | 4.246 | 4.778 | 3.904 E6 | 13.52 |
| 3) Dicamba           | 1.693 | 1.733 | 1.817 | 1.866 | 1.929 | 2.020 | 1.843 E7 | 6.63  |
| 4) MCPP              | 8.521 | 8.350 | 8.258 | 7.576 | 5.974 |       | 7.736 E3 | 13.55 |
| 5) MCPA              | 1.407 | 1.377 | 1.417 | 1.367 | 1.194 |       | 1.352 E4 | 6.74  |
| 6) Dichloroprop      | 3.780 | 3.774 | 4.012 | 4.262 | 4.656 | 5.052 | 4.256 E6 | 12.03 |
| 7) 2,4-D             | 4.908 | 4.979 | 5.254 | 5.553 | 6.030 | 6.504 | 5.538 E6 | 11.32 |
| 8) Pentachlorophenol | 6.916 | 6.953 | 6.924 | 7.246 | 7.227 | 7.203 | 7.078 E7 | 2.29  |
| 9) 2,4,5-TP          | 2.659 | 2.711 | 2.817 | 2.909 | 2.976 | 3.082 | 2.859 E7 | 5.63  |
| 10) 2,4,5-T          | 2.676 | 2.730 | 2.846 | 2.940 | 3.214 | 3.225 | 2.939 E7 | 8.05  |
| 11) 2,4-DB           | 2.821 | 2.888 | 3.052 | 3.192 | 3.458 | 3.888 | 3.216 E6 | 12.44 |
| 12) Dinoseb          | 1.346 | 1.371 | 1.445 | 1.534 | 1.621 | 1.739 | 1.509 E7 | 10.09 |
| 13) Picloram         | 3.049 | 3.102 | 3.215 | 3.300 | 3.423 | 3.617 | 3.284 E7 | 6.44  |

### Signal #2

|                      |       |       |       |       |       |       |          |       |
|----------------------|-------|-------|-------|-------|-------|-------|----------|-------|
| 1) Dalapon           | 1.761 | 1.772 | 1.822 | 1.909 | 1.945 | 1.969 | 1.863 E6 | 4.83  |
| 2) S 2,4-DCAA        | 8.144 | 8.280 | 8.342 | 8.604 | 8.877 | 9.343 | 8.598 E5 | 5.22  |
| 3) Dicamba           | 4.872 | 5.077 | 5.157 | 5.458 | 6.312 | 5.996 | 5.479 E6 | 10.31 |
| 4) MCPP              | 1.668 | 1.662 | 1.613 | 1.524 | 1.172 |       | 1.528 E3 | 13.55 |
| 5) MCPA              | 2.780 | 2.783 | 2.748 | 2.648 | 2.181 |       | 2.628 E3 | 9.74  |
| 6) Dichloroprop      | 1.066 | 1.088 | 1.114 | 1.166 | 1.222 | 1.269 | 1.154 E6 | 6.92  |
| 7) 2,4-D             | 1.367 | 1.419 | 1.440 | 1.500 | 1.558 | 1.612 | 1.482 E6 | 6.18  |
| 8) Pentachlorophenol | 2.489 | 2.546 | 2.507 | 2.573 | 2.469 | 2.382 | 2.494 E7 | 2.68  |
| 9) 2,4,5-TP          | 1.019 | 1.036 | 1.049 | 1.061 | 1.025 | 1.004 | 1.032 E7 | 2.01  |
| 10) 2,4,5-T          | 0.953 | 0.965 | 0.984 | 1.003 | 0.986 | 1.006 | 0.983 E7 | 2.11  |
| 11) 2,4-DB           | 8.083 | 8.098 | 8.311 | 8.326 | 8.197 | 8.128 | 8.190 E5 | 1.30  |
| 12) Dinoseb          | 6.018 | 6.007 | 6.129 | 6.267 | 6.105 | 6.090 | 6.102 E6 | 1.54  |
| 13) Picloram         | 1.401 | 1.400 | 1.417 | 1.402 | 1.364 | 1.353 | 1.390 E7 | 1.82  |

(#) = Out of Range

3H4020.M

Tue Apr 10 14:49:23 2018

GC3G

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICV4020  
**Lab FileID:** 3G115853.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD1A.CH Vial: 8  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD2B.CH  
 Acq On : 4-10-2018 02:10:00 PM Operator: vinced  
 Sample : icv4020-300 Inst : GC3G  
 Misc : op11152,g3g4020,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.336 E6  | 4.2   | 99    | 0.00     | 2.45-  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 3.735 E6  | 4.3   | 102   | 0.00     | 7.43-  | 7.50   |
| 3   | Dicamba           | 18.429 | 19.458 E6 | -5.6  | 107   | 0.00     | 7.63-  | 7.70   |
| 4   | MCPD              | 7.736  | 8.540 E3  | -10.4 | 103   | 0.00     | 7.89-  | 7.96   |
| 5   | MCPA              | 13.523 | 14.274 E3 | -5.6  | 101   | 0.00     | 8.06-  | 8.13   |
| 6   | Dichloroprop      | 4.256  | 3.945 E6  | 7.3   | 98    | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 5.255 E6  | 5.1   | 100   | 0.00     | 8.79-  | 8.86   |
| 8   | Pentachlorophenol | 70.783 | 77.775 E6 | -9.9  | 112   | 0.00     | 9.05-  | 9.12   |
| 9   | 2,4,5-TP          | 28.591 | 28.106 E6 | 1.7   | 100   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 30.215 E6 | -2.8  | 106   | 0.00     | 10.23- | 10.30  |
| 11  | 2,4-DB            | 3.216  | 3.108 E6  | 3.4   | 102   | 0.00     | 10.95- | 11.04  |
| 12  | Dinoseb           | 15.094 | 14.627 E6 | 3.1   | 101   | 0.00     | 12.39- | 12.46  |
| 13  | Picloram          | 32.841 | 31.101 E6 | 5.3   | 97    | 0.00     | 12.13- | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.814 E6   | 2.6   | 100 | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 852.586 E3 | 0.8   | 102 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.725 E6   | -4.5  | 111 | 0.00 | 8.12-  | 8.19  |
| 4   | MCPD              | 1.528   | 1.683 E3   | -10.1 | 104 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.764 E3   | -5.2  | 101 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.084 E6   | 6.1   | 97  | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.449 E6   | 2.2   | 101 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 28.185 E6  | -13.0 | 112 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.371 E6  | -0.5  | 99  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.002 E6  | -1.7  | 102 | 0.00 | 11.06- | 11.15 |
| 11  | 2,4-DB            | 819.049 | 797.665 E3 | 2.6   | 96  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 6.096 E6   | 0.1   | 99  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.572 E6  | 2.3   | 96  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue Apr 10 14:49:40 2018 GC3G

12.10.22 12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4033-CC4020  
 Lab FileID: 3G116148.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116148.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116148.D\ECD2B.CH  
 Acq On : 4-30-2018 03:53:04 PM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11638,g3g4033,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue May 01 10:52:24 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 9.172 E6  | -19.8  | 117   | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.342 E6  | -11.2  | 112   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 21.854 E6 | -18.6  | 117   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.045 E3  | -4.0   | 106   | 0.00     | 7.88-  | 7.95   |
| 5   | MCPA              | 13.523 | 14.888 E3 | -10.1  | 109   | 0.00     | 8.06-  | 8.13   |
| 6   | Dichloroprop      | 4.256  | 5.007 E6  | -17.6  | 117   | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 6.605 E6  | -19.3  | 119   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 83.867 E6 | -18.5  | 116   | 0.00     | 9.05-  | 9.12   |
| 9   | 2,4,5-TP          | 28.591 | 34.124 E6 | -19.4  | 117   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 34.001 E6 | -15.7  | 116   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.777 E6  | -17.4  | 118   | 0.00     | 10.96- | 11.06  |
| 12  | Dinoseb           | 15.094 | 18.682 E6 | -23.8# | 122   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 37.859 E6 | -15.3  | 115   | 0.00     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 2.148 E6   | -15.3 | 113 | 0.00 | 2.40-  | 2.47  |
| 2 S | 2,4-DCAA          | 859.825 | 968.072 E3 | -12.6 | 113 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.707 E6   | -4.2  | 105 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.780 E3   | -16.5 | 117 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 3.049 E3   | -16.0 | 115 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.310 E6   | -13.5 | 112 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.692 E6   | -14.2 | 113 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 28.755 E6  | -15.3 | 112 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 11.442 E6  | -10.8 | 108 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.814 E6  | -10.0 | 108 | 0.00 | 11.07- | 11.16 |
| 11  | 2,4-DB            | 819.049 | 869.306 E3 | -6.1  | 104 | 0.00 | 11.80- | 11.87 |
| 12  | Dinoseb           | 6.102   | 6.517 E6   | -6.8  | 104 | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 15.831 E6  | -13.9 | 113 | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 10:52:40 2018 GC3G

12.10.23 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4033-CC4020  
**Lab FileID:** 3G116156.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116156.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116156.D\ECD2B.CH  
 Acq On : 4-30-2018 07:39:48 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11638,g3g4033,16.5,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue May 01 10:52:24 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 8.342 E6  | -8.9  | 113   | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.079 E6  | -4.5  | 111   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 21.185 E6 | -15.0 | 117   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.879 E3  | -14.8 | 108   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 15.478 E3 | -14.5 | 109   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.701 E6  | -10.5 | 117   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.349 E6  | -14.6 | 121   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 81.550 E6 | -15.2 | 118   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 33.404 E6 | -16.8 | 119   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 33.330 E6 | -13.4 | 117   | 0.00     | 10.24- | 10.31  |
| 11  | 2,4-DB            | 3.216  | 3.659 E6  | -13.8 | 120   | 0.00     | 10.96- | 11.06  |
| 12  | Dinoseb           | 15.094 | 17.904 E6 | -18.6 | 124   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 35.165 E6 | -7.1  | 109   | 0.00     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |        |     |      |        |       |
|-----|-------------------|---------|------------|--------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 2.014 E6   | -8.1   | 111 | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 966.479 E3 | -12.4  | 116 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.953 E6   | -8.7   | 115 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.921 E3   | -25.7# | 119 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 3.194 E3   | -21.5# | 116 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.272 E6   | -10.2  | 114 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.694 E6   | -14.3  | 118 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 28.942 E6  | -16.0  | 115 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 11.637 E6  | -12.7  | 111 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 11.031 E6  | -12.2  | 112 | 0.00 | 11.07- | 11.16 |
| 11  | 2,4-DB            | 819.049 | 858.880 E3 | -4.9   | 103 | 0.00 | 11.80- | 11.87 |
| 12  | Dinoseb           | 6.102   | 6.444 E6   | -5.6   | 105 | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 15.250 E6  | -9.7   | 108 | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 10:53:06 2018 GC3G

12.10.24 12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4033-CC4020  
 Lab FileID: 3G116164.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116164.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116164.D\ECD2B.CH  
 Acq On : 30 Apr 2018 11:54 pm Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11638,g3g4033,15.6,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue May 01 10:52:24 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 8.792 E6  | -14.8  | 112   | 0.00     | 2.43-  | 2.49   |
| 2 S | 2,4-DCAA          | 3.904  | 4.258 E6  | -9.1   | 110   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 21.461 E6 | -16.5  | 115   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.941 E3  | -2.6   | 105   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.777 E3 | -9.3   | 108   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.953 E6  | -16.4  | 116   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.632 E6  | -19.8  | 119   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 83.727 E6 | -18.3  | 116   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 34.382 E6 | -20.3# | 118   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 34.007 E6 | -15.7  | 116   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.841 E6  | -19.4  | 120   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 19.399 E6 | -28.5# | 126   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 35.674 E6 | -8.6   | 108   | 0.01     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 2.073 E6   | -11.3 | 109 | 0.00 | 2.40-  | 2.47  |
| 2 S | 2,4-DCAA          | 859.825 | 968.884 E3 | -12.7 | 113 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.950 E6   | -8.6  | 109 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.741 E3   | -13.9 | 114 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.914 E3   | -10.9 | 110 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.317 E6   | -14.1 | 113 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.691 E6   | -14.1 | 113 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 28.595 E6  | -14.6 | 111 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 11.335 E6  | -9.8  | 107 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.654 E6  | -8.4  | 106 | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 859.182 E3 | -4.9  | 103 | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 6.448 E6   | -5.7  | 103 | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 14.698 E6  | -5.8  | 105 | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 10:52:41 2018 GC3G

12.10.25 12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICC1865  
**Lab FileID:** 5G78496.D

## Response Factor Report GC5G

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Initial Calibration

### Calibration Files

250 =5g78494.D 500 =5g78495.D 1000=5g78496.D 2000=5g78497.D  
3000=5g78498.D 50 =5g78493.D =

| Compound              | 250   | 500   | 1000  | 2000  | 3000  | 50    | Avg      | %RSD |
|-----------------------|-------|-------|-------|-------|-------|-------|----------|------|
| 1)S Tetrachloro-m-xyl | 2.097 | 2.106 | 2.074 | 1.979 | 1.950 | 2.204 | 2.068 E7 | 4.46 |
| 2) AR1221-A           |       |       | 1.194 |       |       |       | 1.194 E5 | 0.00 |
| 3) AR1221-B           |       |       | 2.233 |       |       |       | 2.233 E5 | 0.00 |
| 4) AR1221-C           |       |       | 6.635 |       |       |       | 6.635 E5 | 0.00 |
| 5) AR1221-D           |       |       | 7.643 |       |       |       | 7.643 E4 | 0.00 |
| 6) AR1221-E           |       |       | 6.789 |       |       |       | 6.789 E4 | 0.00 |
| 7) AR1232-A           |       |       | 5.170 |       |       |       | 5.170 E5 | 0.00 |
| 8) AR1232-B           |       |       | 2.258 |       |       |       | 2.258 E5 | 0.00 |
| 9) AR1232-C           |       |       | 7.274 |       |       |       | 7.274 E5 | 0.00 |
| 10) AR1232-D          |       |       | 2.998 |       |       |       | 2.998 E5 | 0.00 |
| 11) AR1232-E          |       |       | 2.843 |       |       |       | 2.843 E5 | 0.00 |
| 12) AR1242-A          |       |       | 6.056 |       |       |       | 6.056 E5 | 0.00 |
| 13) AR1242-B          |       |       | 1.313 |       |       |       | 1.313 E6 | 0.00 |
| 14) AR1242-C          |       |       | 5.422 |       |       |       | 5.422 E5 | 0.00 |
| 15) AR1242-D          |       |       | 5.673 |       |       |       | 5.673 E5 | 0.00 |
| 16) AR1242-E          |       |       | 4.641 |       |       |       | 4.641 E5 | 0.00 |
| 17) AR1248-A          |       |       | 3.033 |       |       |       | 3.033 E5 | 0.00 |
| 18) AR1248-B          |       |       | 8.313 |       |       |       | 8.313 E5 | 0.00 |
| 19) AR1248-C          |       |       | 8.653 |       |       |       | 8.653 E5 | 0.00 |
| 20) AR1248-D          |       |       | 8.389 |       |       |       | 8.389 E5 | 0.00 |
| 21) AR1248-E          |       |       | 5.039 |       |       |       | 5.039 E5 | 0.00 |
| 22) AR1248-F          |       |       | 6.934 |       |       |       | 6.934 E5 | 0.00 |
| 23) AR1248-G          |       |       | 4.130 |       |       |       | 4.130 E5 | 0.00 |
| 24) AR1254-A          |       |       | 6.390 |       |       |       | 6.390 E5 | 0.00 |
| 25) AR1254-B          |       |       | 8.971 |       |       |       | 8.971 E5 | 0.00 |
| 26) AR1254-C          |       |       | 7.508 |       |       |       | 7.508 E5 | 0.00 |
| 27) AR1254-D          |       |       | 1.313 |       |       |       | 1.313 E6 | 0.00 |
| 28) AR1254-E          |       |       | 1.041 |       |       |       | 1.041 E6 | 0.00 |
| 29) AR1254-F          |       |       | 9.225 |       |       |       | 9.225 E5 | 0.00 |
| 30) AR1254-G          |       |       | 1.438 |       |       |       | 1.438 E6 | 0.00 |
| 31) AR1262-A          |       |       | 1.148 |       |       |       | 1.148 E6 | 0.00 |
| 32) AR1262-B          |       |       | 1.553 |       |       |       | 1.553 E6 | 0.00 |
| 33) AR1262-C          |       |       | 1.370 |       |       |       | 1.370 E6 | 0.00 |
| 34) AR1262-D          |       |       | 3.229 |       |       |       | 3.229 E6 | 0.00 |
| 35) AR1262-E          |       |       | 3.957 |       |       |       | 3.957 E6 | 0.00 |
| 36) AR1268-A          |       |       | 3.778 |       |       |       | 3.778 E6 | 0.00 |
| 37) AR1268-B          |       |       | 3.580 |       |       |       | 3.580 E6 | 0.00 |
| 38) AR1268-C          |       |       | 3.162 |       |       |       | 3.162 E6 | 0.00 |
| 39) AR1268-D          |       |       | 1.323 |       |       |       | 1.323 E6 | 0.00 |
| 40) AR1268-E          |       |       | 9.840 |       |       |       | 9.840 E6 | 0.00 |
| 41) AR1016-A          | 3.966 | 4.100 | 3.885 | 3.715 | 3.590 | 4.396 | 3.942 E5 | 7.27 |
| 42) AR1016-B          | 6.981 | 7.040 | 6.733 | 6.353 | 6.137 | 7.606 | 6.808 E5 | 7.72 |
| 43) AR1016-C          | 1.504 | 1.545 | 1.492 | 1.420 | 1.387 | 1.718 | 1.511 E6 | 7.73 |
| 44) AR1016-D          | 6.172 | 6.374 | 6.094 | 5.820 | 5.663 | 7.120 | 6.207 E5 | 8.28 |
| 45) AR1016-E          | 6.322 | 6.505 | 6.197 | 6.004 | 5.886 | 7.319 | 6.372 E5 | 8.06 |
| 46) AR1260-A          | 1.931 | 1.859 | 1.790 | 1.892 | 1.878 | 2.142 | 1.915 E6 | 6.30 |
| 47) AR1260-B          | 8.260 | 9.829 | 9.489 | 8.017 | 7.949 | 9.330 | 8.812 E5 | 9.42 |

12.10.26 12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICC1865  
**Lab FileID:** 5G78496.D

|      |                   |       |       |       |       |       |       |       |    |      |
|------|-------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 48)  | AR1260-C          | 8.390 | 9.750 | 9.400 | 8.221 | 8.121 | 9.617 | 8.916 | E5 | 8.41 |
| 49)  | AR1260-D          | 2.172 | 2.547 | 2.456 | 2.212 | 2.191 | 2.462 | 2.340 | E6 | 7.08 |
| 50)  | AR1260-E          | 2.269 | 2.638 | 2.547 | 2.339 | 2.244 | 2.534 | 2.428 | E6 | 6.81 |
| 51)S | Decachlorobipheny | 2.416 | 2.507 | 2.443 | 2.363 | 2.367 | 2.668 | 2.461 | E7 | 4.66 |

Signal #2

|      |                   |       |       |       |       |       |       |       |    |       |
|------|-------------------|-------|-------|-------|-------|-------|-------|-------|----|-------|
| 1)S  | Tetrachloro-m-xyl | 5.860 | 6.270 | 6.339 | 6.233 | 6.369 | 6.754 | 6.304 | E6 | 4.55  |
| 2)   | AR1221-A          |       |       | 4.293 |       |       |       | 4.293 | E4 | 0.00  |
| 3)   | AR1221-B          |       |       | 7.281 |       |       |       | 7.281 | E4 | 0.00  |
| 4)   | AR1221-C          |       |       | 1.794 |       |       |       | 1.794 | E5 | 0.00  |
| 5)   | AR1221-D          |       |       | 3.674 |       |       |       | 3.674 | E4 | 0.00  |
| 6)   | AR1221-E          |       |       | 2.747 |       |       |       | 2.747 | E4 | 0.00  |
| 7)   | AR1232-A          |       |       | 1.416 |       |       |       | 1.416 | E5 | 0.00  |
| 8)   | AR1232-B          |       |       | 1.139 |       |       |       | 1.139 | E5 | 0.00  |
| 9)   | AR1232-C          |       |       | 2.389 |       |       |       | 2.389 | E5 | 0.00  |
| 10)  | AR1232-D          |       |       | 1.023 |       |       |       | 1.023 | E5 | 0.00  |
| 11)  | AR1232-E          |       |       | 6.599 |       |       |       | 6.599 | E4 | 0.00  |
| 12)  | AR1242-A          |       |       | 1.973 |       |       |       | 1.973 | E5 | 0.00  |
| 13)  | AR1242-B          |       |       | 4.384 |       |       |       | 4.384 | E5 | 0.00  |
| 14)  | AR1242-C          |       |       | 1.702 |       |       |       | 1.702 | E5 | 0.00  |
| 15)  | AR1242-D          |       |       | 1.347 |       |       |       | 1.347 | E5 | 0.00  |
| 16)  | AR1242-E          |       |       | 1.751 |       |       |       | 1.751 | E5 | 0.00  |
| 17)  | AR1248-A          |       |       | 1.029 |       |       |       | 1.029 | E5 | 0.00  |
| 18)  | AR1248-B          |       |       | 2.797 |       |       |       | 2.797 | E5 | 0.00  |
| 19)  | AR1248-C          |       |       | 1.579 |       |       |       | 1.579 | E5 | 0.00  |
| 20)  | AR1248-D          |       |       | 2.087 |       |       |       | 2.087 | E5 | 0.00  |
| 21)  | AR1248-E          |       |       | 2.353 |       |       |       | 2.353 | E5 | 0.00  |
| 22)  | AR1248-F          |       |       | 2.954 |       |       |       | 2.954 | E5 | 0.00  |
| 23)  | AR1248-G          |       |       | 2.625 |       |       |       | 2.625 | E5 | 0.00  |
| 24)  | AR1254-A          |       |       | 2.575 |       |       |       | 2.575 | E5 | 0.00  |
| 25)  | AR1254-B          |       |       | 2.712 |       |       |       | 2.712 | E5 | 0.00  |
| 26)  | AR1254-C          |       |       | 2.097 |       |       |       | 2.097 | E5 | 0.00  |
| 27)  | AR1254-D          |       |       | 3.999 |       |       |       | 3.999 | E5 | 0.00  |
| 28)  | AR1254-E          |       |       | 3.203 |       |       |       | 3.203 | E5 | 0.00  |
| 29)  | AR1254-F          |       |       | 3.553 |       |       |       | 3.553 | E5 | 0.00  |
| 30)  | AR1254-G          |       |       | 4.326 |       |       |       | 4.326 | E5 | 0.00  |
| 31)  | AR1262-A          |       |       | 3.200 |       |       |       | 3.200 | E5 | 0.00  |
| 32)  | AR1262-B          |       |       | 4.914 |       |       |       | 4.914 | E5 | 0.00  |
| 33)  | AR1262-C          |       |       | 4.174 |       |       |       | 4.174 | E5 | 0.00  |
| 34)  | AR1262-D          |       |       | 9.650 |       |       |       | 9.650 | E5 | 0.00  |
| 35)  | AR1262-E          |       |       | 1.086 |       |       |       | 1.086 | E6 | 0.00  |
| 36)  | AR1268-A          |       |       | 1.207 |       |       |       | 1.207 | E6 | 0.00  |
| 37)  | AR1268-B          |       |       | 9.859 |       |       |       | 9.859 | E5 | 0.00  |
| 38)  | AR1268-C          |       |       | 9.742 |       |       |       | 9.742 | E5 | 0.00  |
| 39)  | AR1268-D          |       |       | 3.902 |       |       |       | 3.902 | E5 | 0.00  |
| 40)  | AR1268-E          |       |       | 3.073 |       |       |       | 3.073 | E6 | 0.00  |
| 41)  | AR1016-A          | 1.088 | 1.106 | 1.087 | 1.033 | 1.012 | 1.124 | 1.075 | E5 | 4.03  |
| 42)  | AR1016-B          | 2.234 | 2.257 | 2.159 | 2.037 | 2.013 | 2.738 | 2.240 | E5 | 11.77 |
| 43)  | AR1016-C          | 4.832 | 4.956 | 4.886 | 4.752 | 4.781 | 5.623 | 4.972 | E5 | 6.58  |
| 44)  | AR1016-D          | 1.900 | 1.926 | 1.887 | 1.795 | 1.789 | 2.193 | 1.915 | E5 | 7.70  |
| 45)  | AR1016-E          | 1.440 | 1.496 | 1.453 | 1.405 | 1.410 | 1.741 | 1.491 | E5 | 8.52  |
| 46)  | AR1260-A          | 5.746 | 5.552 | 5.460 | 5.906 | 6.003 | 6.619 | 5.881 | E5 | 7.07  |
| 47)  | AR1260-B          | 2.652 | 3.094 | 3.022 | 2.650 | 2.669 | 3.024 | 2.852 | E5 | 7.54  |
| 48)  | AR1260-C          | 2.583 | 2.962 | 2.925 | 2.593 | 2.615 | 2.934 | 2.769 | E5 | 6.82  |
| 49)  | AR1260-D          | 6.584 | 7.651 | 7.718 | 7.088 | 7.204 | 6.970 | 7.202 | E5 | 5.95  |
| 50)  | AR1260-E          | 6.425 | 7.346 | 7.317 | 6.544 | 6.693 | 7.364 | 6.948 | E5 | 6.34  |
| 51)S | Decachlorobipheny | 6.605 | 6.926 | 6.816 | 6.728 | 6.927 | 7.498 | 6.917 | E6 | 4.48  |

(#) = Out of Range

12.10.26 12



# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICC1865  
**Lab FileID:** 5G78496.D

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5PCB1865.M      Tue May 15 10:01:00 2018      RPT1

12.10.26

12

# Initial Calibration Verification

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G5G1865-ICV1865  
Lab FileID: 5G78503.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1865\5g78503.D\ECD1A.ch Vial: 16  
Signal #2 : C:\msdchem\1\DATA\g5g1865\5g78503.D\ECD2B.ch  
Acq On : 15 May 18 5:37 am Operator: christp  
Sample : icv1865-1000 Inst : GC5G  
Misc : op11899,g5g1865,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|------|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S  | Tetrachloro-m-xylene | 20.685  | 22.464 E6  | -8.6 | 108   | 0.00     | 3.53  | 3.60   |
| 41   | AR1016-A             | 394.196 | 399.147 E3 | -1.3 | 103   | 0.00     | 4.18  | 4.25   |
| 42   | AR1016-B             | 680.837 | 738.423 E3 | -8.5 | 110   | 0.00     | 4.90  | 4.97   |
| 43   | AR1016-C             | 1.511   | 1.623 E6   | -7.4 | 109   | 0.00     | 5.94  | 6.00   |
| 44   | AR1016-D             | 620.694 | 664.108 E3 | -7.0 | 109   | 0.00     | 6.25  | 6.31   |
| 45   | AR1016-E             | 637.227 | 664.677 E3 | -4.3 | 107   | 0.00     | 7.28  | 7.34   |
| 46   | AR1260-A             | 1.915   | 1.968 E6   | -2.8 | 110   | 0.00     | 12.42 | 12.48  |
| 47   | AR1260-B             | 881.242 | 921.731 E3 | -4.6 | 97    | 0.00     | 12.81 | 12.87  |
| 48   | AR1260-C             | 891.636 | 942.542 E3 | -5.7 | 100   | 0.00     | 13.56 | 13.62  |
| 49   | AR1260-D             | 2.340   | 2.445 E6   | -4.5 | 100   | 0.00     | 14.55 | 14.61  |
| 50   | AR1260-E             | 2.428   | 2.511 E6   | -3.4 | 99    | 0.00     | 15.43 | 15.49  |
| 51 S | Decachlorobiphenyl   | 24.606  | 24.496 E6  | 0.4  | 100   | 0.00     | 19.02 | 19.08  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                      |         |            |       |     |      |       |       |
|------|----------------------|---------|------------|-------|-----|------|-------|-------|
| 1 S  | Tetrachloro-m-xylene | 6.304   | 7.072 E6   | -12.2 | 112 | 0.00 | 4.52  | 4.58  |
| 41   | AR1016-A             | 107.492 | 117.138 E3 | -9.0  | 108 | 0.00 | 5.74  | 5.80  |
| 42   | AR1016-B             | 223.970 | 241.235 E3 | -7.7  | 112 | 0.00 | 6.80  | 6.86  |
| 43   | AR1016-C             | 497.166 | 546.715 E3 | -10.0 | 112 | 0.00 | 8.08  | 8.14  |
| 44   | AR1016-D             | 191.490 | 209.533 E3 | -9.4  | 111 | 0.00 | 8.47  | 8.53  |
| 45   | AR1016-E             | 149.075 | 159.052 E3 | -6.7  | 109 | 0.00 | 9.87  | 9.93  |
| 46   | AR1260-A             | 588.109 | 614.631 E3 | -4.5  | 113 | 0.00 | 15.72 | 15.78 |
| 47   | AR1260-B             | 285.185 | 303.484 E3 | -6.4  | 100 | 0.00 | 16.02 | 16.08 |
| 48   | AR1260-C             | 276.891 | 300.396 E3 | -8.5  | 103 | 0.00 | 16.99 | 17.05 |
| 49   | AR1260-D             | 720.247 | 792.593 E3 | -10.0 | 103 | 0.00 | 17.83 | 17.89 |
| 50   | AR1260-E             | 694.819 | 735.591 E3 | -5.9  | 101 | 0.00 | 19.05 | 19.11 |
| 51 S | Decachlorobiphenyl   | 6.917   | 7.103 E6   | -2.7  | 104 | 0.00 | 22.93 | 22.99 |

(#) = Out of Range  
5g78496.D 5PCB1865.M

SPCC's out = 0 CCC's out = 0  
Tue May 15 09:57:41 2018 RPT1

12.10.27 12

# Initial Calibration Verification

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G5G1865-ICV1865  
Lab FileID: 5G78504.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1865\5g78504.D\ECD1A.ch Vial: 17  
Signal #2 : C:\msdchem\1\DATA\g5g1865\5g78504.D\ECD2B.ch  
Acq On : 15 May 18 6:10 am Operator: christp  
Sample : icv1865-1000 Inst : GC5G  
Misc : opl1899,g5g1865,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|    | Compound | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|----|----------|---------|------------|------|-------|----------|-------|--------|
| 2  | AR1221-A | 119.408 | 119.793 E3 | -0.3 | 100   | 0.00     | 2.68  | 2.88   |
| 3  | AR1221-B | 223.324 | 205.325 E3 | 8.1  | 92    | 0.00     | 3.77  | 3.97   |
| 4  | AR1221-C | 663.484 | 606.480 E3 | 8.6  | 91    | 0.00     | 4.11  | 4.31   |
| 5  | AR1221-D | 76.430  | 61.223 E3  | 19.9 | 80    | 0.00     | 4.84  | 5.04   |
| 6  | AR1221-E | 67.889  | 66.827 E3  | 1.6  | 98    | 0.00     | 5.09  | 5.29   |
| 24 | AR1254-A | 638.995 | 651.923 E3 | -2.0 | 102   | 0.00     | 8.24  | 8.44   |
| 25 | AR1254-B | 897.134 | 915.983 E3 | -2.1 | 102   | 0.00     | 8.98  | 9.18   |
| 26 | AR1254-C | 750.813 | 742.904 E3 | 1.1  | 99    | 0.00     | 9.75  | 9.95   |
| 27 | AR1254-D | 1.313   | 1.298 E6   | 1.1  | 99    | 0.00     | 10.11 | 10.31  |
| 28 | AR1254-E | 1.041   | 1.027 E6   | 1.3  | 99    | 0.00     | 10.94 | 11.14  |
| 29 | AR1254-F | 922.464 | 915.511 E3 | 0.8  | 99    | 0.00     | 11.51 | 11.71  |
| 30 | AR1254-G | 1.438   | 1.408 E6   | 2.1  | 98    | 0.00     | 12.35 | 12.55  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|    |          |         |            |      |     |      |       |       |
|----|----------|---------|------------|------|-----|------|-------|-------|
| 2  | AR1221-A | 42.929  | 45.540 E3  | -6.1 | 106 | 0.00 | 3.54  | 3.74  |
| 3  | AR1221-B | 72.811  | 69.216 E3  | 4.9  | 95  | 0.00 | 5.17  | 5.37  |
| 4  | AR1221-C | 179.363 | 169.811 E3 | 5.3  | 95  | 0.00 | 5.67  | 5.87  |
| 5  | AR1221-D | 36.742  | 32.630 E3  | 11.2 | 89  | 0.00 | 6.73  | 6.93  |
| 6  | AR1221-E | 27.472  | 29.850 E3  | -8.7 | 109 | 0.00 | 6.91  | 7.11  |
| 24 | AR1254-A | 257.500 | 267.459 E3 | -3.9 | 104 | 0.00 | 11.10 | 11.30 |
| 25 | AR1254-B | 271.182 | 282.004 E3 | -4.0 | 104 | 0.00 | 11.70 | 11.90 |
| 26 | AR1254-C | 209.665 | 216.635 E3 | -3.3 | 103 | 0.00 | 12.80 | 13.00 |
| 27 | AR1254-D | 399.929 | 414.232 E3 | -3.6 | 104 | 0.00 | 13.17 | 13.37 |
| 28 | AR1254-E | 320.279 | 333.109 E3 | -4.0 | 104 | 0.00 | 13.91 | 14.11 |
| 29 | AR1254-F | 355.286 | 368.799 E3 | -3.8 | 104 | 0.00 | 15.04 | 15.24 |
| 30 | AR1254-G | 432.557 | 450.206 E3 | -4.1 | 104 | 0.00 | 15.66 | 15.86 |

(#) = Out of Range  
5g78496.D 5PCB1865.M SPCC's out = 0 CCC's out = 0  
Tue May 15 09:57:43 2018 RPT1

12.10.28  
12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICV1865  
**Lab FileID:** 5G78505.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1865\5g78505.D\ECD1A.ch Vial: 18  
Signal #2 : C:\msdchem\1\DATA\g5g1865\5g78505.D\ECD2B.ch  
Acq On : 15 May 18 6:42 am Operator: christp  
Sample : icv1865-1000 Inst : GC5G  
Misc : op11899,g5g1865,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT     | Window |
|-------------|---------|------------|------|-------|----------|--------|--------|
| 7 AR1232-A  | 516.953 | 509.499 E3 | 1.4  | 99    | 0.00     | 4.11-  | 4.31   |
| 8 AR1232-B  | 225.823 | 213.153 E3 | 5.6  | 94    | 0.00     | 5.26-  | 5.46   |
| 9 AR1232-C  | 727.391 | 723.028 E3 | 0.6  | 99    | 0.00     | 5.87-  | 6.07   |
| 10 AR1232-D | 299.820 | 297.111 E3 | 0.9  | 99    | 0.00     | 6.18-  | 6.38   |
| 11 AR1232-E | 284.300 | 283.356 E3 | 0.3  | 100   | 0.00     | 7.21-  | 7.41   |
| 31 AR1262-A | 1.148   | 1.136 E6   | 1.0  | 99    | 0.00     | 11.52- | 11.72  |
| 32 AR1262-B | 1.553   | 1.572 E6   | -1.2 | 101   | 0.00     | 12.74- | 12.94  |
| 33 AR1262-C | 1.370   | 1.354 E6   | 1.2  | 99    | 0.00     | 13.49- | 13.69  |
| 34 AR1262-D | 3.229   | 3.160 E6   | 2.1  | 98    | 0.00     | 14.49- | 14.69  |
| 35 AR1262-E | 3.957   | 3.887 E6   | 1.8  | 98    | 0.00     | 15.51- | 15.71  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |        |       |
|-------------|---------|------------|------|-----|------|--------|-------|
| 7 AR1232-A  | 141.618 | 137.479 E3 | 2.9  | 97  | 0.00 | 5.67-  | 5.87  |
| 8 AR1232-B  | 113.887 | 116.081 E3 | -1.9 | 102 | 0.00 | 6.73-  | 6.93  |
| 9 AR1232-C  | 238.920 | 243.209 E3 | -1.8 | 102 | 0.00 | 8.02-  | 8.22  |
| 10 AR1232-D | 102.345 | 104.527 E3 | -2.1 | 102 | 0.00 | 8.40-  | 8.60  |
| 11 AR1232-E | 65.994  | 67.994 E3  | -3.0 | 103 | 0.00 | 9.81-  | 10.01 |
| 31 AR1262-A | 320.044 | 335.832 E3 | -4.9 | 105 | 0.00 | 14.48- | 14.68 |
| 32 AR1262-B | 491.392 | 510.191 E3 | -3.8 | 104 | 0.00 | 15.95- | 16.15 |
| 33 AR1262-C | 417.353 | 431.745 E3 | -3.4 | 103 | 0.00 | 16.92- | 17.12 |
| 34 AR1262-D | 964.985 | 996.440 E3 | -3.3 | 103 | 0.00 | 17.76- | 17.96 |
| 35 AR1262-E | 1.086   | 1.135 E6   | -4.5 | 105 | 0.00 | 18.95- | 19.15 |

(#) = Out of Range  
5g78496.D 5PCB1865.M

SPCC's out = 0 CCC's out = 0  
Tue May 15 09:57:45 2018 RPT1

12.10.29 12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICV1865  
**Lab FileID:** 5G78506.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1865\5g78506.D\ECD1A.ch Vial: 19  
 Signal #2 : C:\msdchem\1\DATA\g5g1865\5g78506.D\ECD2B.ch  
 Acq On : 15 May 18 7:14 am Operator: christp  
 Sample : icv1865-1000 Inst : GC5G  
 Misc : op11899,g5g1865,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
 Title :  
 Last Update : Tue May 15 09:45:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-------------|---------|------------|------|-------|----------|-------|--------|
| 12 AR1242-A | 605.639 | 609.866 E3 | -0.7 | 101   | 0.00     | 4.83  | 5.03   |
| 13 AR1242-B | 1.313   | 1.325 E6   | -0.9 | 101   | 0.00     | 5.87  | 6.07   |
| 14 AR1242-C | 542.170 | 546.645 E3 | -0.8 | 101   | 0.00     | 6.18  | 6.38   |
| 15 AR1242-D | 567.266 | 563.865 E3 | 0.6  | 99    | 0.00     | 7.21  | 7.41   |
| 16 AR1242-E | 464.115 | 458.347 E3 | 1.2  | 99    | 0.00     | 8.43  | 8.63   |
| 36 AR1268-A | 3.778   | 3.937 E6   | -4.2 | 104   | 0.00     | 15.51 | 15.71  |
| 37 AR1268-B | 3.580   | 3.749 E6   | -4.7 | 105   | 0.00     | 15.63 | 15.83  |
| 38 AR1268-C | 3.162   | 3.274 E6   | -3.5 | 104   | 0.00     | 16.25 | 16.45  |
| 39 AR1268-D | 1.323   | 1.388 E6   | -4.9 | 105   | 0.00     | 17.40 | 17.60  |
| 40 AR1268-E | 9.840   | 10.173 E6  | -3.4 | 103   | 0.00     | 18.33 | 18.53  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |             |      |     |      |       |       |
|-------------|---------|-------------|------|-----|------|-------|-------|
| 12 AR1242-A | 197.255 | 201.993 E3  | -2.4 | 102 | 0.00 | 6.73  | 6.93  |
| 13 AR1242-B | 438.434 | 449.804 E3  | -2.6 | 103 | 0.00 | 8.02  | 8.22  |
| 14 AR1242-C | 170.193 | 175.640 E3  | -3.2 | 103 | 0.00 | 8.40  | 8.60  |
| 15 AR1242-D | 134.691 | 133.760 E3  | 0.7  | 99  | 0.00 | 9.80  | 10.00 |
| 16 AR1242-E | 175.115 | 171.959 E3  | 1.8  | 98  | 0.00 | 11.12 | 11.32 |
| 36 AR1268-A | 1.207   | 1.231 E6    | -2.0 | 102 | 0.00 | 18.95 | 19.15 |
| 37 AR1268-B | 985.885 | 1003.876 E3 | -1.8 | 102 | 0.00 | 19.09 | 19.29 |
| 38 AR1268-C | 974.214 | 990.200 E3  | -1.6 | 102 | 0.00 | 19.93 | 20.13 |
| 39 AR1268-D | 390.237 | 399.846 E3  | -2.5 | 102 | 0.00 | 20.91 | 21.11 |
| 40 AR1268-E | 3.073   | 3.140 E6    | -2.2 | 102 | 0.00 | 22.00 | 22.20 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 5g78496.D 5PCB1865.M Tue May 15 09:57:47 2018 RPT1

12.10.30 12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1865-ICV1865  
**Lab FileID:** 5G78507.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1865\5g78507.D\ECD1A.ch Vial: 20  
Signal #2 : C:\msdchem\1\DATA\g5g1865\5g78507.D\ECD2B.ch  
Acq On : 15 May 18 7:47 am Operator: christp  
Sample : icv1865-1000 Inst : GC5G  
Misc : op11899,g5g1865,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-------------|---------|------------|------|-------|----------|-------|--------|
| 17 AR1248-A | 303.314 | 284.369 E3 | 6.2  | 94    | 0.00     | 4.83  | 5.03   |
| 18 AR1248-B | 831.269 | 823.777 E3 | 0.9  | 99    | 0.00     | 5.86  | 6.06   |
| 19 AR1248-C | 865.314 | 865.921 E3 | -0.1 | 100   | 0.00     | 6.66  | 6.86   |
| 20 AR1248-D | 838.933 | 861.028 E3 | -2.6 | 103   | 0.00     | 7.21  | 7.41   |
| 21 AR1248-E | 503.928 | 537.324 E3 | -6.6 | 107   | 0.00     | 7.44  | 7.64   |
| 22 AR1248-F | 693.405 | 755.242 E3 | -8.9 | 109   | 0.00     | 8.42  | 8.62   |
| 23 AR1248-G | 413.031 | 445.365 E3 | -7.8 | 108   | 0.00     | 10.11 | 10.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |       |     |      |       |       |
|-------------|---------|------------|-------|-----|------|-------|-------|
| 17 AR1248-A | 102.901 | 100.109 E3 | 2.7   | 97  | 0.00 | 6.73  | 6.93  |
| 18 AR1248-B | 279.706 | 282.491 E3 | -1.0  | 101 | 0.00 | 8.02  | 8.22  |
| 19 AR1248-C | 157.947 | 165.300 E3 | -4.7  | 105 | 0.00 | 9.00  | 9.20  |
| 20 AR1248-D | 208.740 | 218.216 E3 | -4.5  | 105 | 0.00 | 9.80  | 10.00 |
| 21 AR1248-E | 235.297 | 253.297 E3 | -7.6  | 108 | 0.00 | 10.18 | 10.38 |
| 22 AR1248-F | 295.410 | 322.026 E3 | -9.0  | 109 | 0.00 | 11.12 | 11.32 |
| 23 AR1248-G | 262.462 | 289.346 E3 | -10.2 | 110 | 0.00 | 11.84 | 12.04 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5g78496.D 5PCB1865.M Tue May 15 09:57:49 2018 RPT1

12.10.31  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1866-CC1865  
**Lab FileID:** 5G78589.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1866\5g78589.D\ECD1A.ch Vial: 10  
 Signal #2 : C:\msdchem\1\DATA\g5g1866\5g78589.D\ECD2B.ch  
 Acq On : 17 May 18 6:00 am Operator: rebeccak  
 Sample : cc1865-500 Inst : GC5G  
 Misc : op12013,g5g1866,16.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
 Title :  
 Last Update : Tue May 15 09:45:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 20.685  | 22.192 E6  | -7.3  | 105   | 0.00     | 3.53- | 3.60   |
| 2   | AR1221-A             |         |            | NA    |       |          |       |        |
| 3   | AR1221-B             |         |            | NA    |       |          |       |        |
| 4   | AR1221-C             |         |            | NA    |       |          |       |        |
| 5   | AR1221-D             |         |            | NA    |       |          |       |        |
| 6   | AR1221-E             |         |            | NA    |       |          |       |        |
| 7   | AR1232-A             |         |            | NA    |       |          |       |        |
| 8   | AR1232-B             |         |            | NA    |       |          |       |        |
| 9   | AR1232-C             |         |            | NA    |       |          |       |        |
| 10  | AR1232-D             |         |            | NA    |       |          |       |        |
| 11  | AR1232-E             |         |            | NA    |       |          |       |        |
| 12  | AR1242-A             |         |            | NA    |       |          |       |        |
| 13  | AR1242-B             |         |            | NA    |       |          |       |        |
| 14  | AR1242-C             |         |            | NA    |       |          |       |        |
| 15  | AR1242-D             |         |            | NA    |       |          |       |        |
| 16  | AR1242-E             |         |            | NA    |       |          |       |        |
| 17  | AR1248-A             |         |            | NA    |       |          |       |        |
| 18  | AR1248-B             |         |            | NA    |       |          |       |        |
| 19  | AR1248-C             |         |            | NA    |       |          |       |        |
| 20  | AR1248-D             |         |            | NA    |       |          |       |        |
| 21  | AR1248-E             |         |            | NA    |       |          |       |        |
| 22  | AR1248-F             |         |            | NA    |       |          |       |        |
| 23  | AR1248-G             |         |            | NA    |       |          |       |        |
| 24  | AR1254-A             |         |            | NA    |       |          |       |        |
| 25  | AR1254-B             |         |            | NA    |       |          |       |        |
| 26  | AR1254-C             |         |            | NA    |       |          |       |        |
| 27  | AR1254-D             |         |            | NA    |       |          |       |        |
| 28  | AR1254-E             |         |            | NA    |       |          |       |        |
| 29  | AR1254-F             |         |            | NA    |       |          |       |        |
| 30  | AR1254-G             |         |            | NA    |       |          |       |        |
| 31  | AR1262-A             |         |            | NA    |       |          |       |        |
| 32  | AR1262-B             |         |            | NA    |       |          |       |        |
| 33  | AR1262-C             |         |            | NA    |       |          |       |        |
| 34  | AR1262-D             |         |            | NA    |       |          |       |        |
| 35  | AR1262-E             |         |            | NA    |       |          |       |        |
| 36  | AR1268-A             |         |            | NA    |       |          |       |        |
| 37  | AR1268-B             |         |            | NA    |       |          |       |        |
| 38  | AR1268-C             |         |            | NA    |       |          |       |        |
| 39  | AR1268-D             |         |            | NA    |       |          |       |        |
| 40  | AR1268-E             |         |            | NA    |       |          |       |        |
| 41  | AR1016-A             | 394.196 | 436.935 E3 | -10.8 | 107   | 0.00     | 4.18- | 4.25   |

12.10.32 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1866-CC1865  
**Lab FileID:** 5G78589.D

|      |                    |         |          |    |       |     |      |        |       |
|------|--------------------|---------|----------|----|-------|-----|------|--------|-------|
| 42   | AR1016-B           | 680.837 | 741.565  | E3 | -8.9  | 105 | 0.00 | 4.90-  | 4.97  |
| 43   | AR1016-C           | 1.511   | 1.588    | E6 | -5.1  | 103 | 0.00 | 5.94-  | 6.00  |
| 44   | AR1016-D           | 620.694 | 684.909  | E3 | -10.3 | 107 | 0.00 | 6.25-  | 6.31  |
| 45   | AR1016-E           | 637.227 | 686.459  | E3 | -7.7  | 106 | 0.00 | 7.29-  | 7.35  |
| 46   | AR1260-A           | 1.915   | 1.958    | E6 | -2.2  | 105 | 0.00 | 12.42- | 12.48 |
| 47   | AR1260-B           | 881.242 | 1027.957 | E3 | -16.6 | 105 | 0.00 | 12.81- | 12.87 |
| 48   | AR1260-C           | 891.636 | 1058.423 | E3 | -18.7 | 109 | 0.00 | 13.55- | 13.61 |
| 49   | AR1260-D           | 2.340   | 2.604    | E6 | -11.3 | 102 | 0.00 | 14.55- | 14.61 |
| 50   | AR1260-E           | 2.428   | 2.724    | E6 | -12.2 | 103 | 0.00 | 15.42- | 15.48 |
| 51 S | Decachlorobiphenyl | 24.606  | 24.446   | E6 | 0.7   | 98  | 0.00 | 19.01- | 19.07 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |        |     |      |              |       |
|-----|----------------------|---------|---------|----|--------|-----|------|--------------|-------|
| 1 S | Tetrachloro-m-xylene | 6.304   | 7.279   | E6 | -15.5  | 116 | 0.00 | 4.53-        | 4.59  |
| 2   | AR1221-A             |         |         |    |        |     |      | -----NA----- |       |
| 3   | AR1221-B             |         |         |    |        |     |      | -----NA----- |       |
| 4   | AR1221-C             |         |         |    |        |     |      | -----NA----- |       |
| 5   | AR1221-D             |         |         |    |        |     |      | -----NA----- |       |
| 6   | AR1221-E             |         |         |    |        |     |      | -----NA----- |       |
| 7   | AR1232-A             |         |         |    |        |     |      | -----NA----- |       |
| 8   | AR1232-B             |         |         |    |        |     |      | -----NA----- |       |
| 9   | AR1232-C             |         |         |    |        |     |      | -----NA----- |       |
| 10  | AR1232-D             |         |         |    |        |     |      | -----NA----- |       |
| 11  | AR1232-E             |         |         |    |        |     |      | -----NA----- |       |
| 12  | AR1242-A             |         |         |    |        |     |      | -----NA----- |       |
| 13  | AR1242-B             |         |         |    |        |     |      | -----NA----- |       |
| 14  | AR1242-C             |         |         |    |        |     |      | -----NA----- |       |
| 15  | AR1242-D             |         |         |    |        |     |      | -----NA----- |       |
| 16  | AR1242-E             |         |         |    |        |     |      | -----NA----- |       |
| 17  | AR1248-A             |         |         |    |        |     |      | -----NA----- |       |
| 18  | AR1248-B             |         |         |    |        |     |      | -----NA----- |       |
| 19  | AR1248-C             |         |         |    |        |     |      | -----NA----- |       |
| 20  | AR1248-D             |         |         |    |        |     |      | -----NA----- |       |
| 21  | AR1248-E             |         |         |    |        |     |      | -----NA----- |       |
| 22  | AR1248-F             |         |         |    |        |     |      | -----NA----- |       |
| 23  | AR1248-G             |         |         |    |        |     |      | -----NA----- |       |
| 24  | AR1254-A             |         |         |    |        |     |      | -----NA----- |       |
| 25  | AR1254-B             |         |         |    |        |     |      | -----NA----- |       |
| 26  | AR1254-C             |         |         |    |        |     |      | -----NA----- |       |
| 27  | AR1254-D             |         |         |    |        |     |      | -----NA----- |       |
| 28  | AR1254-E             |         |         |    |        |     |      | -----NA----- |       |
| 29  | AR1254-F             |         |         |    |        |     |      | -----NA----- |       |
| 30  | AR1254-G             |         |         |    |        |     |      | -----NA----- |       |
| 31  | AR1262-A             |         |         |    |        |     |      | -----NA----- |       |
| 32  | AR1262-B             |         |         |    |        |     |      | -----NA----- |       |
| 33  | AR1262-C             |         |         |    |        |     |      | -----NA----- |       |
| 34  | AR1262-D             |         |         |    |        |     |      | -----NA----- |       |
| 35  | AR1262-E             |         |         |    |        |     |      | -----NA----- |       |
| 36  | AR1268-A             |         |         |    |        |     |      | -----NA----- |       |
| 37  | AR1268-B             |         |         |    |        |     |      | -----NA----- |       |
| 38  | AR1268-C             |         |         |    |        |     |      | -----NA----- |       |
| 39  | AR1268-D             |         |         |    |        |     |      | -----NA----- |       |
| 40  | AR1268-E             |         |         |    |        |     |      | -----NA----- |       |
| 41  | AR1016-A             | 107.492 | 131.369 | E3 | -22.2# | 119 | 0.00 | 5.74-        | 5.80  |
| 42  | AR1016-B             | 223.970 | 261.451 | E3 | -16.7  | 116 | 0.00 | 6.80-        | 6.86  |
| 43  | AR1016-C             | 497.166 | 571.504 | E3 | -15.0  | 115 | 0.00 | 8.09-        | 8.15  |
| 44  | AR1016-D             | 191.490 | 245.244 | E3 | -28.1# | 127 | 0.00 | 8.47-        | 8.53  |
| 45  | AR1016-E             | 149.075 | 173.305 | E3 | -16.3  | 116 | 0.00 | 9.87-        | 9.93  |
| 46  | AR1260-A             | 588.109 | 636.777 | E3 | -8.3   | 115 | 0.00 | 15.72-       | 15.78 |
| 47  | AR1260-B             | 285.185 | 352.803 | E3 | -23.7# | 114 | 0.00 | 16.02-       | 16.08 |

12.10.32 12



# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1866-CC1865  
**Lab FileID:** 5G78589.D

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|      |                    |         |         |    |        |     |      |             |
|------|--------------------|---------|---------|----|--------|-----|------|-------------|
| 48   | AR1260-C           | 276.891 | 342.391 | E3 | -23.7# | 116 | 0.00 | 16.99-17.05 |
| 49   | AR1260-D           | 720.247 | 877.332 | E3 | -21.8# | 115 | 0.00 | 17.83-17.89 |
| 50   | AR1260-E           | 694.819 | 844.617 | E3 | -21.6# | 115 | 0.00 | 19.05-19.11 |
| 51 S | Decachlorobiphenyl | 6.917   | 7.764   | E6 | -12.2  | 112 | 0.00 | 22.92-22.98 |

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(#) = Out of Range

5g78495.D 5PCB1865.M

SPCC's out = 0 CCC's out = 0

Thu May 17 08:54:18 2018 RPT1

12.10.32  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1867-CC1865  
**Lab FileID:** 5G78600.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\g5g1866\5g78600.D\ECD1A.ch Vial: 18  
Signal #2 : C:\msdchem\1\DATA\g5g1866\5g78600.D\ECD2B.ch  
Acq On : 17 May 18 11:55 am Operator: rebeccak  
Sample : cc1865-1000 Inst : GC5G  
Misc : op12045,g5g1867,15.1,,,10,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB1865.M (ChemStation Integrator)  
Title :  
Last Update : Tue May 15 09:45:34 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 20.685  | 21.318 E6  | -3.1 | 103   | 0.01     | 3.54- | 3.61   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 394.196 | 407.398 E3 | -3.3 | 105   | 0.00     | 4.19- | 4.26   |

12.10.33  
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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1867-CC1865  
**Lab FileID:** 5G78600.D

|      |                    |         |         |    |       |     |      |             |
|------|--------------------|---------|---------|----|-------|-----|------|-------------|
| 42   | AR1016-B           | 680.837 | 691.803 | E3 | -1.6  | 103 | 0.00 | 4.91- 4.98  |
| 43   | AR1016-C           | 1.511   | 1.528   | E6 | -1.1  | 102 | 0.00 | 5.94- 6.00  |
| 44   | AR1016-D           | 620.694 | 645.553 | E3 | -4.0  | 106 | 0.00 | 6.26- 6.32  |
| 45   | AR1016-E           | 637.227 | 648.001 | E3 | -1.7  | 105 | 0.00 | 7.29- 7.35  |
| 46   | AR1260-A           | 1.915   | 1.827   | E6 | 4.6   | 102 | 0.00 | 12.42-12.48 |
| 47   | AR1260-B           | 881.242 | 955.756 | E3 | -8.5  | 101 | 0.00 | 12.81-12.87 |
| 48   | AR1260-C           | 891.636 | 934.599 | E3 | -4.8  | 99  | 0.00 | 13.56-13.62 |
| 49   | AR1260-D           | 2.340   | 2.361   | E6 | -0.9  | 96  | 0.00 | 14.56-14.62 |
| 50   | AR1260-E           | 2.428   | 2.331   | E6 | 4.0   | 92  | 0.00 | 15.43-15.49 |
| 51 S | Decachlorobiphenyl | 24.606  | 18.601  | E6 | 24.4# | 76  | 0.00 | 19.02-19.08 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |              |
|-----|----------------------|---------|---------|----|-------|-----|------|--------------|
| 1 S | Tetrachloro-m-xylene | 6.304   | 7.063   | E6 | -12.0 | 111 | 0.00 | 4.52- 4.58   |
| 2   | AR1221-A             |         |         |    |       |     |      | -----NA----- |
| 3   | AR1221-B             |         |         |    |       |     |      | -----NA----- |
| 4   | AR1221-C             |         |         |    |       |     |      | -----NA----- |
| 5   | AR1221-D             |         |         |    |       |     |      | -----NA----- |
| 6   | AR1221-E             |         |         |    |       |     |      | -----NA----- |
| 7   | AR1232-A             |         |         |    |       |     |      | -----NA----- |
| 8   | AR1232-B             |         |         |    |       |     |      | -----NA----- |
| 9   | AR1232-C             |         |         |    |       |     |      | -----NA----- |
| 10  | AR1232-D             |         |         |    |       |     |      | -----NA----- |
| 11  | AR1232-E             |         |         |    |       |     |      | -----NA----- |
| 12  | AR1242-A             |         |         |    |       |     |      | -----NA----- |
| 13  | AR1242-B             |         |         |    |       |     |      | -----NA----- |
| 14  | AR1242-C             |         |         |    |       |     |      | -----NA----- |
| 15  | AR1242-D             |         |         |    |       |     |      | -----NA----- |
| 16  | AR1242-E             |         |         |    |       |     |      | -----NA----- |
| 17  | AR1248-A             |         |         |    |       |     |      | -----NA----- |
| 18  | AR1248-B             |         |         |    |       |     |      | -----NA----- |
| 19  | AR1248-C             |         |         |    |       |     |      | -----NA----- |
| 20  | AR1248-D             |         |         |    |       |     |      | -----NA----- |
| 21  | AR1248-E             |         |         |    |       |     |      | -----NA----- |
| 22  | AR1248-F             |         |         |    |       |     |      | -----NA----- |
| 23  | AR1248-G             |         |         |    |       |     |      | -----NA----- |
| 24  | AR1254-A             |         |         |    |       |     |      | -----NA----- |
| 25  | AR1254-B             |         |         |    |       |     |      | -----NA----- |
| 26  | AR1254-C             |         |         |    |       |     |      | -----NA----- |
| 27  | AR1254-D             |         |         |    |       |     |      | -----NA----- |
| 28  | AR1254-E             |         |         |    |       |     |      | -----NA----- |
| 29  | AR1254-F             |         |         |    |       |     |      | -----NA----- |
| 30  | AR1254-G             |         |         |    |       |     |      | -----NA----- |
| 31  | AR1262-A             |         |         |    |       |     |      | -----NA----- |
| 32  | AR1262-B             |         |         |    |       |     |      | -----NA----- |
| 33  | AR1262-C             |         |         |    |       |     |      | -----NA----- |
| 34  | AR1262-D             |         |         |    |       |     |      | -----NA----- |
| 35  | AR1262-E             |         |         |    |       |     |      | -----NA----- |
| 36  | AR1268-A             |         |         |    |       |     |      | -----NA----- |
| 37  | AR1268-B             |         |         |    |       |     |      | -----NA----- |
| 38  | AR1268-C             |         |         |    |       |     |      | -----NA----- |
| 39  | AR1268-D             |         |         |    |       |     |      | -----NA----- |
| 40  | AR1268-E             |         |         |    |       |     |      | -----NA----- |
| 41  | AR1016-A             | 107.492 | 118.270 | E3 | -10.0 | 109 | 0.00 | 5.74- 5.80   |
| 42  | AR1016-B             | 223.970 | 239.497 | E3 | -6.9  | 111 | 0.00 | 6.80- 6.86   |
| 43  | AR1016-C             | 497.166 | 531.402 | E3 | -6.9  | 109 | 0.00 | 8.08- 8.14   |
| 44  | AR1016-D             | 191.490 | 202.403 | E3 | -5.7  | 107 | 0.00 | 8.47- 8.53   |
| 45  | AR1016-E             | 149.075 | 161.424 | E3 | -8.3  | 111 | 0.00 | 9.87- 9.93   |
| 46  | AR1260-A             | 588.109 | 571.314 | E3 | 2.9   | 105 | 0.00 | 15.72-15.78  |
| 47  | AR1260-B             | 285.185 | 310.494 | E3 | -8.9  | 103 | 0.00 | 16.01-16.07  |

12.10.33 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G5G1867-CC1865  
**Lab FileID:** 5G78600.D

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|      |                    |         |         |    |      |     |      |             |
|------|--------------------|---------|---------|----|------|-----|------|-------------|
| 48   | AR1260-C           | 276.891 | 295.256 | E3 | -6.6 | 101 | 0.00 | 16.98-17.04 |
| 49   | AR1260-D           | 720.247 | 769.311 | E3 | -6.8 | 100 | 0.00 | 17.83-17.89 |
| 50   | AR1260-E           | 694.819 | 697.837 | E3 | -0.4 | 95  | 0.00 | 19.04-19.10 |
| 51 S | Decachlorobiphenyl | 6.917   | 5.557   | E6 | 19.7 | 82  | 0.00 | 22.92-22.98 |

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(#) = Out of Range  
5g78496.D 5PCB1865.M

SPCC's out = 0 CCC's out = 0  
Thu May 17 14:34:17 2018 RPT1

12.10.33  
12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

## Response Factor Report HP G1530A

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Initial Calibration

### Calibration Files

50 =xx227127.D 250 =xx227128.D 500 =xx227129.D 1000=xx227130.D  
2000 =xx227131.D 3000 =xx227132.D

| Compound                 | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   | %RSD    |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1) S Tetrachloro-m-xylen | 8.785 | 8.000 | 8.067 | 8.812 | 7.909 | 7.997 | 8.262 | E6 5.07 |
| 2) AR1221-A              |       |       |       | 5.174 |       |       | 5.174 | E4 0.00 |
| 3) AR1221-B              |       |       |       | 8.842 |       |       | 8.842 | E4 0.00 |
| 4) AR1221-C              |       |       |       | 2.709 |       |       | 2.709 | E5 0.00 |
| 5) AR1221-D              |       |       |       | 3.205 |       |       | 3.205 | E4 0.00 |
| 6) AR1221-E              |       |       |       | 3.963 |       |       | 3.963 | E4 0.00 |
| 7) AR1232-A              |       |       |       | 2.157 |       |       | 2.157 | E5 0.00 |
| 8) AR1232-B              |       |       |       | 1.323 |       |       | 1.323 | E5 0.00 |
| 9) AR1232-C              |       |       |       | 2.865 |       |       | 2.865 | E5 0.00 |
| 10) AR1232-D             |       |       |       | 1.107 |       |       | 1.107 | E5 0.00 |
| 11) AR1232-E             |       |       |       | 1.078 |       |       | 1.078 | E5 0.00 |
| 12) AR1242-A             |       |       |       | 2.360 |       |       | 2.360 | E5 0.00 |
| 13) AR1242-B             |       |       |       | 5.388 |       |       | 5.388 | E5 0.00 |
| 14) AR1242-C             |       |       |       | 2.067 |       |       | 2.067 | E5 0.00 |
| 15) AR1242-D             |       |       |       | 2.249 |       |       | 2.249 | E5 0.00 |
| 16) AR1242-E             |       |       |       | 2.405 |       |       | 2.405 | E5 0.00 |
| 17) AR1248-A             |       |       |       | 1.193 |       |       | 1.193 | E5 0.00 |
| 18) AR1248-B             |       |       |       | 3.477 |       |       | 3.477 | E5 0.00 |
| 19) AR1248-C             |       |       |       | 3.183 |       |       | 3.183 | E5 0.00 |
| 20) AR1248-D             |       |       |       | 3.251 |       |       | 3.251 | E5 0.00 |
| 21) AR1248-E             |       |       |       | 3.020 |       |       | 3.020 | E5 0.00 |
| 22) AR1248-F             |       |       |       | 3.438 |       |       | 3.438 | E5 0.00 |
| 23) AR1248-G             |       |       |       | 5.262 |       |       | 5.262 | E5 0.00 |
| 24) AR1254-A             |       |       |       | 2.744 |       |       | 2.744 | E5 0.00 |
| 25) AR1254-B             |       |       |       | 4.889 |       |       | 4.889 | E5 0.00 |
| 26) AR1254-C             |       |       |       | 2.782 |       |       | 2.782 | E5 0.00 |
| 27) AR1254-D             |       |       |       | 5.467 |       |       | 5.467 | E5 0.00 |
| 28) AR1254-E             |       |       |       | 4.144 |       |       | 4.144 | E5 0.00 |
| 29) AR1254-F             |       |       |       | 3.611 |       |       | 3.611 | E5 0.00 |
| 30) AR1254-G             |       |       |       | 5.307 |       |       | 5.307 | E5 0.00 |
| 31) AR1262-A             |       |       |       | 3.755 |       |       | 3.755 | E5 0.00 |
| 32) AR1262-B             |       |       |       | 5.293 |       |       | 5.293 | E5 0.00 |
| 33) AR1262-C             |       |       |       | 4.780 |       |       | 4.780 | E5 0.00 |
| 34) AR1262-D             |       |       |       | 1.221 |       |       | 1.221 | E6 0.00 |
| 35) AR1262-E             |       |       |       | 1.384 |       |       | 1.384 | E6 0.00 |
| 36) AR1268-A             |       |       |       | 1.395 |       |       | 1.395 | E6 0.00 |
| 37) AR1268-B             |       |       |       | 1.519 |       |       | 1.519 | E6 0.00 |
| 38) AR1268-C             |       |       |       | 1.270 |       |       | 1.270 | E6 0.00 |
| 39) AR1268-D             |       |       |       | 5.193 |       |       | 5.193 | E5 0.00 |
| 40) AR1268-E             |       |       |       | 4.274 |       |       | 4.274 | E6 0.00 |
| 41) AR1016-A             | 1.790 | 1.789 | 1.784 | 1.750 | 1.663 | 1.631 | 1.734 | E5 4.04 |
| 42) AR1016-B             | 3.031 | 2.705 | 2.662 | 2.618 | 2.483 | 2.455 | 2.659 | E5 7.80 |
| 43) AR1016-C             | 6.843 | 5.959 | 6.004 | 6.033 | 5.888 | 5.957 | 6.114 | E5 5.90 |
| 44) AR1016-D             | 2.712 | 2.336 | 2.230 | 2.306 | 2.205 | 2.204 | 2.332 | E5 8.32 |
| 45) AR1016-E             | 2.720 | 2.412 | 2.422 | 2.427 | 2.324 | 2.332 | 2.440 | E5 5.93 |
| 46) AR1260-A             | 7.610 | 7.124 | 6.630 | 6.723 | 7.269 | 7.423 | 7.130 | E5 5.43 |
| 47) AR1260-B             | 3.266 | 2.994 | 3.374 | 3.379 | 2.905 | 2.941 | 3.143 | E5 7.03 |

12.10.34 12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

|       |                    |       |       |       |       |       |       |       |    |      |
|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 48)   | AR1260-C           | 3.460 | 3.246 | 3.557 | 3.601 | 3.247 | 3.310 | 3.403 | E5 | 4.62 |
| 49)   | AR1260-D           | 0.914 | 0.870 | 0.973 | 1.029 | 0.912 | 0.937 | 0.939 | E6 | 5.89 |
| 50)   | AR1260-E           | 9.314 | 8.856 | 9.627 | 9.767 | 8.529 | 8.711 | 9.134 | E5 | 5.58 |
| 51) S | Decachlorobiphenyl | 1.072 | 0.969 | 0.961 | 1.064 | 0.940 | 0.973 | 0.997 | E7 | 5.67 |

Signal #2

|       |                     |       |       |       |       |       |       |       |    |      |
|-------|---------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 1) S  | Tetrachloro-m-xylen | 8.481 | 7.951 | 7.952 | 8.800 | 7.767 | 7.848 | 8.133 | E6 | 5.06 |
| 2)    | AR1221-A            |       |       |       | 4.680 |       |       | 4.680 | E4 | 0.00 |
| 3)    | AR1221-B            |       |       |       | 8.448 |       |       | 8.448 | E4 | 0.00 |
| 4)    | AR1221-C            |       |       |       | 2.120 |       |       | 2.120 | E5 | 0.00 |
| 5)    | AR1221-D            |       |       |       | 4.025 |       |       | 4.025 | E4 | 0.00 |
| 6)    | AR1221-E            |       |       |       | 2.615 |       |       | 2.615 | E4 | 0.00 |
| 7)    | AR1232-A            |       |       |       | 1.629 |       |       | 1.629 | E5 | 0.00 |
| 8)    | AR1232-B            |       |       |       | 1.272 |       |       | 1.272 | E5 | 0.00 |
| 9)    | AR1232-C            |       |       |       | 2.774 |       |       | 2.774 | E5 | 0.00 |
| 10)   | AR1232-D            |       |       |       | 1.155 |       |       | 1.155 | E5 | 0.00 |
| 11)   | AR1232-E            |       |       |       | 7.554 |       |       | 7.554 | E4 | 0.00 |
| 12)   | AR1242-A            |       |       |       | 2.253 |       |       | 2.253 | E5 | 0.00 |
| 13)   | AR1242-B            |       |       |       | 5.163 |       |       | 5.163 | E5 | 0.00 |
| 14)   | AR1242-C            |       |       |       | 2.160 |       |       | 2.160 | E5 | 0.00 |
| 15)   | AR1242-D            |       |       |       | 1.558 |       |       | 1.558 | E5 | 0.00 |
| 16)   | AR1242-E            |       |       |       | 2.043 |       |       | 2.043 | E5 | 0.00 |
| 17)   | AR1248-A            |       |       |       | 1.149 |       |       | 1.149 | E5 | 0.00 |
| 18)   | AR1248-B            |       |       |       | 3.219 |       |       | 3.219 | E5 | 0.00 |
| 19)   | AR1248-C            |       |       |       | 1.765 |       |       | 1.765 | E5 | 0.00 |
| 20)   | AR1248-D            |       |       |       | 2.356 |       |       | 2.356 | E5 | 0.00 |
| 21)   | AR1248-E            |       |       |       | 2.739 |       |       | 2.739 | E5 | 0.00 |
| 22)   | AR1248-F            |       |       |       | 3.331 |       |       | 3.331 | E5 | 0.00 |
| 23)   | AR1248-G            |       |       |       | 3.086 |       |       | 3.086 | E5 | 0.00 |
| 24)   | AR1254-A            |       |       |       | 2.904 |       |       | 2.904 | E5 | 0.00 |
| 25)   | AR1254-B            |       |       |       | 3.228 |       |       | 3.228 | E5 | 0.00 |
| 26)   | AR1254-C            |       |       |       | 2.659 |       |       | 2.659 | E5 | 0.00 |
| 27)   | AR1254-D            |       |       |       | 5.396 |       |       | 5.396 | E5 | 0.00 |
| 28)   | AR1254-E            |       |       |       | 4.220 |       |       | 4.220 | E5 | 0.00 |
| 29)   | AR1254-F            |       |       |       | 4.354 |       |       | 4.354 | E5 | 0.00 |
| 30)   | AR1254-G            |       |       |       | 5.520 |       |       | 5.520 | E5 | 0.00 |
| 31)   | AR1262-A            |       |       |       | 4.272 |       |       | 4.272 | E5 | 0.00 |
| 32)   | AR1262-B            |       |       |       | 6.983 |       |       | 6.983 | E5 | 0.00 |
| 33)   | AR1262-C            |       |       |       | 5.335 |       |       | 5.335 | E5 | 0.00 |
| 34)   | AR1262-D            |       |       |       | 1.356 |       |       | 1.356 | E6 | 0.00 |
| 35)   | AR1262-E            |       |       |       | 1.472 |       |       | 1.472 | E6 | 0.00 |
| 36)   | AR1268-A            |       |       |       | 1.675 |       |       | 1.675 | E6 | 0.00 |
| 37)   | AR1268-B            |       |       |       | 1.504 |       |       | 1.504 | E6 | 0.00 |
| 38)   | AR1268-C            |       |       |       | 1.298 |       |       | 1.298 | E6 | 0.00 |
| 39)   | AR1268-D            |       |       |       | 5.152 |       |       | 5.152 | E5 | 0.00 |
| 40)   | AR1268-E            |       |       |       | 3.845 |       |       | 3.845 | E6 | 0.00 |
| 41)   | AR1016-A            | 1.430 | 1.428 | 1.305 | 1.303 | 1.218 | 1.207 | 1.315 | E5 | 7.41 |
| 42)   | AR1016-B            | 2.703 | 2.613 | 2.528 | 2.506 | 2.324 | 2.292 | 2.494 | E5 | 6.43 |
| 43)   | AR1016-C            | 6.296 | 6.063 | 5.884 | 5.816 | 5.552 | 5.597 | 5.868 | E5 | 4.80 |
| 44)   | AR1016-D            | 2.698 | 2.621 | 2.495 | 2.455 | 2.291 | 2.270 | 2.472 | E5 | 6.96 |
| 45)   | AR1016-E            | 1.709 | 1.823 | 1.770 | 1.772 | 1.666 | 1.667 | 1.735 | E5 | 3.69 |
| 46)   | AR1260-A            | 8.487 | 8.447 | 7.222 | 7.119 | 7.521 | 7.661 | 7.743 | E5 | 7.68 |
| 47)   | AR1260-B            | 4.561 | 4.315 | 4.562 | 4.498 | 3.859 | 3.903 | 4.283 | E5 | 7.57 |
| 48)   | AR1260-C            | 4.696 | 4.266 | 4.309 | 4.213 | 3.801 | 3.845 | 4.188 | E5 | 7.89 |
| 49)   | AR1260-D            | 1.064 | 1.019 | 1.091 | 1.121 | 1.011 | 1.018 | 1.054 | E6 | 4.31 |
| 50)   | AR1260-E            | 1.031 | 0.969 | 1.033 | 1.030 | 0.902 | 0.915 | 0.980 | E6 | 6.16 |
| 51) S | Decachlorobiphenyl  | 1.075 | 0.904 | 0.853 | 0.952 | 0.834 | 0.861 | 0.913 | E7 | 9.83 |

(#) = Out of Range

12.10.34  
12

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

PCB6321.M

Fri Apr 20 16:54:30 2018

12.10.34

12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227137.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227137.D\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227137.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:42 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.616 E6   | -4.3 | 98    | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 167.535 E3 | 3.4  | 96    | 0.00     | 3.16- | 3.22   |

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# Initial Calibration Verification

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6321-ICV6321  
 Lab FileID: XX227137.D

|      |                    |         |         |    |      |     |      |            |
|------|--------------------|---------|---------|----|------|-----|------|------------|
| 42   | AR1016-B           | 265.887 | 277.894 | E3 | -4.5 | 106 | 0.00 | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 643.644 | E3 | -5.3 | 107 | 0.00 | 4.10- 4.16 |
| 44   | AR1016-D           | 233.235 | 245.740 | E3 | -5.4 | 107 | 0.00 | 4.26- 4.32 |
| 45   | AR1016-E           | 243.951 | 255.189 | E3 | -4.6 | 105 | 0.00 | 4.75- 4.82 |
| 46   | AR1260-A           | 713.007 | 725.063 | E3 | -1.7 | 108 | 0.00 | 7.11- 7.17 |
| 47   | AR1260-B           | 314.313 | 324.957 | E3 | -3.4 | 96  | 0.00 | 7.26- 7.32 |
| 48   | AR1260-C           | 340.349 | 354.786 | E3 | -4.2 | 99  | 0.00 | 7.59- 7.66 |
| 49   | AR1260-D           | 939.177 | 987.611 | E3 | -5.2 | 96  | 0.00 | 8.03- 8.09 |
| 50   | AR1260-E           | 913.406 | 930.729 | E3 | -1.9 | 95  | 0.00 | 8.42- 8.48 |
| 51 S | Decachlorobiphenyl | 9.966   | 9.477   | E6 | 4.9  | 89  | 0.00 | 9.95-10.02 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |              |     |      |            |
|-----|----------------------|---------|---------|----|--------------|-----|------|------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.622   | E6 | -6.0         | 98  | 0.00 | 3.53- 3.59 |
| 2   | AR1221-A             |         |         |    | -----NA----- |     |      |            |
| 3   | AR1221-B             |         |         |    | -----NA----- |     |      |            |
| 4   | AR1221-C             |         |         |    | -----NA----- |     |      |            |
| 5   | AR1221-D             |         |         |    | -----NA----- |     |      |            |
| 6   | AR1221-E             |         |         |    | -----NA----- |     |      |            |
| 7   | AR1232-A             |         |         |    | -----NA----- |     |      |            |
| 8   | AR1232-B             |         |         |    | -----NA----- |     |      |            |
| 9   | AR1232-C             |         |         |    | -----NA----- |     |      |            |
| 10  | AR1232-D             |         |         |    | -----NA----- |     |      |            |
| 11  | AR1232-E             |         |         |    | -----NA----- |     |      |            |
| 12  | AR1242-A             |         |         |    | -----NA----- |     |      |            |
| 13  | AR1242-B             |         |         |    | -----NA----- |     |      |            |
| 14  | AR1242-C             |         |         |    | -----NA----- |     |      |            |
| 15  | AR1242-D             |         |         |    | -----NA----- |     |      |            |
| 16  | AR1242-E             |         |         |    | -----NA----- |     |      |            |
| 17  | AR1248-A             |         |         |    | -----NA----- |     |      |            |
| 18  | AR1248-B             |         |         |    | -----NA----- |     |      |            |
| 19  | AR1248-C             |         |         |    | -----NA----- |     |      |            |
| 20  | AR1248-D             |         |         |    | -----NA----- |     |      |            |
| 21  | AR1248-E             |         |         |    | -----NA----- |     |      |            |
| 22  | AR1248-F             |         |         |    | -----NA----- |     |      |            |
| 23  | AR1248-G             |         |         |    | -----NA----- |     |      |            |
| 24  | AR1254-A             |         |         |    | -----NA----- |     |      |            |
| 25  | AR1254-B             |         |         |    | -----NA----- |     |      |            |
| 26  | AR1254-C             |         |         |    | -----NA----- |     |      |            |
| 27  | AR1254-D             |         |         |    | -----NA----- |     |      |            |
| 28  | AR1254-E             |         |         |    | -----NA----- |     |      |            |
| 29  | AR1254-F             |         |         |    | -----NA----- |     |      |            |
| 30  | AR1254-G             |         |         |    | -----NA----- |     |      |            |
| 31  | AR1262-A             |         |         |    | -----NA----- |     |      |            |
| 32  | AR1262-B             |         |         |    | -----NA----- |     |      |            |
| 33  | AR1262-C             |         |         |    | -----NA----- |     |      |            |
| 34  | AR1262-D             |         |         |    | -----NA----- |     |      |            |
| 35  | AR1262-E             |         |         |    | -----NA----- |     |      |            |
| 36  | AR1268-A             |         |         |    | -----NA----- |     |      |            |
| 37  | AR1268-B             |         |         |    | -----NA----- |     |      |            |
| 38  | AR1268-C             |         |         |    | -----NA----- |     |      |            |
| 39  | AR1268-D             |         |         |    | -----NA----- |     |      |            |
| 40  | AR1268-E             |         |         |    | -----NA----- |     |      |            |
| 41  | AR1016-A             | 131.499 | 132.290 | E3 | -0.6         | 102 | 0.00 | 4.19- 4.25 |
| 42  | AR1016-B             | 249.443 | 269.685 | E3 | -8.1         | 108 | 0.00 | 4.74- 4.80 |
| 43  | AR1016-C             | 586.781 | 623.480 | E3 | -6.3         | 107 | 0.00 | 5.38- 5.44 |
| 44  | AR1016-D             | 247.157 | 259.596 | E3 | -5.0         | 106 | 0.00 | 5.57- 5.63 |
| 45  | AR1016-E             | 173.457 | 180.050 | E3 | -3.8         | 102 | 0.00 | 6.23- 6.29 |
| 46  | AR1260-A             | 774.265 | 750.844 | E3 | 3.0          | 105 | 0.00 | 8.84- 8.90 |
| 47  | AR1260-B             | 428.295 | 421.388 | E3 | 1.6          | 94  | 0.00 | 8.96- 9.02 |

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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227137.D

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|      |                    |         |         |    |      |    |      |             |
|------|--------------------|---------|---------|----|------|----|------|-------------|
| 48   | AR1260-C           | 418.819 | 406.725 | E3 | 2.9  | 97 | 0.00 | 9.39- 9.45  |
| 49   | AR1260-D           | 1.054   | 1.090   | E6 | -3.4 | 97 | 0.00 | 9.74- 9.80  |
| 50   | AR1260-E           | 0.980   | 0.975   | E6 | 0.5  | 95 | 0.00 | 10.28-10.34 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.615   | E6 | 5.7  | 90 | 0.00 | 11.96-12.02 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:53 2018

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227138.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227138.D\ECD1A.CH Vial: 17  
 Signal #2 : C:\msdchem\1\DATA\gx6321\xx227138.D\ECD2B.CH  
 Acq On : 19 Apr 2018 3:59 pm Operator: tianweir  
 Sample : icv6321-1000 Inst : HP G1530A  
 Misc : opl1391,GXX6321,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Apr 19 15:50:14 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.396 E6   | -1.6         | 95    | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             | 51.738  | 54.608 E3  | -5.5         | 106   | 0.00     | 2.22- | 2.42   |
| 3   | AR1221-B             | 88.419  | 85.773 E3  | 3.0          | 97    | 0.00     | 2.89- | 3.09   |
| 4   | AR1221-C             | 270.889 | 259.470 E3 | 4.2          | 96    | 0.00     | 3.08- | 3.28   |
| 5   | AR1221-D             | 32.051  | 26.306 E3  | 17.9         | 82    | 0.00     | 3.48- | 3.68   |
| 6   | AR1221-E             | 39.630  | 36.171 E3  | 8.7          | 91    | 0.00     | 3.70- | 3.90   |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             | 274.426 | 286.233 E3 | -4.3         | 104   | 0.00     | 5.17- | 5.37   |
| 25  | AR1254-B             | 488.934 | 504.535 E3 | -3.2         | 103   | 0.00     | 5.51- | 5.71   |
| 26  | AR1254-C             | 278.220 | 290.020 E3 | -4.2         | 104   | 0.00     | 5.88- | 6.08   |
| 27  | AR1254-D             | 546.727 | 575.678 E3 | -5.3         | 105   | 0.00     | 6.04- | 6.24   |
| 28  | AR1254-E             | 414.443 | 429.982 E3 | -3.7         | 104   | 0.00     | 6.42- | 6.62   |
| 29  | AR1254-F             | 361.094 | 379.311 E3 | -5.0         | 105   | 0.00     | 6.66- | 6.86   |
| 30  | AR1254-G             | 530.661 | 553.207 E3 | -4.2         | 104   | 0.00     | 7.04- | 7.24   |
| 31  | AR1262-A             |         |            | -----NA----- |       |          |       |        |
| 32  | AR1262-B             |         |            | -----NA----- |       |          |       |        |
| 33  | AR1262-C             |         |            | -----NA----- |       |          |       |        |
| 34  | AR1262-D             |         |            | -----NA----- |       |          |       |        |
| 35  | AR1262-E             |         |            | -----NA----- |       |          |       |        |
| 36  | AR1268-A             |         |            | -----NA----- |       |          |       |        |
| 37  | AR1268-B             |         |            | -----NA----- |       |          |       |        |
| 38  | AR1268-C             |         |            | -----NA----- |       |          |       |        |
| 39  | AR1268-D             |         |            | -----NA----- |       |          |       |        |
| 40  | AR1268-E             |         |            | -----NA----- |       |          |       |        |
| 41  | AR1016-A             |         |            | -----NA----- |       |          |       |        |

12.10.36 12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227138.D

|      |                    |       |       |    |      |    |      |            |              |
|------|--------------------|-------|-------|----|------|----|------|------------|--------------|
| 42   | AR1016-B           |       |       |    |      |    |      |            | -----NA----- |
| 43   | AR1016-C           |       |       |    |      |    |      |            | -----NA----- |
| 44   | AR1016-D           |       |       |    |      |    |      |            | -----NA----- |
| 45   | AR1016-E           |       |       |    |      |    |      |            | -----NA----- |
| 46   | AR1260-A           |       |       |    |      |    |      |            | -----NA----- |
| 47   | AR1260-B           |       |       |    |      |    |      |            | -----NA----- |
| 48   | AR1260-C           |       |       |    |      |    |      |            | -----NA----- |
| 49   | AR1260-D           |       |       |    |      |    |      |            | -----NA----- |
| 50   | AR1260-E           |       |       |    |      |    |      |            | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.966 | 8.209 | E6 | 17.6 | 77 | 0.00 | 9.95-10.02 |              |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |      |              |  |
|-----|----------------------|---------|---------|----|------|-----|------|--------------|--|
| 1 S | Tetrachloro-m-xylene | 8.133   | 7.892   | E6 | 3.0  | 90  | 0.00 | 3.53- 3.59   |  |
| 2   | AR1221-A             | 46.798  | 48.866  | E3 | -4.4 | 104 | 0.00 | 2.95- 3.01   |  |
| 3   | AR1221-B             | 84.479  | 82.187  | E3 | 2.7  | 97  | 0.00 | 3.84- 4.04   |  |
| 4   | AR1221-C             | 211.961 | 204.263 | E3 | 3.6  | 96  | 0.00 | 4.12- 4.32   |  |
| 5   | AR1221-D             | 40.254  | 35.744  | E3 | 11.2 | 89  | 0.00 | 4.67- 4.87   |  |
| 6   | AR1221-E             | 26.153  | 26.886  | E3 | -2.8 | 103 | 0.00 | 4.76- 4.96   |  |
| 7   | AR1232-A             |         |         |    |      |     |      | -----NA----- |  |
| 8   | AR1232-B             |         |         |    |      |     |      | -----NA----- |  |
| 9   | AR1232-C             |         |         |    |      |     |      | -----NA----- |  |
| 10  | AR1232-D             |         |         |    |      |     |      | -----NA----- |  |
| 11  | AR1232-E             |         |         |    |      |     |      | -----NA----- |  |
| 12  | AR1242-A             |         |         |    |      |     |      | -----NA----- |  |
| 13  | AR1242-B             |         |         |    |      |     |      | -----NA----- |  |
| 14  | AR1242-C             |         |         |    |      |     |      | -----NA----- |  |
| 15  | AR1242-D             |         |         |    |      |     |      | -----NA----- |  |
| 16  | AR1242-E             |         |         |    |      |     |      | -----NA----- |  |
| 17  | AR1248-A             |         |         |    |      |     |      | -----NA----- |  |
| 18  | AR1248-B             |         |         |    |      |     |      | -----NA----- |  |
| 19  | AR1248-C             |         |         |    |      |     |      | -----NA----- |  |
| 20  | AR1248-D             |         |         |    |      |     |      | -----NA----- |  |
| 21  | AR1248-E             |         |         |    |      |     |      | -----NA----- |  |
| 22  | AR1248-F             |         |         |    |      |     |      | -----NA----- |  |
| 23  | AR1248-G             |         |         |    |      |     |      | -----NA----- |  |
| 24  | AR1254-A             | 290.353 | 305.060 | E3 | -5.1 | 105 | 0.00 | 6.76- 6.96   |  |
| 25  | AR1254-B             | 322.819 | 341.487 | E3 | -5.8 | 106 | 0.00 | 7.01- 7.21   |  |
| 26  | AR1254-C             | 265.885 | 279.431 | E3 | -5.1 | 105 | 0.00 | 7.52- 7.72   |  |
| 27  | AR1254-D             | 539.574 | 567.881 | E3 | -5.2 | 105 | 0.00 | 7.68- 7.88   |  |
| 28  | AR1254-E             | 421.992 | 444.332 | E3 | -5.3 | 105 | 0.00 | 8.00- 8.20   |  |
| 29  | AR1254-F             | 435.433 | 455.359 | E3 | -4.6 | 105 | 0.00 | 8.48- 8.68   |  |
| 30  | AR1254-G             | 551.950 | 580.040 | E3 | -5.1 | 105 | 0.00 | 8.77- 8.97   |  |
| 31  | AR1262-A             |         |         |    |      |     |      | -----NA----- |  |
| 32  | AR1262-B             |         |         |    |      |     |      | -----NA----- |  |
| 33  | AR1262-C             |         |         |    |      |     |      | -----NA----- |  |
| 34  | AR1262-D             |         |         |    |      |     |      | -----NA----- |  |
| 35  | AR1262-E             |         |         |    |      |     |      | -----NA----- |  |
| 36  | AR1268-A             |         |         |    |      |     |      | -----NA----- |  |
| 37  | AR1268-B             |         |         |    |      |     |      | -----NA----- |  |
| 38  | AR1268-C             |         |         |    |      |     |      | -----NA----- |  |
| 39  | AR1268-D             |         |         |    |      |     |      | -----NA----- |  |
| 40  | AR1268-E             |         |         |    |      |     |      | -----NA----- |  |
| 41  | AR1016-A             |         |         |    |      |     |      | -----NA----- |  |
| 42  | AR1016-B             |         |         |    |      |     |      | -----NA----- |  |
| 43  | AR1016-C             |         |         |    |      |     |      | -----NA----- |  |
| 44  | AR1016-D             |         |         |    |      |     |      | -----NA----- |  |
| 45  | AR1016-E             |         |         |    |      |     |      | -----NA----- |  |
| 46  | AR1260-A             |         |         |    |      |     |      | -----NA----- |  |
| 47  | AR1260-B             |         |         |    |      |     |      | -----NA----- |  |

12.10.36  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227138.D

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|      |                    |       |          |      |    |              |             |  |
|------|--------------------|-------|----------|------|----|--------------|-------------|--|
| 48   | AR1260-C           |       |          |      |    | -----NA----- |             |  |
| 49   | AR1260-D           |       |          |      |    | -----NA----- |             |  |
| 50   | AR1260-E           |       |          |      |    | -----NA----- |             |  |
| 51 S | Decachlorobiphenyl | 9.133 | 7.527 E6 | 17.6 | 79 | 0.00         | 11.96-12.02 |  |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:54 2018

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227139.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227139.D\ECD1A.CH Vial: 18  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227139.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:15 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT   | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.250 E6   | -12.0        | 105   | 0.00     | 2.78 | 2.84   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |      |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |      |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |      |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |      |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |      |        |
| 7   | AR1232-A             | 215.655 | 203.368 E3 | 5.7          | 94    | 0.00     | 3.08 | 3.28   |
| 8   | AR1232-B             | 132.280 | 129.314 E3 | 2.2          | 98    | 0.00     | 3.48 | 3.68   |
| 9   | AR1232-C             | 286.500 | 284.930 E3 | 0.5          | 99    | 0.00     | 4.03 | 4.23   |
| 10  | AR1232-D             | 110.735 | 110.115 E3 | 0.6          | 99    | 0.00     | 4.19 | 4.39   |
| 11  | AR1232-E             | 107.817 | 108.083 E3 | -0.2         | 100   | 0.00     | 4.69 | 4.89   |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |      |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |      |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |      |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |      |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |      |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |      |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |      |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |      |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |      |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |      |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |      |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |      |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |      |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |      |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |      |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |      |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |      |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |      |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |      |        |
| 31  | AR1262-A             | 375.538 | 390.901 E3 | -4.1         | 104   | 0.00     | 6.66 | 6.86   |
| 32  | AR1262-B             | 529.278 | 552.142 E3 | -4.3         | 104   | 0.00     | 7.19 | 7.39   |
| 33  | AR1262-C             | 477.985 | 496.654 E3 | -3.9         | 104   | 0.00     | 7.53 | 7.73   |
| 34  | AR1262-D             | 1.221   | 1.283 E6   | -5.1         | 105   | 0.00     | 7.96 | 8.16   |
| 35  | AR1262-E             | 1.384   | 1.420 E6   | -2.6         | 103   | 0.00     | 8.40 | 8.60   |
| 36  | AR1268-A             |         |            | -----NA----- |       |          |      |        |
| 37  | AR1268-B             |         |            | -----NA----- |       |          |      |        |
| 38  | AR1268-C             |         |            | -----NA----- |       |          |      |        |
| 39  | AR1268-D             |         |            | -----NA----- |       |          |      |        |
| 40  | AR1268-E             |         |            | -----NA----- |       |          |      |        |
| 41  | AR1016-A             |         |            | -----NA----- |       |          |      |        |

12.10.37 12

# Initial Calibration Verification

Job Number: JC64996  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6321-ICV6321  
Lab FileID: XX227139.D

|                       |                      |         |         |    |       |     |      |             |              |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|-------------|--------------|
| 42                    | AR1016-B             |         |         |    |       |     |      |             | -----NA----- |
| 43                    | AR1016-C             |         |         |    |       |     |      |             | -----NA----- |
| 44                    | AR1016-D             |         |         |    |       |     |      |             | -----NA----- |
| 45                    | AR1016-E             |         |         |    |       |     |      |             | -----NA----- |
| 46                    | AR1260-A             |         |         |    |       |     |      |             | -----NA----- |
| 47                    | AR1260-B             |         |         |    |       |     |      |             | -----NA----- |
| 48                    | AR1260-C             |         |         |    |       |     |      |             | -----NA----- |
| 49                    | AR1260-D             |         |         |    |       |     |      |             | -----NA----- |
| 50                    | AR1260-E             |         |         |    |       |     |      |             | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 9.966   | 10.166  | E6 | -2.0  | 96  | 0.00 | 9.95-10.02  |              |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |             |              |
| 1 S                   | Tetrachloro-m-xylene | 8.133   | 9.016   | E6 | -10.9 | 102 | 0.00 | 3.53- 3.59  |              |
| 2                     | AR1221-A             |         |         |    |       |     |      |             | -----NA----- |
| 3                     | AR1221-B             |         |         |    |       |     |      |             | -----NA----- |
| 4                     | AR1221-C             |         |         |    |       |     |      |             | -----NA----- |
| 5                     | AR1221-D             |         |         |    |       |     |      |             | -----NA----- |
| 6                     | AR1221-E             |         |         |    |       |     |      |             | -----NA----- |
| 7                     | AR1232-A             | 162.910 | 164.639 | E3 | -1.1  | 101 | 0.00 | 4.12- 4.32  |              |
| 8                     | AR1232-B             | 127.197 | 128.682 | E3 | -1.2  | 101 | 0.00 | 4.67- 4.87  |              |
| 9                     | AR1232-C             | 277.377 | 281.287 | E3 | -1.4  | 101 | 0.00 | 5.31- 5.51  |              |
| 10                    | AR1232-D             | 115.543 | 119.349 | E3 | -3.3  | 103 | 0.00 | 5.50- 5.70  |              |
| 11                    | AR1232-E             | 75.544  | 76.436  | E3 | -1.2  | 101 | 0.00 | 6.16- 6.36  |              |
| 12                    | AR1242-A             |         |         |    |       |     |      |             | -----NA----- |
| 13                    | AR1242-B             |         |         |    |       |     |      |             | -----NA----- |
| 14                    | AR1242-C             |         |         |    |       |     |      |             | -----NA----- |
| 15                    | AR1242-D             |         |         |    |       |     |      |             | -----NA----- |
| 16                    | AR1242-E             |         |         |    |       |     |      |             | -----NA----- |
| 17                    | AR1248-A             |         |         |    |       |     |      |             | -----NA----- |
| 18                    | AR1248-B             |         |         |    |       |     |      |             | -----NA----- |
| 19                    | AR1248-C             |         |         |    |       |     |      |             | -----NA----- |
| 20                    | AR1248-D             |         |         |    |       |     |      |             | -----NA----- |
| 21                    | AR1248-E             |         |         |    |       |     |      |             | -----NA----- |
| 22                    | AR1248-F             |         |         |    |       |     |      |             | -----NA----- |
| 23                    | AR1248-G             |         |         |    |       |     |      |             | -----NA----- |
| 24                    | AR1254-A             |         |         |    |       |     |      |             | -----NA----- |
| 25                    | AR1254-B             |         |         |    |       |     |      |             | -----NA----- |
| 26                    | AR1254-C             |         |         |    |       |     |      |             | -----NA----- |
| 27                    | AR1254-D             |         |         |    |       |     |      |             | -----NA----- |
| 28                    | AR1254-E             |         |         |    |       |     |      |             | -----NA----- |
| 29                    | AR1254-F             |         |         |    |       |     |      |             | -----NA----- |
| 30                    | AR1254-G             |         |         |    |       |     |      |             | -----NA----- |
| 31                    | AR1262-A             | 427.229 | 446.310 | E3 | -4.5  | 104 | 0.00 | 8.24- 8.44  |              |
| 32                    | AR1262-B             | 698.258 | 723.445 | E3 | -3.6  | 104 | 0.00 | 8.89- 9.09  |              |
| 33                    | AR1262-C             | 533.544 | 551.458 | E3 | -3.4  | 103 | 0.00 | 9.32- 9.52  |              |
| 34                    | AR1262-D             | 1.356   | 1.396   | E6 | -2.9  | 103 | 0.00 | 9.67- 9.87  |              |
| 35                    | AR1262-E             | 1.472   | 1.518   | E6 | -3.1  | 103 | 0.00 | 10.19-10.39 |              |
| 36                    | AR1268-A             |         |         |    |       |     |      |             | -----NA----- |
| 37                    | AR1268-B             |         |         |    |       |     |      |             | -----NA----- |
| 38                    | AR1268-C             |         |         |    |       |     |      |             | -----NA----- |
| 39                    | AR1268-D             |         |         |    |       |     |      |             | -----NA----- |
| 40                    | AR1268-E             |         |         |    |       |     |      |             | -----NA----- |
| 41                    | AR1016-A             |         |         |    |       |     |      |             | -----NA----- |
| 42                    | AR1016-B             |         |         |    |       |     |      |             | -----NA----- |
| 43                    | AR1016-C             |         |         |    |       |     |      |             | -----NA----- |
| 44                    | AR1016-D             |         |         |    |       |     |      |             | -----NA----- |
| 45                    | AR1016-E             |         |         |    |       |     |      |             | -----NA----- |
| 46                    | AR1260-A             |         |         |    |       |     |      |             | -----NA----- |
| 47                    | AR1260-B             |         |         |    |       |     |      |             | -----NA----- |

12.10.37  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227139.D

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|      |                    |       |       |    |     |    |      |  |             |              |
|------|--------------------|-------|-------|----|-----|----|------|--|-------------|--------------|
| 48   | AR1260-C           |       |       |    |     |    |      |  |             | -----NA----- |
| 49   | AR1260-D           |       |       |    |     |    |      |  |             | -----NA----- |
| 50   | AR1260-E           |       |       |    |     |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.133 | 8.925 | E6 | 2.3 | 94 | 0.00 |  | 11.96-12.02 |              |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:55 2018

12.10.37  
12



# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227140.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227140.D\ECD1A.CH Vial: 19  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227140.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:32 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : opl1391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.287 E6   | -12.4        | 105   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             | 236.004 | 226.658 E3 | 4.0          | 96    | 0.00     | 3.48- | 3.68   |
| 13  | AR1242-B             | 538.776 | 515.151 E3 | 4.4          | 96    | 0.00     | 4.03- | 4.23   |
| 14  | AR1242-C             | 206.740 | 198.151 E3 | 4.2          | 96    | 0.00     | 4.19- | 4.39   |
| 15  | AR1242-D             | 224.931 | 210.298 E3 | 6.5          | 93    | 0.00     | 4.69- | 4.89   |
| 16  | AR1242-E             | 240.457 | 226.057 E3 | 6.0          | 94    | 0.00     | 5.28- | 5.48   |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1262-A             |         |            | -----NA----- |       |          |       |        |
| 32  | AR1262-B             |         |            | -----NA----- |       |          |       |        |
| 33  | AR1262-C             |         |            | -----NA----- |       |          |       |        |
| 34  | AR1262-D             |         |            | -----NA----- |       |          |       |        |
| 35  | AR1262-E             |         |            | -----NA----- |       |          |       |        |
| 36  | AR1268-A             | 1.395   | 1.318 E6   | 5.5          | 95    | 0.00     | 8.40- | 8.60   |
| 37  | AR1268-B             | 1.519   | 1.457 E6   | 4.1          | 96    | 0.00     | 8.45- | 8.65   |
| 38  | AR1268-C             | 1.270   | 1.203 E6   | 5.3          | 95    | 0.00     | 8.72- | 8.92   |
| 39  | AR1268-D             | 519.299 | 494.580 E3 | 4.8          | 95    | 0.00     | 9.22- | 9.42   |
| 40  | AR1268-E             | 4.274   | 4.064 E6   | 4.9          | 95    | 0.00     | 9.61- | 9.81   |
| 41  | AR1016-A             |         |            | -----NA----- |       |          |       |        |

12.10.38  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227140.D

|      |                    |       |        |    |         |      |      |            |              |
|------|--------------------|-------|--------|----|---------|------|------|------------|--------------|
| 42   | AR1016-B           |       |        |    |         |      |      |            | -----NA----- |
| 43   | AR1016-C           |       |        |    |         |      |      |            | -----NA----- |
| 44   | AR1016-D           |       |        |    |         |      |      |            | -----NA----- |
| 45   | AR1016-E           |       |        |    |         |      |      |            | -----NA----- |
| 46   | AR1260-A           |       |        |    |         |      |      |            | -----NA----- |
| 47   | AR1260-B           |       |        |    |         |      |      |            | -----NA----- |
| 48   | AR1260-C           |       |        |    |         |      |      |            | -----NA----- |
| 49   | AR1260-D           |       |        |    |         |      |      |            | -----NA----- |
| 50   | AR1260-E           |       |        |    |         |      |      |            | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.966 | 29.686 | E6 | -197.9# | 279# | 0.00 | 9.94-10.01 |              |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |             |              |
|-----|----------------------|---------|---------|----|-------|-----|------|-------------|--------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 9.237   | E6 | -13.6 | 105 | 0.00 | 3.53- 3.59  |              |
| 2   | AR1221-A             |         |         |    |       |     |      |             | -----NA----- |
| 3   | AR1221-B             |         |         |    |       |     |      |             | -----NA----- |
| 4   | AR1221-C             |         |         |    |       |     |      |             | -----NA----- |
| 5   | AR1221-D             |         |         |    |       |     |      |             | -----NA----- |
| 6   | AR1221-E             |         |         |    |       |     |      |             | -----NA----- |
| 7   | AR1232-A             |         |         |    |       |     |      |             | -----NA----- |
| 8   | AR1232-B             |         |         |    |       |     |      |             | -----NA----- |
| 9   | AR1232-C             |         |         |    |       |     |      |             | -----NA----- |
| 10  | AR1232-D             |         |         |    |       |     |      |             | -----NA----- |
| 11  | AR1232-E             |         |         |    |       |     |      |             | -----NA----- |
| 12  | AR1242-A             | 225.270 | 217.690 | E3 | 3.4   | 97  | 0.00 | 4.67- 4.87  |              |
| 13  | AR1242-B             | 516.324 | 498.378 | E3 | 3.5   | 97  | 0.00 | 5.31- 5.51  |              |
| 14  | AR1242-C             | 216.024 | 210.495 | E3 | 2.6   | 97  | 0.00 | 5.50- 5.70  |              |
| 15  | AR1242-D             | 155.788 | 147.986 | E3 | 5.0   | 95  | 0.00 | 6.16- 6.36  |              |
| 16  | AR1242-E             | 204.318 | 193.551 | E3 | 5.3   | 95  | 0.00 | 6.76- 6.96  |              |
| 17  | AR1248-A             |         |         |    |       |     |      |             | -----NA----- |
| 18  | AR1248-B             |         |         |    |       |     |      |             | -----NA----- |
| 19  | AR1248-C             |         |         |    |       |     |      |             | -----NA----- |
| 20  | AR1248-D             |         |         |    |       |     |      |             | -----NA----- |
| 21  | AR1248-E             |         |         |    |       |     |      |             | -----NA----- |
| 22  | AR1248-F             |         |         |    |       |     |      |             | -----NA----- |
| 23  | AR1248-G             |         |         |    |       |     |      |             | -----NA----- |
| 24  | AR1254-A             |         |         |    |       |     |      |             | -----NA----- |
| 25  | AR1254-B             |         |         |    |       |     |      |             | -----NA----- |
| 26  | AR1254-C             |         |         |    |       |     |      |             | -----NA----- |
| 27  | AR1254-D             |         |         |    |       |     |      |             | -----NA----- |
| 28  | AR1254-E             |         |         |    |       |     |      |             | -----NA----- |
| 29  | AR1254-F             |         |         |    |       |     |      |             | -----NA----- |
| 30  | AR1254-G             |         |         |    |       |     |      |             | -----NA----- |
| 31  | AR1262-A             |         |         |    |       |     |      |             | -----NA----- |
| 32  | AR1262-B             |         |         |    |       |     |      |             | -----NA----- |
| 33  | AR1262-C             |         |         |    |       |     |      |             | -----NA----- |
| 34  | AR1262-D             |         |         |    |       |     |      |             | -----NA----- |
| 35  | AR1262-E             |         |         |    |       |     |      |             | -----NA----- |
| 36  | AR1268-A             | 1.675   | 1.604   | E6 | 4.2   | 96  | 0.00 | 10.19-10.39 |              |
| 37  | AR1268-B             | 1.504   | 1.450   | E6 | 3.6   | 96  | 0.00 | 10.26-10.46 |              |
| 38  | AR1268-C             | 1.298   | 1.233   | E6 | 5.0   | 95  | 0.00 | 10.63-10.83 |              |
| 39  | AR1268-D             | 515.206 | 493.762 | E3 | 4.2   | 96  | 0.00 | 11.03-11.23 |              |
| 40  | AR1268-E             | 3.845   | 3.680   | E6 | 4.3   | 96  | 0.00 | 11.51-11.71 |              |
| 41  | AR1016-A             |         |         |    |       |     |      |             | -----NA----- |
| 42  | AR1016-B             |         |         |    |       |     |      |             | -----NA----- |
| 43  | AR1016-C             |         |         |    |       |     |      |             | -----NA----- |
| 44  | AR1016-D             |         |         |    |       |     |      |             | -----NA----- |
| 45  | AR1016-E             |         |         |    |       |     |      |             | -----NA----- |
| 46  | AR1260-A             |         |         |    |       |     |      |             | -----NA----- |
| 47  | AR1260-B             |         |         |    |       |     |      |             | -----NA----- |

12.10.38  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227140.D

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|      |                    |       |        |    |         |      |      |  |  |             |              |
|------|--------------------|-------|--------|----|---------|------|------|--|--|-------------|--------------|
| 48   | AR1260-C           |       |        |    |         |      |      |  |  |             | -----NA----- |
| 49   | AR1260-D           |       |        |    |         |      |      |  |  |             | -----NA----- |
| 50   | AR1260-E           |       |        |    |         |      |      |  |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.133 | 25.521 | E6 | -179.4# | 268# | 0.00 |  |  | 11.96-12.02 | -----        |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:56 2018

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227141.D\ECD1A.CH Vial: 20  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227141.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:48 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.338 E6   | -13.0        | 106   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             | 119.336 | 109.214 E3 | 8.5          | 92    | 0.00     | 3.47- | 3.67   |
| 18  | AR1248-B             | 347.687 | 338.033 E3 | 2.8          | 97    | 0.00     | 4.03- | 4.23   |
| 19  | AR1248-C             | 318.316 | 319.578 E3 | -0.4         | 100   | 0.00     | 4.41- | 4.61   |
| 20  | AR1248-D             | 325.148 | 328.152 E3 | -0.9         | 101   | 0.00     | 4.69- | 4.89   |
| 21  | AR1248-E             | 301.979 | 314.048 E3 | -4.0         | 104   | 0.00     | 4.80- | 5.00   |
| 22  | AR1248-F             | 343.756 | 361.915 E3 | -5.3         | 105   | 0.00     | 5.27- | 5.47   |
| 23  | AR1248-G             | 526.174 | 545.989 E3 | -3.8         | 104   | 0.00     | 5.52- | 5.72   |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1262-A             |         |            | -----NA----- |       |          |       |        |
| 32  | AR1262-B             |         |            | -----NA----- |       |          |       |        |
| 33  | AR1262-C             |         |            | -----NA----- |       |          |       |        |
| 34  | AR1262-D             |         |            | -----NA----- |       |          |       |        |
| 35  | AR1262-E             |         |            | -----NA----- |       |          |       |        |
| 36  | AR1268-A             |         |            | -----NA----- |       |          |       |        |
| 37  | AR1268-B             |         |            | -----NA----- |       |          |       |        |
| 38  | AR1268-C             |         |            | -----NA----- |       |          |       |        |
| 39  | AR1268-D             |         |            | -----NA----- |       |          |       |        |
| 40  | AR1268-E             |         |            | -----NA----- |       |          |       |        |
| 41  | AR1016-A             |         |            | -----NA----- |       |          |       |        |

12.10.39  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

|      |                    |       |        |    |      |    |      |  |            |  |
|------|--------------------|-------|--------|----|------|----|------|--|------------|--|
| 42   | AR1016-B           |       |        |    |      |    |      |  |            |  |
| 43   | AR1016-C           |       |        |    |      |    |      |  |            |  |
| 44   | AR1016-D           |       |        |    |      |    |      |  |            |  |
| 45   | AR1016-E           |       |        |    |      |    |      |  |            |  |
| 46   | AR1260-A           |       |        |    |      |    |      |  |            |  |
| 47   | AR1260-B           |       |        |    |      |    |      |  |            |  |
| 48   | AR1260-C           |       |        |    |      |    |      |  |            |  |
| 49   | AR1260-D           |       |        |    |      |    |      |  |            |  |
| 50   | AR1260-E           |       |        |    |      |    |      |  |            |  |
| 51 S | Decachlorobiphenyl | 9.966 | 10.536 | E6 | -5.7 | 99 | 0.00 |  | 9.94-10.01 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |  |            |  |
|-----|----------------------|---------|---------|----|-------|-----|------|--|------------|--|
| 1 S | Tetrachloro-m-xylene | 8.133   | 9.347   | E6 | -14.9 | 106 | 0.00 |  | 3.52- 3.58 |  |
| 2   | AR1221-A             |         |         |    |       |     |      |  |            |  |
| 3   | AR1221-B             |         |         |    |       |     |      |  |            |  |
| 4   | AR1221-C             |         |         |    |       |     |      |  |            |  |
| 5   | AR1221-D             |         |         |    |       |     |      |  |            |  |
| 6   | AR1221-E             |         |         |    |       |     |      |  |            |  |
| 7   | AR1232-A             |         |         |    |       |     |      |  |            |  |
| 8   | AR1232-B             |         |         |    |       |     |      |  |            |  |
| 9   | AR1232-C             |         |         |    |       |     |      |  |            |  |
| 10  | AR1232-D             |         |         |    |       |     |      |  |            |  |
| 11  | AR1232-E             |         |         |    |       |     |      |  |            |  |
| 12  | AR1242-A             |         |         |    |       |     |      |  |            |  |
| 13  | AR1242-B             |         |         |    |       |     |      |  |            |  |
| 14  | AR1242-C             |         |         |    |       |     |      |  |            |  |
| 15  | AR1242-D             |         |         |    |       |     |      |  |            |  |
| 16  | AR1242-E             |         |         |    |       |     |      |  |            |  |
| 17  | AR1248-A             | 114.949 | 108.656 | E3 | 5.5   | 95  | 0.00 |  | 4.67- 4.87 |  |
| 18  | AR1248-B             | 321.930 | 321.084 | E3 | 0.3   | 100 | 0.00 |  | 5.31- 5.51 |  |
| 19  | AR1248-C             | 176.450 | 179.400 | E3 | -1.7  | 102 | 0.00 |  | 5.77- 5.97 |  |
| 20  | AR1248-D             | 235.560 | 241.884 | E3 | -2.7  | 103 | 0.00 |  | 6.16- 6.36 |  |
| 21  | AR1248-E             | 273.926 | 288.181 | E3 | -5.2  | 105 | 0.00 |  | 6.34- 6.54 |  |
| 22  | AR1248-F             | 333.138 | 357.586 | E3 | -7.3  | 107 | 0.00 |  | 6.76- 6.96 |  |
| 23  | AR1248-G             | 308.648 | 332.488 | E3 | -7.7  | 108 | 0.00 |  | 7.10- 7.30 |  |
| 24  | AR1254-A             |         |         |    |       |     |      |  |            |  |
| 25  | AR1254-B             |         |         |    |       |     |      |  |            |  |
| 26  | AR1254-C             |         |         |    |       |     |      |  |            |  |
| 27  | AR1254-D             |         |         |    |       |     |      |  |            |  |
| 28  | AR1254-E             |         |         |    |       |     |      |  |            |  |
| 29  | AR1254-F             |         |         |    |       |     |      |  |            |  |
| 30  | AR1254-G             |         |         |    |       |     |      |  |            |  |
| 31  | AR1262-A             |         |         |    |       |     |      |  |            |  |
| 32  | AR1262-B             |         |         |    |       |     |      |  |            |  |
| 33  | AR1262-C             |         |         |    |       |     |      |  |            |  |
| 34  | AR1262-D             |         |         |    |       |     |      |  |            |  |
| 35  | AR1262-E             |         |         |    |       |     |      |  |            |  |
| 36  | AR1268-A             |         |         |    |       |     |      |  |            |  |
| 37  | AR1268-B             |         |         |    |       |     |      |  |            |  |
| 38  | AR1268-C             |         |         |    |       |     |      |  |            |  |
| 39  | AR1268-D             |         |         |    |       |     |      |  |            |  |
| 40  | AR1268-E             |         |         |    |       |     |      |  |            |  |
| 41  | AR1016-A             |         |         |    |       |     |      |  |            |  |
| 42  | AR1016-B             |         |         |    |       |     |      |  |            |  |
| 43  | AR1016-C             |         |         |    |       |     |      |  |            |  |
| 44  | AR1016-D             |         |         |    |       |     |      |  |            |  |
| 45  | AR1016-E             |         |         |    |       |     |      |  |            |  |
| 46  | AR1260-A             |         |         |    |       |     |      |  |            |  |
| 47  | AR1260-B             |         |         |    |       |     |      |  |            |  |

12.10.39  
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# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

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|      |                    |       |          |      |    |              |             |  |  |
|------|--------------------|-------|----------|------|----|--------------|-------------|--|--|
| 48   | AR1260-C           |       |          |      |    | -----NA----- |             |  |  |
| 49   | AR1260-D           |       |          |      |    | -----NA----- |             |  |  |
| 50   | AR1260-E           |       |          |      |    | -----NA----- |             |  |  |
| 51 S | Decachlorobiphenyl | 9.133 | 9.357 E6 | -2.5 | 98 | 0.00         | 11.96-12.02 |  |  |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:57 2018

12.10.39  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227793.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227793.D\ECD1A.CH Vial: 1  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227793.D\ECD2B.CH  
Acq On : 01 May 2018 5:05 pm Operator: tianweir  
Sample : cc6321-1000 Inst : HP G1530A  
Misc : op11592,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.841 E6   | -7.0 | 100   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 174.938 E3 | -0.9 | 100   | 0.00     | 3.16- | 3.22   |

12.10.40  
12

# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6332-CC6321  
 Lab FileID: XX227793.D

|      |                    |         |          |    |       |     |       |            |
|------|--------------------|---------|----------|----|-------|-----|-------|------------|
| 42   | AR1016-B           | 265.887 | 268.046  | E3 | -0.8  | 102 | 0.00  | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 561.077  | E3 | 8.2   | 93  | -0.01 | 4.09- 4.15 |
| 44   | AR1016-D           | 233.235 | 231.162  | E3 | 0.9   | 100 | -0.01 | 4.25- 4.31 |
| 45   | AR1016-E           | 243.951 | 256.004  | E3 | -4.9  | 105 | -0.02 | 4.74- 4.81 |
| 46   | AR1260-A           | 713.007 | 686.954  | E3 | 3.7   | 102 | -0.02 | 7.09- 7.15 |
| 47   | AR1260-B           | 314.313 | 370.763  | E3 | -18.0 | 110 | -0.02 | 7.24- 7.30 |
| 48   | AR1260-C           | 340.349 | 373.106  | E3 | -9.6  | 104 | -0.02 | 7.57- 7.64 |
| 49   | AR1260-D           | 939.177 | 1047.759 | E3 | -11.6 | 102 | -0.02 | 8.01- 8.07 |
| 50   | AR1260-E           | 913.406 | 991.448  | E3 | -8.5  | 102 | -0.02 | 8.40- 8.46 |
| 51 S | Decachlorobiphenyl | 9.966   | 10.212   | E6 | -2.5  | 96  | -0.02 | 9.93-10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |       |              |
|-----|----------------------|---------|---------|----|-------|-----|-------|--------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.466   | E6 | -4.1  | 96  | 0.00  | 3.52- 3.58   |
| 2   | AR1221-A             |         |         |    |       |     |       | -----NA----- |
| 3   | AR1221-B             |         |         |    |       |     |       | -----NA----- |
| 4   | AR1221-C             |         |         |    |       |     |       | -----NA----- |
| 5   | AR1221-D             |         |         |    |       |     |       | -----NA----- |
| 6   | AR1221-E             |         |         |    |       |     |       | -----NA----- |
| 7   | AR1232-A             |         |         |    |       |     |       | -----NA----- |
| 8   | AR1232-B             |         |         |    |       |     |       | -----NA----- |
| 9   | AR1232-C             |         |         |    |       |     |       | -----NA----- |
| 10  | AR1232-D             |         |         |    |       |     |       | -----NA----- |
| 11  | AR1232-E             |         |         |    |       |     |       | -----NA----- |
| 12  | AR1242-A             |         |         |    |       |     |       | -----NA----- |
| 13  | AR1242-B             |         |         |    |       |     |       | -----NA----- |
| 14  | AR1242-C             |         |         |    |       |     |       | -----NA----- |
| 15  | AR1242-D             |         |         |    |       |     |       | -----NA----- |
| 16  | AR1242-E             |         |         |    |       |     |       | -----NA----- |
| 17  | AR1248-A             |         |         |    |       |     |       | -----NA----- |
| 18  | AR1248-B             |         |         |    |       |     |       | -----NA----- |
| 19  | AR1248-C             |         |         |    |       |     |       | -----NA----- |
| 20  | AR1248-D             |         |         |    |       |     |       | -----NA----- |
| 21  | AR1248-E             |         |         |    |       |     |       | -----NA----- |
| 22  | AR1248-F             |         |         |    |       |     |       | -----NA----- |
| 23  | AR1248-G             |         |         |    |       |     |       | -----NA----- |
| 24  | AR1254-A             |         |         |    |       |     |       | -----NA----- |
| 25  | AR1254-B             |         |         |    |       |     |       | -----NA----- |
| 26  | AR1254-C             |         |         |    |       |     |       | -----NA----- |
| 27  | AR1254-D             |         |         |    |       |     |       | -----NA----- |
| 28  | AR1254-E             |         |         |    |       |     |       | -----NA----- |
| 29  | AR1254-F             |         |         |    |       |     |       | -----NA----- |
| 30  | AR1254-G             |         |         |    |       |     |       | -----NA----- |
| 31  | AR1262-A             |         |         |    |       |     |       | -----NA----- |
| 32  | AR1262-B             |         |         |    |       |     |       | -----NA----- |
| 33  | AR1262-C             |         |         |    |       |     |       | -----NA----- |
| 34  | AR1262-D             |         |         |    |       |     |       | -----NA----- |
| 35  | AR1262-E             |         |         |    |       |     |       | -----NA----- |
| 36  | AR1268-A             |         |         |    |       |     |       | -----NA----- |
| 37  | AR1268-B             |         |         |    |       |     |       | -----NA----- |
| 38  | AR1268-C             |         |         |    |       |     |       | -----NA----- |
| 39  | AR1268-D             |         |         |    |       |     |       | -----NA----- |
| 40  | AR1268-E             |         |         |    |       |     |       | -----NA----- |
| 41  | AR1016-A             | 131.499 | 128.767 | E3 | 2.1   | 99  | 0.00  | 4.18- 4.24   |
| 42  | AR1016-B             | 249.443 | 262.614 | E3 | -5.3  | 105 | -0.01 | 4.73- 4.79   |
| 43  | AR1016-C             | 586.781 | 586.325 | E3 | 0.1   | 101 | -0.01 | 5.37- 5.43   |
| 44  | AR1016-D             | 247.157 | 259.631 | E3 | -5.0  | 106 | -0.01 | 5.56- 5.62   |
| 45  | AR1016-E             | 173.457 | 177.736 | E3 | -2.5  | 100 | -0.01 | 6.22- 6.28   |
| 46  | AR1260-A             | 774.265 | 743.424 | E3 | 4.0   | 104 | -0.02 | 8.82- 8.88   |
| 47  | AR1260-B             | 428.295 | 490.002 | E3 | -14.4 | 109 | -0.02 | 8.94- 9.00   |

12.10.40 12



# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227793.D

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|      |                    |         |         |    |       |     |       |             |
|------|--------------------|---------|---------|----|-------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 448.671 | E3 | -7.1  | 107 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.189   | E6 | -12.8 | 106 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.088   | E6 | -11.0 | 106 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 9.765   | E6 | -6.9  | 103 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0    CCC's out = 0  
Wed May 02 08:50:55 2018

12.10.40  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227804.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227804.D\ECD1A.CH Vial: 10  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227804.D\ECD2B.CH  
Acq On : 01 May 2018 8:06 pm Operator: tianweir  
Sample : cc6321-500 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.249 E6   | 0.2  | 102   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 173.739 E3 | -0.2 | 97    | 0.00     | 3.15- | 3.21   |

12.10.41  
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# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6332-CC6321  
 Lab FileID: XX227804.D

|      |                    |         |         |    |      |     |       |       |       |
|------|--------------------|---------|---------|----|------|-----|-------|-------|-------|
| 42   | AR1016-B           | 265.887 | 266.525 | E3 | -0.2 | 100 | 0.00  | 3.54- | 3.60  |
| 43   | AR1016-C           | 611.410 | 592.907 | E3 | 3.0  | 99  | -0.02 | 4.09- | 4.15  |
| 44   | AR1016-D           | 233.235 | 228.711 | E3 | 1.9  | 103 | -0.02 | 4.25- | 4.31  |
| 45   | AR1016-E           | 243.951 | 230.995 | E3 | 5.3  | 95  | -0.01 | 4.74- | 4.81  |
| 46   | AR1260-A           | 713.007 | 599.021 | E3 | 16.0 | 90  | -0.02 | 7.09- | 7.15  |
| 47   | AR1260-B           | 314.313 | 301.084 | E3 | 4.2  | 89  | -0.02 | 7.25- | 7.31  |
| 48   | AR1260-C           | 340.349 | 304.691 | E3 | 10.5 | 86  | -0.02 | 7.58- | 7.65  |
| 49   | AR1260-D           | 939.177 | 855.506 | E3 | 8.9  | 88  | -0.02 | 8.01- | 8.07  |
| 50   | AR1260-E           | 913.406 | 791.474 | E3 | 13.3 | 82  | -0.02 | 8.40- | 8.46  |
| 51 S | Decachlorobiphenyl | 9.966   | 8.091   | E6 | 18.8 | 84  | -0.02 | 9.93- | 10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |       |              |      |
|-----|----------------------|---------|---------|----|------|-----|-------|--------------|------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.111   | E6 | 0.3  | 102 | 0.00  | 3.52-        | 3.58 |
| 2   | AR1221-A             |         |         |    |      |     |       | -----NA----- |      |
| 3   | AR1221-B             |         |         |    |      |     |       | -----NA----- |      |
| 4   | AR1221-C             |         |         |    |      |     |       | -----NA----- |      |
| 5   | AR1221-D             |         |         |    |      |     |       | -----NA----- |      |
| 6   | AR1221-E             |         |         |    |      |     |       | -----NA----- |      |
| 7   | AR1232-A             |         |         |    |      |     |       | -----NA----- |      |
| 8   | AR1232-B             |         |         |    |      |     |       | -----NA----- |      |
| 9   | AR1232-C             |         |         |    |      |     |       | -----NA----- |      |
| 10  | AR1232-D             |         |         |    |      |     |       | -----NA----- |      |
| 11  | AR1232-E             |         |         |    |      |     |       | -----NA----- |      |
| 12  | AR1242-A             |         |         |    |      |     |       | -----NA----- |      |
| 13  | AR1242-B             |         |         |    |      |     |       | -----NA----- |      |
| 14  | AR1242-C             |         |         |    |      |     |       | -----NA----- |      |
| 15  | AR1242-D             |         |         |    |      |     |       | -----NA----- |      |
| 16  | AR1242-E             |         |         |    |      |     |       | -----NA----- |      |
| 17  | AR1248-A             |         |         |    |      |     |       | -----NA----- |      |
| 18  | AR1248-B             |         |         |    |      |     |       | -----NA----- |      |
| 19  | AR1248-C             |         |         |    |      |     |       | -----NA----- |      |
| 20  | AR1248-D             |         |         |    |      |     |       | -----NA----- |      |
| 21  | AR1248-E             |         |         |    |      |     |       | -----NA----- |      |
| 22  | AR1248-F             |         |         |    |      |     |       | -----NA----- |      |
| 23  | AR1248-G             |         |         |    |      |     |       | -----NA----- |      |
| 24  | AR1254-A             |         |         |    |      |     |       | -----NA----- |      |
| 25  | AR1254-B             |         |         |    |      |     |       | -----NA----- |      |
| 26  | AR1254-C             |         |         |    |      |     |       | -----NA----- |      |
| 27  | AR1254-D             |         |         |    |      |     |       | -----NA----- |      |
| 28  | AR1254-E             |         |         |    |      |     |       | -----NA----- |      |
| 29  | AR1254-F             |         |         |    |      |     |       | -----NA----- |      |
| 30  | AR1254-G             |         |         |    |      |     |       | -----NA----- |      |
| 31  | AR1262-A             |         |         |    |      |     |       | -----NA----- |      |
| 32  | AR1262-B             |         |         |    |      |     |       | -----NA----- |      |
| 33  | AR1262-C             |         |         |    |      |     |       | -----NA----- |      |
| 34  | AR1262-D             |         |         |    |      |     |       | -----NA----- |      |
| 35  | AR1262-E             |         |         |    |      |     |       | -----NA----- |      |
| 36  | AR1268-A             |         |         |    |      |     |       | -----NA----- |      |
| 37  | AR1268-B             |         |         |    |      |     |       | -----NA----- |      |
| 38  | AR1268-C             |         |         |    |      |     |       | -----NA----- |      |
| 39  | AR1268-D             |         |         |    |      |     |       | -----NA----- |      |
| 40  | AR1268-E             |         |         |    |      |     |       | -----NA----- |      |
| 41  | AR1016-A             | 131.499 | 123.961 | E3 | 5.7  | 95  | 0.00  | 4.18-        | 4.24 |
| 42  | AR1016-B             | 249.443 | 245.356 | E3 | 1.6  | 97  | -0.01 | 4.73-        | 4.79 |
| 43  | AR1016-C             | 586.781 | 541.686 | E3 | 7.7  | 92  | -0.01 | 5.37-        | 5.43 |
| 44  | AR1016-D             | 247.157 | 216.612 | E3 | 12.4 | 87  | -0.01 | 5.56-        | 5.62 |
| 45  | AR1016-E             | 173.457 | 157.620 | E3 | 9.1  | 89  | -0.01 | 6.22-        | 6.28 |
| 46  | AR1260-A             | 774.265 | 642.805 | E3 | 17.0 | 89  | -0.02 | 8.82-        | 8.88 |
| 47  | AR1260-B             | 428.295 | 373.700 | E3 | 12.7 | 82  | -0.02 | 8.94-        | 9.00 |

12.10.41 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227804.D

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|      |                    |         |         |    |       |    |       |             |
|------|--------------------|---------|---------|----|-------|----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 404.256 | E3 | 3.5   | 94 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 0.958   | E6 | 9.1   | 88 | -0.02 | 9.73- 9.79  |
| 50   | AR1260-E           | 0.980   | 0.802   | E6 | 18.2  | 78 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 7.150   | E6 | 21.7# | 84 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227129.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:53:13 2018

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227815.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227815.D\ECD1A.CH Vial: 18  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227815.D\ECD2B.CH  
Acq On : 01 May 2018 11:07 pm Operator: tianweir  
Sample : cc6321-1000 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.810 E6   | -6.6 | 100   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 181.514 E3 | -4.7 | 104   | 0.00     | 3.15- | 3.21   |

12.10.42  
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# Continuing Calibration Summary

Job Number: JC64996  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6332-CC6321  
 Lab FileID: XX227815.D

|      |                    |         |          |    |       |     |       |            |
|------|--------------------|---------|----------|----|-------|-----|-------|------------|
| 42   | AR1016-B           | 265.887 | 269.258  | E3 | -1.3  | 103 | 0.00  | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 618.710  | E3 | -1.2  | 103 | -0.02 | 4.09- 4.15 |
| 44   | AR1016-D           | 233.235 | 240.109  | E3 | -2.9  | 104 | -0.02 | 4.25- 4.31 |
| 45   | AR1016-E           | 243.951 | 251.278  | E3 | -3.0  | 104 | -0.01 | 4.74- 4.81 |
| 46   | AR1260-A           | 713.007 | 692.428  | E3 | 2.9   | 103 | -0.02 | 7.09- 7.15 |
| 47   | AR1260-B           | 314.313 | 350.627  | E3 | -11.6 | 104 | -0.02 | 7.25- 7.31 |
| 48   | AR1260-C           | 340.349 | 363.927  | E3 | -6.9  | 101 | -0.02 | 7.58- 7.65 |
| 49   | AR1260-D           | 939.177 | 1007.477 | E3 | -7.3  | 98  | -0.02 | 8.01- 8.07 |
| 50   | AR1260-E           | 913.406 | 930.010  | E3 | -1.8  | 95  | -0.02 | 8.40- 8.46 |
| 51 S | Decachlorobiphenyl | 9.966   | 8.881    | E6 | 10.9  | 83  | -0.02 | 9.93-10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |              |            |
|-----|----------------------|---------|---------|----|------|-----|--------------|------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.820   | E6 | -8.4 | 100 | 0.00         | 3.52- 3.58 |
| 2   | AR1221-A             |         |         |    |      |     | -----NA----- |            |
| 3   | AR1221-B             |         |         |    |      |     | -----NA----- |            |
| 4   | AR1221-C             |         |         |    |      |     | -----NA----- |            |
| 5   | AR1221-D             |         |         |    |      |     | -----NA----- |            |
| 6   | AR1221-E             |         |         |    |      |     | -----NA----- |            |
| 7   | AR1232-A             |         |         |    |      |     | -----NA----- |            |
| 8   | AR1232-B             |         |         |    |      |     | -----NA----- |            |
| 9   | AR1232-C             |         |         |    |      |     | -----NA----- |            |
| 10  | AR1232-D             |         |         |    |      |     | -----NA----- |            |
| 11  | AR1232-E             |         |         |    |      |     | -----NA----- |            |
| 12  | AR1242-A             |         |         |    |      |     | -----NA----- |            |
| 13  | AR1242-B             |         |         |    |      |     | -----NA----- |            |
| 14  | AR1242-C             |         |         |    |      |     | -----NA----- |            |
| 15  | AR1242-D             |         |         |    |      |     | -----NA----- |            |
| 16  | AR1242-E             |         |         |    |      |     | -----NA----- |            |
| 17  | AR1248-A             |         |         |    |      |     | -----NA----- |            |
| 18  | AR1248-B             |         |         |    |      |     | -----NA----- |            |
| 19  | AR1248-C             |         |         |    |      |     | -----NA----- |            |
| 20  | AR1248-D             |         |         |    |      |     | -----NA----- |            |
| 21  | AR1248-E             |         |         |    |      |     | -----NA----- |            |
| 22  | AR1248-F             |         |         |    |      |     | -----NA----- |            |
| 23  | AR1248-G             |         |         |    |      |     | -----NA----- |            |
| 24  | AR1254-A             |         |         |    |      |     | -----NA----- |            |
| 25  | AR1254-B             |         |         |    |      |     | -----NA----- |            |
| 26  | AR1254-C             |         |         |    |      |     | -----NA----- |            |
| 27  | AR1254-D             |         |         |    |      |     | -----NA----- |            |
| 28  | AR1254-E             |         |         |    |      |     | -----NA----- |            |
| 29  | AR1254-F             |         |         |    |      |     | -----NA----- |            |
| 30  | AR1254-G             |         |         |    |      |     | -----NA----- |            |
| 31  | AR1262-A             |         |         |    |      |     | -----NA----- |            |
| 32  | AR1262-B             |         |         |    |      |     | -----NA----- |            |
| 33  | AR1262-C             |         |         |    |      |     | -----NA----- |            |
| 34  | AR1262-D             |         |         |    |      |     | -----NA----- |            |
| 35  | AR1262-E             |         |         |    |      |     | -----NA----- |            |
| 36  | AR1268-A             |         |         |    |      |     | -----NA----- |            |
| 37  | AR1268-B             |         |         |    |      |     | -----NA----- |            |
| 38  | AR1268-C             |         |         |    |      |     | -----NA----- |            |
| 39  | AR1268-D             |         |         |    |      |     | -----NA----- |            |
| 40  | AR1268-E             |         |         |    |      |     | -----NA----- |            |
| 41  | AR1016-A             | 131.499 | 136.257 | E3 | -3.6 | 105 | 0.00         | 4.18- 4.24 |
| 42  | AR1016-B             | 249.443 | 268.906 | E3 | -7.8 | 107 | -0.01        | 4.73- 4.79 |
| 43  | AR1016-C             | 586.781 | 615.512 | E3 | -4.9 | 106 | -0.01        | 5.37- 5.43 |
| 44  | AR1016-D             | 247.157 | 259.565 | E3 | -5.0 | 106 | -0.01        | 5.56- 5.62 |
| 45  | AR1016-E             | 173.457 | 183.161 | E3 | -5.6 | 103 | -0.02        | 6.22- 6.28 |
| 46  | AR1260-A             | 774.265 | 740.912 | E3 | 4.3  | 104 | -0.02        | 8.82- 8.88 |
| 47  | AR1260-B             | 428.295 | 466.433 | E3 | -8.9 | 104 | -0.02        | 8.94- 9.00 |

12.10.42 12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227815.D

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|      |                    |         |         |    |      |     |       |             |
|------|--------------------|---------|---------|----|------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 426.679 | E3 | -1.9 | 101 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.151   | E6 | -9.2 | 103 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.009   | E6 | -3.0 | 98  | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.458   | E6 | 7.4  | 89  | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:50:57 2018

12.10.42  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227826.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227826.D\ECD1A.CH Vial: 26  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227826.D\ECD2B.CH  
Acq On : 02 May 2018 2:08 am Operator: tianweir  
Sample : cc6321-500 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.750 E6   | -5.9 | 108   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 182.601 E3 | -5.3 | 102   | 0.00     | 3.15- | 3.21   |

12.10.43  
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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227826.D

|      |                    |         |         |    |       |     |       |       |       |
|------|--------------------|---------|---------|----|-------|-----|-------|-------|-------|
| 42   | AR1016-B           | 265.887 | 285.209 | E3 | -7.3  | 107 | 0.00  | 3.54- | 3.60  |
| 43   | AR1016-C           | 611.410 | 628.596 | E3 | -2.8  | 105 | -0.01 | 4.09- | 4.15  |
| 44   | AR1016-D           | 233.235 | 242.593 | E3 | -4.0  | 109 | -0.02 | 4.25- | 4.31  |
| 45   | AR1016-E           | 243.951 | 249.576 | E3 | -2.3  | 103 | -0.01 | 4.74- | 4.81  |
| 46   | AR1260-A           | 713.007 | 699.622 | E3 | 1.9   | 106 | -0.02 | 7.09- | 7.15  |
| 47   | AR1260-B           | 314.313 | 359.254 | E3 | -14.3 | 106 | -0.02 | 7.25- | 7.31  |
| 48   | AR1260-C           | 340.349 | 368.216 | E3 | -8.2  | 104 | -0.01 | 7.58- | 7.65  |
| 49   | AR1260-D           | 939.177 | 974.217 | E3 | -3.7  | 100 | -0.02 | 8.02- | 8.08  |
| 50   | AR1260-E           | 913.406 | 946.628 | E3 | -3.6  | 98  | -0.02 | 8.40- | 8.46  |
| 51 S | Decachlorobiphenyl | 9.966   | 8.954   | E6 | 10.2  | 93  | -0.02 | 9.93- | 10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |       |              |      |
|-----|----------------------|---------|---------|----|-------|-----|-------|--------------|------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.817   | E6 | -8.4  | 111 | 0.00  | 3.52-        | 3.58 |
| 2   | AR1221-A             |         |         |    |       |     |       | -----NA----- |      |
| 3   | AR1221-B             |         |         |    |       |     |       | -----NA----- |      |
| 4   | AR1221-C             |         |         |    |       |     |       | -----NA----- |      |
| 5   | AR1221-D             |         |         |    |       |     |       | -----NA----- |      |
| 6   | AR1221-E             |         |         |    |       |     |       | -----NA----- |      |
| 7   | AR1232-A             |         |         |    |       |     |       | -----NA----- |      |
| 8   | AR1232-B             |         |         |    |       |     |       | -----NA----- |      |
| 9   | AR1232-C             |         |         |    |       |     |       | -----NA----- |      |
| 10  | AR1232-D             |         |         |    |       |     |       | -----NA----- |      |
| 11  | AR1232-E             |         |         |    |       |     |       | -----NA----- |      |
| 12  | AR1242-A             |         |         |    |       |     |       | -----NA----- |      |
| 13  | AR1242-B             |         |         |    |       |     |       | -----NA----- |      |
| 14  | AR1242-C             |         |         |    |       |     |       | -----NA----- |      |
| 15  | AR1242-D             |         |         |    |       |     |       | -----NA----- |      |
| 16  | AR1242-E             |         |         |    |       |     |       | -----NA----- |      |
| 17  | AR1248-A             |         |         |    |       |     |       | -----NA----- |      |
| 18  | AR1248-B             |         |         |    |       |     |       | -----NA----- |      |
| 19  | AR1248-C             |         |         |    |       |     |       | -----NA----- |      |
| 20  | AR1248-D             |         |         |    |       |     |       | -----NA----- |      |
| 21  | AR1248-E             |         |         |    |       |     |       | -----NA----- |      |
| 22  | AR1248-F             |         |         |    |       |     |       | -----NA----- |      |
| 23  | AR1248-G             |         |         |    |       |     |       | -----NA----- |      |
| 24  | AR1254-A             |         |         |    |       |     |       | -----NA----- |      |
| 25  | AR1254-B             |         |         |    |       |     |       | -----NA----- |      |
| 26  | AR1254-C             |         |         |    |       |     |       | -----NA----- |      |
| 27  | AR1254-D             |         |         |    |       |     |       | -----NA----- |      |
| 28  | AR1254-E             |         |         |    |       |     |       | -----NA----- |      |
| 29  | AR1254-F             |         |         |    |       |     |       | -----NA----- |      |
| 30  | AR1254-G             |         |         |    |       |     |       | -----NA----- |      |
| 31  | AR1262-A             |         |         |    |       |     |       | -----NA----- |      |
| 32  | AR1262-B             |         |         |    |       |     |       | -----NA----- |      |
| 33  | AR1262-C             |         |         |    |       |     |       | -----NA----- |      |
| 34  | AR1262-D             |         |         |    |       |     |       | -----NA----- |      |
| 35  | AR1262-E             |         |         |    |       |     |       | -----NA----- |      |
| 36  | AR1268-A             |         |         |    |       |     |       | -----NA----- |      |
| 37  | AR1268-B             |         |         |    |       |     |       | -----NA----- |      |
| 38  | AR1268-C             |         |         |    |       |     |       | -----NA----- |      |
| 39  | AR1268-D             |         |         |    |       |     |       | -----NA----- |      |
| 40  | AR1268-E             |         |         |    |       |     |       | -----NA----- |      |
| 41  | AR1016-A             | 131.499 | 140.277 | E3 | -6.7  | 108 | 0.00  | 4.18-        | 4.24 |
| 42  | AR1016-B             | 249.443 | 278.300 | E3 | -11.6 | 110 | -0.01 | 4.73-        | 4.79 |
| 43  | AR1016-C             | 586.781 | 631.799 | E3 | -7.7  | 107 | -0.01 | 5.37-        | 5.43 |
| 44  | AR1016-D             | 247.157 | 267.155 | E3 | -8.1  | 107 | -0.01 | 5.56-        | 5.62 |
| 45  | AR1016-E             | 173.457 | 183.437 | E3 | -5.8  | 104 | -0.02 | 6.22-        | 6.28 |
| 46  | AR1260-A             | 774.265 | 747.643 | E3 | 3.4   | 104 | -0.02 | 8.82-        | 8.88 |
| 47  | AR1260-B             | 428.295 | 470.839 | E3 | -9.9  | 103 | -0.02 | 8.94-        | 9.00 |

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# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227826.D

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|      |                    |         |         |    |      |     |       |             |
|------|--------------------|---------|---------|----|------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 437.447 | E3 | -4.4 | 102 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.140   | E6 | -8.2 | 104 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.035   | E6 | -5.6 | 100 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.721   | E6 | 4.5  | 102 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227129.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:53:14 2018

# Initial Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3143-ICC3143  
**Lab FileID:** ZZ87292.D

Response Factor Report HP G1530A

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Thu Jan 25 14:15:34 2018  
Response via : Initial Calibration

Calibration Files

5000=zz87294.D 250 =zz87290.D 1000=zz87292.D 500 =zz87291.D  
10k =zz87295.D 100 =zz87289.D 25 =zz87287.D 50k =zz87296.D  
2500=zz87293.D 50 =zz87288.D = =

| Compound              | 5000  | 250   | 1000  | 500   | 10k   | 100   | 25    | 50k   | 2500  | 50    | Avg      | %RSD |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| 1) TPH-DRO            | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 2) TPH-DRO (C10-C44)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 3) TPH-ORO (>C28-C40) | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 4) TPH-DRO (C10-C20)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 5) TPH-ORO (C20-C34)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 6) o-TERPHENYL        | 2.450 | 2.325 | 2.588 | 2.543 |       | 2.626 | 2.941 |       | 2.514 | 2.741 | 2.591 E6 | 7.22 |
| 7) 5a-ANDROSTANE      | 1.905 | 1.798 | 2.014 | 1.972 |       | 1.982 | 2.139 |       | 1.978 | 2.091 | 1.985 E6 | 5.30 |
| 8) TETRACOSANE-d50    | 1.458 | 1.410 | 1.560 | 1.531 |       | 1.569 | 1.777 |       | 1.501 | 1.662 | 1.559 E6 | 7.46 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

DROZZ3143.M Thu Jan 25 14:21:57 2018

12.10.44  
12

# Initial Calibration Verification

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3143-ICV3143  
**Lab FileID:** ZZ87297.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3143\zz87297.D Vial: 16  
Acq On : 24 Jan 2018 7:10 pm Operator: dharas  
Sample : icv3143-1000 Inst : HP G1530A  
Misc : op9407,gzz3143,11.7,,,1,10 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Thu Jan 25 13:58:45 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF | CCRF     | %Dev | Area% | Dev(min) | RT Window  |
|-------------|-------|----------|------|-------|----------|------------|
| 1 H TPH-DRO | 1.642 | 1.543 E6 | 6.0  | 92    | 0.00     | 4.13-11.44 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87292.D DROZZ3143.M Thu Jan 25 14:09:37 2018

12.10.45  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3195-CC3143  
**Lab FileID:** ZZ88718.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3195\zz88718.D Vial: 3  
Acq On : 27 Apr 2018 10:51 am Operator: rebeccak  
Sample : cc3143-500 Inst : HP G1530A  
Misc : op11595,gzz3195,10.0,,,1,50 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Wed Feb 21 15:14:28 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.665 E6 | -1.4         | 102   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.693 E6 | -3.9         | 106   | -0.02    | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.925 E6 | 3.0          | 98    | -0.02    | 9.05- 9.11 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.575 E6 | -1.0         | 103   | -0.03    | 9.97-10.03 |

(#) = Out of Range SPC's out = 0 CCC's out = 0  
zz87291.D DROZZ3143.M Fri Apr 27 15:14:05 2018

12.10.46  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3196-CC3143  
**Lab FileID:** ZZ88729.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3196\zz88729.D Vial: 4  
Acq On : 27 Apr 2018 6:37 pm Operator: rebeccak  
Sample : cc3143-1000 Inst : HP G1530A  
Misc : op11620,gzz3196,10.0,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Sun Apr 29 15:55:21 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.751 E6 | -6.6         | 105   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.855 E6 | -10.2        | 110   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 2.002 E6 | -0.9         | 99    | 0.00     | 9.05- 9.11 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.657 E6 | -6.3         | 106   | 0.00     | 9.97-10.03 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87292.D DROZZ3143.M Sun Apr 29 15:57:16 2018

12.10.47  
12

# Continuing Calibration Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3196-CC3143  
**Lab FileID:** ZZ88740.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3196\zz88740.D Vial: 3  
Acq On : 28 Apr 2018 12:41 am Operator: rebeccak  
Sample : cc3143-500 Inst : HP G1530A  
Misc : op11620,gzz3196,10.0,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Sun Apr 29 15:55:21 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.628 E6 | 0.9          | 100   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.566 E6 | 1.0          | 101   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.855 E6 | 6.5          | 94    | 0.00     | 9.04- 9.10 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.535 E6 | 1.5          | 100   | 0.00     | 9.97-10.03 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87291.D DROZZ3143.M Mon Apr 30 10:03:01 2018

12.10.48  
12

GC/LC Semi-volatiles

Raw Data



## Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116159.D\ECD1A.CH Vial: 10  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116159.D\ECD2B.CH  
 Acq On : 4-30-2018 09:04:43 PM Operator: vinced  
 Sample : jc64996-9 Inst : GC3G  
 Misc : op11638,g3g4033,16.4,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: Apr 30 21:27:58 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2 | Resp#1   | Resp#2  | Conc#1   | Conc#2   |
|-----------------------------|---------|------|----------|---------|----------|----------|
| -----                       |         |      |          |         |          |          |
| System Monitoring Compounds |         |      |          |         |          |          |
| 2) S 2,4-DCAA               | 7.45    | 7.93 | 3276.1E6 | 807.0E6 | 839.106m | 938.594m |
| Spiked Amount               | 500.000 |      | Recovery | =       | 167.82%  | 187.72%  |

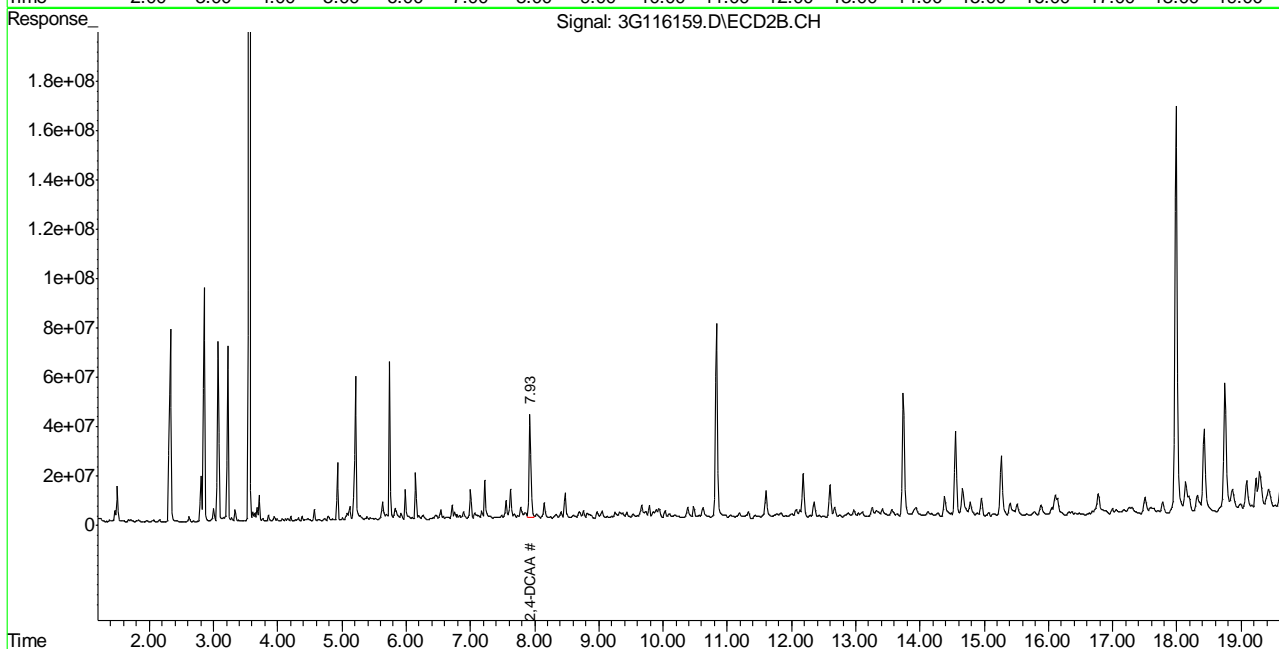
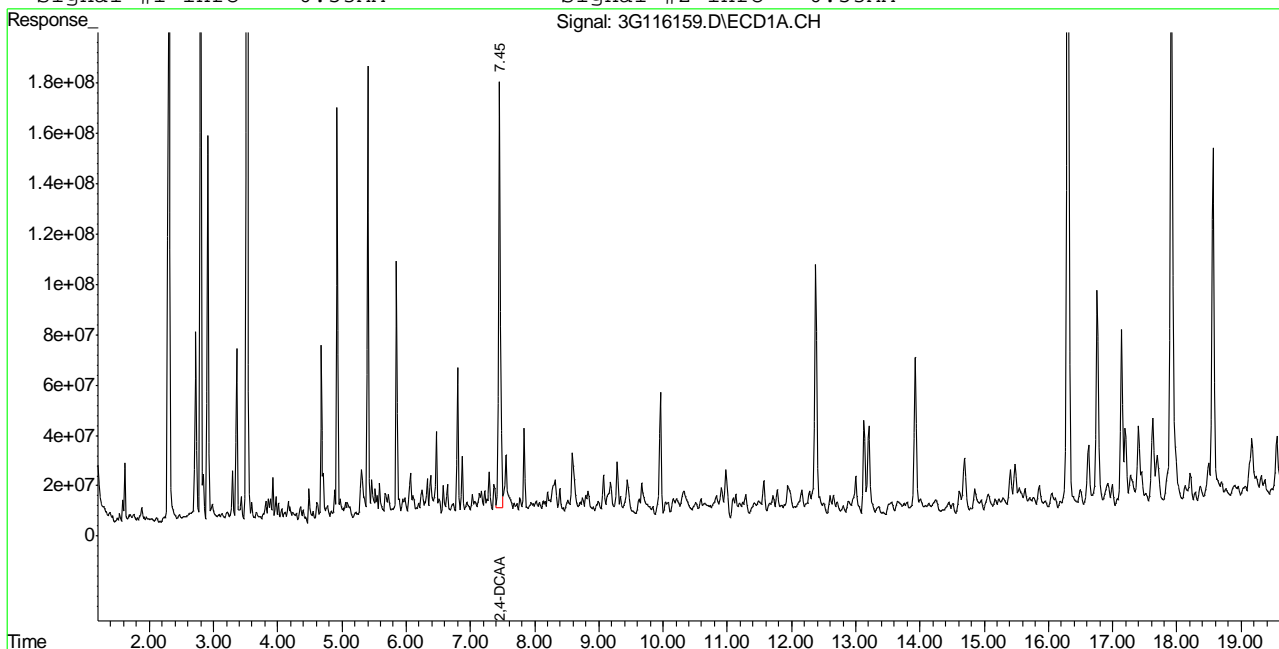
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116159.D\ECD1A.CH Vial: 10  
Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116159.D\ECD2B.CH  
Acq On : 4-30-2018 09:04:43 PM Operator: vinced  
Sample : jc64996-9 Inst : GC3G  
Misc : op11638,g3g4033,16.4,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 1 9:56 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.1.1  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116160.D\ECD1A.CH Vial: 11  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116160.D\ECD2B.CH  
 Acq On : 4-30-2018 09:32:57 PM Operator: vinced  
 Sample : jc64996-10 Inst : GC3G  
 Misc : op11638,g3g4033,15.1,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 01 09:57:02 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue May 01 09:56:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

System Monitoring Compounds

|      |               |         |      |          |         |          |           |
|------|---------------|---------|------|----------|---------|----------|-----------|
| 2) S | 2,4-DCAA      | 7.49    | 7.95 | 900.8E6  | 267.1E6 | 230.717m | 310.699m# |
|      | Spiked Amount | 500.000 |      | Recovery | =       | 46.14%   | 62.14%    |

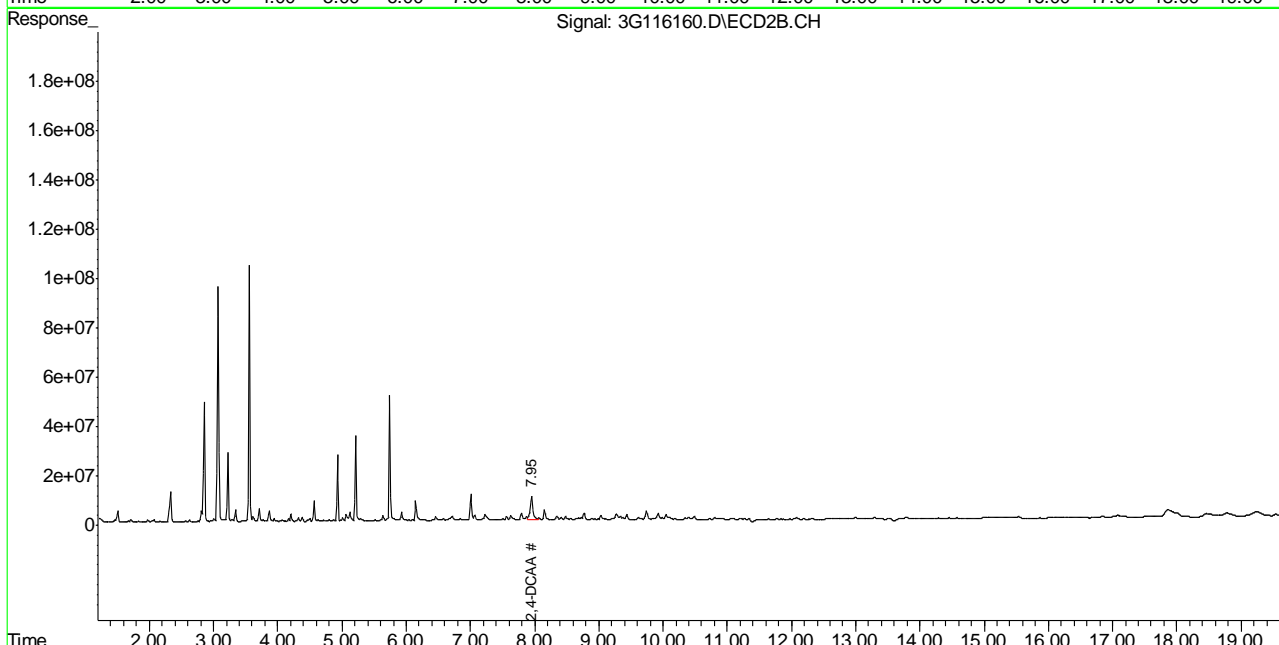
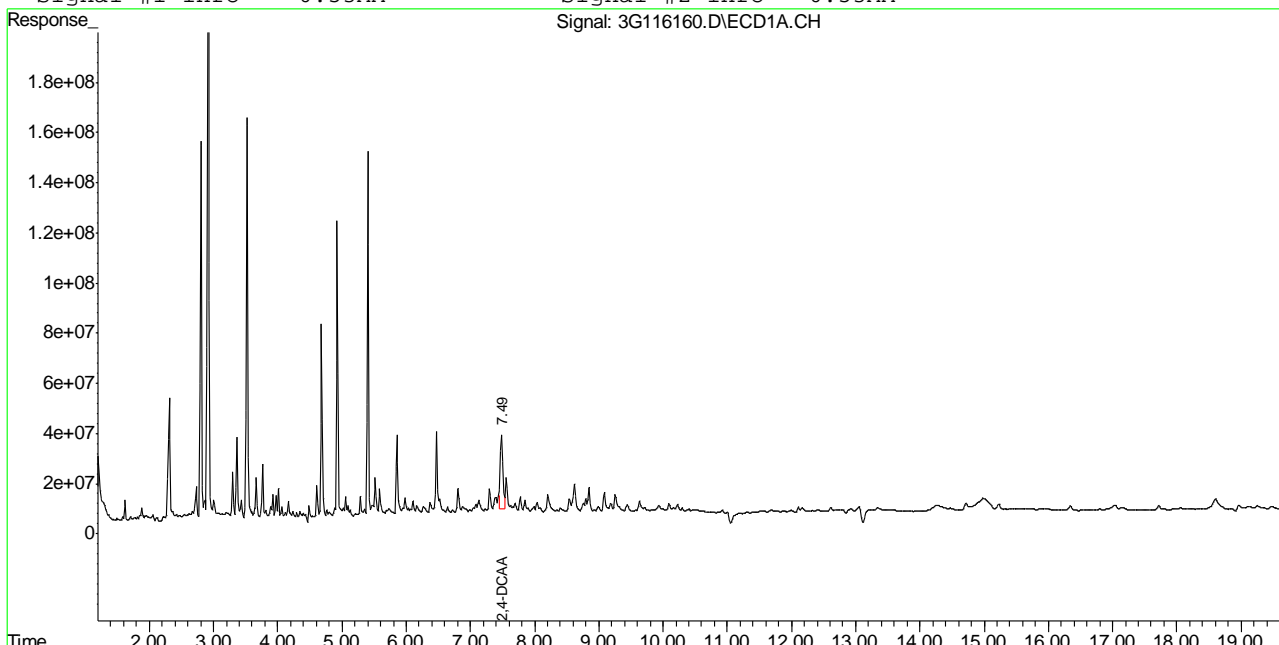
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116160.D\ECD1A.CH Vial: 11  
Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116160.D\ECD2B.CH  
Acq On : 4-30-2018 09:32:57 PM Operator: vinced  
Sample : jc64996-10 Inst : GC3G  
Misc : op11638,g3g4033,15.1,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 1 9:57 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue May 01 09:56:57 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.1.2  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145694.D\ECD1A.CH Vial: 39  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145694.D\ECD2B.CH  
 Acq On : 4-30-18 02:24:58 AM Operator: christp  
 Sample : jc64996-9 Inst : GC1G  
 Misc : op11640,g1g4633,16.6,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 30 11:47 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB     |
|-----------------------------|--------|-------|----------|----------|-----------|---------|
| Internal Standards          |        |       |          |          |           |         |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 593.3E6  | 98787277 | 50.000    | 50.000  |
| 27) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 593.3E6  | 98787277 | 50.000    | 50.000  |
| 33) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 593.3E6  | 98787277 | 50.000    | 50.000  |
| System Monitoring Compounds |        |       |          |          |           |         |
| 2) SAB Tetrachloro-m-xy     | 2.55   | 3.14  | 549.7E6  | 69526947 | 49.128    | 34.058  |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 122.82% | 85.15%  |
| 26) SA Decachlorobiphen     | 9.80   | 11.68 | 642.3E6  | 78813288 | 55.828    | 43.068  |
| Spiked Amount               | 40.000 |       |          | Recovery | = 139.57% | 107.67% |

Target Compounds



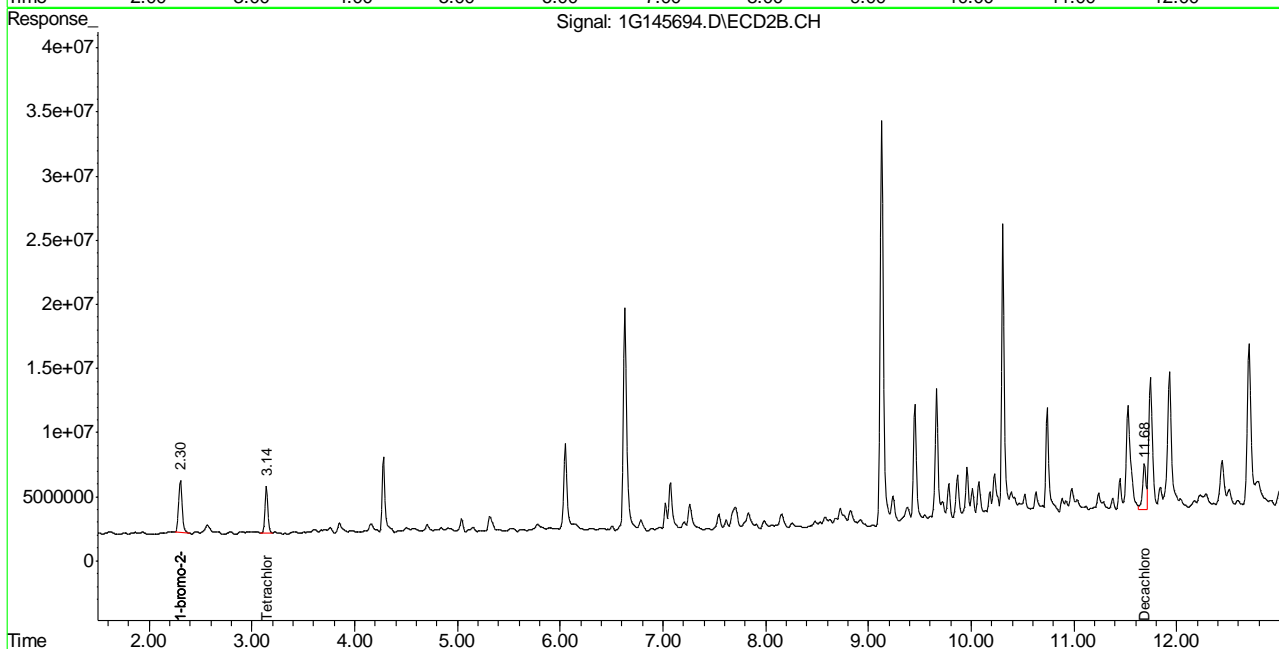
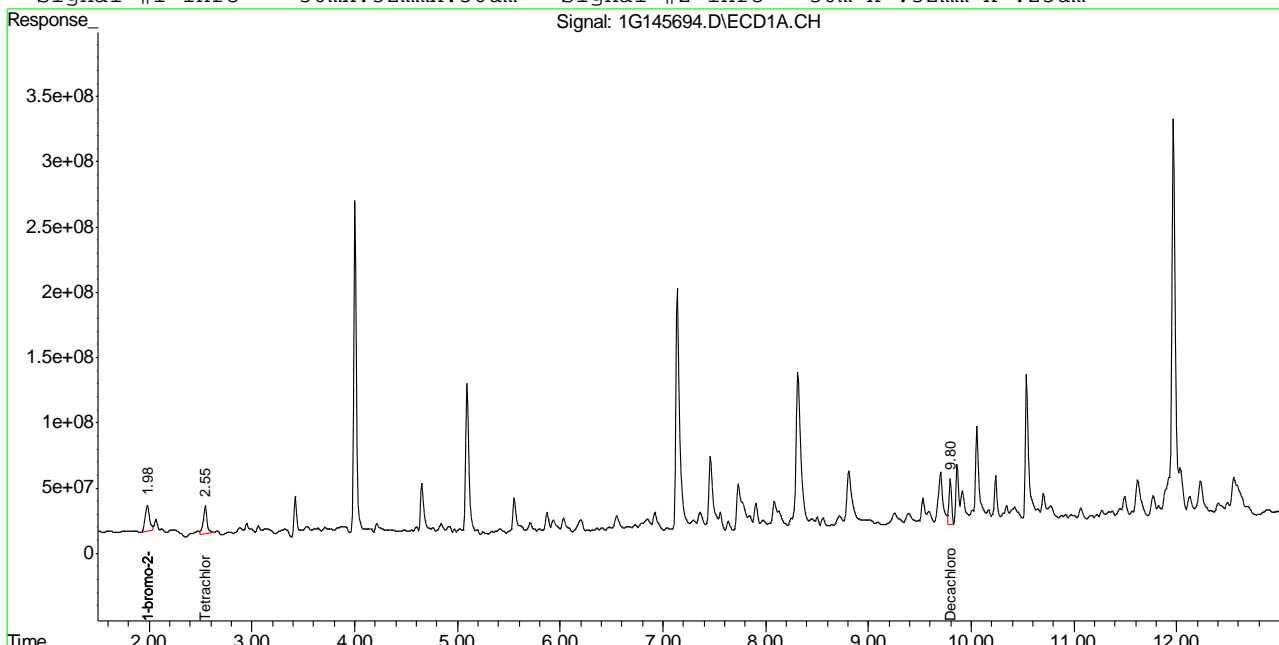
13.13  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145694.D\ECD1A.CH Vial: 39  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145694.D\ECD2B.CH  
 Acq On : 4-30-18 02:24:58 AM Operator: christp  
 Sample : jc64996-9 Inst : GC1G  
 Misc : op11640,g1g4633,16.6,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 30 11:47 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.13  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145695.D\ECD1A.CH Vial: 40  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145695.D\ECD2B.CH  
 Acq On : 4-30-18 02:42:00 AM Operator: christp  
 Sample : jc64996-10 Inst : GC1G  
 Misc : op11640,g1g4633,15.1,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 21 14:30 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed May 16 10:36:27 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB     |
|-----------------------------|--------|-------|----------|----------|-----------|---------|
| -----                       |        |       |          |          |           |         |
| Internal Standards          |        |       |          |          |           |         |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 714.2E6  | 111.2E6  | 50.000    | 50.000  |
| 27) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 714.2E6  | 111.2E6  | 50.000    | 50.000  |
| 33) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 714.2E6  | 111.2E6  | 50.000    | 50.000  |
| System Monitoring Compounds |        |       |          |          |           |         |
| 2) SAB Tetrachloro-m-xy     | 2.54   | 3.14  | 438.1E6  | 57867997 | 32.522m   | 25.187m |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 81.30%  | 62.97%  |
| 26) SA Decachlorobiphen     | 9.80   | 11.69 | 747.2E6  | 57080139 | 53.948m   | 27.715m |
| Spiked Amount               | 40.000 |       |          | Recovery | = 134.87% | 69.29%  |

Target Compounds

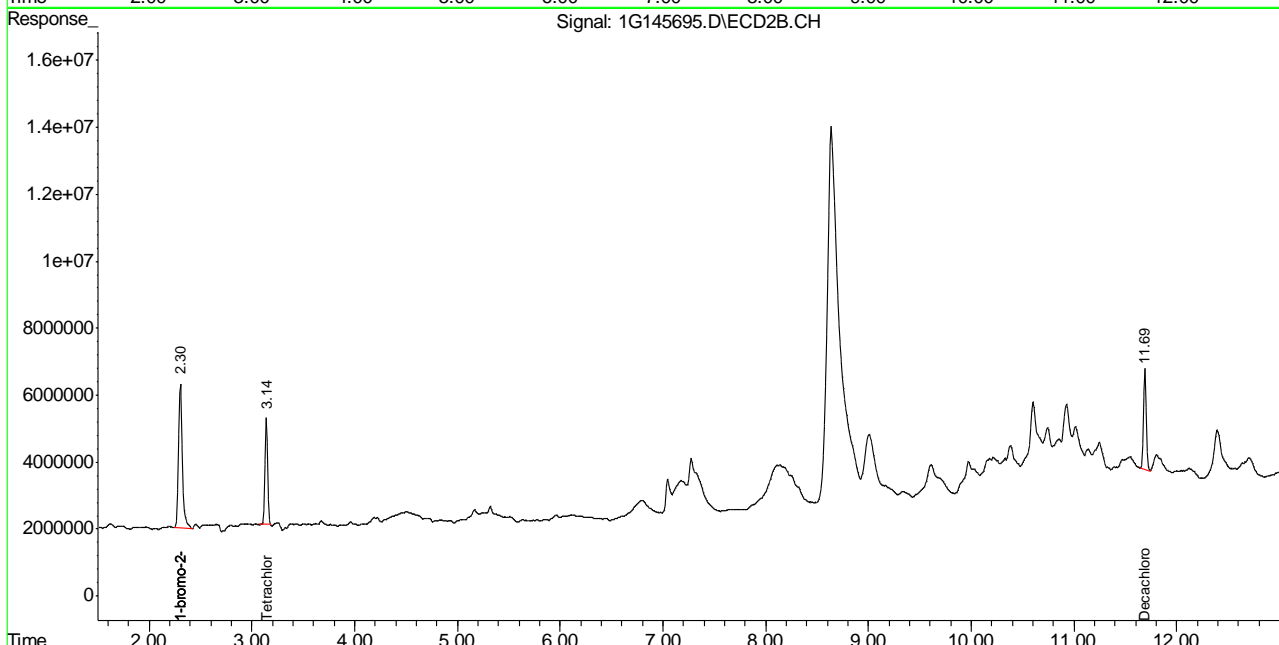
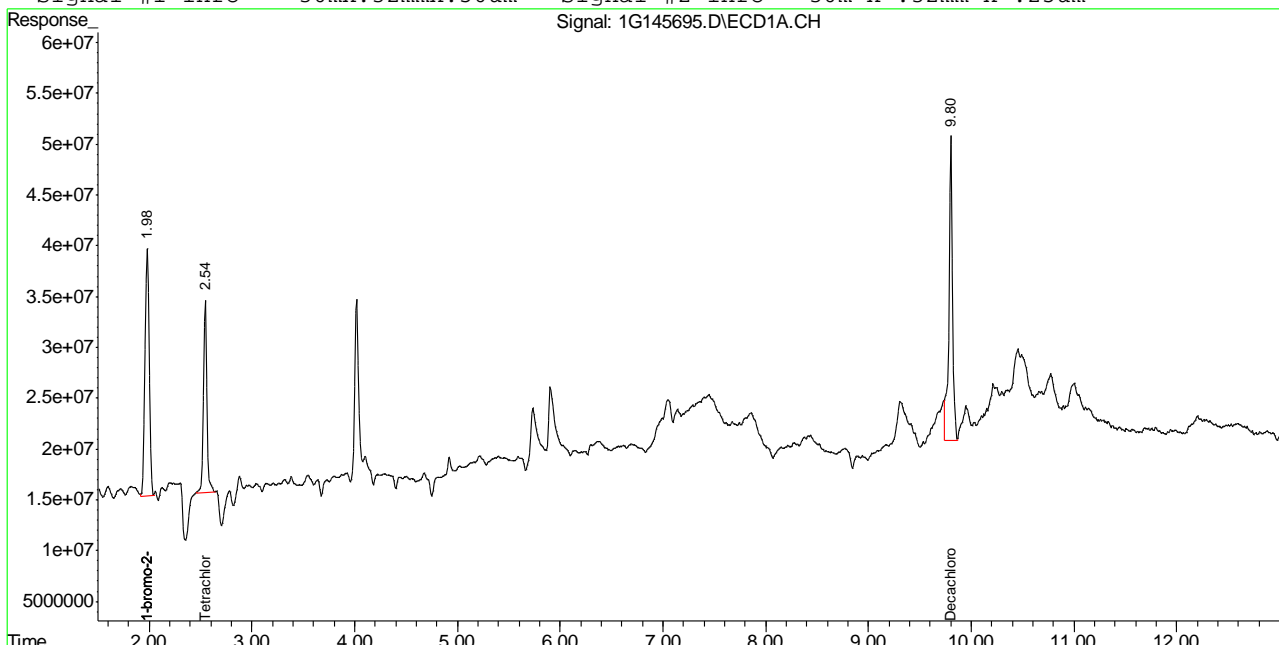
13.14  
 13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145695.D\ECD1A.CH Vial: 40  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145695.D\ECD2B.CH  
 Acq On : 4-30-18 02:42:00 AM Operator: christp  
 Sample : jc64996-10 Inst : GC1G  
 Misc : op11640,glg4633,15.1,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 21 14:30 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed May 16 10:36:27 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.14  
13



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227818.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 11:57 pm  
 Operator : tianweir  
 Sample : jc64996-6  
 Misc : op11668,GXX6332,16.1,,,10.0,1  
 ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:31:33 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|---------|----------|---------|--------|--------|
| -----                       |        |         |          |         |        |        |
| System Monitoring Compounds |        |         |          |         |        |        |
| 1) S Tetrachlo...           | 2.810  | 3.552   | 302.3E6  | 315.4E6 | 36.587 | 38.779 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 91.47% | 96.95% |
| 51) S Decachlor...          | 9.965f | 11.968f | 337.0E6  | 313.5E6 | 33.813 | 34.325 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 84.53% | 85.81% |

## Target Compounds

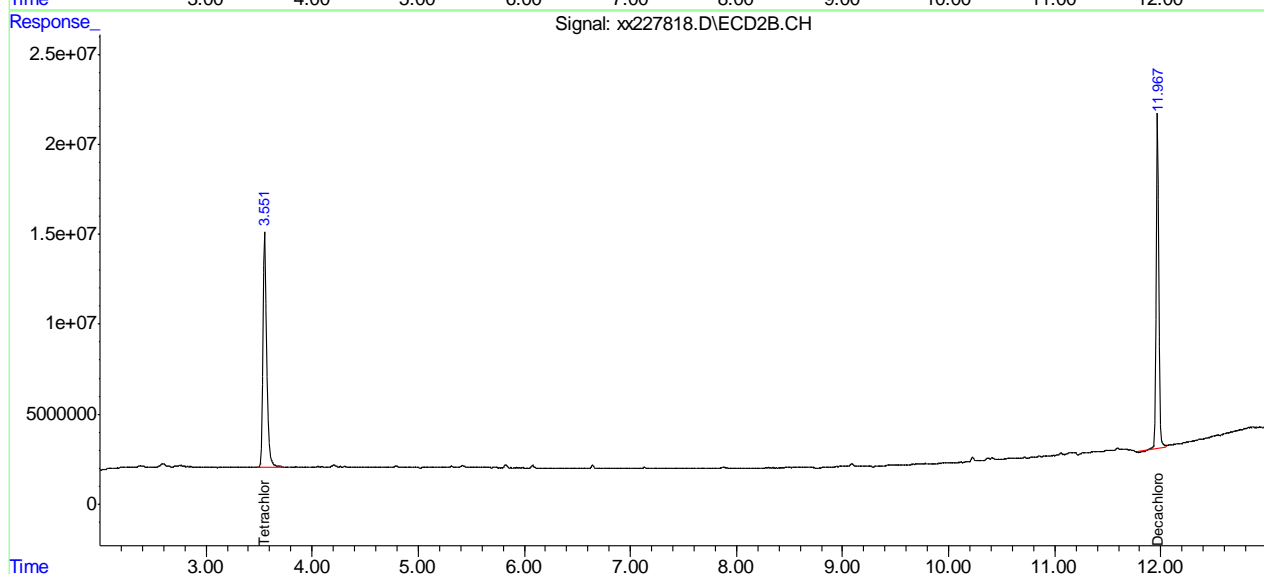
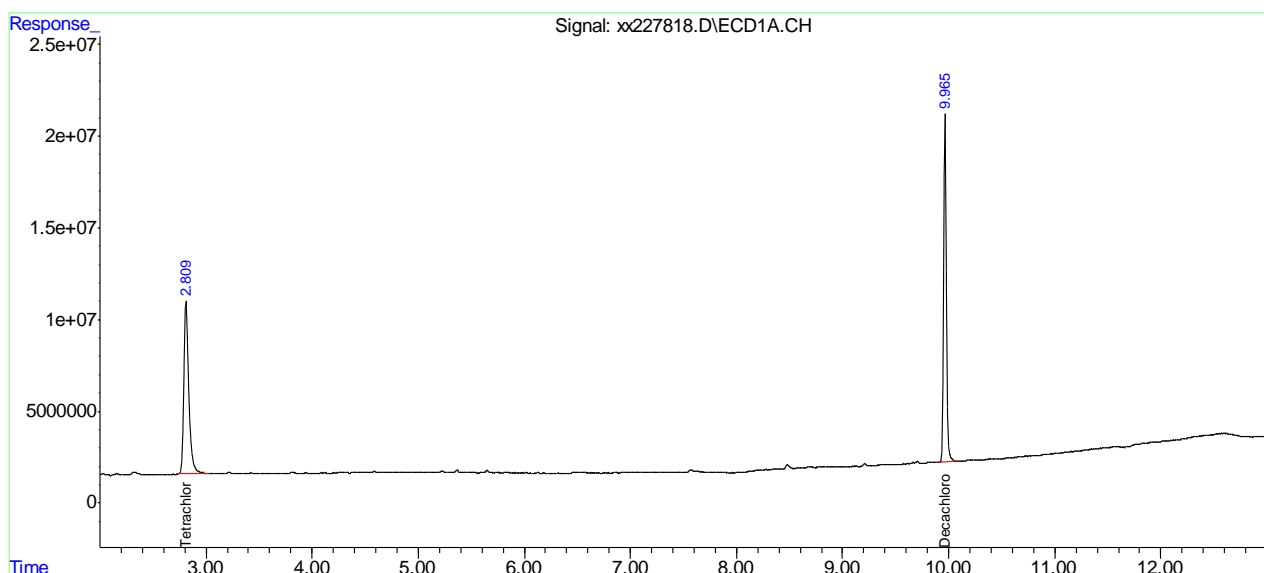
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
Data File : xx227818.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 01 May 2018 11:57 pm  
Operator : tianweir  
Sample : jc64996-6  
Misc : op11668,GXX6332,16.1,,,10.0,1  
ALS Vial : 20 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 02 11:31:33 2018  
Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 15:50:14 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1866\  
 Data File : 5g78594.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 17 May 18 8:41 am  
 Operator : rebeccak  
 Sample : jc64996-7  
 Misc : op12045,g5g1867,15.5,,,10,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 17 10:09:16 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:45:34 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb      |
|-----------------------------|--------|--------|----------|---------|--------|----------|
| -----                       |        |        |          |         |        |          |
| System Monitoring Compounds |        |        |          |         |        |          |
| 1) S Tetrachlo...           | 3.572  | 4.550  | 490.1E6  | 186.8E6 | 23.695 | 29.639m# |
| Spiked Amount               | 40.000 |        | Recovery | =       | 59.24% | 74.10%   |
| 51) S Decachlor...          | 19.041 | 22.953 | 644.1E6  | 235.1E6 | 26.179 | 33.985 # |
| Spiked Amount               | 40.000 |        | Recovery | =       | 65.45% | 84.96%   |

## Target Compounds

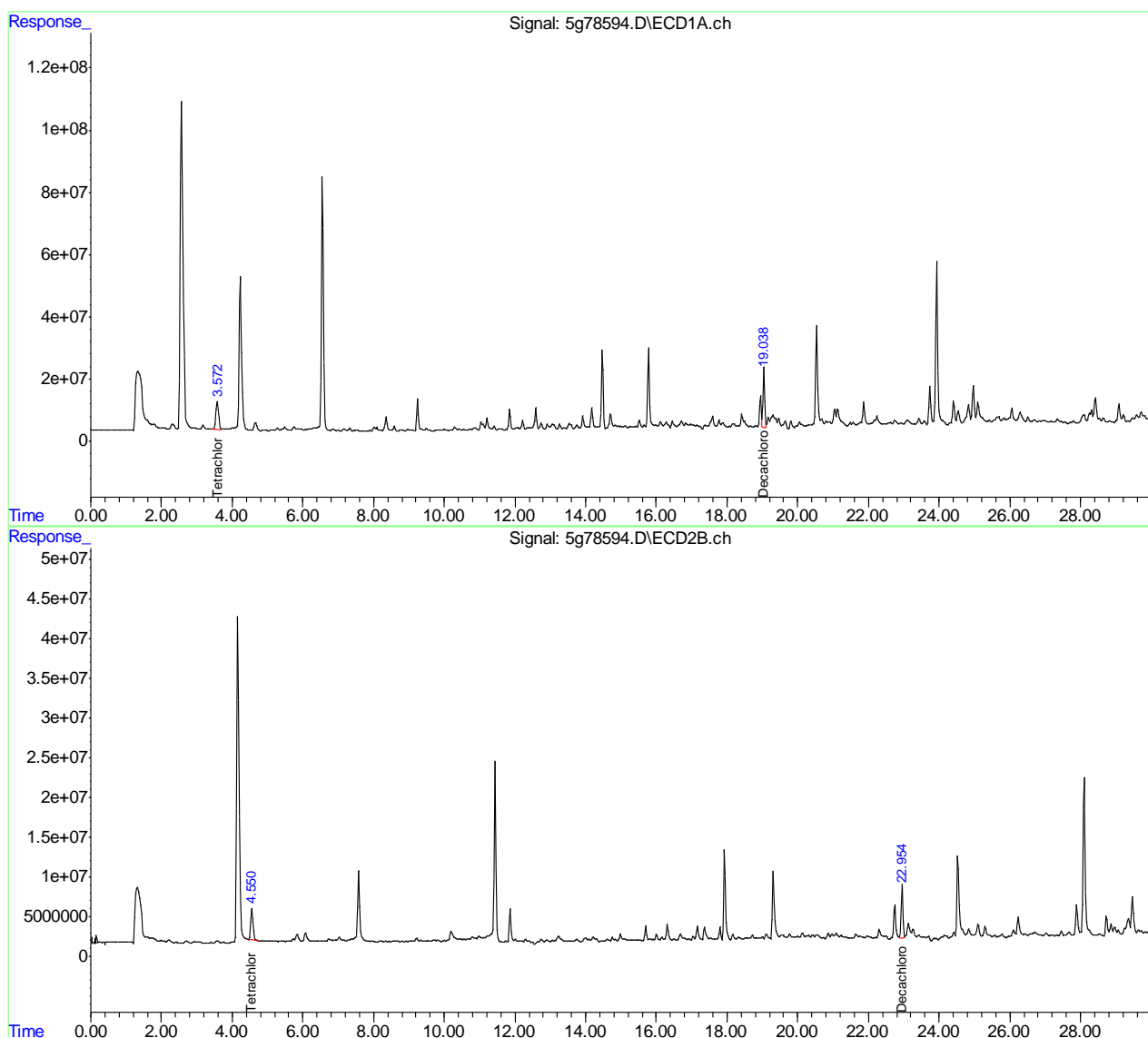
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1866\  
Data File : 5g78594.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 17 May 18 8:41 am  
Operator : rebeccak  
Sample : jc64996-7  
Misc : op12045,g5g1867,15.5,,,10,1  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 17 10:09:16 2018  
Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
Quant Title :  
QLast Update : Tue May 15 09:45:34 2018  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1ul  
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162951.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 11:10 am  
 Operator : tianweir  
 Sample : jc64996-9  
 Misc : OP11775,G2G4326,15.4,,,10,1  
 ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 07 14:53:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2   | ppb     | ppb       |
|-----------------------------|--------|---------|----------|----------|---------|-----------|
| -----                       |        |         |          |          |         |           |
| System Monitoring Compounds |        |         |          |          |         |           |
| 1) S Tetrachlo...           | 2.782  | 3.425   | 116.2E6  | 725.5E6  | 31.665  | 31.706    |
| Spiked Amount               | 40.000 |         | Recovery | =        | 79.16%  | 79.27%    |
| 51) S Decachlor...          | 9.995f | 11.790f | 535.9E6  | 3712.5E6 | 132.123 | 194.376 # |
| Spiked Amount               | 40.000 |         | Recovery | =        | 330.31% | 485.94%   |

## Target Compounds

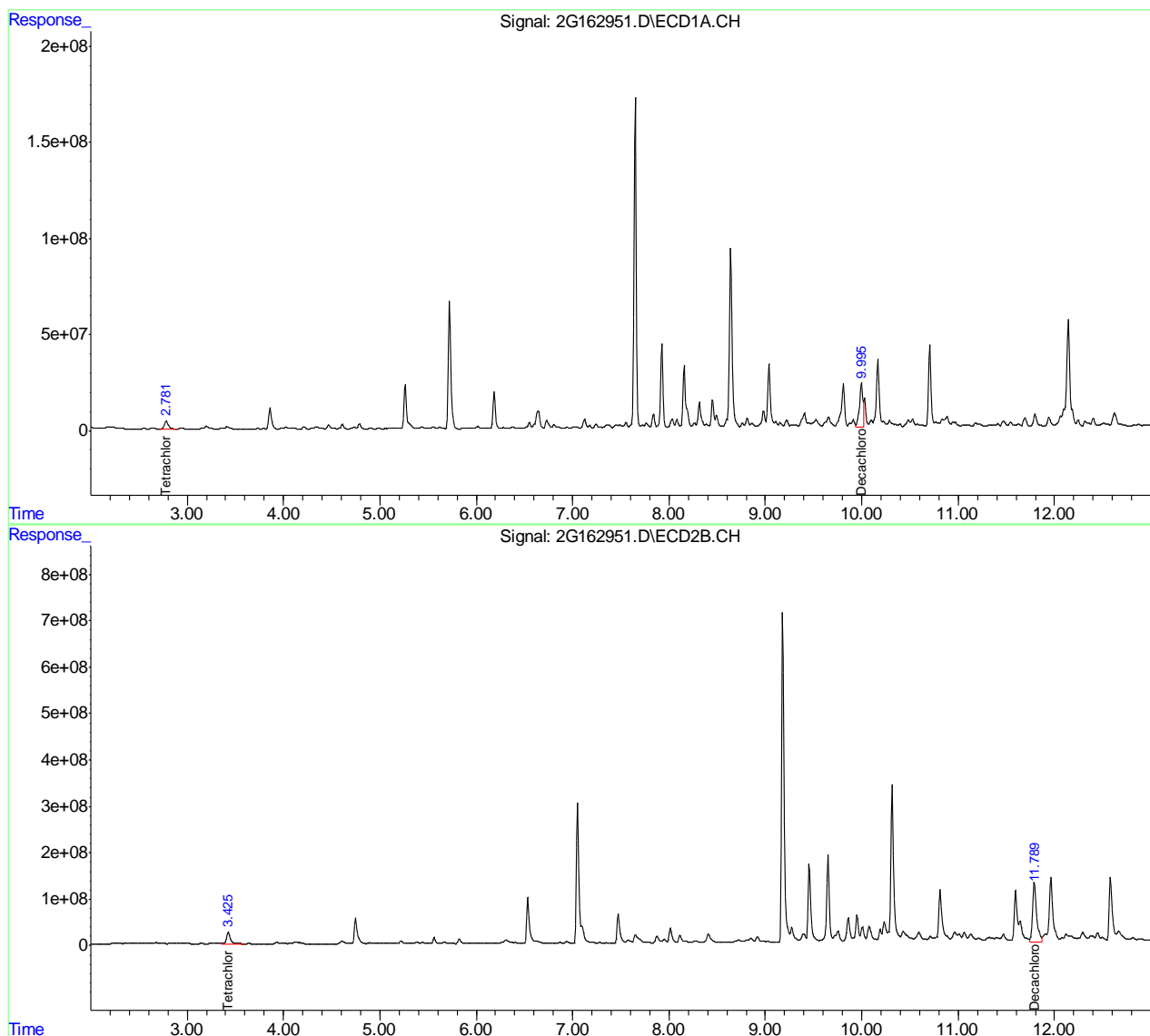
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
Data File : 2G162951.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 07 May 2018 11:10 am  
Operator : tianweir  
Sample : jc64996-9  
Misc : OP11775,G2G4326,15.4,,,10,1  
ALS Vial : 67 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 07 14:53:42 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Thu May 03 08:38:56 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

13.17  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4320\  
 Data File : 2G162537.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 29 Apr 2018 3:36 am  
 Operator : edouarda  
 Sample : jc64996-10  
 Misc : OP11639,G2G4320,15.1,,,10,1  
 ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 30 10:43:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Mon Apr 30 10:31:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|--------|----------|---------|--------|--------|
| -----                       |        |        |          |         |        |        |
| System Monitoring Compounds |        |        |          |         |        |        |
| 1) S Tetrachlo...           | 2.789  | 3.447  | 127.1E6  | 817.5E6 | 34.637 | 35.725 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 86.59% | 89.31% |
| 51) S Decachlor...          | 9.978  | 11.854 | 136.3E6  | 643.7E6 | 33.605 | 33.703 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 84.01% | 84.26% |

## Target Compounds

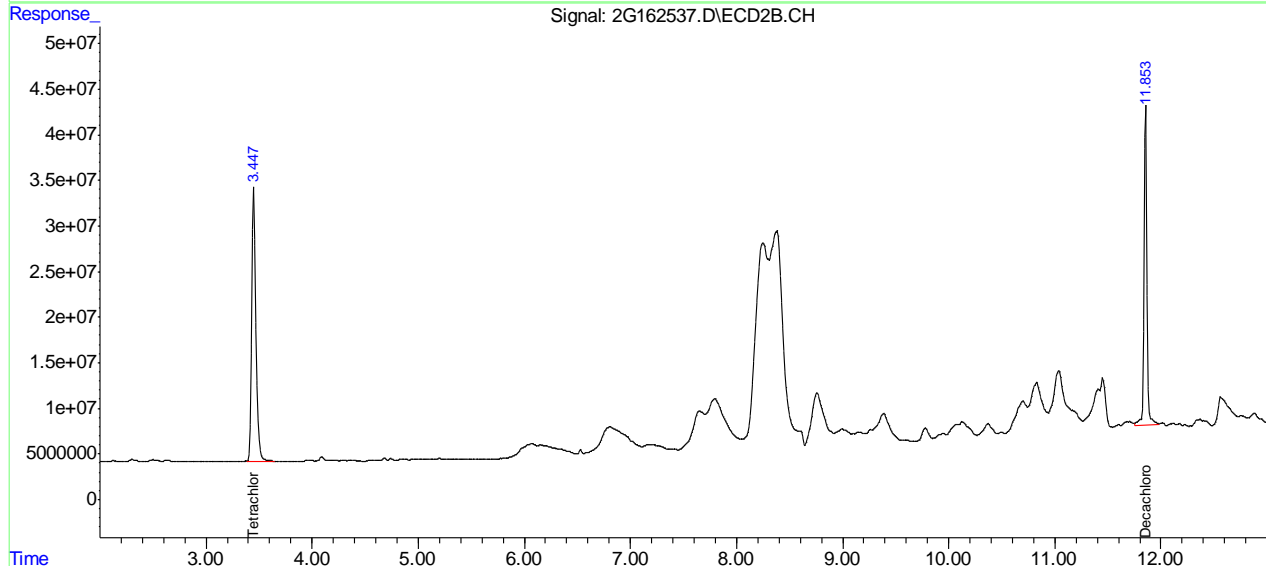
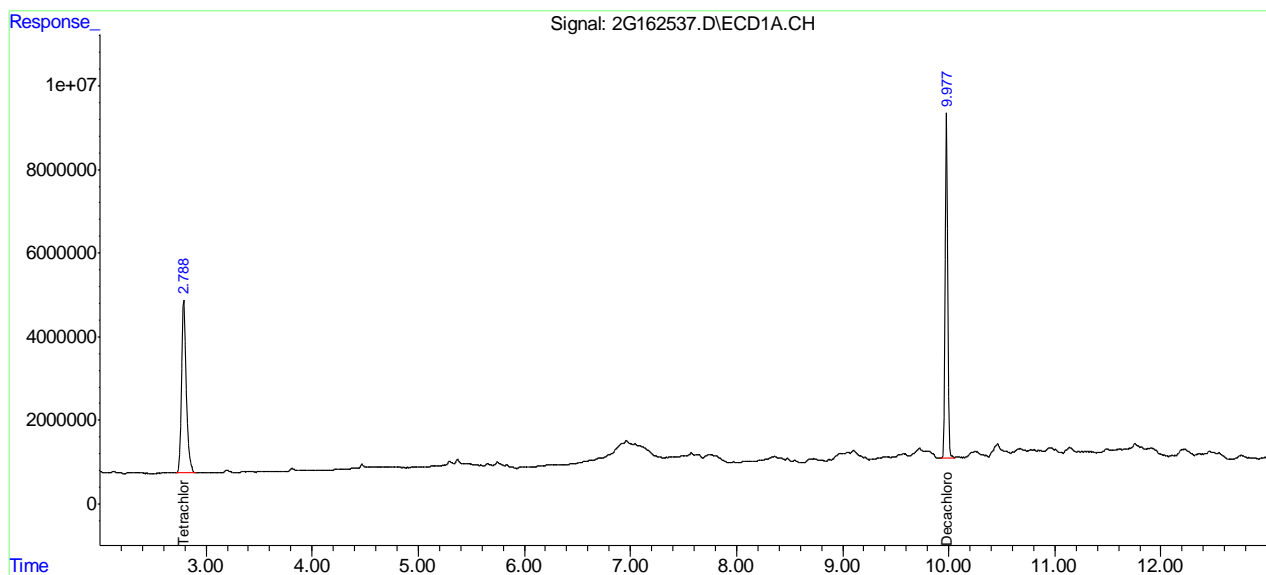
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4320\  
 Data File : 2G162537.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 29 Apr 2018 3:36 am  
 Operator : edouarda  
 Sample : jc64996-10  
 Misc : OP11639,G2G4320,15.1,,,10,1  
 ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 30 10:43:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Mon Apr 30 10:31:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3196\  
 Data File : zz88738.D  
 Signal(s) : FID2B.CH  
 Acq On : 27 Apr 2018 11:35 pm  
 Operator : rebeccak  
 Sample : jc64996-6  
 Misc : op11620,gzz3196,11.6,,,1,1  
 ALS Vial : 85 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: Apr 30 10:01:45 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Sun Apr 29 15:55:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 6) S o-TERPHENYL            | 8.614  | 61153354 | 23.604 PPM |
| Spiked Amount               | 50.000 | Recovery | = 47.21%   |
| 7) S 5a-ANDROSTANE          | 9.077  | 55266890 | 27.846 PPM |
| Spiked Amount               | 50.000 | Recovery | = 55.69%   |
| 8) S TETRACOSANE-d50        | 9.998  | 47561428 | 30.517 PPM |
| Spiked Amount               | 50.000 | Recovery | = 61.03%   |
| Target Compounds            |        |          |            |
| -----                       |        |          |            |

(f)=RT Delta > 1/2 Window

(m)=manual int.

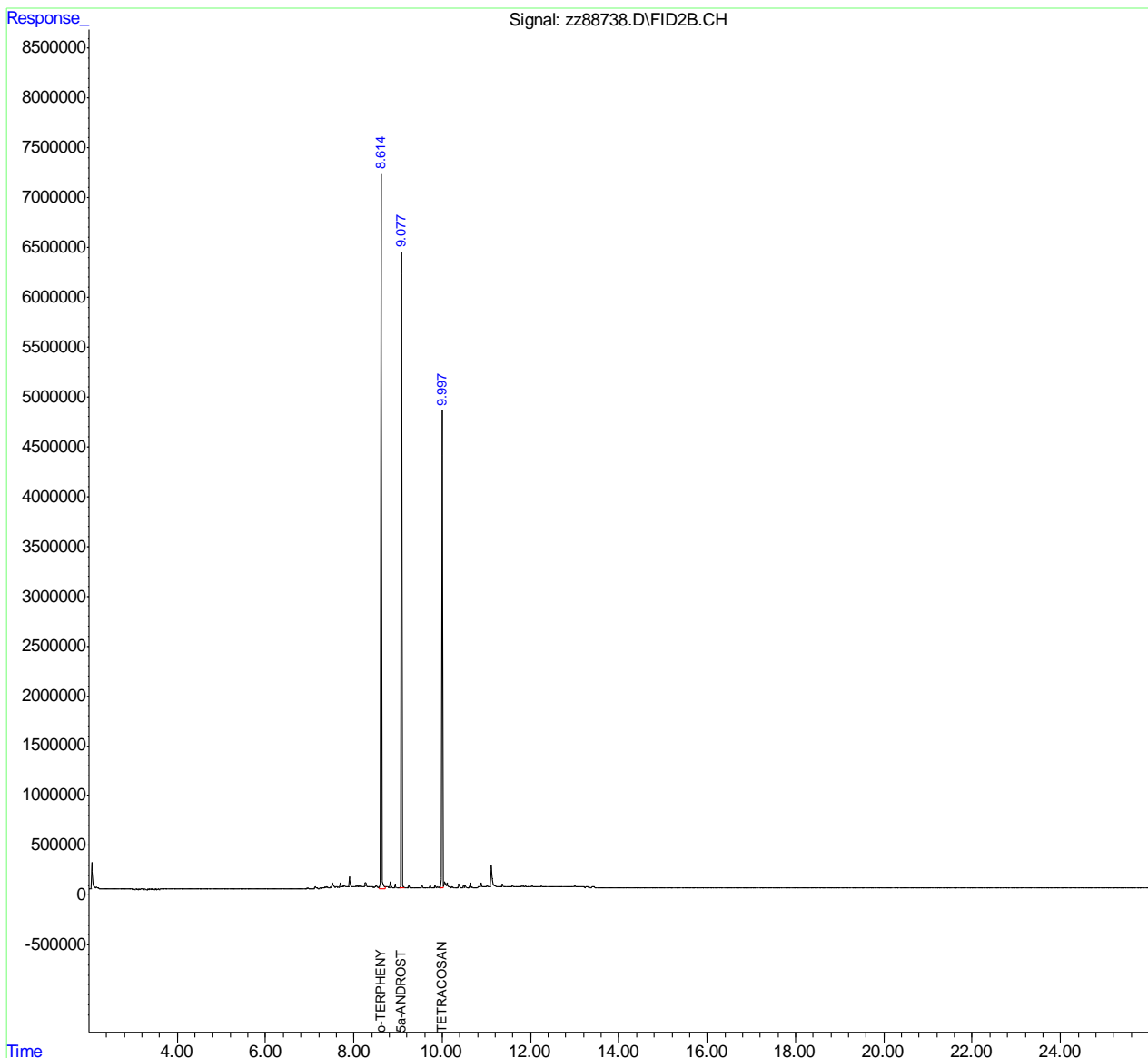
13.19  
13

Quantitation Report (QT Reviewed)

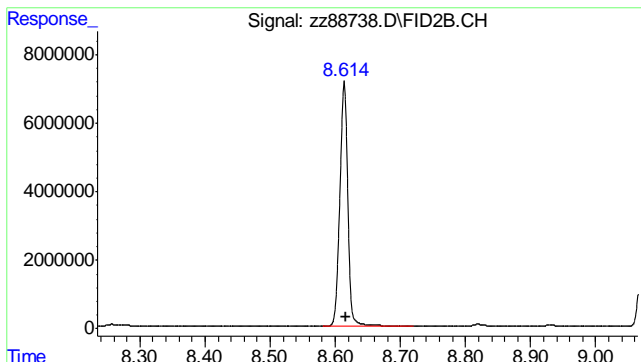
Data Path : C:\msdchem\2\DATA\GZZ3196\  
 Data File : zz88738.D  
 Signal(s) : FID2B.CH  
 Acq On : 27 Apr 2018 11:35 pm  
 Operator : rebeccak  
 Sample : jc64996-6  
 Misc : op11620,gzz3196,11.6,,,1,1  
 ALS Vial : 85 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: Apr 30 10:01:45 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Sun Apr 29 15:55:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

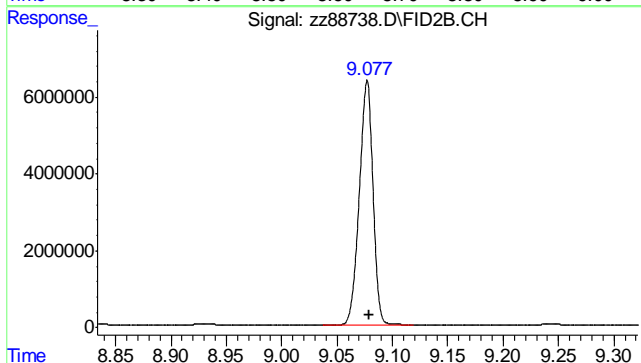
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



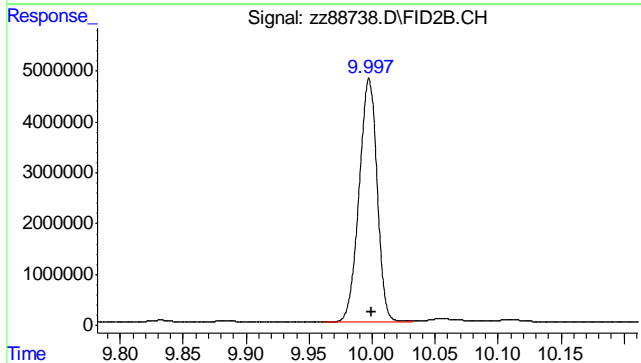
13.1.9  
13



#6 o-TERPHENYL  
R.T.: 8.614 min  
Delta R.T.: -0.002 min  
Response: 61153354  
Conc: 23.60 PPM



#7 5a-ANDROSTANE  
R.T.: 9.077 min  
Delta R.T.: -0.002 min  
Response: 55266890  
Conc: 27.85 PPM



#8 TETRACOSANE-d50  
R.T.: 9.998 min  
Delta R.T.: -0.002 min  
Response: 47561428  
Conc: 30.52 PPM

13.19  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3196\  
Data File : zz88739.D  
Signal(s) : FID2B.CH  
Acq On : 28 Apr 2018 12:08 am  
Operator : rebeccak  
Sample : jc64996-7  
Misc : op11620,gzz3196,10.4,,,1,1  
ALS Vial : 86 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: Apr 30 10:02:28 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Sun Apr 29 15:55:21 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID

| Compound                    | R.T.   | Response   | Conc         | Units |
|-----------------------------|--------|------------|--------------|-------|
| -----                       |        |            |              |       |
| System Monitoring Compounds |        |            |              |       |
| 6) S o-TERPHENYL            | 8.618  | 65317612   | 25.212 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 50.42%     |       |
| 7) S 5a-ANDROSTANE          | 9.083  | 70252895   | 35.396 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 70.79%     |       |
| 8) S TETRACOSANE-d50        | 10.000 | 50460385   | 32.377 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 64.75%     |       |
| Target Compounds            |        |            |              |       |
| 1) H TPH-DRO                | 7.785  | 7063293737 | 4302.334 PPM |       |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 7762245156 | 4728.073 ppm |       |
| -----                       |        |            |              |       |

(f)=RT Delta > 1/2 Window (m)=manual int.

13.1.10  
13

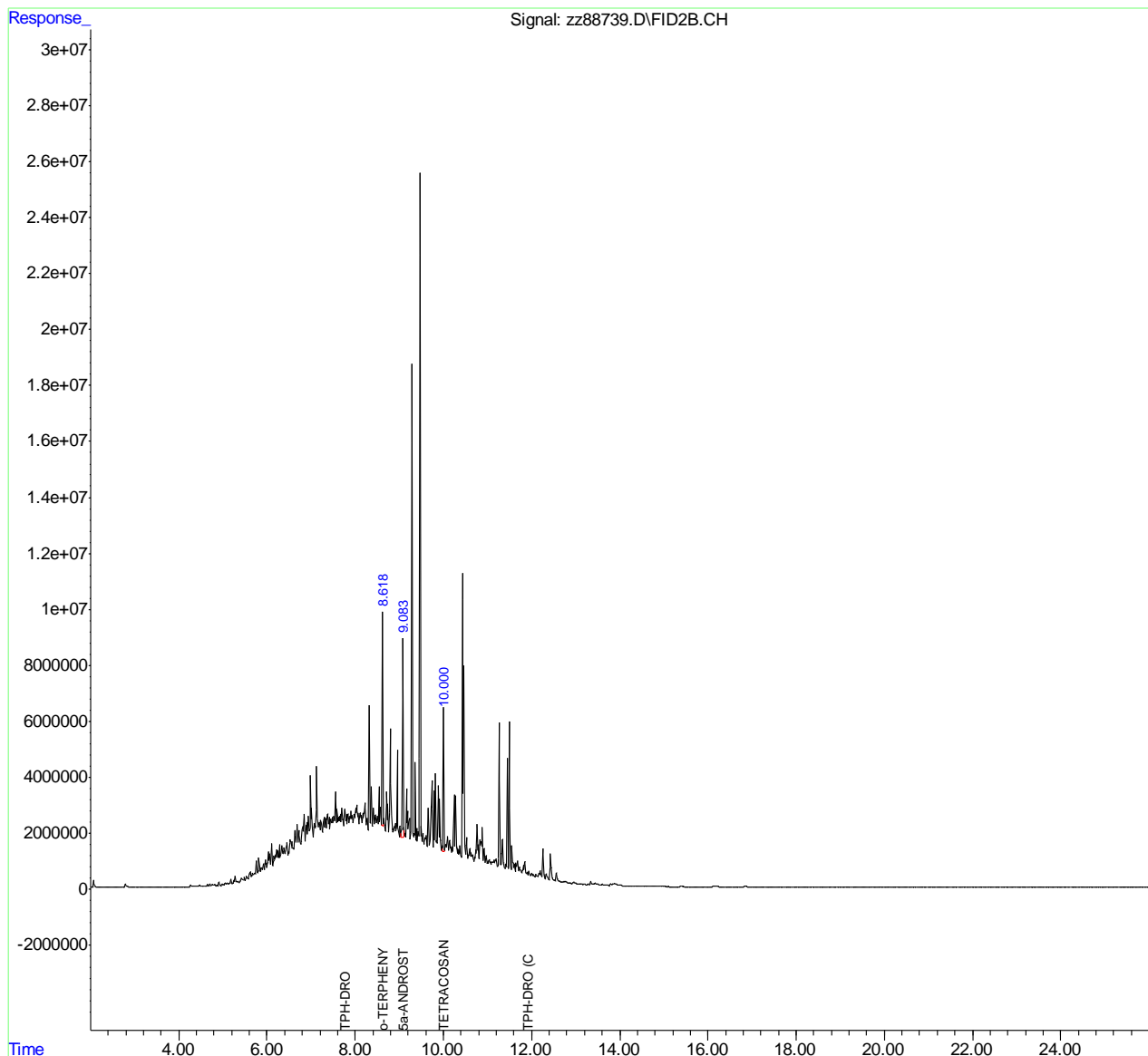


Quantitation Report (QT Reviewed)

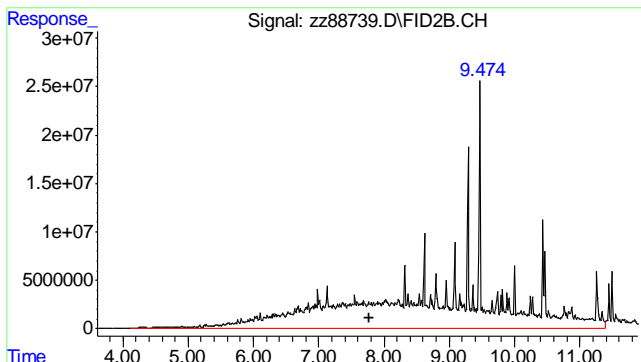
Data Path : C:\msdchem\2\DATA\GZZ3196\  
 Data File : zz88739.D  
 Signal(s) : FID2B.CH  
 Acq On : 28 Apr 2018 12:08 am  
 Operator : rebeccak  
 Sample : jc64996-7  
 Misc : op11620,gzz3196,10.4,,,1,1  
 ALS Vial : 86 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: Apr 30 10:02:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Sun Apr 29 15:55:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

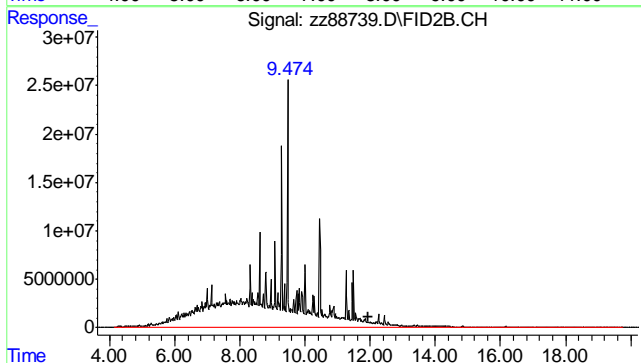
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



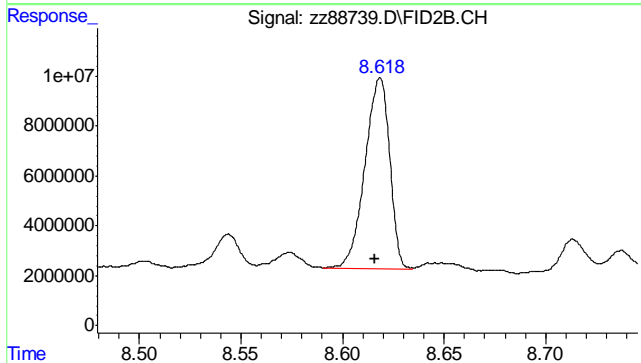
13.1.10  
13



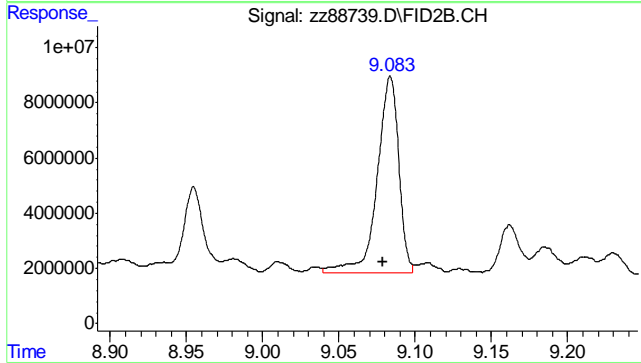
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 7063293737  
 Conc: 4302.33 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 7762245156  
 Conc: 4728.07 ppm m

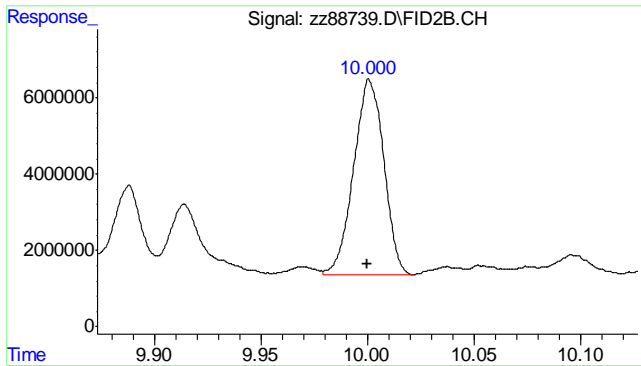


#6 o-TERPHENYL  
 R.T.: 8.618 min  
 Delta R.T.: 0.002 min  
 Response: 65317612  
 Conc: 25.21 PPM m



#7 5a-ANDROSTANE  
 R.T.: 9.083 min  
 Delta R.T.: 0.005 min  
 Response: 70252895  
 Conc: 35.40 PPM m

13.1.10  
 13



#8 TETRACOSANE-d50

R.T.: 10.000 min

Delta R.T.: 0.000 min

Response: 50460385

Conc: 32.38 PPM m

13.1.10  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145685.D\ECD1A.CH Vial: 30  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145685.D\ECD2B.CH  
 Acq On : 29 Apr 2018 11:48 pm Operator: christp  
 Sample : opl1640-mb1 Inst : GC1G  
 Misc : opl1640,glg4633,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 30 1:24 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sun Apr 29 23:14:28 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB    |
|-----------------------------|--------|-------|----------|----------|-----------|--------|
| Internal Standards          |        |       |          |          |           |        |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 626.2E6  | 100.4E6  | 50.000    | 50.000 |
| 27) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 626.2E6  | 100.4E6  | 50.000    | 50.000 |
| 33) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 626.2E6  | 100.4E6  | 50.000    | 50.000 |
| System Monitoring Compounds |        |       |          |          |           |        |
| 2) SAB Tetrachloro-m-xy     | 2.54   | 3.14  | 400.0E6  | 57472689 | 33.867m   | 27.701 |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 84.67%  | 69.25% |
| 26) SA Decachlorobiphen     | 9.80   | 11.69 | 558.7E6  | 63349540 | 46.010m   | 34.062 |
| Spiked Amount               | 40.000 |       |          | Recovery | = 115.03% | 85.15% |

Target Compounds

13.21  
 13

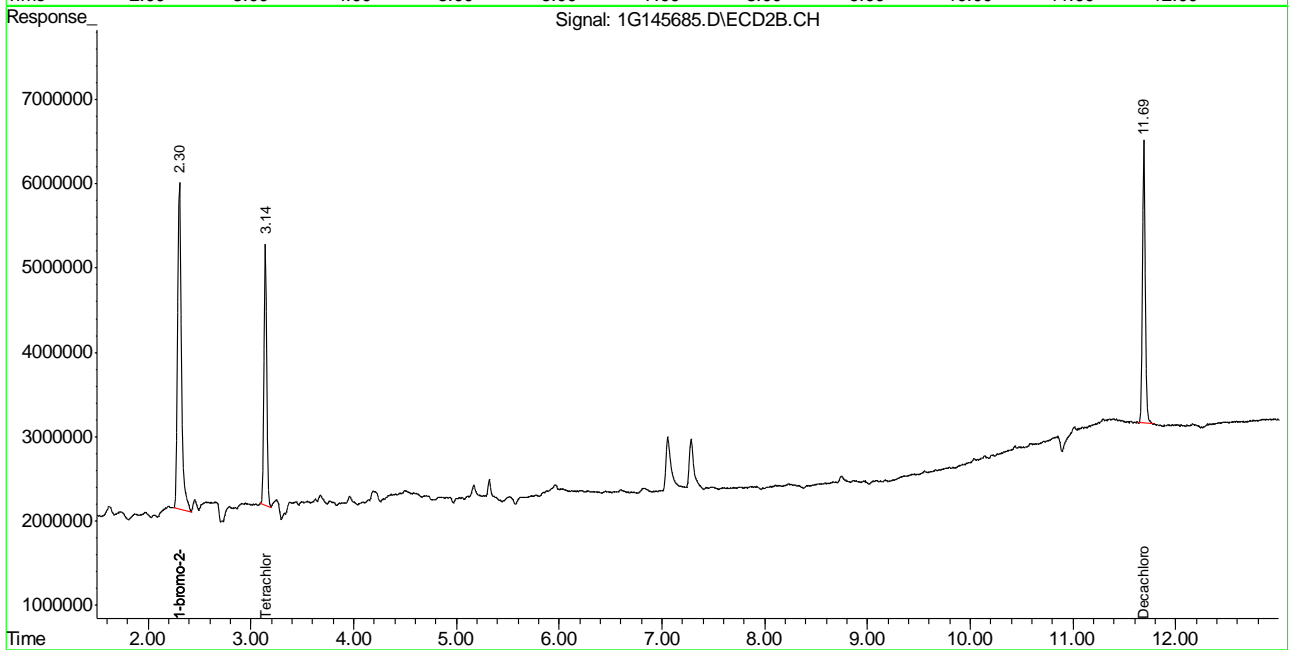
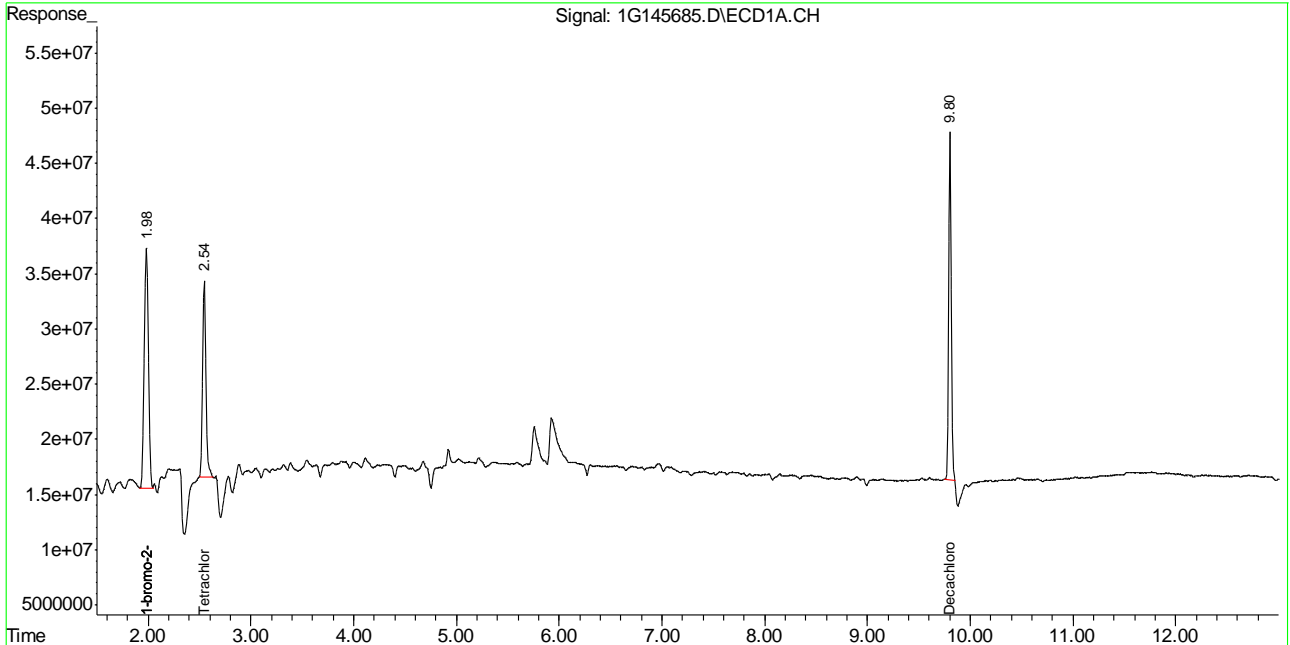


Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4633\1G145685.D\ECD1A.CH Vial: 30  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4633\1G145685.D\ECD2B.CH  
 Acq On : 29 Apr 2018 11:48 pm Operator: christp  
 Sample : opl1640-mb1 Inst : GC1G  
 Misc : opl1640,glg4633,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 30 1:24 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sun Apr 29 23:14:28 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4320\  
 Data File : 2G162503.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 28 Apr 2018 6:00 pm  
 Operator : edouarda  
 Sample : op11639-mb1  
 Misc : OP11639,G2G4320,15.0,,,10,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 28 21:10:59 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 26 16:56:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|--------|----------|---------|--------|--------|
| -----                       |        |        |          |         |        |        |
| System Monitoring Compounds |        |        |          |         |        |        |
| 1) S Tetrachlo...           | 2.788  | 3.449  | 130.5E6  | 878.3E6 | 35.564 | 38.386 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 88.91% | 95.97% |
| 51) S Decachlor...          | 9.983  | 11.855 | 154.9E6  | 736.3E6 | 38.196 | 38.553 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 95.49% | 96.38% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

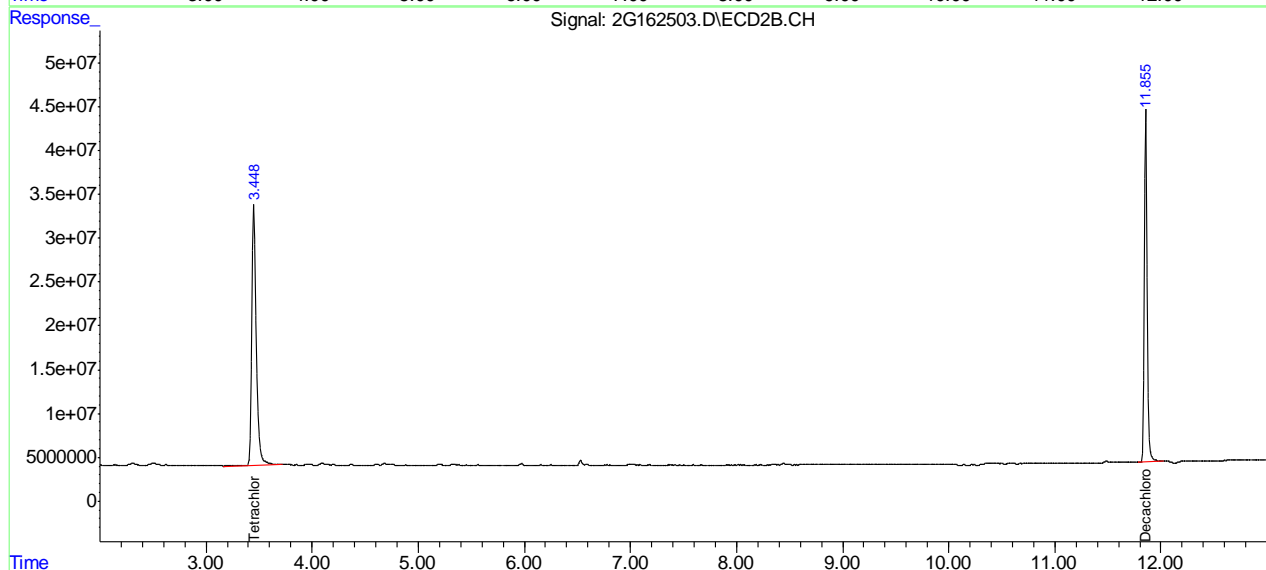
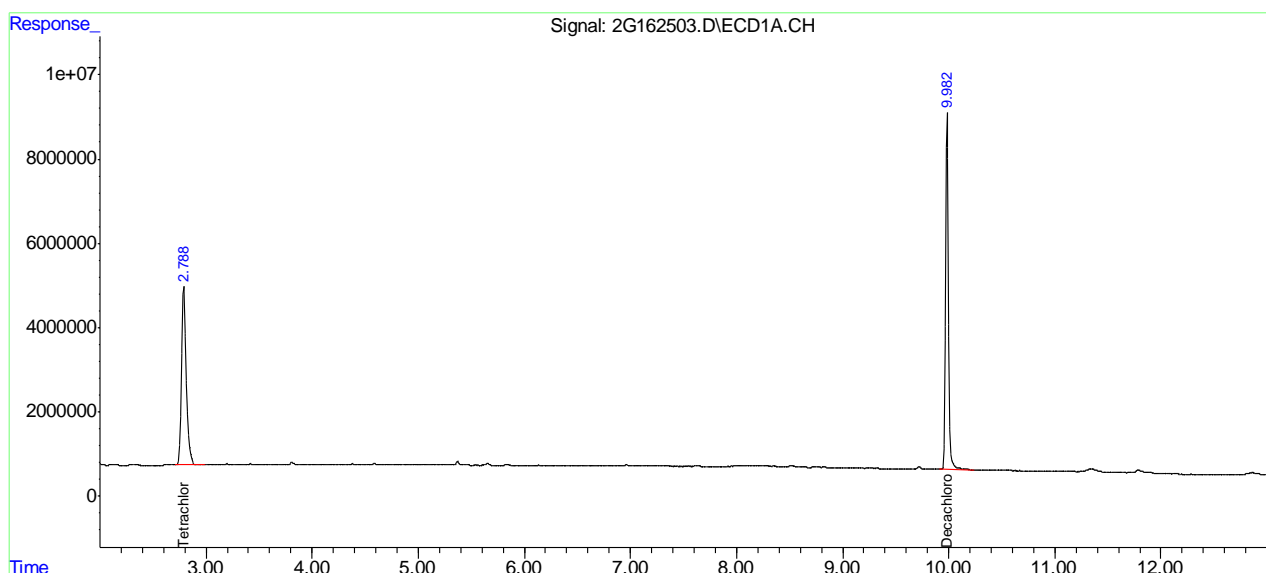
13.22  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4320\  
 Data File : 2G162503.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 28 Apr 2018 6:00 pm  
 Operator : edouarda  
 Sample : op11639-mb1  
 Misc : OP11639,G2G4320,15.0,,,10,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 28 21:10:59 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 26 16:56:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.22  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162946.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 9:45 am  
 Operator : tianweir  
 Sample : op11775-mb1  
 Misc : OP11775,G2G4326,15.0,,,10,1  
 ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 07 14:48:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|---------|----------|---------|--------|--------|
| -----                       |        |         |          |         |        |        |
| System Monitoring Compounds |        |         |          |         |        |        |
| 1) S Tetrachlo...           | 2.782  | 3.430   | 132.7E6  | 896.8E6 | 36.166 | 39.192 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 90.41% | 97.98% |
| 51) S Decachlor...          | 9.974  | 11.781f | 152.0E6  | 762.1E6 | 37.484 | 39.903 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 93.71% | 99.76% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

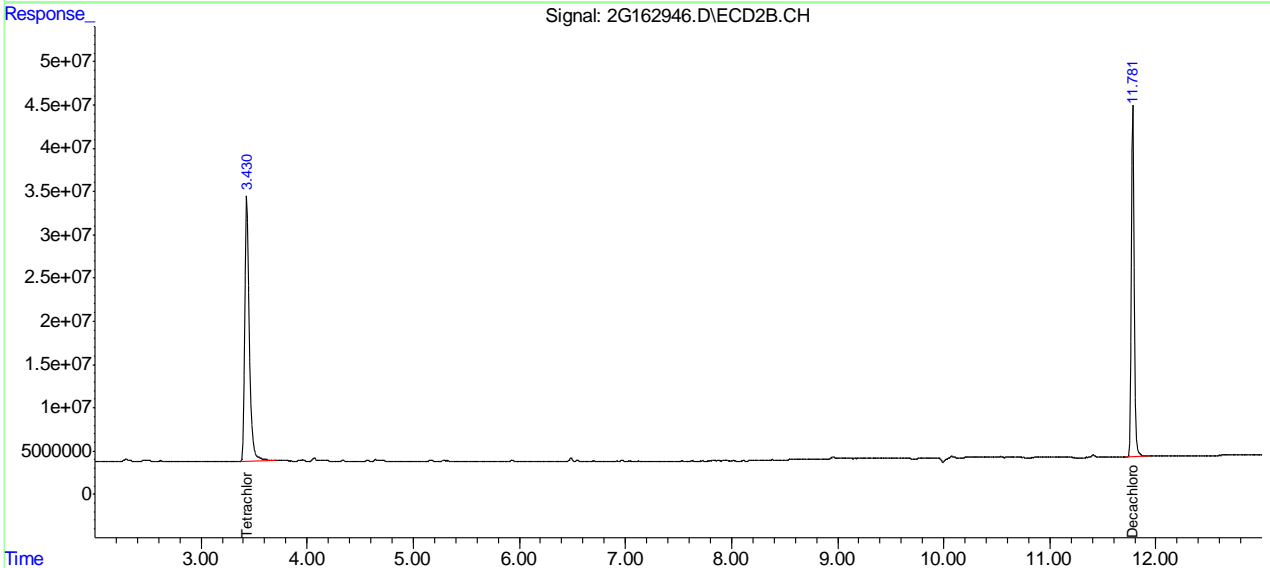
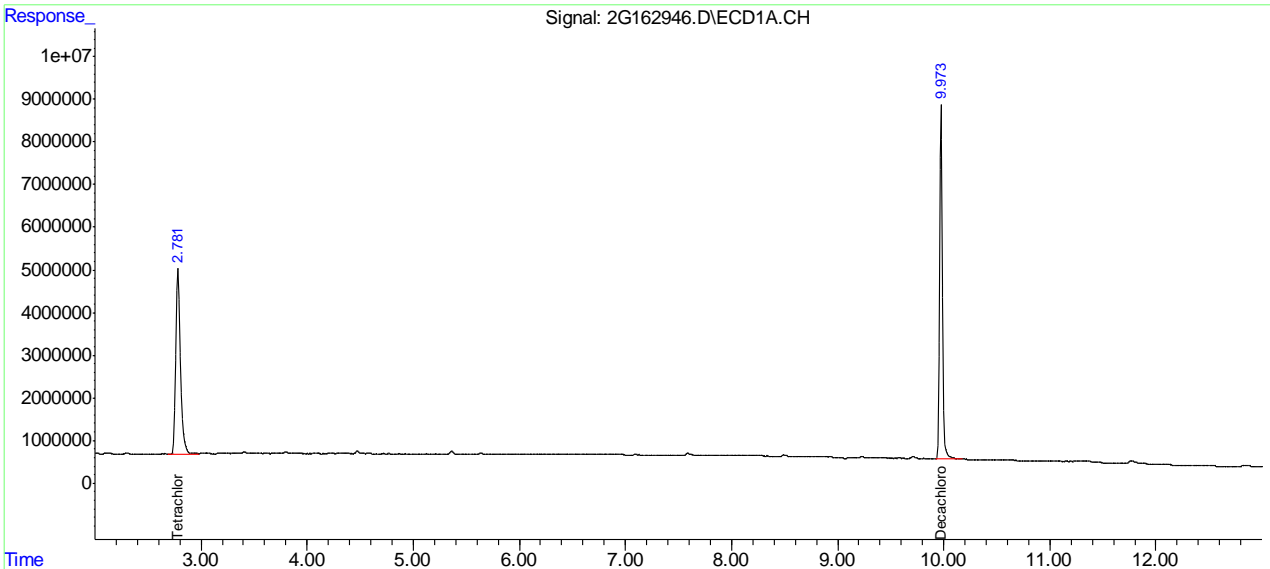
13.23  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162946.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 9:45 am  
 Operator : tianweir  
 Sample : op11775-mb1  
 Misc : OP11775,G2G4326,15.0,,,10,1  
 ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 07 14:48:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116150.D\ECD1A.CH Vial: 4  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116150.D\ECD2B.CH  
 Acq On : 4-30-2018 04:49:50 PM Operator: vinned  
 Sample : opl1638-mb1 Inst : GC3G  
 Misc : opl1638,g3g4033,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: Apr 30 17:13:00 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

System Monitoring Compounds

|      |               |         |      |          |         |         |         |
|------|---------------|---------|------|----------|---------|---------|---------|
| 2) S | 2,4-DCAA      | 7.47    | 7.94 | 3360.4E6 | 781.3E6 | 860.706 | 908.630 |
|      | Spiked Amount | 500.000 |      | Recovery | =       | 172.14% | 181.73% |

Target Compounds

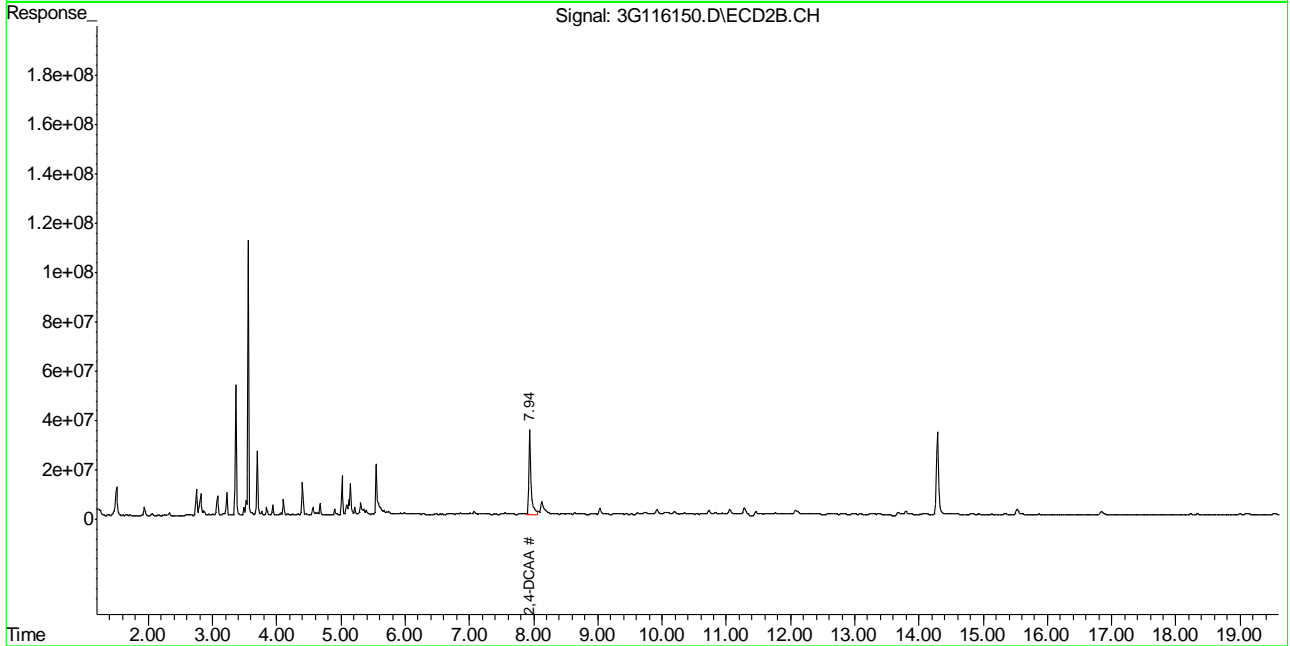
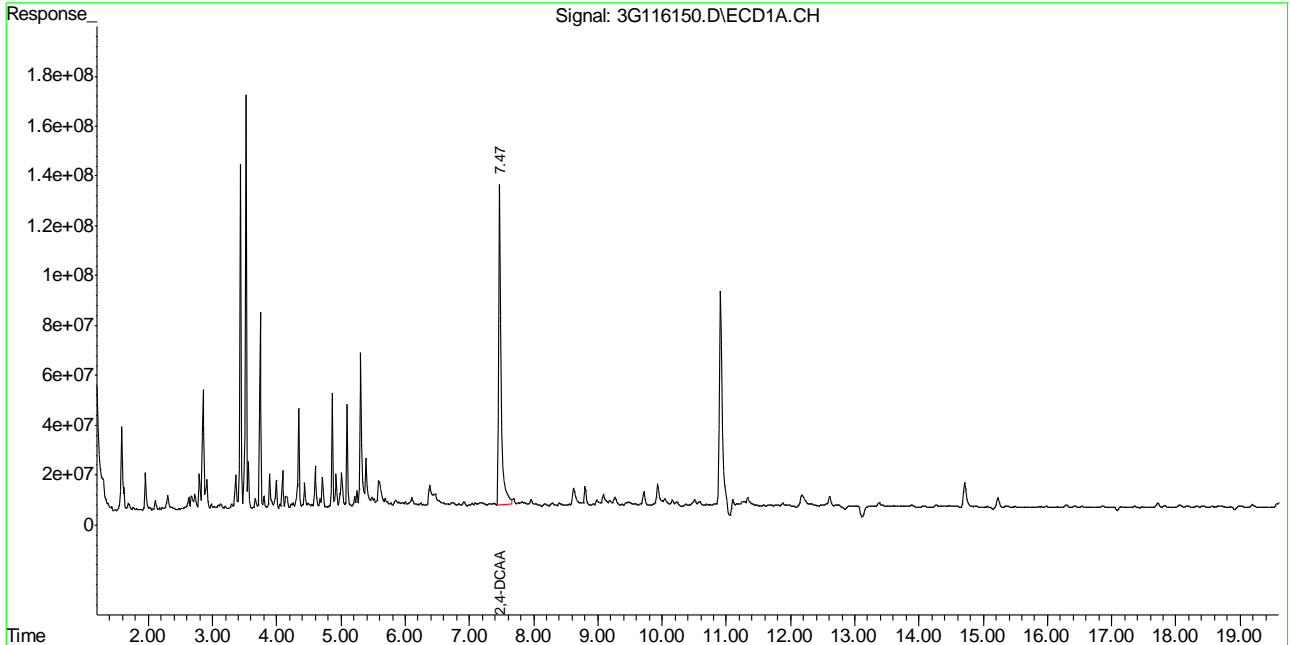
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116150.D 3H4020.M Tue May 01 09:44:41 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4033\3G116150.D\ECD1A.CH Vial: 4  
Signal #2 : C:\MSDCHEM\1\DATA\3G4033\3G116150.D\ECD2B.CH  
Acq On : 4-30-2018 04:49:50 PM Operator: vinned  
Sample : opl1638-mb1 Inst : GC3G  
Misc : opl1638,g3g4033,15.0,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 1 9:44 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.24  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1866\  
 Data File : 5g78591.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 17 May 18 7:04 am  
 Operator : rebeccak  
 Sample : op12045-mb (Sig #1); op12045-mb1 (Sig #2)  
 Misc : op12045,g5g1867,15.0,,,10,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 17 10:04:30 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:45:34 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb     |
|-----------------------------|--------|--------|----------|---------|--------|---------|
| -----                       |        |        |          |         |        |         |
| System Monitoring Compounds |        |        |          |         |        |         |
| 1) S Tetrachlo...           | 3.571  | 4.555  | 746.3E6  | 259.0E6 | 36.081 | 41.087  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 90.20% | 102.72% |
| 51) S Decachlor...          | 19.045 | 22.953 | 897.7E6  | 283.6E6 | 36.484 | 40.999  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 91.21% | 102.50% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.25  
13

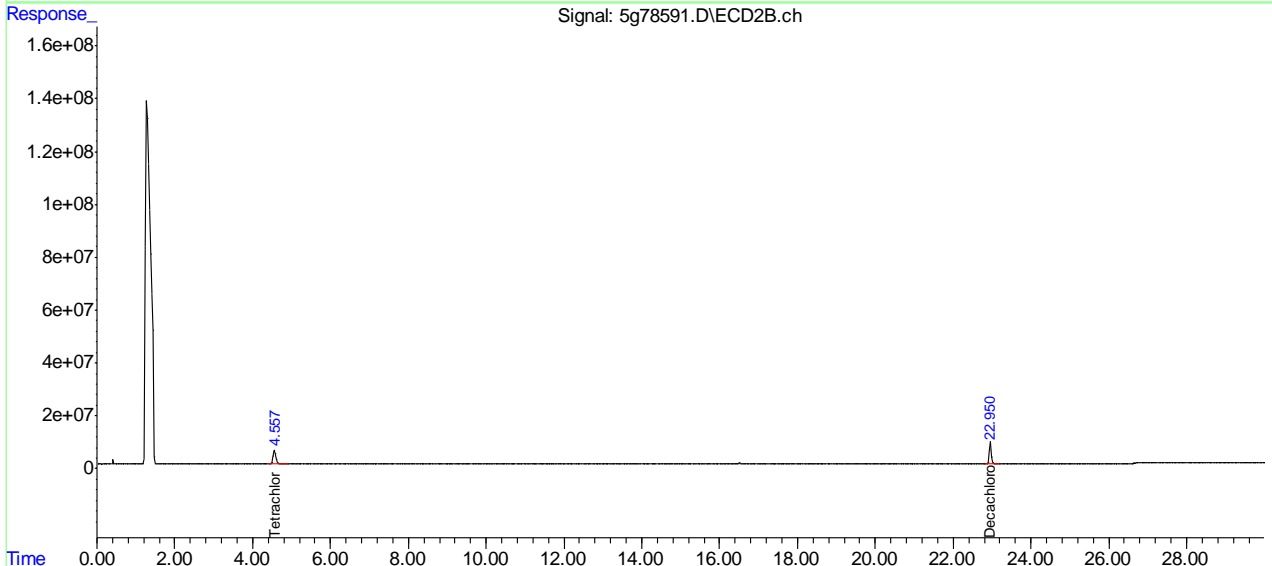
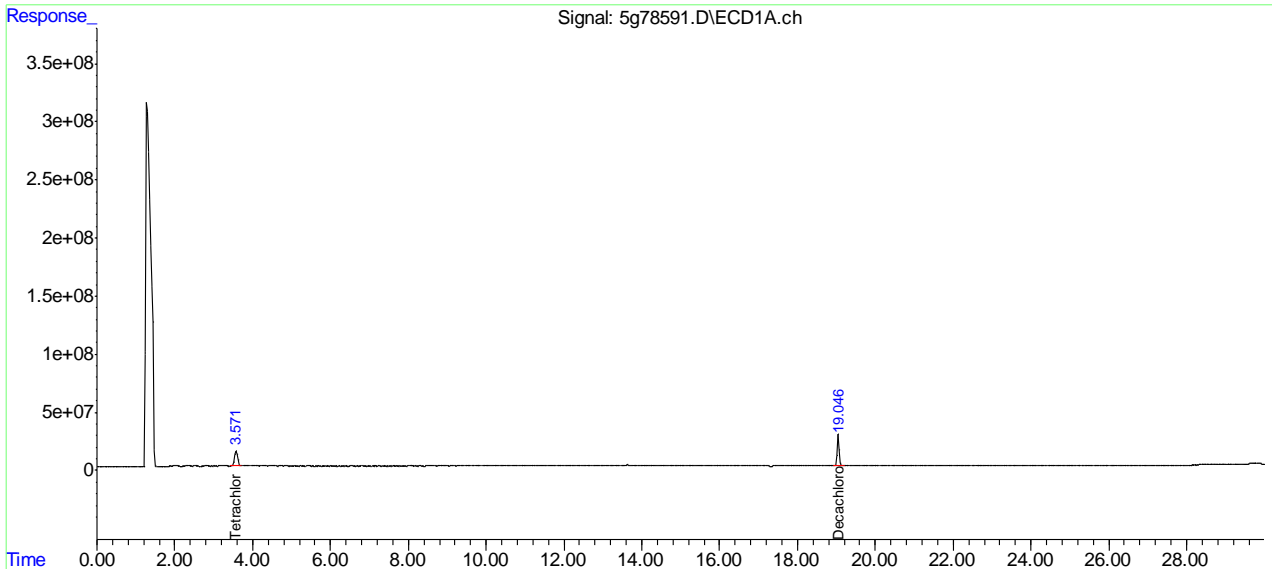


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1866\  
 Data File : 5g78591.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 17 May 18 7:04 am  
 Operator : rebeccak  
 Sample : op12045-mb (Sig #1); op12045-mb1 (Sig #2)  
 Misc : op12045,g5g1867,15.0,,,10,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 17 10:04:30 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:45:34 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227795.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 5:38 pm  
 Operator : tianweir  
 Sample : op11668-mb1  
 Misc : op11668,GXX6332,15.0,,,10.0,1  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:23:47 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb     | ppb     |
|-----------------------------|--------|---------|----------|---------|---------|---------|
| -----                       |        |         |          |         |         |         |
| System Monitoring Compounds |        |         |          |         |         |         |
| 1) S Tetrachlo...           | 2.809  | 3.551   | 331.3E6  | 332.4E6 | 40.096  | 40.864  |
| Spiked Amount               | 40.000 |         | Recovery | =       | 100.24% | 102.16% |
| 51) S Decachlor...          | 9.964f | 11.969f | 407.3E6  | 386.2E6 | 40.866  | 42.286  |
| Spiked Amount               | 40.000 |         | Recovery | =       | 102.16% | 105.72% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

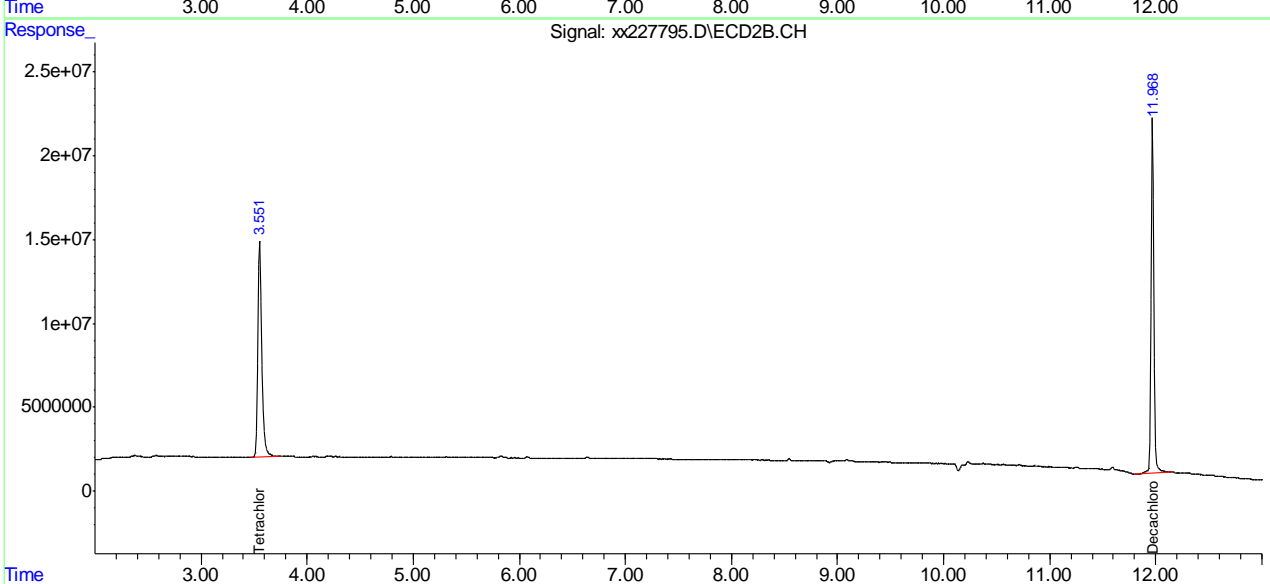
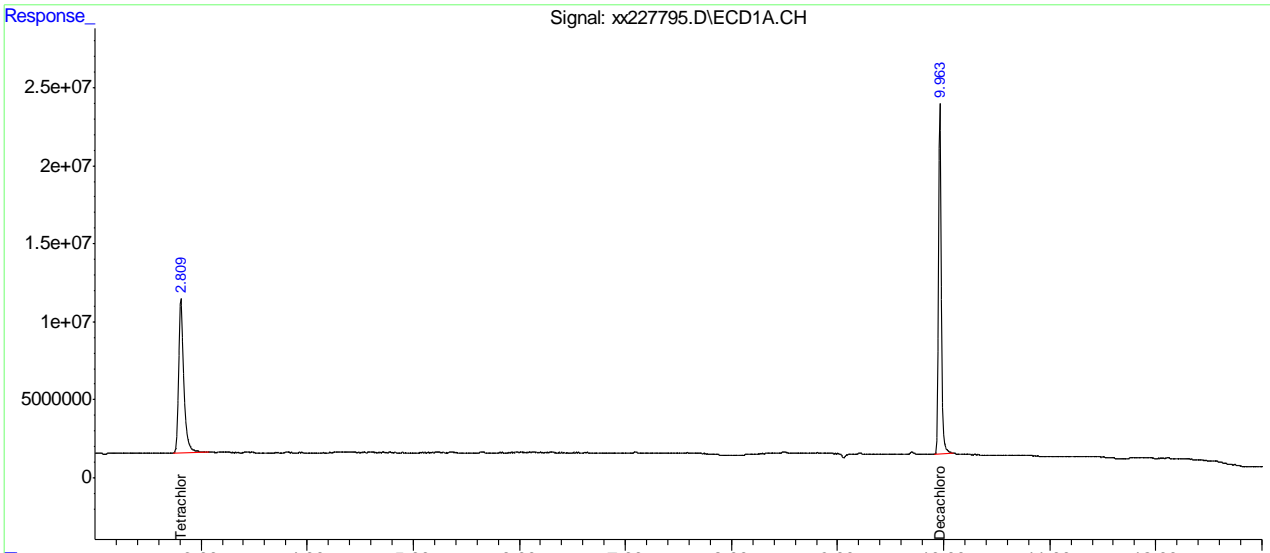
13.2.6  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227795.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 5:38 pm  
 Operator : tianweir  
 Sample : op11668-mb1  
 Misc : op11668,GXX6332,15.0,,,10.0,1  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:23:47 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3196\  
 Data File : zz88721.D  
 Signal(s) : FID2B.CH  
 Acq On : 27 Apr 2018 2:12 pm  
 Operator : rebeccak  
 Sample : op11620-mb1  
 Misc : op11620,gzz3196,10.0,,,1,1  
 ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: Apr 29 15:58:07 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Sun Apr 29 15:55:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 6) S o-TERPHENYL            | 8.616  | 69262707 | 26.735 PPM |
| Spiked Amount               | 50.000 | Recovery | = 53.47%   |
| 7) S 5a-ANDROSTANE          | 9.079  | 63761592 | 32.126 PPM |
| Spiked Amount               | 50.000 | Recovery | = 64.25%   |
| 8) S TETRACOSANE-d50        | 10.000 | 55325998 | 35.499 PPM |
| Spiked Amount               | 50.000 | Recovery | = 71.00%   |
| Target Compounds            |        |          |            |
| -----                       |        |          |            |

(f)=RT Delta > 1/2 Window

(m)=manual int.

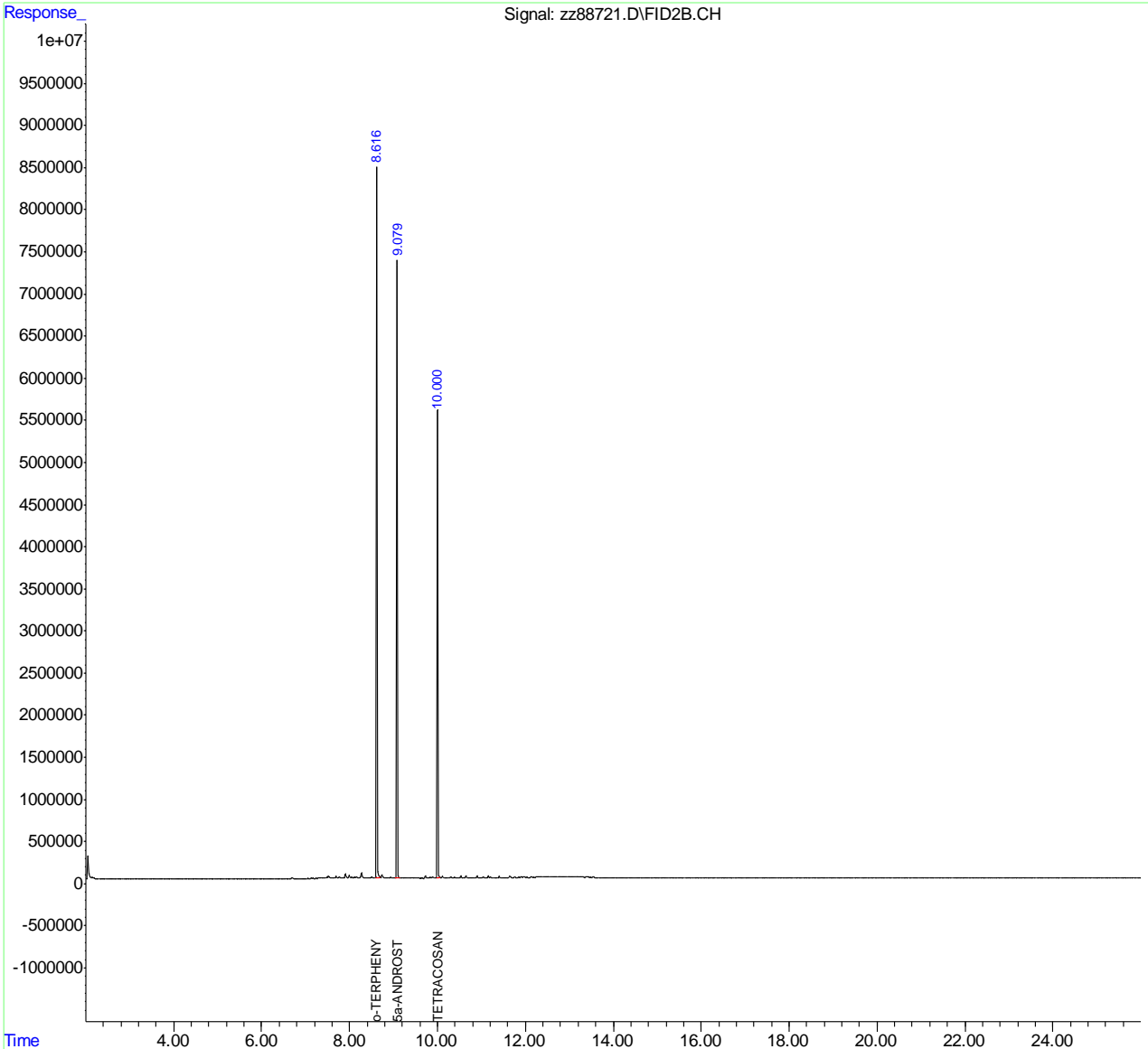
13.27  
13

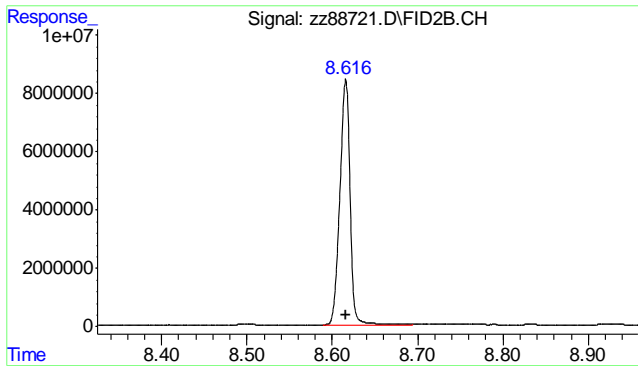
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3196\  
 Data File : zz88721.D  
 Signal(s) : FID2B.CH  
 Acq On : 27 Apr 2018 2:12 pm  
 Operator : rebeccak  
 Sample : op11620-mb1  
 Misc : op11620,gzz3196,10.0,,,1,1  
 ALS Vial : 71 Sample Multiplier: 1

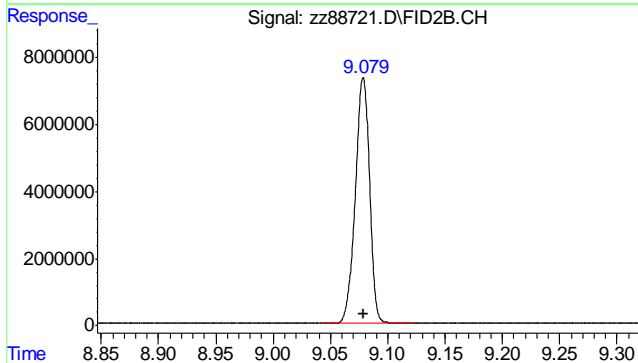
Integration File: autoint1.e  
 Quant Time: Apr 29 15:58:07 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Sun Apr 29 15:55:21 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

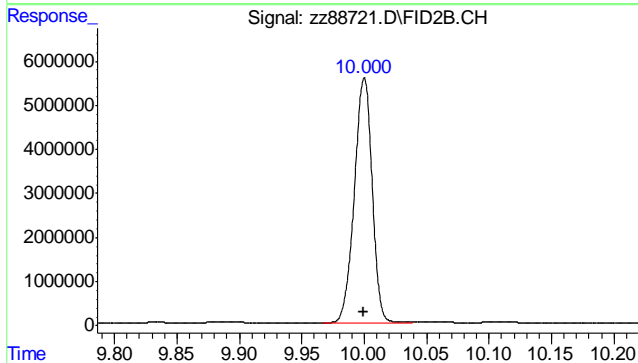




#6 o-TERPHENYL  
 R.T.: 8.616 min  
 Delta R.T.: 0.000 min  
 Response: 69262707  
 Conc: 26.73 PPM



#7 5a-ANDROSTANE  
 R.T.: 9.079 min  
 Delta R.T.: 0.000 min  
 Response: 63761592  
 Conc: 32.13 PPM



#8 TETRACOSANE-d50  
 R.T.: 10.000 min  
 Delta R.T.: 0.000 min  
 Response: 55325998  
 Conc: 35.50 PPM

13.27  
 13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH  
 Acq On : 4-25-18 01:38:34 PM Operator: dharas  
 Sample : icc4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB    | PPB           |
|-----------------------------|--------|-------|----------|----------|--------|---------------|
| -----                       |        |       |          |          |        |               |
| Internal Standards          |        |       |          |          |        |               |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 860.1E6  | 103.4E6  | 50.000 | 50.000        |
| System Monitoring Compounds |        |       |          |          |        |               |
| 2) SAB Tetrachloro-m-xy     | 2.55   | 3.14  | 406.0E6  | 52192360 | 26.606 | 25.907        |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | =      | 66.52% 64.77% |
| 26) SA Decachlorobiphen     | 9.82   | 11.72 | 408.9E6  | 47393412 | 23.716 | 26.094        |
| Spiked Amount               | 40.000 |       |          | Recovery | =      | 59.29% 65.23% |
| Target Compounds            |        |       |          |          |        |               |
| 3) Hexachlorobenzen         | 2.88   | 3.68  | 702.4E6  | 65723200 | 25.472 | 25.228        |
| 4) A alpha-BHC              | 3.01   | 3.83  | 571.5E6  | 71631347 | 26.510 | 26.252        |
| 5) MA gamma-BHC             | 3.30   | 4.28  | 513.0E6  | 65977455 | 27.041 | 27.277        |
| 6) MA Heptachlor            | 3.80   | 4.89  | 539.2E6  | 66105692 | 29.274 | 31.002        |
| 7) B beta-BHC               | 3.38   | 4.37  | 241.9E6  | 30096828 | 27.697 | 26.347        |
| 8) B delta-BHC              | 3.58   | 4.79  | 495.1E6  | 59824637 | 34.266 | 31.595        |
| 9) MB Aldrin                | 4.14   | 5.36  | 495.8E6  | 65543121 | 26.150 | 25.737        |
| 10) Alachlor                | 4.26   | 5.13  | 54523812 | 8465608  | 22.957 | 25.881        |
| 11) B Heptachlor Epoxi      | 4.85   | 6.21  | 469.6E6  | 61191522 | 26.465 | 26.309        |
| 12) B gamma-Chlordane       | 5.01   | 6.50  | 473.4E6  | 61010414 | 28.641 | 25.881        |
| 13) B alpha-Chlordane       | 5.18   | 6.73  | 457.1E6  | 59465944 | 27.214 | 25.827        |
| 14) A Endosulfan I          | 5.36   | 6.84  | 495.2E6  | 56135065 | 27.162 | 25.910        |
| 15) B 4,4'-DDE              | 5.30   | 6.99  | 398.0E6  | 54337344 | 25.480 | 23.673        |
| 16) MA Dieldrin             | 5.69   | 7.29  | 470.0E6  | 61481129 | 26.546 | 23.991        |
| 17) MA Endrin               | 6.01   | 7.81  | 438.0E6  | 53980507 | 27.337 | 26.565        |
| 18) A 4,4'-DDD              | 6.14   | 7.96  | 332.0E6  | 40904245 | 26.764 | 23.437        |
| 19) B Endosulfan II         | 6.34   | 8.16  | 418.1E6  | 53225896 | 26.949 | 25.102        |
| 20) MA 4,4'-DDT             | 6.55   | 8.50  | 328.7E6  | 34574376 | 32.182 | 31.015        |
| 21) B Endrin Aldehyde       | 6.96   | 8.74  | 347.7E6  | 42575401 | 26.732 | 24.835        |
| 22) B Endosulfan Sulfa      | 7.64   | 9.22  | 344.9E6  | 41812774 | 38.068 | 36.459        |
| 23) A Methoxychlor          | 7.34   | 9.70  | 142.7E6  | 18015010 | 30.137 | 34.433        |
| 24) Mirex                   | 7.51   | 10.02 | 346.4E6  | 38119902 | 26.191 | 25.728        |
| 25) B Endrin Ketone         | 8.09   | 10.06 | 400.8E6  | 44391954 | 34.975 | 31.169        |

(f)=RT Delta > 1/2 Window  
 1G145471.D 1PST4628.M

Wed Apr 25 15:26:16 2018

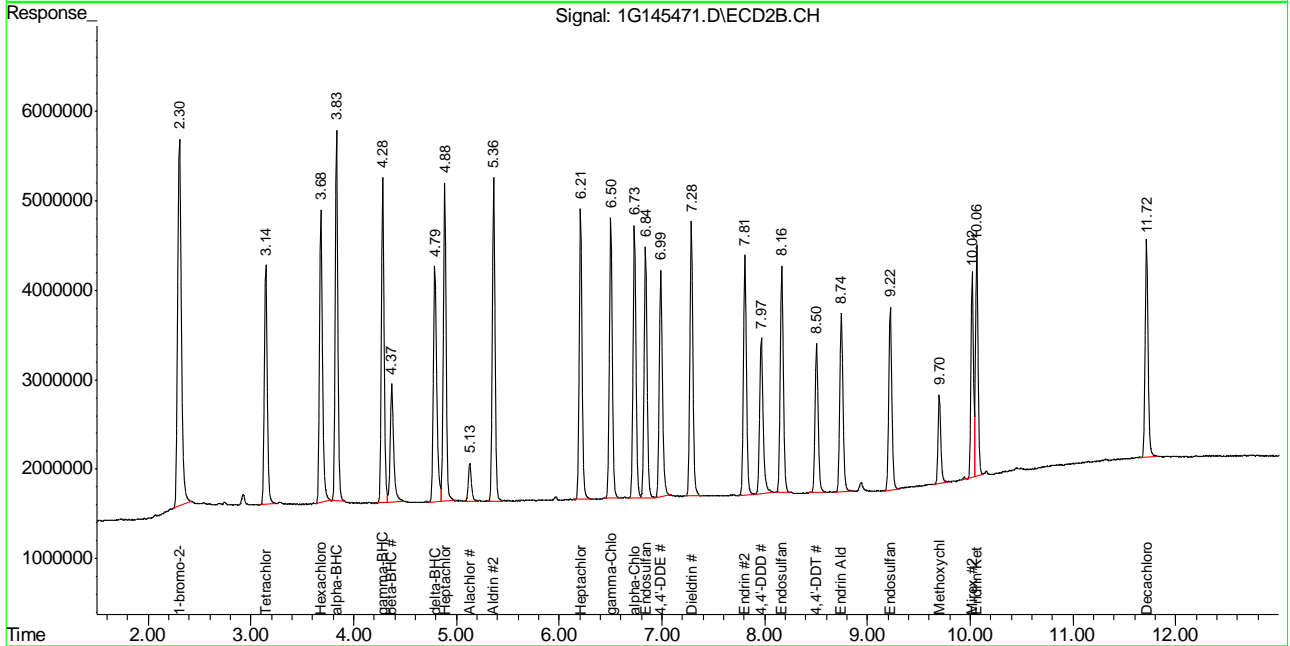
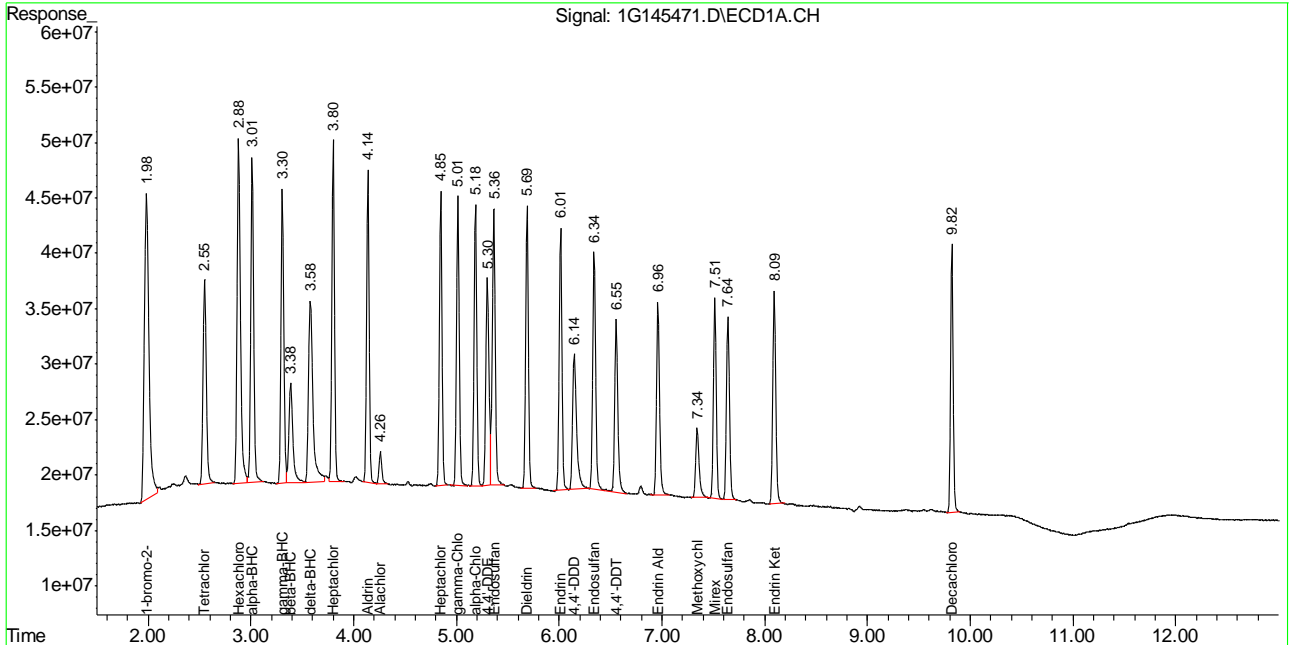
(m)=manual int.  
 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH  
 Acq On : 4-25-18 01:38:34 PM Operator: dharas  
 Sample : icc4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.31  
13





Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH  
Acq On : 4-25-18 02:47:49 PM Operator: dharas  
Sample : ic4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Tue Apr 24 23:40:36 2018  
Response via : Initial Calibration  
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

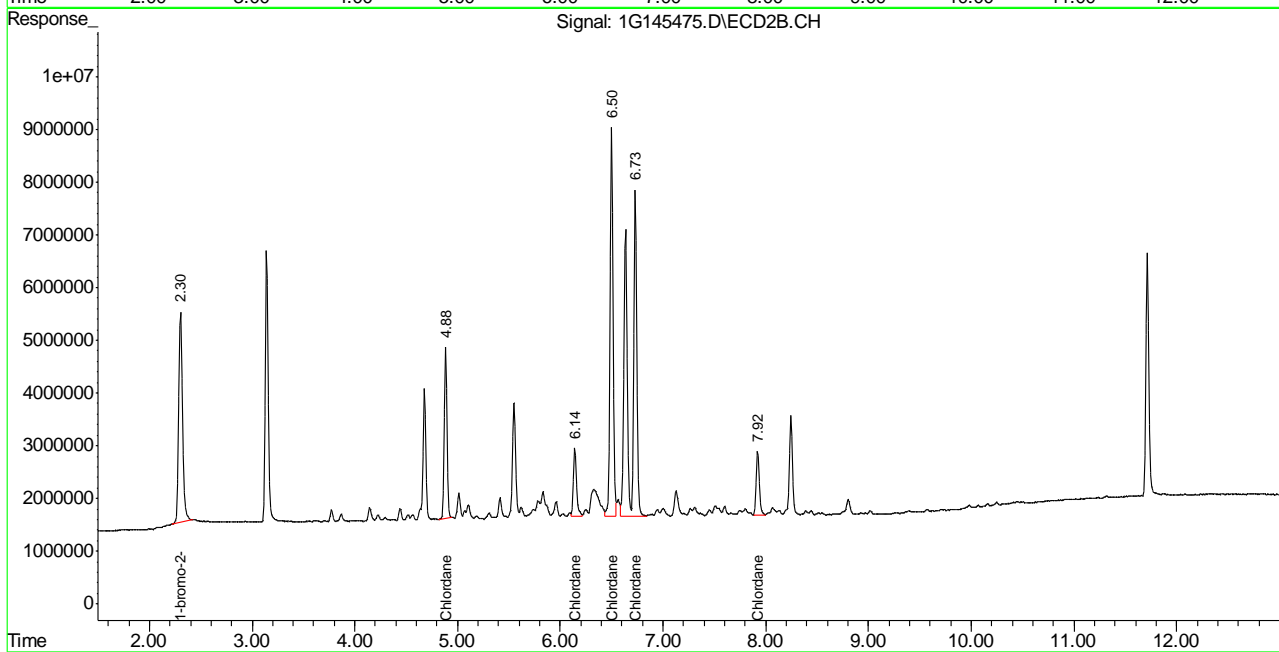
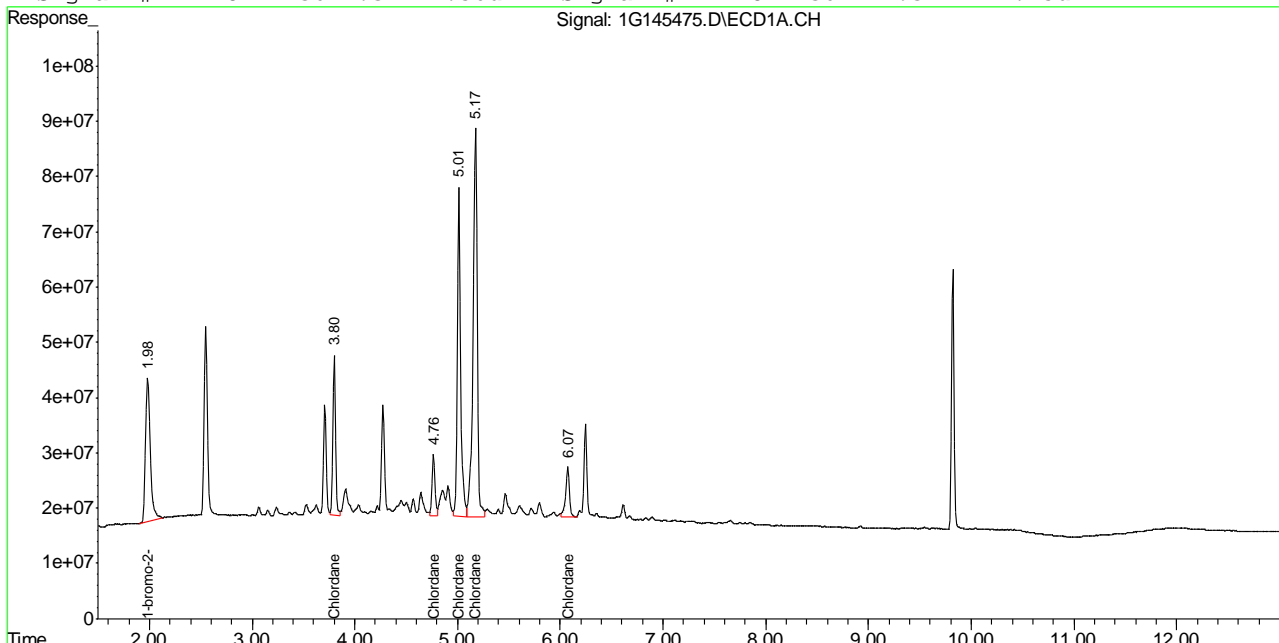
| Compound                    | RT#1 | RT#2 | Resp#1   | Resp#2   | PPB     | PPB      |
|-----------------------------|------|------|----------|----------|---------|----------|
| Internal Standards          |      |      |          |          |         |          |
| 33) I 1-bromo-2-nitrob      | 1.98 | 2.30 | 850.1E6  | 104.6E6  | 50.000  | 50.000   |
| System Monitoring Compounds |      |      |          |          |         |          |
| Target Compounds            |      |      |          |          |         |          |
| 34) Chlordane {A}           | 3.80 | 4.88 | 524.1E6  | 59928280 | 547.216 | 576.893  |
| 35) Chlordane {B}           | 4.77 | 6.14 | 223.4E6  | 27657469 | 494.863 | 490.580  |
| 36) Chlordane {C}           | 5.01 | 6.50 | 1298.6E6 | 149.6E6  | 502.977 | 494.596  |
| 37) Chlordane {D}           | 5.18 | 6.73 | 2029.7E6 | 248.6E6  | 510.600 | 501.440m |
| 38) Chlordane {E}           | 6.07 | 7.92 | 228.2E6  | 26069213 | 416.633 | 518.173  |

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH  
Acq On : 4-25-18 02:47:49 PM Operator: dharas  
Sample : ic4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Tue Apr 24 23:40:36 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.3.2  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH  
 Acq On : 4-25-18 03:05:01 PM Operator: dharas  
 Sample : ic4628-500 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

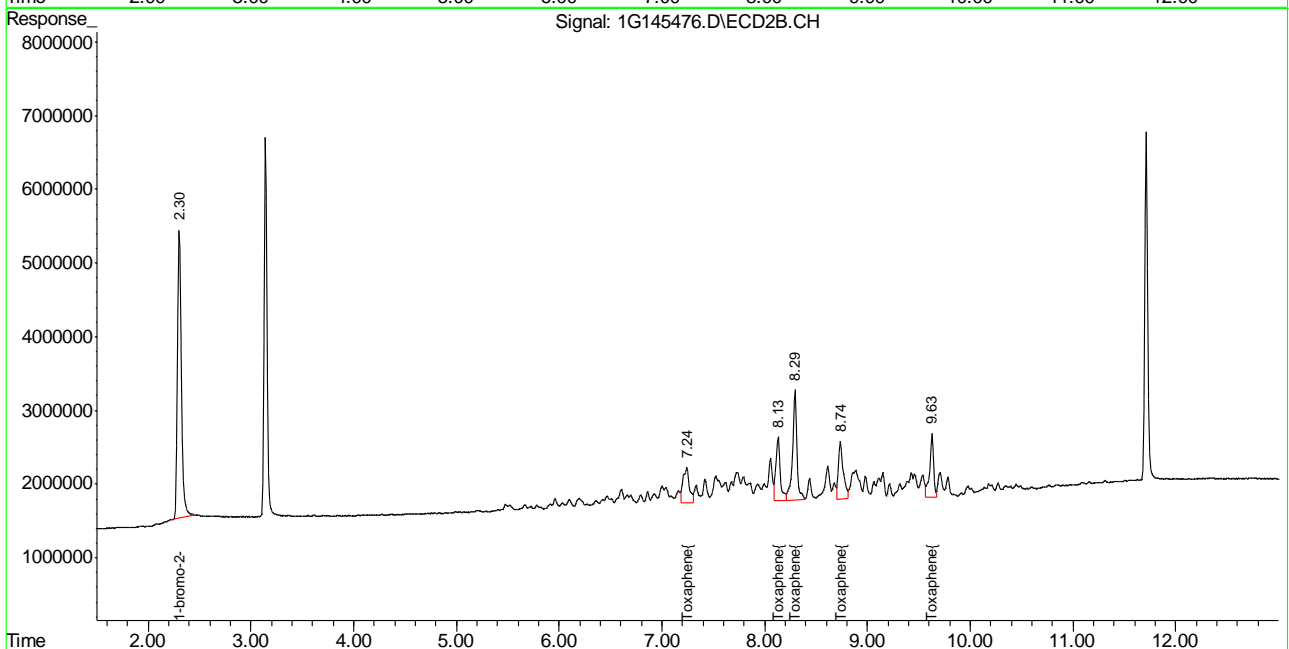
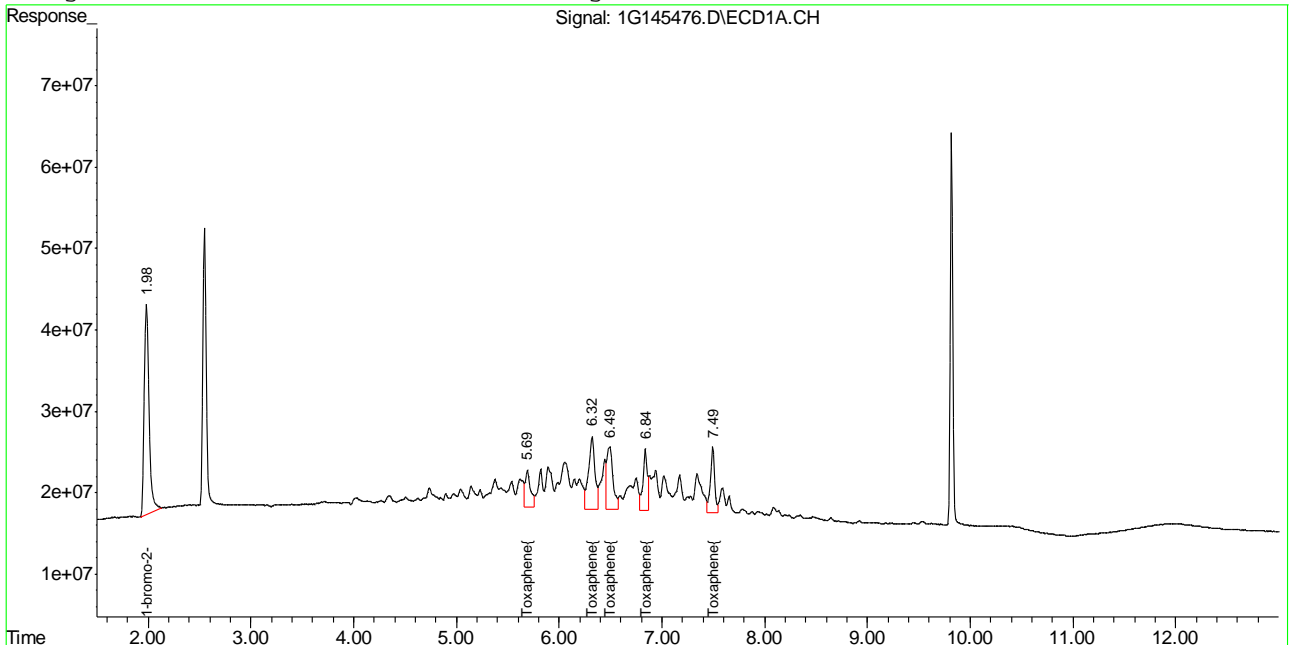
| Compound                    | RT#1 | RT#2 | Resp#1  | Resp#2   | PPB     | PPB     |
|-----------------------------|------|------|---------|----------|---------|---------|
| -----                       |      |      |         |          |         |         |
| Internal Standards          |      |      |         |          |         |         |
| 27) I 1-bromo-2-nitrob      | 1.98 | 2.30 | 862.1E6 | 103.2E6  | 50.000  | 50.000  |
| System Monitoring Compounds |      |      |         |          |         |         |
| Target Compounds            |      |      |         |          |         |         |
| 28) L8 Toxaphene{A}         | 5.69 | 7.24 | 153.8E6 | 20270542 | 577.408 | 525.969 |
| 29) L8 Toxaphene{B}         | 6.32 | 8.13 | 383.2E6 | 26247910 | 599.927 | 540.966 |
| 30) L8 Toxaphene{C}         | 6.49 | 8.29 | 321.3E6 | 43664106 | 365.074 | 546.359 |
| 31) L8 Toxaphene{D}         | 6.84 | 8.74 | 212.6E6 | 26124172 | 448.709 | 556.126 |
| 32) L8 Toxaphene{E}         | 7.49 | 9.63 | 228.5E6 | 21820223 | 604.167 | 645.918 |

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH  
Acq On : 4-25-18 03:05:01 PM Operator: dharas  
Sample : ic4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Tue Apr 24 23:40:36 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 147.7E6  | 928.7E6  | 33.797   | 30.364    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 84.49%   | 75.91%    |
| 51) S Decachlor...          | 10.013 | 11.809 | 157.2E6  | 749.6E6  | 34.886   | 39.555    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 87.22%   | 98.89%    |
| Target Compounds            |        |        |          |          |          |           |
| 31) AR1016-A                | 3.155  | 4.092  | 75576037 | 366.7E6  | 827.627  | 761.652   |
| 32) AR1016-B                | 3.557  | 4.630  | 130.4E6  | 777.2E6  | 1133.202 | 804.122 # |
| 33) AR1016-C                | 4.107  | 5.275  | 285.4E6  | 1744.2E6 | 773.001  | 833.586   |
| 34) AR1016-D                | 4.268  | 5.461  | 115.7E6  | 737.8E6  | 860.556  | 953.596   |
| 35) AR1016-E                | 4.782  | 6.112  | 117.6E6  | 502.9E6  | 835.629m | 883.134   |
| 36) AR1260-A                | 7.151  | 8.712  | 317.8E6  | 1882.4E6 | 835.813  | 1010.865m |
| 37) AR1260-B                | 7.312  | 8.828  | 153.0E6  | 917.3E6  | 895.825  | 941.444   |
| 38) AR1260-C                | 7.650  | 9.260  | 169.0E6  | 1051.3E6 | 1020.047 | 1122.233  |
| 39) AR1260-D                | 8.080  | 9.610  | 395.3E6  | 2256.3E6 | 855.811  | 959.373   |
| 40) AR1260-E                | 8.472  | 10.153 | 402.6E6  | 2144.0E6 | 925.282m | 1047.495m |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

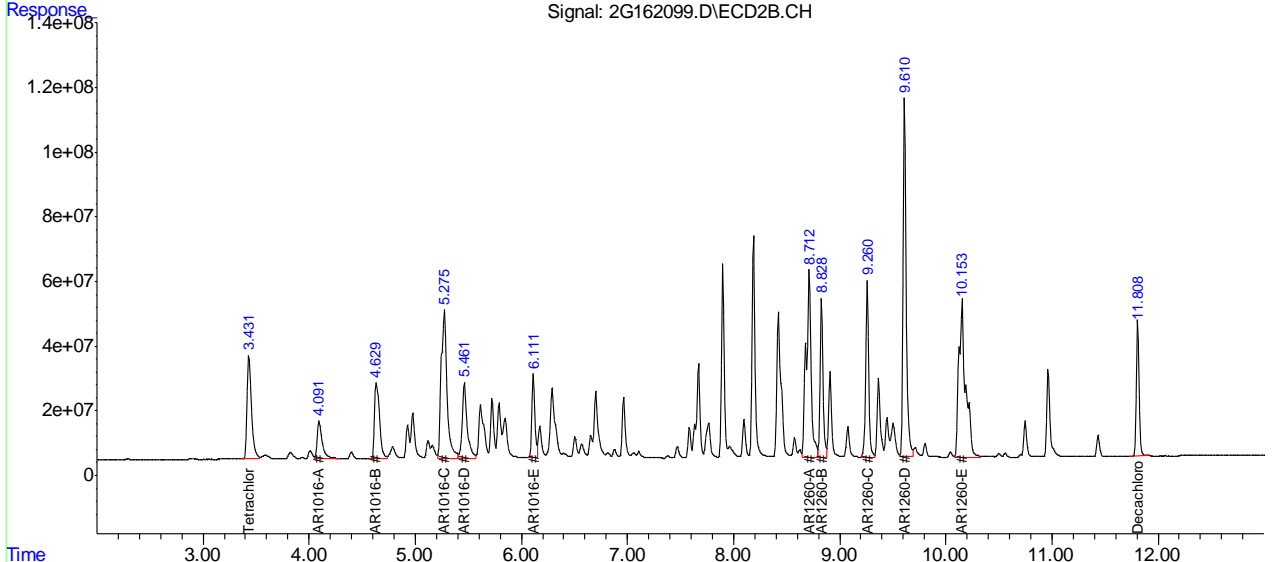
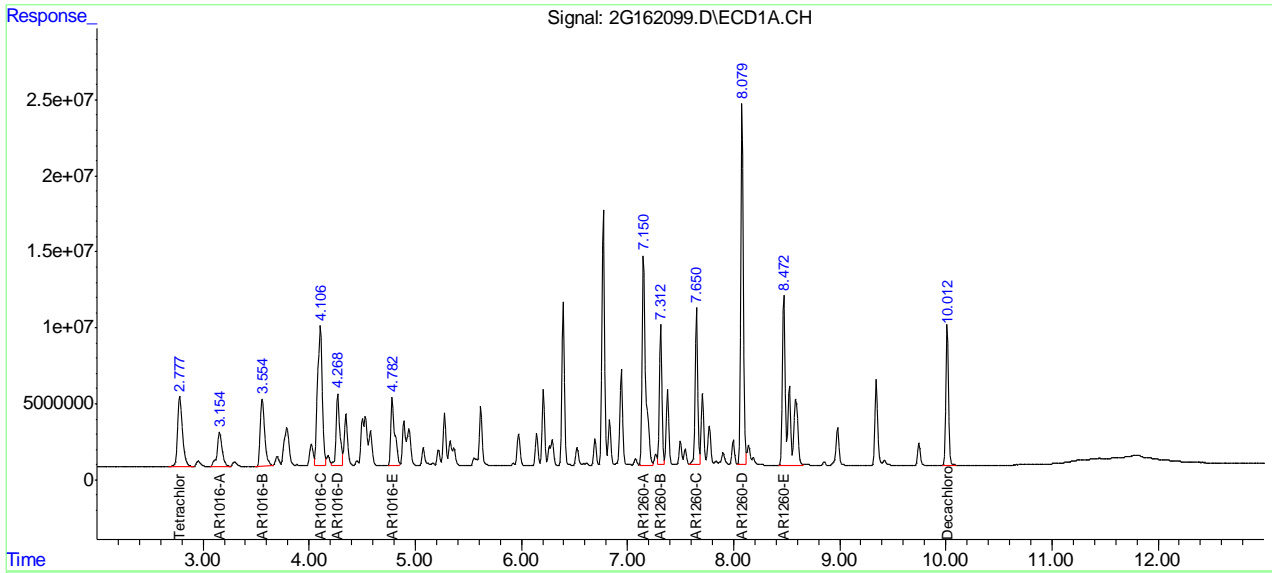
13.34  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb       | ppb       |
|-----------------------------|--------|--------|----------|----------|-----------|-----------|
| -----                       |        |        |          |          |           |           |
| System Monitoring Compounds |        |        |          |          |           |           |
| 1) S Tetrachlo...           | 2.779  | 3.431  | 163.8E6  | 987.2E6  | 47.199    | 46.623    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 118.00%   | 116.56%   |
| 51) S Decachlor...          | 10.013 | 11.809 | 165.0E6  | 806.7E6  | 44.682    | 46.281    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 111.71%   | 115.70%   |
| Target Compounds            |        |        |          |          |           |           |
| 2) AR1221-A                 | 2.282  | 2.875  | 28967496 | 140.9E6  | 1023.276  | 1085.901  |
| 3) AR1221-B                 | 2.954  | 3.821  | 42022816 | 250.7E6  | 983.648   | 970.364   |
| 4) AR1221-C                 | 3.153  | 4.091  | 128.8E6  | 655.8E6  | 950.947m  | 1092.099  |
| 5) AR1221-D                 | 3.558  | 4.650  | 14656903 | 122.2E6  | 1190.489  | 1041.062  |
| 6) AR1221-E                 | 3.699  | 4.770  | 14363624 | 88492068 | 1222.278  | 1236.269  |
| 24) AR1254-A                | 5.275  | 6.700  | 123.4E6  | 992.5E6  | 961.679   | 1070.842  |
| 25) AR1254-B                | 5.616  | 6.960  | 258.8E6  | 983.9E6  | 1032.998m | 1051.674  |
| 26) AR1254-C                | 5.981  | 7.464  | 137.0E6  | 797.7E6  | 999.447   | 1078.993  |
| 27) AR1254-D                | 6.143  | 7.630  | 245.9E6  | 1634.3E6 | 996.318   | 1197.753  |
| 28) AR1254-E                | 6.519  | 7.955  | 182.5E6  | 1088.9E6 | 1178.826  | 1169.607  |
| 29) AR1254-F                | 6.772  | 8.419  | 171.2E6  | 1181.2E6 | 1099.087  | 1059.697m |
| 30) AR1254-G                | 7.152  | 8.714  | 251.8E6  | 1510.8E6 | 1013.161  | 1105.727  |
| -----                       |        |        |          |          |           |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

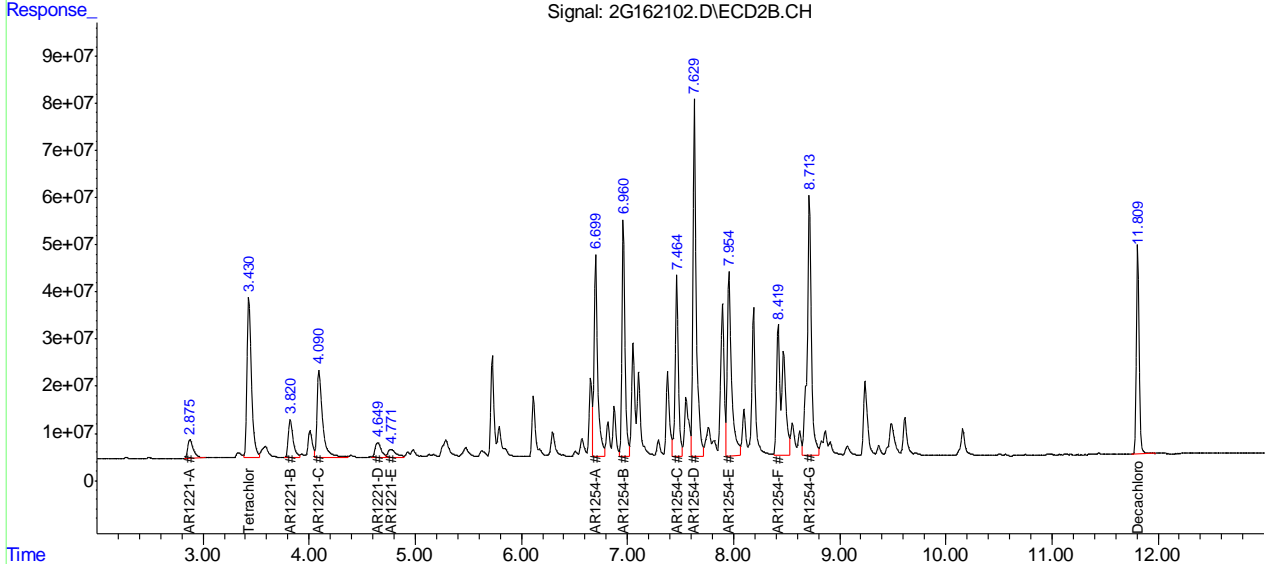
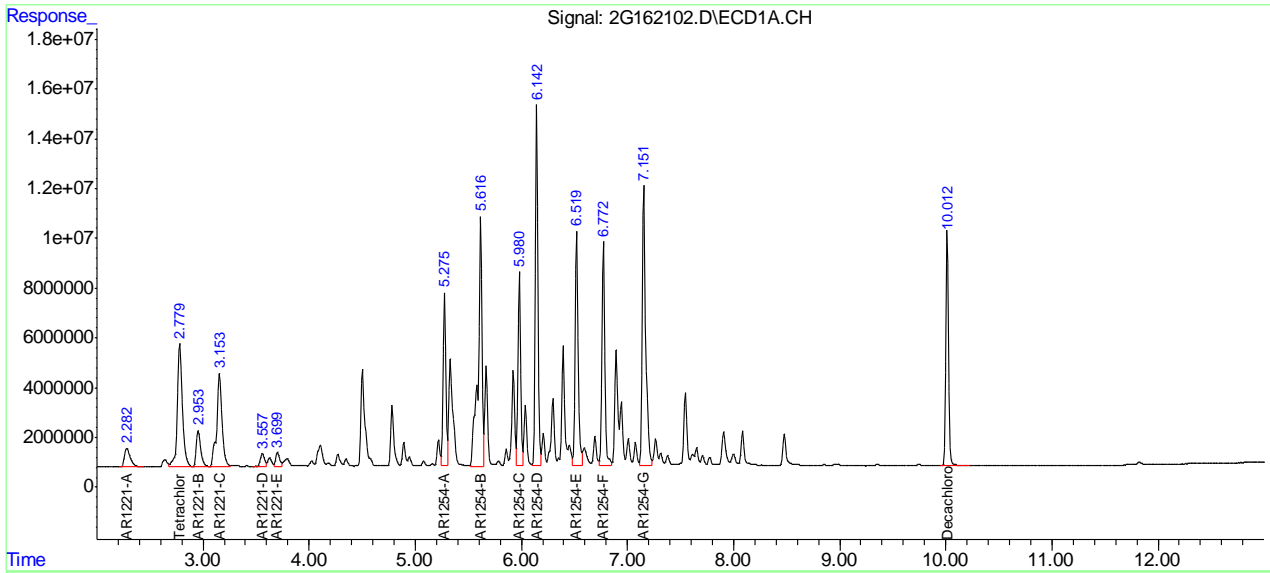
13.35  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.780  | 3.431  | 169.1E6  | 1049.9E6 | 9.839    | 9.841     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.60%   | 24.60%    |
| 51) S Decachlor...          | 10.014 | 11.809 | 173.1E6  | 864.6E6  | 9.763    | 9.860     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.41%   | 24.65%    |
| Target Compounds            |        |        |          |          |          |           |
| 7) AR1232-A                 | 3.155  | 4.093  | 97343092 | 502.0E6  | 807.139m | 801.687   |
| 8) AR1232-B                 | 3.559  | 4.634  | 66842636 | 393.5E6  | 814.432  | 795.791   |
| 9) AR1232-C                 | 4.109  | 5.281  | 130.5E6  | 815.2E6  | 748.996  | 817.807   |
| 10) AR1232-D                | 4.271  | 5.467  | 54473697 | 361.5E6  | 844.210  | 954.940   |
| 11) AR1232-E                | 4.785  | 6.115  | 51489431 | 217.3E6  | 836.532  | 879.986   |
| 41) AR1262-A                | 6.772  | 8.187  | 193.5E6  | 1044.2E6 | 608.178  | 987.107 # |
| 42) AR1262-B                | 7.314  | 8.828  | 242.4E6  | 1428.2E6 | 818.303  | 912.354   |
| 43) AR1262-C                | 7.651  | 9.260  | 227.0E6  | 1336.0E6 | 936.108  | 1081.334  |
| 44) AR1262-D                | 8.081  | 9.610  | 485.4E6  | 2732.2E6 | 759.581  | 918.956   |
| 45) AR1262-E                | 8.525  | 10.123 | 558.8E6  | 3034.4E6 | 795.650m | 942.420m  |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

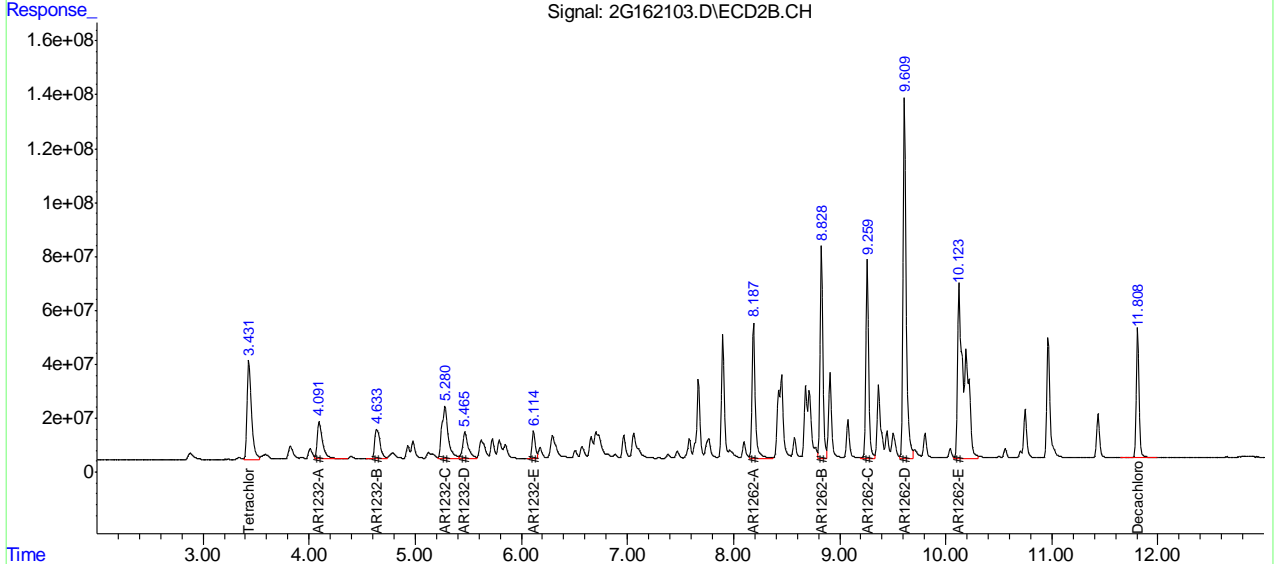
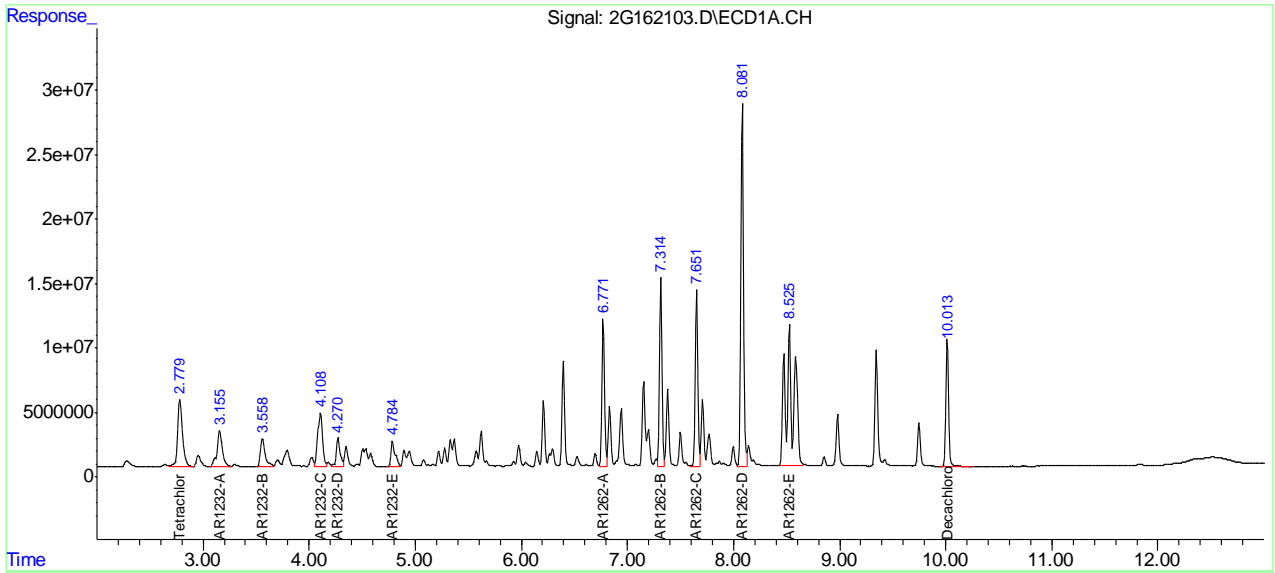
13.36  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162104.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:44 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:35:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:34:50 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb        |
|-----------------------------|--------|--------|----------|----------|---------|------------|
| -----                       |        |        |          |          |         |            |
| System Monitoring Compounds |        |        |          |          |         |            |
| 1) S Tetrachlo...           | 2.779  | 3.432  | 164.4E6  | 1042.8E6 | 9.788   | 9.829      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.47%  | 24.57%     |
| 51) S Decachlor...          | 10.010 | 11.807 | 482.0E6  | 2362.8E6 | 11.088  | 11.117     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 27.72%  | 27.79%     |
| Target Compounds            |        |        |          |          |         |            |
| 12) AR1242-A                | 3.557  | 4.630  | 119.8E6  | 705.4E6  | 833.841 | 769.896    |
| 13) AR1242-B                | 4.106  | 5.276  | 252.5E6  | 1547.7E6 | 766.774 | 823.562    |
| 14) AR1242-C                | 4.268  | 5.463  | 105.4E6  | 666.8E6  | 881.574 | 956.816    |
| 15) AR1242-D                | 4.782  | 6.113  | 109.0E6  | 456.4E6  | 869.789 | 894.747    |
| 16) AR1242-E                | 5.364  | 6.725  | 92980758 | 634.3E6  | 872.039 | 977.929    |
| 46) AR1268-A                | 8.523  | 10.121 | 575.4E6  | 3085.9E6 | 840.878 | 938.864    |
| 47) AR1268-B                | 8.578  | 10.189 | 567.3E6  | 3099.0E6 | 712.876 | 817.926    |
| 48) AR1268-C                | 8.851  | 10.557 | 473.0E6  | 2498.5E6 | 752.872 | 873.269    |
| 49) AR1268-D                | 9.340  | 10.962 | 199.2E6  | 1037.7E6 | 826.458 | 946.346    |
| 50) AR1268-E                | 9.742  | 11.430 | 1615.1E6 | 8238.1E6 | 809.035 | 1044.134 # |
| -----                       |        |        |          |          |         |            |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

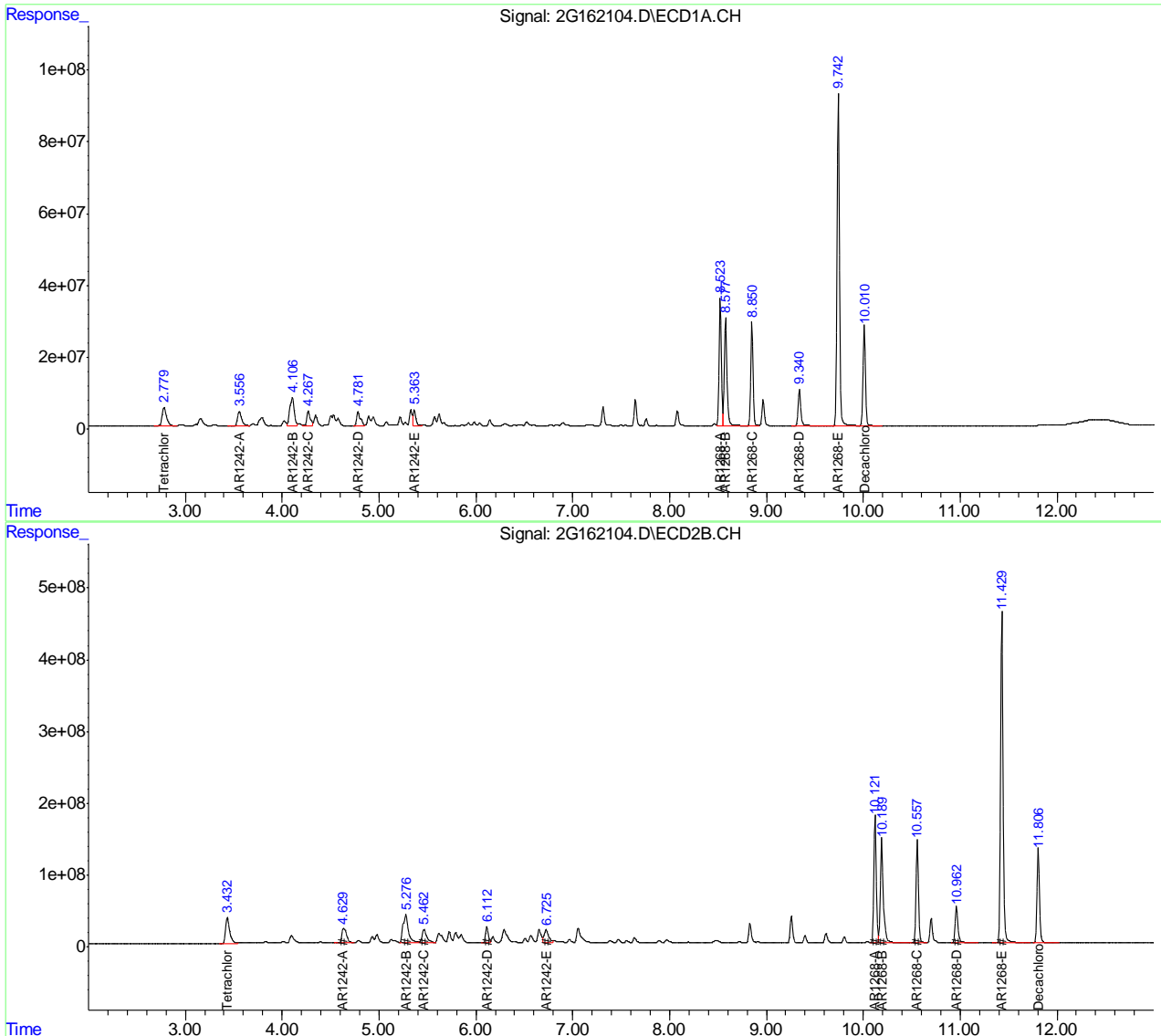
13.37  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162104.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:44 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:35:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:34:50 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.37  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162105.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:00 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:38:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:36:57 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb        |
|-----------------------------|--------|--------|----------|----------|----------|------------|
| -----                       |        |        |          |          |          |            |
| System Monitoring Compounds |        |        |          |          |          |            |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 160.3E6  | 1054.2E6 | 9.743    | 9.848      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.36%   | 24.62%     |
| 51) S Decachlor...          | 10.014 | 11.810 | 174.1E6  | 851.3E6  | 9.773    | 9.833      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.43%   | 24.58%     |
| Target Compounds            |        |        |          |          |          |            |
| 17) AR1248-A                | 3.555  | 4.632  | 59173660 | 362.7E6  | 826.748  | 812.103    |
| 18) AR1248-B                | 4.105  | 5.281  | 154.4E6  | 954.8E6  | 820.696  | 837.930m   |
| 19) AR1248-C                | 4.501  | 5.724  | 165.2E6  | 569.7E6  | 812.299m | 907.464    |
| 20) AR1248-D                | 4.782  | 6.112  | 159.8E6  | 727.1E6  | 860.353  | 930.188    |
| 21) AR1248-E                | 4.892  | 6.291  | 142.1E6  | 879.9E6  | 855.462m | 1021.118   |
| 22) AR1248-F                | 5.364  | 6.722  | 140.2E6  | 1097.1E6 | 782.480  | 1016.890 # |
| 23) AR1248-G                | 5.620  | 7.053  | 157.2E6  | 1220.2E6 | 600.449m | 1102.458m# |
| -----                       |        |        |          |          |          |            |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

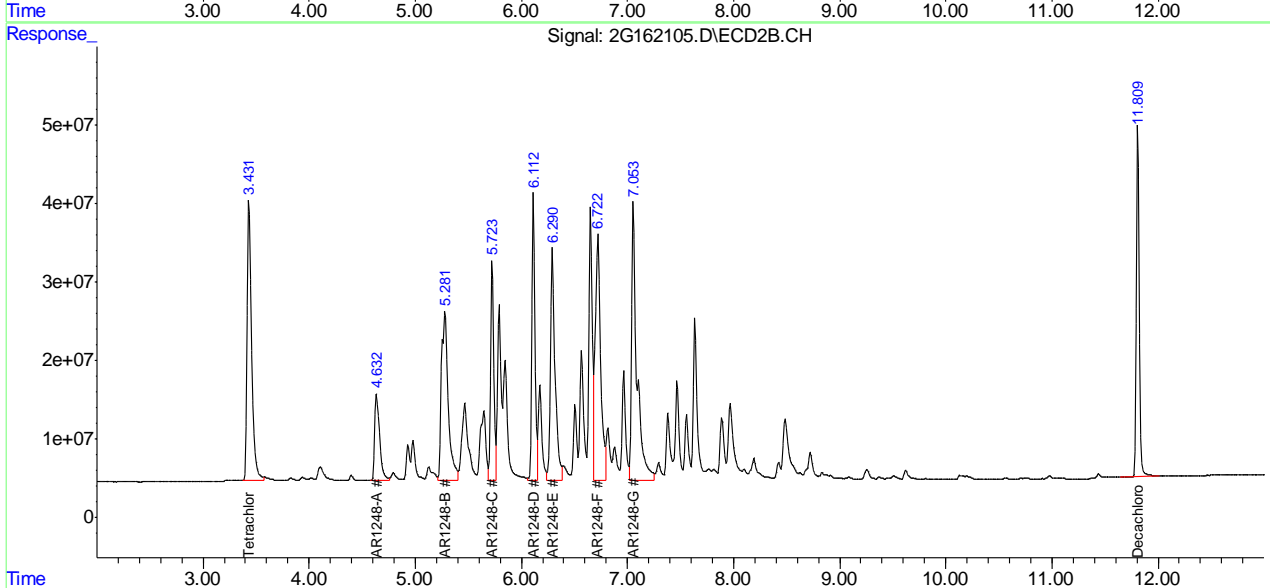
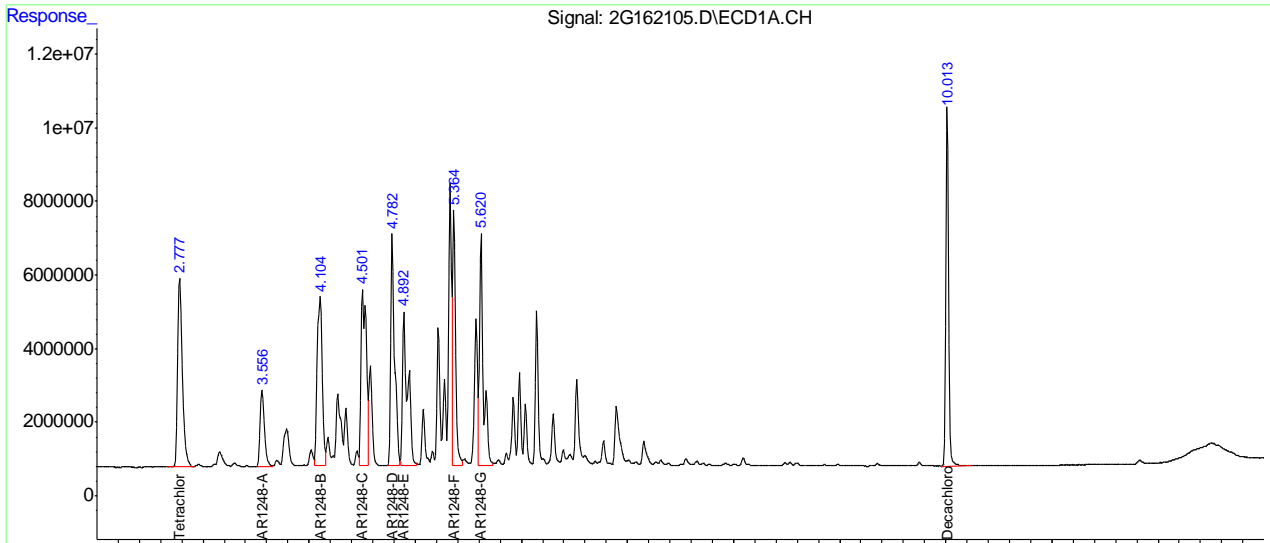
13.38  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
Data File : 2G162105.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 3:00 pm  
Operator : tianweir  
Sample : ic4311-1000  
Misc : OP11095,G2G4311,15.0,,,10.0,1  
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Apr 19 15:38:22 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Thu Apr 19 15:36:57 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78496.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 1:51 am  
 Operator : christp  
 Sample : icc1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:19:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Thu May 10 16:45:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1    | RT#2    | Resp#1   | Resp#2  | ppb      | ppb      |
|-----------------------------|---------|---------|----------|---------|----------|----------|
| -----                       |         |         |          |         |          |          |
| System Monitoring Compounds |         |         |          |         |          |          |
| 1) S Tetrachlo...           | 3.563f  | 4.548f  | 829.8E6  | 253.5E6 | 33.689   | 35.046   |
| Spiked Amount               | 40.000  |         | Recovery | =       | 84.22%   | 87.61%   |
| 51) S Decachlor...          | 19.051f | 22.956f | 977.2E6  | 272.6E6 | 33.494   | 33.857   |
| Spiked Amount               | 40.000  |         | Recovery | =       | 83.73%   | 84.64%   |
| Target Compounds            |         |         |          |         |          |          |
| 41) AR1016-A                | 4.213f  | 5.766f  | 388.5E6  | 108.7E6 | 792.245  | 899.067  |
| 42) AR1016-B                | 4.937f  | 6.829   | 673.3E6  | 215.9E6 | 818.472  | 859.983  |
| 43) AR1016-C                | 5.966   | 8.114   | 1492.2E6 | 488.6E6 | 820.809  | 853.914  |
| 44) AR1016-D                | 6.282   | 8.499   | 609.4E6  | 188.7E6 | 819.025  | 871.255  |
| 45) AR1016-E                | 7.315   | 9.903   | 619.7E6  | 145.3E6 | 811.640m | 846.306  |
| 46) AR1260-A                | 12.451f | 15.754  | 1789.8E6 | 546.0E6 | 729.079m | 760.912m |
| 47) AR1260-B                | 12.836f | 16.047f | 948.9E6  | 302.2E6 | 903.445  | 928.564  |
| 48) AR1260-C                | 13.586f | 17.017f | 940.0E6  | 292.5E6 | 881.068  | 938.249  |
| 49) AR1260-D                | 14.585f | 17.861f | 2455.6E6 | 771.8E6 | 866.930  | 907.804  |
| 50) AR1260-E                | 15.454f | 19.080f | 2546.6E6 | 731.7E6 | 886.604m | 923.487m |
| -----                       |         |         |          |         |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

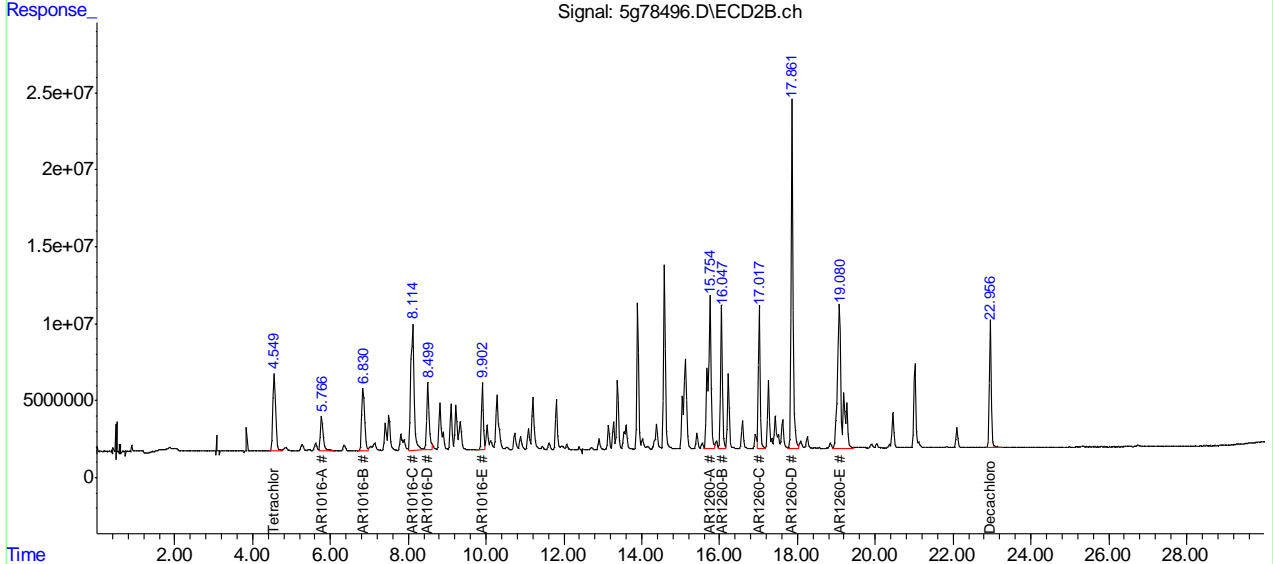
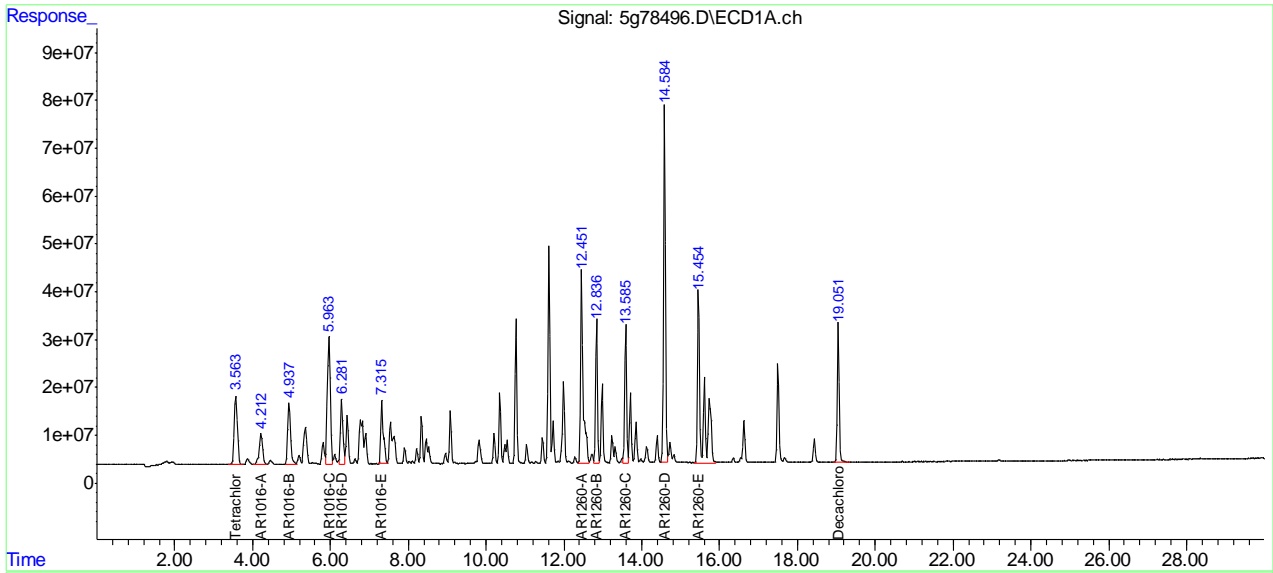
13.3.9  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
Data File : 5g78496.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 15 May 18 1:51 am  
Operator : christp  
Sample : iccl865-1000  
Misc : op11899,g5g1865,1000,,,5,1  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 15 09:19:51 2018  
Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
Quant Title :  
QLast Update : Thu May 10 16:45:14 2018  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1ul  
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78499.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 3:28 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:29:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb       |
|-----------------------------|--------|--------|----------|----------|---------|-----------|
| -----                       |        |        |          |          |         |           |
| System Monitoring Compounds |        |        |          |          |         |           |
| 1) S Tetrachlo...           | 3.564  | 4.549  | 892.8E6  | 266.3E6  | 43.163  | 42.564    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 107.91% | 106.41%   |
| 51) S Decachlor...          | 19.047 | 22.957 | 1044.1E6 | 287.1E6  | 42.433  | 41.508    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 106.08% | 103.77%   |
| Target Compounds            |        |        |          |          |         |           |
| 2) AR1221-A                 | 2.775  | 3.636  | 119.4E6  | 42928572 | 886.401 | 919.044   |
| 3) AR1221-B                 | 3.869  | 5.265  | 223.3E6  | 72810926 | 838.086 | 890.502   |
| 4) AR1221-C                 | 4.210  | 5.765  | 663.5E6  | 179.4E6  | 836.724 | 899.984   |
| 5) AR1221-D                 | 4.934  | 6.837  | 76429550 | 36742374 | 549.706 | 888.215 # |
| 6) AR1221-E                 | 5.191  | 7.015  | 67888893 | 27472408 | 837.835 | 918.651m  |
| 24) AR1254-A                | 8.341  | 11.200 | 639.0E6  | 257.5E6  | 828.829 | 904.988   |
| 25) AR1254-B                | 9.083  | 11.802 | 897.1E6  | 271.2E6  | 828.255 | 876.214   |
| 26) AR1254-C                | 9.853  | 12.897 | 750.8E6  | 209.7E6  | 847.165 | 878.642   |
| 27) AR1254-D                | 10.208 | 13.271 | 1313.0E6 | 399.9E6  | 846.918 | 865.937   |
| 28) AR1254-E                | 11.040 | 14.009 | 1040.8E6 | 320.3E6  | 835.122 | 897.501   |
| 29) AR1254-F                | 11.612 | 15.145 | 922.5E6  | 355.3E6  | 835.676 | 864.232m  |
| 30) AR1254-G                | 12.453 | 15.754 | 1437.6E6 | 432.6E6  | 847.461 | 876.425m  |
| -----                       |        |        |          |          |         |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

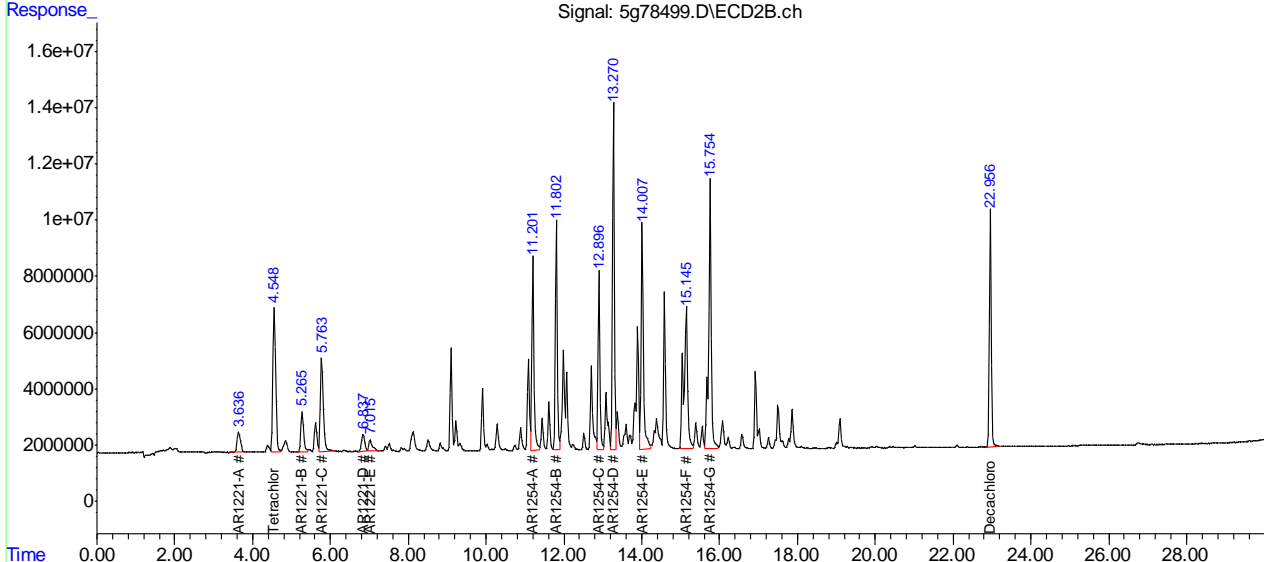
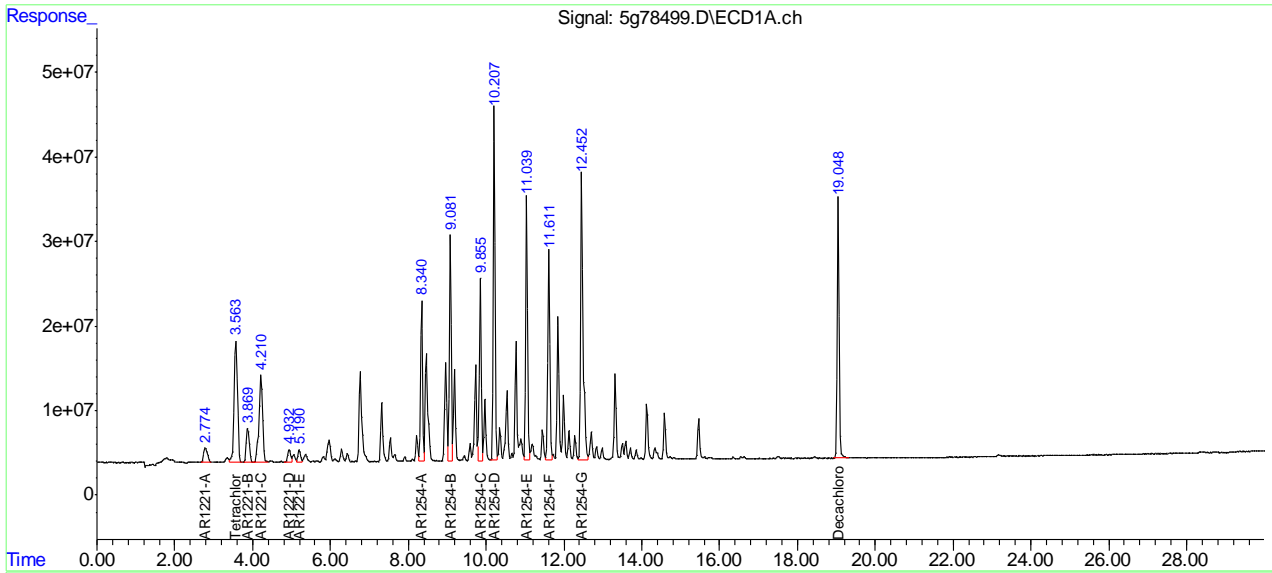
13.3.10  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78499.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 3:28 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:29:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78500.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 4:00 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:31:36 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 3.563  | 4.550  | 959.6E6  | 293.5E6  | 46.392   | 46.921   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 115.98%  | 117.30%  |
| 51) S Decachlor...          | 19.051 | 22.956 | 1162.2E6 | 320.9E6  | 47.234   | 46.394   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 118.08%  | 115.99%  |
| Target Compounds            |        |        |          |          |          |          |
| 7) AR1232-A                 | 4.211  | 5.771  | 517.0E6  | 141.6E6  | 870.076  | 885.785  |
| 8) AR1232-B                 | 5.357  | 6.830  | 225.8E6  | 113.9E6  | 862.285  | 894.680  |
| 9) AR1232-C                 | 5.966  | 8.121  | 727.4E6  | 238.9E6  | 862.968  | 893.810  |
| 10) AR1232-D                | 6.280  | 8.505  | 299.8E6  | 102.3E6  | 872.921  | 974.096  |
| 11) AR1232-E                | 7.314  | 9.905  | 284.3E6  | 65993698 | 848.462m | 889.519  |
| 31) AR1262-A                | 11.616 | 14.584 | 1148.0E6 | 320.0E6  | 850.674  | 873.929  |
| 32) AR1262-B                | 12.837 | 16.048 | 1553.0E6 | 491.4E6  | 843.859  | 869.366  |
| 33) AR1262-C                | 13.584 | 17.017 | 1369.6E6 | 417.4E6  | 859.938  | 884.278  |
| 34) AR1262-D                | 14.587 | 17.860 | 3229.3E6 | 965.0E6  | 865.654  | 867.953  |
| 35) AR1262-E                | 15.612 | 19.048 | 3956.9E6 | 1085.8E6 | 895.217m | 871.006m |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

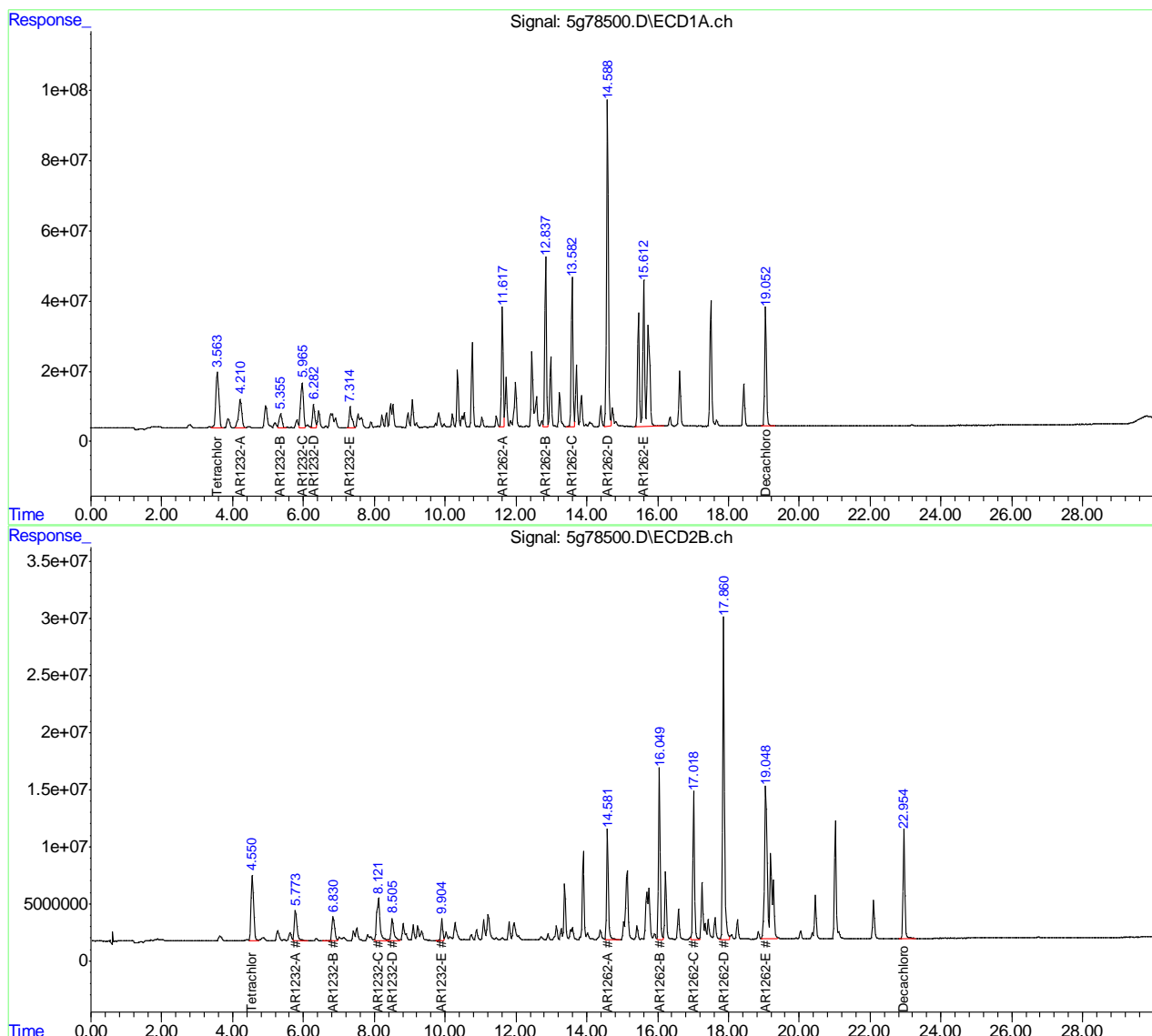
13.3.11  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78500.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 4:00 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:31:36 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



13.3.11  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78501.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 4:33 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:37:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb     |
|-----------------------------|--------|--------|----------|----------|----------|---------|
| -----                       |        |        |          |          |          |         |
| System Monitoring Compounds |        |        |          |          |          |         |
| 1) S Tetrachlo...           | 3.564  | 4.554  | 905.7E6  | 285.9E6  | 43.788   | 45.699  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 109.47%  | 114.25% |
| 51) S Decachlor...          | 19.047 | 22.955 | 2926.0E6 | 875.4E6  | 118.917  | 126.565 |
| Spiked Amount               | 40.000 |        | Recovery | =        | 297.29%  | 316.41% |
| Target Compounds            |        |        |          |          |          |         |
| 12) AR1242-A                | 4.936  | 6.827  | 605.6E6  | 197.3E6  | 867.335  | 910.242 |
| 13) AR1242-B                | 5.968  | 8.116  | 1313.2E6 | 438.4E6  | 857.509  | 901.883 |
| 14) AR1242-C                | 6.285  | 8.502  | 542.2E6  | 170.2E6  | 869.010  | 913.460 |
| 15) AR1242-D                | 7.315  | 9.904  | 567.3E6  | 134.7E6  | 854.405m | 910.901 |
| 16) AR1242-E                | 8.525  | 11.222 | 464.1E6  | 175.1E6  | 862.111  | 925.750 |
| 36) AR1268-A                | 15.607 | 19.046 | 3777.5E6 | 1207.3E6 | 854.799  | 888.533 |
| 37) AR1268-B                | 15.727 | 19.194 | 3580.1E6 | 985.9E6  | 886.488  | 810.967 |
| 38) AR1268-C                | 16.348 | 20.035 | 3161.6E6 | 974.2E6  | 881.310  | 905.688 |
| 39) AR1268-D                | 17.498 | 21.014 | 1322.7E6 | 390.2E6  | 875.466  | 902.440 |
| 40) AR1268-E                | 18.430 | 22.095 | 9839.8E6 | 3073.4E6 | 897.961  | 908.516 |
| -----                       |        |        |          |          |          |         |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

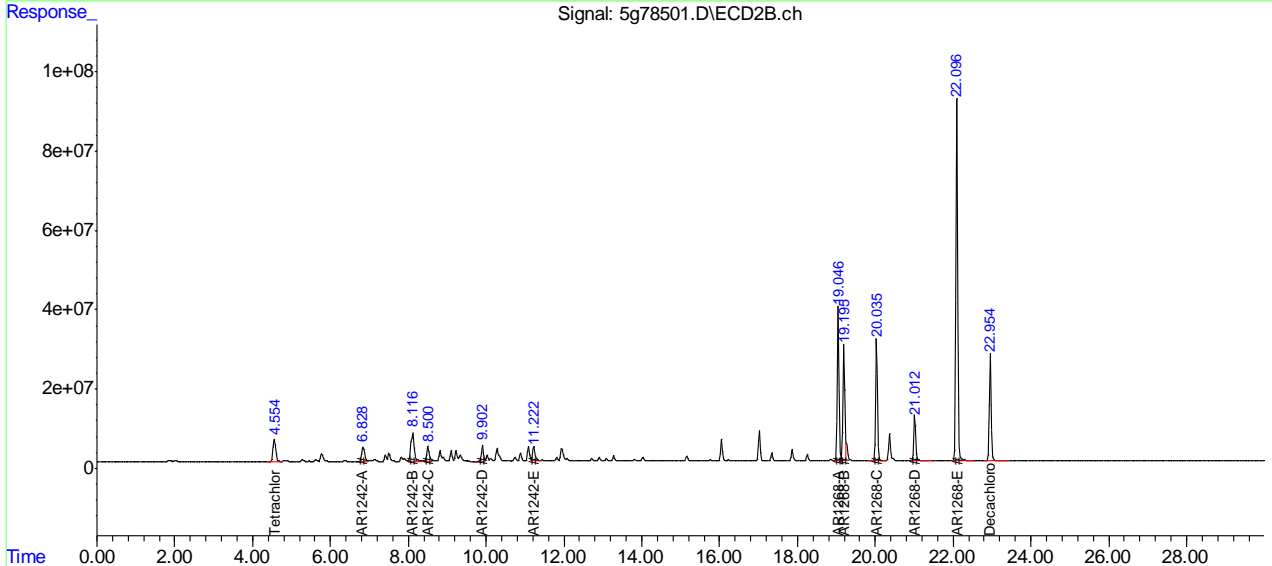
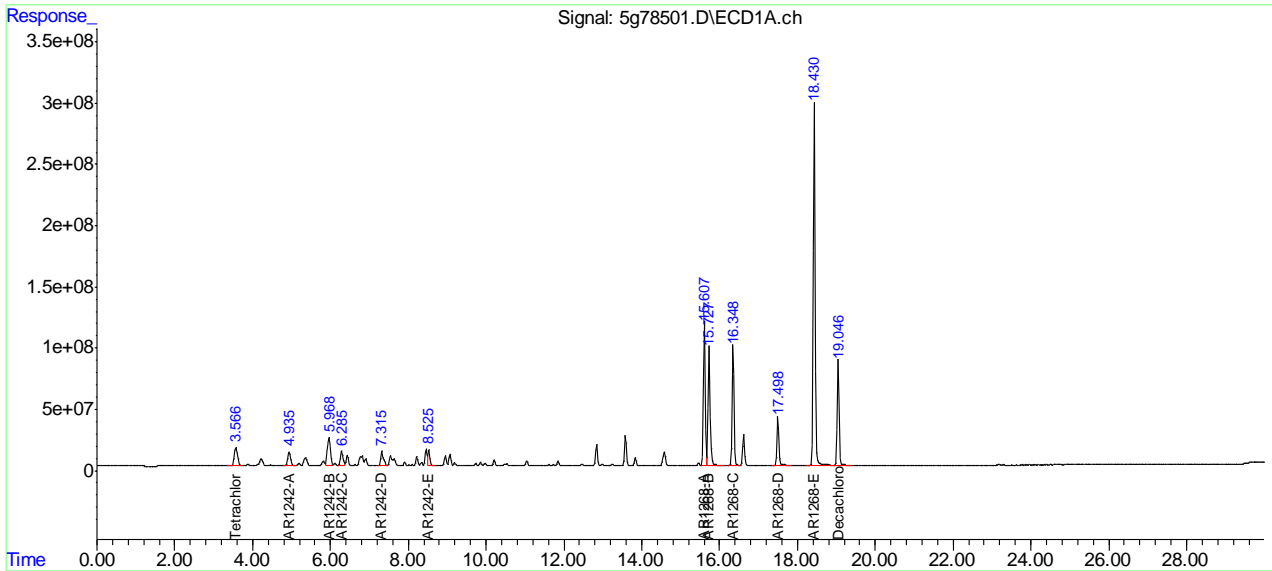
13.3.12  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78501.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 4:33 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:37:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
 Data File : 5g78502.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 15 May 18 5:05 am  
 Operator : christp  
 Sample : ic1865-1000  
 Misc : op11899,g5g1865,1000,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 15 09:34:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
 Quant Title :  
 QLast Update : Tue May 15 09:27:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul  
 Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb      | ppb      |
|-----------------------------|--------|--------|----------|---------|----------|----------|
| -----                       |        |        |          |         |          |          |
| System Monitoring Compounds |        |        |          |         |          |          |
| 1) S Tetrachlo...           | 3.565  | 4.553  | 904.1E6  | 286.6E6 | 43.707   | 45.817   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 109.27%  | 114.54%  |
| 51) S Decachlor...          | 19.050 | 22.955 | 1095.9E6 | 316.9E6 | 44.538   | 45.820   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 111.34%  | 114.55%  |
| Target Compounds            |        |        |          |         |          |          |
| 17) AR1248-A                | 4.931  | 6.827  | 303.3E6  | 102.9E6 | 871.481  | 918.095  |
| 18) AR1248-B                | 5.965  | 8.119  | 831.3E6  | 279.7E6 | 864.067  | 925.145m |
| 19) AR1248-C                | 6.762  | 9.096  | 865.3E6  | 157.9E6 | 887.832m | 904.367  |
| 20) AR1248-D                | 7.314  | 9.903  | 838.9E6  | 208.7E6 | 862.284  | 899.658  |
| 21) AR1248-E                | 7.536  | 10.277 | 503.9E6  | 235.3E6 | 822.461  | 913.519  |
| 22) AR1248-F                | 8.526  | 11.217 | 693.4E6  | 295.4E6 | 872.266  | 926.523  |
| 23) AR1248-G                | 10.207 | 11.937 | 413.0E6  | 262.5E6 | 853.724  | 882.708  |
| -----                       |        |        |          |         |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

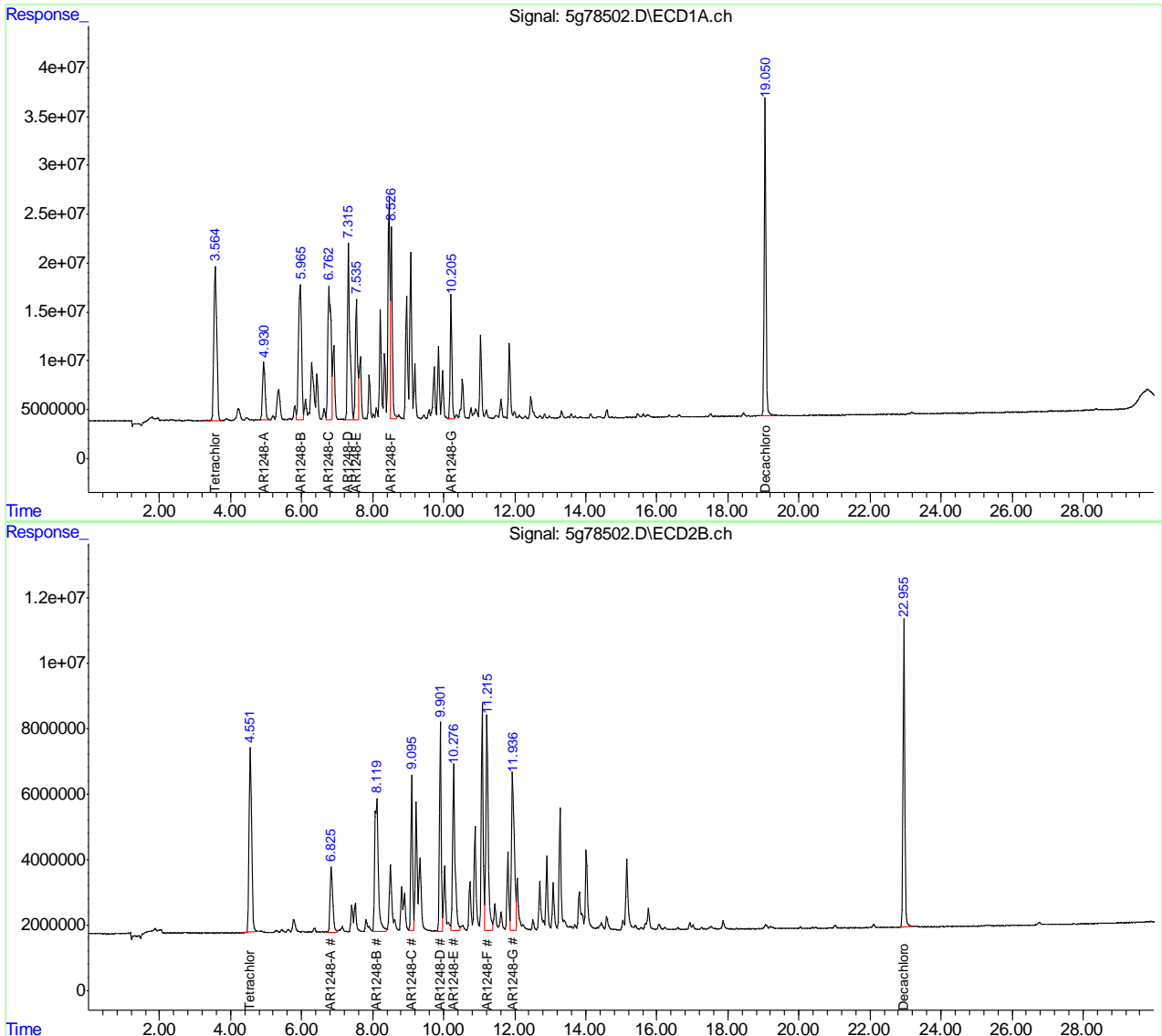
13.3.13  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\g5g1865\  
Data File : 5g78502.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 15 May 18 5:05 am  
Operator : christp  
Sample : ic1865-1000  
Misc : op11899,g5g1865,1000,,,5,1  
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 15 09:34:12 2018  
Quant Method : C:\MSDCHEM\1\METHODS\5PCB1865.M  
Quant Title :  
QLast Update : Tue May 15 09:27:12 2018  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1ul  
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30mx.32mmx.25um



13.3.13  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227130.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:40 pm  
 Operator : tianweir  
 Sample : icc6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:14:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:50:28 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.808  | 3.556  | 325.3E6  | 322.7E6  | 35.988   | 36.348   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 89.97%   | 90.87%   |
| 51) S Decachlor...          | 9.982  | 11.987 | 390.4E6  | 346.9E6  | 35.562   | 34.651m  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 88.90%   | 86.63%   |
| Target Compounds            |        |        |          |          |          |          |
| 41) AR1016-A                | 3.184  | 4.218  | 175.0E6  | 130.3E6  | 922.626m | 909.387  |
| 42) AR1016-B                | 3.575  | 4.772  | 261.8E6  | 250.6E6  | 890.339  | 896.857  |
| 43) AR1016-C                | 4.127  | 5.414  | 603.3E6  | 581.6E6  | 953.124  | 899.202  |
| 44) AR1016-D                | 4.290  | 5.601  | 230.6E6  | 245.5E6  | 898.099  | 910.888m |
| 45) AR1016-E                | 4.786  | 6.262  | 242.7E6  | 177.2E6  | 896.127  | 925.445  |
| 46) AR1260-A                | 7.138  | 8.869  | 672.3E6  | 711.9E6  | 803.724  | 817.569m |
| 47) AR1260-B                | 7.294  | 8.991  | 337.9E6  | 449.8E6  | 930.683  | 990.801  |
| 48) AR1260-C                | 7.629  | 9.424  | 360.1E6  | 421.3E6  | 1020.473 | 942.851  |
| 49) AR1260-D                | 8.059  | 9.772  | 1028.6E6 | 1121.2E6 | 960.075m | 985.013  |
| 50) AR1260-E                | 8.450  | 10.313 | 976.7E6  | 1030.2E6 | 989.138m | 980.642m |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

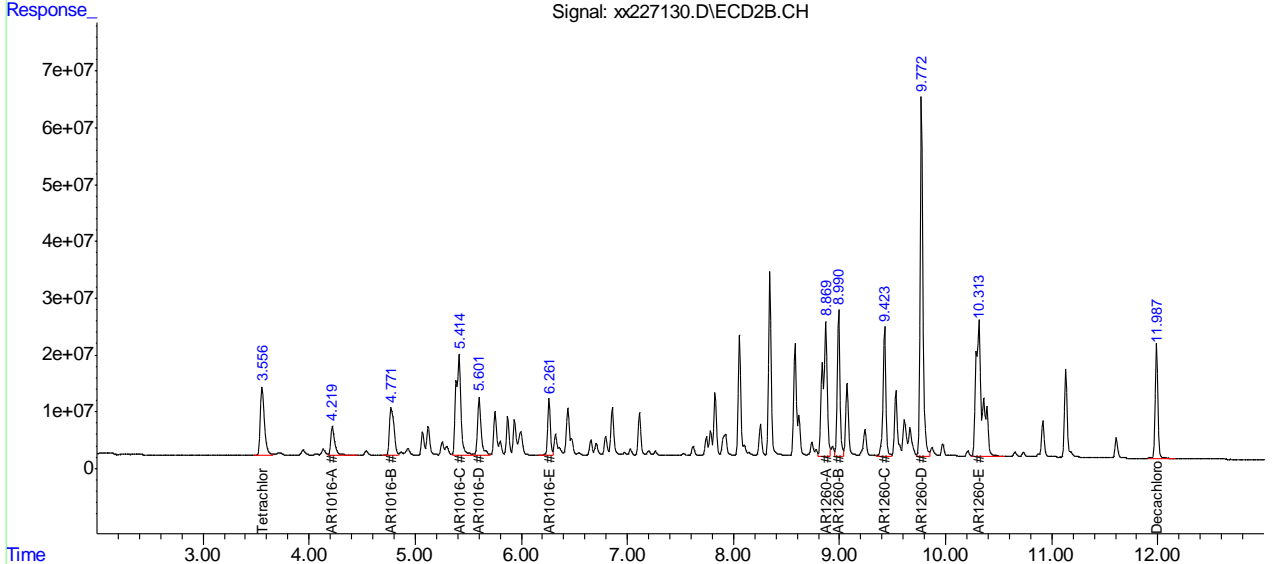
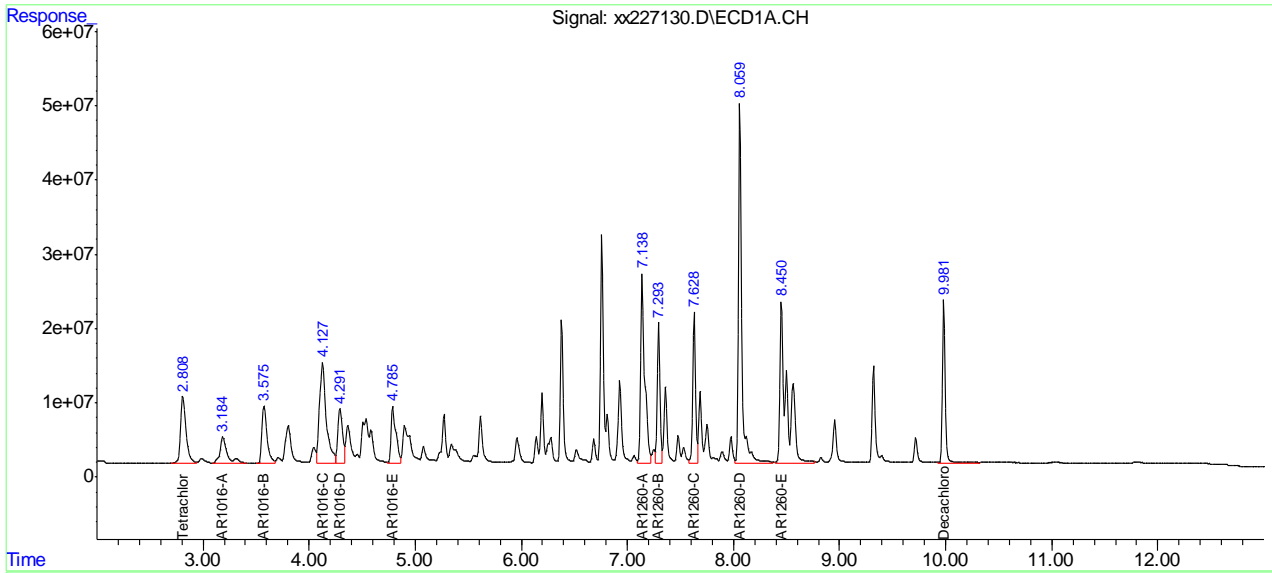
13.3.14  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227130.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:40 pm  
 Operator : tianweir  
 Sample : icc6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:14:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:50:28 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:30 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:20:35 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb       | ppb       |
|-----------------------------|--------|--------|----------|----------|-----------|-----------|
| -----                       |        |        |          |          |           |           |
| System Monitoring Compounds |        |        |          |          |           |           |
| 1) S Tetrachlo...           | 2.809  | 3.556  | 355.0E6  | 335.6E6  | 43.568    | 41.886    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 108.92%   | 104.72%   |
| 51) S Decachlor...          | 9.981  | 11.987 | 407.4E6  | 362.1E6  | 41.493    | 40.274m   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 103.73%   | 100.69%   |
| Target Compounds            |        |        |          |          |           |           |
| 2) AR1221-A                 | 2.319  | 2.982  | 51737568 | 46798022 | 881.299   | 912.375   |
| 3) AR1221-B                 | 2.985  | 3.942  | 88418556 | 84478533 | 923.483   | 910.056   |
| 4) AR1221-C                 | 3.184  | 4.219  | 270.9E6  | 212.0E6  | 933.057   | 924.518   |
| 5) AR1221-D                 | 3.578  | 4.769  | 32050833 | 40253817 | 1105.000  | 935.683   |
| 6) AR1221-E                 | 3.804  | 4.862  | 39629778 | 26153288 | 1479.032m | 892.743m# |
| 24) AR1254-A                | 5.271  | 6.857  | 274.4E6  | 290.4E6  | 993.579   | 897.230   |
| 25) AR1254-B                | 5.612  | 7.113  | 488.9E6  | 322.8E6  | 976.142m  | 917.138   |
| 26) AR1254-C                | 5.976  | 7.617  | 278.2E6  | 265.9E6  | 990.795   | 911.972   |
| 27) AR1254-D                | 6.137  | 7.783  | 546.7E6  | 539.6E6  | 957.829m  | 913.611m  |
| 28) AR1254-E                | 6.520  | 8.100  | 414.4E6  | 422.0E6  | 988.958   | 913.010   |
| 29) AR1254-F                | 6.760  | 8.577  | 361.1E6  | 435.4E6  | 874.449   | 917.907m  |
| 30) AR1254-G                | 7.139  | 8.871  | 530.7E6  | 552.0E6  | 937.494   | 907.247m  |
| -----                       |        |        |          |          |           |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

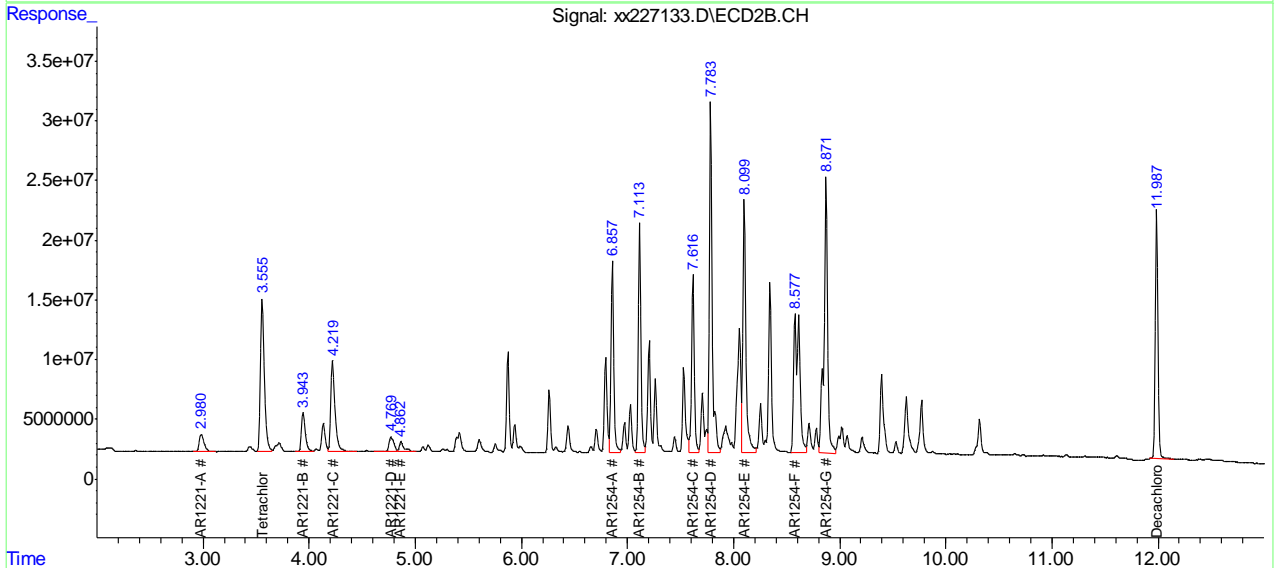
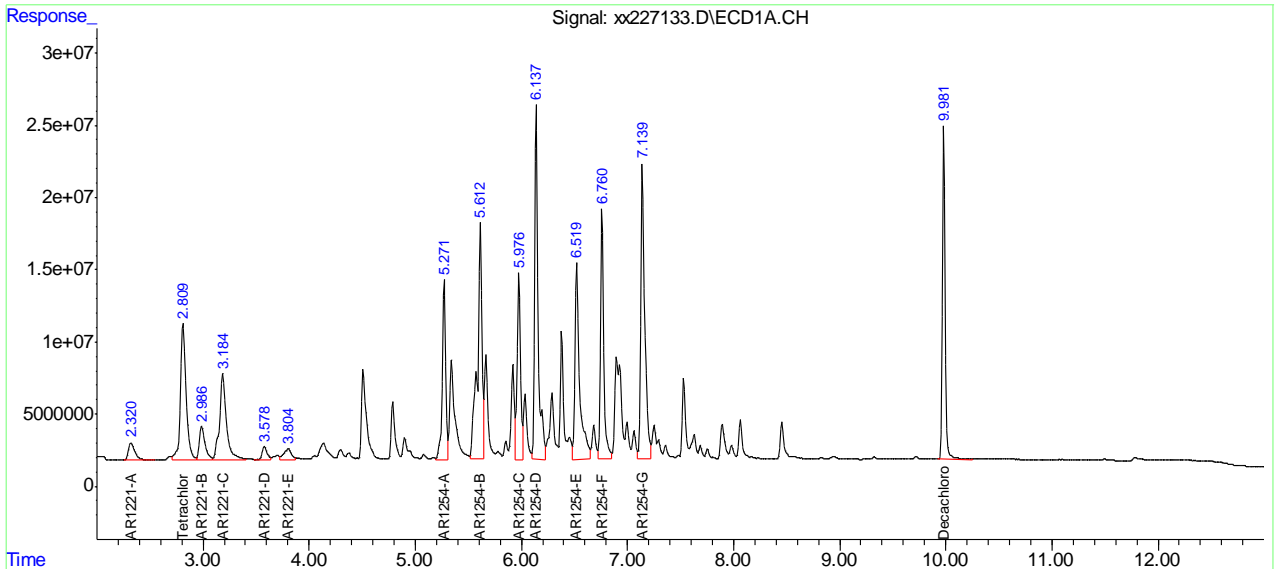
13.3.15  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:30 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:20:35 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227134.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:46 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:23:20 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.809  | 3.554  | 380.3E6  | 365.3E6  | 46.669   | 45.597   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 116.67%  | 113.99%  |
| 51) S Decachlor...          | 9.981  | 11.989 | 434.7E6  | 390.3E6  | 44.269   | 43.417m  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 110.67%  | 108.54%  |
| Target Compounds            |        |        |          |          |          |          |
| 7) AR1232-A                 | 3.184  | 4.217  | 215.7E6  | 162.9E6  | 861.196m | 915.717  |
| 8) AR1232-B                 | 3.574  | 4.770  | 132.3E6  | 127.2E6  | 897.402  | 916.807  |
| 9) AR1232-C                 | 4.130  | 5.414  | 286.5E6  | 277.4E6  | 951.895  | 910.644m |
| 10) AR1232-D                | 4.292  | 5.602  | 110.7E6  | 115.5E6  | 924.392  | 896.768m |
| 11) AR1232-E                | 4.787  | 6.261  | 107.8E6  | 75544055 | 875.277  | 914.468  |
| 31) AR1262-A                | 6.759  | 8.343  | 375.5E6  | 427.2E6  | 987.450  | 904.326  |
| 32) AR1262-B                | 7.293  | 8.990  | 529.3E6  | 698.3E6  | 887.219  | 918.682  |
| 33) AR1262-C                | 7.628  | 9.423  | 478.0E6  | 533.5E6  | 929.978  | 915.709  |
| 34) AR1262-D                | 8.059  | 9.772  | 1221.3E6 | 1356.1E6 | 867.899m | 929.122  |
| 35) AR1262-E                | 8.499  | 10.291 | 1384.2E6 | 1472.0E6 | 909.570m | 921.483m |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

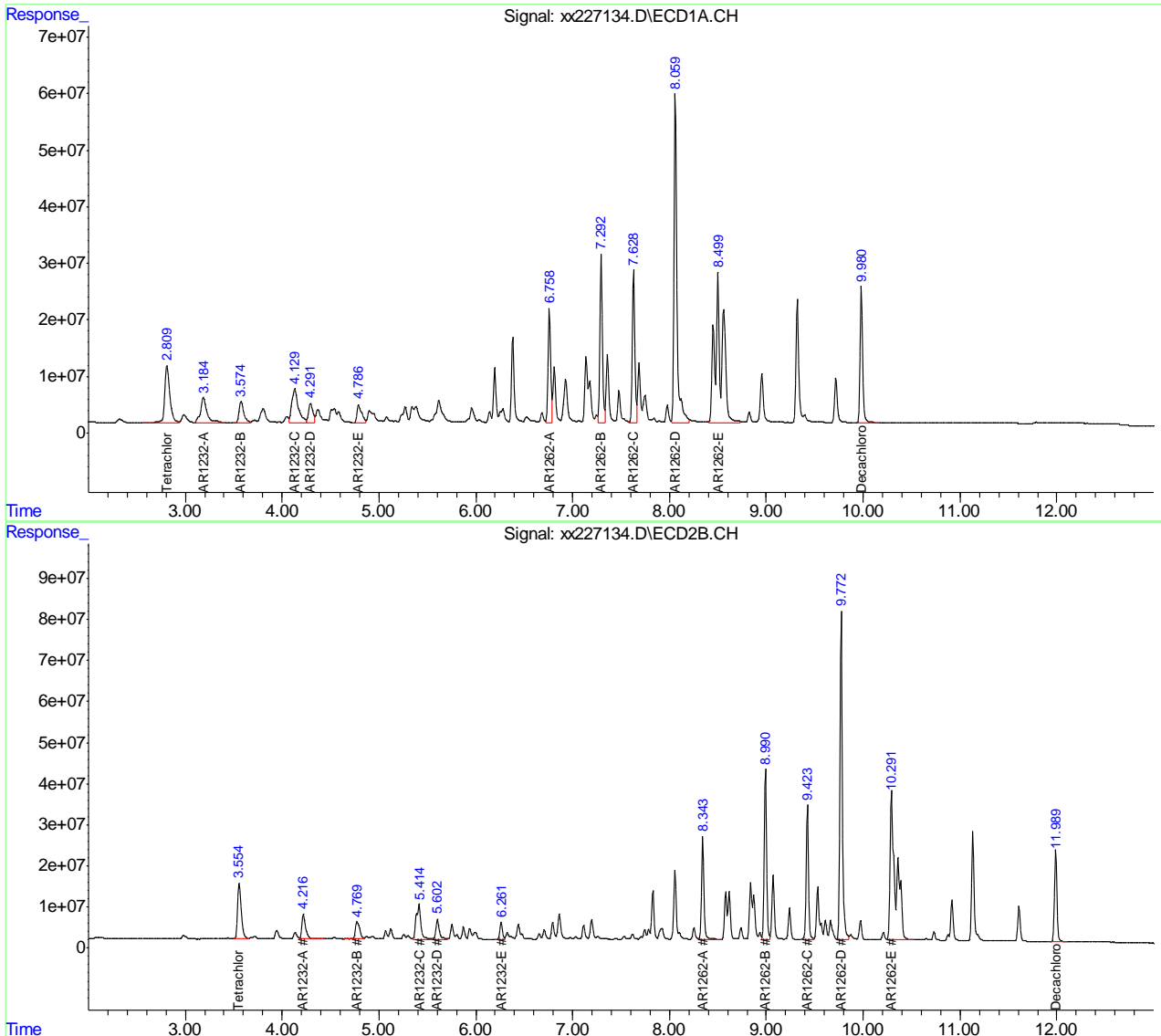
13.3.16  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
Data File : xx227134.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 2:46 pm  
Operator : tianweir  
Sample : ic6321-1000  
Misc : op11391,GXX6321,1000,,,5,1  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 19 15:23:20 2018  
Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 15:14:10 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.3.16 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:09 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:25:23 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.813  | 3.553  | 359.8E6  | 361.0E6  | 44.158   | 45.067   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 110.40%  | 112.67%  |
| 51) S Decachlor...          | 9.986  | 11.990 | 1249.4E6 | 1079.6E6 | 127.238  | 120.082  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 318.10%  | 300.20%  |
| Target Compounds            |        |        |          |          |          |          |
| 12) AR1242-A                | 3.580  | 4.769  | 236.0E6  | 225.3E6  | 954.356  | 922.853  |
| 13) AR1242-B                | 4.132  | 5.410  | 538.8E6  | 516.3E6  | 1006.228 | 931.788m |
| 14) AR1242-C                | 4.295  | 5.599  | 206.7E6  | 216.0E6  | 964.947  | 914.071m |
| 15) AR1242-D                | 4.792  | 6.260  | 224.9E6  | 155.8E6  | 961.105  | 935.072  |
| 16) AR1242-E                | 5.381  | 6.862  | 240.5E6  | 204.3E6  | 922.522  | 902.160  |
| 36) AR1268-A                | 8.504  | 10.291 | 1394.9E6 | 1675.5E6 | 942.361  | 953.410  |
| 37) AR1268-B                | 8.559  | 10.359 | 1519.4E6 | 1504.4E6 | 900.744  | 918.086  |
| 38) AR1268-C                | 8.827  | 10.732 | 1270.4E6 | 1298.3E6 | 927.629  | 927.744  |
| 39) AR1268-D                | 9.322  | 11.130 | 519.3E6  | 515.2E6  | 959.012m | 926.766m |
| 40) AR1268-E                | 9.721  | 11.609 | 4274.1E6 | 3844.6E6 | 957.463  | 940.638  |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

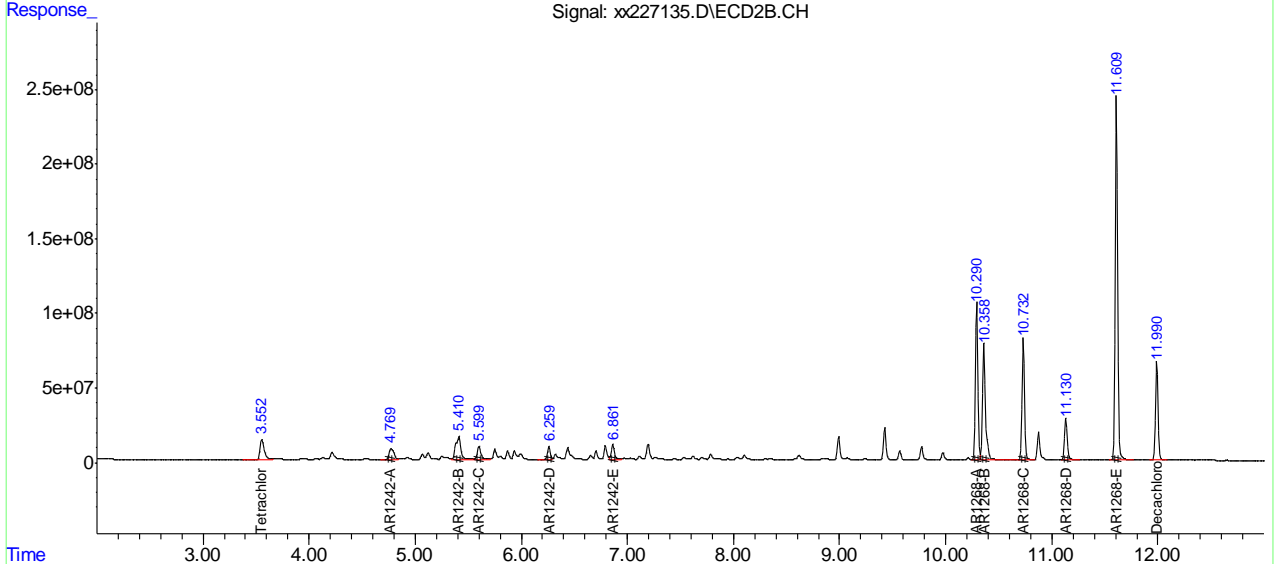
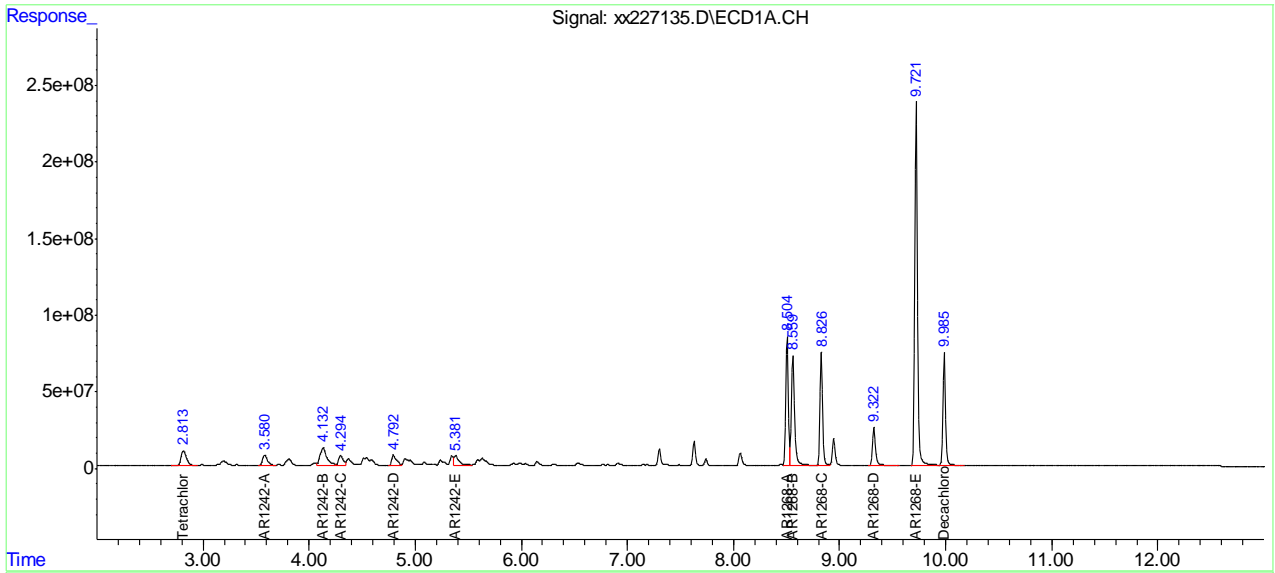
13.3.17  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:09 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:25:23 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:26 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:48:10 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb      | ppb      |
|-----------------------------|--------|--------|----------|---------|----------|----------|
| -----                       |        |        |          |         |          |          |
| System Monitoring Compounds |        |        |          |         |          |          |
| 1) S Tetrachlo...           | 2.809  | 3.556  | 352.5E6  | 352.0E6 | 43.256   | 43.940   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 108.14%  | 109.85%  |
| 51) S Decachlor...          | 9.983  | 11.989 | 425.8E6  | 381.0E6 | 43.361   | 42.376m  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 108.40%  | 105.94%  |
| Target Compounds            |        |        |          |         |          |          |
| 17) AR1248-A                | 3.575  | 4.771  | 119.3E6  | 114.9E6 | 944.635  | 932.025  |
| 18) AR1248-B                | 4.129  | 5.413  | 347.7E6  | 321.9E6 | 1012.471 | 909.484m |
| 19) AR1248-C                | 4.508  | 5.871  | 318.3E6  | 176.5E6 | 946.717m | 907.609  |
| 20) AR1248-D                | 4.787  | 6.260  | 325.1E6  | 235.6E6 | 932.529  | 913.755  |
| 21) AR1248-E                | 4.898  | 6.438  | 302.0E6  | 273.9E6 | 903.847m | 896.445  |
| 22) AR1248-F                | 5.375  | 6.861  | 343.8E6  | 333.1E6 | 895.306  | 893.047  |
| 23) AR1248-G                | 5.620  | 7.195  | 526.2E6  | 308.6E6 | 870.091m | 930.083  |
| -----                       |        |        |          |         |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

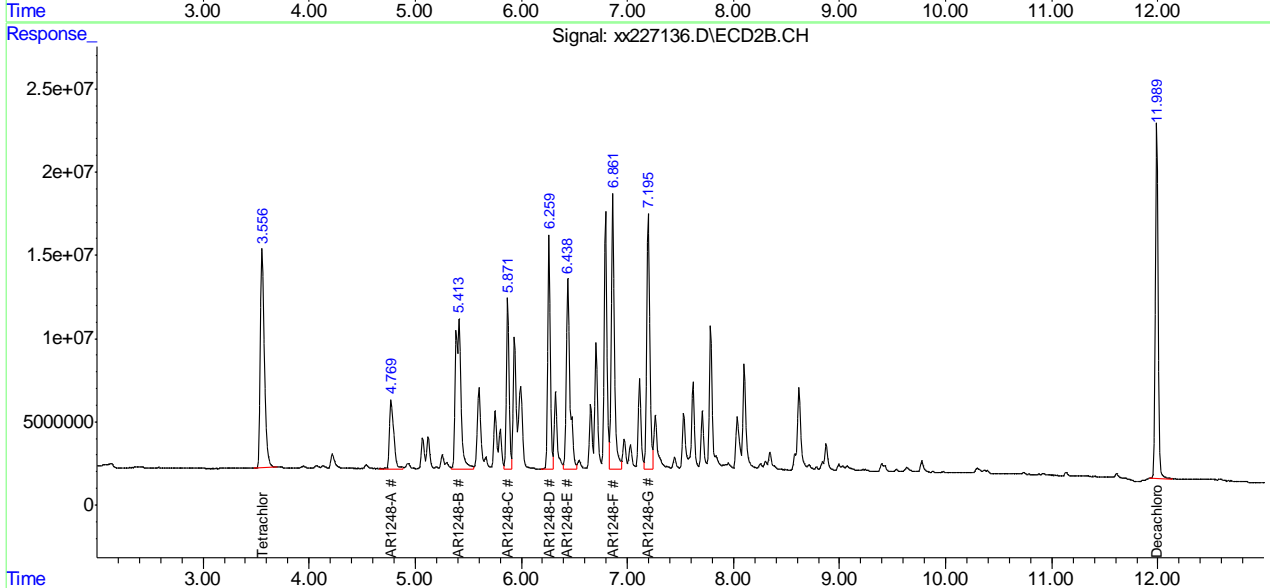
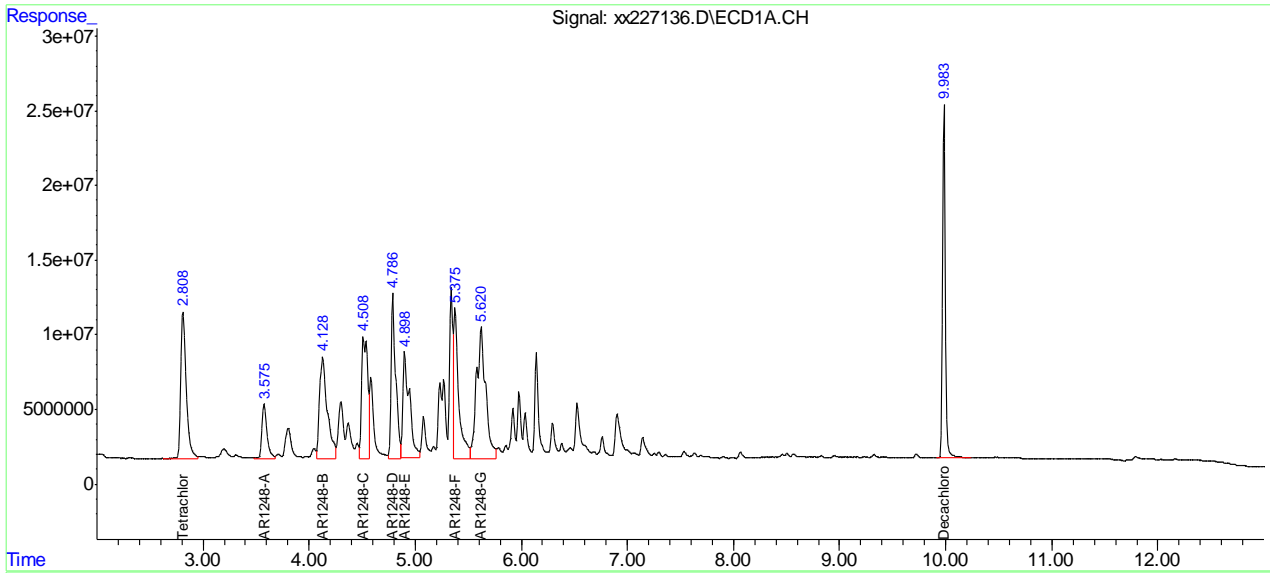
13.3.18  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:26 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:48:10 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:08 | MA44304-STD1       | 1               |          | STDA   |
| 11:12 | MA44304-STD2       | 1               |          | STDB   |
| 11:16 | ZZZZZZ             | 1               |          |  |
| 11:20 | ZZZZZZ             | 1               |          |  |
| 11:25 | MA44304-ICV1       | 1               |          | See rerun  |
| 11:30 | MA44304-ICV2       | 1               |          | See rerun  |
| 11:36 | MA44304-ICV3       | 1               |          |  |
| 11:42 | MA44304-ICB1       | 1               |          |  |
| 11:46 | MA44304-ICCV1      | 1               |          |  |
| 11:54 | MA44304-CCB1       | 1               |          |  |
| 12:00 | MA44304-CRI1       | 1               |          |  |
| 12:05 | MA44304-CRID1      | 1               |          |  |
| 12:09 | MA44304-ICSA1      | 1               |          |  |
| 12:13 | MA44304-ICSAB1     | 1               |          |  |
| 12:18 | MA44304-HSTD1      | 1               |          |  |
| 12:22 | MA44304-HSTD2      | 1               |          | Minerals   |
| 12:26 | ZZZZZZ             | 1               |          |  |
| 12:30 | ZZZZZZ             | 1               |          |  |
| 12:35 | ZZZZZZ             | 1               |          |  |
| 12:39 | MA44304-CCV1       | 1               |          |  |
| 12:43 | MA44304-CCB2       | 1               |          |  |
| 12:47 | MP6862-MB1         | 1               |          |  |
| 12:52 | MP6862-B1          | 1               |          |  |
| 12:56 | MP6862-S1          | 1               |          |  |
| 13:00 | MP6862-S2          | 1               |          | Ti=10ppm   |
| 13:04 | JC65015-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:08 | MP6862-SD1         | 5               |          |  |
| 13:12 | ZZZZZZ             | 1               |          |  |
| 13:17 | ZZZZZZ             | 1               |          |  |
| 13:21 | JC64996-6          | 1               |          |  |
| 13:25 | MA44304-CCV2       | 1               |          |  |
| 13:29 | MA44304-CCB3       | 1               |          |  |
| 13:34 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 13:38  | ZZZZZZ                                      | 1               |          |  |
| 13:42  | JC64996-9                                   | 1               |          | Ca=420ppm  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 13:46  | ZZZZZZ                                      | 1               |          |  |
| 13:51  | ZZZZZZ                                      | 1               |          |  |
| 13:55  | ZZZZZZ                                      | 1               |          |  |
| 13:59  | ZZZZZZ                                      | 1               |          |  |
| 14:03  | ZZZZZZ                                      | 1               |          |  |
| 14:08  | ZZZZZZ                                      | 1               |          |  |
| 14:12  | MA44304-CCV3                                | 1               |          |  |
| 14:16  | MA44304-CCB4                                | 1               |          |  |
| 14:20  | ZZZZZZ                                      | 1               |          |  |
| 14:25  | ZZZZZZ                                      | 1               |          |  |
| 14:29  | ZZZZZZ                                      | 1               |          |  |
| 14:33  | ZZZZZZ                                      | 1               |          |  |
| 14:37  | ZZZZZZ                                      | 1               |          |  |
| 14:41  | ZZZZZZ                                      | 1               |          |  |
| 14:45  | ZZZZZZ                                      | 1               |          |  |
| 14:50  | MP6839-B2                                   | 1               |          |  |
| 14:54  | MP6839-B1                                   | 1               |          |  |
| 14:58  | MA44304-CCV4                                | 1               |          |  |
| 15:02  | MA44304-CCB5                                | 1               |          |  |
| 15:06  | MP6839-MB2                                  | 1               |          |  |
| 15:11  | MP6839-MB1                                  | 1               |          |  |
| 15:15  | MP6839-S1                                   | 1               |          | Ca=280ppm  |
| 15:19  | MP6839-S2                                   | 1               |          | Ca=280ppm  |
| 15:23  | JC65023-1                                   | 1               |          | (sample used for QC only; not part of login JC64996) |
| 15:28  | MP6839-SD1                                  | 5               |          | To reanalysis for Zn                                 |
| 15:32  | ZZZZZZ                                      | 1               |          |  |
| 15:36  | ZZZZZZ                                      | 1               |          |  |
| 15:40  | ZZZZZZ                                      | 1               |          |  |
| 15:45  | MA44304-CCV5                                | 1               |          |  |
| 15:49  | MA44304-CCB6                                | 1               |          |  |
| 15:53  | ZZZZZZ                                      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments |
|--------|-------------------------------------|-----------------|----------|----------|
| 15:58  | ZZZZZZ                              | 1               |          |          |
| 16:03  | MA44304-CRI2                        | 1               |          |          |
| 16:08  | MA44304-CRID2                       | 1               |          |          |
| 16:12  | MA44304-ICSA2                       | 1               |          |          |
| 16:16  | MA44304-ICSAB2                      | 1               |          |          |
| 16:21  | MA44304-CCV6                        | 1               |          |          |
| 16:25  | MA44304-CCB7                        | 1               |          |          |
| -----> | Last reportable CCB for job JC64996 |                 |          |          |
| 16:29  | ZZZZZZ                              | 1               |          |          |
| 16:34  | ZZZZZZ                              | 1               |          |          |
| 16:38  | ZZZZZZ                              | 1               |          |          |
| 16:42  | MP6830-SD1                          | 5               |          |          |
| 16:46  | ZZZZZZ                              | 10              |          |          |
| 16:51  | ZZZZZZ                              | 1               |          |          |
| 16:55  | ZZZZZZ                              | 1               |          |          |
| 16:59  | ZZZZZZ                              | 25              |          |          |
| 17:03  | ZZZZZZ                              | 1               |          |          |
| 17:08  | ZZZZZZ                              | 1               |          |          |
| 17:12  | MA44304-CCV7                        | 1               |          |          |
| 17:16  | MA44304-CCB8                        | 1               |          |          |
| 17:20  | ZZZZZZ                              | 1               |          |          |
| 17:25  | ZZZZZZ                              | 1               |          |          |
| 17:29  | ZZZZZZ                              | 1               |          |          |
| 17:33  | ZZZZZZ                              | 1               |          |          |
| 17:37  | ZZZZZZ                              | 1               |          |          |
| 17:42  | ZZZZZZ                              | 1               |          |          |
| 17:46  | ZZZZZZ                              | 2               |          |          |
| 17:50  | ZZZZZZ                              | 25              |          |          |
| 17:54  | ZZZZZZ                              | 25              |          |          |
| 17:59  | MA44304-CCV8                        | 1               |          |          |
| 18:03  | MA44304-CCB9                        | 1               |          |          |
| 18:07  | ZZZZZZ                              | 1               |          |          |
| 18:12  | ZZZZZZ                              | 1               |          |          |
| 18:16  | ZZZZZZ                              | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 18:20 | ZZZZZZ             | 1               |          |  |
| 18:25 | ZZZZZZ             | 1               |          |  |
| 18:29 | ZZZZZZ             | 1               |          |  |
| 18:33 | ZZZZZZ             | 1               |          |  |
| 18:38 | ZZZZZZ             | 1               |          |  |
| 18:42 | ZZZZZZ             | 1               |          |  |
| 18:47 | MA44304-CCV9       | 1               |          |  |
| 18:51 | MA44304-CCB10      | 1               |          |  |
| 18:55 | ZZZZZZ             | 1               |          |  |
| 18:59 | ZZZZZZ             | 1               |          |  |
| 19:04 | ZZZZZZ             | 1               |          |  |
| 19:08 | ZZZZZZ             | 1               |          |  |
| 19:12 | MP6863-MB1         | 1               |          |  |
| 19:17 | MP6863-B1          | 1               |          |  |
| 19:21 | MP6863-S1          | 1               |          |  |
| 19:25 | MP6863-S2          | 1               |          |  |
| 19:29 | TD20170-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 19:33 | MP6863-SD1         | 5               |          |  |
| 19:38 | MA44304-CCV10      | 1               |          |  |
| 19:42 | MA44304-CCB11      | 1               |          |  |
| 19:46 | ZZZZZZ             | 1               |          |  |
| 19:50 | ZZZZZZ             | 1               |          |  |
| 19:55 | ZZZZZZ             | 1               |          |  |
| 19:59 | ZZZZZZ             | 1               |          |  |
| 20:03 | ZZZZZZ             | 1               |          |  |
| 20:08 | ZZZZZZ             | 1               |          |  |
| 20:12 | ZZZZZZ             | 1               |          |  |
| 20:16 | ZZZZZZ             | 1               |          |  |
| 20:21 | ZZZZZZ             | 1               |          |  |
| 20:25 | ZZZZZZ             | 1               |          |  |
| 20:29 | MA44304-CCV11      | 1               |          |  |
| 20:33 | MA44304-CCB12      | 1               |          |  |
| 20:38 | MA44304-CRI3       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 20:42 | MA44304-CRID3      | 1               |          |  |
| 20:46 | MA44304-ICSA3      | 1               |          |  |
| 20:51 | MA44304-ICSAB3     | 1               |          |  |
| 20:55 | MA44304-CCV12      | 1               |          |  |
| 20:59 | MA44304-CCB13      | 1               |          |  |
| 21:04 | ZZZZZZ             | 1               |          |  |
| 21:08 | ZZZZZZ             | 1               |          |  |
| 21:12 | ZZZZZZ             | 1               |          |  |
| 21:16 | ZZZZZZ             | 1               |          |  |
| 21:21 | ZZZZZZ             | 1               |          |  |
| 21:25 | ZZZZZZ             | 1               |          |  |
| 21:29 | ZZZZZZ             | 1               |          |  |
| 21:34 | ZZZZZZ             | 1               |          |  |
| 21:38 | ZZZZZZ             | 1               |          |  |
| 21:43 | MA44304-CCV13      | 1               |          |  |
| 21:47 | MA44304-CCB14      | 1               |          |  |
| 21:51 | MP6856-MB1         | 1               |          |  |
| 21:55 | MP6856-B1          | 1               |          |  |
| 22:00 | MP6856-S1          | 1               |          |  |
| 22:04 | MP6856-S2          | 1               |          |  |
| 22:08 | JC64837-4          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 22:12 | MP6856-SD1         | 5               |          |  |
| 22:16 | ZZZZZZ             | 1               |          |  |
| 22:21 | ZZZZZZ             | 1               |          |  |
| 22:25 | ZZZZZZ             | 1               |          |  |
| 22:29 | ZZZZZZ             | 1               |          |  |
| 22:34 | MA44304-CCV14      | 1               |          |  |
| 22:38 | MA44304-CCB15      | 1               |          |  |
| 22:42 | ZZZZZZ             | 1               |          |  |
| 22:46 | ZZZZZZ             | 1               |          |  |
| 22:51 | ZZZZZZ             | 1               |          |  |
| 22:55 | ZZZZZZ             | 1               |          |  |
| 22:59 | ZZZZZZ             | 1               |          |  |

14.1  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 23:04 | ZZZZZZ             | 1               |          |  |
| 23:08 | ZZZZZZ             | 1               |          |  |
| 23:12 | ZZZZZZ             | 1               |          |  |
| 23:16 | ZZZZZZ             | 1               |          |  |
| 23:21 | ZZZZZZ             | 1               |          |  |
| 23:25 | MA44304-CCV15      | 1               |          |  |
| 23:29 | MA44304-CCB16      | 1               |          |  |
| 23:33 | ZZZZZZ             | 1               |          |  |
| 23:38 | ZZZZZZ             | 1               |          |  |
| 23:42 | ZZZZZZ             | 1               |          |  |
| 23:46 | MP6853-MB1         | 1               |          |  |
| 23:51 | MP6853-B1          | 1               |          |  |
| 23:55 | MP6853-S1          | 1               |          |  |
| 23:59 | MP6853-S2          | 1               |          |  |
| 00:03 | JC64818-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 00:07 | MP6853-SD1         | 5               |          |  |
| 00:12 | ZZZZZZ             | 1               |          |  |
| 00:16 | MA44304-CCV16      | 1               |          |  |
| 00:20 | MA44304-CCB17      | 1               |          |  |
| 00:24 | ZZZZZZ             | 1               |          |  |
| 00:29 | ZZZZZZ             | 1               |          |  |
| 00:33 | ZZZZZZ             | 1               |          |  |
| 00:37 | ZZZZZZ             | 1               |          |  |
| 00:41 | ZZZZZZ             | 1               |          |  |
| 00:46 | ZZZZZZ             | 1               |          |  |
| 00:50 | ZZZZZZ             | 1               |          |  |
| 00:54 | ZZZZZZ             | 1               |          |  |
| 00:58 | ZZZZZZ             | 1               |          |  |
| 01:03 | ZZZZZZ             | 1               |          |  |
| 01:07 | MA44304-CCV17      | 1               |          |  |
| 01:11 | MA44304-CCB18      | 1               |          |  |
| 01:15 | ZZZZZZ             | 1               |          |  |
| 01:20 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44304  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 01:24 | ZZZZZZ             | 1               |          |          |
| 01:28 | ZZZZZZ             | 1               |          |          |
| 01:33 | ZZZZZZ             | 1               |          |          |
| 01:37 | ZZZZZZ             | 1               |          |          |
| 01:41 | ZZZZZZ             | 1               |          |          |
| 01:45 | ZZZZZZ             | 1               |          |          |
| 01:50 | MA44304-CCV18      | 1               |          |          |
| 01:54 | MA44304-CCB19      | 1               |          |          |
| 01:58 | MA44304-CRI4       | 1               |          |          |
| 02:02 | MA44304-CRID4      | 1               |          |          |
| 02:07 | MA44304-CCV19      | 1               |          |          |
| 02:11 | MA44304-CCB20      | 1               |          |          |
| 07:40 | ZZZZZZ             | 1               |          |          |
| 08:11 | ZZZZZZ             | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1   | Istd#2  | Istd#3  | Istd#4 |
|-------|--------------------|--|---------|---------|--------|
| 11:08 | MA44304-STD1       | 3387 R   | 99095 R | 14049 R | 8146 R |
| 11:12 | MA44304-STD2       | 3158   | 92216   | 13861   | 6938   |
| 11:16 | ZZZZZZ             | 3254   | 94804   | 13879   | 7253   |
| 11:20 | ZZZZZZ             | 3376   | 99285   | 13995   | 8126   |
| 11:25 | MA44304-ICV1       | No results reported for the elements associated with this internal standard. |         |         |        |
| 11:30 | MA44304-ICV2       | No results reported for the elements associated with this internal standard. |         |         |        |
| 11:36 | MA44304-ICV3       | 3242   | 94721   | 13905   | 7241   |
| 11:42 | MA44304-ICB1       | 3397   | 99837   | 14202   | 8179   |
| 11:46 | MA44304-ICCV1      | 3251   | 95158   | 13993   | 7250   |
| 11:54 | MA44304-CCB1       | 3393   | 99751   | 14106   | 8166   |
| 12:00 | MA44304-CRI1       | 3347   | 98485   | 14150   | 7945   |
| 12:05 | MA44304-CRID1      | 3378   | 99410   | 14152   | 8105   |
| 12:09 | MA44304-ICSA1      | 2984   | 87314   | 13740   | 6322   |
| 12:13 | MA44304-ICSAB1     | 2983   | 87519   | 13651   | 6341   |
| 12:18 | MA44304-HSTD1      | 3321   | 98037   | 14246   | 7870   |
| 12:22 | MA44304-HSTD2      | 3051   | 88622   | 13636   | 6447   |
| 12:26 | ZZZZZZ             | 3304   | 97214   | 14137   | 7950   |
| 12:30 | ZZZZZZ             | 3308   | 99520   | 14095   | 8112   |
| 12:35 | ZZZZZZ             | 3391   | 100100  | 14226   | 8184   |
| 12:39 | MA44304-CCV1       | 3259   | 95380   | 14130   | 7284   |
| 12:43 | MA44304-CCB2       | 3389   | 100200  | 14197   | 8181   |
| 12:47 | MP6862-MB1         | 3404   | 101210  | 14534   | 8219   |
| 12:52 | MP6862-B1          | 3310   | 97723   | 14316   | 7518   |
| 12:56 | MP6862-S1          | 3292   | 97316   | 14671   | 7093   |
| 13:00 | MP6862-S2          | 3282   | 96967   | 14692   | 6994   |
| 13:04 | JC65015-2          | 3322   | 98224   | 14815   | 7171   |
| 13:08 | MP6862-SD1         | 3371   | 99406   | 14381   | 7737   |
| 13:12 | ZZZZZZ             | 3203   | 94913   | 14615   | 6740   |
| 13:17 | ZZZZZZ             | 3594   | 105670  | 15840   | 7244   |
| 13:21 | JC64996-6          | 3157   | 94052   | 14428   | 6552   |
| 13:25 | MA44304-CCV2       | 3272   | 96148   | 14242   | 7321   |
| 13:29 | MA44304-CCB3       | 3407   | 100790  | 14411   | 8227   |
| 13:34 | ZZZZZZ             | 3116   | 92815   | 14331   | 6482   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 13:38 | ZZZZZZ             | 3337   | 99075  | 14973  | 6982   |
| 13:42 | JC64996-9          | 3270   | 97453  | 15070  | 6589   |
| 13:46 | ZZZZZZ             | 3107   | 92752  | 14442  | 6292   |
| 13:51 | ZZZZZZ             | 3380   | 101120 | 14333  | 8160   |
| 13:55 | ZZZZZZ             | 3390   | 100210 | 15143  | 7239   |
| 13:59 | ZZZZZZ             | 3291   | 97094  | 14752  | 7003   |
| 14:03 | ZZZZZZ             | 3324   | 97927  | 14770  | 7035   |
| 14:08 | ZZZZZZ             | 3397   | 99395  | 14841  | 7314   |
| 14:12 | MA44304-CCV3       | 3263   | 95514  | 14260  | 7306   |
| 14:16 | MA44304-CCB4       | 3391   | 100010 | 14433  | 8198   |
| 14:20 | ZZZZZZ             | 3317   | 97172  | 14800  | 7049   |
| 14:25 | ZZZZZZ             | 3341   | 97771  | 14780  | 7177   |
| 14:29 | ZZZZZZ             | 3247   | 95186  | 14855  | 6600   |
| 14:33 | ZZZZZZ             | 3270   | 96038  | 14919  | 6796   |
| 14:37 | ZZZZZZ             | 3269   | 95635  | 14790  | 6881   |
| 14:41 | ZZZZZZ             | 3316   | 97231  | 14592  | 7232   |
| 14:45 | ZZZZZZ             | 3034   | 89957  | 13798  | 6708   |
| 14:50 | MP6839-B2          | 3327   | 98731  | 14835  | 7629   |
| 14:54 | MP6839-B1          | 3351   | 98859  | 14891  | 7693   |
| 14:58 | MA44304-CCV4       | 3212   | 94451  | 14166  | 7207   |
| 15:02 | MA44304-CCB5       | 3337   | 99181  | 14214  | 8076   |
| 15:06 | MP6839-MB2         | 3428   | 102360 | 14741  | 8373   |
| 15:11 | MP6839-MB1         | 3445   | 102760 | 15020  | 8433   |
| 15:15 | MP6839-S1          | 2998   | 89937  | 14438  | 6640   |
| 15:19 | MP6839-S2          | 3009   | 89921  | 14361  | 6655   |
| 15:23 | JC65023-1          | 3041   | 90395  | 14974  | 6799   |
| 15:28 | MP6839-SD1         | 3196   | 95042  | 14193  | 7449   |
| 15:32 | ZZZZZZ             | 3280   | 98186  | 14934  | 7518   |
| 15:36 | ZZZZZZ             | 3197   | 95423  | 14769  | 7294   |
| 15:40 | ZZZZZZ             | 3048   | 90743  | 14677  | 6732   |
| 15:45 | MA44304-CCV5       | 3213   | 94950  | 14174  | 7190   |
| 15:49 | MA44304-CCB6       | 3360   | 99745  | 14253  | 8110   |
| 15:53 | ZZZZZZ             | 3434   | 99318  | 15257  | 7405   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 15:58 | ZZZZZZ             | 3390   | 98407  | 15388  | 7256   |
| 16:03 | MA44304-CRI2       | 3316   | 98446  | 14104  | 7901   |
| 16:08 | MA44304-CRID2      | 3366   | 99693  | 14215  | 8083   |
| 16:12 | MA44304-ICSA2      | 2969   | 87297  | 13756  | 6297   |
| 16:16 | MA44304-ICSAB2     | 2981   | 87697  | 13778  | 6342   |
| 16:21 | MA44304-CCV6       | 3235   | 95202  | 14175  | 7244   |
| 16:25 | MA44304-CCB7       | 3387   | 99981  | 14162  | 8174   |
| 16:29 | ZZZZZZ             | 3145   | 93380  | 14700  | 6965   |
| 16:34 | ZZZZZZ             | 3320   | 97727  | 15229  | 7559   |
| 16:38 | ZZZZZZ             | 3255   | 96417  | 14666  | 7350   |
| 16:42 | MP6830-SD1         | 3306   | 97614  | 14229  | 7785   |
| 16:46 | ZZZZZZ             | 3226   | 93932  | 14041  | 7240   |
| 16:51 | ZZZZZZ             | 3386   | 100800 | 14468  | 8187   |
| 16:55 | ZZZZZZ             | 3299   | 97714  | 14368  | 7498   |
| 16:59 | ZZZZZZ             | 3361   | 99336  | 14305  | 8056   |
| 17:03 | ZZZZZZ             | 3427   | 102400 | 14666  | 8284   |
| 17:08 | ZZZZZZ             | 3335   | 99152  | 14542  | 7569   |
| 17:12 | MA44304-CCV7       | 3315   | 97599  | 14284  | 7391   |
| 17:16 | MA44304-CCB8       | 3455   | 101900 | 14444  | 8313   |
| 17:20 | ZZZZZZ             | 3451   | 101950 | 14521  | 8320   |
| 17:25 | ZZZZZZ             | 3357   | 99142  | 14518  | 7594   |
| 17:29 | ZZZZZZ             | 3251   | 95532  | 14456  | 7125   |
| 17:33 | ZZZZZZ             | 3357   | 100020 | 14508  | 7820   |
| 17:37 | ZZZZZZ             | 3477   | 103780 | 14622  | 8352   |
| 17:42 | ZZZZZZ             | 3369   | 99492  | 14410  | 7605   |
| 17:46 | ZZZZZZ             | 3502   | 103050 | 14783  | 8030   |
| 17:50 | ZZZZZZ             | 3544   | 103970 | 15040  | 7755   |
| 17:54 | ZZZZZZ             | 3492   | 102710 | 14921  | 7621   |
| 17:59 | MA44304-CCV8       | 3331   | 97754  | 14479  | 7403   |
| 18:03 | MA44304-CCB9       | 3461   | 102790 | 14337  | 8296   |
| 18:07 | ZZZZZZ             | 3456   | 101980 | 14321  | 8248   |
| 18:12 | ZZZZZZ             | 3472   | 102610 | 14401  | 8318   |
| 18:16 | ZZZZZZ             | 3502   | 103070 | 14500  | 8354   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 18:20 | ZZZZZZ             | 3486   | 102350 | 14473  | 8329   |
| 18:25 | ZZZZZZ             | 3475   | 102540 | 14396  | 8350   |
| 18:29 | ZZZZZZ             | 3132   | 92164  | 13740  | 6972   |
| 18:33 | ZZZZZZ             | 3511   | 103460 | 14563  | 8381   |
| 18:38 | ZZZZZZ             | 3509   | 98703  | 14688  | 7436   |
| 18:42 | ZZZZZZ             | 3507   | 103530 | 14444  | 8421   |
| 18:47 | MA44304-CCV9       | 3372   | 98812  | 14424  | 7477   |
| 18:51 | MA44304-CCB10      | 3527   | 104030 | 14620  | 8439   |
| 18:55 | ZZZZZZ             | 3285   | 92142  | 14733  | 7178   |
| 18:59 | ZZZZZZ             | 3581   | 106070 | 15095  | 8716   |
| 19:04 | ZZZZZZ             | 3151   | 93791  | 14535  | 6991   |
| 19:08 | ZZZZZZ             | 3307   | 95050  | 14712  | 7189   |
| 19:12 | MP6863-MB1         | 3473   | 103170 | 14488  | 8340   |
| 19:17 | MP6863-B1          | 3377   | 99541  | 14537  | 7627   |
| 19:21 | MP6863-S1          | 3218   | 95027  | 14256  | 6985   |
| 19:25 | MP6863-S2          | 3224   | 95221  | 14150  | 6997   |
| 19:29 | TD20170-1          | 3230   | 95849  | 14248  | 7214   |
| 19:33 | MP6863-SD1         | 3387   | 100100 | 14422  | 7872   |
| 19:38 | MA44304-CCV10      | 3345   | 98452  | 14304  | 7422   |
| 19:42 | MA44304-CCB11      | 3518   | 104000 | 14732  | 8441   |
| 19:46 | ZZZZZZ             | 3523   | 104540 | 14687  | 8454   |
| 19:50 | ZZZZZZ             | 3322   | 96691  | 14509  | 7396   |
| 19:55 | ZZZZZZ             | 3145   | 93023  | 14169  | 6904   |
| 19:59 | ZZZZZZ             | 3131   | 92579  | 14019  | 6876   |
| 20:03 | ZZZZZZ             | 3249   | 96293  | 14276  | 7244   |
| 20:08 | ZZZZZZ             | 3313   | 97131  | 14461  | 7352   |
| 20:12 | ZZZZZZ             | 3232   | 94894  | 14230  | 7148   |
| 20:16 | ZZZZZZ             | 2838   | 86110  | 13844  | 6377   |
| 20:21 | ZZZZZZ             | 2792   | 85284  | 13701  | 6309   |
| 20:25 | ZZZZZZ             | 3384   | 99337  | 14638  | 7589   |
| 20:29 | MA44304-CCV11      | 3372   | 99185  | 14456  | 7482   |
| 20:33 | MA44304-CCB12      | 3467   | 102300 | 14270  | 8319   |
| 20:38 | MA44304-CRI3       | 3420   | 100810 | 14343  | 8091   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 20:42 | MA44304-CRID3      | 3457   | 102130 | 14321  | 8271   |
| 20:46 | MA44304-ICSA3      | 3051   | 89761  | 13780  | 6436   |
| 20:51 | MA44304-ICSAB3     | 3065   | 89756  | 13786  | 6472   |
| 20:55 | MA44304-CCV12      | 3321   | 97766  | 14148  | 7378   |
| 20:59 | MA44304-CCB13      | 3465   | 102250 | 14341  | 8320   |
| 21:04 | ZZZZZZ             | 3291   | 97008  | 14282  | 7391   |
| 21:08 | ZZZZZZ             | 3261   | 95237  | 14107  | 7207   |
| 21:12 | ZZZZZZ             | 3396   | 100700 | 14454  | 7855   |
| 21:16 | ZZZZZZ             | 3304   | 97272  | 14245  | 7469   |
| 21:21 | ZZZZZZ             | 3402   | 100630 | 14473  | 7936   |
| 21:25 | ZZZZZZ             | 3481   | 103600 | 14607  | 8381   |
| 21:29 | ZZZZZZ             | 3321   | 98707  | 14313  | 7536   |
| 21:34 | ZZZZZZ             | 2830   | 79487  | 13397  | 5832   |
| 21:38 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 21:43 | MA44304-CCV13      | 3306   | 97353  | 14225  | 7306   |
| 21:47 | MA44304-CCB14      | 3430   | 101420 | 14260  | 8156   |
| 21:51 | MP6856-MB1         | 3450   | 103110 | 14504  | 8262   |
| 21:55 | MP6856-B1          | 3373   | 99911  | 14513  | 7631   |
| 22:00 | MP6856-S1          | 3258   | 96958  | 14292  | 7152   |
| 22:04 | MP6856-S2          | 3271   | 97023  | 14351  | 7170   |
| 22:08 | JC64837-4          | 3276   | 97502  | 14299  | 7413   |
| 22:12 | MP6856-SD1         | 3411   | 100920 | 14331  | 8005   |
| 22:16 | ZZZZZZ             | 3205   | 96011  | 14195  | 7169   |
| 22:21 | ZZZZZZ             | 3324   | 99329  | 14317  | 7699   |
| 22:25 | ZZZZZZ             | 3294   | 98259  | 14357  | 7495   |
| 22:29 | ZZZZZZ             | 3218   | 94405  | 14162  | 7096   |
| 22:34 | MA44304-CCV14      | 3336   | 98223  | 14260  | 7405   |
| 22:38 | MA44304-CCB15      | 3485   | 102740 | 14287  | 8355   |
| 22:42 | ZZZZZZ             | 3522   | 104510 | 14547  | 8462   |
| 22:46 | ZZZZZZ             | 3456   | 102490 | 14412  | 8082   |
| 22:51 | ZZZZZZ             | 3429   | 101540 | 14371  | 7984   |
| 22:55 | ZZZZZZ             | 3288   | 96627  | 14137  | 7396   |
| 22:59 | ZZZZZZ             | 3237   | 96378  | 14104  | 7281   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 23:04 | ZZZZZZ             | 3403   | 101120 | 14347  | 7843   |
| 23:08 | ZZZZZZ             | 3370   | 99921  | 14232  | 7806   |
| 23:12 | ZZZZZZ             | 3329   | 98223  | 14208  | 7572   |
| 23:16 | ZZZZZZ             | 3387   | 101130 | 14243  | 7900   |
| 23:21 | ZZZZZZ             | 3421   | 101890 | 14326  | 7917   |
| 23:25 | MA44304-CCV15      | 3328   | 97769  | 13990  | 7370   |
| 23:29 | MA44304-CCB16      | 3470   | 103100 | 14230  | 8306   |
| 23:33 | ZZZZZZ             | 3422   | 101850 | 14413  | 8058   |
| 23:38 | ZZZZZZ             | 3265   | 95472  | 14129  | 7218   |
| 23:42 | ZZZZZZ             | 3391   | 100890 | 14281  | 7795   |
| 23:46 | MP6853-MB1         | 3485   | 103620 | 14396  | 8341   |
| 23:51 | MP6853-B1          | 3387   | 100060 | 14384  | 7633   |
| 23:55 | MP6853-S1          | 3378   | 99460  | 14244  | 7591   |
| 23:59 | MP6853-S2          | 3385   | 99865  | 14351  | 7598   |
| 00:03 | JC64818-1          | 3524   | 104690 | 14581  | 8315   |
| 00:07 | MP6853-SD1         | 3588   | 106020 | 14746  | 8547   |
| 00:12 | ZZZZZZ             | 3493   | 103220 | 14628  | 8034   |
| 00:16 | MA44304-CCV16      | 3445   | 101020 | 14477  | 7607   |
| 00:20 | MA44304-CCB17      | 3681   | 108510 | 14997  | 8769   |
| 00:24 | ZZZZZZ             | 3591   | 106700 | 14807  | 8513   |
| 00:29 | ZZZZZZ             | 3534   | 104930 | 14739  | 8183   |
| 00:33 | ZZZZZZ             | 3503   | 103850 | 14605  | 8036   |
| 00:37 | ZZZZZZ             | 3436   | 101800 | 14439  | 7893   |
| 00:41 | ZZZZZZ             | 3471   | 101670 | 14526  | 8052   |
| 00:46 | ZZZZZZ             | 3641   | 107530 | 14995  | 8475   |
| 00:50 | ZZZZZZ             | 3553   | 105460 | 14724  | 8270   |
| 00:54 | ZZZZZZ             | 3500   | 102900 | 14706  | 7935   |
| 00:58 | ZZZZZZ             | 3577   | 105560 | 14780  | 8296   |
| 01:03 | ZZZZZZ             | 3462   | 102080 | 14525  | 7923   |
| 01:07 | MA44304-CCV17      | 3542   | 103560 | 14713  | 7785   |
| 01:11 | MA44304-CCB18      | 3691   | 108800 | 14930  | 8780   |
| 01:15 | ZZZZZZ             | 3492   | 102080 | 14916  | 7689   |
| 01:20 | ZZZZZZ             | 3316   | 97443  | 14267  | 7247   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44304  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 01:24 | ZZZZZZ             | 3488   | 102820 | 14394  | 8012   |
| 01:28 | ZZZZZZ             | 3423   | 100590 | 14543  | 7720   |
| 01:33 | ZZZZZZ             | 3537   | 104310 | 14591  | 8138   |
| 01:37 | ZZZZZZ             | 3455   | 102320 | 14402  | 7884   |
| 01:41 | ZZZZZZ             | 3575   | 105770 | 14732  | 8418   |
| 01:45 | ZZZZZZ             | 3451   | 102040 | 14648  | 7799   |
| 01:50 | MA44304-CCV18      | 3487   | 101860 | 14488  | 7644   |
| 01:54 | MA44304-CCB19      | 3613   | 107230 | 14760  | 8575   |
| 01:58 | MA44304-CRI4       | 3563   | 104940 | 14592  | 8344   |
| 02:02 | MA44304-CRID4      | 3606   | 106330 | 14577  | 8533   |
| 02:07 | MA44304-CCV19      | 3457   | 101520 | 14498  | 7591   |
| 02:11 | MA44304-CCB20      | 3634   | 106380 | 14520  | 8628   |
| 07:40 | ZZZZZZ             | 3042   | 88039  | 13178  | 5956   |
| 08:11 | ZZZZZZ             | 3227   | 95073  | 13556  | 6657   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

14.1.1  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44304 Units: ug/l

| Time:<br>Sample ID: |       |     | 11:42<br>ICB1 |        | 11:54<br>CCB1 |        | 12:43<br>CCB2 |        | 13:29<br>CCB3 |        |
|---------------------|-------|-----|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| Metal               | RL    | IDL | raw           | final  | raw           | final  | raw           | final  | raw           | final  |
| Aluminum            | 200   | 34  | -2.70         | <200   | -3.10         | <200   | 4.80          | <200   | 10.9          | <200   |
| Antimony            | 6.0   | 1.4 | 0.600         | <6.0   | -0.700        | <6.0   | 0.100         | <6.0   | 0.400         | <6.0   |
| Arsenic             | 3.0   | 1.4 | -0.300        | <3.0   | 0.300         | <3.0   | -0.700        | <3.0   | -0.300        | <3.0   |
| Barium              | 200   | .5  | -0.200        | <200   | 0.00          | <200   | -0.100        | <200   | 0.300         | <200   |
| Beryllium           | 1.0   | .2  | 0.00          | <1.0   | 0.200         | <1.0   | 0.00          | <1.0   | 0.00          | <1.0   |
| Bismuth             | 20    | 2.5 |               |        |               |        |               |        |               |        |
| Boron               | 100   | 1.9 |               |        |               |        |               |        |               |        |
| Cadmium             | 3.0   | .3  | 0.200         | <3.0   | 0.100         | <3.0   | 0.100         | <3.0   | 0.200         | <3.0   |
| Calcium             | 5000  | 8.7 | 3.00          | <5000  | 3.80          | <5000  | 0.500         | <5000  | 1.30          | <5000  |
| Chromium            | 10    | .6  | 0.200         | <10    | 0.200         | <10    | 0.00          | <10    | 0.500         | <10    |
| Cobalt              | 50    | .5  | 0.100         | <50    | 0.00          | <50    | 0.200         | <50    | 0.00          | <50    |
| Copper              | 10    | 1.2 | 0.700         | <10    | 0.900         | <10    | 0.500         | <10    | 0.400         | <10    |
| Iron                | 100   | 4.6 | 0.900         | <100   | 3.10          | <100   | 2.40          | <100   | 2.70          | <100   |
| Lead                | 3.0   | 1.4 | 1.00          | <3.0   | 0.800         | <3.0   | 0.800         | <3.0   | 0.600         | <3.0   |
| Lithium             | 50    | 2.8 |               |        |               |        |               |        |               |        |
| Magnesium           | 5000  | 33  | -13.9         | <5000  | 17.8          | <5000  | -8.60         | <5000  | 3.90          | <5000  |
| Manganese           | 15    | .1  | 0.100         | <15    | 0.200         | <15    | 0.100         | <15    | 0.200         | <15    |
| Molybdenum          | 20    | .4  |               |        |               |        |               |        |               |        |
| Nickel              | 10    | .5  | 0.00          | <10    | 0.100         | <10    | 0.100         | <10    | 0.100         | <10    |
| Phosphorus          | 50    | 1.7 |               |        |               |        |               |        |               |        |
| Potassium           | 10000 | 68  | 61.5          | <10000 | 24.4          | <10000 | 53.8          | <10000 | 49.3          | <10000 |
| Selenium            | 10    | 3.8 | -0.300        | <10    | -0.900        | <10    | 0.900         | <10    | 1.60          | <10    |
| Silicon             | 200   | 2.1 |               |        |               |        |               |        |               |        |
| Silver              | 10    | .5  | 0.200         | <10    | 0.00          | <10    | 0.100         | <10    | 0.300         | <10    |
| Sodium              | 10000 | 15  | 21.9          | <10000 | 18.4          | <10000 | 2.40          | <10000 | 8.60          | <10000 |
| Strontium           | 10    | .2  |               |        |               |        |               |        |               |        |
| Sulfur              | 50    | 20  |               |        |               |        |               |        |               |        |
| Thallium            | 2.0   | 1.6 | -0.400        | <2.0   | 1.20          | <2.0   | 0.300         | <2.0   | 0.400         | <2.0   |
| Tin                 | 10    | 1   |               |        |               |        |               |        |               |        |
| Titanium            | 10    | .7  | anr           |        |               |        |               |        |               |        |
| Tungsten            | 50    | 1.8 |               |        |               |        |               |        |               |        |
| Vanadium            | 50    | .4  | -0.400        | <50    | -0.300        | <50    | -0.200        | <50    | -0.500        | <50    |
| Zinc                | 20    | .3  | -0.100        | <20    | 0.100         | <20    | -0.100        | <20    | 0.00          | <20    |

14.1.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

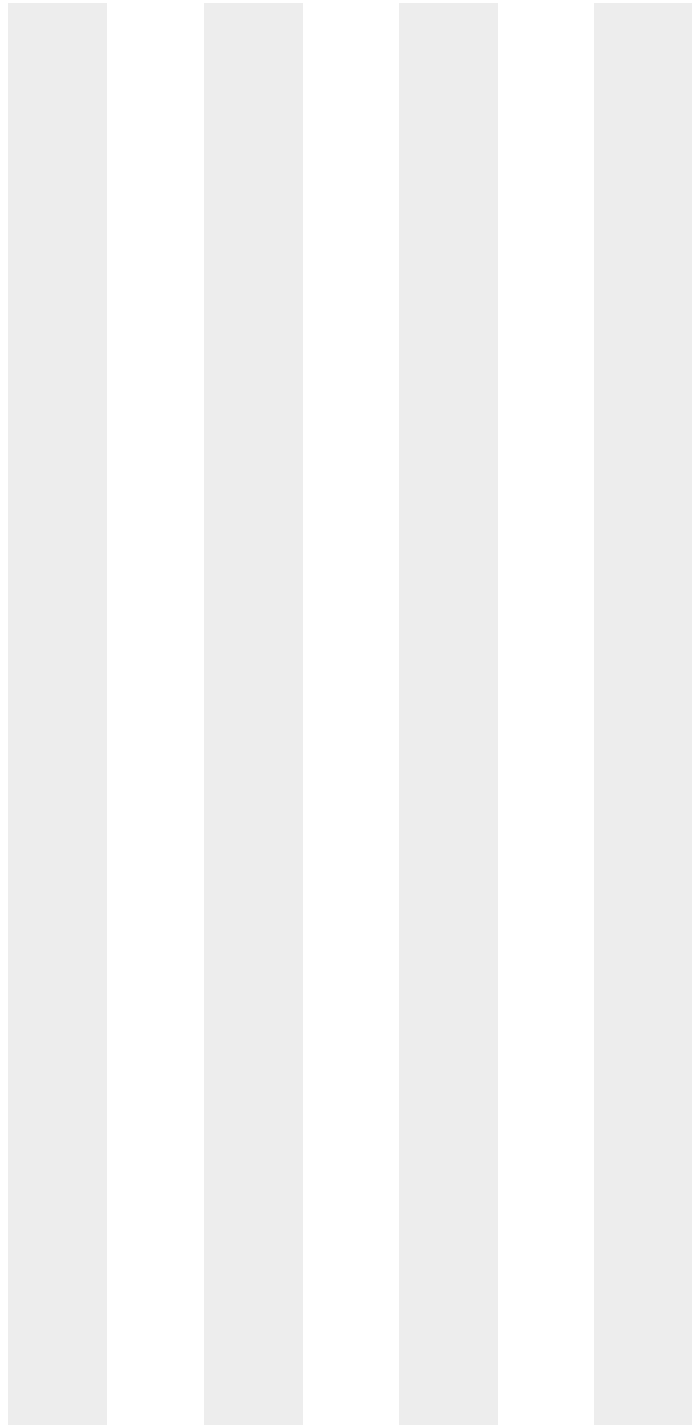
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44304 Units: ug/l

| Time:      |    |     | 11:42 |       | 11:54 |       | 12:43 |       | 13:29 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.1.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44304 Units: ug/l

| Metal      | Time:      |     | 14:16  |        | 15:02  |        | 15:49  |        | 16:25  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB4   | CCB5   | CCB6   | CCB7   | raw    | final  | raw    |
| Aluminum   | 200        | 34  | 4.10   | <200   | 1.60   | <200   | 10.5   | <200   | -1.40  | <200   |
| Antimony   | 6.0        | 1.4 | -0.400 | <6.0   | 0.200  | <6.0   | 0.500  | <6.0   | 1.10   | <6.0   |
| Arsenic    | 3.0        | 1.4 | -0.500 | <3.0   | 0.200  | <3.0   | 0.100  | <3.0   | 0.300  | <3.0   |
| Barium     | 200        | .5  | -0.100 | <200   | 0.100  | <200   | 0.200  | <200   | -0.100 | <200   |
| Beryllium  | 1.0        | .2  | 0.100  | <1.0   | 0.200  | <1.0   | 0.200  | <1.0   | 0.00   | <1.0   |
| Bismuth    | 20         | 2.5 |        |        |        |        |        |        |        |        |
| Boron      | 100        | 1.9 |        |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .3  | 0.300  | <3.0   | 0.200  | <3.0   | 0.400  | <3.0   | 0.100  | <3.0   |
| Calcium    | 5000       | 8.7 | 5.20   | <5000  | 5.80   | <5000  | 7.60   | <5000  | 3.60   | <5000  |
| Chromium   | 10         | .6  | 0.200  | <10    | 0.100  | <10    | 0.500  | <10    | 0.200  | <10    |
| Cobalt     | 50         | .5  | 0.100  | <50    | 0.100  | <50    | -0.200 | <50    | 0.200  | <50    |
| Copper     | 10         | 1.2 | 0.400  | <10    | 0.700  | <10    | 0.600  | <10    | 0.600  | <10    |
| Iron       | 100        | 4.6 | 2.30   | <100   | 7.70   | <100   | 5.80   | <100   | 2.10   | <100   |
| Lead       | 3.0        | 1.4 | 0.400  | <3.0   | 0.500  | <3.0   | 0.500  | <3.0   | -0.300 | <3.0   |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |
| Magnesium  | 5000       | 33  | 14.9   | <5000  | -18.6  | <5000  | -18.2  | <5000  | -1.20  | <5000  |
| Manganese  | 15         | .1  | 0.300  | <15    | 0.200  | <15    | 0.300  | <15    | 0.200  | <15    |
| Molybdenum | 20         | .4  |        |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | 0.100  | <10    | 0.300  | <10    | -0.200 | <10    | 0.100  | <10    |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |
| Potassium  | 10000      | 68  | 36.2   | <10000 | 47.1   | <10000 | 52.4   | <10000 | 40.2   | <10000 |
| Selenium   | 10         | 3.8 | -3.20  | <10    | 1.10   | <10    | -0.100 | <10    | -0.200 | <10    |
| Silicon    | 200        | 2.1 |        |        |        |        |        |        |        |        |
| Silver     | 10         | .5  | 0.200  | <10    | 0.200  | <10    | 0.400  | <10    | 0.00   | <10    |
| Sodium     | 10000      | 15  | 7.80   | <10000 | 6.00   | <10000 | 18.4   | <10000 | 15.7   | <10000 |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |
| Sulfur     | 50         | 20  |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.6 | 1.30   | <2.0   | 1.20   | <2.0   | -0.100 | <2.0   | 1.30   | <2.0   |
| Tin        | 10         | 1   |        |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  | anr    |        |        |        |        |        |        |        |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .4  | -0.300 | <50    | -0.100 | <50    | -0.300 | <50    | -0.400 | <50    |
| Zinc       | 20         | .3  | 0.00   | <20    | 0.00   | <20    | 0.100  | <20    | 0.00   | <20    |

14.1.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

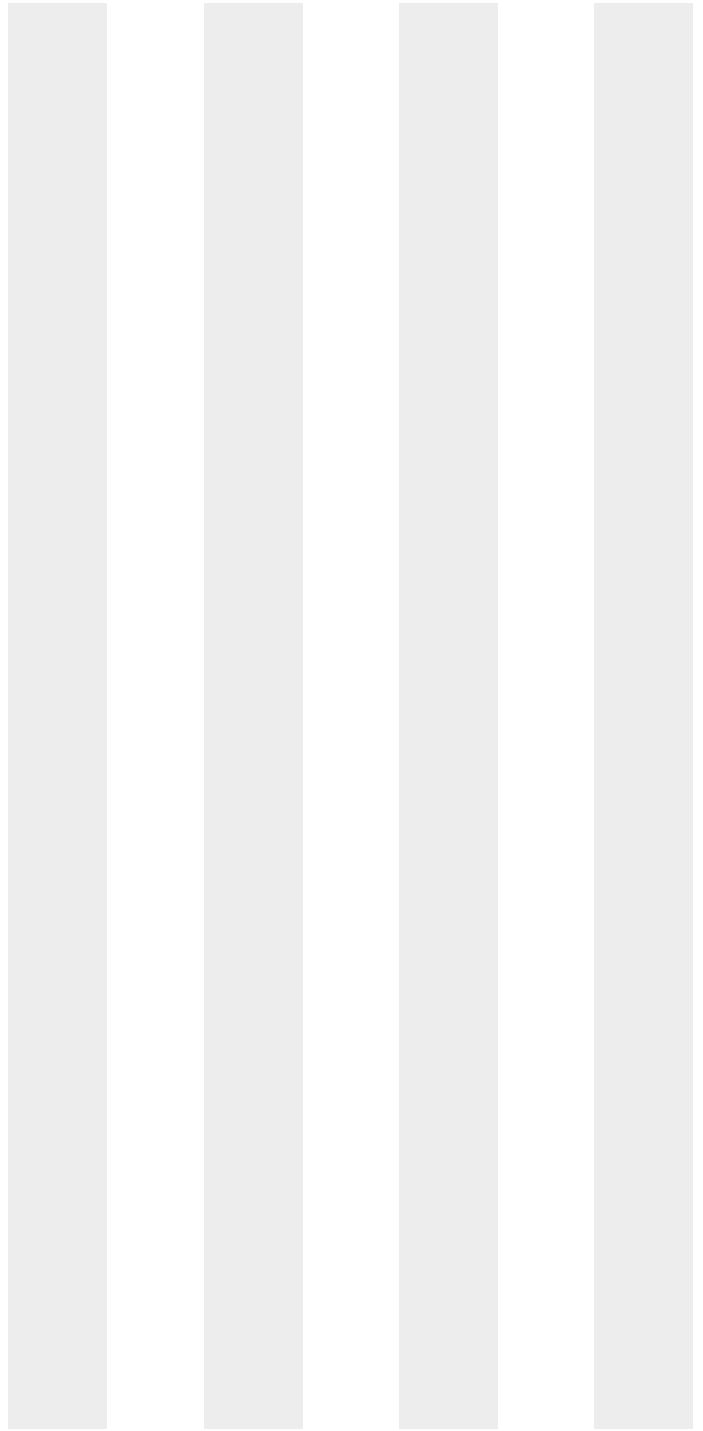
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44304 Units: ug/l

| Time:      | 14:16 | 15:02 | 15:49 | 16:25 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.1.2  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

| Time:      | 11:46 |         |       |
|------------|-------|---------|-------|
| Sample ID: | ICCV  | ICCV1   |       |
| Metal      | True  | Results | % Rec |
| Aluminum   | 40000 | 38300   | 95.8  |
| Antimony   | 2000  | 1960    | 98.0  |
| Arsenic    | 2000  | 1940    | 97.0  |
| Barium     | 2000  | 1980    | 99.0  |
| Beryllium  | 2000  | 1980    | 99.0  |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | 2000  | 1970    | 98.5  |
| Calcium    | 40000 | 38800   | 97.0  |
| Chromium   | 2000  | 1980    | 99.0  |
| Cobalt     | 2000  | 1950    | 97.5  |
| Copper     | 2000  | 1940    | 97.0  |
| Iron       | 40000 | 39300   | 98.3  |
| Lead       | 2000  | 2000    | 100.0 |
| Lithium    |       |         |       |
| Magnesium  | 40000 | 38900   | 97.3  |
| Manganese  | 2000  | 2000    | 100.0 |
| Molybdenum |       |         |       |
| Nickel     | 2000  | 1980    | 99.0  |
| Phosphorus |       |         |       |
| Potassium  | 40000 | 38500   | 96.3  |
| Selenium   | 2000  | 1960    | 98.0  |
| Silicon    |       |         |       |
| Silver     | 250   | 242     | 96.8  |
| Sodium     | 40000 | 38500   | 96.3  |
| Strontium  |       |         |       |
| Sulfur     |       |         |       |
| Thallium   | 2000  | 2030    | 101.5 |
| Tin        |       |         |       |
| Titanium   | anr   |         |       |
| Tungsten   |       |         |       |
| Vanadium   | 2000  | 1960    | 98.0  |
| Zinc       | 2000  | 2000    | 100.0 |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

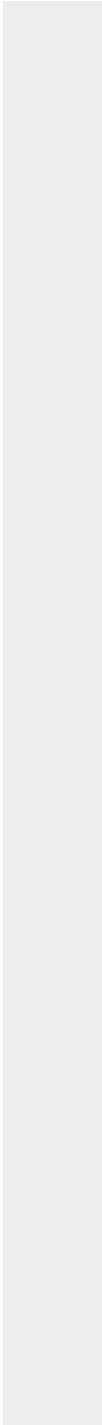
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44304 Units: ug/l

|                 |       |         |       |
|-----------------|-------|---------|-------|
| Time:           | 11:46 |         |       |
| Sample ID: ICCV | ICCV1 |         |       |
| Metal           | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.1.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

| Metal      | Time:<br>Sample ID: ICV<br>True | 11:36           |       |             | 12:39           |       |             | 13:25           |       |  |
|------------|---------------------------------|-----------------|-------|-------------|-----------------|-------|-------------|-----------------|-------|--|
|            |                                 | ICV3<br>Results | % Rec | CCV<br>True | CCV1<br>Results | % Rec | CCV<br>True | CCV2<br>Results | % Rec |  |
| Aluminum   | 40000                           | 38600           | 96.5  | 40000       | 38800           | 97.0  | 40000       | 38600           | 96.5  |  |
| Antimony   | 2000                            | 1970            | 98.5  | 2000        | 2000            | 100.0 | 2000        | 1990            | 99.5  |  |
| Arsenic    | 2000                            | 1950            | 97.5  | 2000        | 1980            | 99.0  | 2000        | 1970            | 98.5  |  |
| Barium     | 2000                            | 1980            | 99.0  | 2000        | 2000            | 100.0 | 2000        | 1990            | 99.5  |  |
| Beryllium  | 2000                            | 1990            | 99.5  | 2000        | 2010            | 100.5 | 2000        | 2000            | 100.0 |  |
| Bismuth    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Boron      |                                 |                 |       |             |                 |       |             |                 |       |  |
| Cadmium    | 2000                            | 1980            | 99.0  | 2000        | 2010            | 100.5 | 2000        | 2000            | 100.0 |  |
| Calcium    | 40000                           | 39200           | 98.0  | 40000       | 39300           | 98.3  | 40000       | 39200           | 98.0  |  |
| Chromium   | 2000                            | 2000            | 100.0 | 2000        | 2040            | 102.0 | 2000        | 2020            | 101.0 |  |
| Cobalt     | 2000                            | 1960            | 98.0  | 2000        | 1990            | 99.5  | 2000        | 1990            | 99.5  |  |
| Copper     | 2000                            | 1940            | 97.0  | 2000        | 1980            | 99.0  | 2000        | 1970            | 98.5  |  |
| Iron       | 40000                           | 39500           | 98.8  | 40000       | 39900           | 99.8  | 40000       | 39900           | 99.8  |  |
| Lead       | 2000                            | 2000            | 100.0 | 2000        | 2030            | 101.5 | 2000        | 2030            | 101.5 |  |
| Lithium    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Magnesium  | 40000                           | 39000           | 97.5  | 40000       | 39200           | 98.0  | 40000       | 39200           | 98.0  |  |
| Manganese  | 2000                            | 2010            | 100.5 | 2000        | 2030            | 101.5 | 2000        | 2010            | 100.5 |  |
| Molybdenum |                                 |                 |       |             |                 |       |             |                 |       |  |
| Nickel     | 2000                            | 1980            | 99.0  | 2000        | 2010            | 100.5 | 2000        | 2000            | 100.0 |  |
| Phosphorus |                                 |                 |       |             |                 |       |             |                 |       |  |
| Potassium  | 40000                           | 38700           | 96.8  | 40000       | 39000           | 97.5  | 40000       | 38900           | 97.3  |  |
| Selenium   | 2000                            | 1970            | 98.5  | 2000        | 2000            | 100.0 | 2000        | 1980            | 99.0  |  |
| Silicon    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Silver     | 250                             | 245             | 98.0  | 250         | 248             | 99.2  | 250         | 243             | 97.2  |  |
| Sodium     | 40000                           | 38700           | 96.8  | 40000       | 38800           | 97.0  | 40000       | 38600           | 96.5  |  |
| Strontium  |                                 |                 |       |             |                 |       |             |                 |       |  |
| Sulfur     |                                 |                 |       |             |                 |       |             |                 |       |  |
| Thallium   | 2000                            | 2040            | 102.0 | 2000        | 2080            | 104.0 | 2000        | 2070            | 103.5 |  |
| Tin        |                                 |                 |       |             |                 |       |             |                 |       |  |
| Titanium   | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Tungsten   |                                 |                 |       |             |                 |       |             |                 |       |  |
| Vanadium   | 2000                            | 1980            | 99.0  | 2000        | 2010            | 100.5 | 2000        | 1980            | 99.0  |  |
| Zinc       | 2000                            | 2010            | 100.5 | 2000        | 2040            | 102.0 | 2000        | 2030            | 101.5 |  |

14.1.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

|            | Time: | 11:36   |       | 12:39 |         | 13:25 |      |
|------------|-------|---------|-------|-------|---------|-------|------|
| Sample ID: | ICV   | ICV3    | CCV   | CCV1  | CCV     | CCV2  |      |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True |
|            |       | Results | % Rec | True  | Results | % Rec | True |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.1.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

| Metal      | Time:      | 14:12 |       |       | 14:58 |       |       | 15:45 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV3  | % Rec | CCV   | CCV4  | % Rec | CCV   | CCV5  | % Rec |
| Aluminum   | 40000      | 38600 | 96.5  | 40000 | 38800 | 97.0  | 40000 | 38900 | 97.3  |       |
| Antimony   | 2000       | 2000  | 100.0 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Arsenic    | 2000       | 1980  | 99.0  | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Barium     | 2000       | 2000  | 100.0 | 2000  | 2030  | 101.5 | 2000  | 2040  | 102.0 |       |
| Beryllium  | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 2030  | 101.5 |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 2010  | 100.5 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Calcium    | 40000      | 39200 | 98.0  | 40000 | 39800 | 99.5  | 40000 | 39600 | 99.0  |       |
| Chromium   | 2000       | 2040  | 102.0 | 2000  | 2060  | 103.0 | 2000  | 2040  | 102.0 |       |
| Cobalt     | 2000       | 1990  | 99.5  | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Copper     | 2000       | 1980  | 99.0  | 2000  | 2010  | 100.5 | 2000  | 2000  | 100.0 |       |
| Iron       | 40000      | 39900 | 99.8  | 40000 | 40200 | 100.5 | 40000 | 40300 | 100.8 |       |
| Lead       | 2000       | 2040  | 102.0 | 2000  | 2060  | 103.0 | 2000  | 2050  | 102.5 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 39100 | 97.8  | 40000 | 39200 | 98.0  | 40000 | 39400 | 98.5  |       |
| Manganese  | 2000       | 2020  | 101.0 | 2000  | 2040  | 102.0 | 2000  | 2040  | 102.0 |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 2030  | 101.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 39000 | 97.5  | 40000 | 39200 | 98.0  | 40000 | 39400 | 98.5  |       |
| Selenium   | 2000       | 1990  | 99.5  | 2000  | 2020  | 101.0 | 2000  | 2030  | 101.5 |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 247   | 98.8  | 250   | 250   | 100.0 | 250   | 248   | 99.2  |       |
| Sodium     | 40000      | 38600 | 96.5  | 40000 | 38800 | 97.0  | 40000 | 38900 | 97.3  |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2070  | 103.5 | 2000  | 2100  | 105.0 | 2000  | 2090  | 104.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Zinc       | 2000       | 2040  | 102.0 | 2000  | 2060  | 103.0 | 2000  | 2050  | 102.5 |       |

14.1.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

|            | Time: |         | 14:12 |   | 14:58   |       | 15:45                                |         |       |
|------------|-------|---------|-------|---|---------|-------|--------------------------------------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |                                      |         |       |
| Metal      | True  | Results | % Rec | True <td>Results</td> <td>% Rec</td> <th>True <td>Results</td> <td>% Rec</td> </th> | Results | % Rec | True <td>Results</td> <td>% Rec</td> | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.1.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

| Time:      | Sample ID: | CCV | 16:21<br>CCV6 | Results | % Rec |
|------------|------------|-----|---------------|---------|-------|
| Metal      | True       |     |               |         |       |
| Aluminum   | 40000      |     | 39500         |         | 98.8  |
| Antimony   | 2000       |     | 2040          |         | 102.0 |
| Arsenic    | 2000       |     | 2020          |         | 101.0 |
| Barium     | 2000       |     | 2050          |         | 102.5 |
| Beryllium  | 2000       |     | 2040          |         | 102.0 |
| Bismuth    |            |     |               |         |       |
| Boron      |            |     |               |         |       |
| Cadmium    | 2000       |     | 2050          |         | 102.5 |
| Calcium    | 40000      |     | 40000         |         | 100.0 |
| Chromium   | 2000       |     | 2070          |         | 103.5 |
| Cobalt     | 2000       |     | 2030          |         | 101.5 |
| Copper     | 2000       |     | 2030          |         | 101.5 |
| Iron       | 40000      |     | 40600         |         | 101.5 |
| Lead       | 2000       |     | 2070          |         | 103.5 |
| Lithium    |            |     |               |         |       |
| Magnesium  | 40000      |     | 39800         |         | 99.5  |
| Manganese  | 2000       |     | 2060          |         | 103.0 |
| Molybdenum |            |     |               |         |       |
| Nickel     | 2000       |     | 2040          |         | 102.0 |
| Phosphorus |            |     |               |         |       |
| Potassium  | 40000      |     | 39700         |         | 99.3  |
| Selenium   | 2000       |     | 2030          |         | 101.5 |
| Silicon    |            |     |               |         |       |
| Silver     | 250        |     | 252           |         | 100.8 |
| Sodium     | 40000      |     | 39500         |         | 98.8  |
| Strontium  |            |     |               |         |       |
| Sulfur     |            |     |               |         |       |
| Thallium   | 2000       |     | 2110          |         | 105.5 |
| Tin        |            |     |               |         |       |
| Titanium   | anr        |     |               |         |       |
| Tungsten   |            |     |               |         |       |
| Vanadium   | 2000       |     | 2040          |         | 102.0 |
| Zinc       | 2000       |     | 2070          |         | 103.5 |

14.1.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

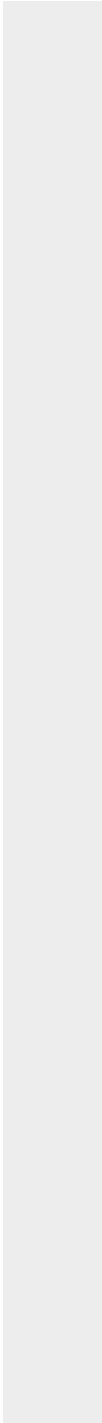
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44304      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 16:21 |         |       |
| Sample ID: CCV | CCV6  |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.1.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44304 Units: ug/l

| Metal      | Time:      |      | 12:18 |       | 12:22  |        |       |
|------------|------------|------|-------|-------|--------|--------|-------|
|            | Sample ID: | HSTD | HSTD1 | % Rec | HSTD   | HSTD2  | % Rec |
| Aluminum   |            |      |       |       | 300000 | 302000 | 100.7 |
| Antimony   | 5000       |      | 5140  | 102.8 |        |        |       |
| Arsenic    | 5000       |      | 5000  | 100.0 |        |        |       |
| Barium     | 5000       |      | 5150  | 103.0 |        |        |       |
| Beryllium  | 5000       |      | 5160  | 103.2 |        |        |       |
| Bismuth    |            |      |       |       |        |        |       |
| Boron      |            |      |       |       |        |        |       |
| Cadmium    | 5000       |      | 5090  | 101.8 |        |        |       |
| Calcium    |            |      |       |       | 150000 | 148000 | 98.7  |
| Chromium   | 5000       |      | 5270  | 105.4 |        |        |       |
| Cobalt     | 5000       |      | 5060  | 101.2 |        |        |       |
| Copper     | 5000       |      | 5290  | 105.8 |        |        |       |
| Iron       |            |      |       |       | 150000 | 150000 | 100.0 |
| Lead       | 5000       |      | 5160  | 103.2 |        |        |       |
| Lithium    |            |      |       |       |        |        |       |
| Magnesium  |            |      |       |       | 300000 | 301000 | 100.3 |
| Manganese  | 5000       |      | 5230  | 104.6 |        |        |       |
| Molybdenum |            |      |       |       |        |        |       |
| Nickel     | 5000       |      | 5050  | 101.0 |        |        |       |
| Phosphorus |            |      |       |       |        |        |       |
| Potassium  |            |      |       |       | 150000 | 145000 | 96.7  |
| Selenium   | 5000       |      | 5090  | 101.8 |        |        |       |
| Silicon    |            |      |       |       |        |        |       |
| Silver     | 625        |      | 653   | 104.5 |        |        |       |
| Sodium     |            |      |       |       | 150000 | 151000 | 100.7 |
| Strontium  |            |      |       |       |        |        |       |
| Sulfur     |            |      |       |       |        |        |       |
| Thallium   | 5000       |      | 5400  | 108.0 |        |        |       |
| Tin        |            |      |       |       |        |        |       |
| Titanium   | anr        |      |       |       |        |        |       |
| Tungsten   |            |      |       |       |        |        |       |
| Vanadium   | 5000       |      | 5180  | 103.6 |        |        |       |
| Zinc       | 5000       |      | 5310  | 106.2 |        |        |       |

14.1.5  
14

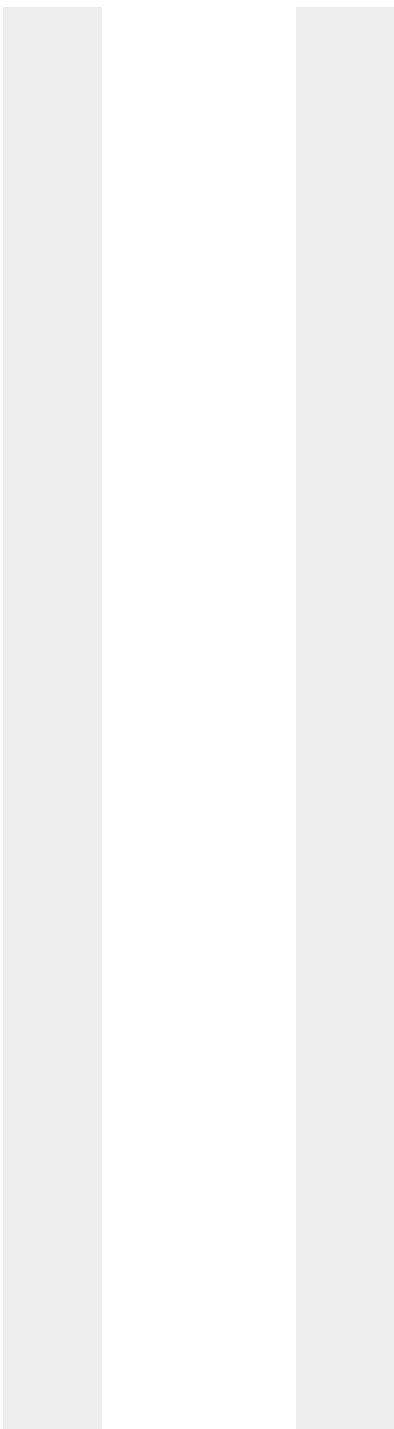
HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44304 Units: ug/l

|            | Time: | 12:18   |       | 12:22 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



14.1.5  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44304 Units: ug/l

| Time:      | 12:00 | 12:05 | 16:03 |         |       |         |           |         |       |
|------------|-------|-------|-------|---------|-------|---------|-----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 | Results | % Rec | Results | % Rec     | Results | % Rec |
| Metal      | True  | True  | True  |         |       |         |           |         |       |
| Aluminum   | 200   | 500   | 100   | 207     | 103.5 | 108     | 108.0     | 212     | 106.0 |
| Antimony   | 6.0   | 20    | 3.0   | 5.20    | 86.7  | 0.200U  | 0.0* (a)  | 6.70    | 111.7 |
| Arsenic    | 8.0   | 20    | 3.0   | 8.50    | 106.3 | 2.80    | 93.3      | 7.90    | 98.8  |
| Barium     | 200   |       | 4.0   | 207     | 103.5 | 4.10    | 102.5     | 209     | 104.5 |
| Beryllium  | 2.0   |       | 1.0   | 2.10    | 105.0 | 1.10    | 110.0     | 2.00    | 100.0 |
| Bismuth    | 20    |       |       |         |       |         |           |         |       |
| Boron      | 100   |       | 10    |         |       |         |           |         |       |
| Cadmium    | 3.0   |       | 1.0   | 3.40    | 113.3 | 1.40    | 140.0*(a) | 3.30    | 110.0 |
| Calcium    | 5000  | 2000  | 1000  | 5240    | 104.8 | 1050    | 105.0     | 5260    | 105.2 |
| Chromium   | 10    |       | 2.0   | 10.5    | 105.0 | 2.20    | 110.0     | 11.0    | 110.0 |
| Cobalt     | 50    |       | 3.0   | 49.5    | 99.0  | 3.10    | 103.3     | 50.1    | 100.2 |
| Copper     | 10    |       | 2.0   | 10.7    | 107.0 | 0.300U  | 0.0* (a)  | 10.9    | 109.0 |
| Iron       | 100   | 500   |       | 104     | 104.0 |         |           | 110     | 110.0 |
| Lead       | 3.0   | 20    | 2.5   | 3.00    | 100.0 | -0.400U | 0.0* (a)  | 3.40    | 113.3 |
| Lithium    | 50    |       |       |         |       |         |           |         |       |
| Magnesium  | 5000  | 2000  | 100   | 5200    | 104.0 | 88.5    | 88.5      | 5240    | 104.8 |
| Manganese  | 15    |       | 3.0   | 16.3    | 108.7 | 3.30    | 110.0     | 16.6    | 110.7 |
| Molybdenum | 20    |       |       |         |       |         |           |         |       |
| Nickel     | 10    |       | 4.0   | 10.5    | 105.0 | 4.00    | 100.0     | 10.0    | 100.0 |
| Phosphorus | 50    |       |       |         |       |         |           |         |       |
| Potassium  | 5000  |       | 2000  | 5150    | 103.0 | 2050    | 102.5     | 5210    | 104.2 |
| Selenium   | 10    | 20    | 5.0   | 10.1    | 101.0 | 5.00    | 100.0     | 9.70    | 97.0  |
| Silicon    | 200   |       |       |         |       |         |           |         |       |
| Silver     | 5.0   |       | 2.0   | 4.60    | 92.0  | -0.200U | 0.0* (a)  | 4.70    | 94.0  |
| Sodium     | 5000  |       | 1000  | 5120    | 102.4 | 1020    | 102.0     | 5110    | 102.2 |
| Strontium  | 10    |       |       |         |       |         |           |         |       |
| Sulfur     | 50    |       |       |         |       |         |           |         |       |
| Thallium   | 10    |       | 2.0   | 11.3    | 113.0 | 2.40    | 120.0     | 10.9    | 109.0 |
| Tin        | 10    |       |       |         |       |         |           |         |       |
| Titanium   | 10    |       |       | anr     |       |         |           |         |       |
| Tungsten   | 50    |       |       |         |       |         |           |         |       |
| Vanadium   | 50    |       | 2.0   | 50.7    | 101.4 | 1.60    | 80.0      | 51.3    | 102.6 |
| Zinc       | 20    |       | 10    | 21.4    | 107.0 | 10.7    | 107.0     | 21.6    | 108.0 |

14.1.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44304 Units: ug/l

| Time:      | 12:00 |      |      | 12:05   |       | 16:03   |       |
|------------|-------|------|------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID | CRID1   | CRID1 | CRID1   | CRID1 |
| Metal      | True  | True | True | Results | % Rec | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44304 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID   | 16:08<br>CRID2 | Results  | % Rec |
|------------|------------|------|------|--------|----------------|----------|-------|
| Metal      | True       | True | True | True   | Results        | % Rec    |       |
| Aluminum   | 200        | 500  | 100  | 100    | 97.6           | 97.6     |       |
| Antimony   | 6.0        | 20   | 3.0  | 3.0    | -0.800U        | 0.0* (a) |       |
| Arsenic    | 8.0        | 20   | 3.0  | 3.0    | 2.70           | 90.0     |       |
| Barium     | 200        |      | 4.0  | 4.20   | 105.0          |          |       |
| Beryllium  | 2.0        |      | 1.0  | 1.10   | 110.0          |          |       |
| Bismuth    | 20         |      |      |        |                |          |       |
| Boron      | 100        |      | 10   |        |                |          |       |
| Cadmium    | 3.0        |      | 1.0  | 1.20   | 120.0          |          |       |
| Calcium    | 5000       | 2000 | 1000 | 1050   | 105.0          |          |       |
| Chromium   | 10         |      | 2.0  | 2.80   | 140.0*(a)      |          |       |
| Cobalt     | 50         |      | 3.0  | 3.00   | 100.0          |          |       |
| Copper     | 10         |      | 2.0  | 0.500U | 0.0* (a)       |          |       |
| Iron       | 100        | 500  |      |        |                |          |       |
| Lead       | 3.0        | 20   | 2.5  | 0.200U | 0.0* (a)       |          |       |
| Lithium    | 50         |      |      |        |                |          |       |
| Magnesium  | 5000       | 2000 | 100  | 96.3   | 96.3           |          |       |
| Manganese  | 15         |      | 3.0  | 3.30   | 110.0          |          |       |
| Molybdenum | 20         |      |      |        |                |          |       |
| Nickel     | 10         |      | 4.0  | 4.40   | 110.0          |          |       |
| Phosphorus | 50         |      |      |        |                |          |       |
| Potassium  | 5000       |      | 2000 | 2090   | 104.5          |          |       |
| Selenium   | 10         | 20   | 5.0  | 5.30   | 106.0          |          |       |
| Silicon    | 200        |      |      |        |                |          |       |
| Silver     | 5.0        |      | 2.0  | 0.00U  | 0.0* (a)       |          |       |
| Sodium     | 5000       |      | 1000 | 1040   | 104.0          |          |       |
| Strontium  | 10         |      |      |        |                |          |       |
| Sulfur     | 50         |      |      |        |                |          |       |
| Thallium   | 10         |      | 2.0  | 2.50   | 125.0          |          |       |
| Tin        | 10         |      |      |        |                |          |       |
| Titanium   | 10         |      |      |        |                |          |       |
| Tungsten   | 50         |      |      |        |                |          |       |
| Vanadium   | 50         |      | 2.0  | 1.50   | 75.0           |          |       |
| Zinc       | 20         |      | 10   | 10.6   | 106.0          |          |       |

14.1.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP      Date Analyzed: 04/29/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 70 to 130 % Recovery      Run ID: MA44304      Units: ug/l

|            |      |      |      |         |       |
|------------|------|------|------|---------|-------|
| Time:      |      |      |      | 16:08   |       |
| Sample ID: | CRI  | CRIA | CRID | CRID2   |       |
| Metal      | True | True | True | Results | % Rec |

Zirconium      10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

14.1.6  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44304 Units: ug/l

| Time:      |        |        | 12:09   |       |         | 12:13 |         |       | 16:12   |       |  | 16:16 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 517000  | 103.4 | 501000  | 100.2 | 517000  | 103.4 | 503000  | 100.6 |  |       |
| Antimony   |        | 1000   | -3.70   |       | 1010    | 101.0 | -3.00   |       | 1010    | 101.0 |  |       |
| Arsenic    |        | 1000   | -0.500  |       | 986     | 98.6  | 0.00    |       | 992     | 99.2  |  |       |
| Barium     |        | 500    | -0.200  |       | 500     | 100.0 | -0.200  |       | 503     | 100.6 |  |       |
| Beryllium  |        | 500    | 0.200   |       | 488     | 97.6  | 0.300   |       | 489     | 97.8  |  |       |
| Bismuth    |        | 500    | -1.70   |       | 525     | 105.0 | -2.40   |       | 532     | 106.4 |  |       |
| Boron      |        | 500    | -1.20   |       | 482     | 96.4  | -2.10   |       | 483     | 96.6  |  |       |
| Cadmium    |        | 1000   | 0.600   |       | 1000    | 100.0 | 0.100   |       | 1010    | 101.0 |  |       |
| Calcium    | 400000 | 400000 | 387000  | 96.8  | 380000  | 95.0  | 386000  | 96.5  | 379000  | 94.8  |  |       |
| Chromium   |        | 500    | 1.90    |       | 477     | 95.4  | 2.00    |       | 482     | 96.4  |  |       |
| Cobalt     |        | 500    | 0.700   |       | 480     | 96.0  | 0.700   |       | 483     | 96.6  |  |       |
| Copper     |        | 500    | 2.30    |       | 499     | 99.8  | 2.30    |       | 503     | 100.6 |  |       |
| Iron       | 200000 | 200000 | 186000  | 93.0  | 182000  | 91.0  | 188000  | 94.0  | 182000  | 91.0  |  |       |
| Lead       |        | 1000   | 2.00    |       | 958     | 95.8  | 1.60    |       | 964     | 96.4  |  |       |
| Lithium    |        | 500    | 2.40    |       | 522     | 104.4 | 2.80    |       | 525     | 105.0 |  |       |
| Magnesium  | 500000 | 500000 | 500000  | 100.0 | 497000  | 99.4  | 505000  | 101.0 | 495000  | 99.0  |  |       |
| Manganese  |        | 500    | 1.10    |       | 488     | 97.6  | 1.40    |       | 491     | 98.2  |  |       |
| Molybdenum |        | 500    | -2.10   |       | 473     | 94.6  | -1.80   |       | 476     | 95.2  |  |       |
| Nickel     |        | 1000   | -0.700  |       | 959     | 95.9  | -0.400  |       | 963     | 96.3  |  |       |
| Phosphorus |        | 500    | -4.50   |       | 482     | 96.4  | -6.30   |       | 485     | 97.0  |  |       |
| Potassium  |        |        | -432    |       | -416    |       | -423    |       | -412    |       |  |       |
| Selenium   |        | 1000   | -4.60   |       | 950     | 95.0  | -2.00   |       | 957     | 95.7  |  |       |
| Silicon    |        | 500    | -8.30   |       | 502     | 100.4 | -6.40   |       | 507     | 101.4 |  |       |
| Silver     |        | 1000   | 3.80    |       | 1030    | 103.0 | 5.00    |       | 1040    | 104.0 |  |       |
| Sodium     |        |        | -8.60   |       | -6.30   |       | -3.40   |       | 14.2    |       |  |       |
| Strontium  |        | 500    | 4.60    |       | 538     | 107.6 | 4.70    |       | 540     | 108.0 |  |       |
| Sulfur     |        | 500    | 43.4    |       | 523     | 104.6 | 45.9    |       | 528     | 105.6 |  |       |
| Thallium   |        | 1000   | -1.00   |       | 1040    | 104.0 | -1.90   |       | 1040    | 104.0 |  |       |
| Tin        |        | 500    | -2.50   |       | 450     | 90.0  | -3.10   |       | 452     | 90.4  |  |       |
| Titanium   |        | 500    | -0.500  |       | 488     | 97.6  | -0.100  |       | 490     | 98.0  |  |       |
| Tungsten   |        | 500    | 9.80    |       | 469     | 93.8  | 10.4    |       | 473     | 94.6  |  |       |
| Vanadium   |        | 500    | -1.70   |       | 475     | 95.0  | -1.70   |       | 480     | 96.0  |  |       |
| Zinc       |        | 1000   | 3.00    |       | 946     | 94.6  | 3.00    |       | 949     | 94.9  |  |       |

14.1.7  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE042918M1.ICP Date Analyzed: 04/29/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44304 Units: ug/l

| Time:      |       | 12:09 |         | 12:13  |         | 16:12  |         | 16:16  |         |       |
|------------|-------|-------|---------|--------|---------|--------|---------|--------|---------|-------|
| Sample ID: | ICSAB | ICSAB | ICSAB1  | ICSAB1 | ICSAB1  | ICSAB2 | ICSAB2  | ICSAB2 | ICSAB2  |       |
| Metal      | True  | True  | Results | % Rec  | Results | % Rec  | Results | % Rec  | Results | % Rec |

|           |  |     |      |  |     |      |      |  |     |      |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|
| Zirconium |  | 500 | 3.80 |  | 476 | 95.2 | 3.70 |  | 478 | 95.6 |
|-----------|--|-----|------|--|-----|------|------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
Analyst: DP Run ID: MA44305  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:48 | MA44305-STD1       | 1               |          | B=1.1672E-004, C=-1.6062E-002, R=0.9999112           |
| 11:49 | MA44305-STD2       | 1               |          | STDB   |
| 11:51 | MA44305-STD3       | 1               |          | STDC   |
| 11:52 | MA44305-STD4       | 1               |          | STDD   |
| 11:53 | MA44305-STD5       | 1               |          | STDE   |
| 11:55 | MA44305-STD6       | 1               |          | STDF   |
| 12:01 | MA44305-STD7       | 1               |          | STDA   |
| 12:02 | MA44305-STD8       | 1               |          | STDB   |
| 12:03 | MA44305-STD9       | 1               |          | STDC   |
| 12:05 | MA44305-STD10      | 1               |          | STDD   |
| 12:08 | MA44305-STD11      | 1               |          | STDB   |
| 12:10 | MA44305-STD12      | 1               |          | STDC   |
| 12:14 | MA44305-ICV1       | 1               |          |  |
| 12:17 | MA44305-ICB1       | 1               |          |  |
| 12:18 | MA44305-CCV1       | 1               |          |  |
| 12:19 | MA44305-CCB1       | 1               |          |  |
| 12:21 | MA44305-CRI1       | 1               |          |  |
| 12:25 | MP6890-MB1         | 1               |          |  |
| 12:27 | MP6890-B1          | 1               |          |  |
| 12:28 | MP6890-S1          | 1               |          |  |
| 12:30 | MP6890-S2          | 1               |          |  |
| 12:31 | JC65018-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 12:33 | ZZZZZZ             | 1               |          |  |
| 12:34 | ZZZZZZ             | 1               |          |  |
| 12:36 | ZZZZZZ             | 1               |          |  |
| 12:37 | MA44305-CCV2       | 1               |          |  |
| 12:39 | MA44305-CCB2       | 1               |          |  |
| 12:40 | ZZZZZZ             | 1               |          |  |
| 12:42 | ZZZZZZ             | 1               |          |  |
| 12:43 | ZZZZZZ             | 1               |          |  |
| 12:44 | ZZZZZZ             | 1               |          |  |
| 12:46 | ZZZZZZ             | 1               |          |  |
| 12:47 | ZZZZZZ             | 1               |          |  |

14.2  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
Analyst: DP      Run ID: MA44305  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:48 | JC64996-6          | 1               |          |  |
| 12:50 | ZZZZZZ             | 1               |          |  |
| 12:51 | ZZZZZZ             | 1               |          |  |
| 12:52 | MA44305-CCV3       | 1               |          |  |
| 12:54 | MA44305-CCB3       | 1               |          |  |
| 12:55 | JC64996-9          | 1               |          |  |
| 12:57 | ZZZZZZ             | 1               |          |  |
| 12:58 | ZZZZZZ             | 1               |          |  |
| 13:00 | ZZZZZZ             | 1               |          |  |
| 13:01 | ZZZZZZ             | 1               |          |  |
| 13:03 | ZZZZZZ             | 1               |          |  |
| 13:04 | ZZZZZZ             | 1               |          |  |
| 13:05 | MP6891-MB1         | 1               |          |  |
| 13:07 | MA44305-CCV4       | 1               |          |  |
| 13:08 | MA44305-CCB4       | 1               |          |  |
| 13:10 | MP6891-B1          | 1               |          |  |
| 13:11 | MP6891-S1          | 1               |          |  |
| 13:13 | MP6891-S2          | 1               |          |  |
| 13:14 | JC65141-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:16 | ZZZZZZ             | 1               |          |  |
| 13:17 | ZZZZZZ             | 1               |          |  |
| 13:19 | ZZZZZZ             | 1               |          |  |
| 13:20 | ZZZZZZ             | 1               |          |  |
| 13:21 | ZZZZZZ             | 1               |          |  |
| 13:23 | MA44305-CCV5       | 1               |          |  |
| 13:24 | MA44305-CCB5       | 1               |          |  |
| 13:26 | ZZZZZZ             | 1               |          |  |
| 13:27 | ZZZZZZ             | 1               |          |  |
| 13:28 | ZZZZZZ             | 1               |          |  |
| 13:30 | ZZZZZZ             | 1               |          |  |
| 13:31 | ZZZZZZ             | 1               |          |  |
| 13:33 | ZZZZZZ             | 1               |          |  |
| 13:34 | ZZZZZZ             | 1               |          |  |

14.2  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
Analyst: DP      Run ID: MA44305  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments |
|--------|---|-----------------|----------|----------|
| 13:35  | ZZZZZZ                                      | 1               |          |          |
| 13:37  | ZZZZZZ                                      | 1               |          |          |
| 13:38  | MA44305-CCV6                                | 1               |          |          |
| 13:40  | MA44305-CCB6                                | 1               |          |          |
| 13:41  | ZZZZZZ                                      | 1               |          |          |
| 13:43  | ZZZZZZ                                      | 1               |          |          |
| 13:44  | ZZZZZZ                                      | 1               |          |          |
| 13:46  | ZZZZZZ                                      | 1               |          |          |
| 13:48  | ZZZZZZ                                      | 1               |          |          |
| 13:50  | JC64996-9                                   | 2               |          |          |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |          |
| 13:51  | MA44305-CCV7                                | 1               |          |          |
| 13:53  | MA44305-CCB7                                | 1               |          |          |
| -----> | Last reportable CCB for job JC64996         |                 |          |          |
| 14:48  | MA44305-CCV8                                | 1               |          |          |
| 14:49  | MA44305-CCB8                                | 1               |          |          |
| 14:56  | ZZZZZZ                                      | 1               |          |          |
| 14:57  | ZZZZZZ                                      | 10              |          |          |
| 15:03  | ZZZZZZ                                      | 10              |          |          |
| 15:15  | MA44305-CCV9                                | 1               |          |          |
| 15:17  | MA44305-CCB9                                | 1               |          |          |

Refer to raw data for calibration curve and standards.

14.2  
14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44305 Units: ug/l

| Time:      |      |      | 12:17   |       |         | 12:19 |         |       | 12:39   |       |       | 12:54 |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|-------|-------|
| Sample ID: | RL   | IDL  | ICB1    | final | CCB1    | final | CCB2    | final | CCB3    | final | final |       |
| Metal      |      |      | raw     |       | raw     |       | raw     |       | raw     |       | raw   |       |
| Mercury    | 0.20 | .025 | -0.0173 | <0.20 | 0.00270 | <0.20 | -0.0113 | <0.20 | -0.0207 | <0.20 |       | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.2.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44305 Units: ug/l

| Time:      |      |      | 13:08   |       | 13:24   |       | 13:40   |       | 13:53   |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .025 | -0.0151 | <0.20 | -0.0142 | <0.20 | -0.0203 | <0.20 | -0.0158 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.2.1  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|            | Time: |         | 12:14 |      | 12:18   |       | 12:37 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 3.29    | 109.7 | 2.5  | 2.51    | 100.4 | 2.5   | 2.52    | 100.8 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|            | Time: | 12:52   |       | 13:07 |         | 13:23 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    |       | CCV   | CCV4    |       | CCV  | CCV5    |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.51    | 100.4 | 2.5   | 2.52    | 100.8 | 2.5  | 2.54    | 101.6 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|            | Time: | 13:38   |       | 13:51 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7  |         |       |
| Metal      | True  | Results | % Rec | True  | Results |       |
|            |       |         | % Rec |       |         |       |
| Mercury    | 2.5   | 2.58    | 103.2 | 2.5   | 2.58    | 103.2 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
QC Limits: 70 to 130 % Recovery Run ID: MA44305 Units: ug/l

|            |      |      |         |       |
|------------|------|------|---------|-------|
| Time:      |      |      | 12:21   |       |
| Sample ID: | CRI  | CRIA | CRI1    |       |
| Metal      | True | True | Results | % Rec |

Mercury 0.20 0.161 80.5

(\*) Outside of QC limits  
(anr) Analyte not requested

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44308  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 11:00 | MA44308-STD1       | 1               |          | STDA     |
| 11:04 | MA44308-STD2       | 1               |          | STDB     |
| 11:08 | ZZZZZZ             | 1               |          |          |
| 11:12 | ZZZZZZ             | 1               |          |          |
| 11:17 | ZZZZZZ             | 1               |          |          |
| 11:25 | MA44308-ICV1       | 1               |          |          |
| 11:33 | MA44308-ICB1       | 1               |          |          |
| 11:37 | MA44308-ICCV1      | 1               |          |          |
| 11:58 | MA44308-ICCV2      | 1               |          |          |
| 12:07 | MA44308-CCB1       | 1               |          |          |
| 12:12 | MA44308-CRID1      | 1               |          |          |
| 12:16 | MA44308-CRI1       | 1               |          |          |
| 12:21 | MA44308-ICSA1      | 1               |          |          |
| 12:25 | MA44308-ICSAB1     | 1               |          |          |
| 12:29 | MA44308-HSTD1      | 1               |          |          |
| 12:33 | MA44308-HSTD2      | 1               |          |          |
| 12:38 | ZZZZZZ             | 1               |          |          |
| 12:42 | MA44308-CCV1       | 1               |          |          |
| 12:46 | MA44308-CCB2       | 1               |          |          |
| 12:50 | ZZZZZZ             | 1               |          |          |
| 12:55 | ZZZZZZ             | 1               |          |          |
| 12:59 | ZZZZZZ             | 1               |          |          |
| 13:03 | ZZZZZZ             | 1               |          |          |
| 13:07 | ZZZZZZ             | 50              |          |          |
| 13:12 | ZZZZZZ             | 50              |          |          |
| 13:16 | ZZZZZZ             | 1               |          |          |
| 13:20 | ZZZZZZ             | 1               |          |          |
| 13:24 | MA44308-CCV2       | 1               |          |          |
| 13:28 | MA44308-CCB3       | 1               |          |          |
| 13:33 | MA44308-CRI2       | 1               |          |          |
| 13:37 | MP6876-MB1         | 1               |          |          |
| 13:41 | MP6876-B1          | 1               |          |          |
| 13:45 | MP6876-S1          | 1               |          |          |

14.3  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44308  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 13:49 | MP6876-S2          | 1               |          |  |
| 13:53 | JC65141-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:58 | MP6876-SD1         | 5               |          |  |
| 14:02 | ZZZZZZ             | 1               |          |  |
| 14:07 | ZZZZZZ             | 1               |          |  |
| 14:11 | MA44308-CCV3       | 1               |          |  |
| 14:15 | MA44308-CCB4       | 1               |          |  |
| 14:19 | ZZZZZZ             | 1               |          |  |
| 14:24 | ZZZZZZ             | 1               |          |  |
| 14:28 | ZZZZZZ             | 1               |          |  |
| 14:32 | ZZZZZZ             | 1               |          |  |
| 14:36 | ZZZZZZ             | 1               |          |  |
| 14:40 | ZZZZZZ             | 1               |          |  |
| 14:45 | ZZZZZZ             | 1               |          |  |
| 14:49 | MP6844-MB1         | 1               |          |  |
| 14:53 | MP6844-B1          | 1               |          |  |
| 14:57 | MA44308-CCV4       | 1               |          |  |
| 15:01 | MA44308-CCB5       | 1               |          |  |
| 15:06 | MP6844-S1          | 1               |          |  |
| 15:10 | MP6844-S2          | 1               |          |  |
| 15:14 | JC64839-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 15:18 | MP6844-SD1         | 5               |          |  |
| 15:22 | ZZZZZZ             | 1               |          |  |
| 15:27 | ZZZZZZ             | 1               |          |  |
| 15:31 | ZZZZZZ             | 1               |          |  |
| 15:35 | ZZZZZZ             | 1               |          |  |
| 15:39 | ZZZZZZ             | 1               |          |  |
| 15:44 | MA44308-CCV5       | 1               |          |  |
| 15:48 | MA44308-CCB6       | 1               |          |  |
| 15:52 | ZZZZZZ             | 1               |          |  |
| 15:56 | ZZZZZZ             | 1               |          |  |
| 16:00 | ZZZZZZ             | 3               |          |  |
| 16:05 | ZZZZZZ             | 1               |          |  |

14.3  
14



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44308  
Parameters: Ca

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 16:09  | ZZZZZZ                                      | 1               |          |  |
| 16:13  | ZZZZZZ                                      | 1               |          |  |
| 16:17  | ZZZZZZ                                      | 1               |          |  |
| 16:21  | ZZZZZZ                                      | 1               |          |  |
| 16:26  | ZZZZZZ                                      | 1               |          |  |
| 16:30  | MA44308-CCV6                                | 1               |          |  |
| 16:34  | MA44308-CCB7                                | 1               |          |  |
| 16:38  | ZZZZZZ                                      | 1               |          |  |
| 16:43  | ZZZZZZ                                      | 1               |          |  |
| 16:47  | MP6862-S2                                   | 2               |          |  |
| 16:51  | ZZZZZZ                                      | 2               |          |  |
| 16:55  | JC64996-9                                   | 3               |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 16:59  | ZZZZZZ                                      | 1               |          |  |
| 17:03  | ZZZZZZ                                      | 1               |          |  |
| 17:08  | MP6839-S1                                   | 3               |          |  |
| 17:12  | MP6839-S2                                   | 3               |          |  |
| 17:16  | MA44308-CCV7                                | 1               |          |  |
| 17:20  | MA44308-CCB8                                | 1               |          |  |
| 17:24  | JC65023-1                                   | 3               |          | (sample used for QC only; not part of login JC64996) |
| 17:28  | MP6839-SD1                                  | 15              |          |  |
| 17:33  | MP6839-SD1                                  | 5               |          |  |
| 17:37  | ZZZZZZ                                      | 2               |          |  |
| 17:41  | ZZZZZZ                                      | 2               |          |  |
| 17:46  | ZZZZZZ                                      | 1               |          |  |
| 17:50  | ZZZZZZ                                      | 2               |          |  |
| 17:54  | ZZZZZZ                                      | 2               |          |  |
| 17:58  | ZZZZZZ                                      | 2               |          |  |
| 18:02  | MA44308-CCV8                                | 1               |          |  |
| 18:06  | MA44308-CCB9                                | 1               |          |  |
| 18:11  | ZZZZZZ                                      | 2               |          |  |
| 18:17  | ZZZZZZ                                      | 1               |          |  |
| 18:21  | MA44308-CRI3                                | 1               |          |  |
| 18:25  | MA44308-CRID2                               | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44308  
Parameters: Ca

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 18:30  | MA44308-ICSA2                       | 1               |          |  |
| 18:34  | MA44308-ICSAB2                      | 1               |          |  |
| 18:38  | MA44308-CCV9                        | 1               |          |  |
| 18:42  | MA44308-CCB10                       | 1               |          |  |
| -----> | Last reportable CCB for job JC64996 |                 |          |  |
| 18:47  | ZZZZZ                               | 1               |          |  |
| 18:51  | ZZZZZ                               | 1               |          |  |
| 18:55  | ZZZZZ                               | 5               |          |  |
| 19:00  | ZZZZZ                               | 5               |          |  |
| 19:04  | ZZZZZ                               | 1               |          |  |
| 19:08  | ZZZZZ                               | 1               |          |  |
| 19:12  | ZZZZZ                               | 1               |          |  |
| 19:17  | ZZZZZ                               | 1               |          |  |
| 19:21  | ZZZZZ                               | 1               |          |  |
| 19:25  | MA44308-CCV10                       | 1               |          |  |
| 19:29  | MA44308-CCB11                       | 1               |          |  |
| 19:34  | ZZZZZ                               | 1               |          |  |
| 19:38  | ZZZZZ                               | 25              |          |  |
| 19:44  | ZZZZZ                               | 25              |          |  |
| 19:56  | ZZZZZ                               | 125             |          |  |
| 20:07  | ZZZZZ                               | 500             |          |  |
| 20:14  | ZZZZZ                               | 1               |          |  |
| 20:18  | ZZZZZ                               | 1               |          |  |
| 20:22  | ZZZZZ                               | 1               |          |  |
| 20:26  | ZZZZZ                               | 1               |          |  |
| 20:30  | ZZZZZ                               | 1               |          |  |
| 20:35  | MA44308-CCV11                       | 1               |          |  |
| 20:39  | MA44308-CCB12                       | 1               |          |  |
| 20:43  | MP6856-S1                           | 2               |          |  |
| 20:47  | MP6856-S2                           | 2               |          |  |
| 20:51  | JC64837-4                           | 2               |          | (sample used for QC only; not part of login JC64996) |
| 20:56  | MP6856-SD1                          | 10              |          |  |
| 21:00  | MP6847-MB2                          | 1               |          |  |
| 21:04  | MP6847-B2                           | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44308  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 21:08 | MP6877-B1          | 1               |          |  |
| 21:12 | MP6877-MB1         | 1               |          |  |
| 21:17 | MA44308-CCV12      | 1               |          |  |
| 21:21 | MA44308-CCB13      | 1               |          |  |
| 21:25 | MP6877-S1          | 1               |          |  |
| 21:29 | MP6877-S2          | 1               |          |  |
| 21:33 | JC64901-5          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 21:38 | MP6877-SD1         | 5               |          |  |
| 21:42 | ZZZZZZ             | 1               |          |  |
| 21:46 | ZZZZZZ             | 1               |          |  |
| 21:51 | ZZZZZZ             | 1               |          |  |
| 21:55 | ZZZZZZ             | 1               |          |  |
| 21:59 | ZZZZZZ             | 1               |          |  |
| 22:04 | MA44308-CCV13      | 1               |          |  |
| 22:08 | MA44308-CCB14      | 1               |          |  |
| 22:12 | ZZZZZZ             | 1               |          |  |
| 22:17 | ZZZZZZ             | 1               |          |  |
| 22:21 | ZZZZZZ             | 1               |          |  |
| 22:26 | ZZZZZZ             | 1               |          |  |
| 22:30 | ZZZZZZ             | 1               |          |  |
| 22:34 | ZZZZZZ             | 1               |          |  |
| 22:39 | ZZZZZZ             | 1               |          |  |
| 22:43 | ZZZZZZ             | 1               |          |  |
| 22:47 | MA44308-CCV14      | 1               |          |  |
| 22:51 | MA44308-CCB15      | 1               |          |  |
| 22:56 | ZZZZZZ             | 1               |          |  |
| 23:00 | ZZZZZZ             | 1               |          |  |
| 23:04 | ZZZZZZ             | 1               |          |  |
| 23:09 | ZZZZZZ             | 1               |          |  |
| 23:13 | ZZZZZZ             | 1               |          |  |
| 23:17 | ZZZZZZ             | 1               |          |  |
| 23:22 | MA44308-CCV15      | 1               |          |  |
| 23:26 | MA44308-CCB16      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
Analyst: GT Run ID: MA44308  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 23:30 | MA44308-CRI4       | 1               |          |  |
| 23:34 | MA44308-CRID3      | 1               |          |  |
| 23:41 | ZZZZZZ             | 1               |          |  |
| 23:46 | MA44308-CCV16      | 1               |          |  |
| 23:50 | MA44308-CCB17      | 1               |          |  |
| 23:54 | ZZZZZZ             | 1               |          |  |
| 23:59 | ZZZZZZ             | 1               |          |  |
| 00:03 | ZZZZZZ             | 1               |          |  |
| 00:07 | ZZZZZZ             | 1               |          |  |
| 00:12 | ZZZZZZ             | 1               |          |  |
| 00:16 | ZZZZZZ             | 1               |          |  |
| 00:20 | ZZZZZZ             | 1               |          |  |
| 00:25 | ZZZZZZ             | 1               |          |  |
| 00:29 | ZZZZZZ             | 1               |          |  |
| 00:34 | ZZZZZZ             | 1               |          |  |
| 00:38 | MA44308-CCV17      | 1               |          |  |
| 00:42 | MA44308-CCB18      | 1               |          |  |
| 00:46 | MP6880-MB1         | 1               |          |  |
| 00:51 | MP6880-B1          | 1               |          |  |
| 00:55 | MP6880-S1          | 1               |          |  |
| 00:59 | MP6880-S2          | 1               |          |  |
| 01:03 | JC64900-6          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 01:07 | MP6880-SD1         | 5               |          |  |
| 01:11 | ZZZZZZ             | 1               |          |  |
| 01:16 | ZZZZZZ             | 1               |          |  |
| 01:20 | ZZZZZZ             | 1               |          |  |
| 01:24 | MA44308-CCV18      | 1               |          |  |
| 01:28 | MA44308-CCB19      | 1               |          |  |
| 01:33 | ZZZZZZ             | 1               |          |  |
| 01:37 | ZZZZZZ             | 1               |          |  |
| 01:41 | ZZZZZZ             | 1               |          |  |
| 01:46 | ZZZZZZ             | 1               |          |  |
| 01:50 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44308  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 01:54 | ZZZZZZ             | 1               |          |  |
| 01:59 | MP6879-B1          | 1               |          |  |
| 02:03 | MP6879-MB1         | 1               |          |  |
| 02:07 | MP6879-S1          | 1               |          |  |
| 02:11 | MA44308-CCV19      | 1               |          |  |
| 02:15 | MA44308-CCB20      | 1               |          |  |
| 02:20 | MP6879-S2          | 1               |          |  |
| 02:24 | JC64537-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 02:28 | MP6879-SD1         | 5               |          |  |
| 02:32 | ZZZZZZ             | 1               |          |  |
| 02:37 | ZZZZZZ             | 1               |          |  |
| 02:41 | ZZZZZZ             | 1               |          |  |
| 02:45 | ZZZZZZ             | 1               |          |  |
| 02:50 | MP6881-B1          | 1               |          |  |
| 02:54 | MP6881-MB1         | 1               |          |  |
| 02:58 | MA44308-CCV20      | 1               |          |  |
| 03:02 | MA44308-CCB21      | 1               |          |  |
| 03:06 | MP6881-S1          | 1               |          |  |
| 03:11 | MP6881-S2          | 1               |          |  |
| 03:15 | JC64900-19         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 03:19 | MP6881-SD1         | 5               |          |  |
| 03:23 | ZZZZZZ             | 1               |          |  |
| 03:28 | ZZZZZZ             | 1               |          |  |
| 03:32 | ZZZZZZ             | 1               |          |  |
| 03:36 | ZZZZZZ             | 1               |          |  |
| 03:41 | ZZZZZZ             | 1               |          |  |
| 03:45 | MA44308-CCV21      | 1               |          |  |
| 03:49 | MA44308-CCB22      | 1               |          |  |
| 03:53 | ZZZZZZ             | 1               |          |  |
| 03:58 | ZZZZZZ             | 1               |          |  |
| 04:02 | ZZZZZZ             | 1               |          |  |
| 04:06 | ZZZZZZ             | 1               |          |  |
| 04:11 | MA44308-CCV22      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
Analyst: GT      Run ID: MA44308  
Parameters: Ca

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

04:15 MA44308-CCB23 1

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1   | Istd#2   | Istd#3 | Istd#4 |
|-------|--------------------|--|----------|--------|--------|
| 11:00 | MA44308-STD1       | 3851 R   | 102390 R | 9797 R | 9120 R |
| 11:04 | MA44308-STD2       | 3589   | 94518    | 9522   | 7778   |
| 11:08 | ZZZZZZ             | 3683   | 96985    | 9562   | 8092   |
| 11:12 | ZZZZZZ             | 3827   | 102290   | 9740   | 9072   |
| 11:17 | ZZZZZZ             | 3803   | 100560   | 9667   | 8866   |
| 11:25 | MA44308-ICV1       | 3704   | 97336    | 9723   | 8147   |
| 11:33 | MA44308-ICB1       | 3806   | 101130   | 9662   | 9014   |
| 11:37 | MA44308-ICCV1      | No results reported for the elements associated with this internal standard. |          |        |        |
| 11:58 | MA44308-ICCV2      | 3640   | 95802    | 9586   | 8030   |
| 12:07 | MA44308-CCB1       | 3773   | 100260   | 9742   | 8965   |
| 12:12 | MA44308-CRID1      | 3742   | 99391    | 9571   | 8856   |
| 12:16 | MA44308-CRI1       | 3821   | 102500   | 9883   | 8903   |
| 12:21 | MA44308-ICSA1      | 3400   | 89139    | 9373   | 7117   |
| 12:25 | MA44308-ICSAB1     | 3353   | 87384    | 9271   | 7057   |
| 12:29 | MA44308-HSTD1      | 3752   | 99557    | 9797   | 8753   |
| 12:33 | MA44308-HSTD2      | 3439   | 90424    | 9376   | 7205   |
| 12:38 | ZZZZZZ             | 3725   | 99562    | 9739   | 8868   |
| 12:42 | MA44308-CCV1       | 3673   | 96304    | 9652   | 8084   |
| 12:46 | MA44308-CCB2       | 3817   | 101260   | 9786   | 9058   |
| 12:50 | ZZZZZZ             | 3729   | 100960   | 9797   | 9010   |
| 12:55 | ZZZZZZ             | 3813   | 101390   | 9747   | 9045   |
| 12:59 | ZZZZZZ             | 3795   | 102170   | 9691   | 9000   |
| 13:03 | ZZZZZZ             | 3707   | 98834    | 9583   | 8301   |
| 13:07 | ZZZZZZ             | 3812   | 100930   | 9694   | 8873   |
| 13:12 | ZZZZZZ             | 3810   | 101060   | 9631   | 8870   |
| 13:16 | ZZZZZZ             | 3805   | 101750   | 9655   | 8991   |
| 13:20 | ZZZZZZ             | 3818   | 101670   | 9555   | 9029   |
| 13:24 | MA44308-CCV2       | 3654   | 96134    | 9406   | 8027   |
| 13:28 | MA44308-CCB3       | 3802   | 101470   | 9470   | 9001   |
| 13:33 | MA44308-CRI2       | 3757   | 100040   | 9454   | 8768   |
| 13:37 | MP6876-MB1         | 3793   | 102580   | 9621   | 9019   |
| 13:41 | MP6876-B1          | 3689   | 98125    | 9447   | 8248   |
| 13:45 | MP6876-S1          | 3996   | 104930   | 10439  | 7970   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 13:49 | MP6876-S2          | 3969   | 103580 | 10349  | 7908   |
| 13:53 | JC65141-1          | 4103   | 107070 | 10455  | 8272   |
| 13:58 | MP6876-SD1         | 3887   | 102230 | 9757   | 8713   |
| 14:02 | ZZZZZ              | 3839   | 102210 | 9821   | 9015   |
| 14:07 | ZZZZZ              | 3767   | 100530 | 9561   | 8927   |
| 14:11 | MA44308-CCV3       | 3629   | 95242  | 9418   | 7981   |
| 14:15 | MA44308-CCB4       | 3772   | 100110 | 9481   | 8920   |
| 14:19 | ZZZZZ              | 3903   | 103120 | 10314  | 8121   |
| 14:24 | ZZZZZ              | 4077   | 108730 | 11034  | 7891   |
| 14:28 | ZZZZZ              | 3806   | 101200 | 10359  | 7737   |
| 14:32 | ZZZZZ              | 4194   | 109890 | 11146  | 8222   |
| 14:36 | ZZZZZ              | 4059   | 106630 | 10835  | 8306   |
| 14:40 | ZZZZZ              | 4521   | 118650 | 12034  | 8350   |
| 14:45 | ZZZZZ              | 4095   | 108200 | 10887  | 8514   |
| 14:49 | MP6844-MB1         | 3745   | 100510 | 9829   | 8917   |
| 14:53 | MP6844-B1          | 3629   | 96436  | 9628   | 8144   |
| 14:57 | MA44308-CCV4       | 3624   | 95876  | 9689   | 8004   |
| 15:01 | MA44308-CCB5       | 3756   | 99956  | 9656   | 8925   |
| 15:06 | MP6844-S1          | 3626   | 96311  | 9656   | 8087   |
| 15:10 | MP6844-S2          | 3623   | 96733  | 9694   | 8082   |
| 15:14 | JC64839-2          | 3739   | 99856  | 9762   | 8749   |
| 15:18 | MP6844-SD1         | 3701   | 99032  | 9703   | 8815   |
| 15:22 | ZZZZZ              | 3720   | 98597  | 9902   | 8585   |
| 15:27 | ZZZZZ              | 3728   | 98714  | 10072  | 8217   |
| 15:31 | ZZZZZ              | 3754   | 100370 | 9960   | 8787   |
| 15:35 | ZZZZZ              | 3674   | 98345  | 9916   | 8467   |
| 15:39 | ZZZZZ              | 3739   | 100300 | 9972   | 8771   |
| 15:44 | MA44308-CCV5       | 3568   | 94480  | 9683   | 7901   |
| 15:48 | MA44308-CCB6       | 3709   | 99424  | 9854   | 8858   |
| 15:52 | ZZZZZ              | 3734   | 99403  | 10028  | 8764   |
| 15:56 | ZZZZZ              | 3503   | 93428  | 10193  | 7346   |
| 16:00 | ZZZZZ              | 3602   | 95356  | 10065  | 7912   |
| 16:05 | ZZZZZ              | 3645   | 96468  | 10244  | 7877   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 16:09 | ZZZZZZ             | 3652   | 97145  | 10171  | 8191   |
| 16:13 | ZZZZZZ             | 3615   | 96359  | 10187  | 7920   |
| 16:17 | ZZZZZZ             | 3636   | 96671  | 10147  | 8117   |
| 16:21 | ZZZZZZ             | 3639   | 96501  | 10088  | 8168   |
| 16:26 | ZZZZZZ             | 3850   | 99502  | 10453  | 8351   |
| 16:30 | MA44308-CCV6       | 3551   | 94008  | 9810   | 7878   |
| 16:34 | MA44308-CCB7       | 3687   | 98512  | 9812   | 8807   |
| 16:38 | ZZZZZZ             | 3684   | 99673  | 10026  | 8831   |
| 16:43 | ZZZZZZ             | 3578   | 95355  | 9889   | 8085   |
| 16:47 | MP6862-S2          | 3588   | 95423  | 10011  | 7864   |
| 16:51 | ZZZZZZ             | 3538   | 94576  | 10027  | 7684   |
| 16:55 | JC64996-9          | 3586   | 95683  | 10163  | 7767   |
| 16:59 | ZZZZZZ             | 3767   | 101690 | 10328  | 9107   |
| 17:03 | ZZZZZZ             | 3749   | 100810 | 10339  | 9062   |
| 17:08 | MP6839-S1          | 3437   | 92992  | 9832   | 7779   |
| 17:12 | MP6839-S2          | 3440   | 92990  | 9899   | 7787   |
| 17:16 | MA44308-CCV7       | 3525   | 93902  | 9786   | 7844   |
| 17:20 | MA44308-CCB8       | 3676   | 98329  | 10004  | 8815   |
| 17:24 | JC65023-1          | 3506   | 94234  | 10067  | 8005   |
| 17:28 | MP6839-SD1         | 3649   | 97782  | 9980   | 8565   |
| 17:33 | MP6839-SD1         | 3567   | 95984  | 9912   | 8204   |
| 17:37 | ZZZZZZ             | 3786   | 96814  | 10151  | 8175   |
| 17:41 | ZZZZZZ             | 3811   | 97438  | 10332  | 8115   |
| 17:46 | ZZZZZZ             | 3672   | 97722  | 10168  | 8324   |
| 17:50 | ZZZZZZ             | 3729   | 98691  | 10028  | 8303   |
| 17:54 | ZZZZZZ             | 3841   | 102210 | 10356  | 8041   |
| 17:58 | ZZZZZZ             | 3856   | 102080 | 10308  | 8345   |
| 18:02 | MA44308-CCV8       | 3575   | 94591  | 9525   | 7915   |
| 18:06 | MA44308-CCB9       | 3724   | 99814  | 9679   | 8885   |
| 18:11 | ZZZZZZ             | 3812   | 100340 | 10071  | 8314   |
| 18:17 | ZZZZZZ             | 3742   | 100150 | 9617   | 8904   |
| 18:21 | MA44308-CRI3       | 3679   | 98508  | 9602   | 8628   |
| 18:25 | MA44308-CRID2      | 3756   | 100920 | 9673   | 8889   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 18:30 | MA44308-ICSA2      | 3305   | 86545  | 9082   | 6940   |
| 18:34 | MA44308-ICSAB2     | 3314   | 86901  | 9071   | 6966   |
| 18:38 | MA44308-CCV9       | 3624   | 95438  | 9409   | 7987   |
| 18:42 | MA44308-CCB10      | 3768   | 100870 | 9527   | 8937   |
| 18:47 | ZZZZZZ             | 3759   | 101340 | 9601   | 8940   |
| 18:51 | ZZZZZZ             | 3658   | 96978  | 9450   | 8200   |
| 18:55 | ZZZZZZ             | 3472   | 92767  | 9308   | 7759   |
| 19:00 | ZZZZZZ             | 3455   | 92273  | 9310   | 7726   |
| 19:04 | ZZZZZZ             | 3561   | 94339  | 9498   | 7951   |
| 19:08 | ZZZZZZ             | 3499   | 92777  | 9454   | 7712   |
| 19:12 | ZZZZZZ             | 3666   | 96554  | 9531   | 8415   |
| 19:17 | ZZZZZZ             | 3546   | 94862  | 9379   | 7982   |
| 19:21 | ZZZZZZ             | 3665   | 97869  | 9542   | 8458   |
| 19:25 | MA44308-CCV10      | 3631   | 95585  | 9369   | 8002   |
| 19:29 | MA44308-CCB11      | 3774   | 100780 | 9524   | 8962   |
| 19:34 | ZZZZZZ             | 3752   | 100770 | 9539   | 8934   |
| 19:38 | ZZZZZZ             | 3625   | 95787  | 9351   | 8149   |
| 19:44 | ZZZZZZ             | 3061   | 79352  | 8878   | 6354 ! |
| 19:56 | ZZZZZZ             | 3428   | 89338  | 9283   | 7442   |
| 20:07 | ZZZZZZ             | 3604   | 94677  | 9430   | 8109   |
| 20:14 | ZZZZZZ             | 3637   | 96633  | 9665   | 8157   |
| 20:18 | ZZZZZZ             | 3749   | 100670 | 9661   | 8948   |
| 20:22 | ZZZZZZ             | 3571   | 94347  | 9529   | 7915   |
| 20:26 | ZZZZZZ             | 3636   | 96966  | 9652   | 8181   |
| 20:30 | ZZZZZZ             | 3745   | 100480 | 9577   | 8908   |
| 20:35 | MA44308-CCV11      | 3616   | 95297  | 9406   | 7976   |
| 20:39 | MA44308-CCB12      | 3759   | 100240 | 9558   | 8940   |
| 20:43 | MP6856-S1          | 3602   | 95975  | 9496   | 8023   |
| 20:47 | MP6856-S2          | 3615   | 96152  | 9528   | 8023   |
| 20:51 | JC64837-4          | 3605   | 96474  | 9401   | 8242   |
| 20:56 | MP6856-SD1         | 3717   | 98959  | 9508   | 8713   |
| 21:00 | MP6847-MB2         | 3736   | 100530 | 9532   | 8896   |
| 21:04 | MP6847-B2          | 3644   | 96681  | 9467   | 8171   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1  | Istd#2   | Istd#3 | Istd#4  |
|-------|--------------------|---------|----------|--------|---------|
| 21:08 | MP6877-B1          | 3625    | 96709    | 9586   | 8162    |
| 21:12 | MP6877-MB1         | 3738    | 100710   | 9750   | 8919    |
| 21:17 | MA44308-CCV12      | 3619    | 95526    | 9545   | 7989    |
| 21:21 | MA44308-CCB13      | 3760    | 100950   | 9457   | 8941    |
| 21:25 | MP6877-S1          | 3364    | 89488    | 9202   | 7181    |
| 21:29 | MP6877-S2          | 3362    | 89345    | 9156   | 7165    |
| 21:33 | JC64901-5          | 3356    | 89656    | 9223   | 7316    |
| 21:38 | MP6877-SD1         | 3618    | 96279    | 9410   | 8199    |
| 21:42 | ZZZZZZ             | 3740    | 100570   | 9560   | 8900    |
| 21:46 | ZZZZZZ             | 3325    | 92031    | 9362   | 7519    |
| 21:51 | ZZZZZZ             | 3356    | 92773    | 9349   | 7493    |
| 21:55 | ZZZZZZ             | 3250    | 90872    | 9249   | 7422    |
| 21:59 | ZZZZZZ             | 2653 !a | 70658 !a | 8302   | 5472 !a |
| 22:04 | MA44308-CCV13      | 3632    | 96024    | 9384   | 8001    |
| 22:08 | MA44308-CCB14      | 3776    | 100960   | 9393   | 8967    |
| 22:12 | ZZZZZZ             | 2641 !a | 70642 !a | 8388   | 5446 !a |
| 22:17 | ZZZZZZ             | 3288    | 91388    | 9176   | 7487    |
| 22:21 | ZZZZZZ             | 3277    | 91048    | 9151   | 7459    |
| 22:26 | ZZZZZZ             | 3750    | 100900   | 9522   | 8918    |
| 22:30 | ZZZZZZ             | 3746    | 101130   | 9459   | 8907    |
| 22:34 | ZZZZZZ             | 3613    | 96829    | 9416   | 8201    |
| 22:39 | ZZZZZZ             | 3578    | 96719    | 9434   | 8145    |
| 22:43 | ZZZZZZ             | 3580    | 95836    | 9481   | 8107    |
| 22:47 | MA44308-CCV14      | 3651    | 95950    | 9366   | 8045    |
| 22:51 | MA44308-CCB15      | 3795    | 101290   | 9423   | 9007    |
| 22:56 | ZZZZZZ             | 3514    | 94374    | 9397   | 7845    |
| 23:00 | ZZZZZZ             | 3583    | 95022    | 9350   | 7890    |
| 23:04 | ZZZZZZ             | 3725    | 99971    | 9472   | 8771    |
| 23:09 | ZZZZZZ             | 3617    | 97139    | 9510   | 8262    |
| 23:13 | ZZZZZZ             | 3771    | 101500   | 9609   | 8984    |
| 23:17 | ZZZZZZ             | 3561    | 95804    | 9407   | 8036    |
| 23:22 | MA44308-CCV15      | 3655    | 96134    | 9351   | 8048    |
| 23:26 | MA44308-CCB16      | 3798    | 101490   | 9492   | 9023    |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 23:30 | MA44308-CRI4       | 3740   | 99803  | 9438   | 8745   |
| 23:34 | MA44308-CRID3      | 3769   | 100540 | 9485   | 8916   |
| 23:41 | ZZZZZZ             | 3787   | 103650 | 9562   | 9007   |
| 23:46 | MA44308-CCV16      | 3668   | 98469  | 9440   | 8099   |
| 23:50 | MA44308-CCB17      | 3816   | 104260 | 9659   | 9120   |
| 23:54 | ZZZZZZ             | 3909   | 97899  | 9842   | 8016   |
| 23:59 | ZZZZZZ             | 3438   | 93957  | 9259   | 7676   |
| 00:03 | ZZZZZZ             | 3405   | 92581  | 9193   | 7603   |
| 00:07 | ZZZZZZ             | 3811   | 103640 | 9710   | 9091   |
| 00:12 | ZZZZZZ             | 3812   | 104200 | 9693   | 9084   |
| 00:16 | ZZZZZZ             | 3831   | 104060 | 9626   | 9123   |
| 00:20 | ZZZZZZ             | 3807   | 104050 | 9736   | 9077   |
| 00:25 | ZZZZZZ             | 3815   | 103840 | 9673   | 9142   |
| 00:29 | ZZZZZZ             | 3805   | 103860 | 9645   | 9098   |
| 00:34 | ZZZZZZ             | 3826   | 104310 | 9703   | 9158   |
| 00:38 | MA44308-CCV17      | 3677   | 98406  | 9546   | 8124   |
| 00:42 | MA44308-CCB18      | 3829   | 104620 | 9612   | 9139   |
| 00:46 | MP6880-MB1         | 3840   | 104970 | 9832   | 9291   |
| 00:51 | MP6880-B1          | 3709   | 100680 | 9674   | 8404   |
| 00:55 | MP6880-S1          | 3556   | 96363  | 9553   | 7805   |
| 00:59 | MP6880-S2          | 3553   | 96486  | 9498   | 7789   |
| 01:03 | JC64900-6          | 3580   | 97588  | 9560   | 8050   |
| 01:07 | MP6880-SD1         | 3741   | 101470 | 9569   | 8709   |
| 01:11 | ZZZZZZ             | 3784   | 103340 | 9701   | 9030   |
| 01:16 | ZZZZZZ             | 3581   | 98062  | 9541   | 7940   |
| 01:20 | ZZZZZZ             | 3787   | 103870 | 9729   | 9064   |
| 01:24 | MA44308-CCV18      | 3654   | 97941  | 9323   | 8057   |
| 01:28 | MA44308-CCB19      | 3813   | 103880 | 9522   | 9092   |
| 01:33 | ZZZZZZ             | 3766   | 103020 | 9624   | 8941   |
| 01:37 | ZZZZZZ             | 3726   | 101550 | 9502   | 8582   |
| 01:41 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 01:46 | ZZZZZZ             | 3649   | 100340 | 9487   | 8345   |
| 01:50 | ZZZZZZ             | 3723   | 101340 | 9578   | 8450   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: GT Run ID: MA44308  
 Parameters: Ca

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 01:54 | ZZZZZZ             | 3596   | 98402  | 9478   | 8110   |
| 01:59 | MP6879-B1          | 3703   | 100190 | 9526   | 8372   |
| 02:03 | MP6879-MB1         | 3822   | 104550 | 9576   | 9224   |
| 02:07 | MP6879-S1          | 3447   | 93721  | 9216   | 7421   |
| 02:11 | MA44308-CCV19      | 3658   | 98107  | 9270   | 8056   |
| 02:15 | MA44308-CCB20      | 3830   | 103630 | 9384   | 9111   |
| 02:20 | MP6879-S2          | 3450   | 93914  | 9259   | 7436   |
| 02:24 | JC64537-1          | 3430   | 93526  | 9196   | 7556   |
| 02:28 | MP6879-SD1         | 3663   | 99581  | 9299   | 8404   |
| 02:32 | ZZZZZZ             | 3438   | 93673  | 9228   | 7597   |
| 02:37 | ZZZZZZ             | 3488   | 92524  | 9316   | 7575   |
| 02:41 | ZZZZZZ             | 3791   | 103850 | 9520   | 9148   |
| 02:45 | ZZZZZZ             | 3819   | 104190 | 9534   | 9197   |
| 02:50 | MP6881-B1          | 3717   | 100550 | 9453   | 8382   |
| 02:54 | MP6881-MB1         | 3824   | 104260 | 9623   | 9224   |
| 02:58 | MA44308-CCV20      | 3658   | 97831  | 9260   | 8059   |
| 03:02 | MA44308-CCB21      | 3822   | 103820 | 9338   | 9099   |
| 03:06 | MP6881-S1          | 3447   | 93550  | 9160   | 7471   |
| 03:11 | MP6881-S2          | 3437   | 93958  | 9133   | 7455   |
| 03:15 | JC64900-19         | 3426   | 93929  | 9107   | 7591   |
| 03:19 | MP6881-SD1         | 3676   | 100100 | 9190   | 8441   |
| 03:23 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 03:28 | ZZZZZZ             | 3660   | 99956  | 9377   | 8251   |
| 03:32 | ZZZZZZ             | 3787   | 103570 | 9498   | 8730   |
| 03:36 | ZZZZZZ             | 3487   | 94913  | 9162   | 7493   |
| 03:41 | ZZZZZZ             | 3736   | 101700 | 9383   | 8530   |
| 03:45 | MA44308-CCV21      | 3674   | 98709  | 9119   | 8099   |
| 03:49 | MA44308-CCB22      | 3830   | 104280 | 9216   | 9109   |
| 03:53 | ZZZZZZ             | 3716   | 100980 | 9371   | 8514   |
| 03:58 | ZZZZZZ             | 3651   | 99852  | 9204   | 8319   |
| 04:02 | ZZZZZZ             | 3542   | 97275  | 9100   | 7984   |
| 04:06 | ZZZZZZ             | 3651   | 99220  | 9255   | 8212   |
| 04:11 | MA44308-CCV22      | 3674   | 98736  | 9134   | 8082   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
 Analyst: GT      Run ID: MA44308  
 Parameters: Ca

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|------|--------------------|--------|--------|--------|--------|
|------|--------------------|--------|--------|--------|--------|

04:15 MA44308-CCB23 3837 104360 9179 9110

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

14.3.1  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Metal      | Time:      |     | 11:33 |       | 12:07 |       | 12:46  |       | 13:28 |       |       |
|------------|------------|-----|-------|-------|-------|-------|--------|-------|-------|-------|-------|
|            | Sample ID: | RL  | IDL   | ICB1  | final | CCB1  | final  | CCB2  | final | CCB3  | final |
| Aluminum   | 200        | 34  | anr   |       |       |       |        |       |       |       |       |
| Antimony   | 6.0        | 1.4 | anr   |       |       |       |        |       |       |       |       |
| Arsenic    | 3.0        | 1.4 | anr   |       |       |       |        |       |       |       |       |
| Barium     | 200        | .5  | anr   |       |       |       |        |       |       |       |       |
| Beryllium  | 1.0        | .2  | anr   |       |       |       |        |       |       |       |       |
| Bismuth    | 20         | 2.5 |       |       |       |       |        |       |       |       |       |
| Boron      | 100        | 1.9 |       |       |       |       |        |       |       |       |       |
| Cadmium    | 3.0        | .3  | anr   |       |       |       |        |       |       |       |       |
| Calcium    | 5000       | 8.7 | -3.60 | <5000 | 0.900 | <5000 | -0.400 | <5000 | -1.70 | <5000 |       |
| Chromium   | 10         | .6  | anr   |       |       |       |        |       |       |       |       |
| Cobalt     | 50         | .5  | anr   |       |       |       |        |       |       |       |       |
| Copper     | 10         | 1.2 | anr   |       |       |       |        |       |       |       |       |
| Iron       | 100        | 4.6 | anr   |       |       |       |        |       |       |       |       |
| Lead       | 3.0        | 1.4 | anr   |       |       |       |        |       |       |       |       |
| Lithium    | 50         | 2.8 |       |       |       |       |        |       |       |       |       |
| Magnesium  | 5000       | 33  | anr   |       |       |       |        |       |       |       |       |
| Manganese  | 15         | .1  | anr   |       |       |       |        |       |       |       |       |
| Molybdenum | 20         | .4  |       |       |       |       |        |       |       |       |       |
| Nickel     | 10         | .5  | anr   |       |       |       |        |       |       |       |       |
| Phosphorus | 50         | 1.7 |       |       |       |       |        |       |       |       |       |
| Potassium  | 10000      | 68  | anr   |       |       |       |        |       |       |       |       |
| Selenium   | 10         | 3.8 | anr   |       |       |       |        |       |       |       |       |
| Silicon    | 200        | 2.1 |       |       |       |       |        |       |       |       |       |
| Silver     | 10         | .5  | anr   |       |       |       |        |       |       |       |       |
| Sodium     | 10000      | 15  | anr   |       |       |       |        |       |       |       |       |
| Strontium  | 10         | .2  |       |       |       |       |        |       |       |       |       |
| Sulfur     | 50         | 20  |       |       |       |       |        |       |       |       |       |
| Thallium   | 2.0        | 1.6 | anr   |       |       |       |        |       |       |       |       |
| Tin        | 10         | 1   |       |       |       |       |        |       |       |       |       |
| Titanium   | 10         | .7  | anr   |       |       |       |        |       |       |       |       |
| Tungsten   | 50         | 1.8 |       |       |       |       |        |       |       |       |       |
| Vanadium   | 50         | .4  | anr   |       |       |       |        |       |       |       |       |
| Zinc       | 20         | .3  | anr   |       |       |       |        |       |       |       |       |

14.3.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

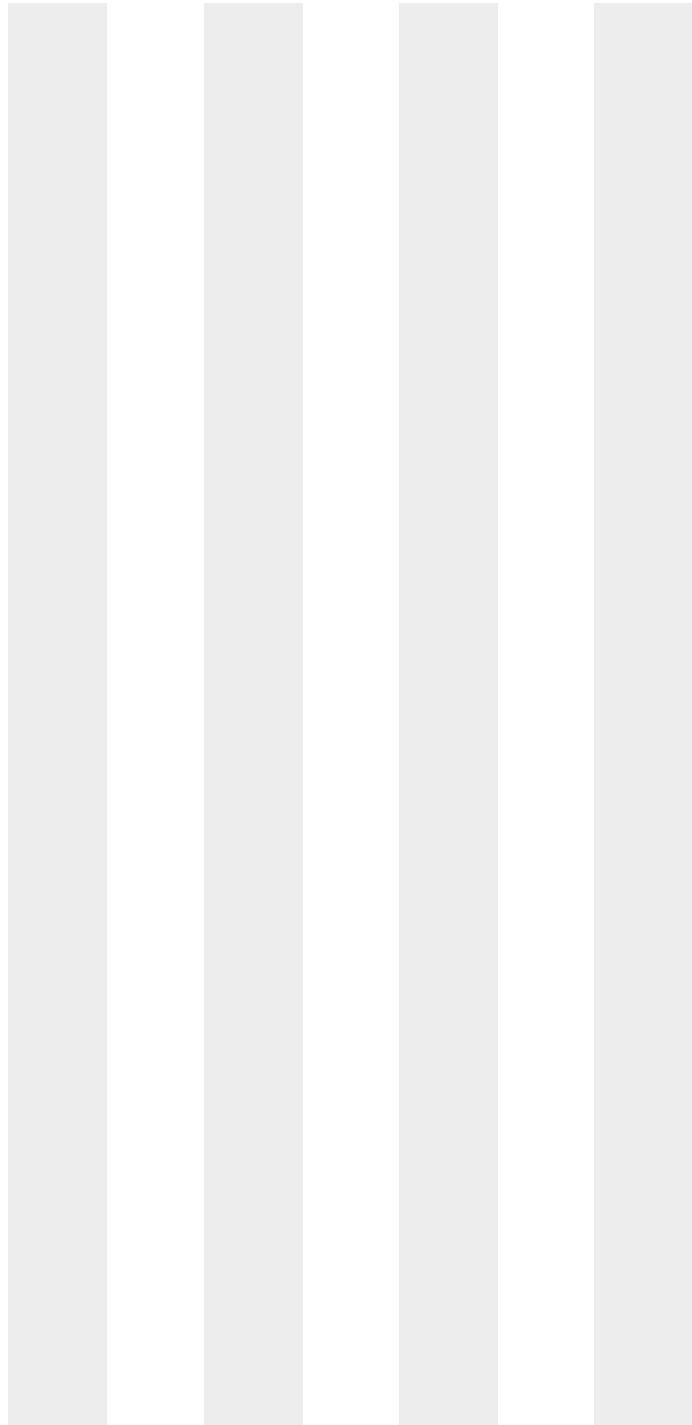
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Time:      |    |     | 11:33 |       | 12:07 |       | 12:46 |       | 13:28 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.2  
 14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Metal      | Time:      |     | 14:15 |       | 15:01 |       | 15:48 |       | 16:34  |       |       |
|------------|------------|-----|-------|-------|-------|-------|-------|-------|--------|-------|-------|
|            | Sample ID: | RL  | IDL   | CCB4  | CCB5  | CCB6  | CCB7  | raw   | final  | raw   | final |
| Aluminum   | 200        | 34  | anr   |       |       |       |       |       |        |       |       |
| Antimony   | 6.0        | 1.4 | anr   |       |       |       |       |       |        |       |       |
| Arsenic    | 3.0        | 1.4 | anr   |       |       |       |       |       |        |       |       |
| Barium     | 200        | .5  | anr   |       |       |       |       |       |        |       |       |
| Beryllium  | 1.0        | .2  | anr   |       |       |       |       |       |        |       |       |
| Bismuth    | 20         | 2.5 |       |       |       |       |       |       |        |       |       |
| Boron      | 100        | 1.9 |       |       |       |       |       |       |        |       |       |
| Cadmium    | 3.0        | .3  | anr   |       |       |       |       |       |        |       |       |
| Calcium    | 5000       | 8.7 | -2.10 | <5000 | -3.60 | <5000 | 0.100 | <5000 | -0.800 | <5000 |       |
| Chromium   | 10         | .6  | anr   |       |       |       |       |       |        |       |       |
| Cobalt     | 50         | .5  | anr   |       |       |       |       |       |        |       |       |
| Copper     | 10         | 1.2 | anr   |       |       |       |       |       |        |       |       |
| Iron       | 100        | 4.6 | anr   |       |       |       |       |       |        |       |       |
| Lead       | 3.0        | 1.4 | anr   |       |       |       |       |       |        |       |       |
| Lithium    | 50         | 2.8 |       |       |       |       |       |       |        |       |       |
| Magnesium  | 5000       | 33  | anr   |       |       |       |       |       |        |       |       |
| Manganese  | 15         | .1  | anr   |       |       |       |       |       |        |       |       |
| Molybdenum | 20         | .4  |       |       |       |       |       |       |        |       |       |
| Nickel     | 10         | .5  | anr   |       |       |       |       |       |        |       |       |
| Phosphorus | 50         | 1.7 |       |       |       |       |       |       |        |       |       |
| Potassium  | 10000      | 68  | anr   |       |       |       |       |       |        |       |       |
| Selenium   | 10         | 3.8 | anr   |       |       |       |       |       |        |       |       |
| Silicon    | 200        | 2.1 |       |       |       |       |       |       |        |       |       |
| Silver     | 10         | .5  | anr   |       |       |       |       |       |        |       |       |
| Sodium     | 10000      | 15  | anr   |       |       |       |       |       |        |       |       |
| Strontium  | 10         | .2  |       |       |       |       |       |       |        |       |       |
| Sulfur     | 50         | 20  |       |       |       |       |       |       |        |       |       |
| Thallium   | 2.0        | 1.6 | anr   |       |       |       |       |       |        |       |       |
| Tin        | 10         | 1   |       |       |       |       |       |       |        |       |       |
| Titanium   | 10         | .7  | anr   |       |       |       |       |       |        |       |       |
| Tungsten   | 50         | 1.8 |       |       |       |       |       |       |        |       |       |
| Vanadium   | 50         | .4  | anr   |       |       |       |       |       |        |       |       |
| Zinc       | 20         | .3  | anr   |       |       |       |       |       |        |       |       |

14.3.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

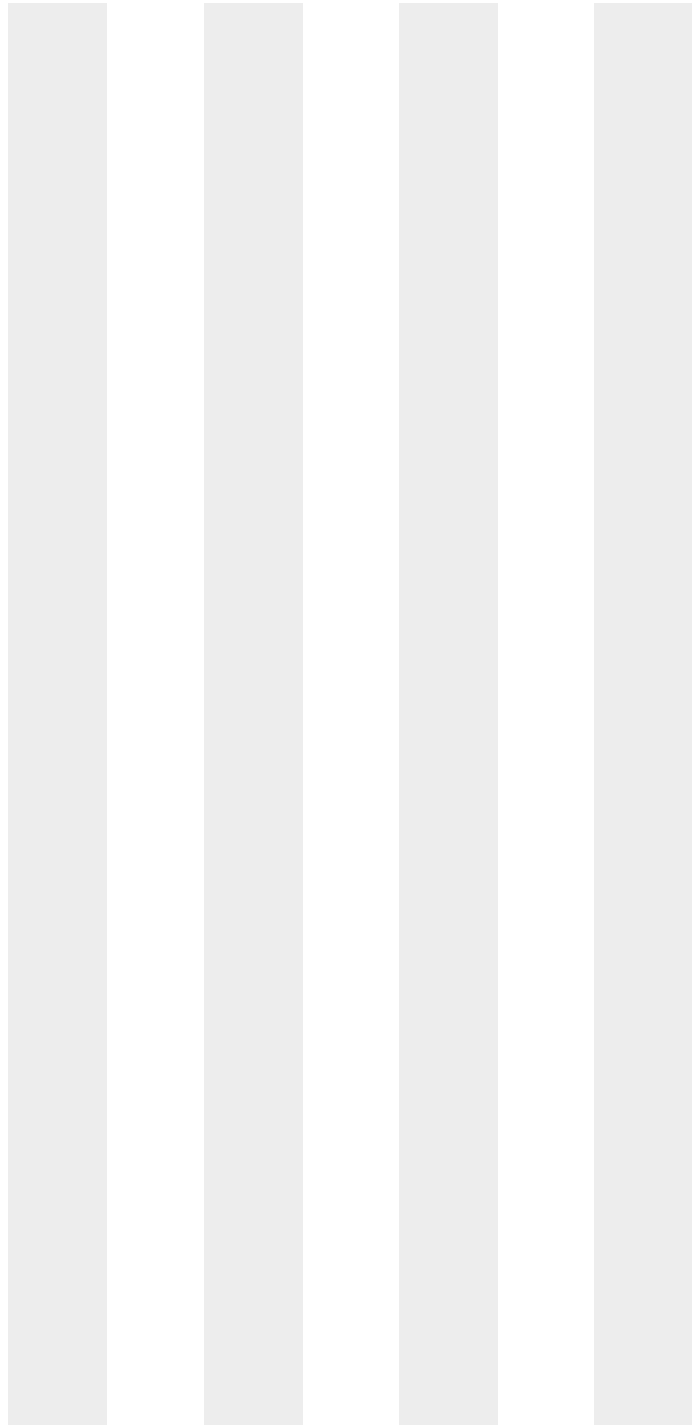
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Time:      | 14:15 | 15:01 | 15:48 | 16:34 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Metal      | RL    | IDL | Time:      | 17:20  | 18:06 | 18:42 |       |       |       |
|------------|-------|-----|------------|--------|-------|-------|-------|-------|-------|
|            |       |     | Sample ID: | CCB8   | CCB9  | CCB10 | raw   | final |       |
| Aluminum   | 200   | 34  |            | anr    |       |       |       |       |       |
| Antimony   | 6.0   | 1.4 |            | anr    |       |       |       |       |       |
| Arsenic    | 3.0   | 1.4 |            | anr    |       |       |       |       |       |
| Barium     | 200   | .5  |            | anr    |       |       |       |       |       |
| Beryllium  | 1.0   | .2  |            | anr    |       |       |       |       |       |
| Bismuth    | 20    | 2.5 |            |        |       |       |       |       |       |
| Boron      | 100   | 1.9 |            |        |       |       |       |       |       |
| Cadmium    | 3.0   | .3  |            | anr    |       |       |       |       |       |
| Calcium    | 5000  | 8.7 |            | -0.400 | <5000 | -6.00 | <5000 | 1.90  | <5000 |
| Chromium   | 10    | .6  |            | anr    |       |       |       |       |       |
| Cobalt     | 50    | .5  |            | anr    |       |       |       |       |       |
| Copper     | 10    | 1.2 |            | anr    |       |       |       |       |       |
| Iron       | 100   | 4.6 |            | anr    |       |       |       |       |       |
| Lead       | 3.0   | 1.4 |            | anr    |       |       |       |       |       |
| Lithium    | 50    | 2.8 |            |        |       |       |       |       |       |
| Magnesium  | 5000  | 33  |            | anr    |       |       |       |       |       |
| Manganese  | 15    | .1  |            | anr    |       |       |       |       |       |
| Molybdenum | 20    | .4  |            |        |       |       |       |       |       |
| Nickel     | 10    | .5  |            | anr    |       |       |       |       |       |
| Phosphorus | 50    | 1.7 |            |        |       |       |       |       |       |
| Potassium  | 10000 | 68  |            | anr    |       |       |       |       |       |
| Selenium   | 10    | 3.8 |            | anr    |       |       |       |       |       |
| Silicon    | 200   | 2.1 |            |        |       |       |       |       |       |
| Silver     | 10    | .5  |            | anr    |       |       |       |       |       |
| Sodium     | 10000 | 15  |            | anr    |       |       |       |       |       |
| Strontium  | 10    | .2  |            |        |       |       |       |       |       |
| Sulfur     | 50    | 20  |            |        |       |       |       |       |       |
| Thallium   | 2.0   | 1.6 |            | anr    |       |       |       |       |       |
| Tin        | 10    | 1   |            |        |       |       |       |       |       |
| Titanium   | 10    | .7  |            | anr    |       |       |       |       |       |
| Tungsten   | 50    | 1.8 |            |        |       |       |       |       |       |
| Vanadium   | 50    | .4  |            | anr    |       |       |       |       |       |
| Zinc       | 20    | .3  |            | anr    |       |       |       |       |       |

14.3.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

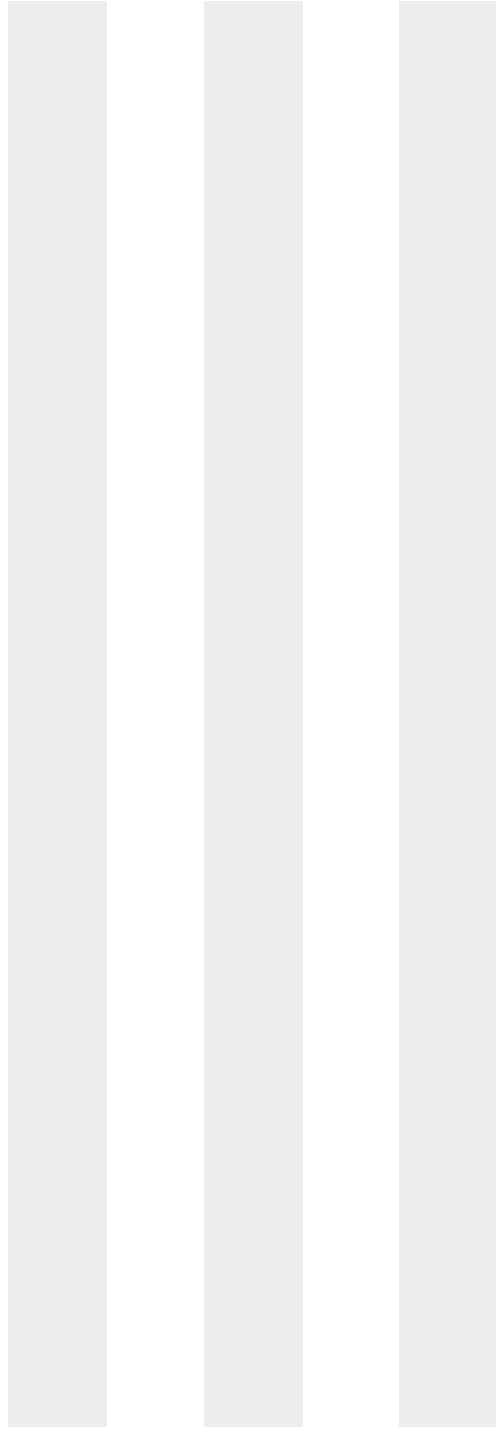
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44308 Units: ug/l

| Time:      | 17:20 | 18:06 | 18:42 |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44308 Units: ug/l

| Time:      | 11:58      |         |       |
|------------|------------|---------|-------|
| Sample ID: | ICCV ICCV2 |         |       |
| Metal      | True       | Results | % Rec |
| Aluminum   | anr        |         |       |
| Antimony   | anr        |         |       |
| Arsenic    | anr        |         |       |
| Barium     | anr        |         |       |
| Beryllium  | anr        |         |       |
| Bismuth    |            |         |       |
| Boron      |            |         |       |
| Cadmium    | anr        |         |       |
| Calcium    | 40000      | 40000   | 100.0 |
| Chromium   | anr        |         |       |
| Cobalt     | anr        |         |       |
| Copper     | anr        |         |       |
| Iron       | anr        |         |       |
| Lead       | anr        |         |       |
| Lithium    |            |         |       |
| Magnesium  | anr        |         |       |
| Manganese  | anr        |         |       |
| Molybdenum |            |         |       |
| Nickel     | anr        |         |       |
| Phosphorus |            |         |       |
| Potassium  | anr        |         |       |
| Selenium   | anr        |         |       |
| Silicon    |            |         |       |
| Silver     | anr        |         |       |
| Sodium     | anr        |         |       |
| Strontium  |            |         |       |
| Sulfur     |            |         |       |
| Thallium   | anr        |         |       |
| Tin        |            |         |       |
| Titanium   | anr        |         |       |
| Tungsten   |            |         |       |
| Vanadium   | anr        |         |       |
| Zinc       | anr        |         |       |

14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

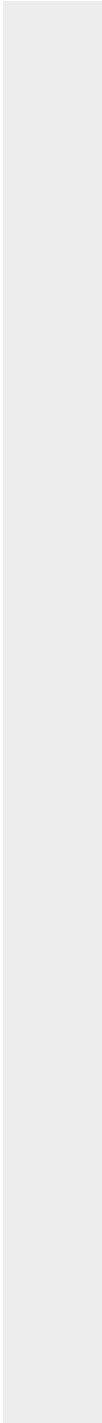
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

|            |                              |
|------------|------------------------------|
| Time:      | 11:58                        |
| Sample ID: | ICCV      ICCV2              |
| Metal      | True      Results      % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

| Metal      | Sample ID: | Time: | 11:25 | % Rec | CCV   | 12:42 | % Rec | CCV   | 13:24 | % Rec |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |            | ICV   | ICV1  |       | True  | CCV1  |       | CCV2  |       |       |
| Aluminum   | anr        |       |       |       |       |       |       |       |       |       |
| Antimony   | anr        |       |       |       |       |       |       |       |       |       |
| Arsenic    | anr        |       |       |       |       |       |       |       |       |       |
| Barium     | anr        |       |       |       |       |       |       |       |       |       |
| Beryllium  | anr        |       |       |       |       |       |       |       |       |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | anr        |       |       |       |       |       |       |       |       |       |
| Calcium    | 40000      | 39700 | 99.3  | 40000 | 39500 | 98.8  | 40000 | 40600 | 101.5 |       |
| Chromium   | anr        |       |       |       |       |       |       |       |       |       |
| Cobalt     | anr        |       |       |       |       |       |       |       |       |       |
| Copper     | anr        |       |       |       |       |       |       |       |       |       |
| Iron       | anr        |       |       |       |       |       |       |       |       |       |
| Lead       | anr        |       |       |       |       |       |       |       |       |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr        |       |       |       |       |       |       |       |       |       |
| Manganese  | anr        |       |       |       |       |       |       |       |       |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | anr        |       |       |       |       |       |       |       |       |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | anr        |       |       |       |       |       |       |       |       |       |
| Selenium   | anr        |       |       |       |       |       |       |       |       |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | anr        |       |       |       |       |       |       |       |       |       |
| Sodium     | anr        |       |       |       |       |       |       |       |       |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | anr        |       |       |       |       |       |       |       |       |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   | anr        |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | anr        |       |       |       |       |       |       |       |       |       |
| Zinc       | anr        |       |       |       |       |       |       |       |       |       |

14.3.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

|            | Time: |         |       |      |         |       |      |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | ICV   | 11:25   | ICV1  | CCV  | 12:42   | CCV1  | CCV  | 13:24   | CCV2  |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

| Metal      | Sample ID: CCV | 14:11<br>CCV3 |               | CCV   | 14:57<br>CCV4 |               | CCV   | 15:44<br>CCV5 |               |
|------------|----------------|---------------|---------------|-------|---------------|---------------|-------|---------------|---------------|
|            |                | True          | Results % Rec |       | True          | Results % Rec |       | True          | Results % Rec |
| Aluminum   | anr            |               |               |       |               |               |       |               |               |
| Antimony   | anr            |               |               |       |               |               |       |               |               |
| Arsenic    | anr            |               |               |       |               |               |       |               |               |
| Barium     | anr            |               |               |       |               |               |       |               |               |
| Beryllium  | anr            |               |               |       |               |               |       |               |               |
| Bismuth    |                |               |               |       |               |               |       |               |               |
| Boron      |                |               |               |       |               |               |       |               |               |
| Cadmium    | anr            |               |               |       |               |               |       |               |               |
| Calcium    | 40000          | 40300         | 100.8         | 40000 | 39000         | 97.5          | 40000 | 39500         | 98.8          |
| Chromium   | anr            |               |               |       |               |               |       |               |               |
| Cobalt     | anr            |               |               |       |               |               |       |               |               |
| Copper     | anr            |               |               |       |               |               |       |               |               |
| Iron       | anr            |               |               |       |               |               |       |               |               |
| Lead       | anr            |               |               |       |               |               |       |               |               |
| Lithium    |                |               |               |       |               |               |       |               |               |
| Magnesium  | anr            |               |               |       |               |               |       |               |               |
| Manganese  | anr            |               |               |       |               |               |       |               |               |
| Molybdenum |                |               |               |       |               |               |       |               |               |
| Nickel     | anr            |               |               |       |               |               |       |               |               |
| Phosphorus |                |               |               |       |               |               |       |               |               |
| Potassium  | anr            |               |               |       |               |               |       |               |               |
| Selenium   | anr            |               |               |       |               |               |       |               |               |
| Silicon    |                |               |               |       |               |               |       |               |               |
| Silver     | anr            |               |               |       |               |               |       |               |               |
| Sodium     | anr            |               |               |       |               |               |       |               |               |
| Strontium  |                |               |               |       |               |               |       |               |               |
| Sulfur     |                |               |               |       |               |               |       |               |               |
| Thallium   | anr            |               |               |       |               |               |       |               |               |
| Tin        |                |               |               |       |               |               |       |               |               |
| Titanium   | anr            |               |               |       |               |               |       |               |               |
| Tungsten   |                |               |               |       |               |               |       |               |               |
| Vanadium   | anr            |               |               |       |               |               |       |               |               |
| Zinc       | anr            |               |               |       |               |               |       |               |               |

14.3.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

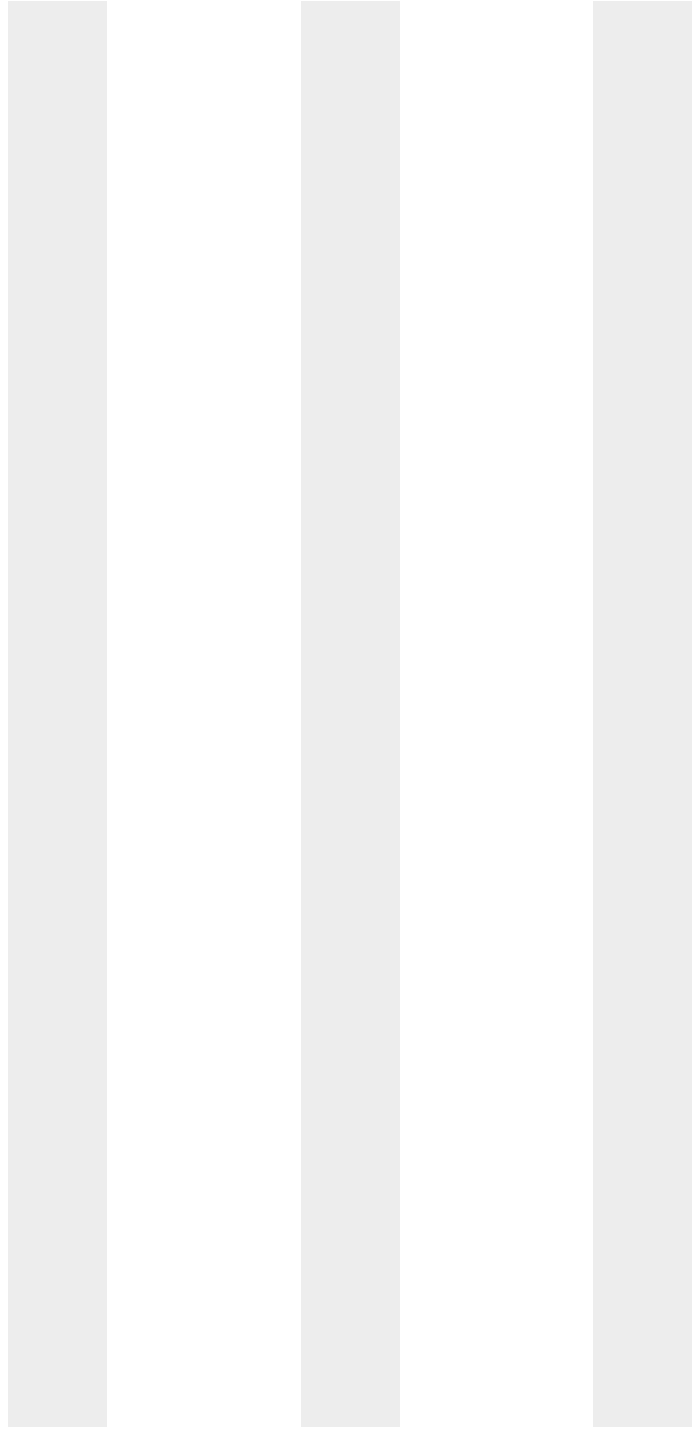
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

|            | Time: |         | 14:11 |      | 14:57   |       | 15:44 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4 | CCV     | CCV5  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

| Metal      | Sample ID: CCV | 16:30 |               | CCV   | 17:16 |               | CCV   | 18:02 |               |
|------------|----------------|-------|---------------|-------|-------|---------------|-------|-------|---------------|
|            |                | CCV6  | Results % Rec |       | CCV7  | Results % Rec |       | CCV8  | Results % Rec |
| Aluminum   | anr            |       |               |       |       |               |       |       |               |
| Antimony   | anr            |       |               |       |       |               |       |       |               |
| Arsenic    | anr            |       |               |       |       |               |       |       |               |
| Barium     | anr            |       |               |       |       |               |       |       |               |
| Beryllium  | anr            |       |               |       |       |               |       |       |               |
| Bismuth    |                |       |               |       |       |               |       |       |               |
| Boron      |                |       |               |       |       |               |       |       |               |
| Cadmium    | anr            |       |               |       |       |               |       |       |               |
| Calcium    | 40000          | 39100 | 97.8          | 40000 | 38800 | 97.0          | 40000 | 39500 | 98.8          |
| Chromium   | anr            |       |               |       |       |               |       |       |               |
| Cobalt     | anr            |       |               |       |       |               |       |       |               |
| Copper     | anr            |       |               |       |       |               |       |       |               |
| Iron       | anr            |       |               |       |       |               |       |       |               |
| Lead       | anr            |       |               |       |       |               |       |       |               |
| Lithium    |                |       |               |       |       |               |       |       |               |
| Magnesium  | anr            |       |               |       |       |               |       |       |               |
| Manganese  | anr            |       |               |       |       |               |       |       |               |
| Molybdenum |                |       |               |       |       |               |       |       |               |
| Nickel     | anr            |       |               |       |       |               |       |       |               |
| Phosphorus |                |       |               |       |       |               |       |       |               |
| Potassium  | anr            |       |               |       |       |               |       |       |               |
| Selenium   | anr            |       |               |       |       |               |       |       |               |
| Silicon    |                |       |               |       |       |               |       |       |               |
| Silver     | anr            |       |               |       |       |               |       |       |               |
| Sodium     | anr            |       |               |       |       |               |       |       |               |
| Strontium  |                |       |               |       |       |               |       |       |               |
| Sulfur     |                |       |               |       |       |               |       |       |               |
| Thallium   | anr            |       |               |       |       |               |       |       |               |
| Tin        |                |       |               |       |       |               |       |       |               |
| Titanium   | anr            |       |               |       |       |               |       |       |               |
| Tungsten   |                |       |               |       |       |               |       |       |               |
| Vanadium   | anr            |       |               |       |       |               |       |       |               |
| Zinc       | anr            |       |               |       |       |               |       |       |               |

14.3.4 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

|            | Time: |         |       |      |         |       |      |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 16:30   | CCV6  | CCV  | 17:16   | CCV7  | CCV  | 18:02   | CCV8  |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

| Metal      | Sample ID: CCV | Time: 18:38<br>CCV9 | Results | % Rec |
|------------|----------------|---------------------|---------|-------|
| Aluminum   | anr            |                     |         |       |
| Antimony   | anr            |                     |         |       |
| Arsenic    | anr            |                     |         |       |
| Barium     | anr            |                     |         |       |
| Beryllium  | anr            |                     |         |       |
| Bismuth    |                |                     |         |       |
| Boron      |                |                     |         |       |
| Cadmium    | anr            |                     |         |       |
| Calcium    | 40000          | 39900               | 99.8    |       |
| Chromium   | anr            |                     |         |       |
| Cobalt     | anr            |                     |         |       |
| Copper     | anr            |                     |         |       |
| Iron       | anr            |                     |         |       |
| Lead       | anr            |                     |         |       |
| Lithium    |                |                     |         |       |
| Magnesium  | anr            |                     |         |       |
| Manganese  | anr            |                     |         |       |
| Molybdenum |                |                     |         |       |
| Nickel     | anr            |                     |         |       |
| Phosphorus |                |                     |         |       |
| Potassium  | anr            |                     |         |       |
| Selenium   | anr            |                     |         |       |
| Silicon    |                |                     |         |       |
| Silver     | anr            |                     |         |       |
| Sodium     | anr            |                     |         |       |
| Strontium  |                |                     |         |       |
| Sulfur     |                |                     |         |       |
| Thallium   | anr            |                     |         |       |
| Tin        |                |                     |         |       |
| Titanium   | anr            |                     |         |       |
| Tungsten   |                |                     |         |       |
| Vanadium   | anr            |                     |         |       |
| Zinc       | anr            |                     |         |       |

14.3.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

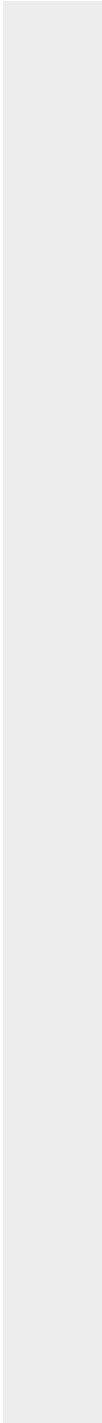
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44308      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 18:38 |         |       |
| Sample ID: CCV | CCV9  |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44308 Units: ug/l

|            | Time: | 12:29   |       | 12:33  |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD   | HSTD2   |       |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       |        |         |       |
| Antimony   | anr   |         |       |        |         |       |
| Arsenic    | anr   |         |       |        |         |       |
| Barium     | anr   |         |       |        |         |       |
| Beryllium  | anr   |         |       |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      |       |         |       |        |         |       |
| Cadmium    | anr   |         |       |        |         |       |
| Calcium    |       |         |       | 150000 | 148000  | 98.7  |
| Chromium   | anr   |         |       |        |         |       |
| Cobalt     | anr   |         |       |        |         |       |
| Copper     | anr   |         |       |        |         |       |
| Iron       |       |         |       |        |         |       |
| Lead       | anr   |         |       |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       |        |         |       |
| Manganese  | anr   |         |       |        |         |       |
| Molybdenum |       |         |       |        |         |       |
| Nickel     | anr   |         |       |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       |        |         |       |
| Selenium   | anr   |         |       |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | anr   |         |       |        |         |       |
| Sodium     |       |         |       |        |         |       |
| Strontium  |       |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | anr   |         |       |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   | anr   |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | anr   |         |       |        |         |       |
| Zinc       | anr   |         |       |        |         |       |

14.3.5  
14

HIGH STANDARD CHECK SUMMARY

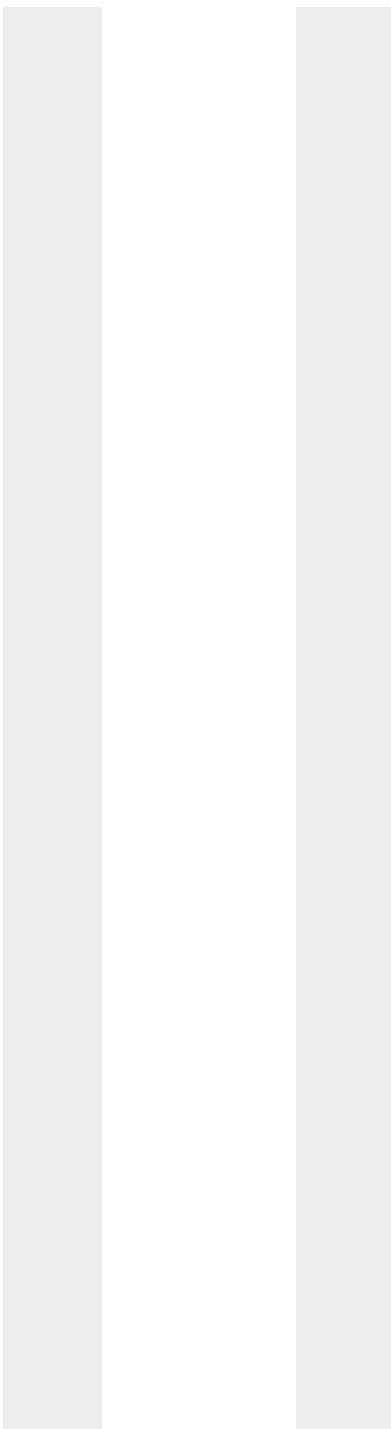
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44308 Units: ug/l

|       | Time:      | 12:29   |       | 12:33 |         |       |
|-------|------------|---------|-------|-------|---------|-------|
|       | Sample ID: | HSTD    | HSTD1 | HSTD  | HSTD2   |       |
| Metal | True       | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.5  
 14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44308 Units: ug/l

| Time:      | 12:12 | 12:16 | 13:33 |         |       |         |       |         |       |
|------------|-------|-------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: | CRID1 | CRI1  | CRI2  |         |       |         |       |         |       |
| Metal      | True  | True  | True  | Results | % Rec | Results | % Rec | Results | % Rec |
| Aluminum   | 200   | 500   | 100   | anr     |       |         |       |         |       |
| Antimony   | 6.0   | 20    | 3.0   |         |       |         |       |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | anr     |       |         |       |         |       |
| Barium     | 200   |       | 4.0   | anr     |       |         |       |         |       |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |       |         |       |
| Bismuth    | 20    |       |       |         |       |         |       |         |       |
| Boron      | 100   |       | 10    |         |       |         |       |         |       |
| Cadmium    | 3.0   |       | 1.0   | anr     |       |         |       |         |       |
| Calcium    | 5000  | 2000  | 1000  | 1080    | 108.0 | 5170    | 103.4 | 5390    | 107.8 |
| Chromium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Cobalt     | 50    |       | 3.0   | anr     |       |         |       |         |       |
| Copper     | 10    |       | 2.0   |         |       |         |       |         |       |
| Iron       | 100   | 500   |       |         |       |         |       |         |       |
| Lead       | 3.0   | 20    | 2.5   |         |       |         |       |         |       |
| Lithium    | 50    |       |       |         |       |         |       |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |       |         |       |         |       |
| Manganese  | 15    |       | 3.0   | anr     |       |         |       |         |       |
| Molybdenum | 20    |       |       |         |       |         |       |         |       |
| Nickel     | 10    |       | 4.0   | anr     |       |         |       |         |       |
| Phosphorus | 50    |       |       |         |       |         |       |         |       |
| Potassium  | 5000  |       | 2000  | anr     |       |         |       |         |       |
| Selenium   | 10    | 20    | 5.0   | anr     |       |         |       |         |       |
| Silicon    | 200   |       |       |         |       |         |       |         |       |
| Silver     | 5.0   |       | 2.0   |         |       |         |       |         |       |
| Sodium     | 5000  |       | 1000  | anr     |       |         |       |         |       |
| Strontium  | 10    |       |       |         |       |         |       |         |       |
| Sulfur     | 50    |       |       |         |       |         |       |         |       |
| Thallium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Tin        | 10    |       |       |         |       |         |       |         |       |
| Titanium   | 10    |       |       |         |       |         |       |         |       |
| Tungsten   | 50    |       |       |         |       |         |       |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |       |         |       |         |       |
| Zinc       | 20    |       | 10    | anr     |       |         |       |         |       |

14.3.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44308 Units: ug/l

| Time:      |      |      |      | 12:12   |       |  | 12:16   |       |  | 13:33   |       |  |
|------------|------|------|------|---------|-------|--|---------|-------|--|---------|-------|--|
| Sample ID: | CRI  | CRIA | CRID | CRID1   |       |  | CR1     |       |  | CR2     |       |  |
| Metal      | True | True | True | Results | % Rec |  | Results | % Rec |  | Results | % Rec |  |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44308 Units: ug/l

| Time:      | 18:21   | 18:25 |         |                       |
|------------|---------|-------|---------|-----------------------|
| Sample ID: | CRI3    | CRID2 |         |                       |
| Metal      | True    | True  | True    | True                  |
|            | Results | % Rec | Results | % Rec                 |
| Aluminum   | 200     | 500   | 100     | anr                   |
| Antimony   | 6.0     | 20    | 3.0     | anr                   |
| Arsenic    | 8.0     | 20    | 3.0     | anr                   |
| Barium     | 200     |       | 4.0     | anr                   |
| Beryllium  | 2.0     |       | 1.0     | anr                   |
| Bismuth    | 20      |       |         |                       |
| Boron      | 100     |       | 10      |                       |
| Cadmium    | 3.0     |       | 1.0     | anr                   |
| Calcium    | 5000    | 2000  | 1000    | 5220 104.4 1050 105.0 |
| Chromium   | 10      |       | 2.0     | anr                   |
| Cobalt     | 50      |       | 3.0     | anr                   |
| Copper     | 10      |       | 2.0     | anr                   |
| Iron       | 100     | 500   |         | anr                   |
| Lead       | 3.0     | 20    | 2.5     | anr                   |
| Lithium    | 50      |       |         |                       |
| Magnesium  | 5000    | 2000  | 100     | anr                   |
| Manganese  | 15      |       | 3.0     | anr                   |
| Molybdenum | 20      |       |         |                       |
| Nickel     | 10      |       | 4.0     | anr                   |
| Phosphorus | 50      |       |         |                       |
| Potassium  | 5000    |       | 2000    | anr                   |
| Selenium   | 10      | 20    | 5.0     | anr                   |
| Silicon    | 200     |       |         |                       |
| Silver     | 5.0     |       | 2.0     | anr                   |
| Sodium     | 5000    |       | 1000    | anr                   |
| Strontium  | 10      |       |         |                       |
| Sulfur     | 50      |       |         |                       |
| Thallium   | 10      |       | 2.0     | anr                   |
| Tin        | 10      |       |         |                       |
| Titanium   | 10      |       |         | anr                   |
| Tungsten   | 50      |       |         |                       |
| Vanadium   | 50      |       | 2.0     | anr                   |
| Zinc       | 20      |       | 10      | anr                   |

14.3.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44308 Units: ug/l

| Time:      |      |      |      | 18:21   |       |         | 18:25 |
|------------|------|------|------|---------|-------|---------|-------|
| Sample ID: | CRI  | CRIA | CRID | CRI3    |       |         | CRID2 |
| Metal      | True | True | True | Results | % Rec | Results | % Rec |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP      Date Analyzed: 04/30/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44308      Units: ug/l

| Metal      | Time:      |        | 12:21  |       | 12:25  |       | 18:30  |       | 18:34  |       |
|------------|------------|--------|--------|-------|--------|-------|--------|-------|--------|-------|
|            | Sample ID: | ICSAB  | ICSAL  | % Rec | ICSAB1 | % Rec | ICSA2  | % Rec | ICSAB2 | % Rec |
| Aluminum   | 500000     | 500000 | 523000 | 104.6 | 520000 | 104.0 | 541000 | 108.2 | 516000 | 103.2 |
| Antimony   |            | 1000   | -5.30  |       | 1060   | 106.0 | -1.20  |       | 1080   | 108.0 |
| Arsenic    |            | 1000   | 1.50   |       | 1040   | 104.0 | -0.900 |       | 1050   | 105.0 |
| Barium     |            | 500    | -0.200 |       | 515    | 103.0 | 0.100  |       | 521    | 104.2 |
| Beryllium  |            | 500    | 0.200  |       | 503    | 100.6 | 0.200  |       | 498    | 99.6  |
| Bismuth    |            | 500    | -2.30  |       | 560    | 112.0 | -2.30  |       | 567    | 113.4 |
| Boron      |            | 500    | -1.10  |       | 507    | 101.4 | -2.40  |       | 509    | 101.8 |
| Cadmium    |            | 1000   | 0.300  |       | 1050   | 105.0 | 0.100  |       | 1060   | 106.0 |
| Calcium    | 400000     | 400000 | 397000 | 99.3  | 394000 | 98.5  | 398000 | 99.5  | 385000 | 96.3  |
| Chromium   |            | 500    | 1.90   |       | 504    | 100.8 | 1.90   |       | 506    | 101.2 |
| Cobalt     |            | 500    | 0.200  |       | 498    | 99.6  | 0.200  |       | 504    | 100.8 |
| Copper     |            | 500    | -1.30  |       | 523    | 104.6 | -2.20  |       | 525    | 105.0 |
| Iron       | 200000     | 200000 | 190000 | 95.0  | 188000 | 94.0  | 190000 | 95.0  | 184000 | 92.0  |
| Lead       |            | 1000   | 0.100  |       | 985    | 98.5  | 3.90   |       | 997    | 99.7  |
| Lithium    |            | 500    | 7.80   |       | 550    | 110.0 | 7.00   |       | 567    | 113.4 |
| Magnesium  | 500000     | 500000 | 513000 | 102.6 | 510000 | 102.0 | 509000 | 101.8 | 502000 | 100.4 |
| Manganese  |            | 500    | 0.800  |       | 511    | 102.2 | 0.500  |       | 517    | 103.4 |
| Molybdenum |            | 500    | -2.10  |       | 493    | 98.6  | -1.60  |       | 501    | 100.2 |
| Nickel     |            | 1000   | -3.80  |       | 989    | 98.9  | -4.10  |       | 1000   | 100.0 |
| Phosphorus |            | 500    | -9.60  |       | 502    | 100.4 | -6.70  |       | 509    | 101.8 |
| Potassium  |            |        | -451   |       | -459   |       | -424   |       | -441   |       |
| Selenium   |            | 1000   | -3.40  |       | 1000   | 100.0 | -1.10  |       | 1010   | 101.0 |
| Silicon    |            | 500    | -10.1  |       | 547    | 109.4 | -10.7  |       | 552    | 110.4 |
| Silver     |            | 1000   | 2.60   |       | 1090   | 109.0 | 0.300  |       | 1100   | 110.0 |
| Sodium     |            |        | 27.8   |       | 22.1   |       | 2.20   |       | -2.50  |       |
| Strontium  |            | 500    | 4.90   |       | 564    | 112.8 | 5.40   |       | 571    | 114.2 |
| Sulfur     |            | 500    | 72.6   |       | 587    | 117.4 | 76.2   |       | 594    | 118.8 |
| Thallium   |            | 1000   | -2.50  |       | 1090   | 109.0 | -1.70  |       | 1100   | 110.0 |
| Tin        |            | 500    | -4.10  |       | 470    | 94.0  | -2.70  |       | 473    | 94.6  |
| Titanium   |            | 500    | -0.800 |       | 515    | 103.0 | -0.800 |       | 521    | 104.2 |
| Tungsten   |            | 500    | 5.90   |       | 485    | 97.0  | 8.50   |       | 495    | 99.0  |
| Vanadium   |            | 500    | -1.60  |       | 502    | 100.4 | -1.60  |       | 506    | 101.2 |
| Zinc       |            | 1000   | 3.00   |       | 976    | 97.6  | 3.10   |       | 983    | 98.3  |

14.3.7  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE043018M1.ICP Date Analyzed: 04/30/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44308 Units: ug/l

| Time:      |      |       | 12:21 |       |        | 12:25 |        |       | 18:30  |       |  | 18:34 |
|------------|------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL | % Rec | ICSAB1 | % Rec | ICSAB2 | % Rec | ICSAB2 | % Rec |  |       |

|           |      |      |         |       |         |       |         |       |         |       |
|-----------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Metal     | True | True | Results | % Rec | Results | % Rec | Results | % Rec | Results | % Rec |
| Zirconium |      | 500  | 3.70    |       | 476     | 95.2  | 3.30    |       | 485     | 97.0  |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.3.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44358  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 09:55 | MA44358-STD1       | 1               |          | STDA   |
| 09:58 | MA44358-STD2       | 1               |          | STDB   |
| 10:01 | ZZZZZZ             | 1               |          |  |
| 10:04 | ZZZZZZ             | 1               |          |  |
| 10:07 | ZZZZZZ             | 1               |          |  |
| 10:10 | ZZZZZZ             | 5               |          |  |
| 10:14 | ZZZZZZ             | 5               |          |  |
| 10:17 | ZZZZZZ             | 1               |          |  |
| 10:22 | MA44358-ICV1       | 1               |          |  |
| 10:29 | MA44358-ICB1       | 1               |          |  |
| 10:33 | MA44358-ICCV1      | 1               |          |  |
| 10:39 | MA44358-CCB1       | 1               |          |  |
| 10:45 | MA44358-CRI1       | 1               |          |  |
| 10:48 | MA44358-CRID1      | 1               |          |  |
| 10:51 | MA44358-ICSA1      | 1               |          |  |
| 10:54 | MA44358-ICSAB1     | 1               |          |  |
| 10:57 | MA44358-HSTD1      | 1               |          |  |
| 11:01 | MA44358-HSTD2      | 1               |          |  |
| 11:04 | ZZZZZZ             | 1               |          |  |
| 11:07 | ZZZZZZ             | 1               |          |  |
| 11:10 | ZZZZZZ             | 1               |          |  |
| 11:13 | MA44358-CCV1       | 1               |          |  |
| 11:16 | MA44358-CCB2       | 1               |          |  |
| 11:19 | MP6986-MB1         | 1               |          |  |
| 11:22 | MP6986-B1          | 1               |          |  |
| 11:25 | MP6986-S1          | 1               |          | %sol   |
| 11:28 | MP6986-S2          | 1               |          | %sol   |
| 11:31 | JC65475-7          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 11:34 | MP6986-SD1         | 5               |          | %sol   |
| 11:37 | ZZZZZZ             | 1               |          |  |
| 11:40 | ZZZZZZ             | 1               |          |  |
| 11:43 | ZZZZZZ             | 1               |          |  |
| 11:47 | MA44358-CCV2       | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44358  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:49 | MA44358-CCB3       | 1               |          |  |
| 11:52 | ZZZZZZ             | 1               |          |  |
| 11:55 | ZZZZZZ             | 1               |          |  |
| 11:59 | ZZZZZZ             | 1               |          |  |
| 12:02 | ZZZZZZ             | 1               |          |  |
| 12:05 | ZZZZZZ             | 1               |          |  |
| 12:08 | ZZZZZZ             | 1               |          |  |
| 12:10 | ZZZZZZ             | 1               |          |  |
| 12:13 | ZZZZZZ             | 1               |          |  |
| 12:16 | ZZZZZZ             | 1               |          |  |
| 12:20 | MA44358-CCV3       | 1               |          |  |
| 12:22 | MA44358-CCB4       | 1               |          |  |
| 12:25 | ZZZZZZ             | 1               |          |  |
| 12:29 | ZZZZZZ             | 1               |          |  |
| 12:32 | ZZZZZZ             | 1               |          |  |
| 12:35 | ZZZZZZ             | 1               |          |  |
| 12:38 | ZZZZZZ             | 1               |          |  |
| 12:41 | ZZZZZZ             | 1               |          |  |
| 12:44 | ZZZZZZ             | 1               |          |  |
| 12:48 | MP6986-S1          | 3               |          | %sol   |
| 12:51 | MP6986-S2          | 3               |          | %sol   |
| 12:54 | MA44358-CCV4       | 1               |          |  |
| 12:56 | MA44358-CCB5       | 1               |          |  |
| 13:00 | JC65475-7          | 3               |          | (sample used for QC only; not part of login JC64996) |
| 13:03 | MP6986-SD1         | 15              |          | %sol   |
| 13:06 | ZZZZZZ             | 2               |          |  |
| 13:09 | ZZZZZZ             | 2               |          |  |
| 13:12 | ZZZZZZ             | 3               |          |  |
| 13:15 | ZZZZZZ             | 2               |          |  |
| 13:18 | ZZZZZZ             | 2               |          |  |
| 13:21 | ZZZZZZ             | 2               |          |  |
| 13:24 | ZZZZZZ             | 2               |          |  |
| 13:27 | MA44358-CCV5       | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44358  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 13:30 | MA44358-CCB6       | 1               |          |  |
| 13:33 | ZZZZZZ             | 2               |          |  |
| 13:36 | ZZZZZZ             | 3               |          |  |
| 13:39 | ZZZZZZ             | 2               |          |  |
| 13:42 | MP6981-B1          | 1               |          |  |
| 13:45 | MP6981-MB1         | 1               |          |  |
| 13:48 | MP6981-S1          | 1               |          |  |
| 13:51 | MP6981-S2          | 1               |          |  |
| 13:54 | JC65158-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:57 | MP6981-SD1         | 5               |          |  |
| 14:00 | MA44358-CCV6       | 1               |          |  |
| 14:03 | MA44358-CCB7       | 1               |          |  |
| 14:06 | ZZZZZZ             | 1               |          |  |
| 14:09 | ZZZZZZ             | 1               |          |  |
| 14:12 | ZZZZZZ             | 1               |          |  |
| 14:15 | ZZZZZZ             | 1               |          |  |
| 14:18 | ZZZZZZ             | 1               |          |  |
| 14:21 | ZZZZZZ             | 1               |          |  |
| 14:24 | ZZZZZZ             | 1               |          |  |
| 14:27 | ZZZZZZ             | 1               |          |  |
| 14:30 | ZZZZZZ             | 1               |          |  |
| 14:33 | MA44358-CCV7       | 1               |          |  |
| 14:36 | MA44358-CCB8       | 1               |          |  |
| 14:39 | ZZZZZZ             | 1               |          |  |
| 14:42 | ZZZZZZ             | 1               |          |  |
| 14:45 | ZZZZZZ             | 1               |          |  |
| 14:48 | ZZZZZZ             | 1               |          |  |
| 14:51 | ZZZZZZ             | 1               |          |  |
| 14:54 | ZZZZZZ             | 1               |          |  |
| 14:57 | ZZZZZZ             | 1               |          |  |
| 15:00 | ZZZZZZ             | 1               |          |  |
| 15:03 | ZZZZZZ             | 1               |          |  |
| 15:06 | MA44358-CCV8       | 1               |          |  |

14.4  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44358  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:09 | MA44358-CCB9       | 1               |          |  |
| 15:12 | ZZZZZZ             | 1               |          |  |
| 15:15 | ZZZZZZ             | 1               |          |  |
| 15:18 | ZZZZZZ             | 1               |          |  |
| 15:21 | MP6982-S1          | 5               |          |  |
| 15:24 | MP6982-S2          | 5               |          |  |
| 15:27 | MP6982-D1          | 5               |          |  |
| 15:30 | TD20515-1          | 5               |          | (sample used for QC only; not part of login JC64996) |
| 15:33 | MP6982-SD1         | 25              |          |  |
| 15:36 | MP6982-S1          | 10              |          |  |
| 15:39 | MA44358-CCV9       | 1               |          |  |
| 15:42 | MA44358-CCB10      | 1               |          |  |
| 15:45 | MP6982-S2          | 10              |          |  |
| 15:48 | MP6982-D1          | 10              |          |  |
| 15:51 | TD20515-1          | 10              |          | (sample used for QC only; not part of login JC64996) |
| 15:53 | MP6982-SD1         | 50              |          |  |
| 15:56 | ZZZZZZ             | 20              |          |  |
| 15:59 | ZZZZZZ             | 1               |          |  |
| 16:03 | MA44358-CRI2       | 1               |          |  |
| 16:06 | MA44358-CRID2      | 1               |          |  |
| 16:09 | MA44358-ICSA2      | 1               |          |  |
| 16:12 | MA44358-ICSAB2     | 1               |          |  |
| 16:15 | MA44358-CCV10      | 1               |          |  |
| 16:18 | MA44358-CCB11      | 1               |          |  |
| 16:21 | ZZZZZZ             | 1               |          |  |
| 16:24 | ZZZZZZ             | 1               |          |  |
| 16:27 | ZZZZZZ             | 1               |          |  |
| 16:30 | ZZZZZZ             | 1               |          |  |
| 16:33 | ZZZZZZ             | 1               |          |  |
| 16:36 | ZZZZZZ             | 1               |          |  |
| 16:39 | ZZZZZZ             | 1               |          |  |
| 16:42 | ZZZZZZ             | 1               |          |  |
| 16:45 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44358  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 16:48 | ZZZZZZ             | 1               |          |  |
| 16:51 | MA44358-CCV11      | 1               |          |  |
| 16:54 | MA44358-CCB12      | 1               |          |  |
| 16:57 | MP6997-MB1         | 1               |          |  |
| 17:00 | MP6997-B1          | 1               |          |  |
| 17:03 | MP6997-S1          | 1               |          | Ca, Fe, Mn high                                      |
| 17:06 | MP6997-S2          | 1               |          | Ca, Fe, Mn high                                      |
| 17:09 | JC65281-54         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 17:12 | MP6997-SD1         | 5               |          | Fe, Mn high  |
| 17:15 | ZZZZZZ             | 1               |          |  |
| 17:18 | ZZZZZZ             | 1               |          |  |
| 17:21 | ZZZZZZ             | 1               |          |  |
| 17:24 | MA44358-CCV12      | 1               |          |  |
| 17:27 | MA44358-CCB13      | 1               |          |  |
| 17:30 | ZZZZZZ             | 1               |          |  |
| 17:33 | ZZZZZZ             | 1               |          |  |
| 17:36 | ZZZZZZ             | 1               |          |  |
| 17:39 | ZZZZZZ             | 1               |          |  |
| 17:42 | ZZZZZZ             | 1               |          |  |
| 17:45 | ZZZZZZ             | 1               |          |  |
| 17:48 | ZZZZZZ             | 1               |          |  |
| 17:52 | ZZZZZZ             | 1               |          |  |
| 17:55 | ZZZZZZ             | 1               |          |  |
| 17:58 | MA44358-CCV13      | 1               |          |  |
| 18:01 | MA44358-CCB14      | 1               |          |  |
| 18:05 | ZZZZZZ             | 1               |          |  |
| 18:08 | ZZZZZZ             | 1               |          |  |
| 18:12 | ZZZZZZ             | 1               |          |  |
| 18:15 | ZZZZZZ             | 1               |          |  |
| 18:18 | ZZZZZZ             | 1               |          |  |
| 18:21 | ZZZZZZ             | 1               |          |  |
| 18:24 | ZZZZZZ             | 1               |          |  |
| 18:27 | MP6996-MB1         | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44358  
Parameters: S

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 18:30  | MP6996-B1                                   | 1               |          |  |
| 18:33  | MA44358-CCV14                               | 1               |          |  |
| 18:36  | MA44358-CCB15                               | 1               |          |  |
| 18:39  | MP6996-MB1                                  | 1               |          |  |
| 18:42  | MP6996-S1                                   | 1               |          | Fe, Mn, S high                                       |
| 18:45  | MP6996-S2                                   | 1               |          | Needs post spike for Ca, Ni, Zn                      |
| 18:48  | MP6996-D1                                   | 1               |          | Fe, Mn, S high                                       |
| 18:52  | TD20533-1                                   | 1               |          | (sample used for QC only; not part of login JC64996) |
| 18:55  | MP6996-SD1                                  | 5               |          | Fe, Mn, S high                                       |
| 18:58  | MP6996-S2                                   | 1               |          | Fe, Mn, S high                                       |
| 19:02  | ZZZZZZ                                      | 1               |          |  |
| 19:05  | ZZZZZZ                                      | 1               |          |  |
| 19:08  | JC64996-6                                   | 1               |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 19:11  | MA44358-CCV15                               | 1               |          |  |
| 19:14  | MA44358-CCB16                               | 1               |          |  |
| 19:17  | ZZZZZZ                                      | 1               |          |  |
| 19:20  | ZZZZZZ                                      | 1               |          |  |
| 19:23  | ZZZZZZ                                      | 1               |          |  |
| 19:26  | ZZZZZZ                                      | 1               |          |  |
| 19:29  | ZZZZZZ                                      | 1               |          |  |
| 19:32  | ZZZZZZ                                      | 1               |          |  |
| 19:35  | ZZZZZZ                                      | 1               |          |  |
| 19:38  | ZZZZZZ                                      | 1               |          |  |
| 19:42  | MA44358-CCV16                               | 1               |          |  |
| 19:44  | MA44358-CCB17                               | 1               |          |  |
| 19:47  | ZZZZZZ                                      | 1               |          |  |
| 19:51  | ZZZZZZ                                      | 1               |          |  |
| 19:54  | ZZZZZZ                                      | 1               |          |  |
| 19:57  | ZZZZZZ                                      | 1               |          |  |
| 20:00  | ZZZZZZ                                      | 1               |          |  |
| 20:03  | ZZZZZZ                                      | 1               |          |  |
| 20:06  | ZZZZZZ                                      | 1               |          |  |
| 20:09  | ZZZZZZ                                      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44358  
Parameters: S

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

20:12 MA44358-CCV17 1  
20:15 MA44358-CCB18 1  
20:18 MA44358-CRI3 1  
20:21 MA44358-CRID3 1  
20:25 MA44358-ICSA3 1  
20:28 MA44358-ICSAB3 1  
20:31 MA44358-CCV18 1  
20:34 MA44358-CCB19 1

-----> Last reportable CCB for job JC64996  
Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1  | Istd#2   | Istd#3  | Istd#4  |
|-------|--------------------|---------|----------|---------|---------|
| 09:55 | MA44358-STD1       | 6459 R  | 154560 R | 26394 R | 10171 R |
| 09:58 | MA44358-STD2       | 6170    | 146660   | 25766   | 9405    |
| 10:01 | ZZZZZZ             | 6278    | 149510   | 26084   | 9557    |
| 10:04 | ZZZZZZ             | 6489    | 154280   | 26307   | 10147   |
| 10:07 | ZZZZZZ             | 5939    | 137000   | 25449   | 8470    |
| 10:10 | ZZZZZZ             | 5688    | 148620   | 25787   | 9512    |
| 10:14 | ZZZZZZ             | 5409    | 126430   | 24367   | 7641    |
| 10:17 | ZZZZZZ             | 13610 ! | 301970 ! | 40532 ! | 20676 ! |
| 10:22 | MA44358-ICV1       | 6345    | 149990   | 25677   | 9583    |
| 10:29 | MA44358-ICB1       | 6514    | 154200   | 25876   | 10135   |
| 10:33 | MA44358-ICCV1      | 6355    | 149830   | 25648   | 9587    |
| 10:39 | MA44358-CCB1       | 6505    | 154840   | 25667   | 10103   |
| 10:45 | MA44358-CRI1       | 6469    | 153340   | 25711   | 9994    |
| 10:48 | MA44358-CRID1      | 6512    | 154520   | 25665   | 10096   |
| 10:51 | MA44358-ICSA1      | 6008    | 139140   | 24947   | 8884    |
| 10:54 | MA44358-ICSAB1     | 6043    | 140840   | 24866   | 8934    |
| 10:57 | MA44358-HSTD1      | 6504    | 153820   | 25575   | 10109   |
| 11:01 | MA44358-HSTD2      | 6125    | 143710   | 24788   | 8928    |
| 11:04 | ZZZZZZ             | 6512    | 153710   | 25385   | 10208   |
| 11:07 | ZZZZZZ             | 6484    | 156310   | 25709   | 10166   |
| 11:10 | ZZZZZZ             | 6626    | 155930   | 25688   | 10182   |
| 11:13 | MA44358-CCV1       | 6446    | 150450   | 25242   | 9625    |
| 11:16 | MA44358-CCB2       | 6631    | 156320   | 25675   | 10201   |
| 11:19 | MP6986-MB1         | 6831    | 161650   | 26873   | 10451   |
| 11:22 | MP6986-B1          | 6687    | 158940   | 26399   | 10018   |
| 11:25 | MP6986-S1          | 6534    | 154610   | 26813   | 9184    |
| 11:28 | MP6986-S2          | 6567    | 155270   | 27072   | 9276    |
| 11:31 | JC65475-7          | 6748    | 159390   | 27749   | 9230    |
| 11:34 | MP6986-SD1         | 6600    | 155480   | 25950   | 9718    |
| 11:37 | ZZZZZZ             | 6736    | 157860   | 26370   | 10174   |
| 11:40 | ZZZZZZ             | 6800    | 158120   | 26901   | 10049   |
| 11:43 | ZZZZZZ             | 6454    | 153380   | 26394   | 9541    |
| 11:47 | MA44358-CCV2       | 6478    | 150420   | 25284   | 9674    |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 11:49 | MA44358-CCB3       | 6647   | 155850 | 25683  | 10230  |
| 11:52 | ZZZZZZ             | 6802   | 157580 | 26777  | 10094  |
| 11:55 | ZZZZZZ             | 6772   | 158860 | 27261  | 9816   |
| 11:59 | ZZZZZZ             | 6961   | 162290 | 27587  | 10120  |
| 12:02 | ZZZZZZ             | 6727   | 157090 | 26529  | 10067  |
| 12:05 | ZZZZZZ             | 6762   | 156880 | 26151  | 10127  |
| 12:08 | ZZZZZZ             | 6795   | 158810 | 26839  | 10150  |
| 12:10 | ZZZZZZ             | 6792   | 158950 | 26521  | 10145  |
| 12:13 | ZZZZZZ             | 6769   | 157470 | 26557  | 10153  |
| 12:16 | ZZZZZZ             | 6770   | 158990 | 27199  | 9771   |
| 12:20 | MA44358-CCV3       | 6488   | 152200 | 25584  | 9673   |
| 12:22 | MA44358-CCB4       | 6682   | 155720 | 25939  | 10263  |
| 12:25 | ZZZZZZ             | 6494   | 153370 | 26565  | 9138   |
| 12:29 | ZZZZZZ             | 6546   | 153740 | 26554  | 9382   |
| 12:32 | ZZZZZZ             | 6555   | 155320 | 27023  | 9403   |
| 12:35 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 12:38 | ZZZZZZ             | 6623   | 156630 | 27034  | 9575   |
| 12:41 | ZZZZZZ             | 6649   | 157110 | 26939  | 9569   |
| 12:44 | ZZZZZZ             | 6577   | 155620 | 26834  | 9451   |
| 12:48 | MP6986-S1          | 6509   | 153120 | 26070  | 9509   |
| 12:51 | MP6986-S2          | 6555   | 154040 | 26262  | 9588   |
| 12:54 | MA44358-CCV4       | 6447   | 151540 | 25524  | 9650   |
| 12:56 | MA44358-CCB5       | 6618   | 156580 | 25941  | 10215  |
| 13:00 | JC65475-7          | 6581   | 154330 | 26350  | 9537   |
| 13:03 | MP6986-SD1         | 6604   | 156140 | 26182  | 9934   |
| 13:06 | ZZZZZZ             | 6771   | 159800 | 26917  | 10036  |
| 13:09 | ZZZZZZ             | 6703   | 158250 | 26644  | 9882   |
| 13:12 | ZZZZZZ             | 6555   | 153940 | 26192  | 9662   |
| 13:15 | ZZZZZZ             | 6516   | 154090 | 26324  | 9514   |
| 13:18 | ZZZZZZ             | 6616   | 155340 | 26537  | 9728   |
| 13:21 | ZZZZZZ             | 6572   | 155320 | 26405  | 9688   |
| 13:24 | ZZZZZZ             | 6561   | 155990 | 26331  | 9657   |
| 13:27 | MA44358-CCV5       | 6460   | 151520 | 25529  | 9669   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 13:30 | MA44358-CCB6       | 6614   | 156200    | 25564  | 10181  |
| 13:33 | ZZZZZZ             | 6565   | 154380    | 26198  | 9640   |
| 13:36 | ZZZZZZ             | 6519   | 153190    | 26132  | 9522   |
| 13:39 | ZZZZZZ             | 6527   | 154180    | 26166  | 9544   |
| 13:42 | MP6981-B1          | 6605   | 156180    | 26226  | 9921   |
| 13:45 | MP6981-MB1         | 6754   | 159830    | 26438  | 10383  |
| 13:48 | MP6981-S1          | 6589   | 155530    | 26456  | 9884   |
| 13:51 | MP6981-S2          | 6601   | 155970    | 26296  | 9894   |
| 13:54 | JC65158-2          | 6732   | 159190    | 26452  | 10270  |
| 13:57 | MP6981-SD1         | 6702   | 158300    | 26147  | 10327  |
| 14:00 | MA44358-CCV6       | 6483   | 152260    | 25802  | 9693   |
| 14:03 | MA44358-CCB7       | 6655   | 157070    | 25879  | 10237  |
| 14:06 | ZZZZZZ             | 6576   | 157000    | 26314  | 9955   |
| 14:09 | ZZZZZZ             | 6632   | 156090    | 26208  | 10015  |
| 14:12 | ZZZZZZ             | 6566   | 154920    | 26000  | 9872   |
| 14:15 | ZZZZZZ             | 6730   | 159230    | 26446  | 10251  |
| 14:18 | ZZZZZZ             | 6549   | 154760    | 26037  | 9795   |
| 14:21 | ZZZZZZ             | 6562   | 156200    | 26166  | 9901   |
| 14:24 | ZZZZZZ             | 6660   | 156850    | 26421  | 10069  |
| 14:27 | ZZZZZZ             | 6753   | 159320    | 26402  | 10370  |
| 14:30 | ZZZZZZ             | 6636   | 156370    | 26347  | 9960   |
| 14:33 | MA44358-CCV7       | 6479   | 152110    | 25711  | 9689   |
| 14:36 | MA44358-CCB8       | 6655   | 156130    | 25758  | 10253  |
| 14:39 | ZZZZZZ             | 6586   | 155650    | 26176  | 9879   |
| 14:42 | ZZZZZZ             | 6580   | 155750    | 25962  | 9908   |
| 14:45 | ZZZZZZ             | 6463   | 999999 !a | 25937  | 9738   |
| 14:48 | ZZZZZZ             | 6585   | 156670    | 26271  | 9972   |
| 14:51 | ZZZZZZ             | 6547   | 154840    | 26110  | 9923   |
| 14:54 | ZZZZZZ             | 6114   | 143680    | 25302  | 8810   |
| 14:57 | ZZZZZZ             | 6114   | 142670    | 25372  | 8802   |
| 15:00 | ZZZZZZ             | 6101   | 142960    | 25359  | 8784   |
| 15:03 | ZZZZZZ             | 6105   | 143470    | 25383  | 8764   |
| 15:06 | MA44358-CCV8       | 6484   | 152570    | 25506  | 9694   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 15:09 | MA44358-CCB9       | 6660   | 156550 | 25747  | 10239  |
| 15:12 | ZZZZZZ             | 6650   | 156780 | 26169  | 10021  |
| 15:15 | ZZZZZZ             | 6816   | 162350 | 26809  | 10457  |
| 15:18 | ZZZZZZ             | 6674   | 158150 | 26624  | 10017  |
| 15:21 | MP6982-S1          | 6698   | 158510 | 26482  | 10314  |
| 15:24 | MP6982-S2          | 6681   | 157570 | 26367  | 10310  |
| 15:27 | MP6982-D1          | 6706   | 160540 | 26493  | 10431  |
| 15:30 | TD20515-1          | 6698   | 158780 | 26501  | 10367  |
| 15:33 | MP6982-SD1         | 6716   | 159260 | 26104  | 10308  |
| 15:36 | MP6982-S1          | 6710   | 159040 | 26315  | 10285  |
| 15:39 | MA44358-CCV9       | 6517   | 152070 | 25427  | 9729   |
| 15:42 | MA44358-CCB10      | 6710   | 157810 | 25796  | 10320  |
| 15:45 | MP6982-S2          | 6760   | 159980 | 26669  | 10360  |
| 15:48 | MP6982-D1          | 6803   | 158960 | 26298  | 10447  |
| 15:51 | TD20515-1          | 6704   | 158320 | 26210  | 10306  |
| 15:53 | MP6982-SD1         | 6728   | 157990 | 26073  | 10328  |
| 15:56 | ZZZZZZ             | 6807   | 160470 | 26454  | 10484  |
| 15:59 | ZZZZZZ             | 6850   | 163190 | 26861  | 10518  |
| 16:03 | MA44358-CRI2       | 6891   | 161490 | 26854  | 10542  |
| 16:06 | MA44358-CRID2      | 6708   | 157700 | 25827  | 10324  |
| 16:09 | MA44358-ICSA2      | 6117   | 143270 | 25100  | 9007   |
| 16:12 | MA44358-ICSAB2     | 6138   | 143590 | 25074  | 9046   |
| 16:15 | MA44358-CCV10      | 6509   | 153440 | 25592  | 9734   |
| 16:18 | MA44358-CCB11      | 6697   | 157760 | 25788  | 10305  |
| 16:21 | ZZZZZZ             | 6791   | 151550 | 26622  | 9784   |
| 16:24 | ZZZZZZ             | 6701   | 158960 | 26119  | 10378  |
| 16:27 | ZZZZZZ             | 6684   | 156570 | 26145  | 10290  |
| 16:30 | ZZZZZZ             | 6656   | 157860 | 25757  | 10293  |
| 16:33 | ZZZZZZ             | 6691   | 157780 | 26022  | 10298  |
| 16:36 | ZZZZZZ             | 6678   | 157430 | 25821  | 10271  |
| 16:39 | ZZZZZZ             | 6291   | 148940 | 25180  | 9373   |
| 16:42 | ZZZZZZ             | 6249   | 149590 | 25168  | 9361   |
| 16:45 | ZZZZZZ             | 6693   | 157680 | 25824  | 10344  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 16:48 | ZZZZZZ             | 6669   | 158420 | 25946  | 10278  |
| 16:51 | MA44358-CCV11      | 6492   | 152620 | 25536  | 9726   |
| 16:54 | MA44358-CCB12      | 6667   | 156800 | 25749  | 10291  |
| 16:57 | MP6997-MB1         | 6842   | 162510 | 26761  | 10539  |
| 17:00 | MP6997-B1          | 6718   | 158510 | 26330  | 10129  |
| 17:03 | MP6997-S1          | 6702   | 159110 | 27424  | 9686   |
| 17:06 | MP6997-S2          | 6767   | 159970 | 27019  | 9835   |
| 17:09 | JC65281-54         | 6859   | 162250 | 27892  | 9939   |
| 17:12 | MP6997-SD1         | 6741   | 157010 | 25944  | 10120  |
| 17:15 | ZZZZZZ             | 6898   | 162650 | 27350  | 9953   |
| 17:18 | ZZZZZZ             | 6701   | 156980 | 26737  | 9785   |
| 17:21 | ZZZZZZ             | 6991   | 164200 | 27467  | 10093  |
| 17:24 | MA44358-CCV12      | 6509   | 153860 | 25617  | 9737   |
| 17:27 | MA44358-CCB13      | 6678   | 158790 | 25877  | 10297  |
| 17:30 | ZZZZZZ             | 6719   | 157990 | 27165  | 10419  |
| 17:33 | ZZZZZZ             | 6782   | 161080 | 26498  | 10390  |
| 17:36 | ZZZZZZ             | 6424   | 153860 | 26591  | 9560   |
| 17:39 | ZZZZZZ             | 7070   | 167290 | 28070  | 10266  |
| 17:42 | ZZZZZZ             | 6852   | 159510 | 26669  | 10290  |
| 17:45 | ZZZZZZ             | 6965   | 163580 | 27555  | 10165  |
| 17:48 | ZZZZZZ             | 6742   | 158640 | 27070  | 9689   |
| 17:52 | ZZZZZZ             | 6841   | 160450 | 27053  | 9965   |
| 17:55 | ZZZZZZ             | 6491   | 152190 | 26265  | 9232   |
| 17:58 | MA44358-CCV13      | 6570   | 153750 | 25528  | 9809   |
| 18:01 | MA44358-CCB14      | 6754   | 157930 | 25782  | 10377  |
| 18:05 | ZZZZZZ             | 6503   | 153560 | 26534  | 9268   |
| 18:08 | ZZZZZZ             | 6781   | 160120 | 27261  | 9773   |
| 18:12 | ZZZZZZ             | 6799   | 158580 | 26767  | 9863   |
| 18:15 | ZZZZZZ             | 6763   | 158280 | 26846  | 9883   |
| 18:18 | ZZZZZZ             | 6929   | 162550 | 27378  | 10015  |
| 18:21 | ZZZZZZ             | 6582   | 154920 | 26669  | 9434   |
| 18:24 | ZZZZZZ             | 6759   | 157720 | 26963  | 9680   |
| 18:27 | MP6996-MB1         | No results reported for the elements associated with this internal standard. |        |        |        |

14.4.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 18:30 | MP6996-B1          | 6588   | 155340 | 25980  | 9917   |
| 18:33 | MA44358-CCV14      | 6413   | 150050 | 24862  | 9604   |
| 18:36 | MA44358-CCB15      | 6601   | 154870 | 25203  | 10166  |
| 18:39 | MP6996-MB1         | 6733   | 159890 | 26269  | 10344  |
| 18:42 | MP6996-S1          | 6305   | 149480 | 26031  | 10761  |
| 18:45 | MP6996-S2          | No results reported for the elements associated with this internal standard. |        |        |        |
| 18:48 | MP6996-D1          | 6337   | 151700 | 25980  | 10944  |
| 18:52 | TD20533-1          | 6345   | 151300 | 26069  | 10969  |
| 18:55 | MP6996-SD1         | 6695   | 156730 | 26278  | 10508  |
| 18:58 | MP6996-S2          | 6276   | 149830 | 25997  | 10793  |
| 19:02 | ZZZZZZ             | 6351   | 151900 | 25704  | 11241  |
| 19:05 | ZZZZZZ             | 6024   | 145540 | 25496  | 12162  |
| 19:08 | JC64996-6          | 6492   | 153440 | 25941  | 9214   |
| 19:11 | MA44358-CCV15      | 6493   | 152070 | 24997  | 9685   |
| 19:14 | MA44358-CCB16      | 6618   | 155670 | 25044  | 10187  |
| 19:17 | ZZZZZZ             | 6310   | 150640 | 25819  | 8750   |
| 19:20 | ZZZZZZ             | 6571   | 154380 | 26494  | 9429   |
| 19:23 | ZZZZZZ             | 6313   | 148420 | 25533  | 8794   |
| 19:26 | ZZZZZZ             | 6192   | 146030 | 25346  | 8593   |
| 19:29 | ZZZZZZ             | 6265   | 148110 | 25566  | 8773   |
| 19:32 | ZZZZZZ             | 6422   | 150910 | 26025  | 9076   |
| 19:35 | ZZZZZZ             | 6528   | 154190 | 26322  | 9066   |
| 19:38 | ZZZZZZ             | 6351   | 149400 | 25740  | 8805   |
| 19:42 | MA44358-CCV16      | 6416   | 150940 | 25030  | 9616   |
| 19:44 | MA44358-CCB17      | 6588   | 155520 | 25291  | 10171  |
| 19:47 | ZZZZZZ             | 6397   | 151830 | 25936  | 9007   |
| 19:51 | ZZZZZZ             | 6418   | 151190 | 25851  | 9078   |
| 19:54 | ZZZZZZ             | 6529   | 156330 | 27017  | 9629   |
| 19:57 | ZZZZZZ             | 6594   | 155610 | 26477  | 10124  |
| 20:00 | ZZZZZZ             | 7079   | 167840 | 27983  | 10109  |
| 20:03 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 20:06 | ZZZZZZ             | 6903   | 160600 | 27474  | 10075  |
| 20:09 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |

14.4.1  
14

INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44358  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 20:12 | MA44358-CCV17      | 6467   | 149150 | 25799  | 9744   |
| 20:15 | MA44358-CCB18      | 6659   | 157050 | 25815  | 10331  |
| 20:18 | MA44358-CRI3       | 6612   | 157120 | 25749  | 10236  |
| 20:21 | MA44358-CRID3      | 6654   | 157450 | 25968  | 10319  |
| 20:25 | MA44358-ICSA3      | 6084   | 144060 | 24992  | 9064   |
| 20:28 | MA44358-ICSAB3     | 6078   | 142000 | 25327  | 9064   |
| 20:31 | MA44358-CCV18      | 6470   | 153360 | 25894  | 9806   |
| 20:34 | MA44358-CCB19      | 6636   | 157180 | 26006  | 10362  |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

14.4.1  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Metal      | RL    | IDL | 10:29 | 10:39 |       | 11:16 |      | 11:49 |        |     |       |      |     |       |
|------------|-------|-----|-------|-------|-------|-------|------|-------|--------|-----|-------|------|-----|-------|
|            |       |     | ICB1  | raw   | final | CCB1  | raw  | final | CCB2   | raw | final | CCB3 | raw | final |
| Aluminum   | 200   | 19  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Antimony   | 6.0   | 2.4 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Arsenic    | 3.0   | 1.2 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Barium     | 200   | .6  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Beryllium  | 1.0   | .2  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Bismuth    | 20    | 3.2 |       |       |       |       |      |       |        |     |       |      |     |       |
| Boron      | 100   | 1.5 |       |       |       |       |      |       |        |     |       |      |     |       |
| Cadmium    | 3.0   | .4  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Calcium    | 5000  | 5.5 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Chromium   | 10    | .7  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Cobalt     | 50    | .4  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Copper     | 10    | 1.1 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Iron       | 100   | 3.5 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Lead       | 3.0   | 2.2 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Lithium    | 50    | 3.4 |       |       |       |       |      |       |        |     |       |      |     |       |
| Magnesium  | 5000  | 25  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Manganese  | 15    | .14 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Molybdenum | 20    | .4  |       |       |       |       |      |       |        |     |       |      |     |       |
| Nickel     | 10    | .5  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Phosphorus | 50    | 2   |       |       |       |       |      |       |        |     |       |      |     |       |
| Potassium  | 10000 | 60  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Selenium   | 10    | 3.7 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Silicon    | 200   | 1.8 |       |       |       |       |      |       |        |     |       |      |     |       |
| Silver     | 10    | .7  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Sodium     | 10000 | 35  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Strontium  | 10    | .2  |       |       |       |       |      |       |        |     |       |      |     |       |
| Sulfur     | 50    | 3.1 | 9.40  | <50   | 3.50  | <50   | 2.10 | <50   | -0.600 | <50 |       |      |     |       |
| Thallium   | 2.0   | 1.8 | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Tin        | 10    | .9  |       |       |       |       |      |       |        |     |       |      |     |       |
| Titanium   | 10    | .7  |       |       |       |       |      |       |        |     |       |      |     |       |
| Tungsten   | 50    | 2.2 |       |       |       |       |      |       |        |     |       |      |     |       |
| Vanadium   | 50    | .8  | anr   |       |       |       |      |       |        |     |       |      |     |       |
| Zinc       | 20    | .2  | anr   |       |       |       |      |       |        |     |       |      |     |       |

14.4.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

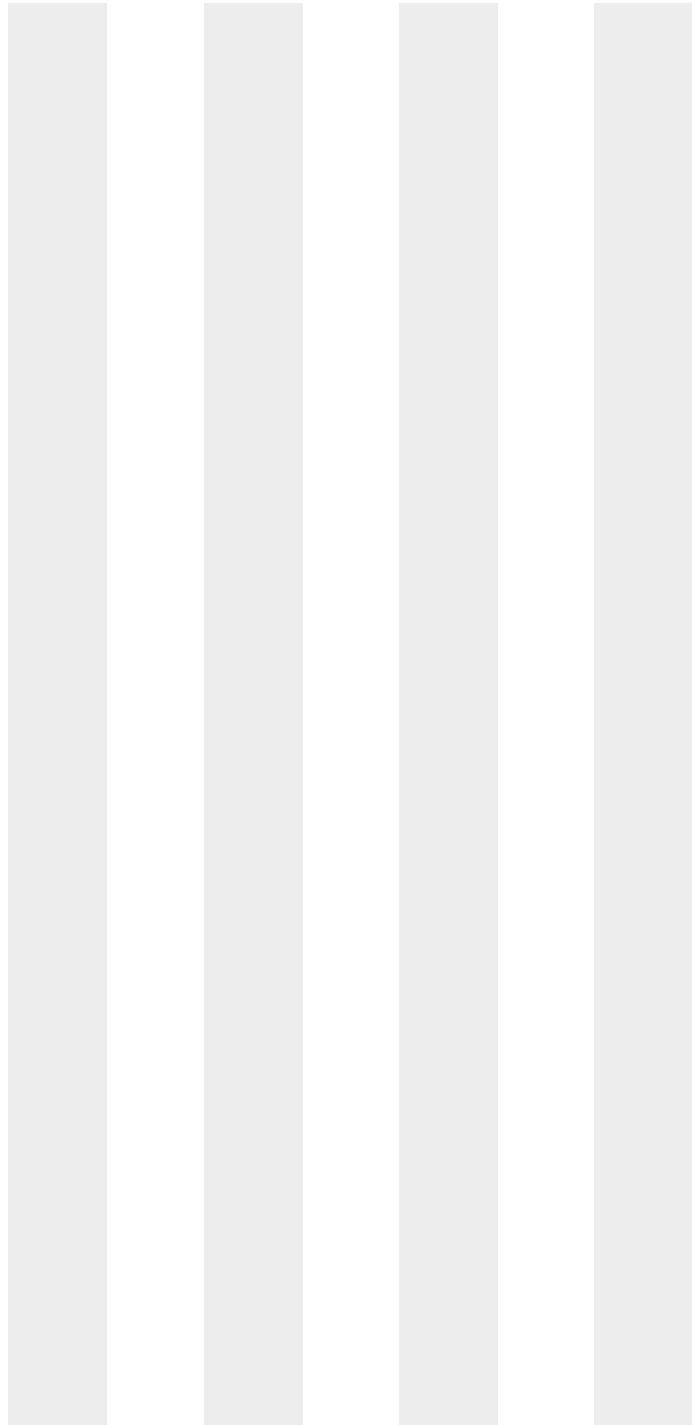
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Time:      |    |     | 10:29 |       | 10:39 |       | 11:16 |       | 11:49 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Metal      | RL    | IDL | 12:22 CCB4 |       | 12:56 CCB5 |       | 13:30 CCB6 |       | 14:03 CCB7 |       |
|------------|-------|-----|------------|-------|------------|-------|------------|-------|------------|-------|
|            |       |     | raw        | final | raw        | final | raw        | final | raw        | final |
| Aluminum   | 200   | 19  | anr        |       |            |       |            |       |            |       |
| Antimony   | 6.0   | 2.4 | anr        |       |            |       |            |       |            |       |
| Arsenic    | 3.0   | 1.2 | anr        |       |            |       |            |       |            |       |
| Barium     | 200   | .6  | anr        |       |            |       |            |       |            |       |
| Beryllium  | 1.0   | .2  | anr        |       |            |       |            |       |            |       |
| Bismuth    | 20    | 3.2 |            |       |            |       |            |       |            |       |
| Boron      | 100   | 1.5 |            |       |            |       |            |       |            |       |
| Cadmium    | 3.0   | .4  | anr        |       |            |       |            |       |            |       |
| Calcium    | 5000  | 5.5 | anr        |       |            |       |            |       |            |       |
| Chromium   | 10    | .7  | anr        |       |            |       |            |       |            |       |
| Cobalt     | 50    | .4  | anr        |       |            |       |            |       |            |       |
| Copper     | 10    | 1.1 | anr        |       |            |       |            |       |            |       |
| Iron       | 100   | 3.5 | anr        |       |            |       |            |       |            |       |
| Lead       | 3.0   | 2.2 | anr        |       |            |       |            |       |            |       |
| Lithium    | 50    | 3.4 |            |       |            |       |            |       |            |       |
| Magnesium  | 5000  | 25  | anr        |       |            |       |            |       |            |       |
| Manganese  | 15    | .14 | anr        |       |            |       |            |       |            |       |
| Molybdenum | 20    | .4  |            |       |            |       |            |       |            |       |
| Nickel     | 10    | .5  | anr        |       |            |       |            |       |            |       |
| Phosphorus | 50    | 2   |            |       |            |       |            |       |            |       |
| Potassium  | 10000 | 60  | anr        |       |            |       |            |       |            |       |
| Selenium   | 10    | 3.7 | anr        |       |            |       |            |       |            |       |
| Silicon    | 200   | 1.8 |            |       |            |       |            |       |            |       |
| Silver     | 10    | .7  | anr        |       |            |       |            |       |            |       |
| Sodium     | 10000 | 35  | anr        |       |            |       |            |       |            |       |
| Strontium  | 10    | .2  |            |       |            |       |            |       |            |       |
| Sulfur     | 50    | 3.1 | -0.600     | <50   | -2.70      | <50   | -1.40      | <50   | -1.10      | <50   |
| Thallium   | 2.0   | 1.8 | anr        |       |            |       |            |       |            |       |
| Tin        | 10    | .9  |            |       |            |       |            |       |            |       |
| Titanium   | 10    | .7  |            |       |            |       |            |       |            |       |
| Tungsten   | 50    | 2.2 |            |       |            |       |            |       |            |       |
| Vanadium   | 50    | .8  | anr        |       |            |       |            |       |            |       |
| Zinc       | 20    | .2  | anr        |       |            |       |            |       |            |       |

14.4.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

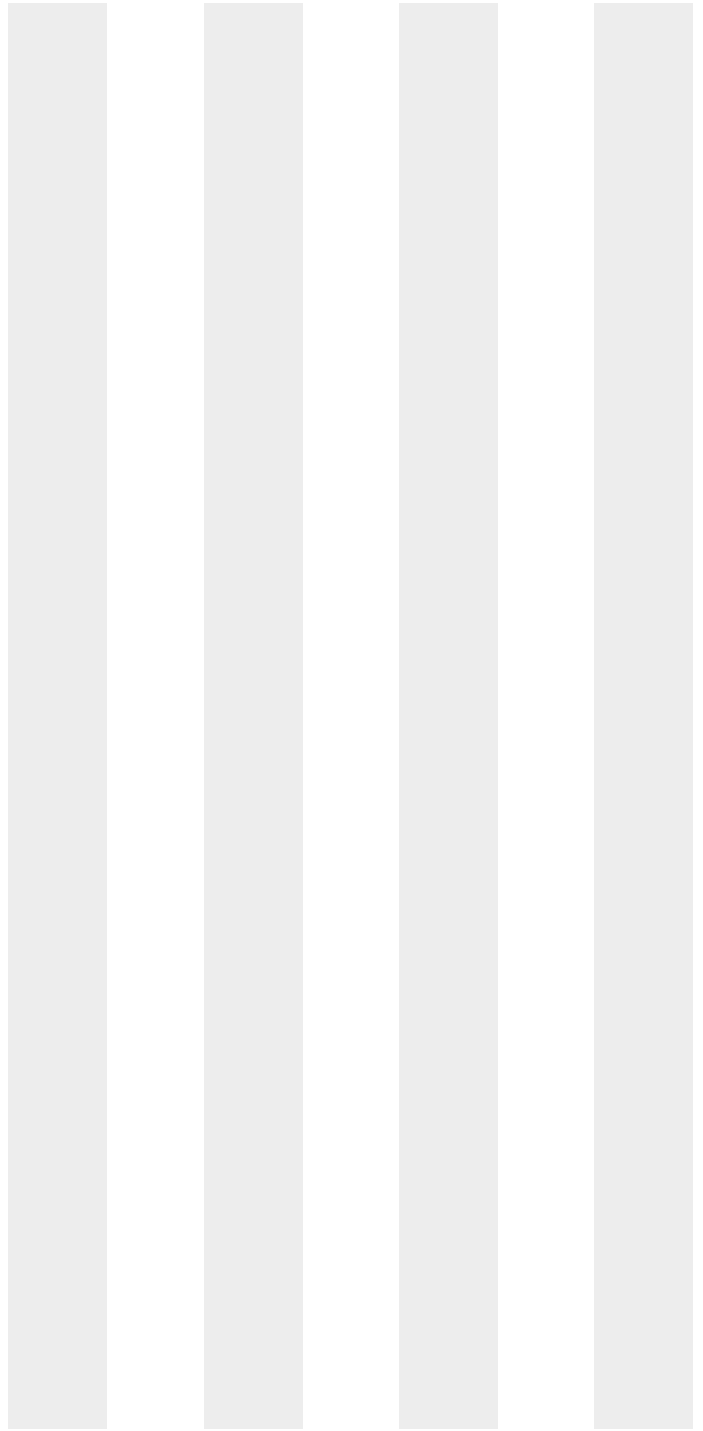
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Time:      | 12:22 | 12:56 | 13:30 | 14:03 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Metal      | RL    | IDL | 14:36  | 15:09 |       | 15:42 |       | 16:18 |        |     |       |       |     |       |
|------------|-------|-----|--------|-------|-------|-------|-------|-------|--------|-----|-------|-------|-----|-------|
|            |       |     | CCB8   | raw   | final | CCB9  | raw   | final | CCB10  | raw | final | CCB11 | raw | final |
| Aluminum   | 200   | 19  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Antimony   | 6.0   | 2.4 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Arsenic    | 3.0   | 1.2 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Barium     | 200   | .6  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Beryllium  | 1.0   | .2  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Bismuth    | 20    | 3.2 |        |       |       |       |       |       |        |     |       |       |     |       |
| Boron      | 100   | 1.5 |        |       |       |       |       |       |        |     |       |       |     |       |
| Cadmium    | 3.0   | .4  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Calcium    | 5000  | 5.5 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Chromium   | 10    | .7  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Cobalt     | 50    | .4  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Copper     | 10    | 1.1 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Iron       | 100   | 3.5 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Lead       | 3.0   | 2.2 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Lithium    | 50    | 3.4 |        |       |       |       |       |       |        |     |       |       |     |       |
| Magnesium  | 5000  | 25  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Manganese  | 15    | .14 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Molybdenum | 20    | .4  |        |       |       |       |       |       |        |     |       |       |     |       |
| Nickel     | 10    | .5  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Phosphorus | 50    | 2   |        |       |       |       |       |       |        |     |       |       |     |       |
| Potassium  | 10000 | 60  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Selenium   | 10    | 3.7 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Silicon    | 200   | 1.8 |        |       |       |       |       |       |        |     |       |       |     |       |
| Silver     | 10    | .7  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Sodium     | 10000 | 35  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Strontium  | 10    | .2  |        |       |       |       |       |       |        |     |       |       |     |       |
| Sulfur     | 50    | 3.1 | -0.700 | <50   | 4.00  | <50   | 0.500 | <50   | -0.400 | <50 |       |       |     |       |
| Thallium   | 2.0   | 1.8 | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Tin        | 10    | .9  |        |       |       |       |       |       |        |     |       |       |     |       |
| Titanium   | 10    | .7  |        |       |       |       |       |       |        |     |       |       |     |       |
| Tungsten   | 50    | 2.2 |        |       |       |       |       |       |        |     |       |       |     |       |
| Vanadium   | 50    | .8  | anr    |       |       |       |       |       |        |     |       |       |     |       |
| Zinc       | 20    | .2  | anr    |       |       |       |       |       |        |     |       |       |     |       |

14.4.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

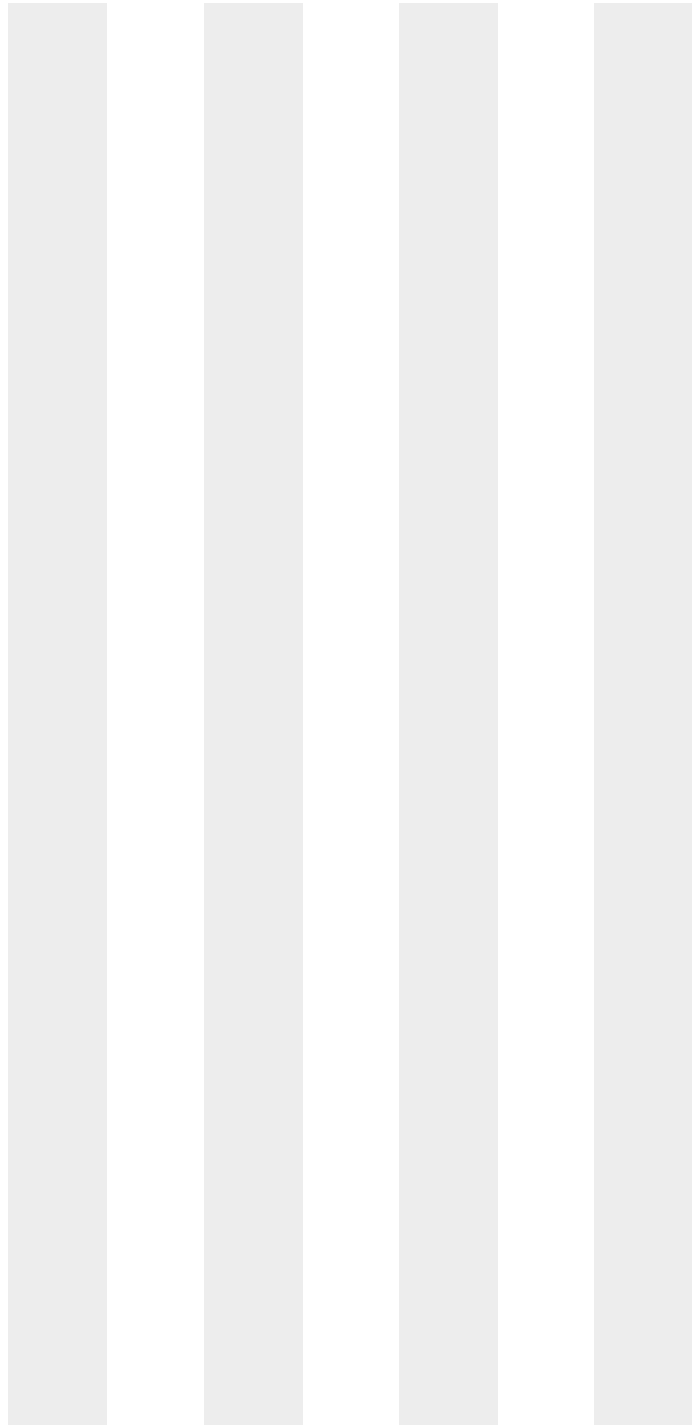
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Time:      | 14:36 | 15:09 | 15:42 | 16:18 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Metal      | RL    | IDL | 16:54        | final | 17:27        | final | 18:01        | final | 18:36        | final |
|------------|-------|-----|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
|            |       |     | CCB12<br>raw |       | CCB13<br>raw |       | CCB14<br>raw |       | CCB15<br>raw |       |
| Aluminum   | 200   | 19  | anr          |       |              |       |              |       |              |       |
| Antimony   | 6.0   | 2.4 | anr          |       |              |       |              |       |              |       |
| Arsenic    | 3.0   | 1.2 | anr          |       |              |       |              |       |              |       |
| Barium     | 200   | .6  | anr          |       |              |       |              |       |              |       |
| Beryllium  | 1.0   | .2  | anr          |       |              |       |              |       |              |       |
| Bismuth    | 20    | 3.2 |              |       |              |       |              |       |              |       |
| Boron      | 100   | 1.5 |              |       |              |       |              |       |              |       |
| Cadmium    | 3.0   | .4  | anr          |       |              |       |              |       |              |       |
| Calcium    | 5000  | 5.5 | anr          |       |              |       |              |       |              |       |
| Chromium   | 10    | .7  | anr          |       |              |       |              |       |              |       |
| Cobalt     | 50    | .4  | anr          |       |              |       |              |       |              |       |
| Copper     | 10    | 1.1 | anr          |       |              |       |              |       |              |       |
| Iron       | 100   | 3.5 | anr          |       |              |       |              |       |              |       |
| Lead       | 3.0   | 2.2 | anr          |       |              |       |              |       |              |       |
| Lithium    | 50    | 3.4 |              |       |              |       |              |       |              |       |
| Magnesium  | 5000  | 25  | anr          |       |              |       |              |       |              |       |
| Manganese  | 15    | .14 | anr          |       |              |       |              |       |              |       |
| Molybdenum | 20    | .4  |              |       |              |       |              |       |              |       |
| Nickel     | 10    | .5  | anr          |       |              |       |              |       |              |       |
| Phosphorus | 50    | 2   |              |       |              |       |              |       |              |       |
| Potassium  | 10000 | 60  | anr          |       |              |       |              |       |              |       |
| Selenium   | 10    | 3.7 | anr          |       |              |       |              |       |              |       |
| Silicon    | 200   | 1.8 |              |       |              |       |              |       |              |       |
| Silver     | 10    | .7  | anr          |       |              |       |              |       |              |       |
| Sodium     | 10000 | 35  | anr          |       |              |       |              |       |              |       |
| Strontium  | 10    | .2  |              |       |              |       |              |       |              |       |
| Sulfur     | 50    | 3.1 | -0.600       | <50   | -0.700       | <50   | 0.800        | <50   | -0.600       | <50   |
| Thallium   | 2.0   | 1.8 | anr          |       |              |       |              |       |              |       |
| Tin        | 10    | .9  |              |       |              |       |              |       |              |       |
| Titanium   | 10    | .7  |              |       |              |       |              |       |              |       |
| Tungsten   | 50    | 2.2 |              |       |              |       |              |       |              |       |
| Vanadium   | 50    | .8  | anr          |       |              |       |              |       |              |       |
| Zinc       | 20    | .2  | anr          |       |              |       |              |       |              |       |

14.4.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

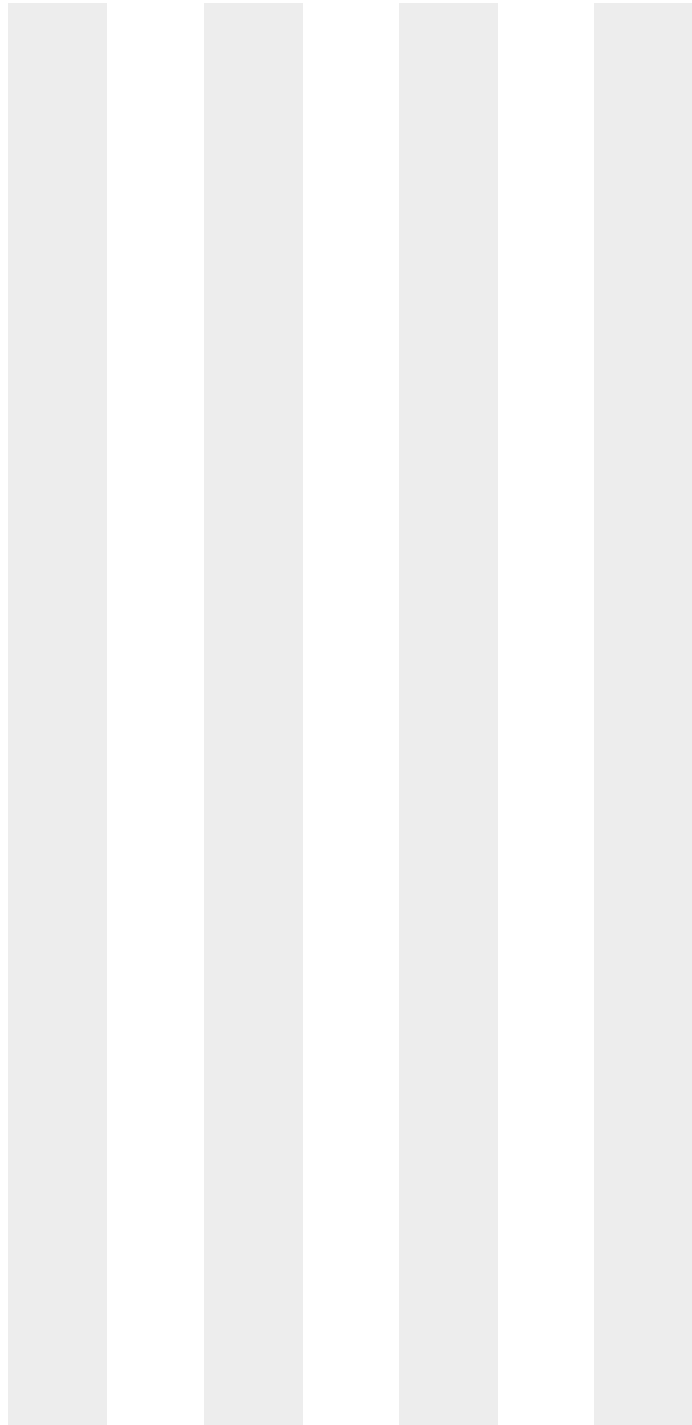
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Time:      | 16:54 | 17:27 | 18:01 | 18:36 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB12 | CCB13 | CCB14 | CCB15 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Metal      | Time:      |     | 19:14 |       | 19:44 |       | 20:15  |       | 20:34  |       |       |
|------------|------------|-----|-------|-------|-------|-------|--------|-------|--------|-------|-------|
|            | Sample ID: | RL  | IDL   | CCB16 | final | CCB17 | final  | CCB18 | final  | CCB19 | final |
| Aluminum   | 200        | 19  | anr   |       |       |       |        |       |        |       |       |
| Antimony   | 6.0        | 2.4 | anr   |       |       |       |        |       |        |       |       |
| Arsenic    | 3.0        | 1.2 | anr   |       |       |       |        |       |        |       |       |
| Barium     | 200        | .6  | anr   |       |       |       |        |       |        |       |       |
| Beryllium  | 1.0        | .2  | anr   |       |       |       |        |       |        |       |       |
| Bismuth    | 20         | 3.2 |       |       |       |       |        |       |        |       |       |
| Boron      | 100        | 1.5 |       |       |       |       |        |       |        |       |       |
| Cadmium    | 3.0        | .4  | anr   |       |       |       |        |       |        |       |       |
| Calcium    | 5000       | 5.5 | anr   |       |       |       |        |       |        |       |       |
| Chromium   | 10         | .7  | anr   |       |       |       |        |       |        |       |       |
| Cobalt     | 50         | .4  | anr   |       |       |       |        |       |        |       |       |
| Copper     | 10         | 1.1 | anr   |       |       |       |        |       |        |       |       |
| Iron       | 100        | 3.5 | anr   |       |       |       |        |       |        |       |       |
| Lead       | 3.0        | 2.2 | anr   |       |       |       |        |       |        |       |       |
| Lithium    | 50         | 3.4 |       |       |       |       |        |       |        |       |       |
| Magnesium  | 5000       | 25  | anr   |       |       |       |        |       |        |       |       |
| Manganese  | 15         | .14 | anr   |       |       |       |        |       |        |       |       |
| Molybdenum | 20         | .4  |       |       |       |       |        |       |        |       |       |
| Nickel     | 10         | .5  | anr   |       |       |       |        |       |        |       |       |
| Phosphorus | 50         | 2   |       |       |       |       |        |       |        |       |       |
| Potassium  | 10000      | 60  | anr   |       |       |       |        |       |        |       |       |
| Selenium   | 10         | 3.7 | anr   |       |       |       |        |       |        |       |       |
| Silicon    | 200        | 1.8 |       |       |       |       |        |       |        |       |       |
| Silver     | 10         | .7  | anr   |       |       |       |        |       |        |       |       |
| Sodium     | 10000      | 35  | anr   |       |       |       |        |       |        |       |       |
| Strontium  | 10         | .2  |       |       |       |       |        |       |        |       |       |
| Sulfur     | 50         | 3.1 | 9.70  | <50   | -1.60 | <50   | -0.800 | <50   | -0.300 | <50   |       |
| Thallium   | 2.0        | 1.8 | anr   |       |       |       |        |       |        |       |       |
| Tin        | 10         | .9  |       |       |       |       |        |       |        |       |       |
| Titanium   | 10         | .7  |       |       |       |       |        |       |        |       |       |
| Tungsten   | 50         | 2.2 |       |       |       |       |        |       |        |       |       |
| Vanadium   | 50         | .8  | anr   |       |       |       |        |       |        |       |       |
| Zinc       | 20         | .2  | anr   |       |       |       |        |       |        |       |       |

14.4.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

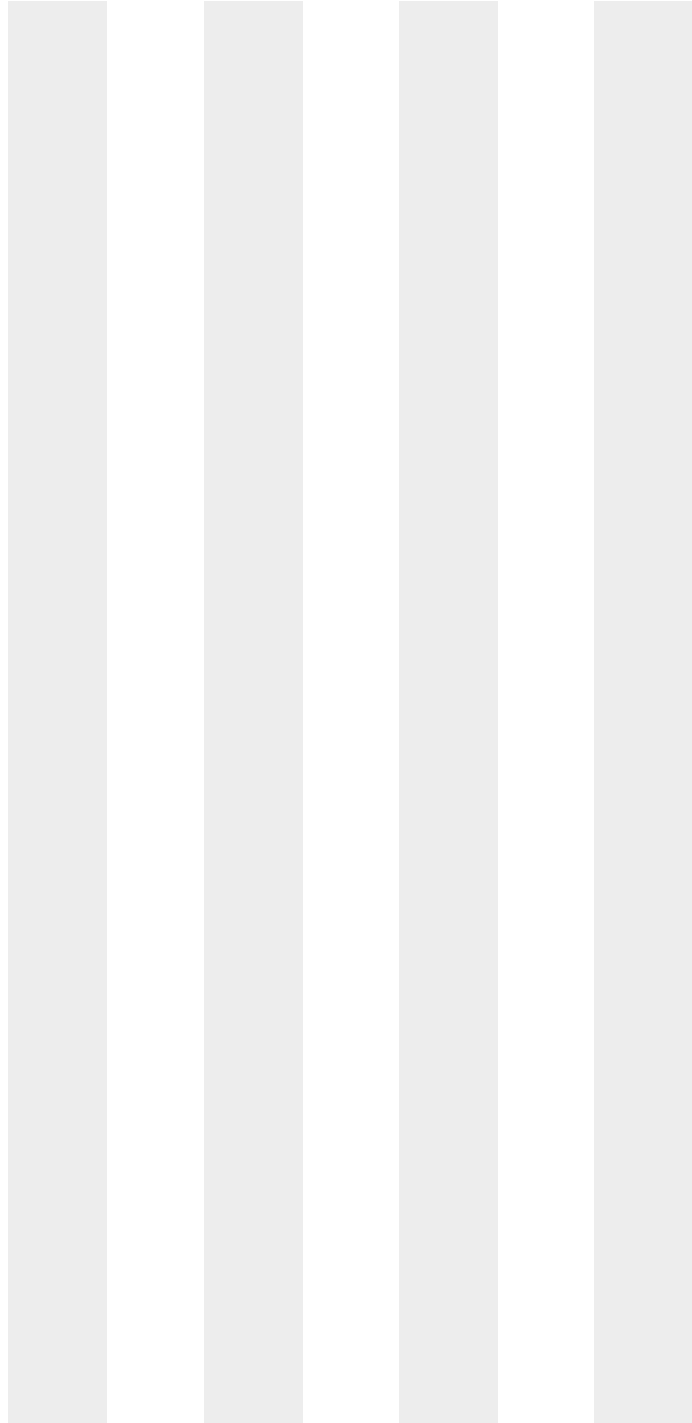
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44358 Units: ug/l

| Time:      | 19:14 | 19:44 | 20:15 | 20:34 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB16 | CCB17 | CCB18 | CCB19 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44358 Units: ug/l

| Metal      | Sample ID: ICCV | Time: 10:33<br>ICCV1 | Results | % Rec |
|------------|-----------------|----------------------|---------|-------|
| Aluminum   | anr             |                      |         |       |
| Antimony   | anr             |                      |         |       |
| Arsenic    | anr             |                      |         |       |
| Barium     | anr             |                      |         |       |
| Beryllium  | anr             |                      |         |       |
| Bismuth    |                 |                      |         |       |
| Boron      |                 |                      |         |       |
| Cadmium    | anr             |                      |         |       |
| Calcium    | anr             |                      |         |       |
| Chromium   | anr             |                      |         |       |
| Cobalt     | anr             |                      |         |       |
| Copper     | anr             |                      |         |       |
| Iron       | anr             |                      |         |       |
| Lead       | anr             |                      |         |       |
| Lithium    |                 |                      |         |       |
| Magnesium  | anr             |                      |         |       |
| Manganese  | anr             |                      |         |       |
| Molybdenum |                 |                      |         |       |
| Nickel     | anr             |                      |         |       |
| Phosphorus |                 |                      |         |       |
| Potassium  | anr             |                      |         |       |
| Selenium   | anr             |                      |         |       |
| Silicon    |                 |                      |         |       |
| Silver     | anr             |                      |         |       |
| Sodium     | anr             |                      |         |       |
| Strontium  |                 |                      |         |       |
| Sulfur     | 2000            | 1960                 | 98.0    |       |
| Thallium   | anr             |                      |         |       |
| Tin        |                 |                      |         |       |
| Titanium   |                 |                      |         |       |
| Tungsten   |                 |                      |         |       |
| Vanadium   | anr             |                      |         |       |
| Zinc       | anr             |                      |         |       |

14.4.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

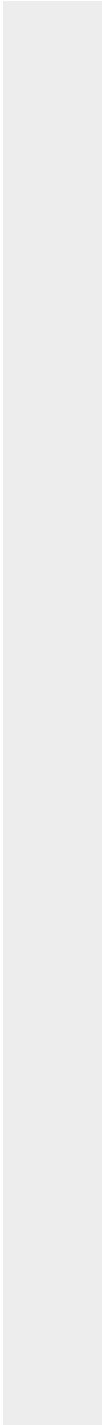
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            |                              |
|------------|------------------------------|
| Time:      | 10:33                        |
| Sample ID: | ICCV      ICCV1              |
| Metal      | True      Results      % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.3  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: | 10:22   |       | CCV  | 11:13   |       | CCV  | 11:47   |       |
|------------|------------|---------|-------|------|---------|-------|------|---------|-------|
|            |            | ICV     | ICV1  |      | CCV1    | CCV2  |      |         |       |
|            | True       | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |      |         |       |      |         |       |
| Antimony   | anr        |         |       |      |         |       |      |         |       |
| Arsenic    | anr        |         |       |      |         |       |      |         |       |
| Barium     | anr        |         |       |      |         |       |      |         |       |
| Beryllium  | anr        |         |       |      |         |       |      |         |       |
| Bismuth    |            |         |       |      |         |       |      |         |       |
| Boron      |            |         |       |      |         |       |      |         |       |
| Cadmium    | anr        |         |       |      |         |       |      |         |       |
| Calcium    | anr        |         |       |      |         |       |      |         |       |
| Chromium   | anr        |         |       |      |         |       |      |         |       |
| Cobalt     | anr        |         |       |      |         |       |      |         |       |
| Copper     | anr        |         |       |      |         |       |      |         |       |
| Iron       | anr        |         |       |      |         |       |      |         |       |
| Lead       | anr        |         |       |      |         |       |      |         |       |
| Lithium    |            |         |       |      |         |       |      |         |       |
| Magnesium  | anr        |         |       |      |         |       |      |         |       |
| Manganese  | anr        |         |       |      |         |       |      |         |       |
| Molybdenum |            |         |       |      |         |       |      |         |       |
| Nickel     | anr        |         |       |      |         |       |      |         |       |
| Phosphorus |            |         |       |      |         |       |      |         |       |
| Potassium  | anr        |         |       |      |         |       |      |         |       |
| Selenium   | anr        |         |       |      |         |       |      |         |       |
| Silicon    |            |         |       |      |         |       |      |         |       |
| Silver     | anr        |         |       |      |         |       |      |         |       |
| Sodium     | anr        |         |       |      |         |       |      |         |       |
| Strontium  |            |         |       |      |         |       |      |         |       |
| Sulfur     | 2000       | 2010    | 100.5 | 2000 | 1910    | 95.5  | 2000 | 1930    | 96.5  |
| Thallium   | anr        |         |       |      |         |       |      |         |       |
| Tin        |            |         |       |      |         |       |      |         |       |
| Titanium   |            |         |       |      |         |       |      |         |       |
| Tungsten   |            |         |       |      |         |       |      |         |       |
| Vanadium   | anr        |         |       |      |         |       |      |         |       |
| Zinc       | anr        |         |       |      |         |       |      |         |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: | 10:22   |       | 11:13 |         | 11:47 |      |
|------------|-------|---------|-------|-------|---------|-------|------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1  | CCV     | CCV2  |      |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True |

|                             |  |  |  |  |  |  |  |
|-----------------------------|--|--|--|--|--|--|--|
| Zirconium                   |  |  |  |  |  |  |  |
| (*) Outside of QC limits    |  |  |  |  |  |  |  |
| (anr) Analyte not requested |  |  |  |  |  |  |  |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: | 12:20   |       | 12:54 |         | 13:27 |      |         |       |
|------------|------------|---------|-------|-------|---------|-------|------|---------|-------|
|            |            | CCV     | CCV3  | CCV   | CCV4    | CCV   | CCV5 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |      |         |       |
| Antimony   | anr        |         |       |       |         |       |      |         |       |
| Arsenic    | anr        |         |       |       |         |       |      |         |       |
| Barium     | anr        |         |       |       |         |       |      |         |       |
| Beryllium  | anr        |         |       |       |         |       |      |         |       |
| Bismuth    |            |         |       |       |         |       |      |         |       |
| Boron      |            |         |       |       |         |       |      |         |       |
| Cadmium    | anr        |         |       |       |         |       |      |         |       |
| Calcium    | anr        |         |       |       |         |       |      |         |       |
| Chromium   | anr        |         |       |       |         |       |      |         |       |
| Cobalt     | anr        |         |       |       |         |       |      |         |       |
| Copper     | anr        |         |       |       |         |       |      |         |       |
| Iron       | anr        |         |       |       |         |       |      |         |       |
| Lead       | anr        |         |       |       |         |       |      |         |       |
| Lithium    |            |         |       |       |         |       |      |         |       |
| Magnesium  | anr        |         |       |       |         |       |      |         |       |
| Manganese  | anr        |         |       |       |         |       |      |         |       |
| Molybdenum |            |         |       |       |         |       |      |         |       |
| Nickel     | anr        |         |       |       |         |       |      |         |       |
| Phosphorus |            |         |       |       |         |       |      |         |       |
| Potassium  | anr        |         |       |       |         |       |      |         |       |
| Selenium   | anr        |         |       |       |         |       |      |         |       |
| Silicon    |            |         |       |       |         |       |      |         |       |
| Silver     | anr        |         |       |       |         |       |      |         |       |
| Sodium     | anr        |         |       |       |         |       |      |         |       |
| Strontium  |            |         |       |       |         |       |      |         |       |
| Sulfur     | 2000       | 1930    | 96.5  | 2000  | 1940    | 97.0  | 2000 | 1960    | 98.0  |
| Thallium   | anr        |         |       |       |         |       |      |         |       |
| Tin        |            |         |       |       |         |       |      |         |       |
| Titanium   |            |         |       |       |         |       |      |         |       |
| Tungsten   |            |         |       |       |         |       |      |         |       |
| Vanadium   | anr        |         |       |       |         |       |      |         |       |
| Zinc       | anr        |         |       |       |         |       |      |         |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

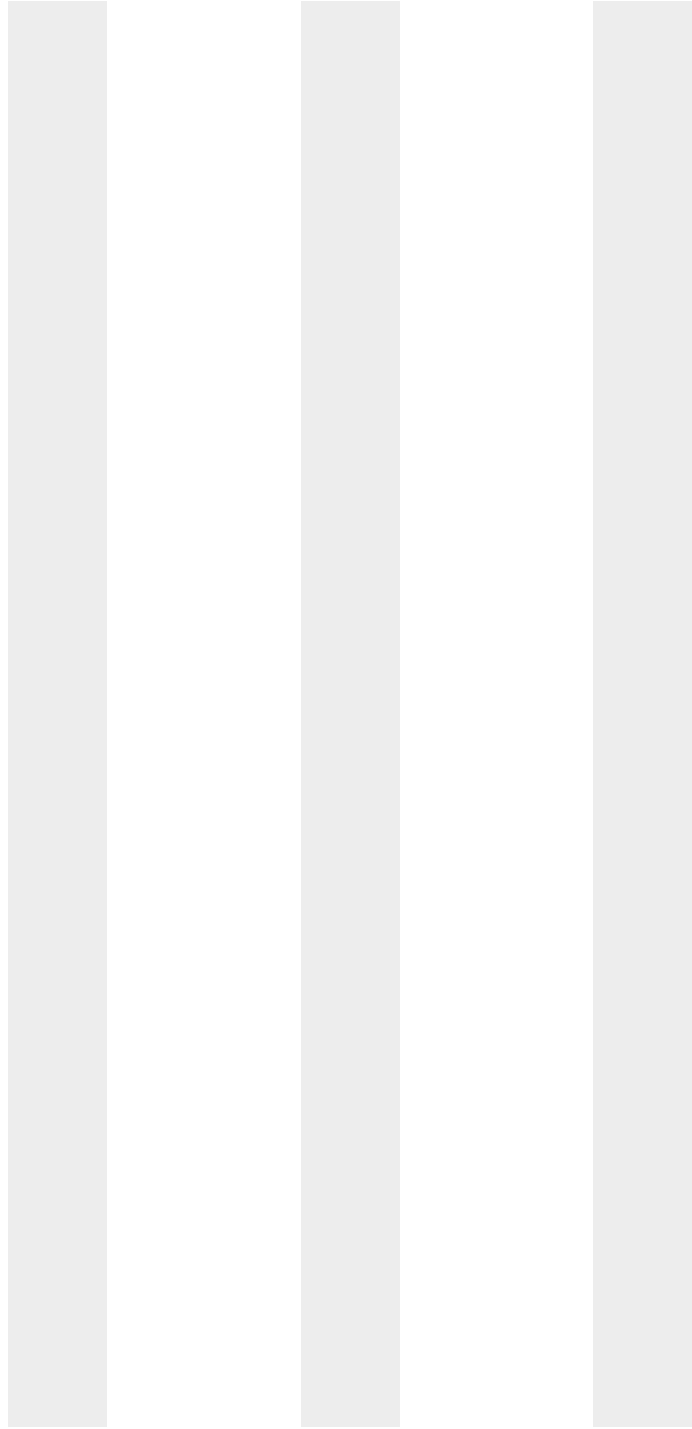
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: |         |       |      | 12:54   |       |      | 13:27   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 12:20   | CCV3  | CCV  | CCV4    | CCV   | CCV5 |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: | 14:00   |       | 14:33 |         | 15:06 |      |         |       |
|------------|------------|---------|-------|-------|---------|-------|------|---------|-------|
|            |            | CCV     | CCV6  | CCV   | CCV7    | CCV   | CCV8 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |      |         |       |
| Antimony   | anr        |         |       |       |         |       |      |         |       |
| Arsenic    | anr        |         |       |       |         |       |      |         |       |
| Barium     | anr        |         |       |       |         |       |      |         |       |
| Beryllium  | anr        |         |       |       |         |       |      |         |       |
| Bismuth    |            |         |       |       |         |       |      |         |       |
| Boron      |            |         |       |       |         |       |      |         |       |
| Cadmium    | anr        |         |       |       |         |       |      |         |       |
| Calcium    | anr        |         |       |       |         |       |      |         |       |
| Chromium   | anr        |         |       |       |         |       |      |         |       |
| Cobalt     | anr        |         |       |       |         |       |      |         |       |
| Copper     | anr        |         |       |       |         |       |      |         |       |
| Iron       | anr        |         |       |       |         |       |      |         |       |
| Lead       | anr        |         |       |       |         |       |      |         |       |
| Lithium    |            |         |       |       |         |       |      |         |       |
| Magnesium  | anr        |         |       |       |         |       |      |         |       |
| Manganese  | anr        |         |       |       |         |       |      |         |       |
| Molybdenum |            |         |       |       |         |       |      |         |       |
| Nickel     | anr        |         |       |       |         |       |      |         |       |
| Phosphorus |            |         |       |       |         |       |      |         |       |
| Potassium  | anr        |         |       |       |         |       |      |         |       |
| Selenium   | anr        |         |       |       |         |       |      |         |       |
| Silicon    |            |         |       |       |         |       |      |         |       |
| Silver     | anr        |         |       |       |         |       |      |         |       |
| Sodium     | anr        |         |       |       |         |       |      |         |       |
| Strontium  |            |         |       |       |         |       |      |         |       |
| Sulfur     | 2000       | 1930    | 96.5  | 2000  | 1940    | 97.0  | 2000 | 1950    | 97.5  |
| Thallium   | anr        |         |       |       |         |       |      |         |       |
| Tin        |            |         |       |       |         |       |      |         |       |
| Titanium   |            |         |       |       |         |       |      |         |       |
| Tungsten   |            |         |       |       |         |       |      |         |       |
| Vanadium   | anr        |         |       |       |         |       |      |         |       |
| Zinc       | anr        |         |       |       |         |       |      |         |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

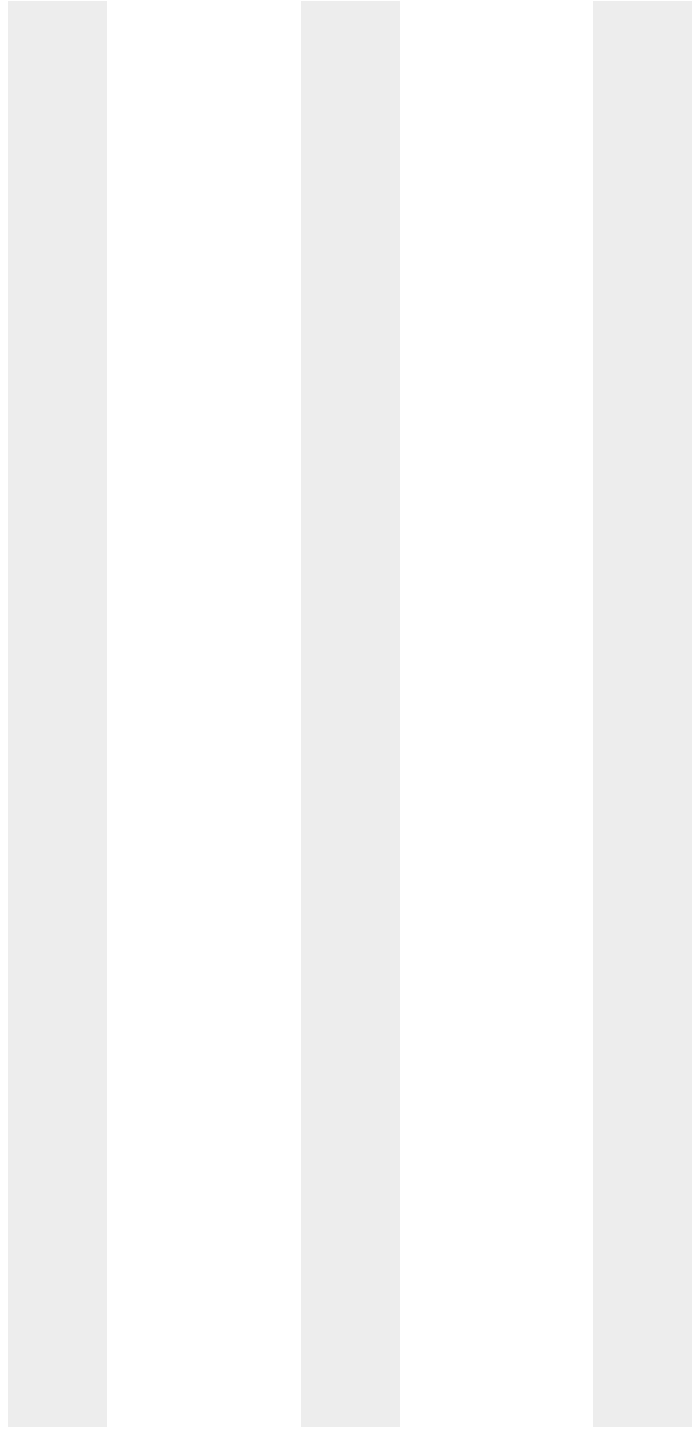
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: |         | 14:00 |      | 14:33   |       | 15:06 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7 | CCV     | CCV8  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: CCV | 15:39 CCV9 |       | CCV True | 16:15 CCV10 |       | CCV True | 16:51 CCV11 |       |
|------------|----------------|------------|-------|----------|-------------|-------|----------|-------------|-------|
|            |                | Results    | % Rec |          | Results     | % Rec |          | Results     | % Rec |
| Aluminum   | anr            |            |       |          |             |       |          |             |       |
| Antimony   | anr            |            |       |          |             |       |          |             |       |
| Arsenic    | anr            |            |       |          |             |       |          |             |       |
| Barium     | anr            |            |       |          |             |       |          |             |       |
| Beryllium  | anr            |            |       |          |             |       |          |             |       |
| Bismuth    |                |            |       |          |             |       |          |             |       |
| Boron      |                |            |       |          |             |       |          |             |       |
| Cadmium    | anr            |            |       |          |             |       |          |             |       |
| Calcium    | anr            |            |       |          |             |       |          |             |       |
| Chromium   | anr            |            |       |          |             |       |          |             |       |
| Cobalt     | anr            |            |       |          |             |       |          |             |       |
| Copper     | anr            |            |       |          |             |       |          |             |       |
| Iron       | anr            |            |       |          |             |       |          |             |       |
| Lead       | anr            |            |       |          |             |       |          |             |       |
| Lithium    |                |            |       |          |             |       |          |             |       |
| Magnesium  | anr            |            |       |          |             |       |          |             |       |
| Manganese  | anr            |            |       |          |             |       |          |             |       |
| Molybdenum |                |            |       |          |             |       |          |             |       |
| Nickel     | anr            |            |       |          |             |       |          |             |       |
| Phosphorus |                |            |       |          |             |       |          |             |       |
| Potassium  | anr            |            |       |          |             |       |          |             |       |
| Selenium   | anr            |            |       |          |             |       |          |             |       |
| Silicon    |                |            |       |          |             |       |          |             |       |
| Silver     | anr            |            |       |          |             |       |          |             |       |
| Sodium     | anr            |            |       |          |             |       |          |             |       |
| Strontium  |                |            |       |          |             |       |          |             |       |
| Sulfur     | 2000           | 1920       | 96.0  | 2000     | 1930        | 96.5  | 2000     | 1930        | 96.5  |
| Thallium   | anr            |            |       |          |             |       |          |             |       |
| Tin        |                |            |       |          |             |       |          |             |       |
| Titanium   |                |            |       |          |             |       |          |             |       |
| Tungsten   |                |            |       |          |             |       |          |             |       |
| Vanadium   | anr            |            |       |          |             |       |          |             |       |
| Zinc       | anr            |            |       |          |             |       |          |             |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: |         | 15:39 |       | 16:15   |       | 16:51 |         |       |
|------------|-------|---------|-------|-------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV9    | CCV   | CCV10 | CCV     | CCV11 |       |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: CCV | 17:24 |               | CCV  | 17:58 |               | CCV  | 18:33 |               |
|------------|----------------|-------|---------------|------|-------|---------------|------|-------|---------------|
|            |                | CCV12 | Results % Rec |      | CCV13 | Results % Rec |      | CCV14 | Results % Rec |
| Aluminum   | anr            |       |               |      |       |               |      |       |               |
| Antimony   | anr            |       |               |      |       |               |      |       |               |
| Arsenic    | anr            |       |               |      |       |               |      |       |               |
| Barium     | anr            |       |               |      |       |               |      |       |               |
| Beryllium  | anr            |       |               |      |       |               |      |       |               |
| Bismuth    |                |       |               |      |       |               |      |       |               |
| Boron      |                |       |               |      |       |               |      |       |               |
| Cadmium    | anr            |       |               |      |       |               |      |       |               |
| Calcium    | anr            |       |               |      |       |               |      |       |               |
| Chromium   | anr            |       |               |      |       |               |      |       |               |
| Cobalt     | anr            |       |               |      |       |               |      |       |               |
| Copper     | anr            |       |               |      |       |               |      |       |               |
| Iron       | anr            |       |               |      |       |               |      |       |               |
| Lead       | anr            |       |               |      |       |               |      |       |               |
| Lithium    |                |       |               |      |       |               |      |       |               |
| Magnesium  | anr            |       |               |      |       |               |      |       |               |
| Manganese  | anr            |       |               |      |       |               |      |       |               |
| Molybdenum |                |       |               |      |       |               |      |       |               |
| Nickel     | anr            |       |               |      |       |               |      |       |               |
| Phosphorus |                |       |               |      |       |               |      |       |               |
| Potassium  | anr            |       |               |      |       |               |      |       |               |
| Selenium   | anr            |       |               |      |       |               |      |       |               |
| Silicon    |                |       |               |      |       |               |      |       |               |
| Silver     | anr            |       |               |      |       |               |      |       |               |
| Sodium     | anr            |       |               |      |       |               |      |       |               |
| Strontium  |                |       |               |      |       |               |      |       |               |
| Sulfur     | 2000           | 1920  | 96.0          | 2000 | 1900  | 95.0          | 2000 | 1950  | 97.5          |
| Thallium   | anr            |       |               |      |       |               |      |       |               |
| Tin        |                |       |               |      |       |               |      |       |               |
| Titanium   |                |       |               |      |       |               |      |       |               |
| Tungsten   |                |       |               |      |       |               |      |       |               |
| Vanadium   | anr            |       |               |      |       |               |      |       |               |
| Zinc       | anr            |       |               |      |       |               |      |       |               |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

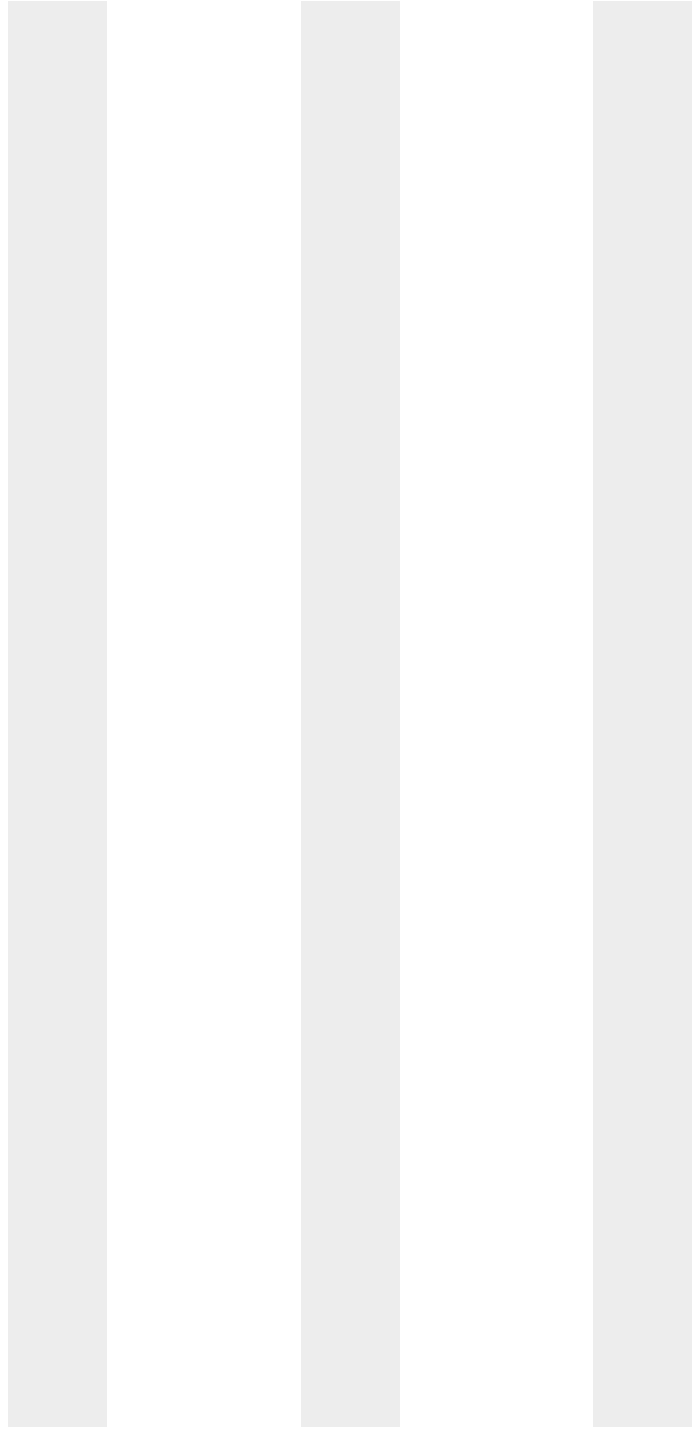
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: |         |       |      |         |       |      |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 17:24   | CCV12 | CCV  | 17:58   | CCV13 | CCV  | 18:33   | CCV14 |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

| Metal      | Sample ID: CCV | 19:11 |               | CCV  | 19:42 |               | CCV  | 20:12 |               |
|------------|----------------|-------|---------------|------|-------|---------------|------|-------|---------------|
|            |                | CCV15 | Results % Rec |      | CCV16 | Results % Rec |      | CCV17 | Results % Rec |
| Aluminum   | anr            |       |               |      |       |               |      |       |               |
| Antimony   | anr            |       |               |      |       |               |      |       |               |
| Arsenic    | anr            |       |               |      |       |               |      |       |               |
| Barium     | anr            |       |               |      |       |               |      |       |               |
| Beryllium  | anr            |       |               |      |       |               |      |       |               |
| Bismuth    |                |       |               |      |       |               |      |       |               |
| Boron      |                |       |               |      |       |               |      |       |               |
| Cadmium    | anr            |       |               |      |       |               |      |       |               |
| Calcium    | anr            |       |               |      |       |               |      |       |               |
| Chromium   | anr            |       |               |      |       |               |      |       |               |
| Cobalt     | anr            |       |               |      |       |               |      |       |               |
| Copper     | anr            |       |               |      |       |               |      |       |               |
| Iron       | anr            |       |               |      |       |               |      |       |               |
| Lead       | anr            |       |               |      |       |               |      |       |               |
| Lithium    |                |       |               |      |       |               |      |       |               |
| Magnesium  | anr            |       |               |      |       |               |      |       |               |
| Manganese  | anr            |       |               |      |       |               |      |       |               |
| Molybdenum |                |       |               |      |       |               |      |       |               |
| Nickel     | anr            |       |               |      |       |               |      |       |               |
| Phosphorus |                |       |               |      |       |               |      |       |               |
| Potassium  | anr            |       |               |      |       |               |      |       |               |
| Selenium   | anr            |       |               |      |       |               |      |       |               |
| Silicon    |                |       |               |      |       |               |      |       |               |
| Silver     | anr            |       |               |      |       |               |      |       |               |
| Sodium     | anr            |       |               |      |       |               |      |       |               |
| Strontium  |                |       |               |      |       |               |      |       |               |
| Sulfur     | 2000           | 1920  | 96.0          | 2000 | 1970  | 98.5          | 2000 | 2000  | 100.0         |
| Thallium   | anr            |       |               |      |       |               |      |       |               |
| Tin        |                |       |               |      |       |               |      |       |               |
| Titanium   |                |       |               |      |       |               |      |       |               |
| Tungsten   |                |       |               |      |       |               |      |       |               |
| Vanadium   | anr            |       |               |      |       |               |      |       |               |
| Zinc       | anr            |       |               |      |       |               |      |       |               |

14.4.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            | Time: |       |       |      | 19:42   |       |      | 20:12   |       |
|------------|-------|-------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 19:11 |       | CCV  | CCV16   |       | CCV  | CCV17   |       |
| Metal      | True  | CCV15 | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            |       |         |       |
|------------|-------|---------|-------|
| Time:      | 20:31 |         |       |
| Sample ID: | CCV   | CCV18   |       |
| Metal      | True  | Results | % Rec |

|            |      |      |       |
|------------|------|------|-------|
| Aluminum   | anr  |      |       |
| Antimony   | anr  |      |       |
| Arsenic    | anr  |      |       |
| Barium     | anr  |      |       |
| Beryllium  | anr  |      |       |
| Bismuth    |      |      |       |
| Boron      |      |      |       |
| Cadmium    | anr  |      |       |
| Calcium    | anr  |      |       |
| Chromium   | anr  |      |       |
| Cobalt     | anr  |      |       |
| Copper     | anr  |      |       |
| Iron       | anr  |      |       |
| Lead       | anr  |      |       |
| Lithium    |      |      |       |
| Magnesium  | anr  |      |       |
| Manganese  | anr  |      |       |
| Molybdenum |      |      |       |
| Nickel     | anr  |      |       |
| Phosphorus |      |      |       |
| Potassium  | anr  |      |       |
| Selenium   | anr  |      |       |
| Silicon    |      |      |       |
| Silver     | anr  |      |       |
| Sodium     | anr  |      |       |
| Strontium  |      |      |       |
| Sulfur     | 2000 | 2030 | 101.5 |
| Thallium   | anr  |      |       |
| Tin        |      |      |       |
| Titanium   |      |      |       |
| Tungsten   |      |      |       |
| Vanadium   | anr  |      |       |
| Zinc       | anr  |      |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

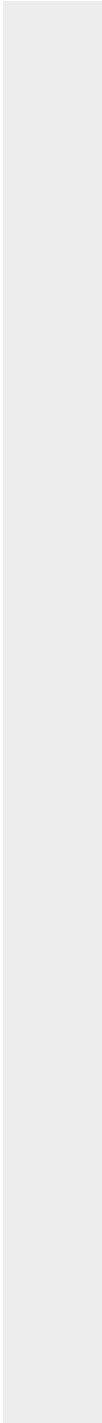
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP      Date Analyzed: 05/07/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44358      Units: ug/l

|            |       |         |       |
|------------|-------|---------|-------|
| Time:      | 20:31 |         |       |
| Sample ID: | CCV   | CCV18   |       |
| Metal      | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44358 Units: ug/l

|            | Time: | 10:57   |       | 11:01 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD  | HSTD2   |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   |       |         |       |       |         |       |
| Antimony   | anr   |         |       |       |         |       |
| Arsenic    | anr   |         |       |       |         |       |
| Barium     | anr   |         |       |       |         |       |
| Beryllium  | anr   |         |       |       |         |       |
| Bismuth    |       |         |       |       |         |       |
| Boron      |       |         |       |       |         |       |
| Cadmium    | anr   |         |       |       |         |       |
| Calcium    |       |         |       |       |         |       |
| Chromium   | anr   |         |       |       |         |       |
| Cobalt     | anr   |         |       |       |         |       |
| Copper     | anr   |         |       |       |         |       |
| Iron       |       |         |       |       |         |       |
| Lead       | anr   |         |       |       |         |       |
| Lithium    |       |         |       |       |         |       |
| Magnesium  |       |         |       |       |         |       |
| Manganese  | anr   |         |       |       |         |       |
| Molybdenum |       |         |       |       |         |       |
| Nickel     | anr   |         |       |       |         |       |
| Phosphorus |       |         |       |       |         |       |
| Potassium  |       |         |       |       |         |       |
| Selenium   | anr   |         |       |       |         |       |
| Silicon    |       |         |       |       |         |       |
| Silver     | anr   |         |       |       |         |       |
| Sodium     |       |         |       |       |         |       |
| Strontium  |       |         |       |       |         |       |
| Sulfur     | 50000 | 51200   | 102.4 |       |         |       |
| Thallium   | anr   |         |       |       |         |       |
| Tin        |       |         |       |       |         |       |
| Titanium   |       |         |       |       |         |       |
| Tungsten   |       |         |       |       |         |       |
| Vanadium   | anr   |         |       |       |         |       |
| Zinc       | anr   |         |       |       |         |       |

14.4.5  
14

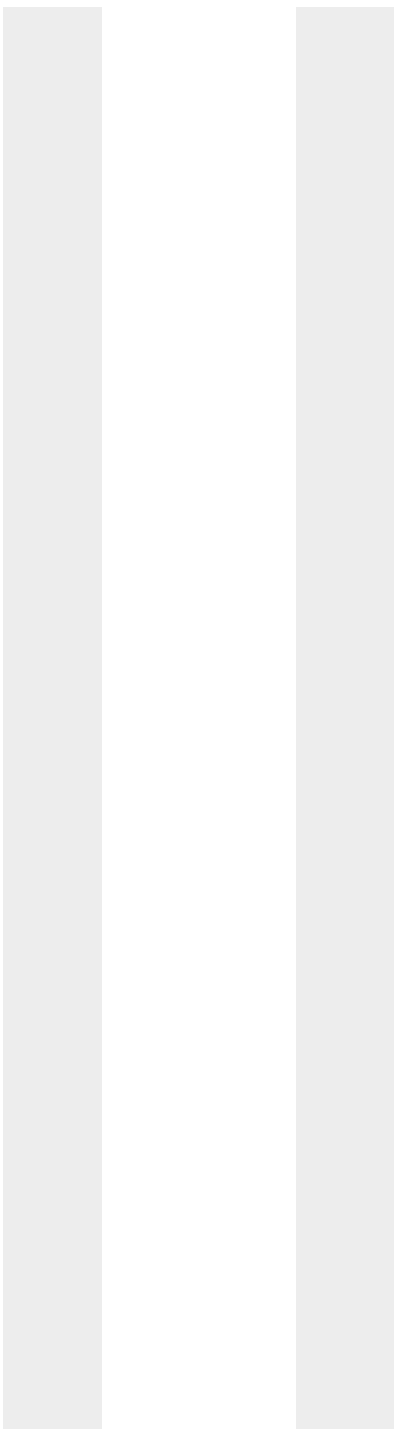
HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44358 Units: ug/l

|            | Time: | 10:57   |       | 11:01 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.5  
 14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44358 Units: ug/l

| Time:      | 10:45   | 10:48 | 16:03   |      |       |  |      |       |
|------------|---------|-------|---------|------|-------|--|------|-------|
| Sample ID: | CRI1    | CRID1 | CRID2   |      |       |  |      |       |
| Metal      | True    | True  | True    |      |       |  |      |       |
|            | Results | % Rec | Results |      |       |  |      |       |
|            |         |       | % Rec   |      |       |  |      |       |
| Aluminum   | 200     | 500   | 100     | anr  |       |  |      |       |
| Antimony   | 6.0     | 20    | 3.0     | anr  |       |  |      |       |
| Arsenic    | 8.0     | 20    | 3.0     | anr  |       |  |      |       |
| Barium     | 200     |       | 4.0     | anr  |       |  |      |       |
| Beryllium  | 2.0     |       | 1.0     | anr  |       |  |      |       |
| Bismuth    | 20      |       |         |      |       |  |      |       |
| Boron      | 100     |       | 10      |      |       |  |      |       |
| Cadmium    | 3.0     |       | 1.0     | anr  |       |  |      |       |
| Calcium    | 5000    | 2000  | 1000    | anr  |       |  |      |       |
| Chromium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Cobalt     | 50      |       | 3.0     | anr  |       |  |      |       |
| Copper     | 10      |       | 2.0     | anr  |       |  |      |       |
| Iron       | 100     | 500   |         | anr  |       |  |      |       |
| Lead       | 3.0     | 20    | 2.5     | anr  |       |  |      |       |
| Lithium    | 50      |       |         |      |       |  |      |       |
| Magnesium  | 5000    | 2000  | 100     | anr  |       |  |      |       |
| Manganese  | 15      |       | 3.0     | anr  |       |  |      |       |
| Molybdenum | 20      |       |         |      |       |  |      |       |
| Nickel     | 10      |       | 4.0     | anr  |       |  |      |       |
| Phosphorus | 50      |       |         |      |       |  |      |       |
| Potassium  | 5000    |       | 2000    | anr  |       |  |      |       |
| Selenium   | 10      | 20    | 5.0     | anr  |       |  |      |       |
| Silicon    | 200     |       |         |      |       |  |      |       |
| Silver     | 5.0     |       | 2.0     | anr  |       |  |      |       |
| Sodium     | 5000    |       | 1000    | anr  |       |  |      |       |
| Strontium  | 10      |       |         |      |       |  |      |       |
| Sulfur     | 50      |       |         | 53.5 | 107.0 |  | 51.7 | 103.4 |
| Thallium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Tin        | 10      |       |         |      |       |  |      |       |
| Titanium   | 10      |       |         |      |       |  |      |       |
| Tungsten   | 50      |       |         |      |       |  |      |       |
| Vanadium   | 50      |       | 2.0     | anr  |       |  |      |       |
| Zinc       | 20      |       | 10      | anr  |       |  |      |       |

14.4.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

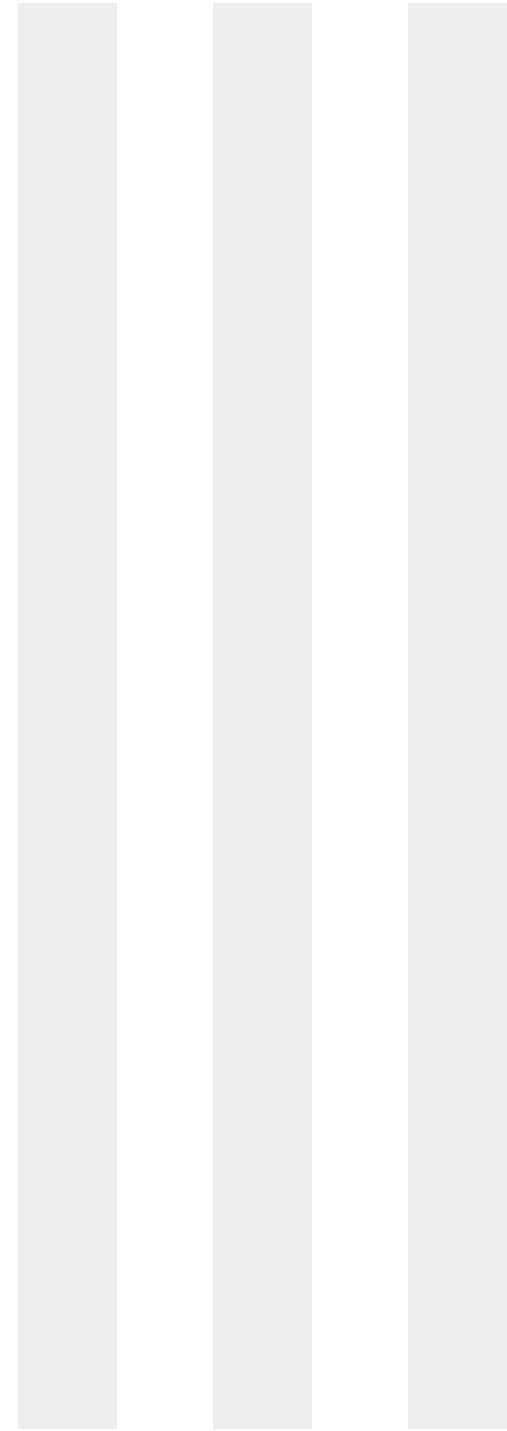
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44358 Units: ug/l

| Time:      | 10:45         | 10:48         | 16:03         |
|------------|---------------|---------------|---------------|
| Sample ID: | CRI1          | CRID1         | CRI2          |
| Metal      | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.6  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44358 Units: ug/l

| Time:      | 16:06   | 20:18 | 20:21   |     |      |       |  |
|------------|---------|-------|---------|-----|------|-------|--|
| Sample ID: | CRID2   | CRI3  | CRID3   |     |      |       |  |
| Metal      | True    | True  | True    |     |      |       |  |
|            | Results | % Rec | Results |     |      |       |  |
|            |         |       | % Rec   |     |      |       |  |
| Aluminum   | 200     | 500   | 100     | anr |      |       |  |
| Antimony   | 6.0     | 20    | 3.0     |     |      |       |  |
| Arsenic    | 8.0     | 20    | 3.0     | anr |      |       |  |
| Barium     | 200     |       | 4.0     | anr |      |       |  |
| Beryllium  | 2.0     |       | 1.0     | anr |      |       |  |
| Bismuth    | 20      |       |         |     |      |       |  |
| Boron      | 100     |       | 10      |     |      |       |  |
| Cadmium    | 3.0     |       | 1.0     | anr |      |       |  |
| Calcium    | 5000    | 2000  | 1000    | anr |      |       |  |
| Chromium   | 10      |       | 2.0     | anr |      |       |  |
| Cobalt     | 50      |       | 3.0     | anr |      |       |  |
| Copper     | 10      |       | 2.0     |     |      |       |  |
| Iron       | 100     | 500   |         |     |      |       |  |
| Lead       | 3.0     | 20    | 2.5     |     |      |       |  |
| Lithium    | 50      |       |         |     |      |       |  |
| Magnesium  | 5000    | 2000  | 100     | anr |      |       |  |
| Manganese  | 15      |       | 3.0     | anr |      |       |  |
| Molybdenum | 20      |       |         |     |      |       |  |
| Nickel     | 10      |       | 4.0     | anr |      |       |  |
| Phosphorus | 50      |       |         |     |      |       |  |
| Potassium  | 5000    |       | 2000    | anr |      |       |  |
| Selenium   | 10      | 20    | 5.0     | anr |      |       |  |
| Silicon    | 200     |       |         |     |      |       |  |
| Silver     | 5.0     |       | 2.0     |     |      |       |  |
| Sodium     | 5000    |       | 1000    | anr |      |       |  |
| Strontium  | 10      |       |         |     |      |       |  |
| Sulfur     | 50      |       |         |     | 51.5 | 103.0 |  |
| Thallium   | 10      |       | 2.0     | anr |      |       |  |
| Tin        | 10      |       |         |     |      |       |  |
| Titanium   | 10      |       |         |     |      |       |  |
| Tungsten   | 50      |       |         |     |      |       |  |
| Vanadium   | 50      |       | 2.0     | anr |      |       |  |
| Zinc       | 20      |       | 10      | anr |      |       |  |

14.4.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

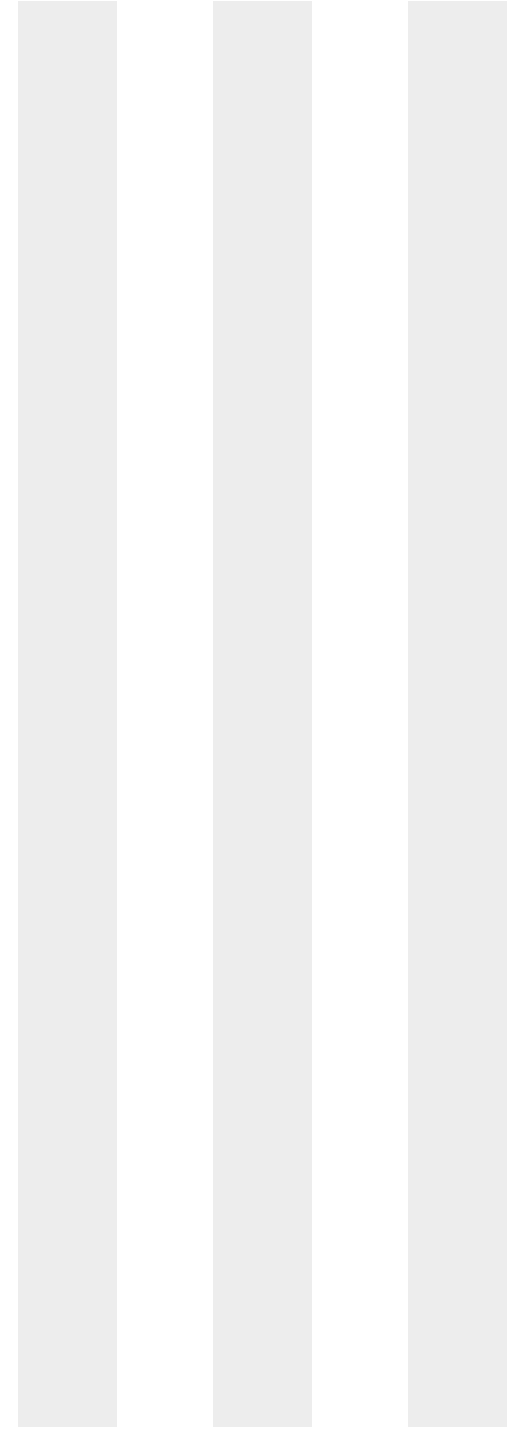
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44358 Units: ug/l

| Time:      | 16:06         | 20:18         | 20:21         |
|------------|---------------|---------------|---------------|
| Sample ID: | CRID2         | CRI3          | CRID3         |
| Metal      | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.6  
 14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44358 Units: ug/l

| Time:      |        |        | 10:51   |       |         | 10:54 |         |       | 16:09   |       |  | 16:12 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 500000  | 100.0 | 511000  | 102.2 | 489000  | 97.8  | 501000  | 100.2 |  |       |
| Antimony   |        | 1000   | 0.900   |       | 978     | 97.8  | -2.60   |       | 973     | 97.3  |  |       |
| Arsenic    |        | 1000   | -0.300  |       | 1010    | 101.0 | 1.50    |       | 1010    | 101.0 |  |       |
| Barium     |        | 500    | 1.50    |       | 497     | 99.4  | 1.60    |       | 500     | 100.0 |  |       |
| Beryllium  |        | 500    | -0.100  |       | 482     | 96.4  | -0.100  |       | 480     | 96.0  |  |       |
| Bismuth    |        | 500    | -6.70   |       | 493     | 98.6  | -5.10   |       | 487     | 97.4  |  |       |
| Boron      |        | 500    | 1.70    |       | 494     | 98.8  | 0.200   |       | 494     | 98.8  |  |       |
| Cadmium    |        | 1000   | 0.500   |       | 976     | 97.6  | 0.600   |       | 975     | 97.5  |  |       |
| Calcium    | 400000 | 400000 | 387000  | 96.8  | 379000  | 94.8  | 378000  | 94.5  | 381000  | 95.3  |  |       |
| Chromium   |        | 500    | 0.500   |       | 476     | 95.2  | 0.400   |       | 474     | 94.8  |  |       |
| Cobalt     |        | 500    | 0.500   |       | 483     | 96.6  | 0.600   |       | 480     | 96.0  |  |       |
| Copper     |        | 500    | -1.00   |       | 494     | 98.8  | -1.30   |       | 492     | 98.4  |  |       |
| Iron       | 200000 | 200000 | 196000  | 98.0  | 194000  | 97.0  | 192000  | 96.0  | 195000  | 97.5  |  |       |
| Lead       |        | 1000   | 2.60    |       | 964     | 96.4  | -1.80   |       | 967     | 96.7  |  |       |
| Lithium    |        | 500    | 0.600   |       | 500     | 100.0 | 1.20    |       | 499     | 99.8  |  |       |
| Magnesium  | 500000 | 500000 | 497000  | 99.4  | 492000  | 98.4  | 493000  | 98.6  | 490000  | 98.0  |  |       |
| Manganese  |        | 500    | 0.100   |       | 494     | 98.8  | -0.200  |       | 492     | 98.4  |  |       |
| Molybdenum |        | 500    | 0.600   |       | 453     | 90.6  | 0.700   |       | 450     | 90.0  |  |       |
| Nickel     |        | 1000   | 0.500   |       | 964     | 96.4  | -0.400  |       | 961     | 96.1  |  |       |
| Phosphorus |        | 500    | 7.40    |       | 504     | 100.8 | 1.00    |       | 525     | 105.0 |  |       |
| Potassium  |        |        | 216     |       | 232     |       | 211     |       | 253     |       |  |       |
| Selenium   |        | 1000   | 0.500   |       | 954     | 95.4  | -0.600  |       | 960     | 96.0  |  |       |
| Silicon    |        | 500    | 16.1    |       | 501     | 100.2 | 13.4    |       | 500     | 100.0 |  |       |
| Silver     |        | 1000   | 1.50    |       | 946     | 94.6  | 0.700   |       | 947     | 94.7  |  |       |
| Sodium     |        |        | 118     |       | 128     |       | 53.8    |       | 75.9    |       |  |       |
| Strontium  |        | 500    | -2.20   |       | 495     | 99.0  | -1.90   |       | 499     | 99.8  |  |       |
| Sulfur     |        | 500    | -6.50   |       | 475     | 95.0  | -10.0   |       | 483     | 96.6  |  |       |
| Thallium   |        | 1000   | -0.400  |       | 961     | 96.1  | -1.10   |       | 962     | 96.2  |  |       |
| Tin        |        | 500    | -3.30   |       | 440     | 88.0  | -3.90   |       | 440     | 88.0  |  |       |
| Titanium   |        | 500    | -1.90   |       | 483     | 96.6  | -1.90   |       | 480     | 96.0  |  |       |
| Tungsten   |        | 500    | 0.500   |       | 464     | 92.8  | 2.50    |       | 465     | 93.0  |  |       |
| Vanadium   |        | 500    | 0.900   |       | 482     | 96.4  | 0.700   |       | 478     | 95.6  |  |       |
| Zinc       |        | 1000   | 4.70    |       | 932     | 93.2  | 4.70    |       | 933     | 93.3  |  |       |

14.4.7  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44358 Units: ug/l

| Time:      |      |       | 10:51   |       |         | 10:54 |         |       | 16:09   |       |  | 16:12 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |  |       |

|           |  |     |       |  |     |      |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|
| Zirconium |  | 500 | -2.60 |  | 469 | 93.8 | -2.60 |  | 467 | 93.4 |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.4.7  
 14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44358 Units: ug/l

| Metal      | Time:      |        | 20:25   |        | 20:28   |        |
|------------|------------|--------|---------|--------|---------|--------|
|            | Sample ID: | ICSAB  | ICSAB   | ICSAB3 | ICSAB3  | ICSAB3 |
|            | True       | True   | Results | % Rec  | Results | % Rec  |
| Aluminum   | 500000     | 500000 | 513000  | 102.6  | 488000  | 97.6   |
| Antimony   |            | 1000   | -1.20   |        | 998     | 99.8   |
| Arsenic    |            | 1000   | -0.800  |        | 1030    | 103.0  |
| Barium     |            | 500    | 1.80    |        | 492     | 98.4   |
| Beryllium  |            | 500    | 0.00    |        | 474     | 94.8   |
| Bismuth    |            | 500    | -2.40   |        | 497     | 99.4   |
| Boron      |            | 500    | 0.300   |        | 502     | 100.4  |
| Cadmium    |            | 1000   | 0.800   |        | 999     | 99.9   |
| Calcium    | 400000     | 400000 | 398000  | 99.5   | 379000  | 94.8   |
| Chromium   |            | 500    | 0.400   |        | 484     | 96.8   |
| Cobalt     |            | 500    | 0.300   |        | 491     | 98.2   |
| Copper     |            | 500    | -3.20   |        | 497     | 99.4   |
| Iron       | 200000     | 200000 | 193000  | 96.5   | 188000  | 94.0   |
| Lead       |            | 1000   | 1.20    |        | 973     | 97.3   |
| Lithium    |            | 500    | 4.00    |        | 498     | 99.6   |
| Magnesium  | 500000     | 500000 | 507000  | 101.4  | 488000  | 97.6   |
| Manganese  |            | 500    | -0.100  |        | 506     | 101.2  |
| Molybdenum |            | 500    | 0.600   |        | 466     | 93.2   |
| Nickel     |            | 1000   | 0.00    |        | 974     | 97.4   |
| Phosphorus |            | 500    | -3.80   |        | 533     | 106.6  |
| Potassium  |            |        | 179     |        | 244     |        |
| Selenium   |            | 1000   | -2.30   |        | 976     | 97.6   |
| Silicon    |            | 500    | 16.2    |        | 511     | 102.2  |
| Silver     |            | 1000   | 2.10    |        | 967     | 96.7   |
| Sodium     |            |        | 5.50    |        | 19.6    |        |
| Strontium  |            | 500    | -2.60   |        | 490     | 98.0   |
| Sulfur     |            | 500    | -11.2   |        | 497     | 99.4   |
| Thallium   |            | 1000   | 1.20    |        | 974     | 97.4   |
| Tin        |            | 500    | -3.60   |        | 457     | 91.4   |
| Titanium   |            | 500    | -2.10   |        | 487     | 97.4   |
| Tungsten   |            | 500    | 2.60    |        | 470     | 94.0   |
| Vanadium   |            | 500    | 0.400   |        | 494     | 98.8   |
| Zinc       |            | 1000   | 5.00    |        | 961     | 96.1   |

14.4.7  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050718M1.ICP Date Analyzed: 05/07/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44358 Units: ug/l

| Time:      |       | 20:25 |         | 20:28  |         |       |
|------------|-------|-------|---------|--------|---------|-------|
| Sample ID: | ICSAB | ICSAB | ICSAB3  | ICSAB3 | ICSAB3  |       |
| Metal      | True  | True  | Results | % Rec  | Results | % Rec |

|           |  |     |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|
| Zirconium |  | 500 | -2.50 |  | 477 | 95.4 |
|-----------|--|-----|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.4.7  
 14



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44369  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 10:31 | MA44369-STD1       | 1               |          | STDA     |
| 10:35 | MA44369-STD2       | 1               |          | STDB     |
| 10:40 | ZZZZZZ             | 1               |          |          |
| 10:44 | ZZZZZZ             | 1               |          |          |
| 11:09 | MA44369-ICV1       | 1               |          |          |
| 11:19 | MA44369-ICB1       | 1               |          |          |
| 11:25 | MA44369-ICCV1      | 1               |          |          |
| 11:34 | MA44369-CCB1       | 1               |          |          |
| 11:38 | MA44369-CRI1       | 1               |          |          |
| 11:42 | MA44369-CRID1      | 1               |          |          |
| 11:47 | ZZZZZZ             | 1               |          |          |
| 11:51 | ZZZZZZ             | 1               |          |          |
| 11:55 | ZZZZZZ             | 1               |          |          |
| 12:01 | ZZZZZZ             | 1               |          |          |
| 12:05 | ZZZZZZ             | 1               |          |          |
| 12:10 | MA44369-CCV1       | 1               |          |          |
| 12:14 | MA44369-CCB2       | 1               |          |          |
| 12:18 | MA44369-ICSA1      | 1               |          |          |
| 12:23 | MA44369-ICSAB1     | 1               |          |          |
| 12:27 | ZZZZZZ             | 1               |          |          |
| 12:31 | MA44369-HSTD1      | 1               |          |          |
| 12:36 | MA44369-CCV2       | 1               |          |          |
| 12:40 | MA44369-CCB3       | 1               |          |          |
| 12:44 | ZZZZZZ             | 1               |          |          |
| 12:49 | MA44369-HSTD2      | 1               |          |          |
| 12:54 | ZZZZZZ             | 1               |          |          |
| 12:58 | ZZZZZZ             | 1               |          |          |
| 13:02 | ZZZZZZ             | 1               |          |          |
| 13:07 | ZZZZZZ             | 1               |          |          |
| 13:11 | ZZZZZZ             | 1               |          |          |
| 13:15 | ZZZZZZ             | 1               |          |          |
| 13:20 | ZZZZZZ             | 1               |          |          |
| 13:24 | MA44369-CCV3       | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44369  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 13:28 | MA44369-CCB4       | 1               |          |  |
| 13:33 | ZZZZZZ             | 1               |          |  |
| 13:37 | ZZZZZZ             | 1               |          |  |
| 13:41 | ZZZZZZ             | 1               |          |  |
| 13:46 | ZZZZZZ             | 1               |          |  |
| 13:50 | MP6997-S1          | 2               |          |  |
| 13:54 | MP6997-S2          | 2               |          |  |
| 13:58 | JC65281-54         | 2               |          | (sample used for QC only; not part of login JC64996) |
| 14:03 | MP6997-SD1         | 10              |          |  |
| 14:07 | ZZZZZZ             | 3               |          |  |
| 14:11 | MA44369-CCV4       | 1               |          |  |
| 14:15 | MA44369-CCB5       | 1               |          |  |
| 14:20 | ZZZZZZ             | 2               |          |  |
| 14:24 | ZZZZZZ             | 2               |          |  |
| 14:29 | ZZZZZZ             | 5               |          |  |
| 14:33 | ZZZZZZ             | 3               |          |  |
| 14:37 | ZZZZZZ             | 2               |          |  |
| 14:42 | ZZZZZZ             | 2               |          |  |
| 14:46 | ZZZZZZ             | 2               |          |  |
| 14:50 | ZZZZZZ             | 2               |          |  |
| 14:55 | ZZZZZZ             | 1               |          |  |
| 14:59 | MA44369-CCV5       | 1               |          |  |
| 15:03 | MA44369-CCB6       | 1               |          |  |
| 15:08 | ZZZZZZ             | 1               |          |  |
| 15:12 | MP6996-PS1         | 1               |          |  |
| 15:17 | MP6996-S1          | 5               |          | Not needed   |
| 15:21 | MP6996-S2          | 5               |          | Not needed   |
| 15:25 | MP6996-D1          | 5               |          | Not needed   |
| 15:29 | TD20533-1          | 5               |          | (sample used for QC only; not part of login JC64996) |
| 15:34 | MP6996-SD1         | 25              |          | Not needed   |
| 15:38 | MP6996-S1          | 25              |          |  |
| 15:42 | MP6996-S2          | 25              |          |  |
| 15:46 | MA44369-CCV6       | 1               |          |  |

14.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44369  
Parameters: S

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 15:51  | MA44369-CCB7                                | 1               |          |  |
| 15:55  | MP6996-D1                                   | 25              |          |  |
| 15:59  | TD20533-1                                   | 25              |          | (sample used for QC only; not part of login JC64996) |
| 16:04  | ZZZZZZ                                      | 625             |          |  |
| 16:08  | MP6996-PS1                                  | 5               |          | Not needed   |
| 16:12  | MP6996-PS1                                  | 25              |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 16:16  | ZZZZZZ                                      | 10              |          |  |
| 16:21  | ZZZZZZ                                      | 10              |          |  |
| 16:25  | ZZZZZZ                                      | 20              |          |  |
| 16:30  | ZZZZZZ                                      | 2               |          |  |
| 16:34  | MA44369-CCV7                                | 1               |          |  |
| 16:38  | MA44369-CCB8                                | 1               |          |  |
| 16:42  | ZZZZZZ                                      | 2               |          |  |
| 16:47  | MP7007-B1                                   | 1               |          |  |
| 16:51  | MP7007-MB1                                  | 1               |          |  |
| 16:55  | MP7007-S1                                   | 1               |          | Saturation   |
| 17:00  | MP7007-S2                                   | 1               |          |  |
| 17:04  | JC65281-83                                  | 1               |          | (sample used for QC only; not part of login JC64996) |
| 17:08  | MP7007-SD1                                  | 5               |          |  |
| 17:13  | ZZZZZZ                                      | 1               |          |  |
| 17:17  | ZZZZZZ                                      | 1               |          |  |
| 17:21  | MA44369-CCV8                                | 1               |          |  |
| 17:25  | MA44369-CCB9                                | 1               |          |  |
| 17:30  | ZZZZZZ                                      | 1               |          |  |
| 17:34  | ZZZZZZ                                      | 1               |          |  |
| 17:39  | ZZZZZZ                                      | 1               |          |  |
| 17:43  | ZZZZZZ                                      | 1               |          |  |
| 17:47  | ZZZZZZ                                      | 1               |          |  |
| 17:52  | ZZZZZZ                                      | 1               |          |  |
| 17:56  | ZZZZZZ                                      | 1               |          |  |
| 18:01  | ZZZZZZ                                      | 1               |          |  |
| 18:05  | ZZZZZZ                                      | 1               |          |  |
| 18:10  | MA44369-CCV9                                | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44369  
Parameters: S

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments |
|--------|-------------------------------------|-----------------|----------|----------|
| 18:14  | MA44369-CCB10                       | 1               |          |          |
| 18:18  | MA44369-CRI2                        | 1               |          |          |
| 18:22  | MA44369-CRID2                       | 1               |          |          |
| 18:27  | MA44369-ICSA2                       | 1               |          |          |
| 18:31  | MA44369-ICSAB2                      | 1               |          |          |
| 18:36  | MA44369-CCV10                       | 1               |          |          |
| 18:40  | MA44369-CCB11                       | 1               |          |          |
| -----> | Last reportable CCB for job JC64996 |                 |          |          |
| 18:44  | ZZZZZZ                              | 1               |          |          |
| 18:48  | ZZZZZZ                              | 1               |          |          |
| 18:53  | ZZZZZZ                              | 1               |          |          |
| 18:57  | ZZZZZZ                              | 1               |          |          |
| 19:01  | ZZZZZZ                              | 1               |          |          |
| 19:06  | ZZZZZZ                              | 1               |          |          |
| 19:10  | ZZZZZZ                              | 1               |          |          |
| 19:14  | ZZZZZZ                              | 1               |          |          |
| 19:19  | ZZZZZZ                              | 1               |          |          |
| 19:23  | ZZZZZZ                              | 1               |          |          |
| 19:28  | ZZZZZZ                              | 1               |          |          |
| 19:32  | ZZZZZZ                              | 1               |          |          |
| 19:36  | ZZZZZZ                              | 1               |          |          |
| 19:41  | ZZZZZZ                              | 1               |          |          |
| 19:45  | ZZZZZZ                              | 1               |          |          |
| 19:49  | ZZZZZZ                              | 1               |          |          |
| 19:54  | ZZZZZZ                              | 1               |          |          |
| 19:58  | MA44369-CCV11                       | 1               |          |          |
| 20:02  | MA44369-CCB12                       | 1               |          |          |
| 20:07  | MP7007-S1                           | 1               |          |          |
| 20:11  | ZZZZZZ                              | 1               |          |          |
| 20:15  | ZZZZZZ                              | 1               |          |          |
| 20:20  | ZZZZZZ                              | 1               |          |          |
| 20:24  | ZZZZZZ                              | 1               |          |          |
| 20:29  | ZZZZZZ                              | 1               |          |          |
| 20:33  | ZZZZZZ                              | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44369  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 20:37 | ZZZZZZ             | 1               |          |  |
| 20:42 | ZZZZZZ             | 1               |          |  |
| 20:46 | ZZZZZZ             | 1               |          |  |
| 20:51 | MA44369-CCV12      | 1               |          |  |
| 20:57 | MA44369-CCB13      | 1               |          |  |
| 21:01 | MP7008-MB1         | 1               |          |  |
| 21:06 | MP7008-B1          | 1               |          |  |
| 21:10 | MP7008-S1          | 1               |          |  |
| 21:14 | MP7008-S2          | 1               |          |  |
| 21:19 | JC65281-100        | 1               |          | (sample used for QC only; not part of login JC64996) |
| 21:23 | MP7008-SD1         | 5               |          |  |
| 21:28 | ZZZZZZ             | 1               |          |  |
| 21:32 | ZZZZZZ             | 1               |          |  |
| 21:36 | ZZZZZZ             | 1               |          |  |
| 21:41 | MA44369-CCV13      | 1               |          |  |
| 21:48 | MA44369-CCB14      | 1               |          |  |
| 21:52 | ZZZZZZ             | 1               |          |  |
| 21:56 | ZZZZZZ             | 1               |          |  |
| 22:01 | ZZZZZZ             | 1               |          |  |
| 22:05 | ZZZZZZ             | 1               |          |  |
| 22:10 | ZZZZZZ             | 1               |          |  |
| 22:14 | ZZZZZZ             | 1               |          |  |
| 22:19 | ZZZZZZ             | 1               |          |  |
| 22:23 | ZZZZZZ             | 1               |          |  |
| 22:28 | ZZZZZZ             | 1               |          |  |
| 22:32 | MA44369-CCV14      | 1               |          |  |
| 22:36 | MA44369-CCB15      | 1               |          |  |
| 22:41 | ZZZZZZ             | 1               |          |  |
| 22:45 | ZZZZZZ             | 1               |          |  |
| 22:50 | ZZZZZZ             | 1               |          |  |
| 22:54 | ZZZZZZ             | 1               |          |  |
| 22:58 | ZZZZZZ             | 1               |          |  |
| 23:03 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44369  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 23:07 | ZZZZZZ             | 1               |          |  |
| 23:12 | MP7016-B1          | 1               |          |  |
| 23:16 | MP7016-MB1         | 1               |          |  |
| 23:20 | MA44369-CCV15      | 1               |          |  |
| 23:30 | MA44369-CCB16      | 1               |          |  |
| 23:35 | MP7016-S1          | 1               |          |  |
| 23:39 | MP7016-S2          | 1               |          | High rSD   |
| 23:44 | JC65281-99         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 23:48 | MP7016-SD1         | 5               |          |  |
| 23:52 | ZZZZZZ             | 1               |          |  |
| 23:57 | ZZZZZZ             | 1               |          |  |
| 00:01 | ZZZZZZ             | 1               |          |  |
| 00:06 | ZZZZZZ             | 1               |          |  |
| 00:10 | ZZZZZZ             | 1               |          |  |
| 00:14 | MA44369-CCV16      | 1               |          |  |
| 00:20 | MA44369-CCB17      | 1               |          |  |
| 00:24 | MP7016-S2          | 1               |          |  |
| 00:29 | ZZZZZZ             | 1               |          |  |
| 00:33 | ZZZZZZ             | 1               |          |  |
| 00:38 | ZZZZZZ             | 1               |          |  |
| 00:42 | ZZZZZZ             | 1               |          |  |
| 00:46 | ZZZZZZ             | 1               |          |  |
| 00:51 | ZZZZZZ             | 1               |          |  |
| 00:55 | ZZZZZZ             | 1               |          |  |
| 01:00 | ZZZZZZ             | 1               |          |  |
| 01:04 | MA44369-CCV17      | 1               |          |  |
| 01:08 | MA44369-CCB18      | 1               |          |  |
| 01:13 | ZZZZZZ             | 1               |          |  |
| 01:17 | ZZZZZZ             | 1               |          |  |
| 01:21 | ZZZZZZ             | 1               |          |  |
| 01:26 | ZZZZZZ             | 1               |          |  |
| 01:30 | ZZZZZZ             | 1               |          |  |
| 01:35 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44369  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 01:39 | MA44369-CCV18      | 1               |          |          |
| 01:43 | MA44369-CCB19      | 1               |          |          |
| 01:48 | MA44369-CRI3       | 1               |          |          |
| 01:52 | MA44369-CCV19      | 1               |          |          |
| 01:56 | MA44369-CCB20      | 1               |          |          |
| 02:01 | ZZZZZZ             | 1               |          |          |
| 02:05 | ZZZZZZ             | 1               |          |          |
| 02:09 | ZZZZZZ             | 1               |          |          |
| 02:14 | ZZZZZZ             | 1               |          |          |
| 02:18 | MA44369-CCV20      | 1               |          |          |
| 02:22 | MA44369-CCB21      | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1  | Istd#2   | Istd#3    | Istd#4  |
|-------|--------------------|---------|----------|-----------|---------|
| 10:31 | MA44369-STD1       | 6012 R  | 213660 R | 40542 R   | 10819 R |
| 10:35 | MA44369-STD2       | 5464    | 196800   | 38750     | 9388    |
| 10:40 | ZZZZZZ             | 5625    | 203220   | 40176     | 9728    |
| 10:44 | ZZZZZZ             | 5908    | 213570   | 40752     | 10715   |
| 11:09 | MA44369-ICV1       | 5644    | 204130   | 40457     | 9759    |
| 11:19 | MA44369-ICB1       | 5920    | 214440   | 40758     | 10726   |
| 11:25 | MA44369-ICCV1      | 5628    | 203300   | 40045     | 9738    |
| 11:34 | MA44369-CCB1       | 5894    | 213650   | 40472     | 10661   |
| 11:38 | MA44369-CRI1       | 5893    | 211890   | 40926     | 10560   |
| 11:42 | MA44369-CRID1      | 5936    | 214400   | 40669     | 10709   |
| 11:47 | ZZZZZZ             | 5178    | 185110   | 39422     | 8701    |
| 11:51 | ZZZZZZ             | 5095    | 183060   | 40864     | 8672    |
| 11:55 | ZZZZZZ             | 5356    | 196390   | 41213     | 9188    |
| 12:01 | ZZZZZZ             | 5136    | 180660   | 39407     | 8615    |
| 12:05 | ZZZZZZ             | 5187    | 185530   | 39301     | 8793    |
| 12:10 | MA44369-CCV1       | 5663    | 202860   | 39469     | 9776    |
| 12:14 | MA44369-CCB2       | 5918    | 212970   | 999999 !a | 10706   |
| 12:18 | MA44369-ICSA1      | 5183    | 185370   | 39393     | 8757    |
| 12:23 | MA44369-ICSAB1     | 5177    | 183790   | 38780     | 8784    |
| 12:27 | ZZZZZZ             | 14734 ! | 453260 ! | 60573 !   | 25925 ! |
| 12:31 | MA44369-HSTD1      | 5176    | 187290   | 38949     | 8665    |
| 12:36 | MA44369-CCV2       | 5591    | 201500   | 39938     | 9668    |
| 12:40 | MA44369-CCB3       | 5874    | 213180   | 40697     | 10629   |
| 12:44 | ZZZZZZ             | 5778    | 210800   | 40741     | 10439   |
| 12:49 | MA44369-HSTD2      | 5790    | 208900   | 41112     | 10466   |
| 12:54 | ZZZZZZ             | 5832    | 210960   | 42356     | 10039   |
| 12:58 | ZZZZZZ             | 5864    | 210740   | 42433     | 10104   |
| 13:02 | ZZZZZZ             | 5839    | 211680   | 41278     | 10733   |
| 13:07 | ZZZZZZ             | 5807    | 210910   | 40989     | 10682   |
| 13:11 | ZZZZZZ             | 5895    | 210960   | 41069     | 10663   |
| 13:15 | ZZZZZZ             | 5833    | 214150   | 41114     | 10552   |
| 13:20 | ZZZZZZ             | 5526    | 201380   | 41967     | 9257    |
| 13:24 | MA44369-CCV3       | 5649    | 203080   | 40625     | 9754    |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 13:28 | MA44369-CCB4       | 5987   | 212050 | 41691  | 10830  |
| 13:33 | ZZZZZZ             | 5896   | 212260 | 41419  | 10678  |
| 13:37 | ZZZZZZ             | 5581   | 204750 | 41049  | 9708   |
| 13:41 | ZZZZZZ             | 6001   | 213830 | 41775  | 10855  |
| 13:46 | ZZZZZZ             | 5609   | 203310 | 40213  | 9816   |
| 13:50 | MP6997-S1          | 5634   | 204010 | 41968  | 9579   |
| 13:54 | MP6997-S2          | 5794   | 207530 | 41362  | 9916   |
| 13:58 | JC65281-54         | 5823   | 210070 | 42260  | 9995   |
| 14:03 | MP6997-SD1         | 5928   | 210880 | 41577  | 10469  |
| 14:07 | ZZZZZZ             | 5650   | 205390 | 41682  | 9825   |
| 14:11 | MA44369-CCV4       | 5734   | 206370 | 40755  | 9897   |
| 14:15 | MA44369-CCB5       | 5954   | 211970 | 41611  | 10759  |
| 14:20 | ZZZZZZ             | 5932   | 211890 | 43162  | 10238  |
| 14:24 | ZZZZZZ             | 5705   | 207180 | 42252  | 9730   |
| 14:29 | ZZZZZZ             | 5724   | 206340 | 40726  | 9886   |
| 14:33 | ZZZZZZ             | 5617   | 206370 | 41641  | 9587   |
| 14:37 | ZZZZZZ             | 5916   | 214290 | 43153  | 10106  |
| 14:42 | ZZZZZZ             | 5903   | 211720 | 42704  | 10202  |
| 14:46 | ZZZZZZ             | 5965   | 213160 | 42836  | 10240  |
| 14:50 | ZZZZZZ             | 5730   | 206470 | 42027  | 9732   |
| 14:55 | ZZZZZZ             | 5970   | 219030 | 42259  | 10793  |
| 14:59 | MA44369-CCV5       | 5631   | 203670 | 40486  | 9735   |
| 15:03 | MA44369-CCB6       | 5912   | 212980 | 41432  | 10704  |
| 15:08 | ZZZZZZ             | 5779   | 210010 | 41920  | 10102  |
| 15:12 | MP6996-PS1         | 4964   | 179010 | 40264  | 9988   |
| 15:17 | MP6996-S1          | No results reported for the elements associated with this internal standard. |        |        |        |
| 15:21 | MP6996-S2          | No results reported for the elements associated with this internal standard. |        |        |        |
| 15:25 | MP6996-D1          | No results reported for the elements associated with this internal standard. |        |        |        |
| 15:29 | TD20533-1          | No results reported for the elements associated with this internal standard. |        |        |        |
| 15:34 | MP6996-SD1         | No results reported for the elements associated with this internal standard. |        |        |        |
| 15:38 | MP6996-S1          | 5943   | 213390 | 42076  | 10712  |
| 15:42 | MP6996-S2          | 5975   | 214400 | 42211  | 10761  |
| 15:46 | MA44369-CCV6       | 5692   | 206070 | 41141  | 9830   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2   | Istd#3   | Istd#4  |
|-------|--------------------|--|----------|----------|---------|
| 15:51 | MA44369-CCB7       | 5925   | 213830   | 41748    | 10733   |
| 15:55 | MP6996-D1          | 5919   | 213560   | 42212    | 10703   |
| 15:59 | TD20533-1          | 5968   | 215230   | 42535    | 10782   |
| 16:04 | ZZZZZ              | 5980   | 213840   | 41499    | 10836   |
| 16:08 | MP6996-PS1         | No results reported for the elements associated with this internal standard. |          |          |         |
| 16:12 | MP6996-PS1         | 5913   | 214090   | 42100    | 10622   |
| 16:16 | ZZZZZ              | 5872   | 208930   | 42077    | 10717   |
| 16:21 | ZZZZZ              | 5767   | 206140   | 41082    | 10801   |
| 16:25 | ZZZZZ              | 5740   | 215150   | 41741    | 10554   |
| 16:30 | ZZZZZ              | 6019   | 216560   | 43151    | 10501   |
| 16:34 | MA44369-CCV7       | 5543   | 205100   | 40625    | 9623    |
| 16:38 | MA44369-CCB8       | 5946   | 214900   | 41683    | 10787   |
| 16:42 | ZZZZZ              | 5978   | 214060   | 43251    | 10605   |
| 16:47 | MP7007-B1          | 5663   | 206700   | 41309    | 9930    |
| 16:51 | MP7007-MB1         | 5947   | 216810   | 42142    | 10782   |
| 16:55 | MP7007-S1          | No results reported for the elements associated with this internal standard. |          |          |         |
| 17:00 | MP7007-S2          | 5257   | 190030   | 40786    | 8651    |
| 17:04 | JC65281-83         | 5517   | 202320   | 42641    | 9243    |
| 17:08 | MP7007-SD1         | 5668   | 210190   | 41301    | 9915    |
| 17:13 | ZZZZZ              | 5806   | 211370   | 41938    | 10300   |
| 17:17 | ZZZZZ              | 6016   | 218820   | 45153    | 9969    |
| 17:21 | MA44369-CCV8       | 5710   | 207640   | 41462    | 9893    |
| 17:25 | MA44369-CCB9       | 5953   | 215810   | 41823    | 10799   |
| 17:30 | ZZZZZ              | 6087   | 224090   | 45379    | 9901    |
| 17:34 | ZZZZZ              | 14503 !  | 456960 ! | 60415 !  | 25575 ! |
| 17:39 | ZZZZZ              | 5762   | 211130   | 43078    | 9708    |
| 17:43 | ZZZZZ              | 5735   | 211820   | 43310    | 9948    |
| 17:47 | ZZZZZ              | 5688   | 209770   | 43362    | 9610    |
| 17:52 | ZZZZZ              | 5788   | 213820   | 44165    | 9376    |
| 17:56 | ZZZZZ              | 5956   | 222880   | 44991    | 9935    |
| 18:01 | ZZZZZ              | 7021   | 257630   | 53596 !a | 9875    |
| 18:05 | ZZZZZ              | 5679   | 209350   | 42551    | 9541    |
| 18:10 | MA44369-CCV9       | 5703   | 207790   | 41124    | 9896    |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1  | Istd#2   | Istd#3   | Istd#4  |
|-------|--------------------|---------|----------|----------|---------|
| 18:14 | MA44369-CCB10      | 5992    | 218190   | 41416    | 10874   |
| 18:18 | MA44369-CRI2       | 5776    | 214740   | 41244    | 10387   |
| 18:22 | MA44369-CRID2      | 5890    | 223490   | 40341    | 10653   |
| 18:27 | MA44369-ICSA2      | 5204    | 187020   | 39509    | 8799    |
| 18:31 | MA44369-ICSAB2     | 5133    | 186960   | 39468    | 8739    |
| 18:36 | MA44369-CCV10      | 5638    | 204720   | 40207    | 9765    |
| 18:40 | MA44369-CCB11      | 5923    | 217940   | 41389    | 10742   |
| 18:44 | ZZZZZ              | 5840    | 199290   | 42895    | 9667    |
| 18:48 | ZZZZZ              | 5947    | 216070   | 41082    | 10841   |
| 18:53 | ZZZZZ              | 5980    | 220180   | 42107    | 10804   |
| 18:57 | ZZZZZ              | 5890    | 215270   | 40644    | 10704   |
| 19:01 | ZZZZZ              | 5980    | 210600   | 40918    | 10826   |
| 19:06 | ZZZZZ              | 5930    | 215080   | 40450    | 10733   |
| 19:10 | ZZZZZ              | 5872    | 214810   | 40336    | 10701   |
| 19:14 | ZZZZZ              | 5987    | 215090   | 40832    | 10863   |
| 19:19 | ZZZZZ              | 5368    | 196630   | 999999 ! | 9242    |
| 19:23 | ZZZZZ              | 5437    | 197480   | 38755    | 9362    |
| 19:28 | ZZZZZ              | 5868    | 214680   | 40190    | 10663   |
| 19:32 | ZZZZZ              | 5895    | 212020   | 40354    | 10724   |
| 19:36 | ZZZZZ              | 14516 ! | 455980 ! | 59307 !  | 25594 ! |
| 19:41 | ZZZZZ              | 5813    | 211100   | 39839    | 10589   |
| 19:45 | ZZZZZ              | 5814    | 212360   | 39963    | 10524   |
| 19:49 | ZZZZZ              | 5851    | 213490   | 40070    | 10687   |
| 19:54 | ZZZZZ              | 5919    | 215010   | 40911    | 10704   |
| 19:58 | MA44369-CCV11      | 5648    | 203070   | 39940    | 9757    |
| 20:02 | MA44369-CCB12      | 5895    | 212750   | 40766    | 10646   |
| 20:07 | MP7007-S1          | 5289    | 192600   | 40955    | 8748    |
| 20:11 | ZZZZZ              | 5871    | 215080   | 44838    | 10032   |
| 20:15 | ZZZZZ              | 5701    | 208650   | 43723    | 9592    |
| 20:20 | ZZZZZ              | 5775    | 209690   | 43902    | 9777    |
| 20:24 | ZZZZZ              | 5751    | 209050   | 44013    | 9706    |
| 20:29 | ZZZZZ              | 5632    | 205360   | 43239    | 9478    |
| 20:33 | ZZZZZ              | 5681    | 204890   | 43767    | 9584    |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 20:37 | ZZZZZZ             | 5804   | 211820 | 43842  | 9812   |
| 20:42 | ZZZZZZ             | 5643   | 207940 | 44289  | 9470   |
| 20:46 | ZZZZZZ             | 5419   | 199820 | 42882  | 9001   |
| 20:51 | MA44369-CCV12      | 5569   | 202240 | 40855  | 9650   |
| 20:57 | MA44369-CCB13      | 5876   | 209020 | 41180  | 10634  |
| 21:01 | MP7008-MB1         | 5734   | 211850 | 42647  | 10389  |
| 21:06 | MP7008-B1          | 5563   | 204650 | 41605  | 9753   |
| 21:10 | MP7008-S1          | 5524   | 206100 | 43834  | 9387   |
| 21:14 | MP7008-S2          | 5481   | 205250 | 44141  | 9329   |
| 21:19 | JC65281-100        | 5435   | 206890 | 44659  | 9710   |
| 21:23 | MP7008-SD1         | 5647   | 213770 | 42883  | 10038  |
| 21:28 | ZZZZZZ             | 5581   | 206610 | 44721  | 9330   |
| 21:32 | ZZZZZZ             | 5607   | 208430 | 44707  | 9335   |
| 21:36 | ZZZZZZ             | 5753   | 213200 | 45513  | 9736   |
| 21:41 | MA44369-CCV13      | 5587   | 206170 | 41849  | 9696   |
| 21:48 | MA44369-CCB14      | 5861   | 210130 | 42738  | 10600  |
| 21:52 | ZZZZZZ             | 5669   | 209140 | 44592  | 9663   |
| 21:56 | ZZZZZZ             | 5449   | 204580 | 43373  | 9155   |
| 22:01 | ZZZZZZ             | 5662   | 208670 | 44852  | 9667   |
| 22:05 | ZZZZZZ             | 5591   | 204930 | 44587  | 9207   |
| 22:10 | ZZZZZZ             | 5215   | 207270 | 43796  | 10665  |
| 22:14 | ZZZZZZ             | 5660   | 207780 | 43854  | 9663   |
| 22:19 | ZZZZZZ             | 5707   | 211940 | 43334  | 9642   |
| 22:23 | ZZZZZZ             | 5459   | 205960 | 44683  | 9079   |
| 22:28 | ZZZZZZ             | 5684   | 207070 | 44435  | 9644   |
| 22:32 | MA44369-CCV14      | 5616   | 205320 | 42503  | 9726   |
| 22:36 | MA44369-CCB15      | 5900   | 213890 | 43291  | 10669  |
| 22:41 | ZZZZZZ             | 5617   | 207010 | 45130  | 9451   |
| 22:45 | ZZZZZZ             | 5679   | 208030 | 44117  | 9601   |
| 22:50 | ZZZZZZ             | 5414   | 204170 | 44274  | 9117   |
| 22:54 | ZZZZZZ             | 5728   | 212170 | 44420  | 9786   |
| 22:58 | ZZZZZZ             | 5663   | 207320 | 46199  | 9499   |
| 23:03 | ZZZZZZ             | 5517   | 205030 | 43828  | 9158   |

14.5.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 23:07 | ZZZZZZ             | 5723   | 210480 | 44481  | 9654   |
| 23:12 | MP7016-B1          | 5604   | 206300 | 43113  | 9818   |
| 23:16 | MP7016-MB1         | 5864   | 216450 | 43915  | 10608  |
| 23:20 | MA44369-CCV15      | 5618   | 205030 | 42651  | 9728   |
| 23:30 | MA44369-CCB16      | 5889   | 213420 | 42877  | 10650  |
| 23:35 | MP7016-S1          | 5553   | 205480 | 45212  | 9429   |
| 23:39 | MP7016-S2          | No results reported for the elements associated with this internal standard. |        |        |        |
| 23:44 | JC65281-99         | 5640   | 210480 | 45026  | 9668   |
| 23:48 | MP7016-SD1         | 5807   | 210720 | 43483  | 10243  |
| 23:52 | ZZZZZZ             | 5624   | 204790 | 44984  | 9203   |
| 23:57 | ZZZZZZ             | 5855   | 215020 | 45941  | 9951   |
| 00:01 | ZZZZZZ             | 5712   | 213670 | 45637  | 9650   |
| 00:06 | ZZZZZZ             | 5518   | 205660 | 44538  | 9155   |
| 00:10 | ZZZZZZ             | 5799   | 222070 | 45591  | 9987   |
| 00:14 | MA44369-CCV16      | 5638   | 208640 | 42844  | 9765   |
| 00:20 | MA44369-CCB17      | 5905   | 216340 | 42940  | 10696  |
| 00:24 | MP7016-S2          | 5583   | 207150 | 43613  | 9545   |
| 00:29 | ZZZZZZ             | 5988   | 217620 | 46759  | 9910   |
| 00:33 | ZZZZZZ             | 5676   | 207520 | 46370  | 9607   |
| 00:38 | ZZZZZZ             | 5626   | 209570 | 44894  | 9376   |
| 00:42 | ZZZZZZ             | 5784   | 221800 | 45146  | 9831   |
| 00:46 | ZZZZZZ             | 5841   | 212540 | 44392  | 10283  |
| 00:51 | ZZZZZZ             | 5874   | 212190 | 44293  | 10372  |
| 00:55 | ZZZZZZ             | 6004   | 215270 | 44852  | 10382  |
| 01:00 | ZZZZZZ             | 5916   | 215460 | 45546  | 10277  |
| 01:04 | MA44369-CCV17      | 5684   | 208620 | 43308  | 9827   |
| 01:08 | MA44369-CCB18      | 5911   | 214240 | 43210  | 10692  |
| 01:13 | ZZZZZZ             | 5920   | 213510 | 44257  | 10218  |
| 01:17 | ZZZZZZ             | 5857   | 211360 | 45101  | 9900   |
| 01:21 | ZZZZZZ             | 6018   | 195760 | 45671  | 10289  |
| 01:26 | ZZZZZZ             | 5910   | 214300 | 45748  | 10002  |
| 01:30 | ZZZZZZ             | 5909   | 216940 | 45609  | 10083  |
| 01:35 | ZZZZZZ             | 5951   | 216280 | 45195  | 10214  |

14.5.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
 Analyst: ND      Run ID: MA44369  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3   | Istd#4 |
|-------|--------------------|--------|--------|----------|--------|
| 01:39 | MA44369-CCV18      | 5676   | 208550 | 42506    | 9822   |
| 01:43 | MA44369-CCB19      | 5961   | 216040 | 43488    | 10764  |
| 01:48 | MA44369-CRI3       | 5936   | 213310 | 42041    | 10606  |
| 01:52 | MA44369-CCV19      | 5710   | 207650 | 42726    | 9866   |
| 01:56 | MA44369-CCB20      | 5986   | 219630 | 43555    | 10803  |
| 02:01 | ZZZZZZ             | 6083   | 214650 | 999999 ! | 11102  |
| 02:05 | ZZZZZZ             | 5872   | 212960 | 44141    | 10328  |
| 02:09 | ZZZZZZ             | 5911   | 215520 | 44248    | 10402  |
| 02:14 | ZZZZZZ             | 5980   | 216140 | 44516    | 10470  |
| 02:18 | MA44369-CCV20      | 5705   | 209080 | 43215    | 9868   |
| 02:22 | MA44369-CCB21      | 5963   | 219020 | 44015    | 10781  |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

14.5.1  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Metal      | Time:      |     | 11:19 |      | 11:34 |      | 12:14 |      | 12:40 |      |       |
|------------|------------|-----|-------|------|-------|------|-------|------|-------|------|-------|
|            | Sample ID: | RL  | IDL   | ICB1 | final | CCB1 | final | CCB2 | final | CCB3 | final |
| Aluminum   | 200        | 14  | anr   |      |       |      |       |      |       |      |       |
| Antimony   | 6.0        | 2.3 | anr   |      |       |      |       |      |       |      |       |
| Arsenic    | 3.0        | 2.1 | anr   |      |       |      |       |      |       |      |       |
| Barium     | 200        | .3  | anr   |      |       |      |       |      |       |      |       |
| Beryllium  | 1.0        | .1  | anr   |      |       |      |       |      |       |      |       |
| Bismuth    | 20         | 2.9 |       |      |       |      |       |      |       |      |       |
| Boron      | 100        | 1.2 |       |      |       |      |       |      |       |      |       |
| Cadmium    | 3.0        | .3  | anr   |      |       |      |       |      |       |      |       |
| Calcium    | 5000       | 4.7 | anr   |      |       |      |       |      |       |      |       |
| Chromium   | 10         | .4  | anr   |      |       |      |       |      |       |      |       |
| Cobalt     | 50         | .4  | anr   |      |       |      |       |      |       |      |       |
| Copper     | 10         | 1.1 | anr   |      |       |      |       |      |       |      |       |
| Iron       | 100        | 2.2 | anr   |      |       |      |       |      |       |      |       |
| Lead       | 3.0        | 1.9 | anr   |      |       |      |       |      |       |      |       |
| Lithium    | 50         | 1.6 |       |      |       |      |       |      |       |      |       |
| Magnesium  | 5000       | 18  | anr   |      |       |      |       |      |       |      |       |
| Manganese  | 15         | .5  | anr   |      |       |      |       |      |       |      |       |
| Molybdenum | 20         | .5  |       |      |       |      |       |      |       |      |       |
| Nickel     | 10         | .5  | anr   |      |       |      |       |      |       |      |       |
| Phosphorus | 50         | 2.6 |       |      |       |      |       |      |       |      |       |
| Potassium  | 10000      | 56  | anr   |      |       |      |       |      |       |      |       |
| Selenium   | 10         | 3.3 | anr   |      |       |      |       |      |       |      |       |
| Silicon    | 200        | 2   |       |      |       |      |       |      |       |      |       |
| Silver     | 10         | .4  | anr   |      |       |      |       |      |       |      |       |
| Sodium     | 10000      | 13  | anr   |      |       |      |       |      |       |      |       |
| Strontium  | 10         | .1  |       |      |       |      |       |      |       |      |       |
| Sulfur     | 50         | 5   | 0.300 | <50  | -1.30 | <50  | 1.50  | <50  | 0.900 | <50  |       |
| Thallium   | 2.0        | 1.9 | anr   |      |       |      |       |      |       |      |       |
| Tin        | 10         | 1.1 |       |      |       |      |       |      |       |      |       |
| Titanium   | 10         | .3  |       |      |       |      |       |      |       |      |       |
| Tungsten   | 50         | 1.7 |       |      |       |      |       |      |       |      |       |
| Vanadium   | 50         | .4  | anr   |      |       |      |       |      |       |      |       |
| Zinc       | 20         | .2  | anr   |      |       |      |       |      |       |      |       |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

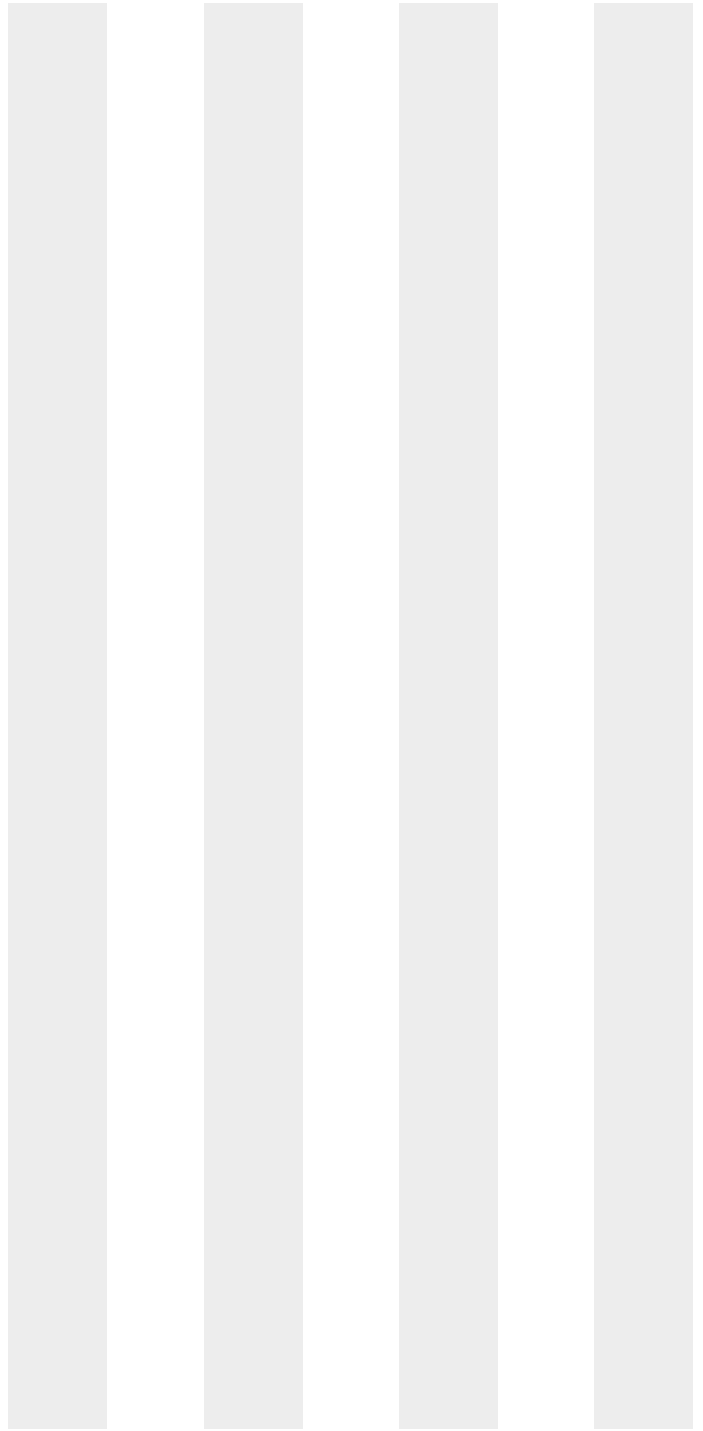
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Time:      |    |     | 11:19 |       | 11:34 |       | 12:14 |       | 12:40 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
 14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Metal      | RL    | IDL | 13:28  | 14:15 |       | 15:03 |       | 15:51 |       |     |
|------------|-------|-----|--------|-------|-------|-------|-------|-------|-------|-----|
|            |       |     | CCB4   | raw   | final | raw   | final | raw   | final | raw |
| Aluminum   | 200   | 14  | anr    |       |       |       |       |       |       |     |
| Antimony   | 6.0   | 2.3 | anr    |       |       |       |       |       |       |     |
| Arsenic    | 3.0   | 2.1 | anr    |       |       |       |       |       |       |     |
| Barium     | 200   | .3  | anr    |       |       |       |       |       |       |     |
| Beryllium  | 1.0   | .1  | anr    |       |       |       |       |       |       |     |
| Bismuth    | 20    | 2.9 |        |       |       |       |       |       |       |     |
| Boron      | 100   | 1.2 |        |       |       |       |       |       |       |     |
| Cadmium    | 3.0   | .3  | anr    |       |       |       |       |       |       |     |
| Calcium    | 5000  | 4.7 | anr    |       |       |       |       |       |       |     |
| Chromium   | 10    | .4  | anr    |       |       |       |       |       |       |     |
| Cobalt     | 50    | .4  | anr    |       |       |       |       |       |       |     |
| Copper     | 10    | 1.1 | anr    |       |       |       |       |       |       |     |
| Iron       | 100   | 2.2 | anr    |       |       |       |       |       |       |     |
| Lead       | 3.0   | 1.9 | anr    |       |       |       |       |       |       |     |
| Lithium    | 50    | 1.6 |        |       |       |       |       |       |       |     |
| Magnesium  | 5000  | 18  | anr    |       |       |       |       |       |       |     |
| Manganese  | 15    | .5  | anr    |       |       |       |       |       |       |     |
| Molybdenum | 20    | .5  |        |       |       |       |       |       |       |     |
| Nickel     | 10    | .5  | anr    |       |       |       |       |       |       |     |
| Phosphorus | 50    | 2.6 |        |       |       |       |       |       |       |     |
| Potassium  | 10000 | 56  | anr    |       |       |       |       |       |       |     |
| Selenium   | 10    | 3.3 | anr    |       |       |       |       |       |       |     |
| Silicon    | 200   | 2   |        |       |       |       |       |       |       |     |
| Silver     | 10    | .4  | anr    |       |       |       |       |       |       |     |
| Sodium     | 10000 | 13  | anr    |       |       |       |       |       |       |     |
| Strontium  | 10    | .1  |        |       |       |       |       |       |       |     |
| Sulfur     | 50    | 5   | -0.800 | <50   | 5.70  | <50   | 1.10  | <50   | 17.9  | <50 |
| Thallium   | 2.0   | 1.9 | anr    |       |       |       |       |       |       |     |
| Tin        | 10    | 1.1 |        |       |       |       |       |       |       |     |
| Titanium   | 10    | .3  |        |       |       |       |       |       |       |     |
| Tungsten   | 50    | 1.7 |        |       |       |       |       |       |       |     |
| Vanadium   | 50    | .4  | anr    |       |       |       |       |       |       |     |
| Zinc       | 20    | .2  | anr    |       |       |       |       |       |       |     |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

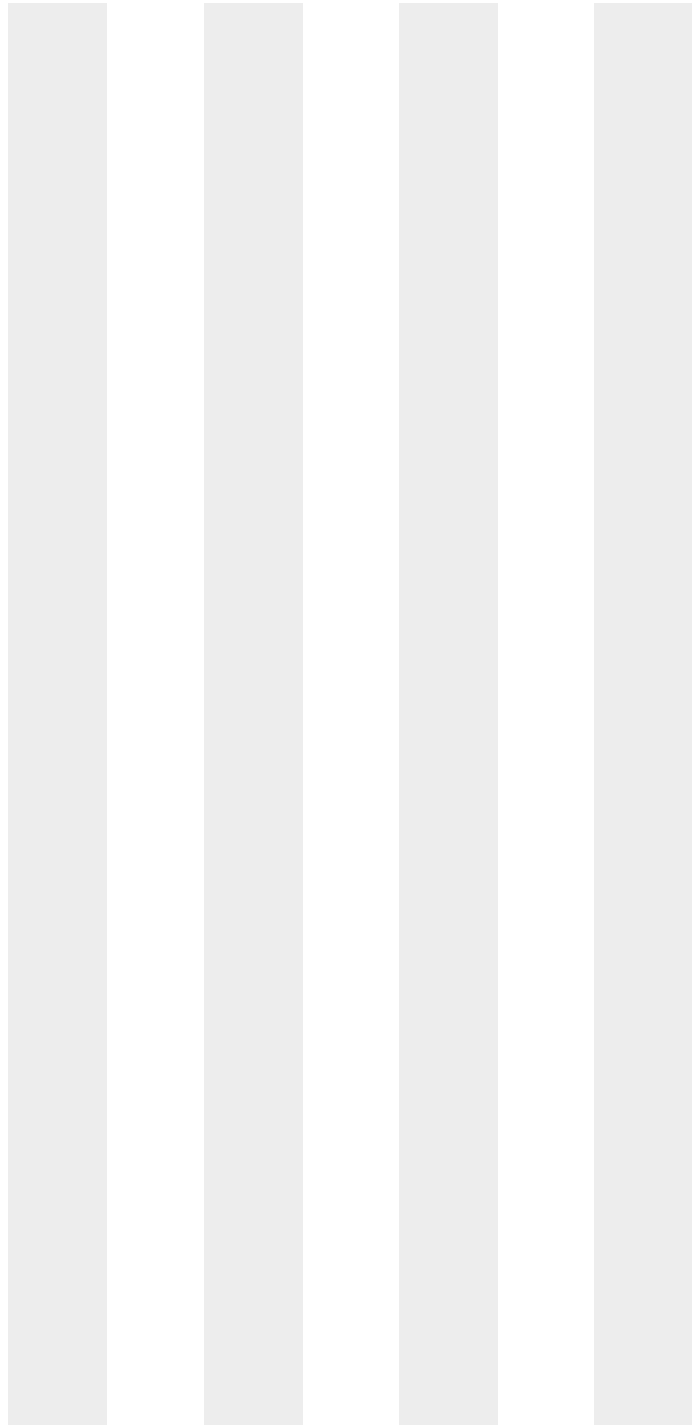
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Time:      | 13:28 | 14:15 | 15:03 | 15:51 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Metal      | RL    | IDL | 16:38 | 17:25 |       | 18:14 |      | 18:40 |       |     |       |       |     |       |
|------------|-------|-----|-------|-------|-------|-------|------|-------|-------|-----|-------|-------|-----|-------|
|            |       |     | CCB8  | raw   | final | CCB9  | raw  | final | CCB10 | raw | final | CCB11 | raw | final |
| Aluminum   | 200   | 14  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Antimony   | 6.0   | 2.3 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Arsenic    | 3.0   | 2.1 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Barium     | 200   | .3  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Beryllium  | 1.0   | .1  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Bismuth    | 20    | 2.9 |       |       |       |       |      |       |       |     |       |       |     |       |
| Boron      | 100   | 1.2 |       |       |       |       |      |       |       |     |       |       |     |       |
| Cadmium    | 3.0   | .3  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Calcium    | 5000  | 4.7 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Chromium   | 10    | .4  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Cobalt     | 50    | .4  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Copper     | 10    | 1.1 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Iron       | 100   | 2.2 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Lead       | 3.0   | 1.9 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Lithium    | 50    | 1.6 |       |       |       |       |      |       |       |     |       |       |     |       |
| Magnesium  | 5000  | 18  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Manganese  | 15    | .5  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Molybdenum | 20    | .5  |       |       |       |       |      |       |       |     |       |       |     |       |
| Nickel     | 10    | .5  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Phosphorus | 50    | 2.6 |       |       |       |       |      |       |       |     |       |       |     |       |
| Potassium  | 10000 | 56  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Selenium   | 10    | 3.3 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Silicon    | 200   | 2   |       |       |       |       |      |       |       |     |       |       |     |       |
| Silver     | 10    | .4  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Sodium     | 10000 | 13  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Strontium  | 10    | .1  |       |       |       |       |      |       |       |     |       |       |     |       |
| Sulfur     | 50    | 5   | 7.50  | <50   | 3.90  | <50   | 2.90 | <50   | 1.20  | <50 |       |       |     |       |
| Thallium   | 2.0   | 1.9 | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Tin        | 10    | 1.1 |       |       |       |       |      |       |       |     |       |       |     |       |
| Titanium   | 10    | .3  |       |       |       |       |      |       |       |     |       |       |     |       |
| Tungsten   | 50    | 1.7 |       |       |       |       |      |       |       |     |       |       |     |       |
| Vanadium   | 50    | .4  | anr   |       |       |       |      |       |       |     |       |       |     |       |
| Zinc       | 20    | .2  | anr   |       |       |       |      |       |       |     |       |       |     |       |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

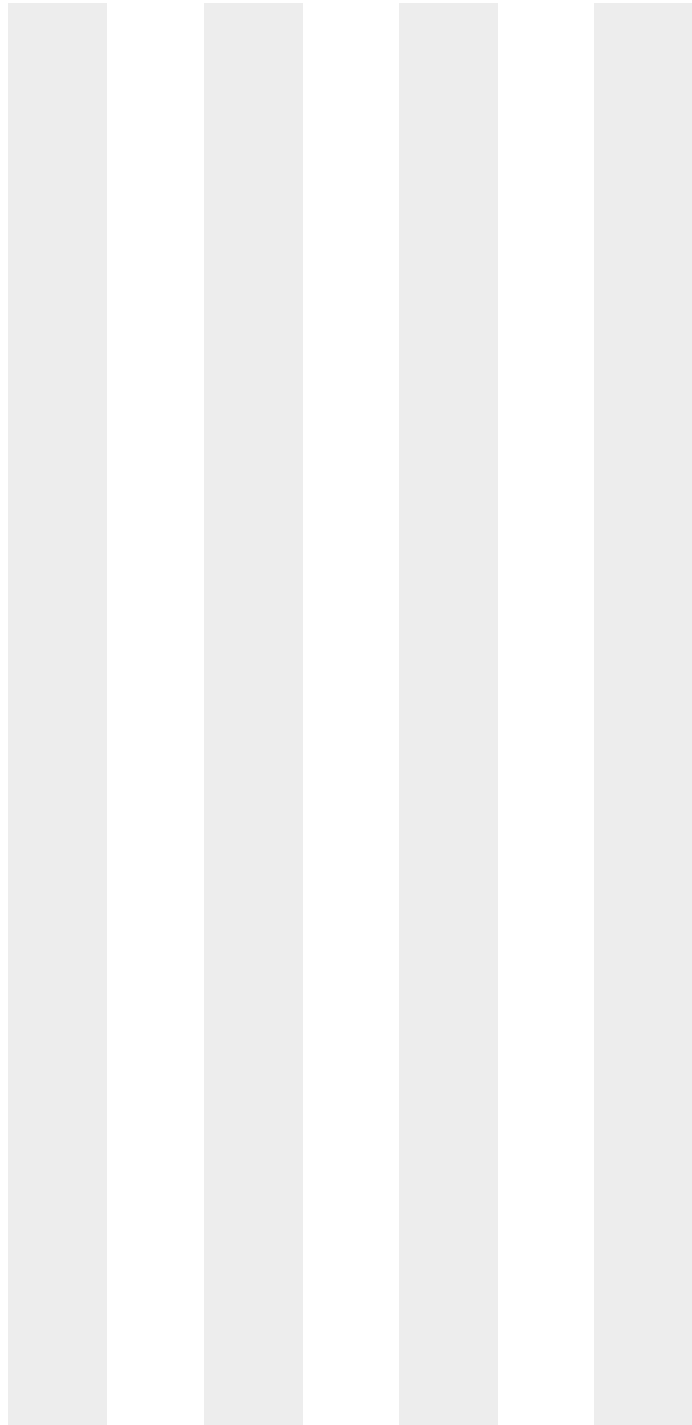
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44369 Units: ug/l

| Time:      | 16:38 | 17:25 | 18:14 | 18:40 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44369 Units: ug/l

| Metal      | Sample ID | ICCV | Time: 11:25<br>ICCV1 | Results | % Rec |
|------------|-----------|------|----------------------|---------|-------|
| Aluminum   |           | anr  |                      |         |       |
| Antimony   |           | anr  |                      |         |       |
| Arsenic    |           | anr  |                      |         |       |
| Barium     |           | anr  |                      |         |       |
| Beryllium  |           | anr  |                      |         |       |
| Bismuth    |           |      |                      |         |       |
| Boron      |           |      |                      |         |       |
| Cadmium    |           | anr  |                      |         |       |
| Calcium    |           | anr  |                      |         |       |
| Chromium   |           | anr  |                      |         |       |
| Cobalt     |           | anr  |                      |         |       |
| Copper     |           | anr  |                      |         |       |
| Iron       |           | anr  |                      |         |       |
| Lead       |           | anr  |                      |         |       |
| Lithium    |           |      |                      |         |       |
| Magnesium  |           | anr  |                      |         |       |
| Manganese  |           | anr  |                      |         |       |
| Molybdenum |           |      |                      |         |       |
| Nickel     |           | anr  |                      |         |       |
| Phosphorus |           |      |                      |         |       |
| Potassium  |           | anr  |                      |         |       |
| Selenium   |           | anr  |                      |         |       |
| Silicon    |           |      |                      |         |       |
| Silver     |           | anr  |                      |         |       |
| Sodium     |           | anr  |                      |         |       |
| Strontium  |           |      |                      |         |       |
| Sulfur     | 2000      | 2030 |                      | 101.5   |       |
| Thallium   |           | anr  |                      |         |       |
| Tin        |           |      |                      |         |       |
| Titanium   |           |      |                      |         |       |
| Tungsten   |           |      |                      |         |       |
| Vanadium   |           | anr  |                      |         |       |
| Zinc       |           | anr  |                      |         |       |

14.5.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

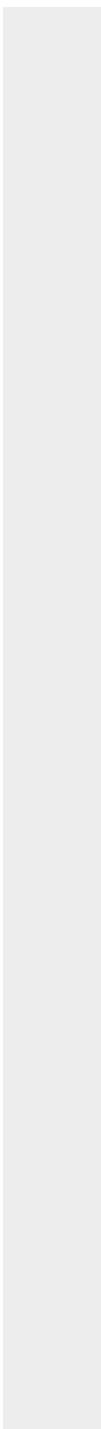
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44369 Units: ug/l

|            |                    |
|------------|--------------------|
| Time:      | 11:25              |
| Sample ID: | ICCV ICCV1         |
| Metal      | True Results % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

| Metal      | Time:<br>Sample ID: ICV | 11:09 |               | CCV  | 12:10 |               | CCV  | 12:36 |               |
|------------|-------------------------|-------|---------------|------|-------|---------------|------|-------|---------------|
|            |                         | ICV1  | Results % Rec |      | CCV1  | Results % Rec |      | CCV2  | Results % Rec |
| Aluminum   | anr                     |       |               |      |       |               |      |       |               |
| Antimony   | anr                     |       |               |      |       |               |      |       |               |
| Arsenic    | anr                     |       |               |      |       |               |      |       |               |
| Barium     | anr                     |       |               |      |       |               |      |       |               |
| Beryllium  | anr                     |       |               |      |       |               |      |       |               |
| Bismuth    |                         |       |               |      |       |               |      |       |               |
| Boron      |                         |       |               |      |       |               |      |       |               |
| Cadmium    | anr                     |       |               |      |       |               |      |       |               |
| Calcium    | anr                     |       |               |      |       |               |      |       |               |
| Chromium   | anr                     |       |               |      |       |               |      |       |               |
| Cobalt     | anr                     |       |               |      |       |               |      |       |               |
| Copper     | anr                     |       |               |      |       |               |      |       |               |
| Iron       | anr                     |       |               |      |       |               |      |       |               |
| Lead       | anr                     |       |               |      |       |               |      |       |               |
| Lithium    |                         |       |               |      |       |               |      |       |               |
| Magnesium  | anr                     |       |               |      |       |               |      |       |               |
| Manganese  | anr                     |       |               |      |       |               |      |       |               |
| Molybdenum |                         |       |               |      |       |               |      |       |               |
| Nickel     | anr                     |       |               |      |       |               |      |       |               |
| Phosphorus |                         |       |               |      |       |               |      |       |               |
| Potassium  | anr                     |       |               |      |       |               |      |       |               |
| Selenium   | anr                     |       |               |      |       |               |      |       |               |
| Silicon    |                         |       |               |      |       |               |      |       |               |
| Silver     | anr                     |       |               |      |       |               |      |       |               |
| Sodium     | anr                     |       |               |      |       |               |      |       |               |
| Strontium  |                         |       |               |      |       |               |      |       |               |
| Sulfur     | 2000                    | 2030  | 101.5         | 2000 | 2040  | 102.0         | 2000 | 2060  | 103.0         |
| Thallium   | anr                     |       |               |      |       |               |      |       |               |
| Tin        |                         |       |               |      |       |               |      |       |               |
| Titanium   |                         |       |               |      |       |               |      |       |               |
| Tungsten   |                         |       |               |      |       |               |      |       |               |
| Vanadium   | anr                     |       |               |      |       |               |      |       |               |
| Zinc       | anr                     |       |               |      |       |               |      |       |               |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

|            | Time: |         | 11:09 |      | 12:10   |       | 12:36 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

| Metal      | Sample ID: | 13:24   |       | 14:11 |         | 14:59 |      |         |       |
|------------|------------|---------|-------|-------|---------|-------|------|---------|-------|
|            |            | CCV     | CCV3  | CCV   | CCV4    | CCV   | CCV5 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |      |         |       |
| Antimony   | anr        |         |       |       |         |       |      |         |       |
| Arsenic    | anr        |         |       |       |         |       |      |         |       |
| Barium     | anr        |         |       |       |         |       |      |         |       |
| Beryllium  | anr        |         |       |       |         |       |      |         |       |
| Bismuth    |            |         |       |       |         |       |      |         |       |
| Boron      |            |         |       |       |         |       |      |         |       |
| Cadmium    | anr        |         |       |       |         |       |      |         |       |
| Calcium    | anr        |         |       |       |         |       |      |         |       |
| Chromium   | anr        |         |       |       |         |       |      |         |       |
| Cobalt     | anr        |         |       |       |         |       |      |         |       |
| Copper     | anr        |         |       |       |         |       |      |         |       |
| Iron       | anr        |         |       |       |         |       |      |         |       |
| Lead       | anr        |         |       |       |         |       |      |         |       |
| Lithium    |            |         |       |       |         |       |      |         |       |
| Magnesium  | anr        |         |       |       |         |       |      |         |       |
| Manganese  | anr        |         |       |       |         |       |      |         |       |
| Molybdenum |            |         |       |       |         |       |      |         |       |
| Nickel     | anr        |         |       |       |         |       |      |         |       |
| Phosphorus |            |         |       |       |         |       |      |         |       |
| Potassium  | anr        |         |       |       |         |       |      |         |       |
| Selenium   | anr        |         |       |       |         |       |      |         |       |
| Silicon    |            |         |       |       |         |       |      |         |       |
| Silver     | anr        |         |       |       |         |       |      |         |       |
| Sodium     | anr        |         |       |       |         |       |      |         |       |
| Strontium  |            |         |       |       |         |       |      |         |       |
| Sulfur     | 2000       | 2020    | 101.0 | 2000  | 2010    | 100.5 | 2000 | 2060    | 103.0 |
| Thallium   | anr        |         |       |       |         |       |      |         |       |
| Tin        |            |         |       |       |         |       |      |         |       |
| Titanium   |            |         |       |       |         |       |      |         |       |
| Tungsten   |            |         |       |       |         |       |      |         |       |
| Vanadium   | anr        |         |       |       |         |       |      |         |       |
| Zinc       | anr        |         |       |       |         |       |      |         |       |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

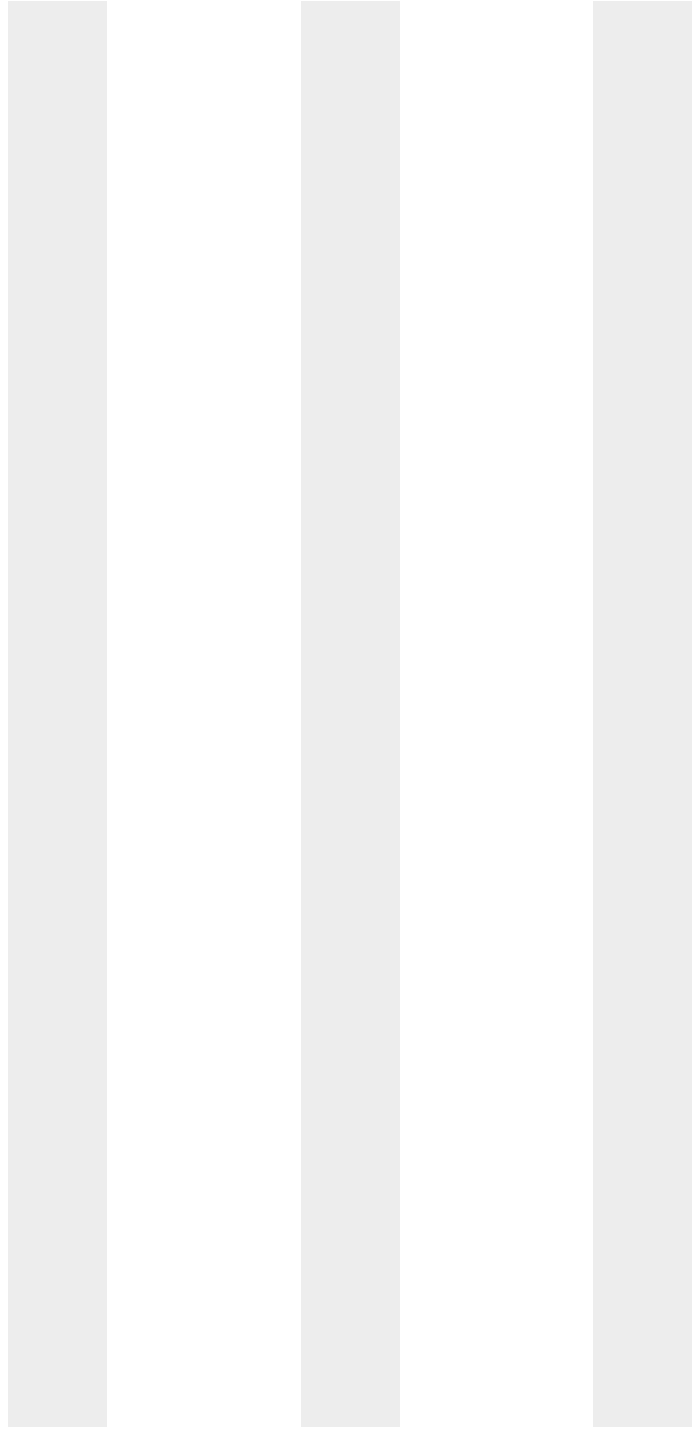
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

|       | Time:      |      |         |       | 14:11 |         |       | 14:59 |               |
|-------|------------|------|---------|-------|-------|---------|-------|-------|---------------|
|       | Sample ID: | CCV  | 13:24   | CCV3  | CCV   | CCV4    | CCV   | CCV5  |               |
| Metal |            | True | Results | % Rec | True  | Results | % Rec | True  | Results % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

| Metal      | Sample ID: | 15:46   |       | 16:34 |         | 17:21 |      |         |       |
|------------|------------|---------|-------|-------|---------|-------|------|---------|-------|
|            |            | CCV     | CCV6  | CCV   | CCV7    | CCV   | CCV8 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |      |         |       |
| Antimony   | anr        |         |       |       |         |       |      |         |       |
| Arsenic    | anr        |         |       |       |         |       |      |         |       |
| Barium     | anr        |         |       |       |         |       |      |         |       |
| Beryllium  | anr        |         |       |       |         |       |      |         |       |
| Bismuth    |            |         |       |       |         |       |      |         |       |
| Boron      |            |         |       |       |         |       |      |         |       |
| Cadmium    | anr        |         |       |       |         |       |      |         |       |
| Calcium    | anr        |         |       |       |         |       |      |         |       |
| Chromium   | anr        |         |       |       |         |       |      |         |       |
| Cobalt     | anr        |         |       |       |         |       |      |         |       |
| Copper     | anr        |         |       |       |         |       |      |         |       |
| Iron       | anr        |         |       |       |         |       |      |         |       |
| Lead       | anr        |         |       |       |         |       |      |         |       |
| Lithium    |            |         |       |       |         |       |      |         |       |
| Magnesium  | anr        |         |       |       |         |       |      |         |       |
| Manganese  | anr        |         |       |       |         |       |      |         |       |
| Molybdenum |            |         |       |       |         |       |      |         |       |
| Nickel     | anr        |         |       |       |         |       |      |         |       |
| Phosphorus |            |         |       |       |         |       |      |         |       |
| Potassium  | anr        |         |       |       |         |       |      |         |       |
| Selenium   | anr        |         |       |       |         |       |      |         |       |
| Silicon    |            |         |       |       |         |       |      |         |       |
| Silver     | anr        |         |       |       |         |       |      |         |       |
| Sodium     | anr        |         |       |       |         |       |      |         |       |
| Strontium  |            |         |       |       |         |       |      |         |       |
| Sulfur     | 2000       | 2060    | 103.0 | 2000  | 2100    | 105.0 | 2000 | 2060    | 103.0 |
| Thallium   | anr        |         |       |       |         |       |      |         |       |
| Tin        |            |         |       |       |         |       |      |         |       |
| Titanium   |            |         |       |       |         |       |      |         |       |
| Tungsten   |            |         |       |       |         |       |      |         |       |
| Vanadium   | anr        |         |       |       |         |       |      |         |       |
| Zinc       | anr        |         |       |       |         |       |      |         |       |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

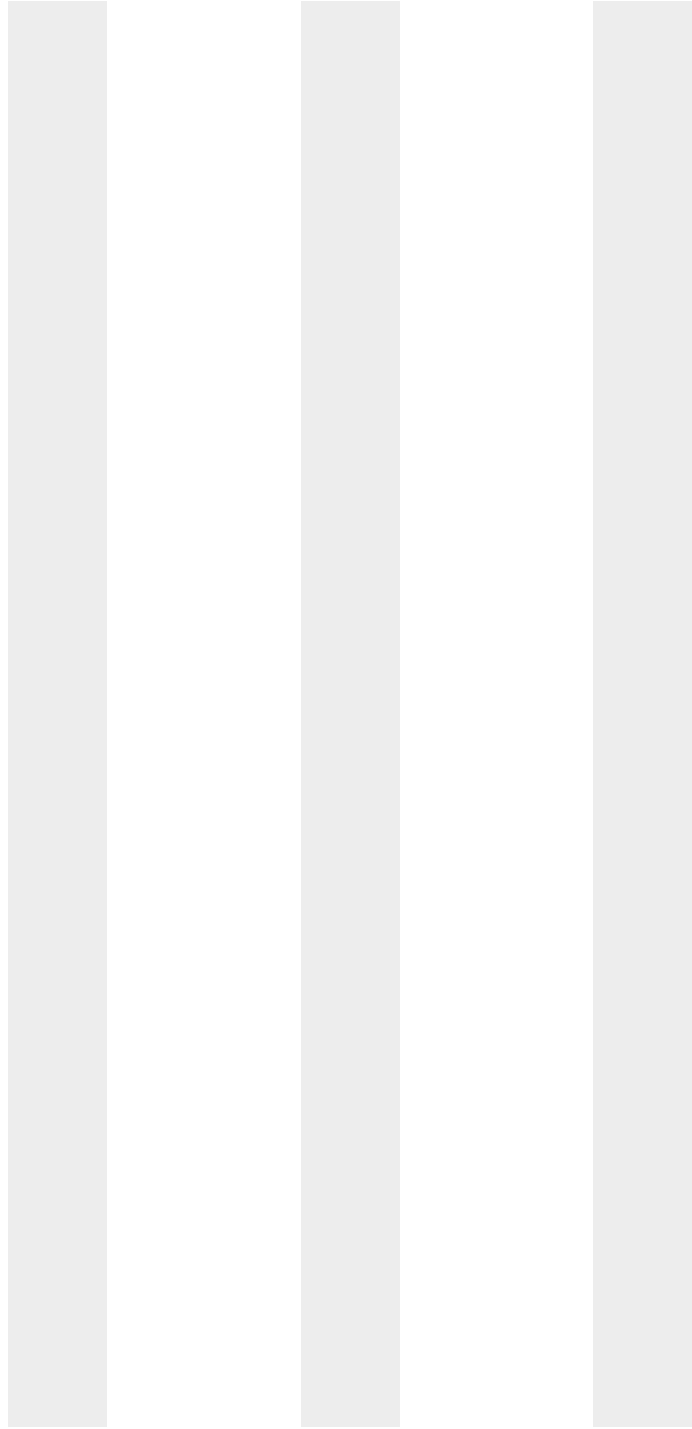
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

|            | Time: |         | 15:46 |      | 16:34   |       | 17:21 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7 | CCV     | CCV8  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

| Metal      | Sample ID: CCV | 18:10 |               | CCV  | 18:36 |               |
|------------|----------------|-------|---------------|------|-------|---------------|
|            |                | CCV9  | Results % Rec |      | CCV10 | Results % Rec |
| Aluminum   | anr            |       |               |      |       |               |
| Antimony   | anr            |       |               |      |       |               |
| Arsenic    | anr            |       |               |      |       |               |
| Barium     | anr            |       |               |      |       |               |
| Beryllium  | anr            |       |               |      |       |               |
| Bismuth    |                |       |               |      |       |               |
| Boron      |                |       |               |      |       |               |
| Cadmium    | anr            |       |               |      |       |               |
| Calcium    | anr            |       |               |      |       |               |
| Chromium   | anr            |       |               |      |       |               |
| Cobalt     | anr            |       |               |      |       |               |
| Copper     | anr            |       |               |      |       |               |
| Iron       | anr            |       |               |      |       |               |
| Lead       | anr            |       |               |      |       |               |
| Lithium    |                |       |               |      |       |               |
| Magnesium  | anr            |       |               |      |       |               |
| Manganese  | anr            |       |               |      |       |               |
| Molybdenum |                |       |               |      |       |               |
| Nickel     | anr            |       |               |      |       |               |
| Phosphorus |                |       |               |      |       |               |
| Potassium  | anr            |       |               |      |       |               |
| Selenium   | anr            |       |               |      |       |               |
| Silicon    |                |       |               |      |       |               |
| Silver     | anr            |       |               |      |       |               |
| Sodium     | anr            |       |               |      |       |               |
| Strontium  |                |       |               |      |       |               |
| Sulfur     | 2000           | 2070  | 103.5         | 2000 | 2080  | 104.0         |
| Thallium   | anr            |       |               |      |       |               |
| Tin        |                |       |               |      |       |               |
| Titanium   |                |       |               |      |       |               |
| Tungsten   |                |       |               |      |       |               |
| Vanadium   | anr            |       |               |      |       |               |
| Zinc       | anr            |       |               |      |       |               |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

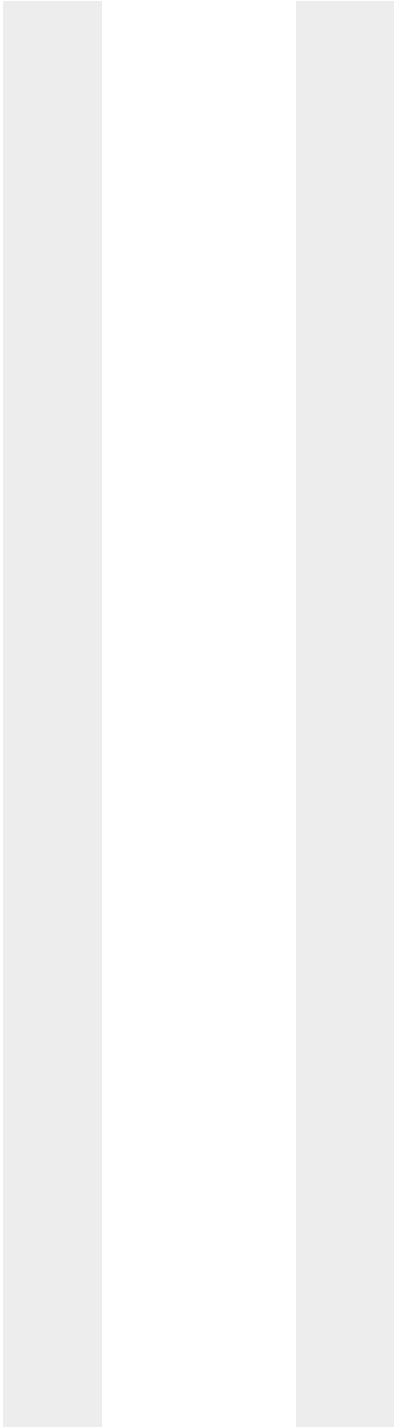
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44369      Units: ug/l

|            | Time: | 18:10   |       | 18:36 |               |
|------------|-------|---------|-------|-------|---------------|
| Sample ID: | CCV   | CCV9    | CCV   | CCV10 |               |
| Metal      | True  | Results | % Rec | True  | Results % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44369 Units: ug/l

|            | Time: | 12:31   |       | 12:49 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD  | HSTD2   |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   | anr   |         |       |       |         |       |
| Antimony   |       |         |       |       |         |       |
| Arsenic    |       |         |       |       |         |       |
| Barium     |       |         |       |       |         |       |
| Beryllium  |       |         |       |       |         |       |
| Bismuth    |       |         |       |       |         |       |
| Boron      |       |         |       |       |         |       |
| Cadmium    |       |         |       |       |         |       |
| Calcium    | anr   |         |       |       |         |       |
| Chromium   |       |         |       |       |         |       |
| Cobalt     |       |         |       |       |         |       |
| Copper     |       |         |       |       |         |       |
| Iron       | anr   |         |       |       |         |       |
| Lead       |       |         |       |       |         |       |
| Lithium    |       |         |       |       |         |       |
| Magnesium  | anr   |         |       |       |         |       |
| Manganese  |       |         |       |       |         |       |
| Molybdenum |       |         |       |       |         |       |
| Nickel     |       |         |       |       |         |       |
| Phosphorus |       |         |       |       |         |       |
| Potassium  | anr   |         |       |       |         |       |
| Selenium   |       |         |       |       |         |       |
| Silicon    |       |         |       |       |         |       |
| Silver     |       |         |       |       |         |       |
| Sodium     | anr   |         |       |       |         |       |
| Strontium  |       |         |       |       |         |       |
| Sulfur     |       |         |       | 50000 | 53200   | 106.4 |
| Thallium   |       |         |       |       |         |       |
| Tin        |       |         |       |       |         |       |
| Titanium   |       |         |       |       |         |       |
| Tungsten   |       |         |       |       |         |       |
| Vanadium   |       |         |       |       |         |       |
| Zinc       |       |         |       |       |         |       |

14.5.5  
14

HIGH STANDARD CHECK SUMMARY

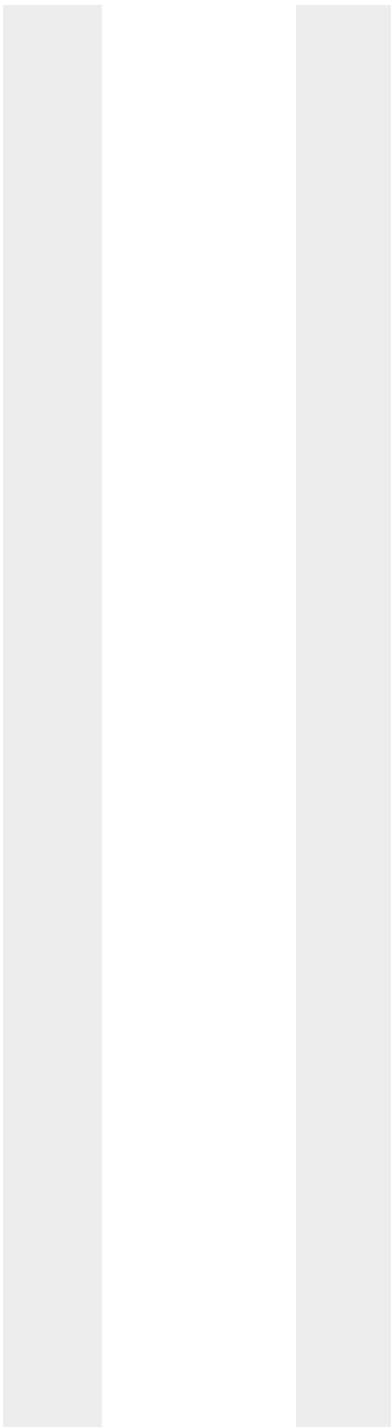
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44369 Units: ug/l

|            | Time: | 12:31   |       | 12:49 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.5  
 14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44369 Units: ug/l

| Time:      | 11:38   | 11:42 | 18:18   |      |       |  |      |       |
|------------|---------|-------|---------|------|-------|--|------|-------|
| Sample ID: | CRI1    | CRID1 | CRID2   |      |       |  |      |       |
| Metal      | True    | True  | True    |      |       |  |      |       |
|            | Results | % Rec | Results |      |       |  |      |       |
|            |         |       | % Rec   |      |       |  |      |       |
| Aluminum   | 200     | 500   | 100     | anr  |       |  |      |       |
| Antimony   | 6.0     | 20    | 3.0     | anr  |       |  |      |       |
| Arsenic    | 8.0     | 20    | 3.0     | anr  |       |  |      |       |
| Barium     | 200     |       | 4.0     | anr  |       |  |      |       |
| Beryllium  | 2.0     |       | 1.0     | anr  |       |  |      |       |
| Bismuth    | 20      |       |         |      |       |  |      |       |
| Boron      | 100     |       | 10      |      |       |  |      |       |
| Cadmium    | 3.0     |       | 1.0     | anr  |       |  |      |       |
| Calcium    | 5000    | 2000  | 1000    | anr  |       |  |      |       |
| Chromium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Cobalt     | 50      |       | 3.0     | anr  |       |  |      |       |
| Copper     | 10      |       | 2.0     | anr  |       |  |      |       |
| Iron       | 100     | 500   |         | anr  |       |  |      |       |
| Lead       | 3.0     | 20    | 2.5     | anr  |       |  |      |       |
| Lithium    | 50      |       |         |      |       |  |      |       |
| Magnesium  | 5000    | 2000  | 100     | anr  |       |  |      |       |
| Manganese  | 15      |       | 3.0     | anr  |       |  |      |       |
| Molybdenum | 20      |       |         |      |       |  |      |       |
| Nickel     | 10      |       | 4.0     | anr  |       |  |      |       |
| Phosphorus | 50      |       |         |      |       |  |      |       |
| Potassium  | 5000    |       | 2000    | anr  |       |  |      |       |
| Selenium   | 10      | 20    | 5.0     | anr  |       |  |      |       |
| Silicon    | 200     |       |         |      |       |  |      |       |
| Silver     | 5.0     |       | 2.0     | anr  |       |  |      |       |
| Sodium     | 5000    |       | 1000    | anr  |       |  |      |       |
| Strontium  | 10      |       |         |      |       |  |      |       |
| Sulfur     | 50      |       |         | 51.0 | 102.0 |  | 55.6 | 111.2 |
| Thallium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Tin        | 10      |       |         |      |       |  |      |       |
| Titanium   | 10      |       |         |      |       |  |      |       |
| Tungsten   | 50      |       |         |      |       |  |      |       |
| Vanadium   | 50      |       | 2.0     | anr  |       |  |      |       |
| Zinc       | 20      |       | 10      | anr  |       |  |      |       |

14.5.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

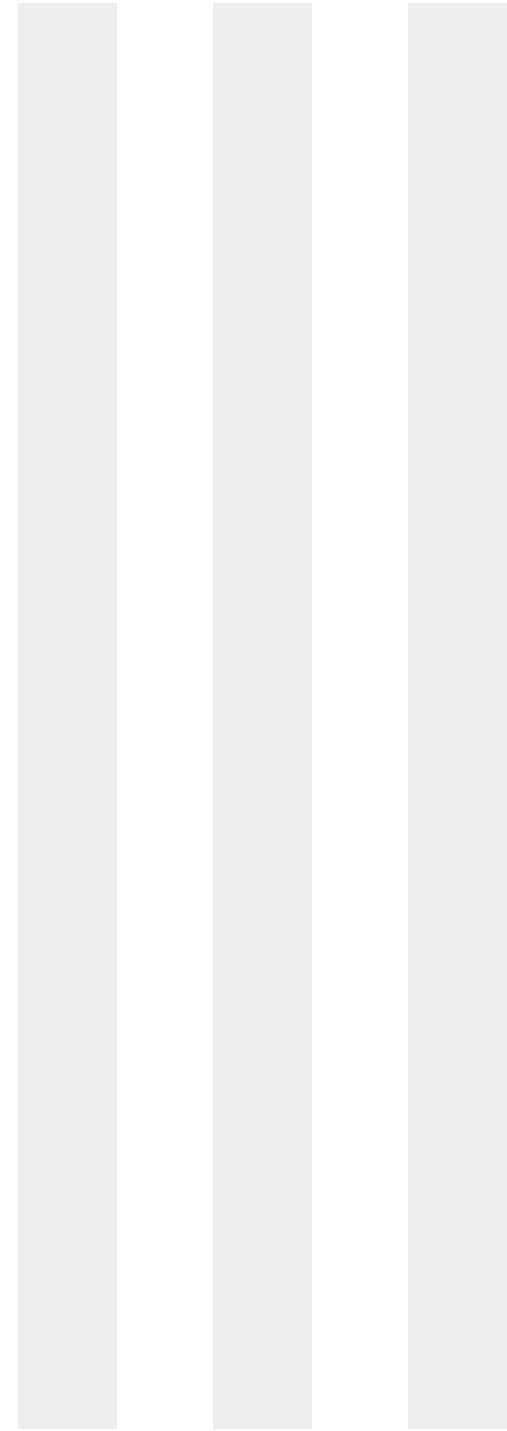
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44369 Units: ug/l

| Time:      | 11:38   | 11:42 | 18:18   |
|------------|---------|-------|---------|
| Sample ID: | CRI1    | CRID1 | CRI2    |
| Metal      | True    | True  | True    |
|            | Results | % Rec | Results |
|            |         | % Rec | Results |
|            |         | % Rec | Results |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.6  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44369 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID | 18:22<br>CRID2 | Results | % Rec |
|------------|------------|------|------|------|----------------|---------|-------|
| Metal      | True       | True | True | True | True           |         |       |
| Aluminum   | 200        | 500  | 100  | anr  |                |         |       |
| Antimony   | 6.0        | 20   | 3.0  | anr  |                |         |       |
| Arsenic    | 8.0        | 20   | 3.0  | anr  |                |         |       |
| Barium     | 200        |      | 4.0  | anr  |                |         |       |
| Beryllium  | 2.0        |      | 1.0  | anr  |                |         |       |
| Bismuth    | 20         |      |      |      |                |         |       |
| Boron      | 100        |      | 10   |      |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | anr  |                |         |       |
| Calcium    | 5000       | 2000 | 1000 | anr  |                |         |       |
| Chromium   | 10         |      | 2.0  | anr  |                |         |       |
| Cobalt     | 50         |      | 3.0  | anr  |                |         |       |
| Copper     | 10         |      | 2.0  | anr  |                |         |       |
| Iron       | 100        | 500  |      |      |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | anr  |                |         |       |
| Lithium    | 50         |      |      |      |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | anr  |                |         |       |
| Manganese  | 15         |      | 3.0  | anr  |                |         |       |
| Molybdenum | 20         |      |      |      |                |         |       |
| Nickel     | 10         |      | 4.0  | anr  |                |         |       |
| Phosphorus | 50         |      |      |      |                |         |       |
| Potassium  | 5000       |      | 2000 | anr  |                |         |       |
| Selenium   | 10         | 20   | 5.0  | anr  |                |         |       |
| Silicon    | 200        |      |      |      |                |         |       |
| Silver     | 5.0        |      | 2.0  | anr  |                |         |       |
| Sodium     | 5000       |      | 1000 | anr  |                |         |       |
| Strontium  | 10         |      |      |      |                |         |       |
| Sulfur     | 50         |      |      |      |                |         |       |
| Thallium   | 10         |      | 2.0  | anr  |                |         |       |
| Tin        | 10         |      |      |      |                |         |       |
| Titanium   | 10         |      |      |      |                |         |       |
| Tungsten   | 50         |      |      |      |                |         |       |
| Vanadium   | 50         |      | 2.0  | anr  |                |         |       |
| Zinc       | 20         |      | 10   | anr  |                |         |       |

14.5.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP      Date Analyzed: 05/08/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 70 to 130 % Recovery      Run ID: MA44369      Units: ug/l

| Time:      | 18:22 |      |      |         |       |
|------------|-------|------|------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID | CRID2   |       |
| Metal      | True  | True | True | Results | % Rec |

Zirconium      10

(\*) Outside of QC limits  
(anr) Analyte not requested

14.5.6  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44369 Units: ug/l

| Time:      |        |        | 12:18   |       |         | 12:23 |         |       | 18:27   |       |  | 18:31 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 536000  | 107.2 | 526000  | 105.2 | 538000  | 107.6 | 531000  | 106.2 |  |       |
| Antimony   |        | 1000   | 3.30    |       | 1070    | 107.0 | -2.50   |       | 1090    | 109.0 |  |       |
| Arsenic    |        | 1000   | 0.100   |       | 1040    | 104.0 | -0.700  |       | 1060    | 106.0 |  |       |
| Barium     |        | 500    | 1.00    |       | 529     | 105.8 | 1.10    |       | 534     | 106.8 |  |       |
| Beryllium  |        | 500    | 0.00    |       | 517     | 103.4 | -0.100  |       | 513     | 102.6 |  |       |
| Bismuth    |        | 500    | 5.30    |       | 534     | 106.8 | 4.30    |       | 551     | 110.2 |  |       |
| Boron      |        | 500    | 1.50    |       | 503     | 100.6 | 1.80    |       | 512     | 102.4 |  |       |
| Cadmium    |        | 1000   | 1.40    |       | 1040    | 104.0 | 1.20    |       | 1040    | 104.0 |  |       |
| Calcium    | 400000 | 400000 | 387000  | 96.8  | 399000  | 99.8  | 391000  | 97.8  | 393000  | 98.3  |  |       |
| Chromium   |        | 500    | 3.40    |       | 495     | 99.0  | 3.30    |       | 488     | 97.6  |  |       |
| Cobalt     |        | 500    | -0.400  |       | 485     | 97.0  | -0.400  |       | 492     | 98.4  |  |       |
| Copper     |        | 500    | 8.60    |       | 523     | 104.6 | 9.50    |       | 517     | 103.4 |  |       |
| Iron       | 200000 | 200000 | 185000  | 92.5  | 200000  | 100.0 | 184000  | 92.0  | 198000  | 99.0  |  |       |
| Lead       |        | 1000   | -4.10   |       | 952     | 95.2  | -0.800  |       | 961     | 96.1  |  |       |
| Lithium    |        | 500    | 14.6    |       | 548     | 109.6 | 15.2    |       | 548     | 109.6 |  |       |
| Magnesium  | 500000 | 500000 | 519000  | 103.8 | 524000  | 104.8 | 518000  | 103.6 | 519000  | 103.8 |  |       |
| Manganese  |        | 500    | -0.700  |       | 519     | 103.8 | -1.20   |       | 513     | 102.6 |  |       |
| Molybdenum |        | 500    | -1.50   |       | 488     | 97.6  | -0.600  |       | 497     | 99.4  |  |       |
| Nickel     |        | 1000   | -0.700  |       | 971     | 97.1  | -0.600  |       | 970     | 97.0  |  |       |
| Phosphorus |        | 500    | 7.40    |       | 524     | 104.8 | 11.0    |       | 542     | 108.4 |  |       |
| Potassium  |        |        | 68.1    |       | 100     |       | 119     |       | 85.4    |       |  |       |
| Selenium   |        | 1000   | -1.70   |       | 1160    | 116.0 | -3.00   |       | 1190    | 119.0 |  |       |
| Silicon    |        | 500    | -6.80   |       | 532     | 106.4 | -3.70   |       | 541     | 108.2 |  |       |
| Silver     |        | 1000   | -1.10   |       | 1090    | 109.0 | -2.70   |       | 1080    | 108.0 |  |       |
| Sodium     |        |        | 23.2    |       | 25.8    |       | 14.3    |       | 8.30    |       |  |       |
| Strontium  |        | 500    | 7.20    |       | 562     | 112.4 | 7.40    |       | 567     | 113.4 |  |       |
| Sulfur     |        | 500    | 3.60    |       | 520     | 104.0 | 3.20    |       | 539     | 107.8 |  |       |
| Thallium   |        | 1000   | 0.800   |       | 1080    | 108.0 | 0.700   |       | 1070    | 107.0 |  |       |
| Tin        |        | 500    | 2.20    |       | 468     | 93.6  | -0.400  |       | 470     | 94.0  |  |       |
| Titanium   |        | 500    | -1.90   |       | 473     | 94.6  | -2.00   |       | 450     | 90.0  |  |       |
| Tungsten   |        | 500    | -2.90   |       | 477     | 95.4  | -2.60   |       | 489     | 97.8  |  |       |
| Vanadium   |        | 500    | 5.60    |       | 506     | 101.2 | 6.50    |       | 499     | 99.8  |  |       |
| Zinc       |        | 1000   | -1.10   |       | 942     | 94.2  | -1.20   |       | 931     | 93.1  |  |       |

14.5.7  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD050818M1.ICP Date Analyzed: 05/08/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44369 Units: ug/l

| Time:      |      |       | 12:18   |       |         | 12:23 |         |       | 18:27   |       |  | 18:31 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAB1  | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results | % Rec | Results | % Rec | Results | % Rec | Results | % Rec |  |       |

Zirconium 500 -0.200 478 95.6 -0.400 467 93.4

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.5.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44373  
Parameters: S

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 11:05  | MA44373-STD1                                | 1               |          | STDA   |
| 11:08  | MA44373-STD2                                | 1               |          | STDB   |
| 11:11  | ZZZZZZ                                      | 1               |          |  |
| 11:14  | ZZZZZZ                                      | 1               |          |  |
| 11:18  | ZZZZZZ                                      | 1               |          |  |
| 11:22  | MA44373-ICV1                                | 1               |          |  |
| 11:29  | MA44373-ICB1                                | 1               |          |  |
| 11:32  | MA44373-ICCV1                               | 1               |          |  |
| 11:38  | MA44373-CCB1                                | 1               |          |  |
| 11:41  | MA44373-CRI1                                | 1               |          |  |
| 11:44  | MA44373-CRID1                               | 1               |          |  |
| 11:47  | MA44373-ICSA1                               | 1               |          |  |
| 11:50  | MA44373-ICSAB1                              | 1               |          |  |
| 11:53  | MA44373-HSTD1                               | 1               |          |  |
| 11:56  | MA44373-HSTD2                               | 1               |          |  |
| 11:59  | ZZZZZZ                                      | 1               |          |  |
| 12:01  | ZZZZZZ                                      | 1               |          |  |
| 12:04  | ZZZZZZ                                      | 1               |          |  |
| 12:07  | MA44373-CCV1                                | 1               |          |  |
| 12:10  | MA44373-CCB2                                | 1               |          |  |
| 12:13  | ZZZZZZ                                      | 1               |          |  |
| 12:15  | MP6996-SD1                                  | 125             |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 12:18  | ZZZZZZ                                      | 1               |          |  |
| 12:21  | ZZZZZZ                                      | 1               |          |  |
| 12:24  | MP7007-S1                                   | 2               |          |  |
| 12:26  | MP7007-S2                                   | 2               |          |  |
| 12:29  | JC65281-83                                  | 2               |          | (sample used for QC only; not part of login JC64996) |
| 12:32  | MP7007-SD1                                  | 10              |          |  |
| 12:35  | MP7007-S2                                   | 5               |          |  |
| 12:37  | MA44373-CCV2                                | 1               |          |  |
| 12:40  | MA44373-CCB3                                | 1               |          |  |
| 12:43  | ZZZZZZ                                      | 3               |          |  |
| 12:46  | ZZZZZZ                                      | 2               |          |  |

14.6  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:48 | ZZZZZZ             | 2               |          |  |
| 12:51 | ZZZZZZ             | 5               |          |  |
| 12:54 | ZZZZZZ             | 2               |          |  |
| 12:57 | ZZZZZZ             | 5               |          |  |
| 13:00 | ZZZZZZ             | 1               |          |  |
| 13:02 | ZZZZZZ             | 5               |          |  |
| 13:05 | ZZZZZZ             | 2               |          |  |
| 13:08 | MA44373-CCV3       | 1               |          |  |
| 13:11 | MA44373-CCB4       | 1               |          |  |
| 13:13 | ZZZZZZ             | 3               |          |  |
| 13:16 | ZZZZZZ             | 2               |          |  |
| 13:19 | ZZZZZZ             | 2               |          |  |
| 13:22 | ZZZZZZ             | 2               |          |  |
| 13:25 | ZZZZZZ             | 2               |          |  |
| 13:28 | ZZZZZZ             | 2               |          |  |
| 13:30 | ZZZZZZ             | 1               |          |  |
| 13:33 | ZZZZZZ             | 1               |          |  |
| 13:36 | ZZZZZZ             | 1               |          |  |
| 13:38 | MA44373-CCV4       | 1               |          |  |
| 13:41 | MA44373-CCB5       | 1               |          |  |
| 13:44 | ZZZZZZ             | 1               |          |  |
| 13:46 | MP7008-S1          | 5               |          |  |
| 13:49 | MP7008-S2          | 5               |          |  |
| 13:52 | JC65281-100        | 5               |          | (sample used for QC only; not part of login JC64996) |
| 13:54 | MP7008-SD1         | 25              |          |  |
| 13:57 | ZZZZZZ             | 2               |          |  |
| 14:00 | ZZZZZZ             | 2               |          |  |
| 14:03 | ZZZZZZ             | 2               |          |  |
| 14:05 | ZZZZZZ             | 2               |          |  |
| 14:08 | MA44373-CCV5       | 1               |          |  |
| 14:11 | MA44373-CCB6       | 1               |          |  |
| 14:14 | ZZZZZZ             | 3               |          |  |
| 14:17 | ZZZZZZ             | 5               |          |  |

14.6  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:19 | ZZZZZZ             | 25              |          |  |
| 14:22 | ZZZZZZ             | 2               |          |  |
| 14:25 | ZZZZZZ             | 2               |          |  |
| 14:28 | ZZZZZZ             | 2               |          |  |
| 14:31 | ZZZZZZ             | 1               |          |  |
| 14:33 | MP7016-S1          | 2               |          |  |
| 14:36 | MP7016-S2          | 2               |          |  |
| 14:39 | MA44373-CCV6       | 1               |          |  |
| 14:41 | MA44373-CCB7       | 1               |          |  |
| 14:44 | JC65281-99         | 2               |          | (sample used for QC only; not part of login JC64996) |
| 14:47 | MP7016-SD1         | 10              |          |  |
| 14:50 | ZZZZZZ             | 2               |          |  |
| 14:53 | ZZZZZZ             | 2               |          |  |
| 14:56 | ZZZZZZ             | 3               |          |  |
| 14:58 | ZZZZZZ             | 1               |          |  |
| 15:01 | ZZZZZZ             | 2               |          |  |
| 15:04 | ZZZZZZ             | 1               |          |  |
| 15:07 | ZZZZZZ             | 2               |          |  |
| 15:10 | MA44373-CCV7       | 1               |          |  |
| 15:12 | MA44373-CCB8       | 1               |          |  |
| 15:15 | ZZZZZZ             | 1               |          |  |
| 15:18 | ZZZZZZ             | 1               |          |  |
| 15:21 | ZZZZZZ             | 10              |          |  |
| 15:24 | MP7019-MB1         | 1               |          |  |
| 15:26 | MP7019-B1          | 1               |          |  |
| 15:29 | MP7019-S1          | 1               |          |  |
| 15:32 | MP7019-S2          | 1               |          |  |
| 15:34 | JC65260-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 15:37 | MP7019-SD1         | 5               |          |  |
| 15:40 | MA44373-CCV8       | 1               |          |  |
| 15:43 | MA44373-CCB9       | 1               |          |  |
| 15:46 | MP7037-MB1         | 1               |          |  |
| 15:49 | MP7037-B1          | 1               |          |  |

14.6  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44373  
Parameters: S

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 15:52  | MP7037-LC1                          | 1               |          |  |
| 15:54  | MP7037-S1                           | 1               |          |  |
| 15:57  | MP7037-S2                           | 1               |          |  |
| 16:00  | JC65618-1                           | 1               |          | (sample used for QC only; not part of login JC64996) |
| 16:02  | MP7037-SD1                          | 5               |          |  |
| 16:05  | ZZZZZZ                              | 1               |          |  |
| 16:08  | ZZZZZZ                              | 1               |          |  |
| 16:11  | MA44373-CCV9                        | 1               |          |  |
| 16:13  | MA44373-CCB10                       | 1               |          |  |
| 16:16  | ZZZZZZ                              | 1               |          |  |
| 16:19  | ZZZZZZ                              | 1               |          |  |
| 16:22  | ZZZZZZ                              | 1               |          |  |
| 16:25  | ZZZZZZ                              | 1               |          |  |
| 16:28  | ZZZZZZ                              | 1               |          |  |
| 16:30  | ZZZZZZ                              | 1               |          |  |
| 16:33  | ZZZZZZ                              | 1               |          |  |
| 16:36  | ZZZZZZ                              | 1               |          |  |
| 16:39  | ZZZZZZ                              | 1               |          |  |
| 16:41  | ZZZZZZ                              | 1               |          |  |
| 16:44  | MA44373-CCV10                       | 1               |          |  |
| 16:47  | MA44373-CCB11                       | 1               |          |  |
| 16:50  | MA44373-CRI2                        | 1               |          |  |
| 16:53  | MA44373-CRID2                       | 1               |          |  |
| 16:55  | MA44373-ICSA2                       | 1               |          |  |
| 16:58  | MA44373-ICSAB2                      | 1               |          |  |
| 17:01  | ZZZZZZ                              | 1               |          |  |
| 17:04  | MA44373-CCV11                       | 1               |          |  |
| 17:07  | MA44373-CCB12                       | 1               |          |  |
| -----> | Last reportable CCB for job JC64996 |                 |          |  |
| 17:09  | ZZZZZZ                              | 1               |          |  |
| 17:12  | ZZZZZZ                              | 1               |          |  |
| 17:15  | ZZZZZZ                              | 1               |          |  |
| 17:18  | ZZZZZZ                              | 1               |          |  |
| 17:21  | ZZZZZZ                              | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 17:24 | ZZZZZZ             | 1               |          |          |
| 17:26 | ZZZZZZ             | 1               |          |          |
| 17:29 | ZZZZZZ             | 1               |          |          |
| 17:32 | ZZZZZZ             | 1               |          |          |
| 17:35 | ZZZZZZ             | 1               |          |          |
| 17:38 | ZZZZZZ             | 1               |          |          |
| 17:41 | ZZZZZZ             | 1               |          |          |
| 17:44 | ZZZZZZ             | 1               |          |          |
| 17:46 | ZZZZZZ             | 1               |          |          |
| 17:49 | MA44373-CCV12      | 1               |          |          |
| 17:52 | MA44373-CCB13      | 1               |          |          |
| 17:55 | ZZZZZZ             | 1               |          |          |
| 17:58 | ZZZZZZ             | 1               |          |          |
| 18:00 | ZZZZZZ             | 1               |          |          |
| 18:03 | ZZZZZZ             | 1               |          |          |
| 18:06 | ZZZZZZ             | 1               |          |          |
| 18:09 | ZZZZZZ             | 1               |          |          |
| 18:11 | ZZZZZZ             | 1               |          |          |
| 18:14 | ZZZZZZ             | 1               |          |          |
| 18:17 | ZZZZZZ             | 1               |          |          |
| 18:20 | MA44373-CCV13      | 1               |          |          |
| 18:22 | MA44373-CCB14      | 1               |          |          |
| 18:25 | ZZZZZZ             | 1               |          |          |
| 18:28 | ZZZZZZ             | 1               |          |          |
| 18:31 | ZZZZZZ             | 1               |          |          |
| 18:34 | ZZZZZZ             | 1               |          |          |
| 18:37 | ZZZZZZ             | 1               |          |          |
| 18:39 | ZZZZZZ             | 1               |          |          |
| 18:42 | ZZZZZZ             | 1               |          |          |
| 18:45 | ZZZZZZ             | 1               |          |          |
| 18:48 | ZZZZZZ             | 1               |          |          |
| 18:51 | MA44373-CCV14      | 1               |          |          |
| 18:53 | MA44373-CCB15      | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 18:56 | ZZZZZZ             | 1               |          |  |
| 18:59 | ZZZZZZ             | 1               |          |  |
| 19:02 | ZZZZZZ             | 1               |          |  |
| 19:04 | ZZZZZZ             | 1               |          |  |
| 19:07 | ZZZZZZ             | 1               |          |  |
| 19:10 | ZZZZZZ             | 1               |          |  |
| 19:13 | ZZZZZZ             | 1               |          |  |
| 19:15 | MP7023-B1          | 1               |          |  |
| 19:18 | MP7023-MB1         | 1               |          |  |
| 19:21 | MA44373-CCV15      | 1               |          |  |
| 19:23 | MA44373-CCB16      | 1               |          |  |
| 19:26 | MP7023-S1          | 1               |          |  |
| 19:29 | MP7023-S2          | 1               |          |  |
| 19:32 | JC65269-4          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 19:35 | MP7023-SD1         | 5               |          |  |
| 19:38 | ZZZZZZ             | 1               |          |  |
| 19:41 | ZZZZZZ             | 1               |          |  |
| 19:43 | ZZZZZZ             | 1               |          |  |
| 19:46 | ZZZZZZ             | 1               |          |  |
| 19:49 | ZZZZZZ             | 1               |          |  |
| 19:52 | MA44373-CCV16      | 1               |          |  |
| 19:55 | MA44373-CCB17      | 1               |          |  |
| 19:57 | ZZZZZZ             | 1               |          |  |
| 20:00 | ZZZZZZ             | 1               |          |  |
| 20:03 | ZZZZZZ             | 1               |          |  |
| 20:06 | ZZZZZZ             | 1               |          |  |
| 20:09 | ZZZZZZ             | 1               |          |  |
| 20:12 | ZZZZZZ             | 1               |          |  |
| 20:15 | ZZZZZZ             | 1               |          |  |
| 20:17 | ZZZZZZ             | 1               |          |  |
| 20:20 | ZZZZZZ             | 1               |          |  |
| 20:23 | MA44373-CCV17      | 1               |          |  |
| 20:25 | MA44373-CCB18      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 20:28 | ZZZZZZ             | 1               |          |  |
| 20:31 | ZZZZZZ             | 1               |          |  |
| 20:34 | ZZZZZZ             | 1               |          |  |
| 20:37 | ZZZZZZ             | 1               |          |  |
| 20:39 | ZZZZZZ             | 1               |          |  |
| 20:42 | MP7023-S2          | 1               |          |  |
| 20:45 | MP7026-B1          | 1               |          |  |
| 20:48 | MP7026-MB1         | 1               |          |  |
| 20:51 | MP7026-S1          | 1               |          | %sol   |
| 20:53 | MP7026-S2          | 1               |          | %sol   |
| 20:56 | MA44373-CCV18      | 1               |          |  |
| 20:58 | MA44373-CCB19      | 1               |          |  |
| 21:01 | JC65333-35         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 21:04 | MP7026-SD1         | 5               |          | %sol   |
| 21:07 | ZZZZZZ             | 1               |          |  |
| 21:10 | ZZZZZZ             | 1               |          |  |
| 21:12 | ZZZZZZ             | 1               |          |  |
| 21:15 | ZZZZZZ             | 1               |          |  |
| 21:18 | ZZZZZZ             | 1               |          |  |
| 21:20 | ZZZZZZ             | 1               |          |  |
| 21:23 | ZZZZZZ             | 1               |          |  |
| 21:26 | MA44373-CCV19      | 1               |          |  |
| 21:28 | MA44373-CCB20      | 1               |          |  |
| 21:31 | ZZZZZZ             | 1               |          |  |
| 21:34 | ZZZZZZ             | 1               |          |  |
| 21:37 | ZZZZZZ             | 1               |          |  |
| 21:39 | ZZZZZZ             | 1               |          |  |
| 21:42 | ZZZZZZ             | 1               |          |  |
| 21:45 | ZZZZZZ             | 1               |          |  |
| 21:48 | ZZZZZZ             | 1               |          |  |
| 21:50 | ZZZZZZ             | 1               |          |  |
| 21:53 | MA44373-CCV20      | 1               |          |  |
| 21:57 | MA44373-CCB21      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44373  
Parameters: S

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 22:00 | ZZZZZZ             | 1               |          |  |
| 22:03 | ZZZZZZ             | 1               |          |  |
| 22:06 | ZZZZZZ             | 1               |          |  |
| 22:08 | ZZZZZZ             | 1               |          |  |
| 22:11 | MA44373-CCV21      | 1               |          |  |
| 22:14 | MA44373-CCB22      | 1               |          |  |
| 22:16 | MA44373-CRI3       | 1               |          |  |
| 22:20 | MA44373-CRI4       | 1               |          |  |
| 22:23 | MA44373-CCV22      | 1               |          |  |
| 22:26 | MA44373-CCB23      | 1               |          |  |
| 22:34 | MP7038-MB1         | 1               |          |  |
| 22:36 | MP7038-B1          | 1               |          | Ag, high recovery                                    |
| 22:39 | MP7038-S1          | 1               |          |  |
| 22:42 | MP7038-S2          | 1               |          |  |
| 22:44 | JC65378-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 22:47 | MP7038-SD1         | 5               |          |  |
| 22:50 | ZZZZZZ             | 1               |          |  |
| 22:53 | ZZZZZZ             | 1               |          |  |
| 22:55 | ZZZZZZ             | 1               |          |  |
| 22:58 | MA44373-CCV23      | 1               |          |  |
| 23:01 | MA44373-CCB24      | 1               |          |  |
| 23:04 | ZZZZZZ             | 1               |          |  |
| 23:06 | ZZZZZZ             | 1               |          |  |
| 23:09 | ZZZZZZ             | 1               |          |  |
| 23:12 | ZZZZZZ             | 1               |          |  |
| 23:15 | ZZZZZZ             | 1               |          |  |
| 23:18 | ZZZZZZ             | 1               |          |  |
| 23:21 | MA44373-CCV24      | 1               |          |  |
| 23:23 | MA44373-CCB25      | 1               |          |  |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4  |
|-------|--------------------|--------|----------|---------|---------|
| 11:05 | MA44373-STD1       | 6628 R | 157290 R | 26098 R | 10308 R |
| 11:08 | MA44373-STD2       | 6322   | 149480   | 25313   | 9562    |
| 11:11 | ZZZZZZ             | 6432   | 152310   | 25545   | 9735    |
| 11:14 | ZZZZZZ             | 6613   | 156980   | 25598   | 10263   |
| 11:18 | ZZZZZZ             | 6477   | 151860   | 25682   | 9789    |
| 11:22 | MA44373-ICV1       | 6489   | 154230   | 25805   | 9842    |
| 11:29 | MA44373-ICB1       | 6633   | 160550   | 26000   | 10356   |
| 11:32 | MA44373-ICCV1      | 6523   | 155370   | 25913   | 9883    |
| 11:38 | MA44373-CCB1       | 6659   | 160970   | 26120   | 10398   |
| 11:41 | MA44373-CRI1       | 6602   | 159060   | 26009   | 10279   |
| 11:44 | MA44373-CRID1      | 6646   | 160140   | 26156   | 10379   |
| 11:47 | MA44373-ICSA1      | 6155   | 144580   | 25028   | 9140    |
| 11:50 | MA44373-ICSAB1     | 6148   | 145040   | 25002   | 9170    |
| 11:53 | MA44373-HSTD1      | 6625   | 159460   | 26028   | 10413   |
| 11:56 | MA44373-HSTD2      | 6284   | 148170   | 25095   | 9258    |
| 11:59 | ZZZZZZ             | 6675   | 158810   | 25967   | 10598   |
| 12:01 | ZZZZZZ             | 6635   | 160250   | 25859   | 10526   |
| 12:04 | ZZZZZZ             | 6720   | 161000   | 25873   | 10492   |
| 12:07 | MA44373-CCV1       | 6595   | 156100   | 25810   | 9976    |
| 12:10 | MA44373-CCB2       | 6755   | 161080   | 26077   | 10544   |
| 12:13 | ZZZZZZ             | 6772   | 162800   | 26607   | 10544   |
| 12:15 | MP6996-SD1         | 6775   | 160350   | 26267   | 10548   |
| 12:18 | ZZZZZZ             | 6792   | 163500   | 26552   | 10561   |
| 12:21 | ZZZZZZ             | 6649   | 158200   | 26163   | 10132   |
| 12:24 | MP7007-S1          | 6628   | 158280   | 26437   | 9831    |
| 12:26 | MP7007-S2          | 6446   | 153900   | 26267   | 9427    |
| 12:29 | JC65281-83         | 6644   | 157490   | 26291   | 9887    |
| 12:32 | MP7007-SD1         | 6746   | 160060   | 26080   | 10296   |
| 12:35 | MP7007-S2          | 6570   | 156270   | 26301   | 9792    |
| 12:37 | MA44373-CCV2       | 6617   | 156940   | 25797   | 9994    |
| 12:40 | MA44373-CCB3       | 6789   | 162230   | 26095   | 10568   |
| 12:43 | ZZZZZZ             | 6873   | 163920   | 27114   | 10268   |
| 12:46 | ZZZZZZ             | 6992   | 166460   | 27661   | 10250   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 12:48 | ZZZZZZ             | 6899   | 163830 | 27103  | 10289  |
| 12:51 | ZZZZZZ             | 6832   | 163530 | 26666  | 10399  |
| 12:54 | ZZZZZZ             | 6762   | 161380 | 26833  | 10091  |
| 12:57 | ZZZZZZ             | 6857   | 163280 | 26826  | 10381  |
| 13:00 | ZZZZZZ             | 8254   | 199380 | 33515  | 10109  |
| 13:02 | ZZZZZZ             | 7106   | 169440 | 27855  | 10337  |
| 13:05 | ZZZZZZ             | 6765   | 160490 | 26779  | 10084  |
| 13:08 | MA44373-CCV3       | 6625   | 157370 | 25857  | 10001  |
| 13:11 | MA44373-CCB4       | 6831   | 162450 | 26125  | 10611  |
| 13:13 | ZZZZZZ             | 6865   | 162930 | 27017  | 10358  |
| 13:16 | ZZZZZZ             | 6731   | 159800 | 26609  | 10059  |
| 13:19 | ZZZZZZ             | 6818   | 161670 | 26757  | 10218  |
| 13:22 | ZZZZZZ             | 6836   | 162190 | 26977  | 10211  |
| 13:25 | ZZZZZZ             | 6742   | 160550 | 26584  | 10065  |
| 13:28 | ZZZZZZ             | 6666   | 158720 | 26466  | 9841   |
| 13:30 | ZZZZZZ             | 6929   | 165250 | 27170  | 10321  |
| 13:33 | ZZZZZZ             | 6946   | 165220 | 27030  | 10383  |
| 13:36 | ZZZZZZ             | 6869   | 163680 | 26685  | 10638  |
| 13:38 | MA44373-CCV4       | 6667   | 157960 | 26008  | 10040  |
| 13:41 | MA44373-CCB5       | 6860   | 162780 | 26255  | 10656  |
| 13:44 | ZZZZZZ             | 6725   | 160830 | 26334  | 10208  |
| 13:46 | MP7008-S1          | 6836   | 161590 | 26626  | 10317  |
| 13:49 | MP7008-S2          | 6782   | 160300 | 26420  | 10243  |
| 13:52 | JC65281-100        | 6796   | 161530 | 26471  | 10380  |
| 13:54 | MP7008-SD1         | 6859   | 162380 | 26193  | 10554  |
| 13:57 | ZZZZZZ             | 6766   | 161090 | 26843  | 10035  |
| 14:00 | ZZZZZZ             | 6867   | 163180 | 26885  | 10266  |
| 14:03 | ZZZZZZ             | 6890   | 163430 | 26891  | 10310  |
| 14:05 | ZZZZZZ             | 6811   | 159210 | 26615  | 10084  |
| 14:08 | MA44373-CCV5       | 6667   | 157840 | 26039  | 10052  |
| 14:11 | MA44373-CCB6       | 6831   | 162820 | 26157  | 10611  |
| 14:14 | ZZZZZZ             | 6734   | 159400 | 26703  | 9984   |
| 14:17 | ZZZZZZ             | 6693   | 161470 | 26274  | 10423  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 14:19 | ZZZZZZ             | 6859   | 161970 | 26321  | 10573  |
| 14:22 | ZZZZZZ             | 6713   | 158670 | 26495  | 9911   |
| 14:25 | ZZZZZZ             | 6675   | 159160 | 26505  | 9895   |
| 14:28 | ZZZZZZ             | 6767   | 159870 | 26922  | 9998   |
| 14:31 | ZZZZZZ             | 6727   | 160350 | 26329  | 10221  |
| 14:33 | MP7016-S1          | 6771   | 160730 | 26951  | 10095  |
| 14:36 | MP7016-S2          | 6751   | 161510 | 26856  | 10083  |
| 14:39 | MA44373-CCV6       | 6680   | 157960 | 26056  | 10085  |
| 14:41 | MA44373-CCB7       | 6920   | 163710 | 26346  | 10736  |
| 14:44 | JC65281-99         | 6827   | 162120 | 27083  | 10222  |
| 14:47 | MP7016-SD1         | 6888   | 163000 | 26667  | 10505  |
| 14:50 | ZZZZZZ             | 6745   | 160150 | 26853  | 9870   |
| 14:53 | ZZZZZZ             | 6729   | 160590 | 26735  | 9918   |
| 14:56 | ZZZZZZ             | 6920   | 164740 | 27082  | 10459  |
| 14:58 | ZZZZZZ             | 6842   | 163140 | 27547  | 10040  |
| 15:01 | ZZZZZZ             | 6788   | 161230 | 26978  | 10019  |
| 15:04 | ZZZZZZ             | 7074   | 167210 | 27533  | 10467  |
| 15:07 | ZZZZZZ             | 6976   | 164990 | 27012  | 10416  |
| 15:10 | MA44373-CCV7       | 6693   | 158780 | 25906  | 10069  |
| 15:12 | MA44373-CCB8       | 6848   | 162810 | 26162  | 10620  |
| 15:15 | ZZZZZZ             | 6912   | 166510 | 26710  | 10699  |
| 15:18 | ZZZZZZ             | 6932   | 164970 | 26810  | 10743  |
| 15:21 | ZZZZZZ             | 6984   | 164050 | 26743  | 10584  |
| 15:24 | MP7019-MB1         | 6949   | 165990 | 26753  | 10751  |
| 15:26 | MP7019-B1          | 6758   | 161560 | 26340  | 10249  |
| 15:29 | MP7019-S1          | 6859   | 162880 | 27090  | 10176  |
| 15:32 | MP7019-S2          | 6863   | 163740 | 26860  | 10182  |
| 15:34 | JC65260-2          | 7001   | 166370 | 27373  | 10443  |
| 15:37 | MP7019-SD1         | 6943   | 164340 | 26665  | 10585  |
| 15:40 | MA44373-CCV8       | 6687   | 158570 | 26053  | 10070  |
| 15:43 | MA44373-CCB9       | 6879   | 162620 | 26141  | 10660  |
| 15:46 | MP7037-MB1         | 6944   | 165750 | 26832  | 10732  |
| 15:49 | MP7037-B1          | 6798   | 161900 | 26385  | 10299  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 15:52 | MP7037-LC1         | 7090   | 168250 | 27463  | 10533  |
| 15:54 | MP7037-S1          | 6898   | 164050 | 26590  | 10155  |
| 15:57 | MP7037-S2          | 6904   | 163770 | 27283  | 10266  |
| 16:00 | JC65618-1          | 7021   | 166070 | 27376  | 10394  |
| 16:02 | MP7037-SD1         | 6818   | 164710 | 26942  | 10388  |
| 16:05 | ZZZZZZ             | 7268   | 173220 | 28532  | 10456  |
| 16:08 | ZZZZZZ             | 8175   | 193680 | 31647  | 10627  |
| 16:11 | MA44373-CCV9       | 6754   | 159350 | 26357  | 10148  |
| 16:13 | MA44373-CCB10      | 6912   | 164870 | 26334  | 10712  |
| 16:16 | ZZZZZZ             | 10166  | 241070 | 39395  | 10643  |
| 16:19 | ZZZZZZ             | 7105   | 170210 | 27813  | 10463  |
| 16:22 | ZZZZZZ             | 6931   | 163650 | 27400  | 10149  |
| 16:25 | ZZZZZZ             | 7105   | 165500 | 27325  | 10505  |
| 16:28 | ZZZZZZ             | 7193   | 167850 | 27827  | 10434  |
| 16:30 | ZZZZZZ             | 7098   | 167700 | 27289  | 10559  |
| 16:33 | ZZZZZZ             | 6825   | 164810 | 27080  | 10418  |
| 16:36 | ZZZZZZ             | 6187   | 150420 | 26036  | 8549   |
| 16:39 | ZZZZZZ             | 6994   | 167320 | 27044  | 10660  |
| 16:41 | ZZZZZZ             | 13263  | 267090 | 36508  | 20117  |
| 16:44 | MA44373-CCV10      | 6748   | 159070 | 25940  | 10149  |
| 16:47 | MA44373-CCB11      | 6897   | 163140 | 26278  | 10683  |
| 16:50 | MA44373-CRI2       | 6796   | 162750 | 25831  | 10492  |
| 16:53 | MA44373-CRID2      | 6864   | 163070 | 25961  | 10619  |
| 16:55 | MA44373-ICSA2      | 6282   | 147110 | 25103  | 9291   |
| 16:58 | MA44373-ICSAB2     | 6244   | 147810 | 25128  | 9251   |
| 17:01 | ZZZZZZ             | 6840   | 163320 | 26375  | 10584  |
| 17:04 | MA44373-CCV11      | 6683   | 158200 | 25846  | 10046  |
| 17:07 | MA44373-CCB12      | 6889   | 162790 | 26102  | 10664  |
| 17:09 | ZZZZZZ             | 6788   | 161480 | 25971  | 10401  |
| 17:12 | ZZZZZZ             | 6909   | 164520 | 26165  | 10709  |
| 17:15 | ZZZZZZ             | 6881   | 162610 | 26333  | 10651  |
| 17:18 | ZZZZZZ             | 6873   | 163450 | 26300  | 10649  |
| 17:21 | ZZZZZZ             | 6919   | 163850 | 26173  | 10700  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 17:24 | ZZZZZZ             | 6936   | 156640 | 26570  | 10031  |
| 17:26 | ZZZZZZ             | 6871   | 163550 | 26278  | 10684  |
| 17:29 | ZZZZZZ             | 6866   | 162920 | 26034  | 10598  |
| 17:32 | ZZZZZZ             | 6863   | 163120 | 24360  | 10635  |
| 17:35 | ZZZZZZ             | 6854   | 163020 | 25975  | 10578  |
| 17:38 | ZZZZZZ             | 6871   | 163850 | 26013  | 10612  |
| 17:41 | ZZZZZZ             | 6464   | 152910 | 25393  | 9713   |
| 17:44 | ZZZZZZ             | 6461   | 153600 | 25268  | 9648   |
| 17:46 | ZZZZZZ             | 6913   | 163600 | 26115  | 10705  |
| 17:49 | MA44373-CCV12      | 6728   | 158660 | 25766  | 10104  |
| 17:52 | MA44373-CCB13      | 6892   | 163880 | 25999  | 10664  |
| 17:55 | ZZZZZZ             | 7014   | 165960 | 27222  | 10397  |
| 17:58 | ZZZZZZ             | 6992   | 165210 | 26820  | 10279  |
| 18:00 | ZZZZZZ             | 7020   | 164910 | 26923  | 10439  |
| 18:03 | ZZZZZZ             | 7060   | 166820 | 27331  | 10418  |
| 18:06 | ZZZZZZ             | 7072   | 166070 | 27179  | 10445  |
| 18:09 | ZZZZZZ             | 7040   | 165640 | 27168  | 10419  |
| 18:11 | ZZZZZZ             | 7051   | 166080 | 27187  | 10468  |
| 18:14 | ZZZZZZ             | 7007   | 164440 | 26970  | 10448  |
| 18:17 | ZZZZZZ             | 7090   | 166620 | 27120  | 10504  |
| 18:20 | MA44373-CCV13      | 6746   | 158750 | 25881  | 10127  |
| 18:22 | MA44373-CCB14      | 6957   | 163390 | 26127  | 10732  |
| 18:25 | ZZZZZZ             | 7039   | 164720 | 26998  | 10484  |
| 18:28 | ZZZZZZ             | 7059   | 165720 | 27314  | 10506  |
| 18:31 | ZZZZZZ             | 7126   | 166610 | 27070  | 10557  |
| 18:34 | ZZZZZZ             | 7056   | 166220 | 27035  | 10485  |
| 18:37 | ZZZZZZ             | 7048   | 164720 | 27135  | 10527  |
| 18:39 | ZZZZZZ             | 7180   | 169440 | 27655  | 10470  |
| 18:42 | ZZZZZZ             | 7119   | 167880 | 27419  | 10470  |
| 18:45 | ZZZZZZ             | 7036   | 165970 | 27108  | 10487  |
| 18:48 | ZZZZZZ             | 7089   | 166530 | 27010  | 10529  |
| 18:51 | MA44373-CCV14      | 6742   | 158680 | 25792  | 10100  |
| 18:53 | MA44373-CCB15      | 6949   | 164070 | 26170  | 10706  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 18:56 | ZZZZZZ             | 7070   | 167410 | 26905  | 10508  |
| 18:59 | ZZZZZZ             | 7084   | 166610 | 26756  | 10522  |
| 19:02 | ZZZZZZ             | 7121   | 167350 | 27308  | 10478  |
| 19:04 | ZZZZZZ             | 7123   | 167430 | 27297  | 10434  |
| 19:07 | ZZZZZZ             | 7153   | 167490 | 27424  | 10559  |
| 19:10 | ZZZZZZ             | 7263   | 170570 | 27907  | 10680  |
| 19:13 | ZZZZZZ             | 7051   | 166900 | 26805  | 10716  |
| 19:15 | MP7023-B1          | 6894   | 162620 | 26214  | 10378  |
| 19:18 | MP7023-MB1         | 7057   | 168050 | 26857  | 10822  |
| 19:21 | MA44373-CCV15      | 6782   | 160680 | 25638  | 10145  |
| 19:23 | MA44373-CCB16      | 6975   | 163050 | 25613  | 10733  |
| 19:26 | MP7023-S1          | 6831   | 160420 | 26638  | 9938   |
| 19:29 | MP7023-S2          | No results reported for the elements associated with this internal standard. |        |        |        |
| 19:32 | JC65269-4          | 6976   | 164380 | 26791  | 10142  |
| 19:35 | MP7023-SD1         | 6974   | 163860 | 26313  | 10478  |
| 19:38 | ZZZZZZ             | 6928   | 163650 | 27004  | 9961   |
| 19:41 | ZZZZZZ             | 6989   | 164490 | 26909  | 10149  |
| 19:43 | ZZZZZZ             | 6105   | 146050 | 24828  | 8752   |
| 19:46 | ZZZZZZ             | 7093   | 166670 | 26930  | 10452  |
| 19:49 | ZZZZZZ             | 7187   | 169140 | 27460  | 10435  |
| 19:52 | MA44373-CCV16      | 6848   | 159910 | 25725  | 10226  |
| 19:55 | MA44373-CCB17      | 7045   | 164950 | 26145  | 10834  |
| 19:57 | ZZZZZZ             | 7082   | 167150 | 27129  | 10293  |
| 20:00 | ZZZZZZ             | 6888   | 162060 | 27103  | 10098  |
| 20:03 | ZZZZZZ             | 7491   | 177260 | 29078  | 10526  |
| 20:06 | ZZZZZZ             | 7156   | 168010 | 27152  | 10477  |
| 20:09 | ZZZZZZ             | 7034   | 165610 | 27141  | 10118  |
| 20:12 | ZZZZZZ             | 7203   | 169880 | 27151  | 10833  |
| 20:15 | ZZZZZZ             | 7213   | 170150 | 27376  | 10795  |
| 20:17 | ZZZZZZ             | 7139   | 167540 | 27084  | 10795  |
| 20:20 | ZZZZZZ             | 7182   | 170300 | 27170  | 10845  |
| 20:23 | MA44373-CCV17      | 6933   | 162010 | 26559  | 10361  |
| 20:25 | MA44373-CCB18      | 7046   | 166270 | 26333  | 10848  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 20:28 | ZZZZZZ             | 7203   | 170030 | 27627  | 10931  |
| 20:31 | ZZZZZZ             | 7295   | 172000 | 28369  | 10469  |
| 20:34 | ZZZZZZ             | 7126   | 168720 | 27719  | 10369  |
| 20:37 | ZZZZZZ             | 7380   | 174830 | 28424  | 10766  |
| 20:39 | ZZZZZZ             | 7297   | 171550 | 27906  | 10714  |
| 20:42 | MP7023-S2          | 6999   | 165180 | 27666  | 10209  |
| 20:45 | MP7026-B1          | 6947   | 166740 | 26891  | 10518  |
| 20:48 | MP7026-MB1         | 7167   | 171110 | 27364  | 11062  |
| 20:51 | MP7026-S1          | 7434   | 174680 | 29396  | 10526  |
| 20:53 | MP7026-S2          | 7431   | 174610 | 29188  | 10446  |
| 20:56 | MA44373-CCV18      | 6888   | 162610 | 26453  | 10380  |
| 20:58 | MA44373-CCB19      | 7069   | 167360 | 26900  | 10968  |
| 21:01 | JC65333-35         | 7611   | 177010 | 29198  | 10687  |
| 21:04 | MP7026-SD1         | 7199   | 171250 | 27659  | 10855  |
| 21:07 | ZZZZZZ             | 7162   | 170160 | 27795  | 10821  |
| 21:10 | ZZZZZZ             | 7346   | 173590 | 28872  | 10779  |
| 21:12 | ZZZZZZ             | 7289   | 172810 | 28631  | 10769  |
| 21:15 | ZZZZZZ             | 7300   | 171920 | 28429  | 10765  |
| 21:18 | ZZZZZZ             | 7248   | 172750 | 28661  | 10782  |
| 21:20 | ZZZZZZ             | 7208   | 170450 | 27808  | 10897  |
| 21:23 | ZZZZZZ             | 7128   | 169960 | 27818  | 10837  |
| 21:26 | MA44373-CCV19      | 6844   | 162780 | 26613  | 10367  |
| 21:28 | MA44373-CCB20      | 6998   | 165880 | 26825  | 10911  |
| 21:31 | ZZZZZZ             | 7149   | 168660 | 27800  | 10861  |
| 21:34 | ZZZZZZ             | 7142   | 169000 | 27944  | 10859  |
| 21:37 | ZZZZZZ             | 7303   | 172560 | 28671  | 10827  |
| 21:39 | ZZZZZZ             | 7103   | 168740 | 27670  | 10902  |
| 21:42 | ZZZZZZ             | 7277   | 172210 | 28910  | 10757  |
| 21:45 | ZZZZZZ             | 7040   | 167370 | 27391  | 10828  |
| 21:48 | ZZZZZZ             | 7129   | 169400 | 28114  | 10736  |
| 21:50 | ZZZZZZ             | 7079   | 168290 | 27741  | 10745  |
| 21:53 | MA44373-CCV20      | 6757   | 160710 | 26451  | 10285  |
| 21:57 | MA44373-CCB21      | 6900   | 165060 | 26543  | 10804  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44373  
 Parameters: S

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 22:00 | ZZZZZZ             | 6971   | 166060    | 27439  | 10728  |
| 22:03 | ZZZZZZ             | 6897   | 164010    | 27224  | 10526  |
| 22:06 | ZZZZZZ             | 6943   | 167850    | 28003  | 10529  |
| 22:08 | ZZZZZZ             | 7047   | 166590    | 27690  | 10639  |
| 22:11 | MA44373-CCV21      | 6756   | 160030    | 26524  | 10288  |
| 22:14 | MA44373-CCB22      | 6923   | 165030    | 26598  | 10845  |
| 22:16 | MA44373-CRI3       | 6885   | 163570    | 26541  | 10735  |
| 22:20 | MA44373-CRI4       | 6854   | 164240    | 26449  | 10693  |
| 22:23 | MA44373-CCV22      | 6789   | 161610    | 26241  | 10321  |
| 22:26 | MA44373-CCB23      | 6957   | 165610    | 26757  | 10882  |
| 22:34 | MP7038-MB1         | 6898   | 164680    | 26881  | 10885  |
| 22:36 | MP7038-B1          | 6719   | 161070    | 26658  | 10358  |
| 22:39 | MP7038-S1          | 6748   | 160550    | 26816  | 10326  |
| 22:42 | MP7038-S2          | 6719   | 160740    | 26821  | 10285  |
| 22:44 | JC65378-2          | 6800   | 162860    | 27031  | 10644  |
| 22:47 | MP7038-SD1         | 6779   | 162570    | 26259  | 10652  |
| 22:50 | ZZZZZZ             | 6738   | 160480    | 26645  | 10299  |
| 22:53 | ZZZZZZ             | 6817   | 162590    | 26878  | 10661  |
| 22:55 | ZZZZZZ             | 6705   | 159860    | 26444  | 10242  |
| 22:58 | MA44373-CCV23      | 6594   | 156590    | 25876  | 10053  |
| 23:01 | MA44373-CCB24      | 6771   | 162280    | 26279  | 10606  |
| 23:04 | ZZZZZZ             | 6886   | 163330    | 26915  | 10726  |
| 23:06 | ZZZZZZ             | 6842   | 163780    | 26764  | 10667  |
| 23:09 | ZZZZZZ             | 5376   | 125280    | 23856  | 7674   |
| 23:12 | ZZZZZZ             | 5355   | 125360    | 23993  | 7634   |
| 23:15 | ZZZZZZ             | 6652   | 158170    | 26675  | 10249  |
| 23:18 | ZZZZZZ             | 6605   | 999999 !a | 26552  | 9916   |
| 23:21 | MA44373-CCV24      | 6581   | 157110    | 25902  | 10026  |
| 23:23 | MA44373-CCB25      | 6763   | 160990    | 26084  | 10579  |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

14.6.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44373  
Parameters: S

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|------|--------------------|--------|--------|--------|--------|
|------|--------------------|--------|--------|--------|--------|

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Metal      | Time:      |     | 11:29 |      | 11:38 |      | 12:10 |      | 12:40 |      |       |
|------------|------------|-----|-------|------|-------|------|-------|------|-------|------|-------|
|            | Sample ID: | RL  | IDL   | ICB1 | final | CCB1 | final | CCB2 | final | CCB3 | final |
| Aluminum   | 200        | 19  | anr   |      |       |      |       |      |       |      |       |
| Antimony   | 6.0        | 2.4 | anr   |      |       |      |       |      |       |      |       |
| Arsenic    | 3.0        | 1.2 | anr   |      |       |      |       |      |       |      |       |
| Barium     | 200        | .6  | anr   |      |       |      |       |      |       |      |       |
| Beryllium  | 1.0        | .2  | anr   |      |       |      |       |      |       |      |       |
| Bismuth    | 20         | 3.2 |       |      |       |      |       |      |       |      |       |
| Boron      | 100        | 1.5 |       |      |       |      |       |      |       |      |       |
| Cadmium    | 3.0        | .4  | anr   |      |       |      |       |      |       |      |       |
| Calcium    | 5000       | 5.5 | anr   |      |       |      |       |      |       |      |       |
| Chromium   | 10         | .7  | anr   |      |       |      |       |      |       |      |       |
| Cobalt     | 50         | .4  | anr   |      |       |      |       |      |       |      |       |
| Copper     | 10         | 1.1 | anr   |      |       |      |       |      |       |      |       |
| Iron       | 100        | 3.5 | anr   |      |       |      |       |      |       |      |       |
| Lead       | 3.0        | 2.2 | anr   |      |       |      |       |      |       |      |       |
| Lithium    | 50         | 3.4 |       |      |       |      |       |      |       |      |       |
| Magnesium  | 5000       | 25  | anr   |      |       |      |       |      |       |      |       |
| Manganese  | 15         | .14 | anr   |      |       |      |       |      |       |      |       |
| Molybdenum | 20         | .4  |       |      |       |      |       |      |       |      |       |
| Nickel     | 10         | .5  | anr   |      |       |      |       |      |       |      |       |
| Phosphorus | 50         | 2   |       |      |       |      |       |      |       |      |       |
| Potassium  | 10000      | 60  | anr   |      |       |      |       |      |       |      |       |
| Selenium   | 10         | 3.7 | anr   |      |       |      |       |      |       |      |       |
| Silicon    | 200        | 1.8 |       |      |       |      |       |      |       |      |       |
| Silver     | 10         | .7  | anr   |      |       |      |       |      |       |      |       |
| Sodium     | 10000      | 35  | anr   |      |       |      |       |      |       |      |       |
| Strontium  | 10         | .2  |       |      |       |      |       |      |       |      |       |
| Sulfur     | 50         | 3.1 | -1.10 | <50  | 0.700 | <50  | -2.20 | <50  | 0.800 | <50  |       |
| Thallium   | 2.0        | 1.8 | anr   |      |       |      |       |      |       |      |       |
| Tin        | 10         | .9  |       |      |       |      |       |      |       |      |       |
| Titanium   | 10         | .7  |       |      |       |      |       |      |       |      |       |
| Tungsten   | 50         | 2.2 |       |      |       |      |       |      |       |      |       |
| Vanadium   | 50         | .8  | anr   |      |       |      |       |      |       |      |       |
| Zinc       | 20         | .2  | anr   |      |       |      |       |      |       |      |       |

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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

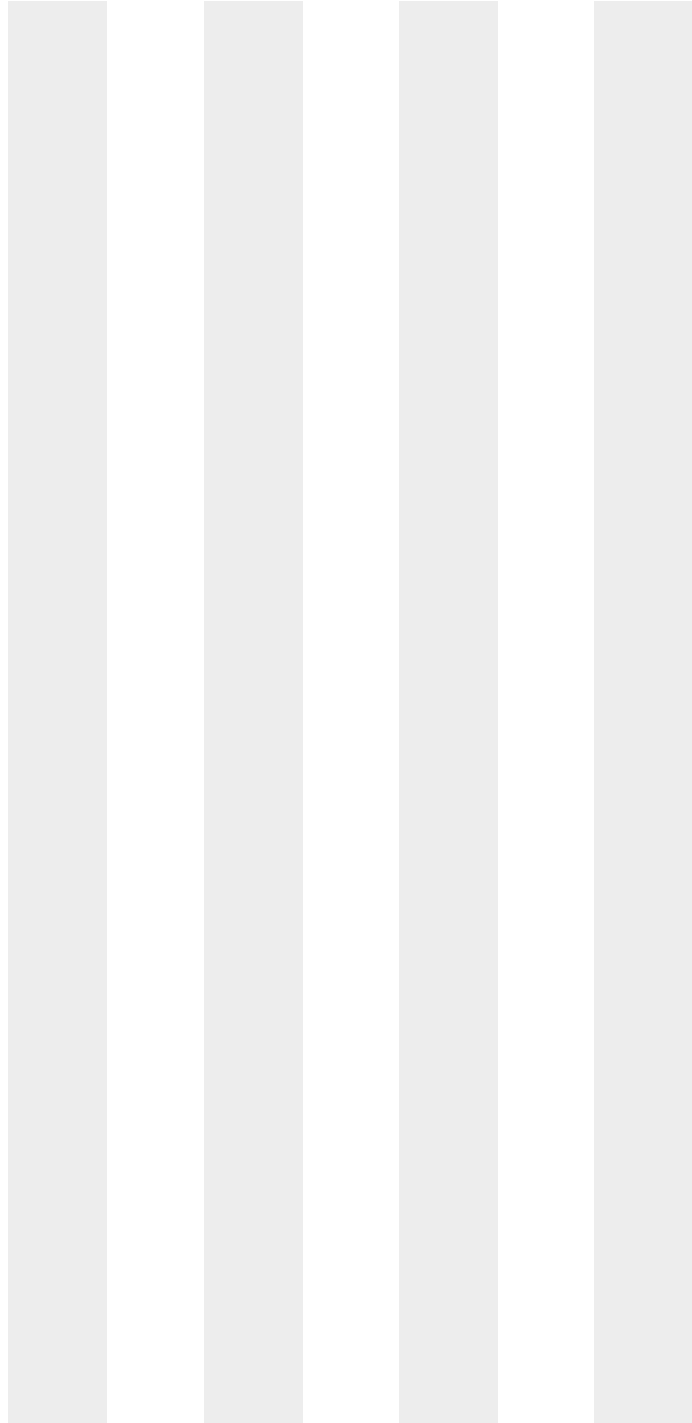
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Time:      |    |     | 11:29 |       | 11:38 |       | 12:10 |       | 12:40 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Metal      | RL    | IDL | 13:11 | 13:41 |       | 14:11 |       | 14:41 |       |     |
|------------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-----|
|            |       |     | CCB4  | raw   | final | raw   | final | raw   | final | raw |
| Aluminum   | 200   | 19  | anr   |       |       |       |       |       |       |     |
| Antimony   | 6.0   | 2.4 | anr   |       |       |       |       |       |       |     |
| Arsenic    | 3.0   | 1.2 | anr   |       |       |       |       |       |       |     |
| Barium     | 200   | .6  | anr   |       |       |       |       |       |       |     |
| Beryllium  | 1.0   | .2  | anr   |       |       |       |       |       |       |     |
| Bismuth    | 20    | 3.2 |       |       |       |       |       |       |       |     |
| Boron      | 100   | 1.5 |       |       |       |       |       |       |       |     |
| Cadmium    | 3.0   | .4  | anr   |       |       |       |       |       |       |     |
| Calcium    | 5000  | 5.5 | anr   |       |       |       |       |       |       |     |
| Chromium   | 10    | .7  | anr   |       |       |       |       |       |       |     |
| Cobalt     | 50    | .4  | anr   |       |       |       |       |       |       |     |
| Copper     | 10    | 1.1 | anr   |       |       |       |       |       |       |     |
| Iron       | 100   | 3.5 | anr   |       |       |       |       |       |       |     |
| Lead       | 3.0   | 2.2 | anr   |       |       |       |       |       |       |     |
| Lithium    | 50    | 3.4 |       |       |       |       |       |       |       |     |
| Magnesium  | 5000  | 25  | anr   |       |       |       |       |       |       |     |
| Manganese  | 15    | .14 | anr   |       |       |       |       |       |       |     |
| Molybdenum | 20    | .4  |       |       |       |       |       |       |       |     |
| Nickel     | 10    | .5  | anr   |       |       |       |       |       |       |     |
| Phosphorus | 50    | 2   |       |       |       |       |       |       |       |     |
| Potassium  | 10000 | 60  | anr   |       |       |       |       |       |       |     |
| Selenium   | 10    | 3.7 | anr   |       |       |       |       |       |       |     |
| Silicon    | 200   | 1.8 |       |       |       |       |       |       |       |     |
| Silver     | 10    | .7  | anr   |       |       |       |       |       |       |     |
| Sodium     | 10000 | 35  | anr   |       |       |       |       |       |       |     |
| Strontium  | 10    | .2  |       |       |       |       |       |       |       |     |
| Sulfur     | 50    | 3.1 | 1.40  | <50   | 0.900 | <50   | 0.200 | <50   | 0.900 | <50 |
| Thallium   | 2.0   | 1.8 | anr   |       |       |       |       |       |       |     |
| Tin        | 10    | .9  |       |       |       |       |       |       |       |     |
| Titanium   | 10    | .7  |       |       |       |       |       |       |       |     |
| Tungsten   | 50    | 2.2 |       |       |       |       |       |       |       |     |
| Vanadium   | 50    | .8  | anr   |       |       |       |       |       |       |     |
| Zinc       | 20    | .2  | anr   |       |       |       |       |       |       |     |

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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

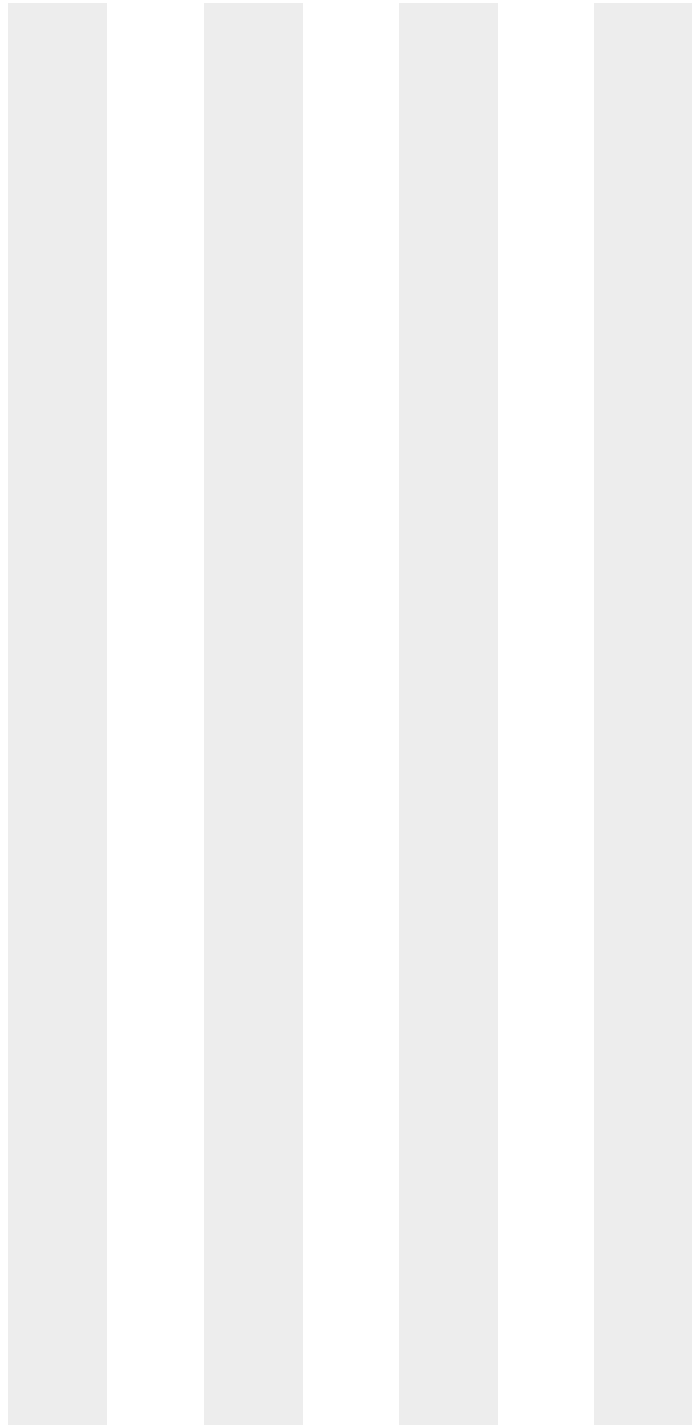
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Time:      |    |     | 13:11 |       | 13:41 |       | 14:11 |       | 14:41 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | CCB4  |       | CCB5  |       | CCB6  |       | CCB7  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.2 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Metal      | RL    | IDL | 15:12 | 15:43 |        | 16:13 |       | 16:47 |       |     |
|------------|-------|-----|-------|-------|--------|-------|-------|-------|-------|-----|
|            |       |     | CCB8  | raw   | final  | raw   | final | raw   | final | raw |
| Aluminum   | 200   | 19  | anr   |       |        |       |       |       |       |     |
| Antimony   | 6.0   | 2.4 | anr   |       |        |       |       |       |       |     |
| Arsenic    | 3.0   | 1.2 | anr   |       |        |       |       |       |       |     |
| Barium     | 200   | .6  | anr   |       |        |       |       |       |       |     |
| Beryllium  | 1.0   | .2  | anr   |       |        |       |       |       |       |     |
| Bismuth    | 20    | 3.2 |       |       |        |       |       |       |       |     |
| Boron      | 100   | 1.5 |       |       |        |       |       |       |       |     |
| Cadmium    | 3.0   | .4  | anr   |       |        |       |       |       |       |     |
| Calcium    | 5000  | 5.5 | anr   |       |        |       |       |       |       |     |
| Chromium   | 10    | .7  | anr   |       |        |       |       |       |       |     |
| Cobalt     | 50    | .4  | anr   |       |        |       |       |       |       |     |
| Copper     | 10    | 1.1 | anr   |       |        |       |       |       |       |     |
| Iron       | 100   | 3.5 | anr   |       |        |       |       |       |       |     |
| Lead       | 3.0   | 2.2 | anr   |       |        |       |       |       |       |     |
| Lithium    | 50    | 3.4 |       |       |        |       |       |       |       |     |
| Magnesium  | 5000  | 25  | anr   |       |        |       |       |       |       |     |
| Manganese  | 15    | .14 | anr   |       |        |       |       |       |       |     |
| Molybdenum | 20    | .4  |       |       |        |       |       |       |       |     |
| Nickel     | 10    | .5  | anr   |       |        |       |       |       |       |     |
| Phosphorus | 50    | 2   |       |       |        |       |       |       |       |     |
| Potassium  | 10000 | 60  | anr   |       |        |       |       |       |       |     |
| Selenium   | 10    | 3.7 | anr   |       |        |       |       |       |       |     |
| Silicon    | 200   | 1.8 |       |       |        |       |       |       |       |     |
| Silver     | 10    | .7  | anr   |       |        |       |       |       |       |     |
| Sodium     | 10000 | 35  | anr   |       |        |       |       |       |       |     |
| Strontium  | 10    | .2  |       |       |        |       |       |       |       |     |
| Sulfur     | 50    | 3.1 | 0.900 | <50   | -0.400 | <50   | 2.20  | <50   | 5.30  | <50 |
| Thallium   | 2.0   | 1.8 | anr   |       |        |       |       |       |       |     |
| Tin        | 10    | .9  |       |       |        |       |       |       |       |     |
| Titanium   | 10    | .7  |       |       |        |       |       |       |       |     |
| Tungsten   | 50    | 2.2 |       |       |        |       |       |       |       |     |
| Vanadium   | 50    | .8  | anr   |       |        |       |       |       |       |     |
| Zinc       | 20    | .2  | anr   |       |        |       |       |       |       |     |

14.6.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

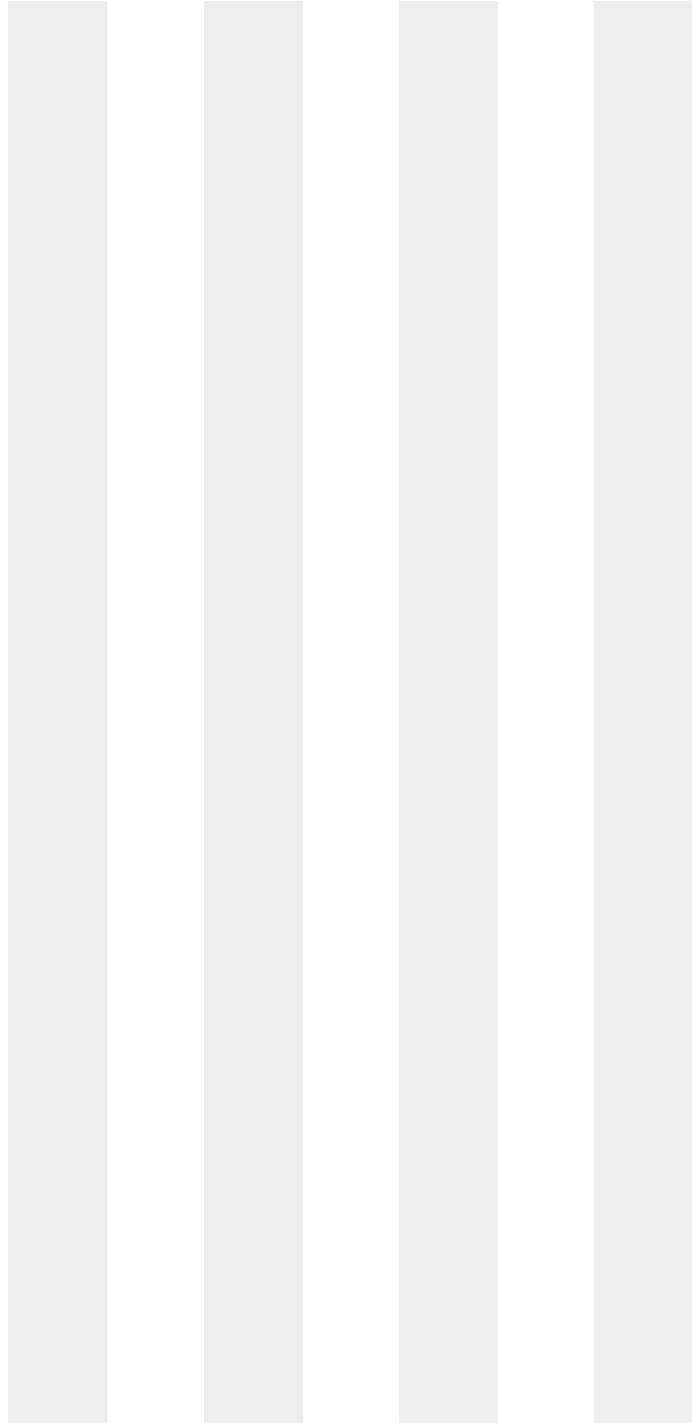
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Time:      | 15:12 | 15:43 | 16:13 | 16:47 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44373 Units: ug/l

| Metal      | RL    | IDL | 17:07<br>CCB12<br>raw | final |
|------------|-------|-----|-----------------------|-------|
| Aluminum   | 200   | 19  | anr                   |       |
| Antimony   | 6.0   | 2.4 | anr                   |       |
| Arsenic    | 3.0   | 1.2 | anr                   |       |
| Barium     | 200   | .6  | anr                   |       |
| Beryllium  | 1.0   | .2  | anr                   |       |
| Bismuth    | 20    | 3.2 |                       |       |
| Boron      | 100   | 1.5 |                       |       |
| Cadmium    | 3.0   | .4  | anr                   |       |
| Calcium    | 5000  | 5.5 | anr                   |       |
| Chromium   | 10    | .7  | anr                   |       |
| Cobalt     | 50    | .4  | anr                   |       |
| Copper     | 10    | 1.1 | anr                   |       |
| Iron       | 100   | 3.5 | anr                   |       |
| Lead       | 3.0   | 2.2 | anr                   |       |
| Lithium    | 50    | 3.4 |                       |       |
| Magnesium  | 5000  | 25  | anr                   |       |
| Manganese  | 15    | .14 | anr                   |       |
| Molybdenum | 20    | .4  |                       |       |
| Nickel     | 10    | .5  | anr                   |       |
| Phosphorus | 50    | 2   |                       |       |
| Potassium  | 10000 | 60  | anr                   |       |
| Selenium   | 10    | 3.7 | anr                   |       |
| Silicon    | 200   | 1.8 |                       |       |
| Silver     | 10    | .7  | anr                   |       |
| Sodium     | 10000 | 35  | anr                   |       |
| Strontium  | 10    | .2  |                       |       |
| Sulfur     | 50    | 3.1 | 0.800                 | <50   |
| Thallium   | 2.0   | 1.8 | anr                   |       |
| Tin        | 10    | .9  |                       |       |
| Titanium   | 10    | .7  |                       |       |
| Tungsten   | 50    | 2.2 |                       |       |
| Vanadium   | 50    | .8  | anr                   |       |
| Zinc       | 20    | .2  | anr                   |       |

14.6.2  
14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL      Run ID: MA44373      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 17:07 |       |
| Sample ID: |    |     | CCB12 |       |
| Metal      | RL | IDL | raw   | final |

Zirconium      10      .3

(\*) Outside of QC limits  
(anr) Analyte not requested

14.6.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44373 Units: ug/l

| Metal      | Sample ID | ICCV | ICCV1 | Results | % Rec |
|------------|-----------|------|-------|---------|-------|
| Aluminum   |           | anr  |       |         |       |
| Antimony   |           | anr  |       |         |       |
| Arsenic    |           | anr  |       |         |       |
| Barium     |           | anr  |       |         |       |
| Beryllium  |           | anr  |       |         |       |
| Bismuth    |           |      |       |         |       |
| Boron      |           |      |       |         |       |
| Cadmium    |           | anr  |       |         |       |
| Calcium    |           | anr  |       |         |       |
| Chromium   |           | anr  |       |         |       |
| Cobalt     |           | anr  |       |         |       |
| Copper     |           | anr  |       |         |       |
| Iron       |           | anr  |       |         |       |
| Lead       |           | anr  |       |         |       |
| Lithium    |           |      |       |         |       |
| Magnesium  |           | anr  |       |         |       |
| Manganese  |           | anr  |       |         |       |
| Molybdenum |           |      |       |         |       |
| Nickel     |           | anr  |       |         |       |
| Phosphorus |           |      |       |         |       |
| Potassium  |           | anr  |       |         |       |
| Selenium   |           | anr  |       |         |       |
| Silicon    |           |      |       |         |       |
| Silver     |           | anr  |       |         |       |
| Sodium     |           | anr  |       |         |       |
| Strontium  |           |      |       |         |       |
| Sulfur     | 2000      | 2010 |       | 100.5   |       |
| Thallium   |           | anr  |       |         |       |
| Tin        |           |      |       |         |       |
| Titanium   |           |      |       |         |       |
| Tungsten   |           |      |       |         |       |
| Vanadium   |           | anr  |       |         |       |
| Zinc       |           | anr  |       |         |       |

14.6.3  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

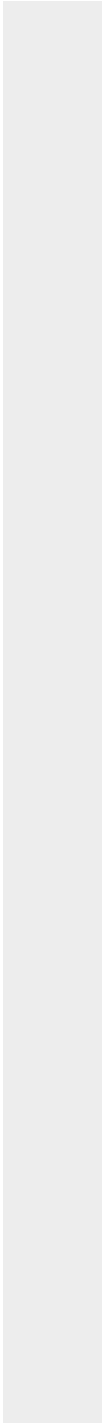
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44373 Units: ug/l

|            |                    |
|------------|--------------------|
| Time:      | 11:32              |
| Sample ID: | ICCV ICCV1         |
| Metal      | True Results % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

| Metal      | Sample ID: | 11:22   |       | CCV  | 12:07   |       | CCV  | 12:37   |       |
|------------|------------|---------|-------|------|---------|-------|------|---------|-------|
|            |            | ICV     | ICV1  |      | CCV1    | CCV2  |      |         |       |
|            | True       | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |      |         |       |      |         |       |
| Antimony   | anr        |         |       |      |         |       |      |         |       |
| Arsenic    | anr        |         |       |      |         |       |      |         |       |
| Barium     | anr        |         |       |      |         |       |      |         |       |
| Beryllium  | anr        |         |       |      |         |       |      |         |       |
| Bismuth    |            |         |       |      |         |       |      |         |       |
| Boron      |            |         |       |      |         |       |      |         |       |
| Cadmium    | anr        |         |       |      |         |       |      |         |       |
| Calcium    | anr        |         |       |      |         |       |      |         |       |
| Chromium   | anr        |         |       |      |         |       |      |         |       |
| Cobalt     | anr        |         |       |      |         |       |      |         |       |
| Copper     | anr        |         |       |      |         |       |      |         |       |
| Iron       | anr        |         |       |      |         |       |      |         |       |
| Lead       | anr        |         |       |      |         |       |      |         |       |
| Lithium    |            |         |       |      |         |       |      |         |       |
| Magnesium  | anr        |         |       |      |         |       |      |         |       |
| Manganese  | anr        |         |       |      |         |       |      |         |       |
| Molybdenum |            |         |       |      |         |       |      |         |       |
| Nickel     | anr        |         |       |      |         |       |      |         |       |
| Phosphorus |            |         |       |      |         |       |      |         |       |
| Potassium  | anr        |         |       |      |         |       |      |         |       |
| Selenium   | anr        |         |       |      |         |       |      |         |       |
| Silicon    |            |         |       |      |         |       |      |         |       |
| Silver     | anr        |         |       |      |         |       |      |         |       |
| Sodium     | anr        |         |       |      |         |       |      |         |       |
| Strontium  |            |         |       |      |         |       |      |         |       |
| Sulfur     | 2000       | 2020    | 101.0 | 2000 | 1970    | 98.5  | 2000 | 1980    | 99.0  |
| Thallium   | anr        |         |       |      |         |       |      |         |       |
| Tin        |            |         |       |      |         |       |      |         |       |
| Titanium   |            |         |       |      |         |       |      |         |       |
| Tungsten   |            |         |       |      |         |       |      |         |       |
| Vanadium   | anr        |         |       |      |         |       |      |         |       |
| Zinc       | anr        |         |       |      |         |       |      |         |       |

14.6.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

|            | Time: | 11:22   |       | 12:07 |         | 12:37 |      |
|------------|-------|---------|-------|-------|---------|-------|------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1  | CCV     | CCV2  |      |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

| Metal      | Sample ID: | 13:08   |       | 13:38 |         | 14:08 |      |         |       |
|------------|------------|---------|-------|-------|---------|-------|------|---------|-------|
|            |            | CCV     | CCV3  | CCV   | CCV4    | CCV   | CCV5 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |      |         |       |
| Antimony   | anr        |         |       |       |         |       |      |         |       |
| Arsenic    | anr        |         |       |       |         |       |      |         |       |
| Barium     | anr        |         |       |       |         |       |      |         |       |
| Beryllium  | anr        |         |       |       |         |       |      |         |       |
| Bismuth    |            |         |       |       |         |       |      |         |       |
| Boron      |            |         |       |       |         |       |      |         |       |
| Cadmium    | anr        |         |       |       |         |       |      |         |       |
| Calcium    | anr        |         |       |       |         |       |      |         |       |
| Chromium   | anr        |         |       |       |         |       |      |         |       |
| Cobalt     | anr        |         |       |       |         |       |      |         |       |
| Copper     | anr        |         |       |       |         |       |      |         |       |
| Iron       | anr        |         |       |       |         |       |      |         |       |
| Lead       | anr        |         |       |       |         |       |      |         |       |
| Lithium    |            |         |       |       |         |       |      |         |       |
| Magnesium  | anr        |         |       |       |         |       |      |         |       |
| Manganese  | anr        |         |       |       |         |       |      |         |       |
| Molybdenum |            |         |       |       |         |       |      |         |       |
| Nickel     | anr        |         |       |       |         |       |      |         |       |
| Phosphorus |            |         |       |       |         |       |      |         |       |
| Potassium  | anr        |         |       |       |         |       |      |         |       |
| Selenium   | anr        |         |       |       |         |       |      |         |       |
| Silicon    |            |         |       |       |         |       |      |         |       |
| Silver     | anr        |         |       |       |         |       |      |         |       |
| Sodium     | anr        |         |       |       |         |       |      |         |       |
| Strontium  |            |         |       |       |         |       |      |         |       |
| Sulfur     | 2000       | 1980    | 99.0  | 2000  | 1970    | 98.5  | 2000 | 1970    | 98.5  |
| Thallium   | anr        |         |       |       |         |       |      |         |       |
| Tin        |            |         |       |       |         |       |      |         |       |
| Titanium   |            |         |       |       |         |       |      |         |       |
| Tungsten   |            |         |       |       |         |       |      |         |       |
| Vanadium   | anr        |         |       |       |         |       |      |         |       |
| Zinc       | anr        |         |       |       |         |       |      |         |       |

14.6.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

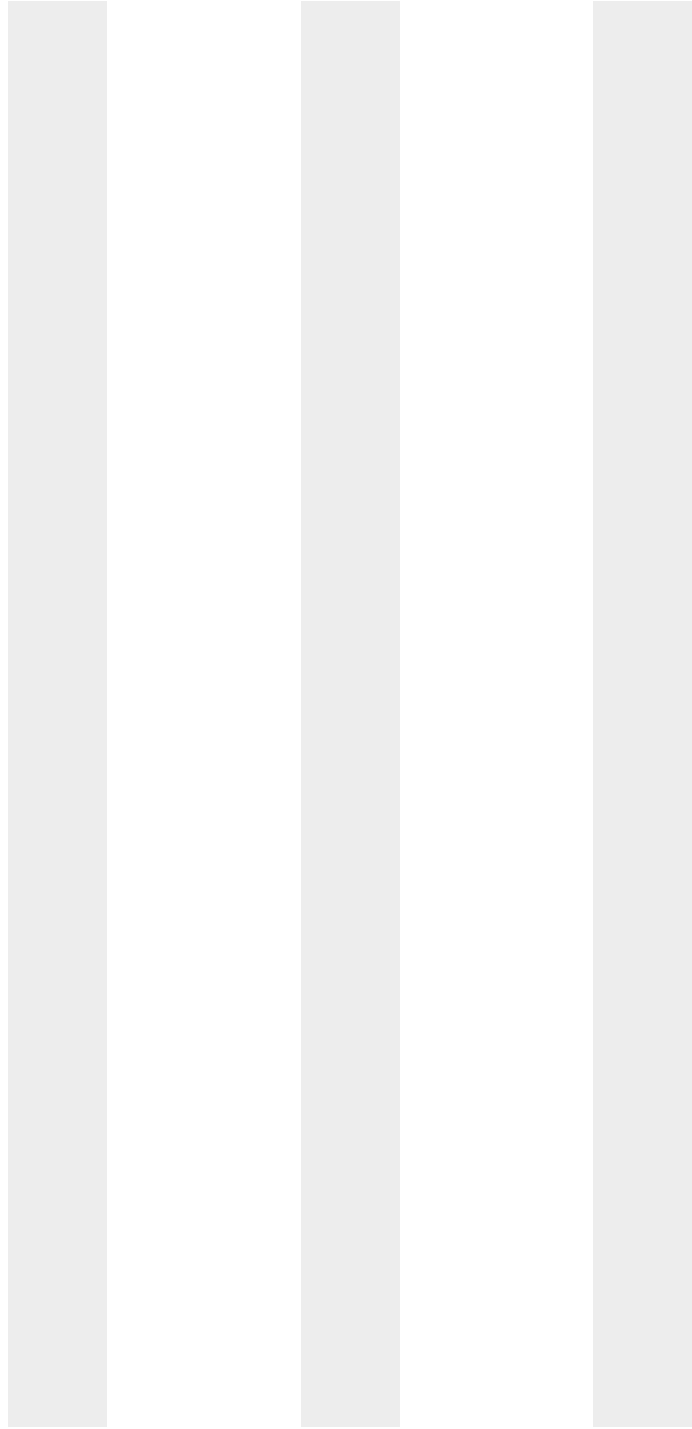
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

|            | Time: |         | 13:08 |   | 13:38 |         | 14:08 |                |  |
|------------|-------|---------|-------|---|-------|---------|-------|----------------|--|
| Sample ID: | CCV   | CCV3    |       | CCV   |       | CCV4    |       | CCV            |  |
| Metal      | True  | Results | % Rec | True <td></td> <th>Results</th> <td>% Rec</td> <th>True <td></td> </th> |       | Results | % Rec | True <td></td> |  |
|            |       |         |       |   |       |         |       |                |  |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.4 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

| Metal      | Sample ID: | 14:39 |         | CCV  | 15:10 |         | CCV  | 15:40 |         |
|------------|------------|-------|---------|------|-------|---------|------|-------|---------|
|            |            | CCV6  | Results |      | CCV7  | Results |      | CCV8  | Results |
|            | True       |       | % Rec   | True |       | % Rec   | True |       | % Rec   |
| Aluminum   | anr        |       |         |      |       |         |      |       |         |
| Antimony   | anr        |       |         |      |       |         |      |       |         |
| Arsenic    | anr        |       |         |      |       |         |      |       |         |
| Barium     | anr        |       |         |      |       |         |      |       |         |
| Beryllium  | anr        |       |         |      |       |         |      |       |         |
| Bismuth    |            |       |         |      |       |         |      |       |         |
| Boron      |            |       |         |      |       |         |      |       |         |
| Cadmium    | anr        |       |         |      |       |         |      |       |         |
| Calcium    | anr        |       |         |      |       |         |      |       |         |
| Chromium   | anr        |       |         |      |       |         |      |       |         |
| Cobalt     | anr        |       |         |      |       |         |      |       |         |
| Copper     | anr        |       |         |      |       |         |      |       |         |
| Iron       | anr        |       |         |      |       |         |      |       |         |
| Lead       | anr        |       |         |      |       |         |      |       |         |
| Lithium    |            |       |         |      |       |         |      |       |         |
| Magnesium  | anr        |       |         |      |       |         |      |       |         |
| Manganese  | anr        |       |         |      |       |         |      |       |         |
| Molybdenum |            |       |         |      |       |         |      |       |         |
| Nickel     | anr        |       |         |      |       |         |      |       |         |
| Phosphorus |            |       |         |      |       |         |      |       |         |
| Potassium  | anr        |       |         |      |       |         |      |       |         |
| Selenium   | anr        |       |         |      |       |         |      |       |         |
| Silicon    |            |       |         |      |       |         |      |       |         |
| Silver     | anr        |       |         |      |       |         |      |       |         |
| Sodium     | anr        |       |         |      |       |         |      |       |         |
| Strontium  |            |       |         |      |       |         |      |       |         |
| Sulfur     | 2000       | 1950  | 97.5    | 2000 | 1950  | 97.5    | 2000 | 1950  | 97.5    |
| Thallium   | anr        |       |         |      |       |         |      |       |         |
| Tin        |            |       |         |      |       |         |      |       |         |
| Titanium   |            |       |         |      |       |         |      |       |         |
| Tungsten   |            |       |         |      |       |         |      |       |         |
| Vanadium   | anr        |       |         |      |       |         |      |       |         |
| Zinc       | anr        |       |         |      |       |         |      |       |         |

14.6.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

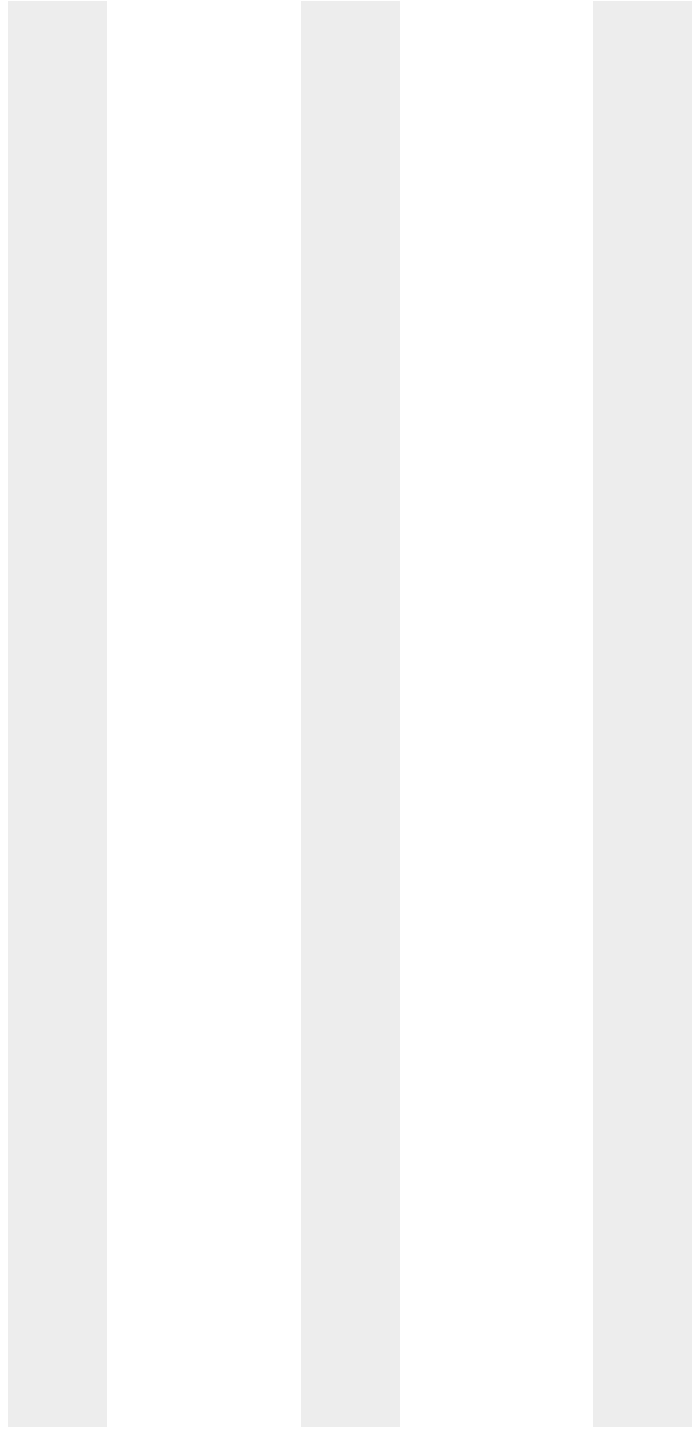
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

|            | Time: |         | 14:39 |      | 15:10   |       | 15:40 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7 | CCV     | CCV8  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.4 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

| Metal      | Sample ID: | 16:11   |       | 16:44 |         | 17:04 |       |         |       |
|------------|------------|---------|-------|-------|---------|-------|-------|---------|-------|
|            |            | CCV     | CCV9  | CCV   | CCV10   | CCV   | CCV11 |         |       |
|            | True       | Results | % Rec | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   | anr        |         |       |       |         |       |       |         |       |
| Antimony   | anr        |         |       |       |         |       |       |         |       |
| Arsenic    | anr        |         |       |       |         |       |       |         |       |
| Barium     | anr        |         |       |       |         |       |       |         |       |
| Beryllium  | anr        |         |       |       |         |       |       |         |       |
| Bismuth    |            |         |       |       |         |       |       |         |       |
| Boron      |            |         |       |       |         |       |       |         |       |
| Cadmium    | anr        |         |       |       |         |       |       |         |       |
| Calcium    | anr        |         |       |       |         |       |       |         |       |
| Chromium   | anr        |         |       |       |         |       |       |         |       |
| Cobalt     | anr        |         |       |       |         |       |       |         |       |
| Copper     | anr        |         |       |       |         |       |       |         |       |
| Iron       | anr        |         |       |       |         |       |       |         |       |
| Lead       | anr        |         |       |       |         |       |       |         |       |
| Lithium    |            |         |       |       |         |       |       |         |       |
| Magnesium  | anr        |         |       |       |         |       |       |         |       |
| Manganese  | anr        |         |       |       |         |       |       |         |       |
| Molybdenum |            |         |       |       |         |       |       |         |       |
| Nickel     | anr        |         |       |       |         |       |       |         |       |
| Phosphorus |            |         |       |       |         |       |       |         |       |
| Potassium  | anr        |         |       |       |         |       |       |         |       |
| Selenium   | anr        |         |       |       |         |       |       |         |       |
| Silicon    |            |         |       |       |         |       |       |         |       |
| Silver     | anr        |         |       |       |         |       |       |         |       |
| Sodium     | anr        |         |       |       |         |       |       |         |       |
| Strontium  |            |         |       |       |         |       |       |         |       |
| Sulfur     | 2000       | 1930    | 96.5  | 2000  | 1940    | 97.0  | 2000  | 1930    | 96.5  |
| Thallium   | anr        |         |       |       |         |       |       |         |       |
| Tin        |            |         |       |       |         |       |       |         |       |
| Titanium   |            |         |       |       |         |       |       |         |       |
| Tungsten   |            |         |       |       |         |       |       |         |       |
| Vanadium   | anr        |         |       |       |         |       |       |         |       |
| Zinc       | anr        |         |       |       |         |       |       |         |       |

14.6.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44373      Units: ug/l

|            | Time: |         |       |      |         |       |      |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 16:11   | CCV9  | CCV  | 16:44   | CCV10 | CCV  | 17:04   | CCV11 |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44373 Units: ug/l

|            | Time: | 11:53   |       | 11:56 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD  | HSTD2   |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |
| Aluminum   |       |         |       |       |         |       |
| Antimony   | anr   |         |       |       |         |       |
| Arsenic    | anr   |         |       |       |         |       |
| Barium     | anr   |         |       |       |         |       |
| Beryllium  | anr   |         |       |       |         |       |
| Bismuth    |       |         |       |       |         |       |
| Boron      |       |         |       |       |         |       |
| Cadmium    | anr   |         |       |       |         |       |
| Calcium    |       |         |       |       |         |       |
| Chromium   | anr   |         |       |       |         |       |
| Cobalt     | anr   |         |       |       |         |       |
| Copper     | anr   |         |       |       |         |       |
| Iron       |       |         |       |       |         |       |
| Lead       | anr   |         |       |       |         |       |
| Lithium    |       |         |       |       |         |       |
| Magnesium  |       |         |       |       |         |       |
| Manganese  | anr   |         |       |       |         |       |
| Molybdenum |       |         |       |       |         |       |
| Nickel     | anr   |         |       |       |         |       |
| Phosphorus |       |         |       |       |         |       |
| Potassium  |       |         |       |       |         |       |
| Selenium   | anr   |         |       |       |         |       |
| Silicon    |       |         |       |       |         |       |
| Silver     | anr   |         |       |       |         |       |
| Sodium     |       |         |       |       |         |       |
| Strontium  |       |         |       |       |         |       |
| Sulfur     | 50000 | 53000   | 106.0 |       |         |       |
| Thallium   | anr   |         |       |       |         |       |
| Tin        |       |         |       |       |         |       |
| Titanium   |       |         |       |       |         |       |
| Tungsten   |       |         |       |       |         |       |
| Vanadium   | anr   |         |       |       |         |       |
| Zinc       | anr   |         |       |       |         |       |

14.6.5  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 90 to 110 % Recovery Run ID: MA44373 Units: ug/l

| Time:      | 11:53   | 11:56   |
|------------|---------|---------|
| Sample ID: | HSTD1   | HSTD2   |
| Metal      | True    | True    |
|            | Results | Results |
|            | % Rec   | % Rec   |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44373 Units: ug/l

| Time:      | 11:41   | 11:44 | 16:50   |      |       |  |      |       |
|------------|---------|-------|---------|------|-------|--|------|-------|
| Sample ID: | CRI1    | CRID1 | CRID2   |      |       |  |      |       |
| Metal      | True    | True  | True    |      |       |  |      |       |
|            | Results | % Rec | Results |      |       |  |      |       |
|            |         |       | % Rec   |      |       |  |      |       |
| Aluminum   | 200     | 500   | 100     | anr  |       |  |      |       |
| Antimony   | 6.0     | 20    | 3.0     | anr  |       |  |      |       |
| Arsenic    | 8.0     | 20    | 3.0     | anr  |       |  |      |       |
| Barium     | 200     |       | 4.0     | anr  |       |  |      |       |
| Beryllium  | 2.0     |       | 1.0     | anr  |       |  |      |       |
| Bismuth    | 20      |       |         |      |       |  |      |       |
| Boron      | 100     |       | 10      |      |       |  |      |       |
| Cadmium    | 3.0     |       | 1.0     | anr  |       |  |      |       |
| Calcium    | 5000    | 2000  | 1000    | anr  |       |  |      |       |
| Chromium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Cobalt     | 50      |       | 3.0     | anr  |       |  |      |       |
| Copper     | 10      |       | 2.0     | anr  |       |  |      |       |
| Iron       | 100     | 500   |         | anr  |       |  |      |       |
| Lead       | 3.0     | 20    | 2.5     | anr  |       |  |      |       |
| Lithium    | 50      |       |         |      |       |  |      |       |
| Magnesium  | 5000    | 2000  | 100     | anr  |       |  |      |       |
| Manganese  | 15      |       | 3.0     | anr  |       |  |      |       |
| Molybdenum | 20      |       |         |      |       |  |      |       |
| Nickel     | 10      |       | 4.0     | anr  |       |  |      |       |
| Phosphorus | 50      |       |         |      |       |  |      |       |
| Potassium  | 5000    |       | 2000    | anr  |       |  |      |       |
| Selenium   | 10      | 20    | 5.0     | anr  |       |  |      |       |
| Silicon    | 200     |       |         |      |       |  |      |       |
| Silver     | 5.0     |       | 2.0     | anr  |       |  |      |       |
| Sodium     | 5000    |       | 1000    | anr  |       |  |      |       |
| Strontium  | 10      |       |         |      |       |  |      |       |
| Sulfur     | 50      |       |         | 53.1 | 106.2 |  | 54.9 | 109.8 |
| Thallium   | 10      |       | 2.0     | anr  |       |  |      |       |
| Tin        | 10      |       |         |      |       |  |      |       |
| Titanium   | 10      |       |         |      |       |  |      |       |
| Tungsten   | 50      |       |         |      |       |  |      |       |
| Vanadium   | 50      |       | 2.0     | anr  |       |  |      |       |
| Zinc       | 20      |       | 10      | anr  |       |  |      |       |

14.6.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

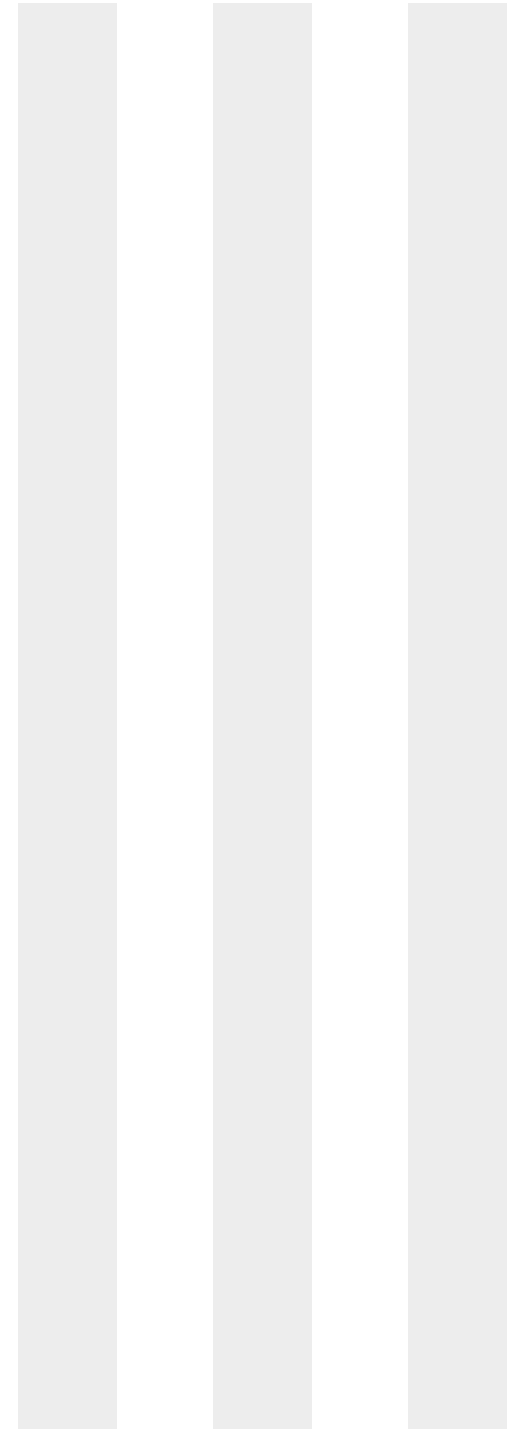
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44373 Units: ug/l

| Time:      | 11:41   | 11:44 | 16:50   |
|------------|---------|-------|---------|
| Sample ID: | CRI     | CRID1 | CRI2    |
| Metal      | True    | True  | True    |
|            | Results | % Rec | Results |
|            |         |       | % Rec   |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.6  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44373 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID | 16:53<br>CRID2 | Results | % Rec |
|------------|------------|------|------|------|----------------|---------|-------|
| Metal      | True       | True | True | True | True           |         |       |
| Aluminum   | 200        | 500  | 100  |      | anr            |         |       |
| Antimony   | 6.0        | 20   | 3.0  |      | anr            |         |       |
| Arsenic    | 8.0        | 20   | 3.0  |      | anr            |         |       |
| Barium     | 200        |      | 4.0  |      | anr            |         |       |
| Beryllium  | 2.0        |      | 1.0  |      | anr            |         |       |
| Bismuth    | 20         |      |      |      |                |         |       |
| Boron      | 100        |      | 10   |      |                |         |       |
| Cadmium    | 3.0        |      | 1.0  |      | anr            |         |       |
| Calcium    | 5000       | 2000 | 1000 |      | anr            |         |       |
| Chromium   | 10         |      | 2.0  |      | anr            |         |       |
| Cobalt     | 50         |      | 3.0  |      | anr            |         |       |
| Copper     | 10         |      | 2.0  |      |                |         |       |
| Iron       | 100        | 500  |      |      |                |         |       |
| Lead       | 3.0        | 20   | 2.5  |      |                |         |       |
| Lithium    | 50         |      |      |      |                |         |       |
| Magnesium  | 5000       | 2000 | 100  |      | anr            |         |       |
| Manganese  | 15         |      | 3.0  |      | anr            |         |       |
| Molybdenum | 20         |      |      |      |                |         |       |
| Nickel     | 10         |      | 4.0  |      | anr            |         |       |
| Phosphorus | 50         |      |      |      |                |         |       |
| Potassium  | 5000       |      | 2000 |      | anr            |         |       |
| Selenium   | 10         | 20   | 5.0  |      |                |         |       |
| Silicon    | 200        |      |      |      |                |         |       |
| Silver     | 5.0        |      | 2.0  |      |                |         |       |
| Sodium     | 5000       |      | 1000 |      | anr            |         |       |
| Strontium  | 10         |      |      |      |                |         |       |
| Sulfur     | 50         |      |      |      |                |         |       |
| Thallium   | 10         |      | 2.0  |      | anr            |         |       |
| Tin        | 10         |      |      |      |                |         |       |
| Titanium   | 10         |      |      |      |                |         |       |
| Tungsten   | 50         |      |      |      |                |         |       |
| Vanadium   | 50         |      | 2.0  |      | anr            |         |       |
| Zinc       | 20         |      | 10   |      | anr            |         |       |

14.6.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

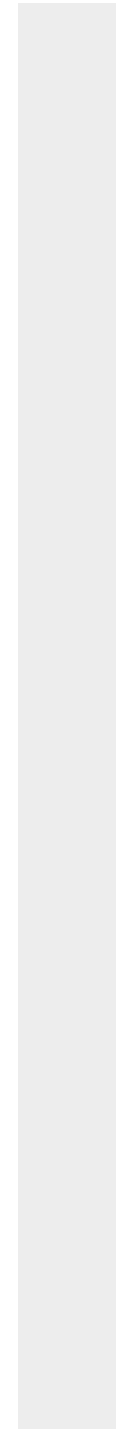
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44373 Units: ug/l

| Time:      |      |      |      | 16:53   |       |  |
|------------|------|------|------|---------|-------|--|
| Sample ID: | CRI  | CRIA | CRID | CRID2   |       |  |
| Metal      | True | True | True | Results | % Rec |  |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.6  
 14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP      Date Analyzed: 05/09/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44373      Units: ug/l

| Time:      |        |        | 11:47   |       |         | 11:50 |         |       | 16:55   |       |  | 16:58 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 515000  | 103.0 | 510000  | 102.0 | 499000  | 99.8  | 497000  | 99.4  |  |       |
| Antimony   |        | 1000   | 2.90    |       | 1040    | 104.0 | 3.70    |       | 1010    | 101.0 |  |       |
| Arsenic    |        | 1000   | -0.700  |       | 1050    | 105.0 | -2.70   |       | 1030    | 103.0 |  |       |
| Barium     |        | 500    | 1.30    |       | 515     | 103.0 | 1.60    |       | 504     | 100.8 |  |       |
| Beryllium  |        | 500    | 0.100   |       | 500     | 100.0 | 0.00    |       | 480     | 96.0  |  |       |
| Bismuth    |        | 500    | -4.50   |       | 520     | 104.0 | -2.90   |       | 504     | 100.8 |  |       |
| Boron      |        | 500    | 0.800   |       | 510     | 102.0 | 0.700   |       | 501     | 100.2 |  |       |
| Cadmium    |        | 1000   | 0.400   |       | 1030    | 103.0 | 0.700   |       | 1000    | 100.0 |  |       |
| Calcium    | 400000 | 400000 | 400000  | 100.0 | 393000  | 98.3  | 386000  | 96.5  | 380000  | 95.0  |  |       |
| Chromium   |        | 500    | 0.100   |       | 491     | 98.2  | 0.200   |       | 476     | 95.2  |  |       |
| Cobalt     |        | 500    | 0.200   |       | 497     | 99.4  | 0.100   |       | 486     | 97.2  |  |       |
| Copper     |        | 500    | -1.70   |       | 516     | 103.2 | -2.20   |       | 502     | 100.4 |  |       |
| Iron       | 200000 | 200000 | 198000  | 99.0  | 201000  | 100.5 | 192000  | 96.0  | 193000  | 96.5  |  |       |
| Lead       |        | 1000   | 3.10    |       | 980     | 98.0  | 0.100   |       | 966     | 96.6  |  |       |
| Lithium    |        | 500    | 10.8    |       | 536     | 107.2 | 13.6    |       | 511     | 102.2 |  |       |
| Magnesium  | 500000 | 500000 | 509000  | 101.8 | 512000  | 102.4 | 498000  | 99.6  | 494000  | 98.8  |  |       |
| Manganese  |        | 500    | 0.600   |       | 515     | 103.0 | -0.300  |       | 498     | 99.6  |  |       |
| Molybdenum |        | 500    | 1.00    |       | 484     | 96.8  | 0.00    |       | 467     | 93.4  |  |       |
| Nickel     |        | 1000   | -0.500  |       | 981     | 98.1  | -0.700  |       | 964     | 96.4  |  |       |
| Phosphorus |        | 500    | 2.00    |       | 505     | 101.0 | 3.30    |       | 503     | 100.6 |  |       |
| Potassium  |        |        | 170     |       | 91.3    |       | 80.4    |       | 63.0    |       |  |       |
| Selenium   |        | 1000   | -0.300  |       | 998     | 99.8  | 0.700   |       | 976     | 97.6  |  |       |
| Silicon    |        | 500    | 17.8    |       | 510     | 102.0 | 17.9    |       | 503     | 100.6 |  |       |
| Silver     |        | 1000   | 4.00    |       | 998     | 99.8  | 0.900   |       | 967     | 96.7  |  |       |
| Sodium     |        |        | -39.7   |       | -4.20   |       | -49.6   |       | -40.8   |       |  |       |
| Strontium  |        | 500    | -2.70   |       | 513     | 102.6 | -2.40   |       | 501     | 100.2 |  |       |
| Sulfur     |        | 500    | -13.7   |       | 506     | 101.2 | -10.0   |       | 488     | 97.6  |  |       |
| Thallium   |        | 1000   | 0.400   |       | 999     | 99.9  | 0.700   |       | 977     | 97.7  |  |       |
| Tin        |        | 500    | -3.30   |       | 470     | 94.0  | -3.40   |       | 456     | 91.2  |  |       |
| Titanium   |        | 500    | -1.90   |       | 496     | 99.2  | -2.10   |       | 483     | 96.6  |  |       |
| Tungsten   |        | 500    | 2.10    |       | 481     | 96.2  | 3.40    |       | 473     | 94.6  |  |       |
| Vanadium   |        | 500    | 0.800   |       | 503     | 100.6 | 1.00    |       | 486     | 97.2  |  |       |
| Zinc       |        | 1000   | 3.40    |       | 959     | 95.9  | 3.10    |       | 938     | 93.8  |  |       |

14.6.7  
14



INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050918M1.ICP Date Analyzed: 05/09/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44373 Units: ug/l

| Time:      |      |       | 11:47   |       |         | 11:50 |         |       | 16:55   |       |  | 16:58 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |  |       |

Zirconium 500 -2.10 492 98.4 -2.30 476 95.2

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.6.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV Date Analyzed: 05/14/18 Methods: SW846 7471B  
Analyst: MS Run ID: MA44392  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:32 | MA44392-STD1       | 1               |          | B=9.6786e-005,C=-1.1493e-002,R=0.9999133             |
| 12:33 | MA44392-STD2       | 1               |          | STDB   |
| 12:35 | MA44392-STD3       | 1               |          | STDC   |
| 12:36 | MA44392-STD4       | 1               |          | STDD   |
| 12:37 | MA44392-STD5       | 1               |          | STDE   |
| 12:39 | MA44392-STD6       | 1               |          | STDF   |
| 12:49 | MA44392-ICV1       | 1               |          |  |
| 12:51 | MA44392-ICB1       | 1               |          |  |
| 12:52 | MA44392-CCV1       | 1               |          |  |
| 12:53 | MA44392-CCB1       | 1               |          |  |
| 12:55 | MA44392-CRI1       | 1               |          |  |
| 12:57 | MP7152-MB1         | 1               |          |  |
| 12:59 | MP7152-B1          | 1               |          |  |
| 13:00 | MP7152-S1          | 1               |          | %Sol   |
| 13:02 | MP7152-S2          | 1               |          | %Sol   |
| 13:03 | JC65784-50         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:05 | ZZZZZZ             | 1               |          |  |
| 13:06 | ZZZZZZ             | 1               |          |  |
| 13:08 | ZZZZZZ             | 1               |          |  |
| 13:09 | ZZZZZZ             | 1               |          |  |
| 13:10 | MA44392-CCV2       | 1               |          |  |
| 13:12 | MA44392-CCB2       | 1               |          |  |
| 13:13 | ZZZZZZ             | 1               |          |  |
| 13:15 | ZZZZZZ             | 1               |          |  |
| 13:16 | ZZZZZZ             | 1               |          |  |
| 13:18 | ZZZZZZ             | 1               |          |  |
| 13:19 | ZZZZZZ             | 1               |          |  |
| 13:20 | ZZZZZZ             | 1               |          |  |
| 13:22 | ZZZZZZ             | 1               |          |  |
| 13:23 | ZZZZZZ             | 1               |          |  |
| 13:24 | ZZZZZZ             | 1               |          |  |
| 13:26 | ZZZZZZ             | 1               |          |  |
| 13:27 | MA44392-CCV3       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV Date Analyzed: 05/14/18 Methods: SW846 7471B  
Analyst: MS Run ID: MA44392  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 13:29  | MA44392-CCB3                                | 1               |          |  |
| 13:30  | ZZZZZZ                                      | 1               |          |  |
| 13:32  | ZZZZZZ                                      | 1               |          |  |
| 13:33  | ZZZZZZ                                      | 1               |          |  |
| 13:34  | JC64996-7                                   | 1               |          |  |
| 13:36  | JC64996-10                                  | 1               |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 13:37  | MP7153-MB1                                  | 1               |          |  |
| 13:38  | MP7153-B1                                   | 1               |          |  |
| 13:40  | MP7153-S1                                   | 1               |          | %Sol   |
| 13:41  | MP7153-S2                                   | 1               |          | %Sol   |
| 13:43  | JC66031-1                                   | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:45  | MA44392-CCV4                                | 1               |          |  |
| 13:46  | MA44392-CCB4                                | 1               |          |  |
| -----> | Last reportable CCB for job JC64996         |                 |          |  |
| 13:48  | ZZZZZZ                                      | 1               |          |  |
| 13:49  | ZZZZZZ                                      | 1               |          |  |
| 13:50  | ZZZZZZ                                      | 1               |          |  |
| 13:52  | ZZZZZZ                                      | 1               |          |  |
| 13:53  | ZZZZZZ                                      | 1               |          |  |
| 13:54  | ZZZZZZ                                      | 1               |          |  |
| 13:56  | ZZZZZZ                                      | 1               |          |  |
| 13:57  | ZZZZZZ                                      | 1               |          |  |
| 13:58  | ZZZZZZ                                      | 1               |          |  |
| 14:00  | ZZZZZZ                                      | 1               |          |  |
| 14:02  | MA44392-CCV5                                | 1               |          |  |
| 14:04  | MA44392-CCB5                                | 1               |          |  |
| 14:06  | ZZZZZZ                                      | 1               |          |  |
| 14:08  | ZZZZZZ                                      | 1               |          |  |
| 14:10  | ZZZZZZ                                      | 1               |          |  |
| 14:12  | ZZZZZZ                                      | 1               |          |  |
| 14:14  | ZZZZZZ                                      | 1               |          |  |
| 14:15  | MA44392-CCV6                                | 1               |          |  |
| 14:17  | MA44392-CCB6                                | 1               |          |  |
| 14:41  | ZZZZZZ                                      | 10              |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV      Date Analyzed: 05/14/18      Methods: SW846 7471B  
Analyst: MS      Run ID: MA44392  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 14:43 | ZZZZZZ             | 10              |          |          |
| 14:44 | ZZZZZZ             | 10              |          |          |
| 14:46 | ZZZZZZ             | 5               |          |          |
| 14:48 | MA44392-CCV7       | 1               |          |          |
| 14:49 | MA44392-CCB7       | 1               |          |          |

Refer to raw data for calibration curve and standards.

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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV Date Analyzed: 05/14/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44392 Units: ug/l

| Time:      |      |      | 12:51   |       | 12:53   |       | 13:12   |       | 13:29   |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | ICB1    |       | CCB1    |       | CCB2    |       | CCB3    |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .025 | 0.00280 | <0.20 | -0.0180 | <0.20 | -0.0151 | <0.20 | -0.0169 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.7.1  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV      Date Analyzed: 05/14/18      Methods: SW846 7471B  
QC Limits: result < RL      Run ID: MA44392      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 13:46 |       |
| Sample ID: |    |     | CCB4  |       |
| Metal      | RL | IDL | raw   | final |

Mercury      0.20      .025      -0.00840 <0.20

(\*) Outside of QC limits  
(anr) Analyte not requested

14.7.1  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV      Date Analyzed: 05/14/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44392      Units: ug/l

|            | Time: | 12:49   |       | 12:52 |         | 13:10 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1  | CCV     | CCV2  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 3     | 2.96    | 98.7  | 2.5   | 2.44    | 97.6  | 2.5  | 2.41    | 96.4  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.7.2  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV      Date Analyzed: 05/14/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44392      Units: ug/l

|            | Time: | 13:27   |       | 13:45 |         |      |
|------------|-------|---------|-------|-------|---------|------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  |         |      |
| Metal      | True  | Results | % Rec | True  | Results |      |
|            |       |         |       |       | % Rec   |      |
| Mercury    | 2.5   | 2.42    | 96.8  | 2.5   | 2.42    | 96.8 |

(\*) Outside of QC limits  
(anr) Analyte not requested



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8051418S1.CSV      Date Analyzed: 05/14/18      Methods: SW846 7471B  
QC Limits: 70 to 130 % Recovery      Run ID: MA44392      Units: ug/l

|            |      |      |         |       |
|------------|------|------|---------|-------|
| Time:      |      |      | 12:55   |       |
| Sample ID: | CRI  | CRIA | CRI1    |       |
| Metal      | True | True | Results | % Rec |

Mercury      0.20      0.216      108.0

(\*) Outside of QC limits  
(anr) Analyte not requested

14.7.3

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 16:18 | MA44406-STD1       | 1               |          | STDA   |
| 16:23 | MA44406-STD2       | 1               |          | STDB   |
| 16:27 | ZZZZZZ             | 1               |          |  |
| 16:31 | ZZZZZZ             | 1               |          |  |
| 16:35 | ZZZZZZ             | 1               |          |  |
| 16:47 | ZZZZZZ             | 1               |          |  |
| 16:53 | MA44406-ICV1       | 1               |          |  |
| 17:00 | MA44406-ICB1       | 1               |          |  |
| 17:03 | MA44406-ICCV1      | 1               |          |  |
| 17:12 | MA44406-CCB1       | 1               |          |  |
| 17:16 | MA44406-CRI1       | 1               |          |  |
| 17:21 | MA44406-CRID1      | 1               |          |  |
| 17:25 | MA44406-ICSA1      | 1               |          |  |
| 17:30 | MA44406-ICSAB1     | 1               |          |  |
| 17:34 | MA44406-HSTD1      | 1               |          |  |
| 17:38 | MA44406-HSTD2      | 1               |          |  |
| 17:42 | ZZZZZZ             | 1               |          |  |
| 17:47 | ZZZZZZ             | 1               |          |  |
| 17:51 | ZZZZZZ             | 1               |          |  |
| 17:55 | MA44406-CCV1       | 1               |          |  |
| 18:00 | MA44406-CCB2       | 1               |          |  |
| 18:04 | MP7128-MB1         | 1               |          |  |
| 18:08 | MP7128-B1          | 1               |          |  |
| 18:12 | MP7128-S1          | 1               |          | Ca=450ppm, Na=300ppm                                 |
| 18:17 | MP7128-S2          | 1               |          | Ca=450ppm, Na=300ppm                                 |
| 18:21 | JC65865-3          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 18:26 | MP7128-SD1         | 5               |          | Ca=450ppm, Na=300ppm                                 |
| 18:30 | ZZZZZZ             | 1               |          |  |
| 18:34 | ZZZZZZ             | 1               |          |  |
| 18:39 | ZZZZZZ             | 1               |          |  |
| 18:43 | MA44406-CCV2       | 1               |          |  |
| 18:47 | MA44406-CCB3       | 1               |          |  |
| 18:52 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 18:56 | ZZZZZZ             | 1               |          |  |
| 19:00 | ZZZZZZ             | 1               |          |  |
| 19:05 | ZZZZZZ             | 1               |          |  |
| 19:09 | ZZZZZZ             | 1               |          |  |
| 19:13 | ZZZZZZ             | 1               |          |  |
| 19:18 | ZZZZZZ             | 1               |          |  |
| 19:22 | ZZZZZZ             | 1               |          |  |
| 19:27 | ZZZZZZ             | 1               |          |  |
| 19:31 | MA44406-CCV3       | 1               |          |  |
| 19:35 | MA44406-CCB4       | 1               |          |  |
| 19:40 | ZZZZZZ             | 1               |          |  |
| 19:44 | ZZZZZZ             | 1               |          |  |
| 19:48 | ZZZZZZ             | 1               |          |  |
| 19:53 | ZZZZZZ             | 1               |          |  |
| 19:57 | ZZZZZZ             | 1               |          |  |
| 20:02 | ZZZZZZ             | 1               |          |  |
| 20:06 | ZZZZZZ             | 1               |          |  |
| 20:10 | MP7079-B1          | 1               |          |  |
| 20:14 | MP7079-MB1         | 1               |          |  |
| 20:19 | MA44406-CCV4       | 1               |          |  |
| 20:23 | MA44406-CCB5       | 1               |          |  |
| 20:27 | MP7079-B2          | 1               |          |  |
| 20:31 | MP7079-S1          | 1               |          | Mn=9.5ppm  |
| 20:35 | MP7079-S2          | 1               |          | Mn=9.5ppm  |
| 20:39 | JC65639-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 20:44 | MP7079-SD1         | 5               |          |  |
| 20:48 | ZZZZZZ             | 1               |          |  |
| 20:52 | ZZZZZZ             | 1               |          |  |
| 20:57 | ZZZZZZ             | 1               |          |  |
| 21:01 | ZZZZZZ             | 1               |          |  |
| 21:06 | MA44406-CCV5       | 1               |          |  |
| 21:10 | MA44406-CCB6       | 1               |          |  |
| 21:14 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 21:18 | ZZZZZZ             | 1               |          |  |
| 21:23 | ZZZZZZ             | 1               |          |  |
| 21:27 | ZZZZZZ             | 1               |          |  |
| 21:31 | ZZZZZZ             | 1               |          |  |
| 21:36 | ZZZZZZ             | 1               |          |  |
| 21:40 | ZZZZZZ             | 1               |          |  |
| 21:44 | ZZZZZZ             | 1               |          |  |
| 21:49 | ZZZZZZ             | 1               |          |  |
| 21:53 | MA44406-CCV6       | 1               |          |  |
| 21:57 | MA44406-CCB7       | 1               |          |  |
| 22:01 | ZZZZZZ             | 1               |          |  |
| 22:06 | ZZZZZZ             | 1               |          |  |
| 22:10 | ZZZZZZ             | 1               |          |  |
| 22:14 | ZZZZZZ             | 1               |          |  |
| 22:19 | ZZZZZZ             | 1               |          |  |
| 22:23 | ZZZZZZ             | 1               |          |  |
| 22:27 | MP7081-B1          | 1               |          |  |
| 22:31 | MP7081-B2          | 1               |          |  |
| 22:35 | MP7081-MB1         | 1               |          |  |
| 22:39 | MP7081-MB2         | 1               |          |  |
| 22:44 | MA44406-CCV7       | 1               |          |  |
| 22:48 | MA44406-CCB8       | 1               |          |  |
| 22:52 | MP7081-S1          | 1               |          |  |
| 22:56 | MP7081-S2          | 1               |          |  |
| 23:00 | JC65581-7          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 23:05 | MP7081-SD1         | 5               |          |  |
| 23:09 | MP7081-S3          | 1               |          |  |
| 23:13 | MP7081-S4          | 1               |          |  |
| 23:17 | JC65581-7F         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 23:21 | MP7081-SD2         | 5               |          |  |
| 23:26 | ZZZZZZ             | 1               |          |  |
| 23:30 | MA44406-CCV8       | 1               |          |  |
| 23:34 | MA44406-CCB9       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 23:38 | MA44406-CRI2       | 1               |          | Sn out   |
| 23:43 | MA44406-CRID2      | 1               |          |          |
| 23:47 | MA44406-ICSA2      | 1               |          |          |
| 23:52 | MA44406-ICSAB2     | 1               |          |          |
| 23:56 | ZZZZZZ             | 10              |          |          |
| 00:00 | MA44406-CCV9       | 1               |          |          |
| 00:04 | MA44406-CCB10      | 1               |          |          |
| 00:09 | ZZZZZZ             | 1               |          |          |
| 00:13 | ZZZZZZ             | 1               |          |          |
| 00:17 | ZZZZZZ             | 1               |          |          |
| 00:22 | ZZZZZZ             | 1               |          |          |
| 00:26 | ZZZZZZ             | 1               |          |          |
| 00:30 | ZZZZZZ             | 1               |          |          |
| 00:35 | ZZZZZZ             | 1               |          |          |
| 00:39 | ZZZZZZ             | 1               |          |          |
| 00:44 | ZZZZZZ             | 1               |          |          |
| 00:48 | ZZZZZZ             | 1               |          |          |
| 00:52 | ZZZZZZ             | 1               |          |          |
| 00:57 | ZZZZZZ             | 1               |          |          |
| 01:01 | MA44406-CCV10      | 1               |          |          |
| 01:05 | MA44406-CCB11      | 1               |          |          |
| 01:10 | ZZZZZZ             | 1               |          |          |
| 01:14 | ZZZZZZ             | 1               |          |          |
| 01:18 | ZZZZZZ             | 1               |          |          |
| 01:22 | ZZZZZZ             | 1               |          |          |
| 01:27 | ZZZZZZ             | 1               |          |          |
| 01:31 | ZZZZZZ             | 1               |          |          |
| 01:35 | ZZZZZZ             | 1               |          |          |
| 01:39 | ZZZZZZ             | 1               |          |          |
| 01:44 | ZZZZZZ             | 1               |          |          |
| 01:48 | MA44406-CCV11      | 1               |          |          |
| 01:52 | MA44406-CCB12      | 1               |          |          |
| 01:56 | ZZZZZZ             | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 02:01  | ZZZZZZ                                      | 1               |          |  |
| 02:05  | ZZZZZZ                                      | 1               |          |  |
| 02:09  | ZZZZZZ                                      | 1               |          |  |
| 02:14  | ZZZZZZ                                      | 1               |          |  |
| 02:18  | ZZZZZZ                                      | 1               |          |  |
| 02:22  | ZZZZZZ                                      | 1               |          |  |
| 02:26  | ZZZZZZ                                      | 1               |          |  |
| 02:31  | MP7031-B3                                   | 5               |          |  |
| 02:35  | MA44406-CCV12                               | 1               |          |  |
| 02:39  | MA44406-CCB13                               | 1               |          |  |
| 02:43  | MP7031-MB3                                  | 5               |          |  |
| 02:48  | ZZZZZZ                                      | 5               |          |  |
| 02:52  | ZZZZZZ                                      | 5               |          |  |
| 02:56  | MP7131-B1                                   | 1               |          | Batch to reanalysis for Sn, CRI out                  |
| 03:01  | MP7131-MB1                                  | 1               |          |  |
| 03:05  | MP7131-S1                                   | 1               |          |  |
| 03:09  | MP7131-S2                                   | 1               |          |  |
| 03:13  | JC65891-6                                   | 1               |          | (sample used for QC only; not part of login JC64996) |
| 03:17  | MP7131-SD1                                  | 5               |          |  |
| 03:21  | MA44406-CCV13                               | 1               |          |  |
| 03:26  | MA44406-CCB14                               | 1               |          |  |
| 03:30  | JC64996-7                                   | 1               |          |  |
| 03:34  | JC64996-10                                  | 1               |          | Ca and Mn high                                       |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 03:39  | ZZZZZZ                                      | 1               |          |  |
| 03:43  | ZZZZZZ                                      | 1               |          |  |
| 03:47  | ZZZZZZ                                      | 1               |          |  |
| 03:51  | ZZZZZZ                                      | 1               |          |  |
| 03:56  | ZZZZZZ                                      | 1               |          |  |
| 04:00  | ZZZZZZ                                      | 1               |          |  |
| 04:04  | ZZZZZZ                                      | 1               |          |  |
| 04:08  | MA44406-CCV14                               | 1               |          |  |
| 04:12  | MA44406-CCB15                               | 1               |          |  |
| 04:17  | ZZZZZZ                                      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 04:21 | ZZZZZZ             | 1               |          |  |
| 04:25 | ZZZZZZ             | 1               |          |  |
| 04:30 | ZZZZZZ             | 1               |          |  |
| 04:34 | ZZZZZZ             | 1               |          |  |
| 04:38 | ZZZZZZ             | 1               |          |  |
| 04:42 | ZZZZZZ             | 1               |          |  |
| 04:46 | ZZZZZZ             | 1               |          |  |
| 04:51 | ZZZZZZ             | 1               |          |  |
| 04:55 | ZZZZZZ             | 1               |          |  |
| 04:59 | MA44406-CCV15      | 1               |          |  |
| 05:03 | MA44406-CCB16      | 1               |          |  |
| 05:07 | MP7133-MB1         | 1               |          |  |
| 05:12 | MP7133-B1          | 1               |          |  |
| 05:16 | MP7133-S1          | 1               |          |  |
| 05:20 | MP7133-S2          | 1               |          |  |
| 05:24 | JC65789-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 05:28 | MP7133-SD1         | 5               |          |  |
| 05:33 | ZZZZZZ             | 1               |          |  |
| 05:37 | ZZZZZZ             | 1               |          |  |
| 05:41 | ZZZZZZ             | 1               |          |  |
| 05:46 | MA44406-CCV16      | 1               |          |  |
| 05:50 | MA44406-CCB17      | 1               |          |  |
| 05:54 | ZZZZZZ             | 1               |          |  |
| 05:58 | ZZZZZZ             | 1               |          |  |
| 06:03 | ZZZZZZ             | 1               |          |  |
| 06:07 | ZZZZZZ             | 1               |          |  |
| 06:11 | ZZZZZZ             | 1               |          |  |
| 06:16 | ZZZZZZ             | 1               |          |  |
| 06:20 | ZZZZZZ             | 1               |          |  |
| 06:24 | ZZZZZZ             | 1               |          |  |
| 06:29 | ZZZZZZ             | 1               |          |  |
| 06:33 | MA44406-CCV17      | 1               |          |  |
| 06:37 | MA44406-CCB18      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 06:41  | ZZZZZZ                              | 1               |          |  |
| 06:46  | ZZZZZZ                              | 1               |          |  |
| 06:50  | ZZZZZZ                              | 1               |          |  |
| 06:54  | ZZZZZZ                              | 1               |          |  |
| 06:58  | ZZZZZZ                              | 1               |          |  |
| 07:03  | ZZZZZZ                              | 1               |          |  |
| 07:07  | ZZZZZZ                              | 1               |          |  |
| 07:12  | MA44406-CCV18                       | 1               |          |  |
| 07:16  | MA44406-CCB19                       | 1               |          |  |
| 07:20  | MA44406-CRI3                        | 1               |          |  |
| 07:24  | MA44406-CRID3                       | 1               |          |  |
| 07:29  | MA44406-CCV19                       | 1               |          |  |
| 07:33  | MA44406-CCB20                       | 1               |          |  |
| -----> | Last reportable CCB for job JC64996 |                 |          |  |
| 07:37  | MP7127-MB1                          | 1               |          |  |
| 07:41  | MP7127-B1                           | 1               |          |  |
| 07:46  | MP7127-S1                           | 1               |          |  |
| 07:50  | MP7127-S2                           | 1               |          |  |
| 07:54  | FA54079-6                           | 1               |          | (sample used for QC only; not part of login JC64996) |
| 07:58  | MP7127-SD1                          | 5               |          |  |
| 08:02  | MA44406-CCV20                       | 1               |          |  |
| 08:06  | MA44406-CCB21                       | 1               |          |  |
| 08:11  | ZZZZZZ                              | 1               |          |  |
| 08:15  | ZZZZZZ                              | 1               |          |  |
| 08:20  | ZZZZZZ                              | 1               |          |  |
| 08:24  | ZZZZZZ                              | 1               |          |  |
| 08:29  | ZZZZZZ                              | 1               |          |  |
| 08:33  | ZZZZZZ                              | 1               |          |  |
| 08:37  | ZZZZZZ                              | 1               |          |  |
| 08:42  | MA44406-CCV21                       | 1               |          |  |
| 08:46  | MA44406-CCB22                       | 1               |          |  |
| 08:50  | ZZZZZZ                              | 1               |          |  |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2  | Istd#3  | Istd#4 |
|-------|--------------------|--------|---------|---------|--------|
| 16:18 | MA44406-STD1       | 3348 R | 89486 R | 18355 R | 7985 R |
| 16:23 | MA44406-STD2       | 3142   | 83864   | 18041   | 6827   |
| 16:27 | ZZZZZZ             | 3238   | 85611   | 18068   | 7115   |
| 16:31 | ZZZZZZ             | 3370   | 89427   | 18296   | 8037   |
| 16:35 | ZZZZZZ             | 3332   | 88603   | 18236   | 7804   |
| 16:47 | ZZZZZZ             | 3319   | 88630   | 18206   | 7791   |
| 16:53 | MA44406-ICV1       | 3249   | 85904   | 17975   | 7145   |
| 17:00 | MA44406-ICB1       | 3382   | 90027   | 18300   | 8046   |
| 17:03 | MA44406-ICCV1      | 3248   | 85920   | 18042   | 7129   |
| 17:12 | MA44406-CCB1       | 3378   | 90125   | 18306   | 8034   |
| 17:16 | MA44406-CRI1       | 3340   | 88950   | 18243   | 7787   |
| 17:21 | MA44406-CRID1      | 3374   | 89807   | 18225   | 7972   |
| 17:25 | MA44406-ICSA1      | 3000   | 78928   | 17508   | 6260   |
| 17:30 | MA44406-ICSAB1     | 2999   | 78649   | 17529   | 6268   |
| 17:34 | MA44406-HSTD1      | 3347   | 88559   | 18251   | 7795   |
| 17:38 | MA44406-HSTD2      | 3064   | 80078   | 17394   | 6363   |
| 17:42 | ZZZZZZ             | 3349   | 88621   | 18012   | 7945   |
| 17:47 | ZZZZZZ             | 3325   | 90502   | 18008   | 8033   |
| 17:51 | ZZZZZZ             | 3408   | 90619   | 18074   | 8078   |
| 17:55 | MA44406-CCV1       | 3277   | 86569   | 17766   | 7161   |
| 18:00 | MA44406-CCB2       | 3409   | 90486   | 18026   | 8076   |
| 18:04 | MP7128-MB1         | 3381   | 90193   | 18204   | 8016   |
| 18:08 | MP7128-B1          | 3300   | 87356   | 18053   | 7333   |
| 18:12 | MP7128-S1          | 2963   | 79376   | 17314   | 6235   |
| 18:17 | MP7128-S2          | 2947   | 78761   | 17236   | 6202   |
| 18:21 | JC65865-3          | 2926   | 78443   | 17109   | 6237   |
| 18:26 | MP7128-SD1         | 3203   | 85072   | 17449   | 7100   |
| 18:30 | ZZZZZZ             | 3349   | 88912   | 18018   | 7792   |
| 18:34 | ZZZZZZ             | 3094   | 82375   | 17601   | 6689   |
| 18:39 | ZZZZZZ             | 3027   | 81313   | 17365   | 6614   |
| 18:43 | MA44406-CCV2       | 3295   | 86771   | 17929   | 7206   |
| 18:47 | MA44406-CCB3       | 3409   | 90939   | 17858   | 8078   |
| 18:52 | ZZZZZZ             | 3090   | 82448   | 17423   | 6680   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 18:56 | ZZZZZZ             | 3167   | 85166  | 17676  | 7007   |
| 19:00 | ZZZZZZ             | 3082   | 82228  | 17359  | 6666   |
| 19:05 | ZZZZZZ             | 3105   | 82573  | 17362  | 6678   |
| 19:09 | ZZZZZZ             | 3085   | 82306  | 17308  | 6609   |
| 19:13 | ZZZZZZ             | 2934   | 79445  | 17039  | 6284   |
| 19:18 | ZZZZZZ             | 3087   | 82555  | 17410  | 6660   |
| 19:22 | ZZZZZZ             | 2936   | 78954  | 16898  | 6240   |
| 19:27 | ZZZZZZ             | 3002   | 81097  | 17065  | 6558   |
| 19:31 | MA44406-CCV3       | 3287   | 86574  | 17400  | 7164   |
| 19:35 | MA44406-CCB4       | 3416   | 90327  | 17660  | 8072   |
| 19:40 | ZZZZZZ             | 3059   | 82003  | 17039  | 6616   |
| 19:44 | ZZZZZZ             | 3157   | 84339  | 17188  | 6961   |
| 19:48 | ZZZZZZ             | 3103   | 81628  | 16948  | 6692   |
| 19:53 | ZZZZZZ             | 3082   | 81808  | 17091  | 6625   |
| 19:57 | ZZZZZZ             | 3073   | 81890  | 16996  | 6604   |
| 20:02 | ZZZZZZ             | 2956   | 79406  | 16655  | 6312   |
| 20:06 | ZZZZZZ             | 3395   | 90382  | 17576  | 8015   |
| 20:10 | MP7079-B1          | 3293   | 87492  | 17467  | 7322   |
| 20:14 | MP7079-MB1         | 3403   | 90625  | 17563  | 8040   |
| 20:19 | MA44406-CCV4       | 3297   | 86368  | 17227  | 7169   |
| 20:23 | MA44406-CCB5       | 3429   | 90982  | 17472  | 8087   |
| 20:27 | MP7079-B2          | 3321   | 87545  | 17457  | 7347   |
| 20:31 | MP7079-S1          | 3191   | 84483  | 17315  | 6787   |
| 20:35 | MP7079-S2          | 3195   | 85585  | 17166  | 6788   |
| 20:39 | JC65639-1          | 3193   | 84682  | 17146  | 6986   |
| 20:44 | MP7079-SD1         | 3346   | 88541  | 17256  | 7645   |
| 20:48 | ZZZZZZ             | 3422   | 90607  | 17550  | 8064   |
| 20:52 | ZZZZZZ             | 3176   | 84407  | 17192  | 7004   |
| 20:57 | ZZZZZZ             | 3160   | 83208  | 17069  | 6733   |
| 21:01 | ZZZZZZ             | 3225   | 85626  | 17178  | 6937   |
| 21:06 | MA44406-CCV5       | 3294   | 85753  | 17067  | 7153   |
| 21:10 | MA44406-CCB6       | 3426   | 90392  | 17219  | 8067   |
| 21:14 | ZZZZZZ             | 3209   | 85164  | 17107  | 6900   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 21:18 | ZZZZZZ             | 3077   | 81859  | 17026  | 6514   |
| 21:23 | ZZZZZZ             | 3255   | 86026  | 17398  | 7233   |
| 21:27 | ZZZZZZ             | 3420   | 90719  | 17582  | 8057   |
| 21:31 | ZZZZZZ             | 3381   | 89633  | 17492  | 7789   |
| 21:36 | ZZZZZZ             | 3352   | 88703  | 17575  | 7664   |
| 21:40 | ZZZZZZ             | 3382   | 90022  | 17697  | 7861   |
| 21:44 | ZZZZZZ             | 3323   | 87837  | 17458  | 7565   |
| 21:49 | ZZZZZZ             | 3356   | 88951  | 17626  | 7696   |
| 21:53 | MA44406-CCV6       | 3278   | 86146  | 17253  | 7170   |
| 21:57 | MA44406-CCB7       | 3414   | 90296  | 17486  | 8091   |
| 22:01 | ZZZZZZ             | 3335   | 88950  | 17749  | 7676   |
| 22:06 | ZZZZZZ             | 2901   | 77546  | 17095  | 6132   |
| 22:10 | ZZZZZZ             | 3095   | 83119  | 17601  | 6822   |
| 22:14 | ZZZZZZ             | 3133   | 83608  | 17650  | 6849   |
| 22:19 | ZZZZZZ             | 3233   | 86188  | 18110  | 7198   |
| 22:23 | ZZZZZZ             | 2858   | 74544  | 17251  | 5946   |
| 22:27 | MP7081-B1          | 3260   | 86692  | 18307  | 7324   |
| 22:31 | MP7081-B2          | 3249   | 86755  | 18446  | 7314   |
| 22:35 | MP7081-MB1         | 3349   | 90413  | 18526  | 8041   |
| 22:39 | MP7081-MB2         | 3327   | 90169  | 18590  | 7997   |
| 22:44 | MA44406-CCV7       | 3202   | 85636  | 18177  | 7106   |
| 22:48 | MA44406-CCB8       | 3323   | 89820  | 18364  | 8005   |
| 22:52 | MP7081-S1          | 3151   | 84826  | 18488  | 6978   |
| 22:56 | MP7081-S2          | 3144   | 84685  | 18831  | 6974   |
| 23:00 | JC65581-7          | 3160   | 85695  | 18404  | 7265   |
| 23:05 | MP7081-SD1         | 3264   | 88646  | 18394  | 7752   |
| 23:09 | MP7081-S3          | 3128   | 85053  | 18366  | 6941   |
| 23:13 | MP7081-S4          | 3146   | 85205  | 18423  | 6990   |
| 23:17 | JC65581-7F         | 3144   | 86065  | 18295  | 7258   |
| 23:21 | MP7081-SD2         | 3252   | 88716  | 18546  | 7745   |
| 23:26 | ZZZZZZ             | 3258   | 88357  | 18716  | 7275   |
| 23:30 | MA44406-CCV8       | 3144   | 85084  | 18252  | 7027   |
| 23:34 | MA44406-CCB9       | 3278   | 89828  | 18612  | 7931   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 23:38 | MA44406-CRI2       | 3226   | 88174     | 18282  | 7683   |
| 23:43 | MA44406-CRID2      | 3258   | 88872     | 18549  | 7850   |
| 23:47 | MA44406-ICSA2      | 2884   | 78015     | 17593  | 6137   |
| 23:52 | MA44406-ICSAB2     | 2878   | 78132     | 17417  | 6133   |
| 23:56 | ZZZZZZ             | 3158   | 85372     | 18276  | 7067   |
| 00:00 | MA44406-CCV9       | 3133   | 84950     | 18179  | 7009   |
| 00:04 | MA44406-CCB10      | 3265   | 89679     | 18401  | 7912   |
| 00:09 | ZZZZZZ             | 2971   | 81166     | 17572  | 6685   |
| 00:13 | ZZZZZZ             | 3348   | 85499     | 18953  | 6957   |
| 00:17 | ZZZZZZ             | 2943   | 81208     | 17548  | 6634   |
| 00:22 | ZZZZZZ             | 3278   | 89820     | 18389  | 7933   |
| 00:26 | ZZZZZZ             | 3285   | 90016     | 18178  | 7907   |
| 00:30 | ZZZZZZ             | 3259   | 89420     | 18216  | 7860   |
| 00:35 | ZZZZZZ             | 3255   | 89103     | 18140  | 7892   |
| 00:39 | ZZZZZZ             | 3254   | 89103     | 18100  | 7842   |
| 00:44 | ZZZZZZ             | 3266   | 89290     | 18284  | 7870   |
| 00:48 | ZZZZZZ             | 3252   | 88503     | 18106  | 7843   |
| 00:52 | ZZZZZZ             | 3249   | 89249     | 18163  | 7895   |
| 00:57 | ZZZZZZ             | 3250   | 86377     | 18158  | 7871   |
| 01:01 | MA44406-CCV10      | 3131   | 84882     | 18130  | 7001   |
| 01:05 | MA44406-CCB11      | 3250   | 89177     | 18074  | 7873   |
| 01:10 | ZZZZZZ             | 3239   | 999999 !a | 18431  | 7629   |
| 01:14 | ZZZZZZ             | 3132   | 999999 !a | 18375  | 7109   |
| 01:18 | ZZZZZZ             | 3029   | 83509     | 17907  | 6797   |
| 01:22 | ZZZZZZ             | 3205   | 86997     | 18376  | 7281   |
| 01:27 | ZZZZZZ             | 3067   | 84325     | 18106  | 6976   |
| 01:31 | ZZZZZZ             | 3056   | 84129     | 17923  | 6953   |
| 01:35 | ZZZZZZ             | 3128   | 86048     | 18154  | 7217   |
| 01:39 | ZZZZZZ             | 3114   | 85646     | 18109  | 7196   |
| 01:44 | ZZZZZZ             | 3030   | 83363     | 17770  | 6966   |
| 01:48 | MA44406-CCV11      | 3128   | 84468     | 17854  | 6987   |
| 01:52 | MA44406-CCB12      | 3255   | 89039     | 18134  | 7887   |
| 01:56 | ZZZZZZ             | 3017   | 83273     | 17800  | 6946   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 02:01 | ZZZZZZ             | 3227   | 89021  | 18046  | 7827   |
| 02:05 | ZZZZZZ             | 3062   | 83959  | 17771  | 6977   |
| 02:09 | ZZZZZZ             | 3055   | 84311  | 18007  | 6956   |
| 02:14 | ZZZZZZ             | 3104   | 85648  | 18028  | 7206   |
| 02:18 | ZZZZZZ             | 3109   | 85815  | 17927  | 7183   |
| 02:22 | ZZZZZZ             | 3032   | 83581  | 17735  | 6983   |
| 02:26 | ZZZZZZ             | 3041   | 83686  | 17788  | 6986   |
| 02:31 | MP7031-B3          | 3234   | 88274  | 18158  | 7626   |
| 02:35 | MA44406-CCV12      | 3147   | 85464  | 17914  | 7024   |
| 02:39 | MA44406-CCB13      | 3287   | 90056  | 18252  | 7931   |
| 02:43 | MP7031-MB3         | 3261   | 90156  | 18208  | 7890   |
| 02:48 | ZZZZZZ             | 3055   | 82369  | 17848  | 6779   |
| 02:52 | ZZZZZZ             | 2925   | 81068  | 17682  | 6583   |
| 02:56 | MP7131-B1          | 3143   | 85833  | 18004  | 7138   |
| 03:01 | MP7131-MB1         | 3277   | 90428  | 18316  | 7934   |
| 03:05 | MP7131-S1          | 3243   | 88239  | 18765  | 6988   |
| 03:09 | MP7131-S2          | 3231   | 88037  | 18768  | 6972   |
| 03:13 | JC65891-6          | 3335   | 90550  | 18866  | 7360   |
| 03:17 | MP7131-SD1         | 3287   | 89538  | 18178  | 7650   |
| 03:21 | MA44406-CCV13      | 3127   | 84922  | 17834  | 6971   |
| 03:26 | MA44406-CCB14      | 3257   | 89351  | 18060  | 7868   |
| 03:30 | JC64996-7          | 3002   | 82150  | 17888  | 6184   |
| 03:34 | JC64996-10         | 2960   | 81752  | 18016  | 6028   |
| 03:39 | ZZZZZZ             | 3154   | 85970  | 18278  | 6913   |
| 03:43 | ZZZZZZ             | 3319   | 90140  | 18586  | 7326   |
| 03:47 | ZZZZZZ             | 3239   | 88510  | 18286  | 7305   |
| 03:51 | ZZZZZZ             | 3328   | 90260  | 18639  | 7394   |
| 03:56 | ZZZZZZ             | 3264   | 88524  | 18388  | 7385   |
| 04:00 | ZZZZZZ             | 3315   | 89930  | 18457  | 7400   |
| 04:04 | ZZZZZZ             | 3240   | 87899  | 18286  | 7362   |
| 04:08 | MA44406-CCV14      | 3115   | 84761  | 17690  | 6958   |
| 04:12 | MA44406-CCB15      | 3269   | 89238  | 17840  | 7910   |
| 04:17 | ZZZZZZ             | 3284   | 89497  | 18547  | 7183   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 04:21 | ZZZZZZ             | 3191   | 87356  | 18268  | 7489   |
| 04:25 | ZZZZZZ             | 3320   | 90748  | 19487  | 6666   |
| 04:30 | ZZZZZZ             | 3306   | 88470  | 18489  | 7153   |
| 04:34 | ZZZZZZ             | 3367   | 91044  | 19064  | 7218   |
| 04:38 | ZZZZZZ             | 3357   | 91537  | 19079  | 7086   |
| 04:42 | ZZZZZZ             | 3356   | 90658  | 18720  | 7290   |
| 04:46 | ZZZZZZ             | 3316   | 89824  | 18833  | 6975   |
| 04:51 | ZZZZZZ             | 3310   | 89723  | 18790  | 7162   |
| 04:55 | ZZZZZZ             | 3287   | 88300  | 17997  | 7397   |
| 04:59 | MA44406-CCV15      | 3133   | 84808  | 17569  | 6996   |
| 05:03 | MA44406-CCB16      | 3246   | 88850  | 17734  | 7856   |
| 05:07 | MP7133-MB1         | 3245   | 89347  | 17874  | 7855   |
| 05:12 | MP7133-B1          | 3162   | 86016  | 17707  | 7179   |
| 05:16 | MP7133-S1          | 3149   | 85972  | 17821  | 7087   |
| 05:20 | MP7133-S2          | 3155   | 85935  | 17893  | 7095   |
| 05:24 | JC65789-1          | 3228   | 88361  | 17806  | 7539   |
| 05:28 | MP7133-SD1         | 3255   | 88700  | 17714  | 7812   |
| 05:33 | ZZZZZZ             | 3099   | 84872  | 17585  | 7110   |
| 05:37 | ZZZZZZ             | 2856   | 77385  | 17018  | 6166   |
| 05:41 | ZZZZZZ             | 3050   | 83685  | 17432  | 6830   |
| 05:46 | MA44406-CCV16      | 3138   | 84807  | 17466  | 7006   |
| 05:50 | MA44406-CCB17      | 3277   | 88776  | 17595  | 7910   |
| 05:54 | ZZZZZZ             | 3094   | 84838  | 17474  | 7137   |
| 05:58 | ZZZZZZ             | 3171   | 86726  | 17592  | 7384   |
| 06:03 | ZZZZZZ             | 3256   | 89162  | 17802  | 7877   |
| 06:07 | ZZZZZZ             | 3191   | 87181  | 17625  | 7508   |
| 06:11 | ZZZZZZ             | 3091   | 84882  | 17365  | 7116   |
| 06:16 | ZZZZZZ             | 2850   | 77057  | 16869  | 6151   |
| 06:20 | ZZZZZZ             | 3046   | 83479  | 17442  | 6842   |
| 06:24 | ZZZZZZ             | 3097   | 84877  | 17210  | 7147   |
| 06:29 | ZZZZZZ             | 3164   | 86166  | 17475  | 7356   |
| 06:33 | MA44406-CCV17      | 3135   | 84481  | 17332  | 7004   |
| 06:37 | MA44406-CCB18      | 3263   | 88834  | 17474  | 7893   |

14.8.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44406  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 06:41 | ZZZZZZ             | 3247   | 88578     | 17688  | 7687   |
| 06:46 | ZZZZZZ             | 3009   | 82495     | 17202  | 6900   |
| 06:50 | ZZZZZZ             | 3197   | 86918     | 17477  | 7508   |
| 06:54 | ZZZZZZ             | 3068   | 83995     | 17482  | 6918   |
| 06:58 | ZZZZZZ             | 3166   | 86271     | 17457  | 7121   |
| 07:03 | ZZZZZZ             | 2964   | 80701     | 17060  | 6442   |
| 07:07 | ZZZZZZ             | 3261   | 89032     | 17489  | 7872   |
| 07:12 | MA44406-CCV18      | 3140   | 84392     | 17147  | 7010   |
| 07:16 | MA44406-CCB19      | 3269   | 88607     | 17453  | 7899   |
| 07:20 | MA44406-CRI3       | 3207   | 87338     | 17270  | 7619   |
| 07:24 | MA44406-CRID3      | 3242   | 88374     | 17384  | 7807   |
| 07:29 | MA44406-CCV19      | 3110   | 84138     | 17188  | 6962   |
| 07:33 | MA44406-CCB20      | 3277   | 89116     | 17470  | 7926   |
| 07:37 | MP7127-MB1         | 3308   | 90259     | 17962  | 8098   |
| 07:41 | MP7127-B1          | 3181   | 87120     | 17742  | 7275   |
| 07:46 | MP7127-S1          | 3207   | 999999 !a | 17934  | 7296   |
| 07:50 | MP7127-S2          | 3156   | 85950     | 17703  | 7177   |
| 07:54 | FA54079-6          | 3297   | 89230     | 17845  | 7850   |
| 07:58 | MP7127-SD1         | 3240   | 87545     | 17078  | 7787   |
| 08:02 | MA44406-CCV20      | 3121   | 83969     | 16897  | 6951   |
| 08:06 | MA44406-CCB21      | 3273   | 88658     | 16937  | 7874   |
| 08:11 | ZZZZZZ             | 3303   | 89889     | 17436  | 7859   |
| 08:15 | ZZZZZZ             | 3316   | 89530     | 17476  | 7902   |
| 08:20 | ZZZZZZ             | 3285   | 87881     | 16826  | 7841   |
| 08:24 | ZZZZZZ             | 3371   | 91088     | 17277  | 8023   |
| 08:29 | ZZZZZZ             | 3199   | 85436     | 16867  | 7152   |
| 08:33 | ZZZZZZ             | 3313   | 88932     | 17042  | 7672   |
| 08:37 | ZZZZZZ             | 3211   | 86141     | 16842  | 7166   |
| 08:42 | MA44406-CCV21      | 3201   | 85103     | 16217  | 7027   |
| 08:46 | MA44406-CCB22      | 3378   | 90121     | 16527  | 8009   |
| 08:50 | ZZZZZZ             | 3326   | 88722     | 16543  | 7740   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |

14.8.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44406  
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time   | Sample Description | Istd#1 | Istd#2   | Istd#3 | Istd#4 |
|--------|--------------------|--------|----------|--------|--------|
| Istd#4 | Yttrium (3600)     |        | 70-130 % |        |        |
| Istd#3 | Yttrium (3710)     |        | 70-130 % |        |        |
| Istd#4 | Indium             |        | 70-130 % |        |        |

(a) No samples reported for the elements associated with this internal standard.



BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:<br>Sample ID: | RL    | IDL | 17:00<br>ICB1<br>raw | final  | 17:12<br>CCB1<br>raw | final  | 18:00<br>CCB2<br>raw | final  | 18:47<br>CCB3<br>raw | final  |
|---------------------|-------|-----|----------------------|--------|----------------------|--------|----------------------|--------|----------------------|--------|
| Aluminum            | 200   | 34  | 1.90                 | <200   | 2.60                 | <200   | 6.50                 | <200   | 5.20                 | <200   |
| Antimony            | 6.0   | 1.4 | 0.100                | <6.0   | 0.400                | <6.0   | 0.300                | <6.0   | -0.100               | <6.0   |
| Arsenic             | 3.0   | 1.4 | 0.700                | <3.0   | -0.200               | <3.0   | 0.500                | <3.0   | -0.600               | <3.0   |
| Barium              | 200   | .5  | -0.300               | <200   | -0.100               | <200   | -0.100               | <200   | -0.100               | <200   |
| Beryllium           | 1.0   | .2  | 0.00                 | <1.0   | 0.00                 | <1.0   | 0.00                 | <1.0   | 0.00                 | <1.0   |
| Bismuth             | 20    | 2.5 |                      |        |                      |        |                      |        |                      |        |
| Boron               | 100   | 1.9 | anr                  |        |                      |        |                      |        |                      |        |
| Cadmium             | 3.0   | .3  | 0.100                | <3.0   | -0.100               | <3.0   | 0.00                 | <3.0   | 0.200                | <3.0   |
| Calcium             | 5000  | 8.7 | -0.300               | <5000  | 2.20                 | <5000  | 0.800                | <5000  | -1.80                | <5000  |
| Chromium            | 10    | .6  | 0.500                | <10    | 0.00                 | <10    | 0.600                | <10    | -0.100               | <10    |
| Cobalt              | 50    | .5  | 0.00                 | <50    | 0.00                 | <50    | -0.100               | <50    | 0.00                 | <50    |
| Copper              | 10    | 1.2 | -0.600               | <10    | -0.400               | <10    | -0.700               | <10    | -0.700               | <10    |
| Iron                | 100   | 4.6 | 0.400                | <100   | 0.00                 | <100   | -0.700               | <100   | 0.500                | <100   |
| Lead                | 3.0   | 1.4 | -0.200               | <3.0   | 0.300                | <3.0   | -0.300               | <3.0   | 0.800                | <3.0   |
| Lithium             | 50    | 2.8 |                      |        |                      |        |                      |        |                      |        |
| Magnesium           | 5000  | 33  | -16.7                | <5000  | -1.00                | <5000  | -15.2                | <5000  | -3.20                | <5000  |
| Manganese           | 15    | .1  | -0.100               | <15    | 0.00                 | <15    | 0.00                 | <15    | -0.100               | <15    |
| Molybdenum          | 20    | .4  | anr                  |        |                      |        |                      |        |                      |        |
| Nickel              | 10    | .5  | 0.00                 | <10    | -0.100               | <10    | 0.200                | <10    | 0.100                | <10    |
| Phosphorus          | 50    | 1.7 |                      |        |                      |        |                      |        |                      |        |
| Potassium           | 10000 | 68  | 6.10                 | <10000 | 18.9                 | <10000 | 47.0                 | <10000 | 57.9                 | <10000 |
| Selenium            | 10    | 3.8 | -0.200               | <10    | 0.600                | <10    | 0.00                 | <10    | -2.30                | <10    |
| Silicon             | 200   | 2.1 | anr                  |        |                      |        |                      |        |                      |        |
| Silver              | 10    | .5  | 0.600                | <10    | 0.500                | <10    | 0.200                | <10    | 0.100                | <10    |
| Sodium              | 10000 | 15  | -2.60                | <10000 | -9.30                | <10000 | -9.20                | <10000 | 33.7                 | <10000 |
| Strontium           | 10    | .2  |                      |        |                      |        |                      |        |                      |        |
| Sulfur              | 50    | 20  |                      |        |                      |        |                      |        |                      |        |
| Thallium            | 2.0   | 1.6 | 0.600                | <2.0   | 0.00                 | <2.0   | 0.200                | <2.0   | 0.200                | <2.0   |
| Tin                 | 10    | 1   | anr                  |        |                      |        |                      |        |                      |        |
| Titanium            | 10    | .7  |                      |        |                      |        |                      |        |                      |        |
| Tungsten            | 50    | 1.8 |                      |        |                      |        |                      |        |                      |        |
| Vanadium            | 50    | .4  | 0.00                 | <50    | 0.00                 | <50    | 0.100                | <50    | 0.00                 | <50    |
| Zinc                | 20    | .3  | 0.00                 | <20    | 0.200                | <20    | -0.100               | <20    | 0.00                 | <20    |

14.8.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

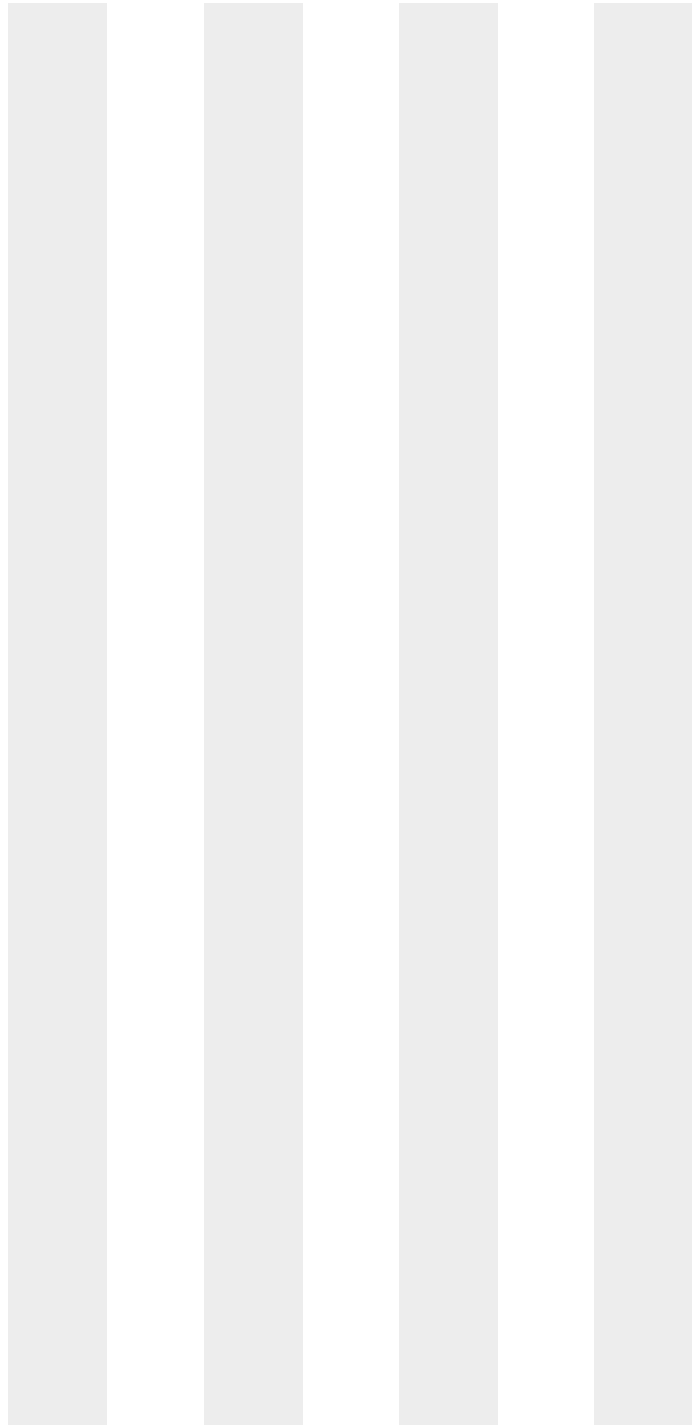
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:      |    |     | 17:00 |       | 17:12 |       | 18:00 |       | 18:47 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.8.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Metal      | Time:      |     | 19:35  |        | 20:23  |        | 21:10  |        | 21:57  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB4   | CCB5   | CCB6   | CCB7   | raw    | final  | raw    |
| Aluminum   | 200        | 34  | -9.10  | <200   | 9.50   | <200   | 6.70   | <200   | -5.90  | <200   |
| Antimony   | 6.0        | 1.4 | 0.300  | <6.0   | 0.600  | <6.0   | 0.300  | <6.0   | 1.10   | <6.0   |
| Arsenic    | 3.0        | 1.4 | 1.10   | <3.0   | 0.300  | <3.0   | 0.300  | <3.0   | -0.100 | <3.0   |
| Barium     | 200        | .5  | 0.00   | <200   | 0.100  | <200   | 0.100  | <200   | 0.100  | <200   |
| Beryllium  | 1.0        | .2  | -0.100 | <1.0   | -0.100 | <1.0   | -0.100 | <1.0   | -0.100 | <1.0   |
| Bismuth    | 20         | 2.5 |        |        |        |        |        |        |        |        |
| Boron      | 100        | 1.9 | anr    |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .3  | 0.200  | <3.0   | 0.100  | <3.0   | 0.00   | <3.0   | -0.100 | <3.0   |
| Calcium    | 5000       | 8.7 | -2.50  | <5000  | -2.00  | <5000  | -3.90  | <5000  | 0.300  | <5000  |
| Chromium   | 10         | .6  | 0.00   | <10    | 0.100  | <10    | 0.300  | <10    | 0.600  | <10    |
| Cobalt     | 50         | .5  | 0.100  | <50    | 0.100  | <50    | -0.100 | <50    | -0.200 | <50    |
| Copper     | 10         | 1.2 | -0.800 | <10    | -0.600 | <10    | -1.10  | <10    | -0.500 | <10    |
| Iron       | 100        | 4.6 | 0.00   | <100   | 0.100  | <100   | 0.200  | <100   | 0.400  | <100   |
| Lead       | 3.0        | 1.4 | -0.200 | <3.0   | 1.50   | <3.0   | 0.800  | <3.0   | -0.800 | <3.0   |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |
| Magnesium  | 5000       | 33  | -16.3  | <5000  | 1.10   | <5000  | -13.3  | <5000  | -7.30  | <5000  |
| Manganese  | 15         | .1  | 0.00   | <15    | 0.00   | <15    | 0.00   | <15    | 0.00   | <15    |
| Molybdenum | 20         | .4  | anr    |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | 0.200  | <10    | 0.00   | <10    | 0.200  | <10    | 0.300  | <10    |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |
| Potassium  | 10000      | 68  | 56.9   | <10000 | 65.0   | <10000 | 32.4   | <10000 | 63.0   | <10000 |
| Selenium   | 10         | 3.8 | 0.300  | <10    | -1.60  | <10    | -0.400 | <10    | -1.60  | <10    |
| Silicon    | 200        | 2.1 | anr    |        |        |        |        |        |        |        |
| Silver     | 10         | .5  | 0.100  | <10    | -0.300 | <10    | -0.200 | <10    | 0.500  | <10    |
| Sodium     | 10000      | 15  | 54.5   | <10000 | 47.1   | <10000 | 30.9   | <10000 | 1.30   | <10000 |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |
| Sulfur     | 50         | 20  |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.6 | -0.100 | <2.0   | -0.100 | <2.0   | -0.100 | <2.0   | 0.300  | <2.0   |
| Tin        | 10         | 1   | anr    |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  |        |        |        |        |        |        |        |        |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .4  | -0.200 | <50    | -0.100 | <50    | 0.100  | <50    | 0.00   | <50    |
| Zinc       | 20         | .3  | -0.100 | <20    | -0.100 | <20    | -0.200 | <20    | -0.200 | <20    |

14.8.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

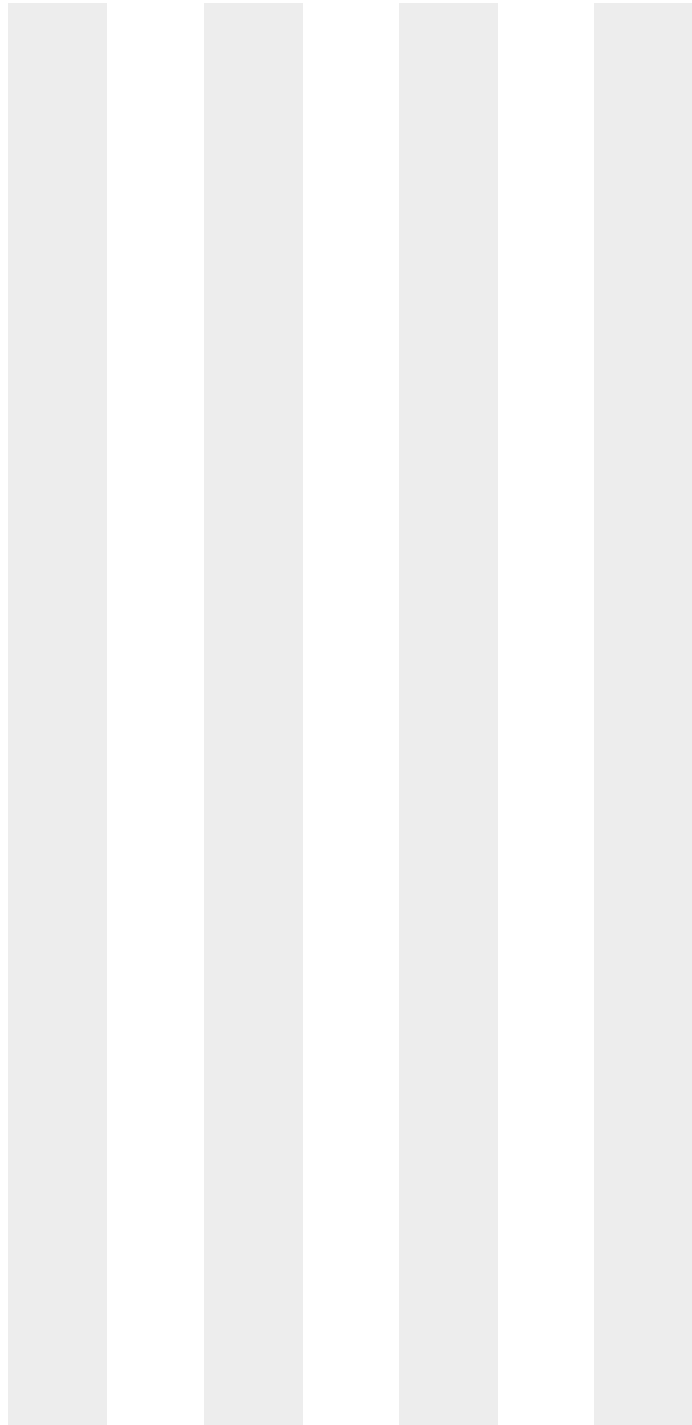
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:      | 19:35 | 20:23 | 21:10 | 21:57 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.8.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Metal      | Time:      |     | 22:48  |        | 23:34  |        | 00:04  |        | 01:05  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB8   | CCB9   | CCB10  | CCB11  | raw    | final  | raw    |
| Aluminum   | 200        | 34  | 0.300  | <200   | 4.50   | <200   | 0.800  | <200   | 6.50   | <200   |
| Antimony   | 6.0        | 1.4 | -0.500 | <6.0   | -1.70  | <6.0   | -0.400 | <6.0   | 0.00   | <6.0   |
| Arsenic    | 3.0        | 1.4 | -0.700 | <3.0   | 0.800  | <3.0   | 0.100  | <3.0   | 0.100  | <3.0   |
| Barium     | 200        | .5  | -0.100 | <200   | -0.300 | <200   | -0.500 | <200   | -0.100 | <200   |
| Beryllium  | 1.0        | .2  | 0.100  | <1.0   | 0.100  | <1.0   | 0.00   | <1.0   | 0.00   | <1.0   |
| Bismuth    | 20         | 2.5 |        |        |        |        |        |        |        |        |
| Boron      | 100        | 1.9 | anr    |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .3  | 0.100  | <3.0   | 0.100  | <3.0   | 0.00   | <3.0   | 0.100  | <3.0   |
| Calcium    | 5000       | 8.7 | 4.50   | <5000  | 5.10   | <5000  | 3.40   | <5000  | 0.200  | <5000  |
| Chromium   | 10         | .6  | 0.400  | <10    | 0.400  | <10    | 0.300  | <10    | -0.500 | <10    |
| Cobalt     | 50         | .5  | -0.300 | <50    | -0.200 | <50    | -0.300 | <50    | -0.100 | <50    |
| Copper     | 10         | 1.2 | 0.00   | <10    | 0.400  | <10    | 0.200  | <10    | 0.100  | <10    |
| Iron       | 100        | 4.6 | 0.900  | <100   | 1.30   | <100   | -1.80  | <100   | 0.200  | <100   |
| Lead       | 3.0        | 1.4 | 0.00   | <3.0   | 0.300  | <3.0   | 0.00   | <3.0   | 0.800  | <3.0   |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |
| Magnesium  | 5000       | 33  | -30.2  | <5000  | -11.1  | <5000  | -10.0  | <5000  | -15.7  | <5000  |
| Manganese  | 15         | .1  | 0.00   | <15    | 0.00   | <15    | -0.100 | <15    | -0.100 | <15    |
| Molybdenum | 20         | .4  | anr    |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | 0.200  | <10    | 0.500  | <10    | -0.100 | <10    | 0.200  | <10    |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |
| Potassium  | 10000      | 68  | 87.9   | <10000 | 107    | <10000 | 126    | <10000 | 99.5   | <10000 |
| Selenium   | 10         | 3.8 | -1.50  | <10    | 1.00   | <10    | 0.500  | <10    | 1.40   | <10    |
| Silicon    | 200        | 2.1 | anr    |        |        |        |        |        |        |        |
| Silver     | 10         | .5  | 0.800  | <10    | 0.800  | <10    | 0.400  | <10    | 1.00   | <10    |
| Sodium     | 10000      | 15  | 53.1   | <10000 | 28.8   | <10000 | 11.2   | <10000 | -0.100 | <10000 |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |
| Sulfur     | 50         | 20  |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.6 | -0.600 | <2.0   | -0.600 | <2.0   | -1.10  | <2.0   | 0.200  | <2.0   |
| Tin        | 10         | 1   | anr    |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  |        |        |        |        |        |        |        |        |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .4  | -0.300 | <50    | -0.200 | <50    | -0.200 | <50    | -0.200 | <50    |
| Zinc       | 20         | .3  | -0.100 | <20    | 0.100  | <20    | -0.500 | <20    | -0.300 | <20    |

14.8.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

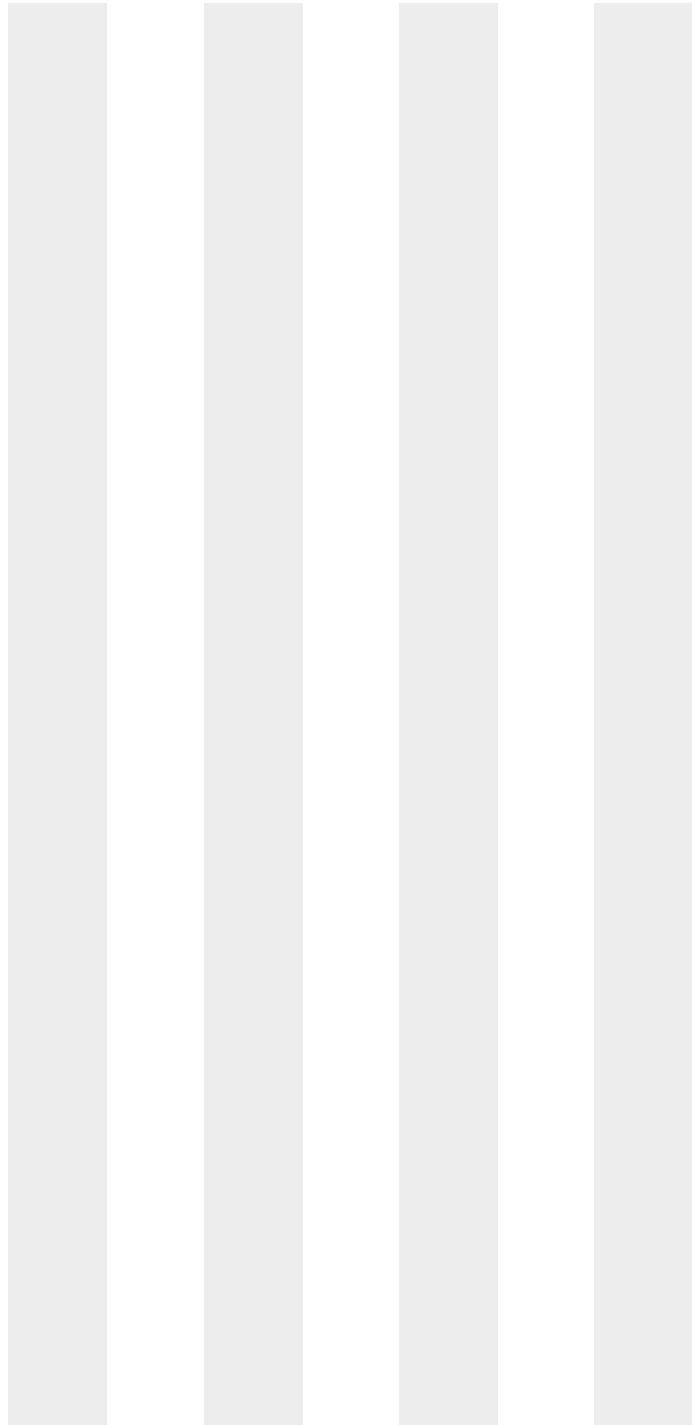
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:      | 22:48 | 23:34 | 00:04 | 01:05 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.8.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Metal      | Time:      |     | 01:52  |        | 02:39  |        | 03:26  |        | 04:12  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB12  | CCB13  | CCB14  | CCB15  | raw    | final  | raw    |
| Aluminum   | 200        | 34  | 15.2   | <200   | -0.100 | <200   | 6.20   | <200   | 5.40   | <200   |
| Antimony   | 6.0        | 1.4 | -0.300 | <6.0   | -1.40  | <6.0   | -1.00  | <6.0   | -1.90  | <6.0   |
| Arsenic    | 3.0        | 1.4 | 0.100  | <3.0   | 0.600  | <3.0   | -0.200 | <3.0   | 0.600  | <3.0   |
| Barium     | 200        | .5  | -0.300 | <200   | -0.400 | <200   | -0.400 | <200   | -0.400 | <200   |
| Beryllium  | 1.0        | .2  | 0.100  | <1.0   | 0.00   | <1.0   | 0.00   | <1.0   | 0.00   | <1.0   |
| Bismuth    | 20         | 2.5 |        |        |        |        |        |        |        |        |
| Boron      | 100        | 1.9 | anr    |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .3  | 0.100  | <3.0   | -0.100 | <3.0   | 0.00   | <3.0   | -0.100 | <3.0   |
| Calcium    | 5000       | 8.7 | 2.70   | <5000  | 1.90   | <5000  | 3.70   | <5000  | 1.90   | <5000  |
| Chromium   | 10         | .6  | 0.400  | <10    | 0.100  | <10    | 0.00   | <10    | -0.200 | <10    |
| Cobalt     | 50         | .5  | -0.400 | <50    | -0.300 | <50    | 0.100  | <50    | -0.200 | <50    |
| Copper     | 10         | 1.2 | 0.400  | <10    | 0.200  | <10    | 0.100  | <10    | 0.300  | <10    |
| Iron       | 100        | 4.6 | 1.90   | <100   | -2.50  | <100   | -1.40  | <100   | -0.300 | <100   |
| Lead       | 3.0        | 1.4 | 0.200  | <3.0   | 0.500  | <3.0   | 0.100  | <3.0   | 0.800  | <3.0   |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |
| Magnesium  | 5000       | 33  | -9.40  | <5000  | -24.9  | <5000  | -24.7  | <5000  | -19.2  | <5000  |
| Manganese  | 15         | .1  | 0.00   | <15    | -0.100 | <15    | -0.100 | <15    | -0.100 | <15    |
| Molybdenum | 20         | .4  | anr    |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | 0.200  | <10    | 0.00   | <10    | 0.100  | <10    | 0.100  | <10    |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |
| Potassium  | 10000      | 68  | 97.1   | <10000 | 122    | <10000 | 110    | <10000 | 114    | <10000 |
| Selenium   | 10         | 3.8 | -0.800 | <10    | 0.600  | <10    | 0.100  | <10    | 0.300  | <10    |
| Silicon    | 200        | 2.1 | anr    |        |        |        |        |        |        |        |
| Silver     | 10         | .5  | 0.900  | <10    | 1.00   | <10    | 0.700  | <10    | 0.600  | <10    |
| Sodium     | 10000      | 15  | -1.30  | <10000 | -8.00  | <10000 | -13.3  | <10000 | -13.7  | <10000 |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |
| Sulfur     | 50         | 20  |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.6 | -0.400 | <2.0   | 0.600  | <2.0   | -0.300 | <2.0   | 0.300  | <2.0   |
| Tin        | 10         | 1   | anr    |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  |        |        |        |        |        |        |        |        |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .4  | -0.100 | <50    | -0.200 | <50    | -0.200 | <50    | -0.100 | <50    |
| Zinc       | 20         | .3  | 0.00   | <20    | -0.400 | <20    | -0.400 | <20    | -0.400 | <20    |

14.8.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

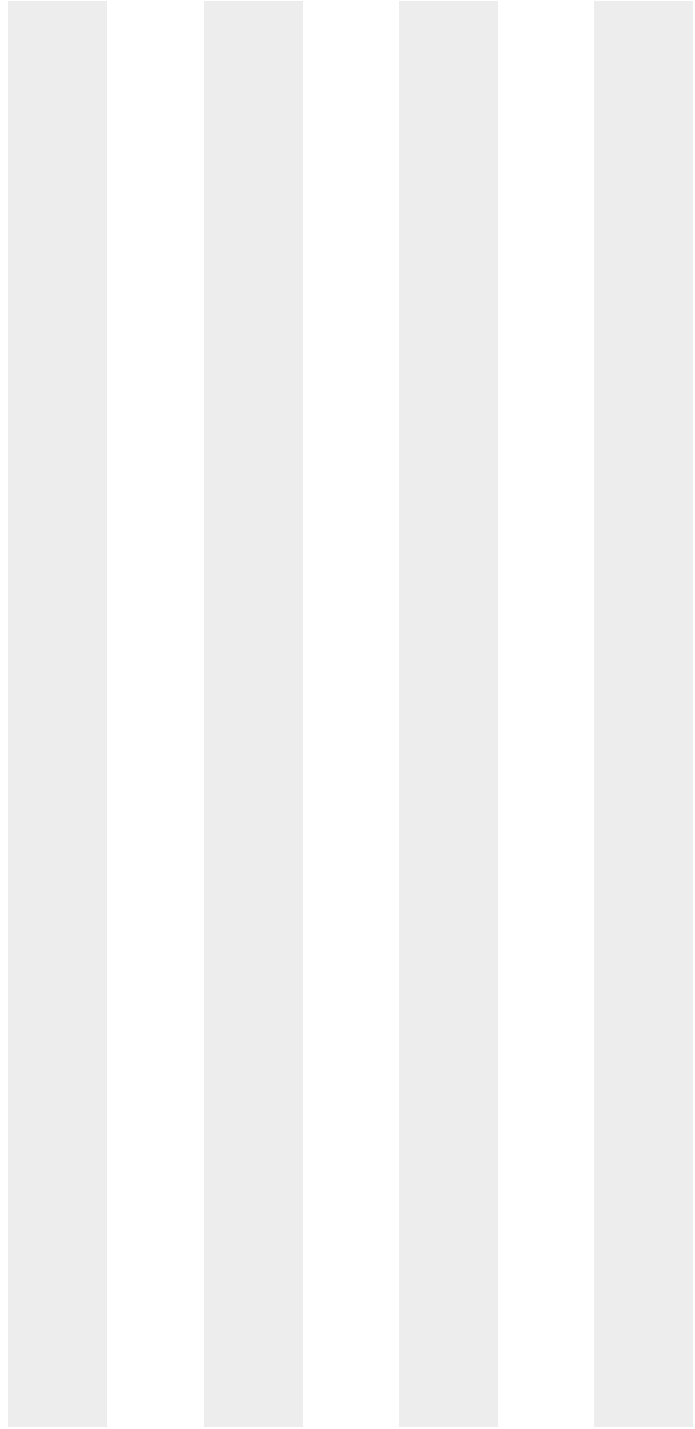
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:      |    |     | 01:52 | 02:39 | 03:26 | 04:12 |     |       |
|------------|----|-----|-------|-------|-------|-------|-----|-------|
| Sample ID: |    |     | CCB12 | CCB13 | CCB14 | CCB15 |     |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.8.2  
 14



BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Metal      | RL    | IDL | 05:03<br>CCB16 |        | 05:50<br>CCB17 |        | 06:37<br>CCB18 |        | 07:16<br>CCB19 |        |
|------------|-------|-----|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
|            |       |     | raw            | final  | raw            | final  | raw            | final  | raw            | final  |
| Aluminum   | 200   | 34  | 10.3           | <200   | 13.3           | <200   | -7.00          | <200   | 0.300          | <200   |
| Antimony   | 6.0   | 1.4 | -1.10          | <6.0   | -0.300         | <6.0   | 0.200          | <6.0   | 1.40           | <6.0   |
| Arsenic    | 3.0   | 1.4 | -0.200         | <3.0   | 0.00           | <3.0   | -0.100         | <3.0   | 0.600          | <3.0   |
| Barium     | 200   | .5  | -0.300         | <200   | -0.300         | <200   | -0.300         | <200   | -0.300         | <200   |
| Beryllium  | 1.0   | .2  | 0.00           | <1.0   | 0.00           | <1.0   | 0.00           | <1.0   | 0.00           | <1.0   |
| Bismuth    | 20    | 2.5 |                |        |                |        |                |        |                |        |
| Boron      | 100   | 1.9 | anr            |        |                |        |                |        |                |        |
| Cadmium    | 3.0   | .3  | 0.00           | <3.0   | 0.100          | <3.0   | 0.00           | <3.0   | -0.100         | <3.0   |
| Calcium    | 5000  | 8.7 | 2.40           | <5000  | 1.20           | <5000  | 3.30           | <5000  | 1.90           | <5000  |
| Chromium   | 10    | .6  | 0.200          | <10    | 0.100          | <10    | 0.00           | <10    | -0.400         | <10    |
| Cobalt     | 50    | .5  | -0.300         | <50    | 0.00           | <50    | 0.00           | <50    | -0.200         | <50    |
| Copper     | 10    | 1.2 | 0.300          | <10    | 0.500          | <10    | 0.300          | <10    | -0.100         | <10    |
| Iron       | 100   | 4.6 | -1.90          | <100   | -1.60          | <100   | 0.900          | <100   | -2.20          | <100   |
| Lead       | 3.0   | 1.4 | -0.600         | <3.0   | -0.500         | <3.0   | 1.30           | <3.0   | 0.500          | <3.0   |
| Lithium    | 50    | 2.8 |                |        |                |        |                |        |                |        |
| Magnesium  | 5000  | 33  | -24.7          | <5000  | -14.3          | <5000  | -11.4          | <5000  | -14.1          | <5000  |
| Manganese  | 15    | .1  | -0.100         | <15    | -0.100         | <15    | -0.100         | <15    | -0.100         | <15    |
| Molybdenum | 20    | .4  | anr            |        |                |        |                |        |                |        |
| Nickel     | 10    | .5  | 0.00           | <10    | 0.100          | <10    | -0.100         | <10    | 0.00           | <10    |
| Phosphorus | 50    | 1.7 |                |        |                |        |                |        |                |        |
| Potassium  | 10000 | 68  | 115            | <10000 | 139            | <10000 | 88.7           | <10000 | 116            | <10000 |
| Selenium   | 10    | 3.8 | 1.90           | <10    | 1.80           | <10    | 1.10           | <10    | 0.400          | <10    |
| Silicon    | 200   | 2.1 | anr            |        |                |        |                |        |                |        |
| Silver     | 10    | .5  | 0.600          | <10    | 0.800          | <10    | 1.10           | <10    | 0.500          | <10    |
| Sodium     | 10000 | 15  | -22.6          | <10000 | 24.0           | <10000 | 9.90           | <10000 | 7.60           | <10000 |
| Strontium  | 10    | .2  |                |        |                |        |                |        |                |        |
| Sulfur     | 50    | 20  |                |        |                |        |                |        |                |        |
| Thallium   | 2.0   | 1.6 | -0.100         | <2.0   | 0.100          | <2.0   | -0.700         | <2.0   | -0.200         | <2.0   |
| Tin        | 10    | 1   | anr            |        |                |        |                |        |                |        |
| Titanium   | 10    | .7  |                |        |                |        |                |        |                |        |
| Tungsten   | 50    | 1.8 |                |        |                |        |                |        |                |        |
| Vanadium   | 50    | .4  | -0.500         | <50    | -0.500         | <50    | -0.200         | <50    | -0.300         | <50    |
| Zinc       | 20    | .3  | -0.400         | <20    | -0.400         | <20    | -0.400         | <20    | -0.200         | <20    |

14.8.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

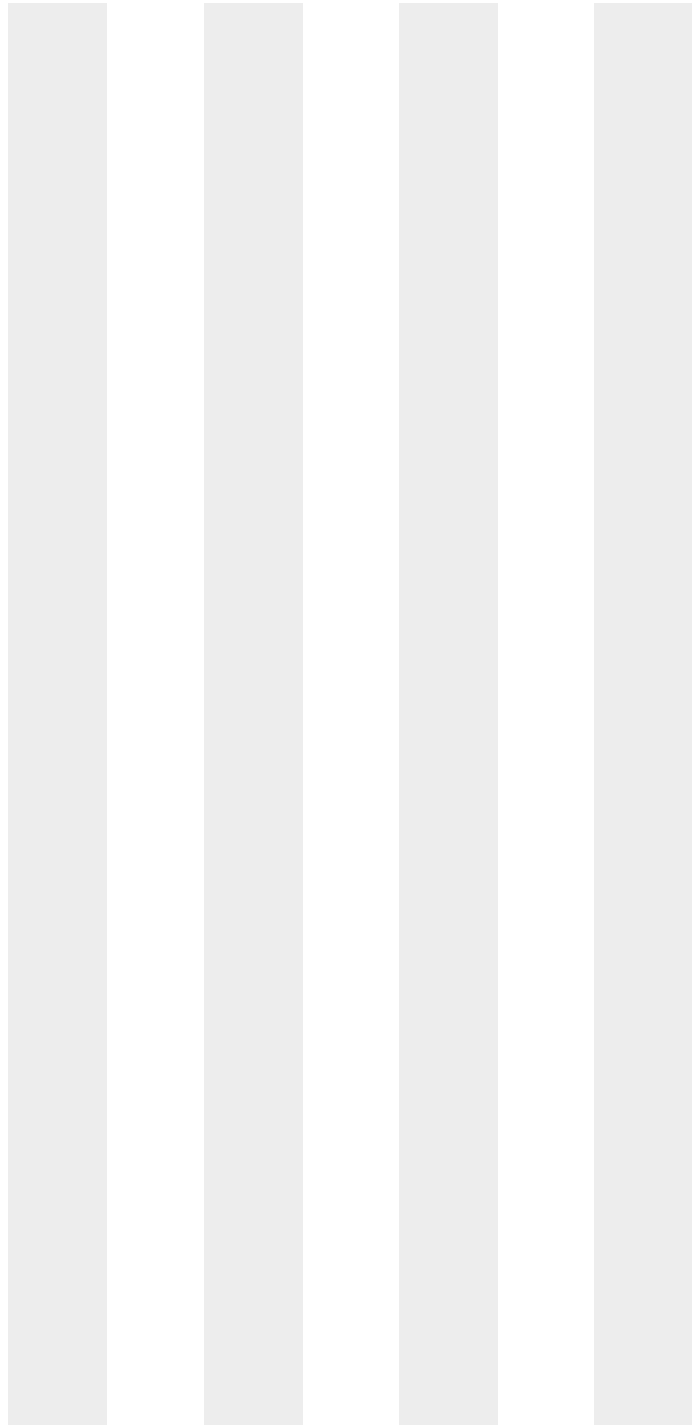
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Time:      | 05:03 | 05:50 | 06:37 | 07:16 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB16 | CCB17 | CCB18 | CCB19 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.8.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44406 Units: ug/l

| Metal      | RL    | IDL | 07:33<br>CCB20<br>raw | final  |
|------------|-------|-----|-----------------------|--------|
| Aluminum   | 200   | 34  | 2.10                  | <200   |
| Antimony   | 6.0   | 1.4 | -1.50                 | <6.0   |
| Arsenic    | 3.0   | 1.4 | -0.100                | <3.0   |
| Barium     | 200   | .5  | -0.300                | <200   |
| Beryllium  | 1.0   | .2  | 0.00                  | <1.0   |
| Bismuth    | 20    | 2.5 |                       |        |
| Boron      | 100   | 1.9 | anr                   |        |
| Cadmium    | 3.0   | .3  | 0.100                 | <3.0   |
| Calcium    | 5000  | 8.7 | 2.60                  | <5000  |
| Chromium   | 10    | .6  | 0.00                  | <10    |
| Cobalt     | 50    | .5  | -0.100                | <50    |
| Copper     | 10    | 1.2 | 0.400                 | <10    |
| Iron       | 100   | 4.6 | -0.400                | <100   |
| Lead       | 3.0   | 1.4 | -0.100                | <3.0   |
| Lithium    | 50    | 2.8 |                       |        |
| Magnesium  | 5000  | 33  | -3.10                 | <5000  |
| Manganese  | 15    | .1  | 0.00                  | <15    |
| Molybdenum | 20    | .4  | anr                   |        |
| Nickel     | 10    | .5  | -0.100                | <10    |
| Phosphorus | 50    | 1.7 |                       |        |
| Potassium  | 10000 | 68  | 83.4                  | <10000 |
| Selenium   | 10    | 3.8 | 1.80                  | <10    |
| Silicon    | 200   | 2.1 | anr                   |        |
| Silver     | 10    | .5  | 0.900                 | <10    |
| Sodium     | 10000 | 15  | -3.00                 | <10000 |
| Strontium  | 10    | .2  |                       |        |
| Sulfur     | 50    | 20  |                       |        |
| Thallium   | 2.0   | 1.6 | -0.500                | <2.0   |
| Tin        | 10    | 1   | anr                   |        |
| Titanium   | 10    | .7  |                       |        |
| Tungsten   | 50    | 1.8 |                       |        |
| Vanadium   | 50    | .4  | -0.400                | <50    |
| Zinc       | 20    | .3  | -0.300                | <20    |

14.8.2  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL      Run ID: MA44406      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 07:33 |       |
| Sample ID: |    |     | CCB20 |       |
| Metal      | RL | IDL | raw   | final |

Zirconium      10      .3

(\*) Outside of QC limits  
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Time:      | 17:03 |       |         |       |
|------------|-------|-------|---------|-------|
| Sample ID: | ICCV  |       |         |       |
| Metal      | True  | ICCV1 | Results | % Rec |
| Aluminum   | 40000 | 39800 | 39800   | 99.5  |
| Antimony   | 2000  | 2020  | 2020    | 101.0 |
| Arsenic    | 2000  | 2010  | 2010    | 100.5 |
| Barium     | 2000  | 2040  | 2040    | 102.0 |
| Beryllium  | 2000  | 2040  | 2040    | 102.0 |
| Bismuth    |       |       |         |       |
| Boron      | anr   |       |         |       |
| Cadmium    | 2000  | 2030  | 2030    | 101.5 |
| Calcium    | 40000 | 40400 | 40400   | 101.0 |
| Chromium   | 2000  | 2050  | 2050    | 102.5 |
| Cobalt     | 2000  | 2020  | 2020    | 101.0 |
| Copper     | 2000  | 1980  | 1980    | 99.0  |
| Iron       | 40000 | 40300 | 40300   | 100.8 |
| Lead       | 2000  | 2070  | 2070    | 103.5 |
| Lithium    |       |       |         |       |
| Magnesium  | 40000 | 40100 | 40100   | 100.3 |
| Manganese  | 2000  | 2050  | 2050    | 102.5 |
| Molybdenum | anr   |       |         |       |
| Nickel     | 2000  | 2050  | 2050    | 102.5 |
| Phosphorus |       |       |         |       |
| Potassium  | 40000 | 40000 | 40000   | 100.0 |
| Selenium   | 2000  | 2010  | 2010    | 100.5 |
| Silicon    | anr   |       |         |       |
| Silver     | 250   | 252   | 252     | 100.8 |
| Sodium     | 40000 | 40000 | 40000   | 100.0 |
| Strontium  |       |       |         |       |
| Sulfur     |       |       |         |       |
| Thallium   | 2000  | 2100  | 2100    | 105.0 |
| Tin        | anr   |       |         |       |
| Titanium   |       |       |         |       |
| Tungsten   |       |       |         |       |
| Vanadium   | 2000  | 2040  | 2040    | 102.0 |
| Zinc       | 2000  | 2050  | 2050    | 102.5 |

14.8.3  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

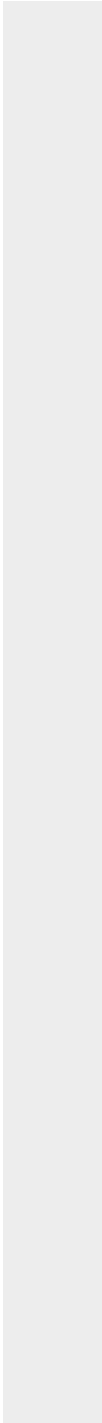
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|                 |       |         |       |
|-----------------|-------|---------|-------|
| Time:           | 17:03 |         |       |
| Sample ID: ICCV | ICCV1 |         |       |
| Metal           | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.3

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Time:<br>Sample ID: ICV<br>True | 16:53           |       |             | 17:55           |       |             | 18:43           |       |  |
|------------|---------------------------------|-----------------|-------|-------------|-----------------|-------|-------------|-----------------|-------|--|
|            |                                 | ICV1<br>Results | % Rec | CCV<br>True | CCV1<br>Results | % Rec | CCV<br>True | CCV2<br>Results | % Rec |  |
| Aluminum   | 40000                           | 40200           | 100.5 | 40000       | 39700           | 99.3  | 40000       | 39600           | 99.0  |  |
| Antimony   | 2000                            | 2030            | 101.5 | 2000        | 1990            | 99.5  | 2000        | 1980            | 99.0  |  |
| Arsenic    | 2000                            | 2060            | 103.0 | 2000        | 1980            | 99.0  | 2000        | 1970            | 98.5  |  |
| Barium     | 2000                            | 2050            | 102.5 | 2000        | 2040            | 102.0 | 2000        | 2040            | 102.0 |  |
| Beryllium  | 2000                            | 2090            | 104.5 | 2000        | 2030            | 101.5 | 2000        | 2000            | 100.0 |  |
| Bismuth    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Boron      | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Cadmium    | 2000                            | 2010            | 100.5 | 2000        | 2000            | 100.0 | 2000        | 2000            | 100.0 |  |
| Calcium    | 40000                           | 39700           | 99.3  | 40000       | 40200           | 100.5 | 40000       | 39700           | 99.3  |  |
| Chromium   | 2000                            | 2000            | 100.0 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Cobalt     | 2000                            | 2050            | 102.5 | 2000        | 2000            | 100.0 | 2000        | 1980            | 99.0  |  |
| Copper     | 2000                            | 1950            | 97.5  | 2000        | 1950            | 97.5  | 2000        | 1940            | 97.0  |  |
| Iron       | 40000                           | 39200           | 98.0  | 40000       | 39900           | 99.8  | 40000       | 39100           | 97.8  |  |
| Lead       | 2000                            | 2050            | 102.5 | 2000        | 2070            | 103.5 | 2000        | 2060            | 103.0 |  |
| Lithium    |                                 |                 |       |             |                 |       |             |                 |       |  |
| Magnesium  | 40000                           | 39900           | 99.8  | 40000       | 40200           | 100.5 | 40000       | 39200           | 98.0  |  |
| Manganese  | 2000                            | 2050            | 102.5 | 2000        | 2020            | 101.0 | 2000        | 2010            | 100.5 |  |
| Molybdenum | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Nickel     | 2000                            | 2010            | 100.5 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Phosphorus |                                 |                 |       |             |                 |       |             |                 |       |  |
| Potassium  | 40000                           | 40000           | 100.0 | 40000       | 40000           | 100.0 | 40000       | 40000           | 100.0 |  |
| Selenium   | 2000                            | 2090            | 104.5 | 2000        | 1970            | 98.5  | 2000        | 1960            | 98.0  |  |
| Silicon    | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Silver     | 250                             | 257             | 102.8 | 250         | 251             | 100.4 | 250         | 251             | 100.4 |  |
| Sodium     | 40000                           | 41300           | 103.3 | 40000       | 39600           | 99.0  | 40000       | 39500           | 98.8  |  |
| Strontium  |                                 |                 |       |             |                 |       |             |                 |       |  |
| Sulfur     |                                 |                 |       |             |                 |       |             |                 |       |  |
| Thallium   | 2000                            | 2090            | 104.5 | 2000        | 2100            | 105.0 | 2000        | 2090            | 104.5 |  |
| Tin        | anr                             |                 |       |             |                 |       |             |                 |       |  |
| Titanium   |                                 |                 |       |             |                 |       |             |                 |       |  |
| Tungsten   |                                 |                 |       |             |                 |       |             |                 |       |  |
| Vanadium   | 2000                            | 2040            | 102.0 | 2000        | 2030            | 101.5 | 2000        | 2020            | 101.0 |  |
| Zinc       | 2000                            | 2040            | 102.0 | 2000        | 2020            | 101.0 | 2000        | 2000            | 100.0 |  |

14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

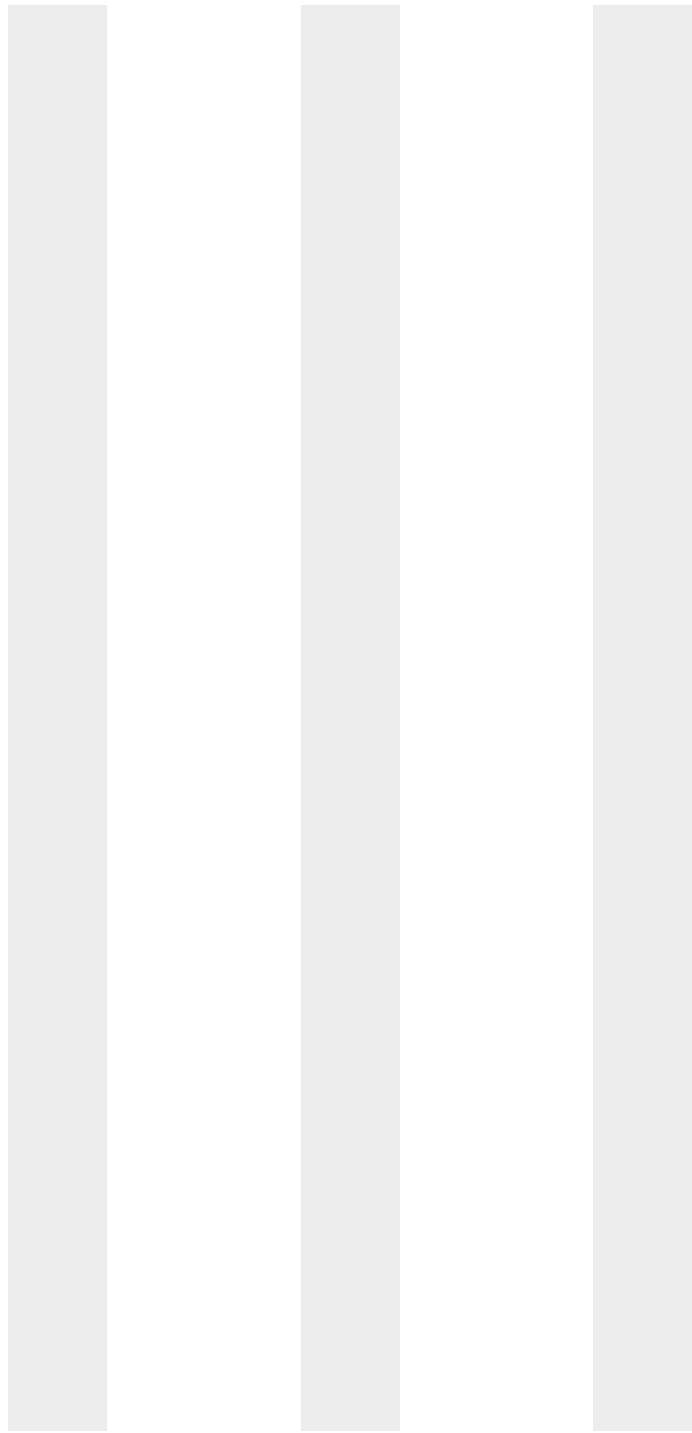
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: |         | 16:53 |      | 17:55   |       | 18:43 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Time:<br>Sample ID: CCV<br>True | 19:31<br>CCV3 |       | CCV<br>True | 20:19<br>CCV4 |       | CCV<br>True | 21:06<br>CCV5 |       |
|------------|---------------------------------|---------------|-------|-------------|---------------|-------|-------------|---------------|-------|
|            |                                 | Results       | % Rec |             | Results       | % Rec |             | Results       | % Rec |
| Aluminum   | 40000                           | 39700         | 99.3  | 40000       | 39900         | 99.8  | 40000       | 40100         | 100.3 |
| Antimony   | 2000                            | 1980          | 99.0  | 2000        | 1970          | 98.5  | 2000        | 1970          | 98.5  |
| Arsenic    | 2000                            | 1960          | 98.0  | 2000        | 1950          | 97.5  | 2000        | 1950          | 97.5  |
| Barium     | 2000                            | 2050          | 102.5 | 2000        | 2070          | 103.5 | 2000        | 2070          | 103.5 |
| Beryllium  | 2000                            | 2010          | 100.5 | 2000        | 2010          | 100.5 | 2000        | 2000          | 100.0 |
| Bismuth    |                                 |               |       |             |               |       |             |               |       |
| Boron      | anr                             |               |       |             |               |       |             |               |       |
| Cadmium    | 2000                            | 1990          | 99.5  | 2000        | 1980          | 99.0  | 2000        | 1980          | 99.0  |
| Calcium    | 40000                           | 39800         | 99.5  | 40000       | 39900         | 99.8  | 40000       | 39800         | 99.5  |
| Chromium   | 2000                            | 2010          | 100.5 | 2000        | 2010          | 100.5 | 2000        | 2030          | 101.5 |
| Cobalt     | 2000                            | 1980          | 99.0  | 2000        | 1980          | 99.0  | 2000        | 1980          | 99.0  |
| Copper     | 2000                            | 1930          | 96.5  | 2000        | 1920          | 96.0  | 2000        | 1920          | 96.0  |
| Iron       | 40000                           | 39300         | 98.3  | 40000       | 39300         | 98.3  | 40000       | 38900         | 97.3  |
| Lead       | 2000                            | 2060          | 103.0 | 2000        | 2070          | 103.5 | 2000        | 2080          | 104.0 |
| Lithium    |                                 |               |       |             |               |       |             |               |       |
| Magnesium  | 40000                           | 39600         | 99.0  | 40000       | 39800         | 99.5  | 40000       | 39500         | 98.8  |
| Manganese  | 2000                            | 2010          | 100.5 | 2000        | 2000          | 100.0 | 2000        | 2000          | 100.0 |
| Molybdenum | anr                             |               |       |             |               |       |             |               |       |
| Nickel     | 2000                            | 2020          | 101.0 | 2000        | 2020          | 101.0 | 2000        | 2030          | 101.5 |
| Phosphorus |                                 |               |       |             |               |       |             |               |       |
| Potassium  | 40000                           | 40400         | 101.0 | 40000       | 40800         | 102.0 | 40000       | 40800         | 102.0 |
| Selenium   | 2000                            | 1940          | 97.0  | 2000        | 1930          | 96.5  | 2000        | 1920          | 96.0  |
| Silicon    | anr                             |               |       |             |               |       |             |               |       |
| Silver     | 250                             | 249           | 99.6  | 250         | 249           | 99.6  | 250         | 252           | 100.8 |
| Sodium     | 40000                           | 39400         | 98.5  | 40000       | 39600         | 99.0  | 40000       | 39700         | 99.3  |
| Strontium  |                                 |               |       |             |               |       |             |               |       |
| Sulfur     |                                 |               |       |             |               |       |             |               |       |
| Thallium   | 2000                            | 2090          | 104.5 | 2000        | 2100          | 105.0 | 2000        | 2100          | 105.0 |
| Tin        | anr                             |               |       |             |               |       |             |               |       |
| Titanium   |                                 |               |       |             |               |       |             |               |       |
| Tungsten   |                                 |               |       |             |               |       |             |               |       |
| Vanadium   | 2000                            | 2020          | 101.0 | 2000        | 2020          | 101.0 | 2000        | 2040          | 102.0 |
| Zinc       | 2000                            | 1990          | 99.5  | 2000        | 1980          | 99.0  | 2000        | 1980          | 99.0  |

14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: |         | 19:31 |   | 20:19   |       | 21:06                                |         |       |
|------------|-------|---------|-------|---|---------|-------|--------------------------------------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |                                      |         |       |
| Metal      | True  | Results | % Rec | True <td>Results</td> <td>% Rec</td> <th>True <td>Results</td> <td>% Rec</td> </th> | Results | % Rec | True <td>Results</td> <td>% Rec</td> | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Sample ID: CCV True | Time: 21:53  | % Rec | CCV True | Time: 22:44  | % Rec | CCV True | Time: 23:30  | % Rec |
|------------|---------------------|--------------|-------|----------|--------------|-------|----------|--------------|-------|
|            |                     | CCV6 Results |       |          | CCV7 Results |       |          | CCV8 Results |       |
| Aluminum   | 40000               | 39900        | 99.8  | 40000    | 39400        | 98.5  | 40000    | 39200        | 98.0  |
| Antimony   | 2000                | 2000         | 100.0 | 2000     | 2070         | 103.5 | 2000     | 2080         | 104.0 |
| Arsenic    | 2000                | 1980         | 99.0  | 2000     | 2050         | 102.5 | 2000     | 2050         | 102.5 |
| Barium     | 2000                | 2060         | 103.0 | 2000     | 2030         | 101.5 | 2000     | 2020         | 101.0 |
| Beryllium  | 2000                | 2010         | 100.5 | 2000     | 1990         | 99.5  | 2000     | 1980         | 99.0  |
| Bismuth    |                     |              |       |          |              |       |          |              |       |
| Boron      | anr                 |              |       |          |              |       |          |              |       |
| Cadmium    | 2000                | 2010         | 100.5 | 2000     | 2040         | 102.0 | 2000     | 2060         | 103.0 |
| Calcium    | 40000               | 39800        | 99.5  | 40000    | 39400        | 98.5  | 40000    | 39100        | 97.8  |
| Chromium   | 2000                | 2050         | 102.5 | 2000     | 2090         | 104.5 | 2000     | 2100         | 105.0 |
| Cobalt     | 2000                | 2000         | 100.0 | 2000     | 2040         | 102.0 | 2000     | 2040         | 102.0 |
| Copper     | 2000                | 1960         | 98.0  | 2000     | 2030         | 101.5 | 2000     | 2060         | 103.0 |
| Iron       | 40000               | 39100        | 97.8  | 40000    | 38700        | 96.8  | 40000    | 38400        | 96.0  |
| Lead       | 2000                | 2070         | 103.5 | 2000     | 2030         | 101.5 | 2000     | 2010         | 100.5 |
| Lithium    |                     |              |       |          |              |       |          |              |       |
| Magnesium  | 40000               | 39500        | 98.8  | 40000    | 37600        | 94.0  | 40000    | 37000        | 92.5  |
| Manganese  | 2000                | 2040         | 102.0 | 2000     | 2090         | 104.5 | 2000     | 2100         | 105.0 |
| Molybdenum | anr                 |              |       |          |              |       |          |              |       |
| Nickel     | 2000                | 2040         | 102.0 | 2000     | 2040         | 102.0 | 2000     | 2030         | 101.5 |
| Phosphorus |                     |              |       |          |              |       |          |              |       |
| Potassium  | 40000               | 41100        | 102.8 | 40000    | 40400        | 101.0 | 40000    | 40500        | 101.3 |
| Selenium   | 2000                | 1980         | 99.0  | 2000     | 2100         | 105.0 | 2000     | 2120         | 106.0 |
| Silicon    | anr                 |              |       |          |              |       |          |              |       |
| Silver     | 250                 | 252          | 100.8 | 250      | 256          | 102.4 | 250      | 257          | 102.8 |
| Sodium     | 40000               | 40300        | 100.8 | 40000    | 40200        | 100.5 | 40000    | 40600        | 101.5 |
| Strontium  |                     |              |       |          |              |       |          |              |       |
| Sulfur     |                     |              |       |          |              |       |          |              |       |
| Thallium   | 2000                | 2100         | 105.0 | 2000     | 2080         | 104.0 | 2000     | 2070         | 103.5 |
| Tin        | anr                 |              |       |          |              |       |          |              |       |
| Titanium   |                     |              |       |          |              |       |          |              |       |
| Tungsten   |                     |              |       |          |              |       |          |              |       |
| Vanadium   | 2000                | 2040         | 102.0 | 2000     | 2060         | 103.0 | 2000     | 2060         | 103.0 |
| Zinc       | 2000                | 2020         | 101.0 | 2000     | 2080         | 104.0 | 2000     | 2080         | 104.0 |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|       | Time:      |         |               |      |               |       |               |         |       |
|-------|------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|       | Sample ID: | CCV     | 21:53<br>CCV6 | CCV  | 22:44<br>CCV7 | CCV   | 23:30<br>CCV8 | CCV     | CCV   |
| Metal | True       | Results | % Rec         | True | Results       | % Rec | True          | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Sample ID: | Time: 00:00 |       |       | Time: 01:01 |       |       | Time: 01:48 |       |       |
|------------|------------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|
|            |            | CCV         | CCV9  | % Rec | CCV         | CCV10 | % Rec | CCV         | CCV11 | % Rec |
| Aluminum   | 40000      | 39400       | 98.5  | 40000 | 39300       | 98.3  | 40000 | 39500       | 98.8  |       |
| Antimony   | 2000       | 2110        | 105.5 | 2000  | 2110        | 105.5 | 2000  | 2100        | 105.0 |       |
| Arsenic    | 2000       | 2070        | 103.5 | 2000  | 2080        | 104.0 | 2000  | 2070        | 103.5 |       |
| Barium     | 2000       | 2040        | 102.0 | 2000  | 2040        | 102.0 | 2000  | 2050        | 102.5 |       |
| Beryllium  | 2000       | 1990        | 99.5  | 2000  | 1990        | 99.5  | 2000  | 2000        | 100.0 |       |
| Bismuth    |            |             |       |       |             |       |       |             |       |       |
| Boron      | anr        |             |       |       |             |       |       |             |       |       |
| Cadmium    | 2000       | 2080        | 104.0 | 2000  | 2080        | 104.0 | 2000  | 2070        | 103.5 |       |
| Calcium    | 40000      | 39100       | 97.8  | 40000 | 39000       | 97.5  | 40000 | 39200       | 98.0  |       |
| Chromium   | 2000       | 2100        | 105.0 | 2000  | 2100        | 105.0 | 2000  | 2100        | 105.0 |       |
| Cobalt     | 2000       | 2050        | 102.5 | 2000  | 2050        | 102.5 | 2000  | 2040        | 102.0 |       |
| Copper     | 2000       | 2070        | 103.5 | 2000  | 2080        | 104.0 | 2000  | 2070        | 103.5 |       |
| Iron       | 40000      | 38600       | 96.5  | 40000 | 38400       | 96.0  | 40000 | 38500       | 96.3  |       |
| Lead       | 2000       | 2010        | 100.5 | 2000  | 2020        | 101.0 | 2000  | 2010        | 100.5 |       |
| Lithium    |            |             |       |       |             |       |       |             |       |       |
| Magnesium  | 40000      | 37000       | 92.5  | 40000 | 37100       | 92.8  | 40000 | 37200       | 93.0  |       |
| Manganese  | 2000       | 2110        | 105.5 | 2000  | 2110        | 105.5 | 2000  | 2110        | 105.5 |       |
| Molybdenum | anr        |             |       |       |             |       |       |             |       |       |
| Nickel     | 2000       | 2040        | 102.0 | 2000  | 2050        | 102.5 | 2000  | 2040        | 102.0 |       |
| Phosphorus |            |             |       |       |             |       |       |             |       |       |
| Potassium  | 40000      | 40800       | 102.0 | 40000 | 41000       | 102.5 | 40000 | 41300       | 103.3 |       |
| Selenium   | 2000       | 2140        | 107.0 | 2000  | 2140        | 107.0 | 2000  | 2130        | 106.5 |       |
| Silicon    | anr        |             |       |       |             |       |       |             |       |       |
| Silver     | 250        | 258         | 103.2 | 250   | 258         | 103.2 | 250   | 257         | 102.8 |       |
| Sodium     | 40000      | 40900       | 102.3 | 40000 | 41100       | 102.8 | 40000 | 41300       | 103.3 |       |
| Strontium  |            |             |       |       |             |       |       |             |       |       |
| Sulfur     |            |             |       |       |             |       |       |             |       |       |
| Thallium   | 2000       | 2090        | 104.5 | 2000  | 2090        | 104.5 | 2000  | 2080        | 104.0 |       |
| Tin        | anr        |             |       |       |             |       |       |             |       |       |
| Titanium   |            |             |       |       |             |       |       |             |       |       |
| Tungsten   |            |             |       |       |             |       |       |             |       |       |
| Vanadium   | 2000       | 2060        | 103.0 | 2000  | 2070        | 103.5 | 2000  | 2060        | 103.0 |       |
| Zinc       | 2000       | 2090        | 104.5 | 2000  | 2100        | 105.0 | 2000  | 2090        | 104.5 |       |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

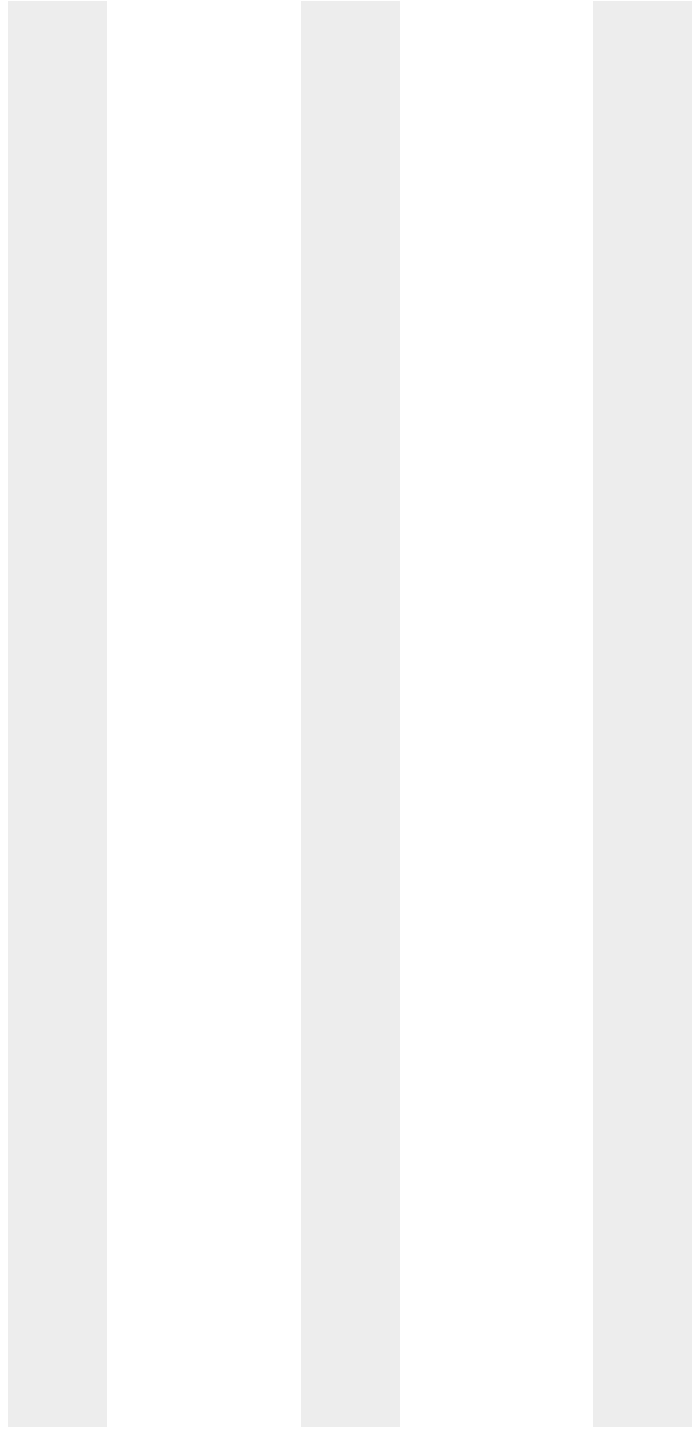
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: | 00:00   |       | 01:01   |         | 01:48   |       |
|------------|-------|---------|-------|---------|---------|---------|-------|
| Sample ID: | CCV   | CCV9    | CCV   | CCV10   | CCV     | CCV11   |       |
| Metal      | True  | Results | % Rec | True    | Results | % Rec   | True  |
|            |       | Results | % Rec | Results | % Rec   | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Sample ID: | Time: 02:35 |       |       | Time: 03:21 |       |       | Time: 04:08 |       |       |
|------------|------------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|
|            |            | CCV         | CCV12 | % Rec | CCV         | CCV13 | % Rec | CCV         | CCV14 | % Rec |
| Aluminum   | 40000      | 39400       | 98.5  | 40000 | 39800       | 99.5  | 40000 | 39900       | 99.8  |       |
| Antimony   | 2000       | 2090        | 104.5 | 2000  | 2110        | 105.5 | 2000  | 2120        | 106.0 |       |
| Arsenic    | 2000       | 2060        | 103.0 | 2000  | 2080        | 104.0 | 2000  | 2090        | 104.5 |       |
| Barium     | 2000       | 2050        | 102.5 | 2000  | 2070        | 103.5 | 2000  | 2080        | 104.0 |       |
| Beryllium  | 2000       | 1990        | 99.5  | 2000  | 2000        | 100.0 | 2000  | 1990        | 99.5  |       |
| Bismuth    |            |             |       |       |             |       |       |             |       |       |
| Boron      | anr        |             |       |       |             |       |       |             |       |       |
| Cadmium    | 2000       | 2060        | 103.0 | 2000  | 2080        | 104.0 | 2000  | 2090        | 104.5 |       |
| Calcium    | 40000      | 39100       | 97.8  | 40000 | 39300       | 98.3  | 40000 | 39300       | 98.3  |       |
| Chromium   | 2000       | 2080        | 104.0 | 2000  | 2100        | 105.0 | 2000  | 2120        | 106.0 |       |
| Cobalt     | 2000       | 2040        | 102.0 | 2000  | 2060        | 103.0 | 2000  | 2070        | 103.5 |       |
| Copper     | 2000       | 2060        | 103.0 | 2000  | 2080        | 104.0 | 2000  | 2080        | 104.0 |       |
| Iron       | 40000      | 38400       | 96.0  | 40000 | 38500       | 96.3  | 40000 | 38300       | 95.8  |       |
| Lead       | 2000       | 2010        | 100.5 | 2000  | 2030        | 101.5 | 2000  | 2030        | 101.5 |       |
| Lithium    |            |             |       |       |             |       |       |             |       |       |
| Magnesium  | 40000      | 37100       | 92.8  | 40000 | 37300       | 93.3  | 40000 | 37100       | 92.8  |       |
| Manganese  | 2000       | 2090        | 104.5 | 2000  | 2110        | 105.5 | 2000  | 2120        | 106.0 |       |
| Molybdenum | anr        |             |       |       |             |       |       |             |       |       |
| Nickel     | 2000       | 2040        | 102.0 | 2000  | 2060        | 103.0 | 2000  | 2060        | 103.0 |       |
| Phosphorus |            |             |       |       |             |       |       |             |       |       |
| Potassium  | 40000      | 41200       | 103.0 | 40000 | 41800       | 104.5 | 40000 | 41900       | 104.8 |       |
| Selenium   | 2000       | 2120        | 106.0 | 2000  | 2140        | 107.0 | 2000  | 2150        | 107.5 |       |
| Silicon    | anr        |             |       |       |             |       |       |             |       |       |
| Silver     | 250        | 255         | 102.0 | 250   | 259         | 103.6 | 250   | 260         | 104.0 |       |
| Sodium     | 40000      | 41300       | 103.3 | 40000 | 41700       | 104.3 | 40000 | 41900       | 104.8 |       |
| Strontium  |            |             |       |       |             |       |       |             |       |       |
| Sulfur     |            |             |       |       |             |       |       |             |       |       |
| Thallium   | 2000       | 2070        | 103.5 | 2000  | 2100        | 105.0 | 2000  | 2100        | 105.0 |       |
| Tin        | anr        |             |       |       |             |       |       |             |       |       |
| Titanium   |            |             |       |       |             |       |       |             |       |       |
| Tungsten   |            |             |       |       |             |       |       |             |       |       |
| Vanadium   | 2000       | 2050        | 102.5 | 2000  | 2070        | 103.5 | 2000  | 2090        | 104.5 |       |
| Zinc       | 2000       | 2080        | 104.0 | 2000  | 2100        | 105.0 | 2000  | 2110        | 105.5 |       |

14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: | 02:35         |      | 03:21         |      | 04:08         |  |
|------------|-------|---------------|------|---------------|------|---------------|--|
| Sample ID: | CCV   | CCV12         | CCV  | CCV13         | CCV  | CCV14         |  |
| Metal      | True  | Results % Rec | True | Results % Rec | True | Results % Rec |  |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Sample ID: CCV True | 04:59 CCV15 |       | CCV True | 05:46 CCV16 |       | CCV True | 06:33 CCV17 |       |
|------------|---------------------|-------------|-------|----------|-------------|-------|----------|-------------|-------|
|            |                     | Results     | % Rec |          | Results     | % Rec |          | Results     | % Rec |
| Aluminum   | 40000               | 39700       | 99.3  | 40000    | 39600       | 99.0  | 40000    | 39600       | 99.0  |
| Antimony   | 2000                | 2100        | 105.0 | 2000     | 2100        | 105.0 | 2000     | 2100        | 105.0 |
| Arsenic    | 2000                | 2070        | 103.5 | 2000     | 2070        | 103.5 | 2000     | 2070        | 103.5 |
| Barium     | 2000                | 2080        | 104.0 | 2000     | 2070        | 103.5 | 2000     | 2060        | 103.0 |
| Beryllium  | 2000                | 1990        | 99.5  | 2000     | 1970        | 98.5  | 2000     | 1970        | 98.5  |
| Bismuth    |                     |             |       |          |             |       |          |             |       |
| Boron      | anr                 |             |       |          |             |       |          |             |       |
| Cadmium    | 2000                | 2070        | 103.5 | 2000     | 2070        | 103.5 | 2000     | 2070        | 103.5 |
| Calcium    | 40000               | 39100       | 97.8  | 40000    | 38900       | 97.3  | 40000    | 38900       | 97.3  |
| Chromium   | 2000                | 2100        | 105.0 | 2000     | 2110        | 105.5 | 2000     | 2120        | 106.0 |
| Cobalt     | 2000                | 2050        | 102.5 | 2000     | 2050        | 102.5 | 2000     | 2060        | 103.0 |
| Copper     | 2000                | 2070        | 103.5 | 2000     | 2070        | 103.5 | 2000     | 2070        | 103.5 |
| Iron       | 40000               | 38300       | 95.8  | 40000    | 38000       | 95.0  | 40000    | 37800       | 94.5  |
| Lead       | 2000                | 2020        | 101.0 | 2000     | 2020        | 101.0 | 2000     | 2020        | 101.0 |
| Lithium    |                     |             |       |          |             |       |          |             |       |
| Magnesium  | 40000               | 37000       | 92.5  | 40000    | 36900       | 92.3  | 40000    | 36800       | 92.0  |
| Manganese  | 2000                | 2110        | 105.5 | 2000     | 2110        | 105.5 | 2000     | 2120        | 106.0 |
| Molybdenum | anr                 |             |       |          |             |       |          |             |       |
| Nickel     | 2000                | 2050        | 102.5 | 2000     | 2050        | 102.5 | 2000     | 2050        | 102.5 |
| Phosphorus |                     |             |       |          |             |       |          |             |       |
| Potassium  | 40000               | 41800       | 104.5 | 40000    | 41700       | 104.3 | 40000    | 41900       | 104.8 |
| Selenium   | 2000                | 2120        | 106.0 | 2000     | 2120        | 106.0 | 2000     | 2140        | 107.0 |
| Silicon    | anr                 |             |       |          |             |       |          |             |       |
| Silver     | 250                 | 257         | 102.8 | 250      | 256         | 102.4 | 250      | 258         | 103.2 |
| Sodium     | 40000               | 41900       | 104.8 | 40000    | 41500       | 103.8 | 40000    | 41800       | 104.5 |
| Strontium  |                     |             |       |          |             |       |          |             |       |
| Sulfur     |                     |             |       |          |             |       |          |             |       |
| Thallium   | 2000                | 2090        | 104.5 | 2000     | 2090        | 104.5 | 2000     | 2080        | 104.0 |
| Tin        | anr                 |             |       |          |             |       |          |             |       |
| Titanium   |                     |             |       |          |             |       |          |             |       |
| Tungsten   |                     |             |       |          |             |       |          |             |       |
| Vanadium   | 2000                | 2070        | 103.5 | 2000     | 2060        | 103.0 | 2000     | 2070        | 103.5 |
| Zinc       | 2000                | 2090        | 104.5 | 2000     | 2100        | 105.0 | 2000     | 2120        | 106.0 |

14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: |         |       |      |         |       |      |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 04:59   | CCV15 | CCV  | 05:46   | CCV16 | CCV  | 06:33   | CCV17 |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Time:      | 07:12 |       |       | 07:29 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV18 | % Rec | CCV   | CCV19 | % Rec |
| Aluminum   | 40000      | 39700 | 99.3  | 40000 | 39900 | 99.8  |       |
| Antimony   | 2000       | 2090  | 104.5 | 2000  | 2120  | 106.0 |       |
| Arsenic    | 2000       | 2070  | 103.5 | 2000  | 2100  | 105.0 |       |
| Barium     | 2000       | 2070  | 103.5 | 2000  | 2080  | 104.0 |       |
| Beryllium  | 2000       | 1970  | 98.5  | 2000  | 1980  | 99.0  |       |
| Bismuth    |            |       |       |       |       |       |       |
| Boron      | anr        |       |       |       |       |       |       |
| Cadmium    | 2000       | 2070  | 103.5 | 2000  | 2090  | 104.5 |       |
| Calcium    | 40000      | 39100 | 97.8  | 40000 | 39200 | 98.0  |       |
| Chromium   | 2000       | 2120  | 106.0 | 2000  | 2120  | 106.0 |       |
| Cobalt     | 2000       | 2050  | 102.5 | 2000  | 2070  | 103.5 |       |
| Copper     | 2000       | 2070  | 103.5 | 2000  | 2080  | 104.0 |       |
| Iron       | 40000      | 37900 | 94.8  | 40000 | 38100 | 95.3  |       |
| Lead       | 2000       | 2020  | 101.0 | 2000  | 2040  | 102.0 |       |
| Lithium    |            |       |       |       |       |       |       |
| Magnesium  | 40000      | 36900 | 92.3  | 40000 | 37100 | 92.8  |       |
| Manganese  | 2000       | 2120  | 106.0 | 2000  | 2140  | 107.0 |       |
| Molybdenum | anr        |       |       |       |       |       |       |
| Nickel     | 2000       | 2050  | 102.5 | 2000  | 2070  | 103.5 |       |
| Phosphorus |            |       |       |       |       |       |       |
| Potassium  | 40000      | 42000 | 105.0 | 40000 | 42400 | 106.0 |       |
| Selenium   | 2000       | 2120  | 106.0 | 2000  | 2150  | 107.5 |       |
| Silicon    | anr        |       |       |       |       |       |       |
| Silver     | 250        | 257   | 102.8 | 250   | 259   | 103.6 |       |
| Sodium     | 40000      | 41900 | 104.8 | 40000 | 42300 | 105.8 |       |
| Strontium  |            |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |
| Thallium   | 2000       | 2080  | 104.0 | 2000  | 2090  | 104.5 |       |
| Tin        | anr        |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |
| Vanadium   | 2000       | 2070  | 103.5 | 2000  | 2080  | 104.0 |       |
| Zinc       | 2000       | 2110  | 105.5 | 2000  | 2130  | 106.5 |       |

14.8.4  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: | 07:12   |       | 07:29 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | CCV   | CCV18   | CCV   | CCV19 |         |
| Metal      | True  | Results | % Rec | True  | Results |
|            |       |         |       |       | % Rec   |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.8.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 17:34 | 17:38   |       |        |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2  | HSTD    | HSTD2 |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       | 300000 | 313000  | 104.3 |
| Antimony   | 5000  | 5070    | 101.4 |        |         |       |
| Arsenic    | 5000  | 4940    | 98.8  |        |         |       |
| Barium     | 5000  | 5210    | 104.2 |        |         |       |
| Beryllium  | 5000  | 5130    | 102.6 |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      | anr   |         |       |        |         |       |
| Cadmium    | 5000  | 5040    | 100.8 |        |         |       |
| Calcium    |       |         |       | 150000 | 152000  | 101.3 |
| Chromium   | 5000  | 5260    | 105.2 |        |         |       |
| Cobalt     | 5000  | 5030    | 100.6 |        |         |       |
| Copper     | 5000  | 5100    | 102.0 |        |         |       |
| Iron       |       |         |       | 150000 | 150000  | 100.0 |
| Lead       | 5000  | 5140    | 102.8 |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       | 300000 | 315000  | 105.0 |
| Manganese  | 5000  | 5190    | 103.8 |        |         |       |
| Molybdenum | anr   |         |       |        |         |       |
| Nickel     | 5000  | 5050    | 101.0 |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       | 150000 | 157000  | 104.7 |
| Selenium   | 5000  | 5010    | 100.2 |        |         |       |
| Silicon    | anr   |         |       |        |         |       |
| Silver     | 625   | 626     | 100.2 |        |         |       |
| Sodium     |       |         |       | 150000 | 153000  | 102.0 |
| Strontium  |       |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | 5000  | 5340    | 106.8 |        |         |       |
| Tin        | anr   |         |       |        |         |       |
| Titanium   |       |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | 5000  | 5220    | 104.4 |        |         |       |
| Zinc       | 5000  | 5220    | 104.4 |        |         |       |

14.8.5  
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HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44406      Units: ug/l

|            | Time: | 17:34   |       | 17:38 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested

14.8.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 17:16 | 17:21 | 23:38 |         |       |         |          |         |       |
|------------|-------|-------|-------|---------|-------|---------|----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 | Results | % Rec | Results | % Rec    | Results | % Rec |
| Metal      | True  | True  | True  |         |       |         |          |         |       |
| Aluminum   | 200   | 500   | 100   | 214     | 107.0 | 112     | 112.0    | 222     | 111.0 |
| Antimony   | 6.0   | 20    | 3.0   | 6.70    | 111.7 | 1.20U   | 0.0* (a) | 7.20    | 120.0 |
| Arsenic    | 8.0   | 20    | 3.0   | 10.0    | 125.0 | 2.90    | 96.7     | 8.70    | 108.8 |
| Barium     | 200   |       | 4.0   | 214     | 107.0 | 4.30    | 107.5    | 214     | 107.0 |
| Beryllium  | 2.0   |       | 1.0   | 2.00    | 100.0 | 1.00    | 100.0    | 2.10    | 105.0 |
| Bismuth    | 20    |       |       |         |       |         |          |         |       |
| Boron      | 100   |       | 10    | anr     |       |         |          |         |       |
| Cadmium    | 3.0   |       | 1.0   | 3.20    | 106.7 | 0.900   | 90.0     | 3.10    | 103.3 |
| Calcium    | 5000  | 2000  | 1000  | 5350    | 107.0 | 1110    | 111.0    | 5230    | 104.6 |
| Chromium   | 10    |       | 2.0   | 11.0    | 110.0 | 2.30    | 115.0    | 11.7    | 117.0 |
| Cobalt     | 50    |       | 3.0   | 51.7    | 103.4 | 3.00    | 100.0    | 52.0    | 104.0 |
| Copper     | 10    |       | 2.0   | 9.70    | 97.0  | -0.400U | 0.0* (a) | 11.0    | 110.0 |
| Iron       | 100   | 500   |       | 109     | 109.0 |         |          | 105     | 105.0 |
| Lead       | 3.0   | 20    | 2.5   | 2.60    | 86.7  | 0.200U  | 0.0* (a) | 2.60    | 86.7  |
| Lithium    | 50    |       |       |         |       |         |          |         |       |
| Magnesium  | 5000  | 2000  | 100   | 5310    | 106.2 | 72.7    | 72.7     | 4960    | 99.2  |
| Manganese  | 15    |       | 3.0   | 16.8    | 112.0 | 3.30    | 110.0    | 17.3    | 115.3 |
| Molybdenum | 20    |       |       | anr     |       |         |          |         |       |
| Nickel     | 10    |       | 4.0   | 10.4    | 104.0 | 4.30    | 107.5    | 10.6    | 106.0 |
| Phosphorus | 50    |       |       |         |       |         |          |         |       |
| Potassium  | 5000  |       | 2000  | 5290    | 105.8 | 2160    | 108.0    | 5490    | 109.8 |
| Selenium   | 10    | 20    | 5.0   | 9.40    | 94.0  | 6.40    | 128.0    | 11.2    | 112.0 |
| Silicon    | 200   |       |       | anr     |       |         |          |         |       |
| Silver     | 5.0   |       | 2.0   | 5.50    | 110.0 | 0.400U  | 0.0* (a) | 6.30    | 126.0 |
| Sodium     | 5000  |       | 1000  | 5230    | 104.6 | 1070    | 107.0    | 5410    | 108.2 |
| Strontium  | 10    |       |       |         |       |         |          |         |       |
| Sulfur     | 50    |       |       |         |       |         |          |         |       |
| Thallium   | 10    |       | 2.0   | 11.9    | 119.0 | 2.00    | 100.0    | 11.0    | 110.0 |
| Tin        | 10    |       |       | anr     |       |         |          |         |       |
| Titanium   | 10    |       |       |         |       |         |          |         |       |
| Tungsten   | 50    |       |       |         |       |         |          |         |       |
| Vanadium   | 50    |       | 2.0   | 53.6    | 107.2 | 2.00    | 100.0    | 54.8    | 109.6 |
| Zinc       | 20    |       | 10    | 22.0    | 110.0 | 11.0    | 110.0    | 22.4    | 112.0 |

14.8.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 17:16         | 17:21         | 23:38         |
|------------|---------------|---------------|---------------|
| Sample ID: | CRI1          | CRID1         | CRI2          |
| Metal      | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

14.8.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 23:43 | 07:20 | 07:24 |         |          |
|------------|-------|-------|-------|---------|----------|
| Sample ID: | CRID2 | CRID3 | CRID3 |         |          |
| Metal      | True  | True  | True  | Results | % Rec    |
| Aluminum   | 200   | 500   | 100   | 113     | 113.0    |
| Antimony   | 6.0   | 20    | 3.0   | -0.900U | 0.0* (a) |
| Arsenic    | 8.0   | 20    | 3.0   | 3.10    | 103.3    |
| Barium     | 200   |       | 4.0   | 4.00    | 100.0    |
| Beryllium  | 2.0   |       | 1.0   | 1.10    | 110.0    |
| Bismuth    | 20    |       |       |         |          |
| Boron      | 100   |       | 10    | anr     |          |
| Cadmium    | 3.0   |       | 1.0   | 1.10    | 110.0    |
| Calcium    | 5000  | 2000  | 1000  | 1080    | 108.0    |
| Chromium   | 10    |       | 2.0   | 2.60    | 130.0    |
| Cobalt     | 50    |       | 3.0   | 3.20    | 106.7    |
| Copper     | 10    |       | 2.0   | 0.300U  | 0.0* (a) |
| Iron       | 100   | 500   |       |         |          |
| Lead       | 3.0   | 20    | 2.5   | 0.600U  | 0.0* (a) |
| Lithium    | 50    |       |       |         |          |
| Magnesium  | 5000  | 2000  | 100   | 88.2    | 88.2     |
| Manganese  | 15    |       | 3.0   | 3.40    | 113.3    |
| Molybdenum | 20    |       |       |         |          |
| Nickel     | 10    |       | 4.0   | 4.40    | 110.0    |
| Phosphorus | 50    |       |       |         |          |
| Potassium  | 5000  |       | 2000  | 2280    | 114.0    |
| Selenium   | 10    | 20    | 5.0   | 5.40    | 108.0    |
| Silicon    | 200   |       |       |         |          |
| Silver     | 5.0   |       | 2.0   | 1.00    | 50.0*(a) |
| Sodium     | 5000  |       | 1000  | 1120    | 112.0    |
| Strontium  | 10    |       |       |         |          |
| Sulfur     | 50    |       |       |         |          |
| Thallium   | 10    |       | 2.0   | 1.50    | 75.0     |
| Tin        | 10    |       |       |         |          |
| Titanium   | 10    |       |       |         |          |
| Tungsten   | 50    |       |       |         |          |
| Vanadium   | 50    |       | 2.0   | 2.50    | 125.0    |
| Zinc       | 20    |       | 10    | 11.5    | 115.0    |

14.8.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

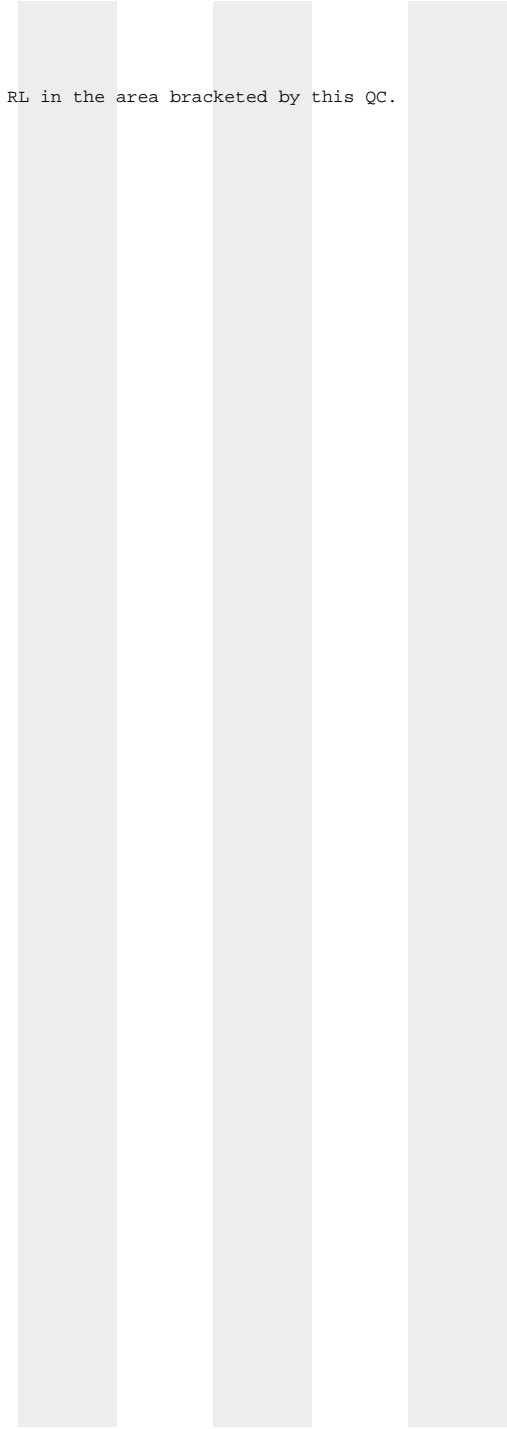
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 23:43         | 07:20         | 07:24         |
|------------|---------------|---------------|---------------|
| Sample ID: | CRID2         | CRI3          | CRID3         |
| Metal      | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.



14.8.6  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP      Date Analyzed: 05/14/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44406      Units: ug/l

| Metal      | Time:      |        | 17:25   |       | 17:30   |        | 23:47   |        | 23:52   |        |
|------------|------------|--------|---------|-------|---------|--------|---------|--------|---------|--------|
|            | Sample ID: | ICSA   | ICSAB   | ICSAL | ICSAB1  | ICSAB2 | ICSAB2  | ICSAB2 | ICSAB2  | ICSAB2 |
|            | True       | True   | Results | % Rec | Results | % Rec  | Results | % Rec  | Results | % Rec  |
| Aluminum   | 500000     | 500000 | 518000  | 103.6 | 524000  | 104.8  | 516000  | 103.2  | 521000  | 104.2  |
| Antimony   |            | 1000   | -4.80   |       | 1030    | 103.0  | -5.80   |        | 1070    | 107.0  |
| Arsenic    |            | 1000   | 2.10    |       | 1070    | 107.0  | 1.10    |        | 1110    | 111.0  |
| Barium     |            | 500    | -0.100  |       | 527     | 105.4  | -0.300  |        | 533     | 106.6  |
| Beryllium  |            | 500    | 0.200   |       | 507     | 101.4  | 0.200   |        | 502     | 100.4  |
| Bismuth    |            | 500    | -5.10   |       | 499     | 99.8   | -0.700  |        | 531     | 106.2  |
| Boron      |            | 500    | -5.40   |       | 496     | 99.2   | -5.90   |        | 528     | 105.6  |
| Cadmium    |            | 1000   | 0.100   |       | 1050    | 105.0  | 0.600   |        | 1080    | 108.0  |
| Calcium    | 400000     | 400000 | 397000  | 99.3  | 390000  | 97.5   | 389000  | 97.3   | 387000  | 96.8   |
| Chromium   |            | 500    | -1.50   |       | 505     | 101.0  | -1.90   |        | 512     | 102.4  |
| Cobalt     |            | 500    | 0.700   |       | 504     | 100.8  | 0.500   |        | 512     | 102.4  |
| Copper     |            | 500    | 2.00    |       | 517     | 103.4  | -0.400  |        | 544     | 108.8  |
| Iron       | 200000     | 200000 | 196000  | 98.0  | 197000  | 98.5   | 190000  | 95.0   | 193000  | 96.5   |
| Lead       |            | 1000   | 0.400   |       | 1010    | 101.0  | 2.40    |        | 988     | 98.8   |
| Lithium    |            | 500    | 4.80    |       | 536     | 107.2  | 5.20    |        | 564     | 112.8  |
| Magnesium  | 500000     | 500000 | 516000  | 103.2 | 511000  | 102.2  | 485000  | 97.0   | 486000  | 97.2   |
| Manganese  |            | 500    | -3.10   |       | 510     | 102.0  | -3.60   |        | 524     | 104.8  |
| Molybdenum |            | 500    | -1.70   |       | 491     | 98.2   | -2.30   |        | 496     | 99.2   |
| Nickel     |            | 1000   | -0.900  |       | 1010    | 101.0  | -0.700  |        | 1010    | 101.0  |
| Phosphorus |            | 500    | 0.500   |       | 505     | 101.0  | -7.20   |        | 509     | 101.8  |
| Potassium  |            |        | -400    |       | -419    |        | -279    |        | -339    |        |
| Selenium   |            | 1000   | 6.80    |       | 1010    | 101.0  | 7.80    |        | 1080    | 108.0  |
| Silicon    |            | 500    | -5.70   |       | 487     | 97.4   | -10.3   |        | 516     | 103.2  |
| Silver     |            | 1000   | 2.00    |       | 1070    | 107.0  | 5.70    |        | 1090    | 109.0  |
| Sodium     |            |        | 15.7    |       | 17.9    |        | 195     |        | 108     |        |
| Strontium  |            | 500    | 5.30    |       | 531     | 106.2  | 5.50    |        | 538     | 107.6  |
| Sulfur     |            | 500    | 11.6    |       | 518     | 103.6  | 27.1    |        | 555     | 111.0  |
| Thallium   |            | 1000   | -0.600  |       | 1000    | 100.0  | -0.100  |        | 990     | 99.0   |
| Tin        |            | 500    | -3.90   |       | 465     | 93.0   | -4.10   |        | 480     | 96.0   |
| Titanium   |            | 500    | -1.00   |       | 511     | 102.2  | -0.900  |        | 512     | 102.4  |
| Tungsten   |            | 500    | 9.40    |       | 495     | 99.0   | 8.90    |        | 499     | 99.8   |
| Vanadium   |            | 500    | -1.00   |       | 510     | 102.0  | -1.50   |        | 511     | 102.2  |
| Zinc       |            | 1000   | 1.70    |       | 977     | 97.7   | 2.60    |        | 1010    | 101.0  |

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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE051418M2.ICP Date Analyzed: 05/14/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44406 Units: ug/l

| Time:      | 17:25   | 17:30  | 23:47   | 23:52  |
|------------|---------|--------|---------|--------|
| Sample ID: | ICSA1   | ICSAB1 | ICSA2   | ICSAB2 |
| Metal      | Results | % Rec  | Results | % Rec  |

|           |     |       |     |       |        |     |       |
|-----------|-----|-------|-----|-------|--------|-----|-------|
| Zirconium | 500 | -2.00 | 500 | 100.0 | -0.500 | 504 | 100.8 |
|-----------|-----|-------|-----|-------|--------|-----|-------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
Analyst: ND      Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 19:08  | MA44414-STD1                                | 1               |          | STDA   |
| 19:12  | MA44414-STD2                                | 1               |          | STDB   |
| 19:17  | MA44414-ICV1                                | 1               |          |  |
| 19:21  | MA44414-ICB1                                | 1               |          |  |
| 19:26  | MA44414-CCV1                                | 1               |          |  |
| 19:30  | MA44414-CCB1                                | 1               |          |  |
| 19:34  | MA44414-CCV2                                | 1               |          |  |
| 19:39  | MA44414-CCB2                                | 1               |          |  |
| 19:43  | MA44414-CRI1                                | 1               |          |  |
| 19:47  | MA44414-CRID1                               | 1               |          |  |
| 19:52  | MA44414-ICSA1                               | 1               |          |  |
| 19:56  | MA44414-ICSAB1                              | 1               |          |  |
| 20:01  | MA44414-HSTD1                               | 1               |          |  |
| 20:05  | MA44414-HSTD2                               | 1               |          |  |
| 20:10  | ZZZZZZ                                      | 1               |          |  |
| 20:14  | ZZZZZZ                                      | 1               |          |  |
| 20:19  | ZZZZZZ                                      | 1               |          |  |
| 20:23  | MA44414-CCV3                                | 1               |          |  |
| 20:27  | MA44414-CCB3                                | 1               |          |  |
| 20:32  | MP7131-MB1                                  | 1               |          |  |
| 20:36  | MP7131-B1                                   | 1               |          |  |
| 20:40  | MP7131-S1                                   | 1               |          |  |
| 20:45  | MP7131-S2                                   | 1               |          |  |
| 20:49  | JC65891-6                                   | 1               |          | (sample used for QC only; not part of login JC64996) |
| 20:53  | MP7131-SD1                                  | 5               |          |  |
| 20:58  | JC64996-7                                   | 5               |          |  |
| 21:02  | JC64996-10                                  | 5               |          |  |
| -----> | Last reportable sample/prep for job JC64996 |                 |          |  |
| 21:07  | ZZZZZZ                                      | 2               |          |  |
| 21:13  | MA44414-CCV4                                | 1               |          |  |
| 21:18  | MA44414-CCB4                                | 1               |          |  |
| 21:22  | ZZZZZZ                                      | 10              |          |  |
| 21:26  | ZZZZZZ                                      | 5               |          |  |
| 21:31  | MP7130-MB1                                  | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 21:35 | MP7130-B1          | 1               |          | High RSD, see rerun                                  |
| 21:39 | MP7130-S1          | 1               |          |  |
| 21:44 | MP7130-S2          | 1               |          |  |
| 21:48 | JC65974-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 21:52 | MP7130-SD1         | 5               |          | Y22436 and In out                                    |
| 21:57 | ZZZZZZ             | 1               |          |  |
| 22:02 | MP7130-B1          | 1               |          |  |
| 22:06 | MA44414-CCV5       | 1               |          |  |
| 22:10 | MA44414-CCB5       | 1               |          |  |
| 22:15 | ZZZZZZ             | 1               |          |  |
| 22:19 | ZZZZZZ             | 1               |          |  |
| 22:24 | ZZZZZZ             | 1               |          |  |
| 22:28 | ZZZZZZ             | 1               |          |  |
| 22:33 | ZZZZZZ             | 1               |          |  |
| 22:37 | ZZZZZZ             | 1               |          |  |
| 22:41 | ZZZZZZ             | 1               |          |  |
| 22:46 | ZZZZZZ             | 1               |          |  |
| 22:50 | ZZZZZZ             | 1               |          |  |
| 22:55 | MA44414-CCV6       | 1               |          |  |
| 22:59 | MA44414-CCB6       | 1               |          | Missed cup   |
| 23:03 | ZZZZZZ             | 1               |          |  |
| 23:15 | MA44414-CCV7       | 1               |          |  |
| 23:19 | MA44414-CCB7       | 1               |          |  |
| 23:24 | ZZZZZZ             | 1               |          |  |
| 23:28 | ZZZZZZ             | 1               |          |  |
| 23:32 | ZZZZZZ             | 1               |          |  |
| 23:37 | ZZZZZZ             | 1               |          |  |
| 23:41 | ZZZZZZ             | 1               |          |  |
| 23:45 | ZZZZZZ             | 1               |          |  |
| 23:50 | ZZZZZZ             | 1               |          |  |
| 23:54 | MP7151-MB1         | 1               |          |  |
| 23:59 | MP7151-B1          | 1               |          |  |
| 00:03 | MA44414-CCV8       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 00:07 | MA44414-CCB8       | 1               |          |  |
| 00:12 | MP7151-LC1         | 1               |          |  |
| 00:16 | MP7151-S1          | 1               |          |  |
| 00:20 | MP7151-S2          | 1               |          |  |
| 00:24 | JC65729-2          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 00:29 | MP7151-SD1         | 5               |          |  |
| 00:33 | ZZZZZZ             | 1               |          |  |
| 00:37 | ZZZZZZ             | 1               |          |  |
| 00:42 | ZZZZZZ             | 1               |          |  |
| 00:46 | ZZZZZZ             | 1               |          |  |
| 00:50 | MA44414-CCV9       | 1               |          |  |
| 00:55 | MA44414-CCB9       | 1               |          |  |
| 00:59 | ZZZZZZ             | 1               |          |  |
| 01:03 | ZZZZZZ             | 1               |          |  |
| 01:08 | ZZZZZZ             | 1               |          |  |
| 01:12 | ZZZZZZ             | 1               |          |  |
| 01:16 | ZZZZZZ             | 1               |          |  |
| 01:21 | ZZZZZZ             | 1               |          |  |
| 01:25 | ZZZZZZ             | 1               |          |  |
| 01:29 | ZZZZZZ             | 1               |          |  |
| 01:34 | ZZZZZZ             | 1               |          |  |
| 01:38 | MA44414-CCV10      | 1               |          |  |
| 01:42 | MA44414-CCB10      | 1               |          |  |
| 01:47 | ZZZZZZ             | 1               |          |  |
| 01:51 | ZZZZZZ             | 1               |          |  |
| 01:56 | ZZZZZZ             | 1               |          |  |
| 02:00 | ZZZZZZ             | 1               |          |  |
| 02:04 | ZZZZZZ             | 1               |          |  |
| 02:09 | ZZZZZZ             | 1               |          |  |
| 02:13 | MP7132-MB1         | 1               |          |  |
| 02:18 | MP7132-B1          | 1               |          |  |
| 02:22 | MA44414-CCV11      | 1               |          |  |
| 02:26 | MA44414-CCB11      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 02:31  | MA44414-CRI2                        | 1               |          |  |
| 02:35  | MA44414-CRID2                       | 1               |          |  |
| 02:39  | MA44414-ICSA2                       | 1               |          |  |
| 02:44  | MA44414-ICSAB2                      | 1               |          |  |
| 02:48  | MA44414-CCV12                       | 1               |          |  |
| 02:53  | MA44414-CCB12                       | 1               |          |  |
| -----> | Last reportable CCB for job JC64996 |                 |          |  |
| 02:57  | ZZZZZ                               | 1               |          |  |
| 03:01  | ZZZZZ                               | 1               |          |  |
| 03:06  | ZZZZZ                               | 1               |          |  |
| 03:10  | ZZZZZ                               | 1               |          |  |
| 03:15  | ZZZZZ                               | 1               |          |  |
| 03:19  | ZZZZZ                               | 1               |          |  |
| 03:24  | ZZZZZ                               | 1               |          |  |
| 03:28  | ZZZZZ                               | 1               |          |  |
| 03:33  | ZZZZZ                               | 1               |          |  |
| 03:37  | ZZZZZ                               | 1               |          |  |
| 03:41  | MA44414-CCV13                       | 1               |          |  |
| 03:46  | MA44414-CCB13                       | 1               |          |  |
| 03:50  | MP7132-S1                           | 1               |          |  |
| 03:55  | MP7132-S2                           | 1               |          |  |
| 03:59  | JC65968-1                           | 1               |          | (sample used for QC only; not part of login JC64996) |
| 04:04  | MP7132-SD1                          | 5               |          |  |
| 04:08  | ZZZZZ                               | 1               |          |  |
| 04:12  | ZZZZZ                               | 1               |          |  |
| 04:17  | ZZZZZ                               | 1               |          |  |
| 04:21  | ZZZZZ                               | 1               |          |  |
| 04:26  | ZZZZZ                               | 1               |          |  |
| 04:30  | ZZZZZ                               | 1               |          |  |
| 04:35  | MA44414-CCV14                       | 1               |          | Y3600 high RSD                                       |
| 04:39  | MA44414-CCB14                       | 1               |          |  |
| 04:43  | ZZZZZ                               | 1               |          |  |
| 04:48  | ZZZZZ                               | 1               |          |  |
| 04:52  | ZZZZZ                               | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 04:56 | ZZZZZZ             | 1               |          |  |
| 05:01 | ZZZZZZ             | 1               |          |  |
| 05:05 | ZZZZZZ             | 1               |          |  |
| 05:10 | ZZZZZZ             | 1               |          |  |
| 05:14 | ZZZZZZ             | 1               |          |  |
| 05:19 | ZZZZZZ             | 1               |          |  |
| 05:23 | MA44414-CCV15      | 1               |          |  |
| 05:27 | MA44414-CCB15      | 1               |          |  |
| 05:32 | ZZZZZZ             | 1               |          |  |
| 05:36 | ZZZZZZ             | 1               |          |  |
| 05:40 | ZZZZZZ             | 1               |          |  |
| 05:45 | MP7158-MB1         | 1               |          | CCV out for Tl.                                      |
| 05:49 | MP7158-B1          | 1               |          | CCV out for Tl.                                      |
| 05:53 | MP7158-S1          | 1               |          | CCV out for Tl.                                      |
| 05:58 | MP7158-S2          | 1               |          | High RSD   |
| 06:02 | JC65898-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 06:06 | MP7158-SD1         | 5               |          | CCV out for Tl.                                      |
| 06:10 | MA44414-CCV16      | 1               |          |  |
| 06:15 | MA44414-CCB16      | 1               |          |  |
| 06:19 | ZZZZZZ             | 1               |          |  |
| 06:23 | ZZZZZZ             | 1               |          |  |
| 06:28 | ZZZZZZ             | 1               |          |  |
| 06:32 | ZZZZZZ             | 1               |          |  |
| 06:36 | ZZZZZZ             | 1               |          |  |
| 06:41 | ZZZZZZ             | 1               |          |  |
| 06:45 | ZZZZZZ             | 1               |          |  |
| 06:50 | ZZZZZZ             | 1               |          |  |
| 07:05 | ZZZZZZ             | 1               |          |  |
| 07:12 | MA44414-CCV17      | 1               |          |  |
| 07:16 | MA44414-CCB17      | 1               |          |  |
| 07:21 | MA44414-CRI3       | 1               |          |  |
| 07:25 | MA44414-CRID3      | 1               |          |  |
| 07:29 | MA44414-CCV18      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
Analyst: ND      Run ID: MA44414  
Parameters: Ca,Mn,Tl,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

07:34 MA44414-CCB18 1

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4  |
|-------|--------------------|--------|----------|---------|---------|
| 19:08 | MA44414-STD1       | 6459 R | 236690 R | 48385 R | 11960 R |
| 19:12 | MA44414-STD2       | 6000   | 221580   | 47552   | 10324   |
| 19:17 | MA44414-ICV1       | 6149   | 225040   | 48222   | 10689   |
| 19:21 | MA44414-ICB1       | 6426   | 234710   | 48272   | 11920   |
| 19:26 | MA44414-CCV1       | 6209   | 232420   | 47964   | 10786   |
| 19:30 | MA44414-CCB1       | 6476   | 238900   | 48254   | 11989   |
| 19:34 | MA44414-CCV2       | 6187   | 226600   | 47645   | 10728   |
| 19:39 | MA44414-CCB2       | 6492   | 238690   | 48703   | 12020   |
| 19:43 | MA44414-CRI1       | 6445   | 238630   | 48863   | 11772   |
| 19:47 | MA44414-CRID1      | 6487   | 238050   | 48654   | 11974   |
| 19:52 | MA44414-ICSA1      | 5715   | 211390   | 46489   | 9595    |
| 19:56 | MA44414-ICSAB1     | 5632   | 207620   | 46563   | 9485    |
| 20:01 | MA44414-HSTD1      | 6391   | 237530   | 48791   | 11694   |
| 20:05 | MA44414-HSTD2      | 5808   | 213940   | 46847   | 9633    |
| 20:10 | ZZZZZZ             | 6402   | 237280   | 48046   | 11917   |
| 20:14 | ZZZZZZ             | 6396   | 239040   | 46893   | 11997   |
| 20:19 | ZZZZZZ             | 6520   | 241130   | 48638   | 12064   |
| 20:23 | MA44414-CCV3       | 6243   | 229050   | 47241   | 10831   |
| 20:27 | MA44414-CCB3       | 6563   | 238210   | 47565   | 12127   |
| 20:32 | MP7131-MB1         | 6554   | 245160   | 49462   | 12110   |
| 20:36 | MP7131-B1          | 6388   | 235600   | 48064   | 11205   |
| 20:40 | MP7131-S1          | 6407   | 234310   | 50587   | 10843   |
| 20:45 | MP7131-S2          | 6212   | 230140   | 48616   | 10551   |
| 20:49 | JC65891-6          | 6564   | 238440   | 49428   | 11356   |
| 20:53 | MP7131-SD1         | 6579   | 239720   | 48597   | 11823   |
| 20:58 | JC64996-7          | 6230   | 232050   | 47440   | 10799   |
| 21:02 | JC64996-10         | 6143   | 226990   | 46999   | 10582   |
| 21:07 | ZZZZZZ             | 6389   | 239370   | 48258   | 11195   |
| 21:13 | MA44414-CCV4       | 6273   | 233260   | 47624   | 10885   |
| 21:18 | MA44414-CCB4       | 6589   | 244380   | 48166   | 12201   |
| 21:22 | ZZZZZZ             | 6576   | 243170   | 48981   | 11977   |
| 21:26 | ZZZZZZ             | 6545   | 240480   | 49036   | 11289   |
| 21:31 | MP7130-MB1         | 6569   | 236250   | 49652   | 12168   |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4    |
|-------|--------------------|--|--------|--------|-----------|
| 21:35 | MP7130-B1          | No results reported for the elements associated with this internal standard. |        |        |           |
| 21:39 | MP7130-S1          | 6436   | 237610 | 49026  | 11050     |
| 21:44 | MP7130-S2          | 6427   | 238300 | 49106  | 11030     |
| 21:48 | JC65974-2          | 6638   | 243030 | 50665  | 11476     |
| 21:52 | MP7130-SD1         | 999999 !a  | 242980 | 48710  | 999999 !a |
| 21:57 | ZZZZZZ             | 5961   | 222180 | 47949  | 9802      |
| 22:02 | MP7130-B1          | 6373   | 235320 | 48192  | 11194     |
| 22:06 | MA44414-CCV5       | 6324   | 234210 | 47789  | 10943     |
| 22:10 | MA44414-CCB5       | 6643   | 246630 | 48144  | 12274     |
| 22:15 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:19 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:24 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:28 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:33 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:37 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:41 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:46 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:50 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:55 | MA44414-CCV6       | No results reported for the elements associated with this internal standard. |        |        |           |
| 22:59 | MA44414-CCB6       | No results reported for the elements associated with this internal standard. |        |        |           |
| 23:03 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |           |
| 23:15 | MA44414-CCV7       | 6302   | 231910 | 46905  | 10906     |
| 23:19 | MA44414-CCB7       | 6615   | 244340 | 48180  | 12252     |
| 23:24 | ZZZZZZ             | 6685   | 244800 | 49697  | 11459     |
| 23:28 | ZZZZZZ             | 6783   | 246760 | 51475  | 11324     |
| 23:32 | ZZZZZZ             | 6617   | 243640 | 50591  | 11461     |
| 23:37 | ZZZZZZ             | 6663   | 248020 | 50828  | 11346     |
| 23:41 | ZZZZZZ             | 6545   | 242140 | 49140  | 11638     |
| 23:45 | ZZZZZZ             | 6653   | 243840 | 50605  | 11439     |
| 23:50 | ZZZZZZ             | 6523   | 241770 | 49908  | 11003     |
| 23:54 | MP7151-MB1         | 6615   | 247370 | 48924  | 12222     |
| 23:59 | MP7151-B1          | 6442   | 239340 | 47791  | 11307     |
| 00:03 | MA44414-CCV8       | 6381   | 233870 | 47584  | 11026     |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 00:07 | MA44414-CCB8       | 6635   | 246250 | 48066  | 12288  |
| 00:12 | MP7151-LC1         | 6553   | 241850 | 48452  | 11379  |
| 00:16 | MP7151-S1          | 6514   | 240290 | 48914  | 11273  |
| 00:20 | MP7151-S2          | 6446   | 239860 | 48234  | 11186  |
| 00:24 | JC65729-2          | 6706   | 248440 | 48609  | 12125  |
| 00:29 | MP7151-SD1         | 6621   | 249780 | 47980  | 12202  |
| 00:33 | ZZZZZ              | 6660   | 245310 | 49050  | 11529  |
| 00:37 | ZZZZZ              | 6684   | 247670 | 48557  | 12068  |
| 00:42 | ZZZZZ              | 6662   | 249800 | 48280  | 12070  |
| 00:46 | ZZZZZ              | 6686   | 249150 | 47436  | 11943  |
| 00:50 | MA44414-CCV9       | 6378   | 235390 | 46922  | 11049  |
| 00:55 | MA44414-CCB9       | 6637   | 246370 | 47946  | 12311  |
| 00:59 | ZZZZZ              | 6688   | 249510 | 48821  | 12106  |
| 01:03 | ZZZZZ              | 6649   | 246240 | 48694  | 11902  |
| 01:08 | ZZZZZ              | 6682   | 247120 | 48601  | 12161  |
| 01:12 | ZZZZZ              | 6611   | 242550 | 48257  | 11995  |
| 01:16 | ZZZZZ              | 6559   | 256690 | 48672  | 11797  |
| 01:21 | ZZZZZ              | 6652   | 247470 | 48139  | 12188  |
| 01:25 | ZZZZZ              | 6600   | 244740 | 48574  | 11873  |
| 01:29 | ZZZZZ              | 6443   | 242570 | 49571  | 10943  |
| 01:34 | ZZZZZ              | 6746   | 245400 | 49469  | 11558  |
| 01:38 | MA44414-CCV10      | 6373   | 234800 | 47209  | 11017  |
| 01:42 | MA44414-CCB10      | 6663   | 251050 | 47978  | 12327  |
| 01:47 | ZZZZZ              | 6147   | 235250 | 49090  | 12075  |
| 01:51 | ZZZZZ              | 6177   | 227710 | 48006  | 10097  |
| 01:56 | ZZZZZ              | 6560   | 250650 | 48545  | 11266  |
| 02:00 | ZZZZZ              | 5878   | 223370 | 48229  | 9057   |
| 02:04 | ZZZZZ              | 6541   | 242500 | 50098  | 11368  |
| 02:09 | ZZZZZ              | 6615   | 250910 | 49648  | 11391  |
| 02:13 | MP7132-MB1         | 6573   | 246530 | 48720  | 12169  |
| 02:18 | MP7132-B1          | 6331   | 233600 | 47459  | 11136  |
| 02:22 | MA44414-CCV11      | 6338   | 235690 | 47733  | 11002  |
| 02:26 | MA44414-CCB11      | 6635   | 248850 | 47777  | 12314  |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 02:31 | MA44414-CRI2       | 6562   | 244640 | 47118  | 11994  |
| 02:35 | MA44414-CRID2      | 6599   | 246000 | 48254  | 12205  |
| 02:39 | MA44414-ICSA2      | 5734   | 213040 | 44211  | 9608   |
| 02:44 | MA44414-ICSAB2     | 5746   | 209810 | 46440  | 9621   |
| 02:48 | MA44414-CCV12      | 6198   | 234700 | 48019  | 10727  |
| 02:53 | MA44414-CCB12      | 6617   | 247150 | 49128  | 12212  |
| 02:57 | ZZZZZ              | 6536   | 246590 | 49352  | 12087  |
| 03:01 | ZZZZZ              | 6599   | 245050 | 48446  | 12156  |
| 03:06 | ZZZZZ              | 6601   | 247120 | 49026  | 12136  |
| 03:10 | ZZZZZ              | 6515   | 242410 | 49042  | 12007  |
| 03:15 | ZZZZZ              | 6619   | 242990 | 48711  | 12173  |
| 03:19 | ZZZZZ              | 6658   | 246700 | 48662  | 12278  |
| 03:24 | ZZZZZ              | 6533   | 229060 | 51022  | 10747  |
| 03:28 | ZZZZZ              | 5951   | 222880 | 47077  | 10287  |
| 03:33 | ZZZZZ              | 6571   | 244020 | 48715  | 12183  |
| 03:37 | ZZZZZ              | 6557   | 243090 | 48312  | 12171  |
| 03:41 | MA44414-CCV13      | 6288   | 233960 | 48266  | 10880  |
| 03:46 | MA44414-CCB13      | 6586   | 234140 | 49010  | 12160  |
| 03:50 | MP7132-S1          | 6244   | 232340 | 49839  | 10510  |
| 03:55 | MP7132-S2          | 5919   | 228640 | 48705  | 9712   |
| 03:59 | JC65968-1          | 6446   | 237680 | 49226  | 11037  |
| 04:04 | MP7132-SD1         | 6577   | 244430 | 49391  | 11742  |
| 04:08 | ZZZZZ              | 5695   | 213170 | 47960  | 9215   |
| 04:12 | ZZZZZ              | 5672   | 212660 | 47412  | 9198   |
| 04:17 | ZZZZZ              | 5579   | 209490 | 47070  | 9011   |
| 04:21 | ZZZZZ              | 6373   | 240710 | 50227  | 11013  |
| 04:26 | ZZZZZ              | 6581   | 250630 | 51325  | 11190  |
| 04:30 | ZZZZZ              | 6566   | 243110 | 50773  | 11299  |
| 04:35 | MA44414-CCV14      | 6328   | 214560 | 48604  | 10945  |
| 04:39 | MA44414-CCB14      | 6546   | 245790 | 49021  | 12117  |
| 04:43 | ZZZZZ              | 6574   | 244980 | 51441  | 11143  |
| 04:48 | ZZZZZ              | 6616   | 246490 | 50464  | 11465  |
| 04:52 | ZZZZZ              | No results reported for the elements associated with this internal standard. |        |        |        |

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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 04:56 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 05:01 | ZZZZZZ             | 6531   | 243590 | 50616  | 11173  |
| 05:05 | ZZZZZZ             | 6498   | 241530 | 50393  | 11068  |
| 05:10 | ZZZZZZ             | 6116   | 227970 | 48958  | 10413  |
| 05:14 | ZZZZZZ             | 6478   | 240740 | 50904  | 11104  |
| 05:19 | ZZZZZZ             | 6629   | 243880 | 51037  | 11446  |
| 05:23 | MA44414-CCV15      | 6259   | 234950 | 48073  | 10842  |
| 05:27 | MA44414-CCB15      | 6543   | 239620 | 48617  | 12103  |
| 05:32 | ZZZZZZ             | 6590   | 251170 | 50906  | 11264  |
| 05:36 | ZZZZZZ             | 6304   | 234200 | 49393  | 10639  |
| 05:40 | ZZZZZZ             | 6579   | 246710 | 50918  | 11334  |
| 05:45 | MP7158-MB1         | 6555   | 248520 | 49763  | 12135  |
| 05:49 | MP7158-B1          | 6312   | 235240 | 48559  | 11060  |
| 05:53 | MP7158-S1          | 6273   | 235290 | 48893  | 11014  |
| 05:58 | MP7158-S2          | 6250   | 250840 | 48853  | 11001  |
| 06:02 | JC65898-1          | 6576   | 245000 | 48941  | 12008  |
| 06:06 | MP7158-SD1         | 6556   | 245420 | 48868  | 12080  |
| 06:10 | MA44414-CCV16      | 6179   | 233700 | 48085  | 10719  |
| 06:15 | MA44414-CCB16      | 6556   | 246810 | 47770  | 12154  |
| 06:19 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 06:23 | ZZZZZZ             | 6295   | 240610 | 49072  | 11290  |
| 06:28 | ZZZZZZ             | 6371   | 239220 | 49286  | 11311  |
| 06:32 | ZZZZZZ             | 6525   | 244840 | 49075  | 11861  |
| 06:36 | ZZZZZZ             | 6341   | 243260 | 49156  | 11566  |
| 06:41 | ZZZZZZ             | 6583   | 245710 | 49363  | 11765  |
| 06:45 | ZZZZZZ             | 6567   | 244850 | 49278  | 11842  |
| 06:50 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 07:05 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 07:12 | MA44414-CCV17      | 6233   | 224530 | 47193  | 10789  |
| 07:16 | MA44414-CCB17      | 6573   | 246110 | 48168  | 12142  |
| 07:21 | MA44414-CRI3       | 6487   | 242040 | 47753  | 11808  |
| 07:25 | MA44414-CRID3      | 6578   | 245000 | 47734  | 12092  |
| 07:29 | MA44414-CCV18      | 6182   | 234090 | 47883  | 10697  |

14.9.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
 Analyst: ND      Run ID: MA44414  
 Parameters: Ca,Mn,Tl,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|------|--------------------|--------|--------|--------|--------|
|------|--------------------|--------|--------|--------|--------|

07:34 MA44414-CCB18 6583 247720 48116 12170

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

14.9.1  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Metal      | RL    | IDL | Time:      | 19:21 | 19:30 | 19:39 | 20:27  |       |        |       |
|------------|-------|-----|------------|-------|-------|-------|--------|-------|--------|-------|
|            |       |     | Sample ID: | ICB1  | CCB1  | CCB2  | CCB3   | raw   | final  |       |
| Aluminum   | 500   | 14  | anr        |       |       |       |        |       |        |       |
| Antimony   | 20    | 2.3 | anr        |       |       |       |        |       |        |       |
| Arsenic    | 20    | 2.1 | anr        |       |       |       |        |       |        |       |
| Barium     | 200   | .3  | anr        |       |       |       |        |       |        |       |
| Beryllium  | 2.0   | .1  | anr        |       |       |       |        |       |        |       |
| Bismuth    | 20    | 2.9 |            |       |       |       |        |       |        |       |
| Boron      | 100   | 1.2 |            |       |       |       |        |       |        |       |
| Cadmium    | 5.0   | .3  | anr        |       |       |       |        |       |        |       |
| Calcium    | 5000  | 4.7 | -0.400     | <5000 | 2.70  | <5000 | 2.30   | <5000 | 1.20   | <5000 |
| Chromium   | 10    | .4  | anr        |       |       |       |        |       |        |       |
| Cobalt     | 50    | .4  | anr        |       |       |       |        |       |        |       |
| Copper     | 25    | 1.1 | anr        |       |       |       |        |       |        |       |
| Iron       | 500   | 2.2 | anr        |       |       |       |        |       |        |       |
| Lead       | 20    | 1.9 | anr        |       |       |       |        |       |        |       |
| Lithium    | 50    | 1.6 |            |       |       |       |        |       |        |       |
| Magnesium  | 5000  | 18  | anr        |       |       |       |        |       |        |       |
| Manganese  | 15    | .5  | 0.00       | <15   | 0.00  | <15   | 0.00   | <15   | 0.00   | <15   |
| Molybdenum | 20    | .5  |            |       |       |       |        |       |        |       |
| Nickel     | 40    | .5  | anr        |       |       |       |        |       |        |       |
| Phosphorus | 100   | 2.6 |            |       |       |       |        |       |        |       |
| Potassium  | 10000 | 56  | anr        |       |       |       |        |       |        |       |
| Selenium   | 20    | 3.3 | anr        |       |       |       |        |       |        |       |
| Silicon    | 200   | 2   |            |       |       |       |        |       |        |       |
| Silver     | 5.0   | .4  | anr        |       |       |       |        |       |        |       |
| Sodium     | 10000 | 13  | anr        |       |       |       |        |       |        |       |
| Strontium  | 50    | .1  |            |       |       |       |        |       |        |       |
| Sulfur     | 100   | 5   |            |       |       |       |        |       |        |       |
| Thallium   | 10    | 1.9 | -0.500     | <10   | 0.200 | <10   | -0.600 | <10   | -0.200 | <10   |
| Tin        | 100   | 1.1 | anr        |       |       |       |        |       |        |       |
| Titanium   | 10    | .3  |            |       |       |       |        |       |        |       |
| Tungsten   | 50    | 1.7 |            |       |       |       |        |       |        |       |
| Vanadium   | 50    | .4  | anr        |       |       |       |        |       |        |       |
| Zinc       | 50    | .2  | 0.00       | <50   | 0.00  | <50   | 0.200  | <50   | -0.100 | <50   |

14.9.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Time:      | 19:21 | 19:30 | 19:39 | 20:27 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | ICB1  | CCB1  | CCB2  | CCB3  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 20 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.9.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Metal      | RL    | IDL | Time:      | 21:18 | 22:10  | 23:19 | 00:07 |       |        |       |
|------------|-------|-----|------------|-------|--------|-------|-------|-------|--------|-------|
|            |       |     | Sample ID: | CCB4  | CCB5   | CCB7  | CCB8  | raw   | final  |       |
| Aluminum   | 500   | 14  | anr        |       |        |       |       |       |        |       |
| Antimony   | 20    | 2.3 | anr        |       |        |       |       |       |        |       |
| Arsenic    | 20    | 2.1 | anr        |       |        |       |       |       |        |       |
| Barium     | 200   | .3  | anr        |       |        |       |       |       |        |       |
| Beryllium  | 2.0   | .1  | anr        |       |        |       |       |       |        |       |
| Bismuth    | 20    | 2.9 |            |       |        |       |       |       |        |       |
| Boron      | 100   | 1.2 |            |       |        |       |       |       |        |       |
| Cadmium    | 5.0   | .3  | anr        |       |        |       |       |       |        |       |
| Calcium    | 5000  | 4.7 | 3.70       | <5000 | 4.10   | <5000 | 3.00  | <5000 | 8.00   | <5000 |
| Chromium   | 10    | .4  | anr        |       |        |       |       |       |        |       |
| Cobalt     | 50    | .4  | anr        |       |        |       |       |       |        |       |
| Copper     | 25    | 1.1 | anr        |       |        |       |       |       |        |       |
| Iron       | 500   | 2.2 | anr        |       |        |       |       |       |        |       |
| Lead       | 20    | 1.9 | anr        |       |        |       |       |       |        |       |
| Lithium    | 50    | 1.6 |            |       |        |       |       |       |        |       |
| Magnesium  | 5000  | 18  | anr        |       |        |       |       |       |        |       |
| Manganese  | 15    | .5  | 0.100      | <15   | 0.00   | <15   | 0.100 | <15   | 0.100  | <15   |
| Molybdenum | 20    | .5  |            |       |        |       |       |       |        |       |
| Nickel     | 40    | .5  | anr        |       |        |       |       |       |        |       |
| Phosphorus | 100   | 2.6 |            |       |        |       |       |       |        |       |
| Potassium  | 10000 | 56  | anr        |       |        |       |       |       |        |       |
| Selenium   | 20    | 3.3 | anr        |       |        |       |       |       |        |       |
| Silicon    | 200   | 2   |            |       |        |       |       |       |        |       |
| Silver     | 5.0   | .4  | anr        |       |        |       |       |       |        |       |
| Sodium     | 10000 | 13  | anr        |       |        |       |       |       |        |       |
| Strontium  | 50    | .1  |            |       |        |       |       |       |        |       |
| Sulfur     | 100   | 5   |            |       |        |       |       |       |        |       |
| Thallium   | 10    | 1.9 | 0.600      | <10   | -0.500 | <10   | -1.40 | <10   | -0.300 | <10   |
| Tin        | 100   | 1.1 | anr        |       |        |       |       |       |        |       |
| Titanium   | 10    | .3  |            |       |        |       |       |       |        |       |
| Tungsten   | 50    | 1.7 |            |       |        |       |       |       |        |       |
| Vanadium   | 50    | .4  | anr        |       |        |       |       |       |        |       |
| Zinc       | 50    | .2  | 0.00       | <50   | 0.00   | <50   | 0.100 | <50   | 0.00   | <50   |

14.9.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

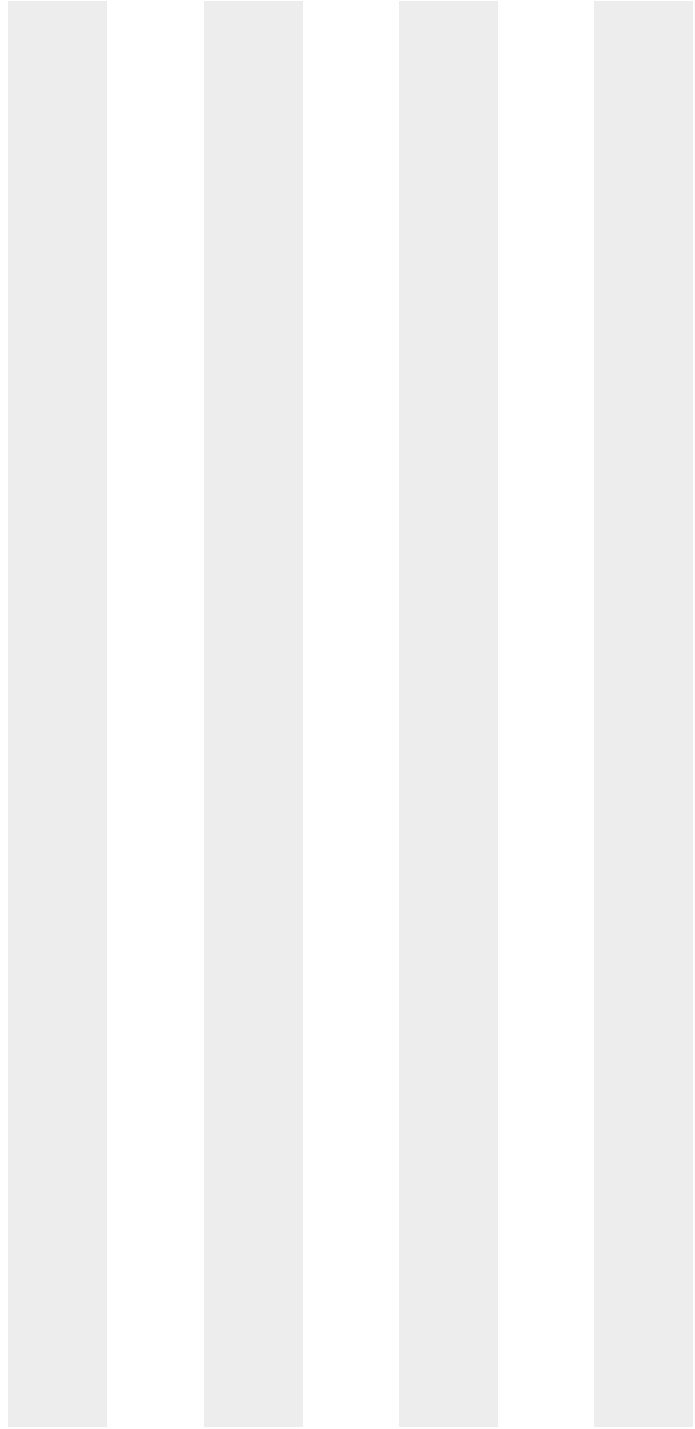
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Time:      | 21:18 | 22:10 | 23:19 | 00:07 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB7  | CCB8  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 20 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.9.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Metal      | RL    | IDL | Time:      | 00:55 | 01:42  | 02:26 | 02:53  |       |        |       |
|------------|-------|-----|------------|-------|--------|-------|--------|-------|--------|-------|
|            |       |     | Sample ID: | CCB9  | CCB10  | CCB11 | CCB12  | raw   | final  |       |
| Aluminum   | 500   | 14  | anr        |       |        |       |        |       |        |       |
| Antimony   | 20    | 2.3 | anr        |       |        |       |        |       |        |       |
| Arsenic    | 20    | 2.1 | anr        |       |        |       |        |       |        |       |
| Barium     | 200   | .3  | anr        |       |        |       |        |       |        |       |
| Beryllium  | 2.0   | .1  | anr        |       |        |       |        |       |        |       |
| Bismuth    | 20    | 2.9 |            |       |        |       |        |       |        |       |
| Boron      | 100   | 1.2 |            |       |        |       |        |       |        |       |
| Cadmium    | 5.0   | .3  | anr        |       |        |       |        |       |        |       |
| Calcium    | 5000  | 4.7 | 9.40       | <5000 | 6.50   | <5000 | 11.5   | <5000 | 9.80   | <5000 |
| Chromium   | 10    | .4  | anr        |       |        |       |        |       |        |       |
| Cobalt     | 50    | .4  | anr        |       |        |       |        |       |        |       |
| Copper     | 25    | 1.1 | anr        |       |        |       |        |       |        |       |
| Iron       | 500   | 2.2 | anr        |       |        |       |        |       |        |       |
| Lead       | 20    | 1.9 | anr        |       |        |       |        |       |        |       |
| Lithium    | 50    | 1.6 |            |       |        |       |        |       |        |       |
| Magnesium  | 5000  | 18  | anr        |       |        |       |        |       |        |       |
| Manganese  | 15    | .5  | 0.200      | <15   | 0.200  | <15   | 0.200  | <15   | 0.100  | <15   |
| Molybdenum | 20    | .5  |            |       |        |       |        |       |        |       |
| Nickel     | 40    | .5  | anr        |       |        |       |        |       |        |       |
| Phosphorus | 100   | 2.6 |            |       |        |       |        |       |        |       |
| Potassium  | 10000 | 56  | anr        |       |        |       |        |       |        |       |
| Selenium   | 20    | 3.3 | anr        |       |        |       |        |       |        |       |
| Silicon    | 200   | 2   |            |       |        |       |        |       |        |       |
| Silver     | 5.0   | .4  | anr        |       |        |       |        |       |        |       |
| Sodium     | 10000 | 13  | anr        |       |        |       |        |       |        |       |
| Strontium  | 50    | .1  |            |       |        |       |        |       |        |       |
| Sulfur     | 100   | 5   |            |       |        |       |        |       |        |       |
| Thallium   | 10    | 1.9 | -1.00      | <10   | -0.900 | <10   | -0.400 | <10   | -0.800 | <10   |
| Tin        | 100   | 1.1 | anr        |       |        |       |        |       |        |       |
| Titanium   | 10    | .3  |            |       |        |       |        |       |        |       |
| Tungsten   | 50    | 1.7 |            |       |        |       |        |       |        |       |
| Vanadium   | 50    | .4  | anr        |       |        |       |        |       |        |       |
| Zinc       | 50    | .2  | 0.200      | <50   | 0.00   | <50   | 0.200  | <50   | 0.200  | <50   |

14.9.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

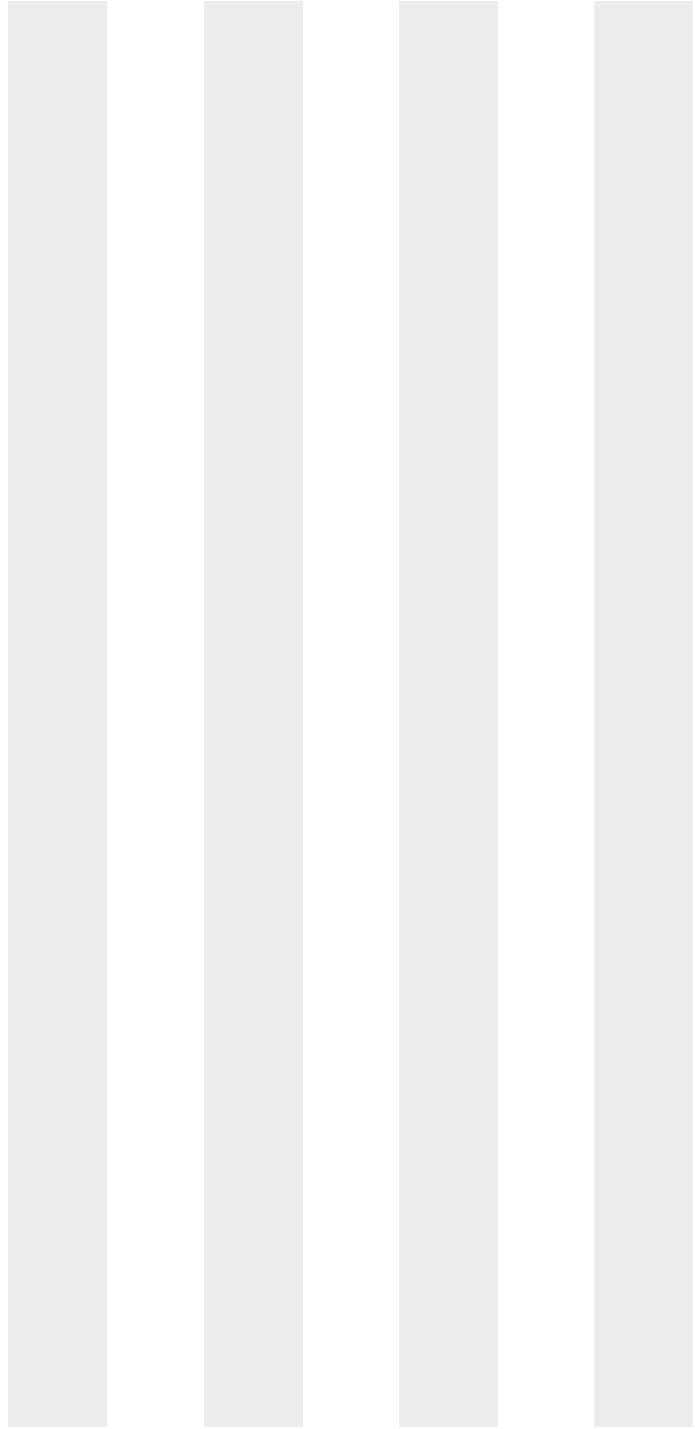
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44414 Units: ug/l

| Time:      | 00:55 | 01:42 | 02:26 | 02:53 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB9  | CCB10 | CCB11 | CCB12 |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 20 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.9.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

| Metal      | Sample ID: | 19:17 |       |       | 19:26 |       |       | 19:34 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |            | ICV   | ICV1  | % Rec | CCV   | CCV1  | % Rec | CCV   | CCV2  | % Rec |
| Aluminum   | anr        |       |       |       |       |       |       |       |       |       |
| Antimony   | anr        |       |       |       |       |       |       |       |       |       |
| Arsenic    | anr        |       |       |       |       |       |       |       |       |       |
| Barium     | anr        |       |       |       |       |       |       |       |       |       |
| Beryllium  | anr        |       |       |       |       |       |       |       |       |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | anr        |       |       |       |       |       |       |       |       |       |
| Calcium    | 40000      | 40300 | 100.8 | 40000 | 39300 | 98.3  | 40000 | 40700 | 101.8 |       |
| Chromium   | anr        |       |       |       |       |       |       |       |       |       |
| Cobalt     | anr        |       |       |       |       |       |       |       |       |       |
| Copper     | anr        |       |       |       |       |       |       |       |       |       |
| Iron       | anr        |       |       |       |       |       |       |       |       |       |
| Lead       | anr        |       |       |       |       |       |       |       |       |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr        |       |       |       |       |       |       |       |       |       |
| Manganese  | 2000       | 2100  | 105.0 | 2000  | 1990  | 99.5  | 2000  | 2080  | 104.0 |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | anr        |       |       |       |       |       |       |       |       |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | anr        |       |       |       |       |       |       |       |       |       |
| Selenium   | anr        |       |       |       |       |       |       |       |       |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | anr        |       |       |       |       |       |       |       |       |       |
| Sodium     | anr        |       |       |       |       |       |       |       |       |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2070  | 103.5 | 2000  | 2040  | 102.0 | 2000  | 2110  | 105.5 |       |
| Tin        | anr        |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | anr        |       |       |       |       |       |       |       |       |       |
| Zinc       | 2000       | 2050  | 102.5 | 2000  | 1980  | 99.0  | 2000  | 2040  | 102.0 |       |

14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

|            | Time: |         | 19:17 |      | 19:26   |       | 19:34 |         |       |  |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|--|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |  |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |  |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.9.3  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

| Metal      | Sample ID: CCV | 20:23<br>CCV3 |         | CCV   | 21:13<br>CCV4 |       | CCV   | 22:06<br>CCV5 |       |
|------------|----------------|---------------|---------|-------|---------------|-------|-------|---------------|-------|
|            |                | True          | Results |       | % Rec         | True  |       | Results       | % Rec |
| Aluminum   | anr            |               |         |       |               |       |       |               |       |
| Antimony   | anr            |               |         |       |               |       |       |               |       |
| Arsenic    | anr            |               |         |       |               |       |       |               |       |
| Barium     | anr            |               |         |       |               |       |       |               |       |
| Beryllium  | anr            |               |         |       |               |       |       |               |       |
| Bismuth    |                |               |         |       |               |       |       |               |       |
| Boron      |                |               |         |       |               |       |       |               |       |
| Cadmium    | anr            |               |         |       |               |       |       |               |       |
| Calcium    | 40000          | 40700         | 101.8   | 40000 | 40500         | 101.3 | 40000 | 40300         | 100.8 |
| Chromium   | anr            |               |         |       |               |       |       |               |       |
| Cobalt     | anr            |               |         |       |               |       |       |               |       |
| Copper     | anr            |               |         |       |               |       |       |               |       |
| Iron       | anr            |               |         |       |               |       |       |               |       |
| Lead       | anr            |               |         |       |               |       |       |               |       |
| Lithium    |                |               |         |       |               |       |       |               |       |
| Magnesium  | anr            |               |         |       |               |       |       |               |       |
| Manganese  | 2000           | 2050          | 102.5   | 2000  | 2020          | 101.0 | 2000  | 2030          | 101.5 |
| Molybdenum |                |               |         |       |               |       |       |               |       |
| Nickel     | anr            |               |         |       |               |       |       |               |       |
| Phosphorus |                |               |         |       |               |       |       |               |       |
| Potassium  | anr            |               |         |       |               |       |       |               |       |
| Selenium   | anr            |               |         |       |               |       |       |               |       |
| Silicon    |                |               |         |       |               |       |       |               |       |
| Silver     | anr            |               |         |       |               |       |       |               |       |
| Sodium     | anr            |               |         |       |               |       |       |               |       |
| Strontium  |                |               |         |       |               |       |       |               |       |
| Sulfur     |                |               |         |       |               |       |       |               |       |
| Thallium   | 2000           | 2110          | 105.5   | 2000  | 2100          | 105.0 | 2000  | 2110          | 105.5 |
| Tin        | anr            |               |         |       |               |       |       |               |       |
| Titanium   |                |               |         |       |               |       |       |               |       |
| Tungsten   |                |               |         |       |               |       |       |               |       |
| Vanadium   | anr            |               |         |       |               |       |       |               |       |
| Zinc       | 2000           | 2020          | 101.0   | 2000  | 2000          | 100.0 | 2000  | 1990          | 99.5  |

14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

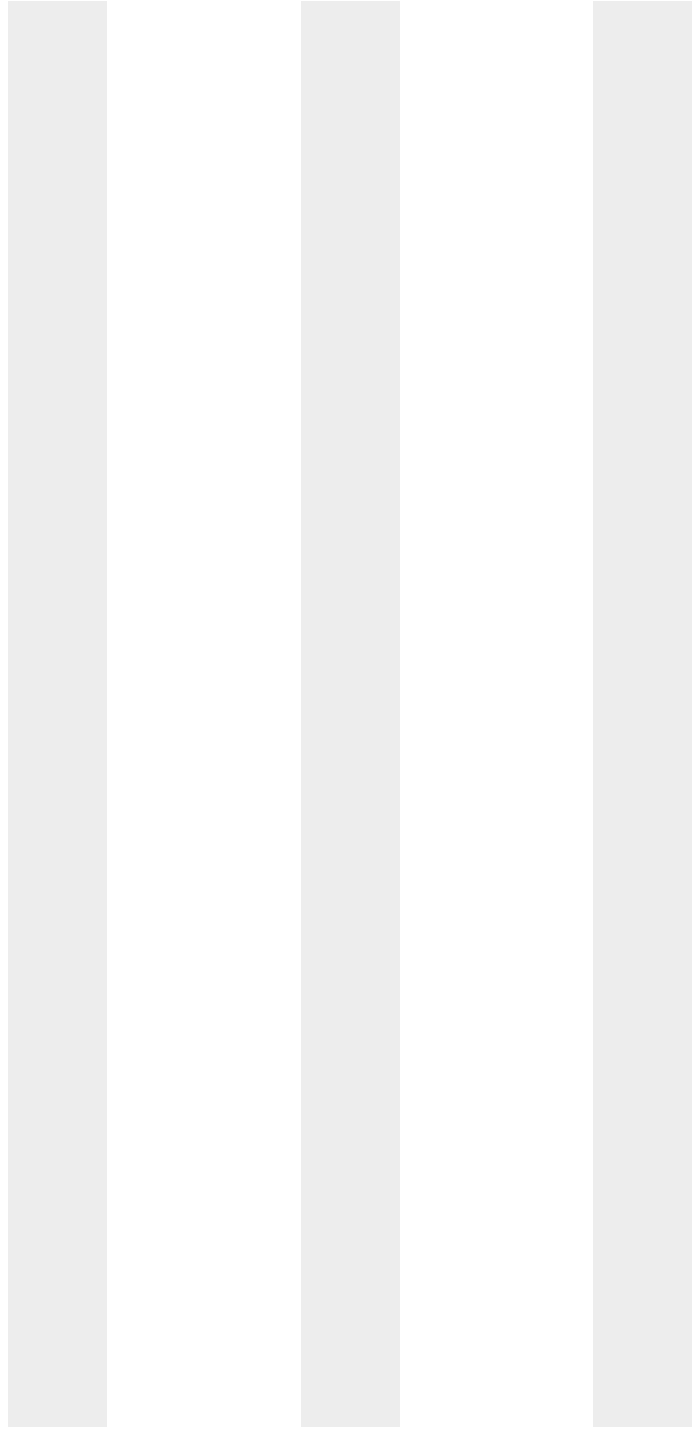
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

|            | Time: |         |       |      | 20:23   |       |      | 21:13   |       |  | 22:06 |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|--|-------|
| Sample ID: | CCV   |         | CCV3  | CCV  | CCV4    | CCV   | CCV5 |         |       |  |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |  |       |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

| Metal      | Sample ID: CCV | 23:15 |                 | CCV   | 00:03 |       | CCV   | 00:50           |       |
|------------|----------------|-------|-----------------|-------|-------|-------|-------|-----------------|-------|
|            |                | True  | CCV7<br>Results |       | % Rec | True  |       | CCV8<br>Results | % Rec |
| Aluminum   | anr            |       |                 |       |       |       |       |                 |       |
| Antimony   | anr            |       |                 |       |       |       |       |                 |       |
| Arsenic    | anr            |       |                 |       |       |       |       |                 |       |
| Barium     | anr            |       |                 |       |       |       |       |                 |       |
| Beryllium  | anr            |       |                 |       |       |       |       |                 |       |
| Bismuth    |                |       |                 |       |       |       |       |                 |       |
| Boron      |                |       |                 |       |       |       |       |                 |       |
| Cadmium    | anr            |       |                 |       |       |       |       |                 |       |
| Calcium    | 40000          | 40800 | 102.0           | 40000 | 40100 | 100.3 | 40000 | 40700           | 101.8 |
| Chromium   | anr            |       |                 |       |       |       |       |                 |       |
| Cobalt     | anr            |       |                 |       |       |       |       |                 |       |
| Copper     | anr            |       |                 |       |       |       |       |                 |       |
| Iron       | anr            |       |                 |       |       |       |       |                 |       |
| Lead       | anr            |       |                 |       |       |       |       |                 |       |
| Lithium    |                |       |                 |       |       |       |       |                 |       |
| Magnesium  | anr            |       |                 |       |       |       |       |                 |       |
| Manganese  | 2000           | 2050  | 102.5           | 2000  | 2020  | 101.0 | 2000  | 2000            | 100.0 |
| Molybdenum |                |       |                 |       |       |       |       |                 |       |
| Nickel     | anr            |       |                 |       |       |       |       |                 |       |
| Phosphorus |                |       |                 |       |       |       |       |                 |       |
| Potassium  | anr            |       |                 |       |       |       |       |                 |       |
| Selenium   | anr            |       |                 |       |       |       |       |                 |       |
| Silicon    |                |       |                 |       |       |       |       |                 |       |
| Silver     | anr            |       |                 |       |       |       |       |                 |       |
| Sodium     | anr            |       |                 |       |       |       |       |                 |       |
| Strontium  |                |       |                 |       |       |       |       |                 |       |
| Sulfur     |                |       |                 |       |       |       |       |                 |       |
| Thallium   | 2000           | 2120  | 106.0           | 2000  | 2090  | 104.5 | 2000  | 2100            | 105.0 |
| Tin        | anr            |       |                 |       |       |       |       |                 |       |
| Titanium   |                |       |                 |       |       |       |       |                 |       |
| Tungsten   |                |       |                 |       |       |       |       |                 |       |
| Vanadium   | anr            |       |                 |       |       |       |       |                 |       |
| Zinc       | 2000           | 2000  | 100.0           | 2000  | 1980  | 99.0  | 2000  | 1970            | 98.5  |

14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

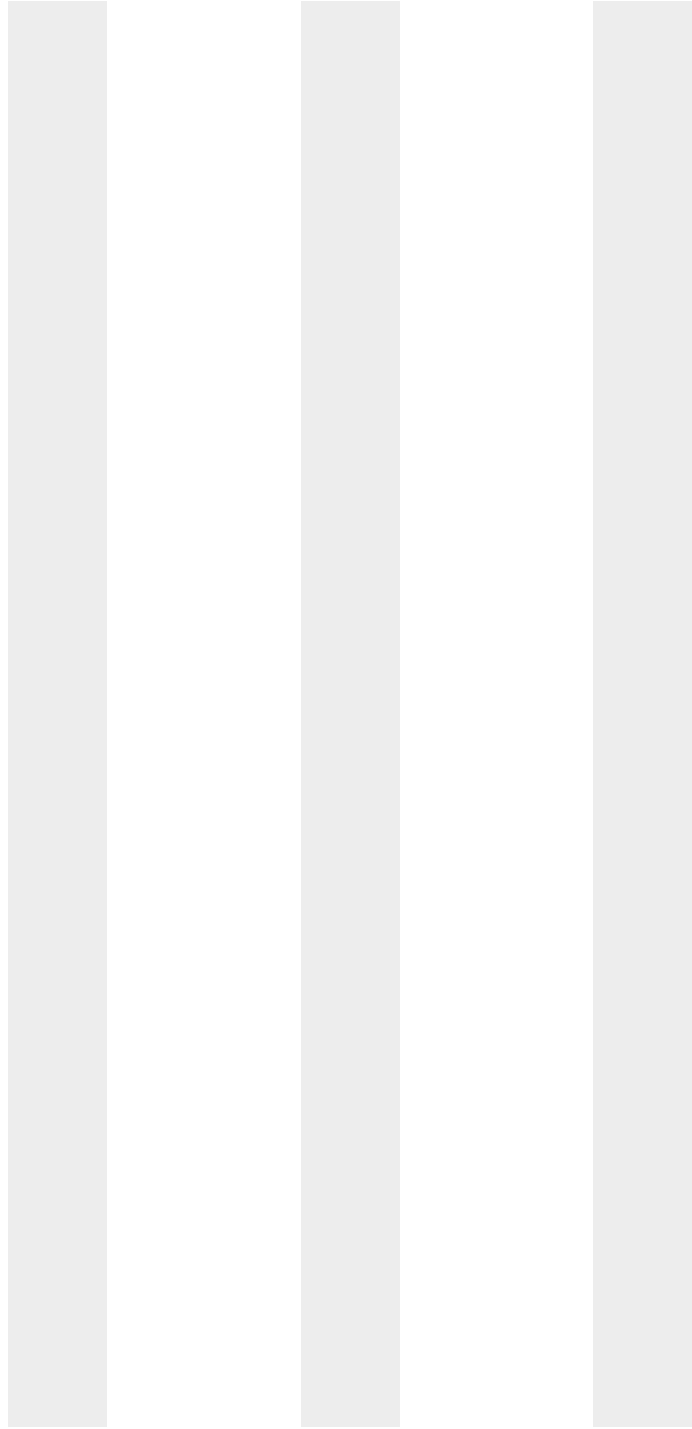
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

|            | Time: |         |       |      | 00:03   |       |      | 00:50   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 23:15   |       | CCV  | CCV8    |       | CCV  | CCV9    |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

| Metal      | Sample ID: CCV | 01:38 |       |               | 02:22 |       |               | 02:48 |       |               |
|------------|----------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|
|            |                | True  | CCV10 | Results % Rec | True  | CCV11 | Results % Rec | True  | CCV12 | Results % Rec |
| Aluminum   | anr            |       |       |               |       |       |               |       |       |               |
| Antimony   | anr            |       |       |               |       |       |               |       |       |               |
| Arsenic    | anr            |       |       |               |       |       |               |       |       |               |
| Barium     | anr            |       |       |               |       |       |               |       |       |               |
| Beryllium  | anr            |       |       |               |       |       |               |       |       |               |
| Bismuth    |                |       |       |               |       |       |               |       |       |               |
| Boron      |                |       |       |               |       |       |               |       |       |               |
| Cadmium    | anr            |       |       |               |       |       |               |       |       |               |
| Calcium    | 40000          | 40300 | 100.8 | 40000         | 40500 | 101.3 | 40000         | 39700 | 99.3  |               |
| Chromium   | anr            |       |       |               |       |       |               |       |       |               |
| Cobalt     | anr            |       |       |               |       |       |               |       |       |               |
| Copper     | anr            |       |       |               |       |       |               |       |       |               |
| Iron       | anr            |       |       |               |       |       |               |       |       |               |
| Lead       | anr            |       |       |               |       |       |               |       |       |               |
| Lithium    |                |       |       |               |       |       |               |       |       |               |
| Magnesium  | anr            |       |       |               |       |       |               |       |       |               |
| Manganese  | 2000           | 2020  | 101.0 | 2000          | 2020  | 101.0 | 2000          | 2020  | 101.0 |               |
| Molybdenum |                |       |       |               |       |       |               |       |       |               |
| Nickel     | anr            |       |       |               |       |       |               |       |       |               |
| Phosphorus |                |       |       |               |       |       |               |       |       |               |
| Potassium  | anr            |       |       |               |       |       |               |       |       |               |
| Selenium   | anr            |       |       |               |       |       |               |       |       |               |
| Silicon    |                |       |       |               |       |       |               |       |       |               |
| Silver     | anr            |       |       |               |       |       |               |       |       |               |
| Sodium     | anr            |       |       |               |       |       |               |       |       |               |
| Strontium  |                |       |       |               |       |       |               |       |       |               |
| Sulfur     |                |       |       |               |       |       |               |       |       |               |
| Thallium   | 2000           | 2110  | 105.5 | 2000          | 2100  | 105.0 | 2000          | 2170  | 108.5 |               |
| Tin        | anr            |       |       |               |       |       |               |       |       |               |
| Titanium   |                |       |       |               |       |       |               |       |       |               |
| Tungsten   |                |       |       |               |       |       |               |       |       |               |
| Vanadium   | anr            |       |       |               |       |       |               |       |       |               |
| Zinc       | 2000           | 1980  | 99.0  | 2000          | 2000  | 100.0 | 2000          | 2030  | 101.5 |               |

14.9.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

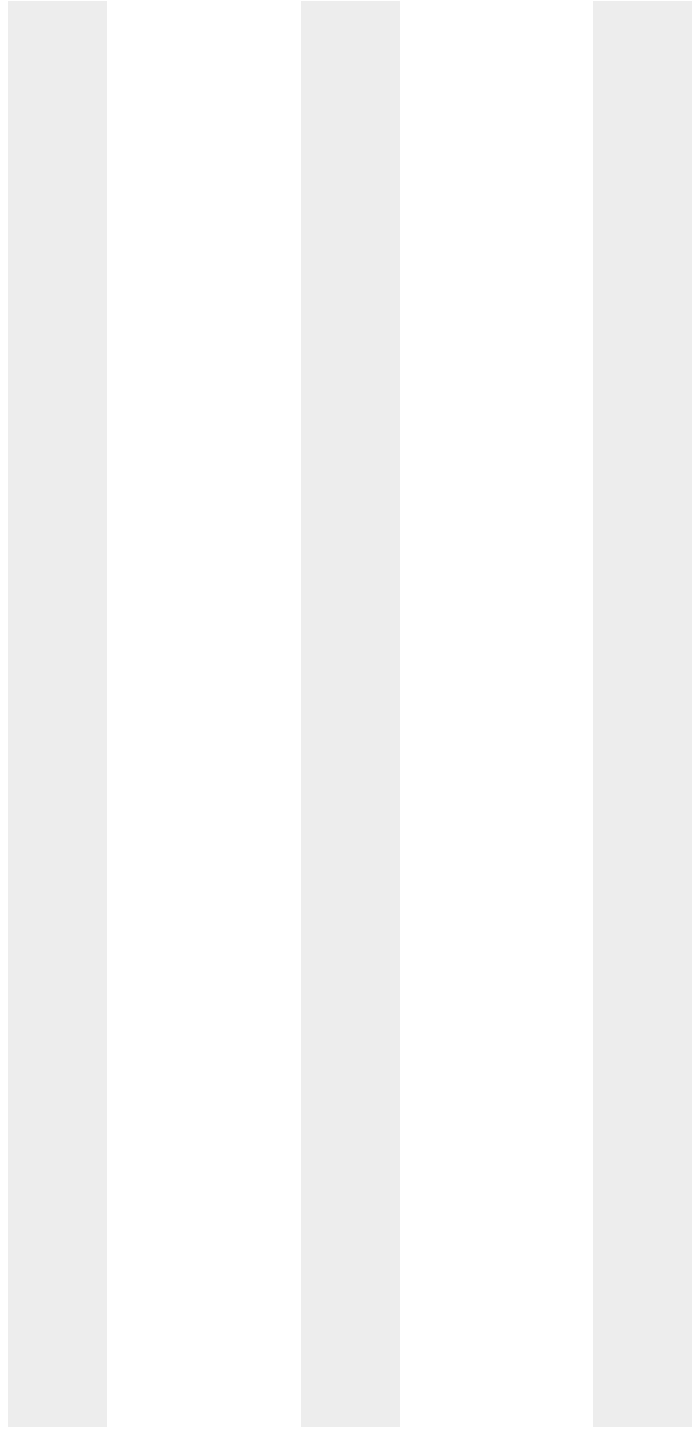
Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44414      Units: ug/l

|            | Time: | 01:38   |       | 02:22   |         | 02:48   |       |
|------------|-------|---------|-------|---------|---------|---------|-------|
| Sample ID: | CCV   | CCV10   | CCV   | CCV11   | CCV     | CCV12   |       |
| Metal      | True  | Results | % Rec | True    | Results | % Rec   | True  |
|            |       | Results | % Rec | Results | % Rec   | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.9.3  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44414 Units: ug/l

| Metal      | Time: 20:01     |       | % Rec | Time: 20:05 |        | % Rec |
|------------|-----------------|-------|-------|-------------|--------|-------|
|            | Sample ID: HSTD | HSTD1 |       | HSTD        | HSTD2  |       |
| Aluminum   |                 |       |       |             |        |       |
| Antimony   | anr             |       |       |             |        |       |
| Arsenic    | anr             |       |       |             |        |       |
| Barium     | anr             |       |       |             |        |       |
| Beryllium  | anr             |       |       |             |        |       |
| Bismuth    |                 |       |       |             |        |       |
| Boron      |                 |       |       |             |        |       |
| Cadmium    | anr             |       |       |             |        |       |
| Calcium    |                 |       |       | 150000      | 147000 | 98.0  |
| Chromium   | anr             |       |       |             |        |       |
| Cobalt     | anr             |       |       |             |        |       |
| Copper     | anr             |       |       |             |        |       |
| Iron       |                 |       |       |             |        |       |
| Lead       | anr             |       |       |             |        |       |
| Lithium    |                 |       |       |             |        |       |
| Magnesium  |                 |       |       |             |        |       |
| Manganese  | 5000            | 5060  | 101.2 |             |        |       |
| Molybdenum |                 |       |       |             |        |       |
| Nickel     | anr             |       |       |             |        |       |
| Phosphorus |                 |       |       |             |        |       |
| Potassium  |                 |       |       |             |        |       |
| Selenium   | anr             |       |       |             |        |       |
| Silicon    |                 |       |       |             |        |       |
| Silver     | anr             |       |       |             |        |       |
| Sodium     |                 |       |       |             |        |       |
| Strontium  |                 |       |       |             |        |       |
| Sulfur     |                 |       |       |             |        |       |
| Thallium   | 5000            | 5240  | 104.8 |             |        |       |
| Tin        | anr             |       |       |             |        |       |
| Titanium   |                 |       |       |             |        |       |
| Tungsten   |                 |       |       |             |        |       |
| Vanadium   | anr             |       |       |             |        |       |
| Zinc       | 5000            | 5110  | 102.2 |             |        |       |

14.9.4  
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HIGH STANDARD CHECK SUMMARY

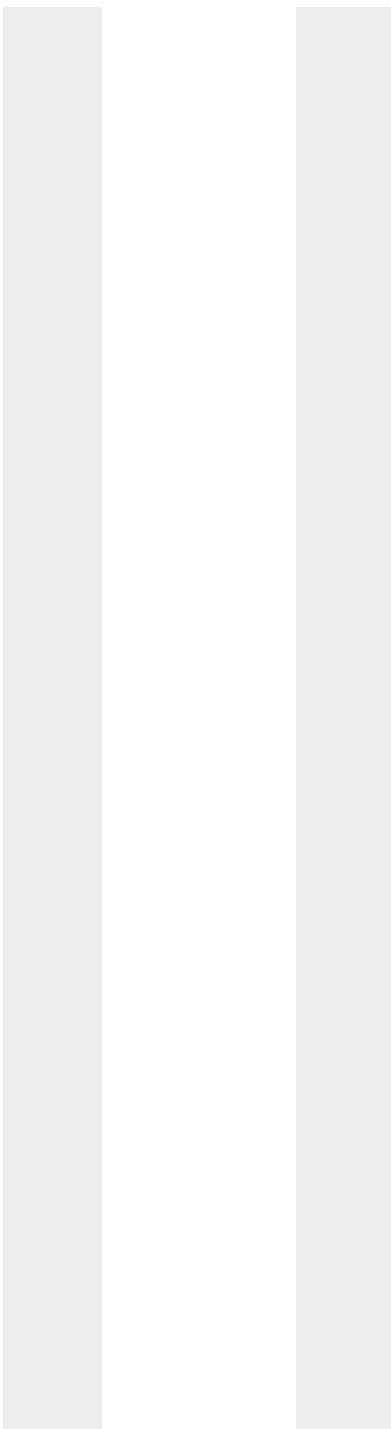
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44414 Units: ug/l

|            | Time: | 20:01   |       | 20:05 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.9.4  
 14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44414 Units: ug/l

| Time:      | 19:43 | 19:47 | 02:31 |         |       |         |           |         |       |
|------------|-------|-------|-------|---------|-------|---------|-----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 |         |       |         |           |         |       |
| Metal      | True  | True  | True  | Results | % Rec | Results | % Rec     | Results | % Rec |
| Aluminum   | 200   | 500   | 100   | anr     |       |         |           |         |       |
| Antimony   | 6.0   | 20    | 3.0   | anr     |       |         |           |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | anr     |       |         |           |         |       |
| Barium     | 200   |       | 4.0   | anr     |       |         |           |         |       |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |           |         |       |
| Bismuth    | 20    |       |       |         |       |         |           |         |       |
| Boron      | 100   |       | 10    |         |       |         |           |         |       |
| Cadmium    | 3.0   |       | 1.0   | anr     |       |         |           |         |       |
| Calcium    | 5000  | 2000  | 1000  | 5070    | 101.4 | 1150    | 115.0     | 5300    | 106.0 |
| Chromium   | 10    |       | 2.0   | anr     |       |         |           |         |       |
| Cobalt     | 50    |       | 3.0   | anr     |       |         |           |         |       |
| Copper     | 10    |       | 2.0   | anr     |       |         |           |         |       |
| Iron       | 100   | 500   |       | anr     |       |         |           |         |       |
| Lead       | 3.0   | 20    | 2.5   | anr     |       |         |           |         |       |
| Lithium    | 50    |       |       |         |       |         |           |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |       |         |           |         |       |
| Manganese  | 15    |       | 3.0   | 16.0    | 106.7 | 3.80    | 126.7     | 16.3    | 108.7 |
| Molybdenum | 20    |       |       |         |       |         |           |         |       |
| Nickel     | 10    |       | 4.0   | anr     |       |         |           |         |       |
| Phosphorus | 50    |       |       |         |       |         |           |         |       |
| Potassium  | 5000  |       | 2000  | anr     |       |         |           |         |       |
| Selenium   | 10    | 20    | 5.0   | anr     |       |         |           |         |       |
| Silicon    | 200   |       |       |         |       |         |           |         |       |
| Silver     | 5.0   |       | 2.0   | anr     |       |         |           |         |       |
| Sodium     | 5000  |       | 1000  | anr     |       |         |           |         |       |
| Strontium  | 10    |       |       |         |       |         |           |         |       |
| Sulfur     | 50    |       |       |         |       |         |           |         |       |
| Thallium   | 10    |       | 2.0   | 8.60    | 86.0  | 1.00U   | 0.0* (a)  | 10.9    | 109.0 |
| Tin        | 10    |       |       | anr     |       |         |           |         |       |
| Titanium   | 10    |       |       |         |       |         |           |         |       |
| Tungsten   | 50    |       |       |         |       |         |           |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |       |         |           |         |       |
| Zinc       | 20    |       | 10    | 20.8    | 104.0 | 20.4    | 204.0*(a) | 21.0    | 105.0 |

14.9.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

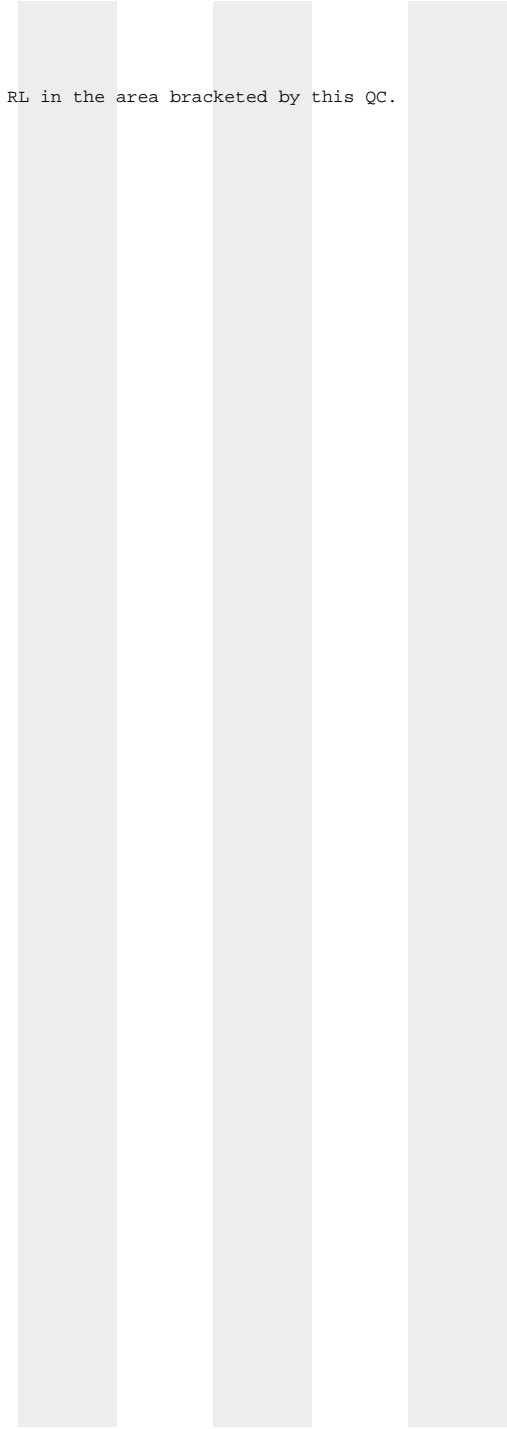
Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44414 Units: ug/l

| Time:      | 19:43 |      | 19:47 |         | 02:31 |         |       |
|------------|-------|------|-------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID  | CRID1   | CRID2 | CRID3   |       |
| Metal      | True  | True | True  | Results | % Rec | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.



14.9.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44414 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID  | 02:35<br>CRID2 | Results | % Rec |
|------------|------------|------|------|-------|----------------|---------|-------|
| Metal      | True       | True | True | True  | True           |         |       |
| Aluminum   | 200        | 500  | 100  | anr   |                |         |       |
| Antimony   | 6.0        | 20   | 3.0  | anr   |                |         |       |
| Arsenic    | 8.0        | 20   | 3.0  | anr   |                |         |       |
| Barium     | 200        |      | 4.0  | anr   |                |         |       |
| Beryllium  | 2.0        |      | 1.0  | anr   |                |         |       |
| Bismuth    | 20         |      |      |       |                |         |       |
| Boron      | 100        |      | 10   |       |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | anr   |                |         |       |
| Calcium    | 5000       | 2000 | 1000 | 1160  | 116.0          |         |       |
| Chromium   | 10         |      | 2.0  | anr   |                |         |       |
| Cobalt     | 50         |      | 3.0  | anr   |                |         |       |
| Copper     | 10         |      | 2.0  | anr   |                |         |       |
| Iron       | 100        | 500  |      |       |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | anr   |                |         |       |
| Lithium    | 50         |      |      |       |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | anr   |                |         |       |
| Manganese  | 15         |      | 3.0  | 3.70  | 123.3          |         |       |
| Molybdenum | 20         |      |      |       |                |         |       |
| Nickel     | 10         |      | 4.0  | anr   |                |         |       |
| Phosphorus | 50         |      |      |       |                |         |       |
| Potassium  | 5000       |      | 2000 | anr   |                |         |       |
| Selenium   | 10         | 20   | 5.0  | anr   |                |         |       |
| Silicon    | 200        |      |      |       |                |         |       |
| Silver     | 5.0        |      | 2.0  | anr   |                |         |       |
| Sodium     | 5000       |      | 1000 | anr   |                |         |       |
| Strontium  | 10         |      |      |       |                |         |       |
| Sulfur     | 50         |      |      |       |                |         |       |
| Thallium   | 10         |      | 2.0  | 1.40U | 0.0* (a)       |         |       |
| Tin        | 10         |      |      |       |                |         |       |
| Titanium   | 10         |      |      |       |                |         |       |
| Tungsten   | 50         |      |      |       |                |         |       |
| Vanadium   | 50         |      | 2.0  | anr   |                |         |       |
| Zinc       | 20         |      | 10   | 20.0  | 200.0*(a)      |         |       |

14.9.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44414 Units: ug/l

| Time:      | 02:35 |      |      |         |       |
|------------|-------|------|------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID | CRID2   |       |
| Metal      | True  | True | True | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

14.9.5  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP      Date Analyzed: 05/15/18      Methods: SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44414      Units: ug/l

| Metal      | Time:      |        | 19:52  |       | 19:56  |       | 02:39  |       | 02:44  |       |
|------------|------------|--------|--------|-------|--------|-------|--------|-------|--------|-------|
|            | Sample ID: | ICSAB  | ICSAL  | % Rec | ICSAB1 | % Rec | ICSAB2 | % Rec | ICSAB2 | % Rec |
| Aluminum   | 500000     | 500000 | 501000 | 100.2 | 513000 | 102.6 | 532000 | 106.4 | 511000 | 102.2 |
| Antimony   |            | 1000   | 2.90   |       | 1030   | 103.0 | 3.30   |       | 1030   | 103.0 |
| Arsenic    |            | 1000   | 5.10   |       | 1070   | 107.0 | 4.00   |       | 1070   | 107.0 |
| Barium     |            | 500    | 5.10   |       | 510    | 102.0 | 5.30   |       | 509    | 101.8 |
| Beryllium  |            | 500    | 1.50   |       | 501    | 100.2 | 1.50   |       | 491    | 98.2  |
| Bismuth    |            | 500    | 7.70   |       | 511    | 102.2 | 5.60   |       | 508    | 101.6 |
| Boron      |            | 500    | 2.10   |       | 505    | 101.0 | 0.500  |       | 499    | 99.8  |
| Cadmium    |            | 1000   | 5.00   |       | 1040   | 104.0 | 5.20   |       | 1040   | 104.0 |
| Calcium    | 400000     | 400000 | 387000 | 96.8  | 387000 | 96.8  | 411000 | 102.8 | 382000 | 95.5  |
| Chromium   |            | 500    | 7.20   |       | 497    | 99.4  | 7.60   |       | 495    | 99.0  |
| Cobalt     |            | 500    | 3.00   |       | 486    | 97.2  | 2.90   |       | 482    | 96.4  |
| Copper     |            | 500    | 1.30   |       | 515    | 103.0 | 1.40   |       | 523    | 104.6 |
| Iron       | 200000     | 200000 | 192000 | 96.0  | 193000 | 96.5  | 201000 | 100.5 | 190000 | 95.0  |
| Lead       |            | 1000   | 1.90   |       | 972    | 97.2  | 5.70   |       | 962    | 96.2  |
| Lithium    |            | 500    | 17.5   |       | 529    | 105.8 | 16.6   |       | 521    | 104.2 |
| Magnesium  | 500000     | 500000 | 519000 | 103.8 | 516000 | 103.2 | 550000 | 110.0 | 512000 | 102.4 |
| Manganese  |            | 500    | 1.80   |       | 511    | 102.2 | 2.70   |       | 510    | 102.0 |
| Molybdenum |            | 500    | 1.30   |       | 491    | 98.2  | 1.80   |       | 487    | 97.4  |
| Nickel     |            | 1000   | 2.10   |       | 987    | 98.7  | 2.70   |       | 986    | 98.6  |
| Phosphorus |            | 500    | 12.1   |       | 513    | 102.6 | 9.90   |       | 513    | 102.6 |
| Potassium  |            |        | 178    |       | 154    |       | 226    |       | 150    |       |
| Selenium   |            | 1000   | 2.30   |       | 990    | 99.0  | 5.80   |       | 995    | 99.5  |
| Silicon    |            | 500    | 8.90   |       | 500    | 100.0 | 8.50   |       | 497    | 99.4  |
| Silver     |            | 1000   | 0.300  |       | 1080   | 108.0 | 2.90   |       | 1090   | 109.0 |
| Sodium     |            |        | 81.9   |       | 90.4   |       | 77.8   |       | 76.0   |       |
| Strontium  |            | 500    | 4.70   |       | 530    | 106.0 | 5.00   |       | 530    | 106.0 |
| Sulfur     |            | 500    | 15.0   |       | 520    | 104.0 | 15.6   |       | 512    | 102.4 |
| Thallium   |            | 1000   | 0.00   |       | 1010   | 101.0 | 0.200  |       | 1010   | 101.0 |
| Tin        |            | 500    | 2.30   |       | 474    | 94.8  | 1.70   |       | 466    | 93.2  |
| Titanium   |            | 500    | 2.10   |       | 512    | 102.4 | 1.70   |       | 535    | 107.0 |
| Tungsten   |            | 500    | 2.20   |       | 486    | 97.2  | 1.40   |       | 477    | 95.4  |
| Vanadium   |            | 500    | 1.50   |       | 496    | 99.2  | 1.60   |       | 495    | 99.0  |
| Zinc       |            | 1000   | 10.0   |       | 973    | 97.3  | 9.80   |       | 946    | 94.6  |

14.9.6  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SD051518M3.ICP Date Analyzed: 05/15/18 Methods: SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44414 Units: ug/l

| Time:      |      |       | 19:52 |       |        | 19:56 |        |       | 02:39  |       |  | 02:44 |
|------------|------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL | % Rec | ICSAB1 | % Rec | ICSAB2 | % Rec | ICSAB2 | % Rec |  |       |

|           |      |      |         |       |         |       |         |       |         |       |
|-----------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Metal     | True | True | Results | % Rec | Results | % Rec | Results | % Rec | Results | % Rec |
| Zirconium |      | 500  | 4.20    |       | 510     | 102.0 | 5.20    |       | 516     | 103.2 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.9.6  
 14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/28/18

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 50   | 3.4 | 5.2  | 1.5       | <50   |
| Antimony   | 2.0  | .14 | .37  | -0.040    | <2.0  |
| Arsenic    | 2.0  | .14 | .25  | 0.0       | <2.0  |
| Barium     | 20   | .05 | .17  | 0.060     | <20   |
| Beryllium  | 0.20 | .02 | .049 | 0.0       | <0.20 |
| Bismuth    | 2.0  | .25 | .49  |           |       |
| Boron      | 10   | .19 | 1.3  |           |       |
| Cadmium    | 0.50 | .03 | .057 | 0.010     | <0.50 |
| Calcium    | 500  | .87 | 42   | 10.7      | <500  |
| Chromium   | 1.0  | .06 | .18  | 0.14      | <1.0  |
| Cobalt     | 5.0  | .05 | .07  | 0.0       | <5.0  |
| Copper     | 2.5  | .12 | .4   | 0.13      | <2.5  |
| Iron       | 50   | .46 | 4.6  | 2.7       | <50   |
| Lead       | 2.0  | .14 | .34  | 0.010     | <2.0  |
| Lithium    | 5.0  | .28 | 1.2  |           |       |
| Magnesium  | 500  | 3.3 | 13   | 1.5       | <500  |
| Manganese  | 1.5  | .01 | .087 | 0.030     | <1.5  |
| Molybdenum | 2.0  | .04 | .15  |           |       |
| Nickel     | 4.0  | .05 | .25  | 0.020     | <4.0  |
| Phosphorus | 10   | .17 | 4.1  |           |       |
| Potassium  | 1000 | 6.8 | 30   | 8.6       | <1000 |
| Selenium   | 2.0  | .38 | .65  | 0.070     | <2.0  |
| Silicon    | 20   | .21 | 2.6  |           |       |
| Silver     | 0.50 | .05 | .29  | 0.0       | <0.50 |
| Sodium     | 1000 | 1.5 | 14   | 10.3      | <1000 |
| Strontium  | 5.0  | .02 | .96  |           |       |
| Sulfur     | 10   | 2   | 2.9  |           |       |
| Thallium   | 1.0  | .16 | .4   | -0.050    | <1.0  |
| Tin        | 10   | .1  | 2.6  |           |       |
| Titanium   | 1.0  | .07 | .27  |           |       |
| Tungsten   | 5.0  | .18 | 1.2  |           |       |
| Vanadium   | 5.0  | .04 | .088 | -0.050    | <5.0  |
| Zinc       | 5.0  | .03 | 3.8  | 0.74      | <5.0  |

14.10.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/28/18

| Metal | RL | IDL | MDL | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

Zirconium 2.0 .03 .25

Associated samples MP6862: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.10.1  
14



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/28/18

| Metal      | JC65015-2<br>Original MS |       | SpikeLot<br>MPSPK2 | % Rec     | QC<br>Limits |
|------------|--------------------------|-------|--------------------|-----------|--------------|
| Aluminum   | 13100                    | 16800 | 2820               | 131.1(a)  | 75-125       |
| Antimony   | 0.15                     | 107   | 226                | 47.3N(b)  | 75-125       |
| Arsenic    | 2.4                      | 178   | 226                | 77.8      | 75-125       |
| Barium     | 76.2                     | 263   | 226                | 82.7      | 75-125       |
| Beryllium  | 0.46                     | 185   | 226                | 81.7      | 75-125       |
| Bismuth    |                          |       |                    |           |              |
| Boron      |                          |       |                    |           |              |
| Cadmium    | 0.065                    | 186   | 226                | 82.3      | 75-125       |
| Calcium    | 10500                    | 8710  | 2820               | -63.4N(b) | 75-125       |
| Chromium   | 17.5                     | 201   | 226                | 81.3      | 75-125       |
| Cobalt     | 7.4                      | 192   | 226                | 81.8      | 75-125       |
| Copper     | 18.4                     | 204   | 226                | 82.2      | 75-125       |
| Iron       | 19600                    | 20100 | 2820               | 17.7 (a)  | 75-125       |
| Lead       | 7.9                      | 196   | 226                | 83.3      | 75-125       |
| Lithium    |                          |       |                    |           |              |
| Magnesium  | 9140                     | 9990  | 2820               | 30.1N(b)  | 75-125       |
| Manganese  | 386                      | 613   | 226                | 100.5     | 75-125       |
| Molybdenum | anr                      |       |                    |           |              |
| Nickel     | 14.6                     | 199   | 226                | 81.7      | 75-125       |
| Phosphorus |                          |       |                    |           |              |
| Potassium  | 2690                     | 4960  | 2820               | 80.4      | 75-125       |
| Selenium   | 0.0                      | 179   | 226                | 79.3      | 75-125       |
| Silicon    |                          |       |                    |           |              |
| Silver     | 0.42                     | 22.9  | 28.2               | 79.6      | 75-125       |
| Sodium     | 288                      | 2550  | 2820               | 80.1      | 75-125       |
| Strontium  |                          |       |                    |           |              |
| Sulfur     |                          |       |                    |           |              |
| Thallium   | 0.36                     | 189   | 226                | 83.5      | 75-125       |
| Tin        |                          |       |                    |           |              |
| Titanium   | anr                      |       |                    |           |              |
| Tungsten   |                          |       |                    |           |              |
| Vanadium   | 25.0                     | 207   | 226                | 80.6      | 75-125       |
| Zinc       | 46.8                     | 227   | 226                | 79.8      | 75-125       |

14.10.2 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/28/18

| Metal | JC65015-2<br>Original MS | Spike Lot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|--------------------------|---------------------|-------|--------------|
|-------|--------------------------|---------------------|-------|--------------|

Zirconium

Associated samples MP6862: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

(b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.10.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/28/18

| Metal      | JC65015-2<br>Original MSD | MSD   | SpikeLot<br>MPSPK2 | % Rec    | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-------|--------------------|----------|------------|-------------|
| Aluminum   | 13100                     | 18800 | 2850               | 200.0(a) | 11.2       | 20          |
| Antimony   | 0.15                      | 128   | 228                | 56.1N(b) | 17.9       | 20          |
| Arsenic    | 2.4                       | 212   | 228                | 91.9     | 17.4       | 20          |
| Barium     | 76.2                      | 314   | 228                | 104.3    | 17.7       | 20          |
| Beryllium  | 0.46                      | 220   | 228                | 96.3     | 17.3       | 20          |
| Bismuth    |                           |       |                    |          |            |             |
| Boron      |                           |       |                    |          |            |             |
| Cadmium    | 0.065                     | 220   | 228                | 96.4     | 16.7       | 20          |
| Calcium    | 10500                     | 13400 | 2850               | 101.7    | 42.4 (c)   | 20          |
| Chromium   | 17.5                      | 236   | 228                | 95.8     | 16.0       | 20          |
| Cobalt     | 7.4                       | 228   | 228                | 96.7     | 17.1       | 20          |
| Copper     | 18.4                      | 242   | 228                | 98.0     | 17.0       | 20          |
| Iron       | 19600                     | 22600 | 2850               | 105.2    | 11.7       | 20          |
| Lead       | 7.9                       | 233   | 228                | 98.7     | 17.2       | 20          |
| Lithium    |                           |       |                    |          |            |             |
| Magnesium  | 9140                      | 12600 | 2850               | 121.4    | 23.1 (c)   | 20          |
| Manganese  | 386                       | 631   | 228                | 107.4    | 2.9        | 20          |
| Molybdenum | anr                       |       |                    |          |            |             |
| Nickel     | 14.6                      | 237   | 228                | 97.5     | 17.4       | 20          |
| Phosphorus |                           |       |                    |          |            |             |
| Potassium  | 2690                      | 6150  | 2850               | 121.4    | 21.4 (c)   | 20          |
| Selenium   | 0.0                       | 211   | 228                | 92.5     | 16.4       | 20          |
| Silicon    |                           |       |                    |          |            |             |
| Silver     | 0.42                      | 27.2  | 28.5               | 93.9     | 17.2       | 20          |
| Sodium     | 288                       | 3120  | 2850               | 99.3     | 20.1 (c)   | 20          |
| Strontium  |                           |       |                    |          |            |             |
| Sulfur     |                           |       |                    |          |            |             |
| Thallium   | 0.36                      | 221   | 228                | 96.8     | 15.6       | 20          |
| Tin        |                           |       |                    |          |            |             |
| Titanium   | anr                       |       |                    |          |            |             |
| Tungsten   |                           |       |                    |          |            |             |
| Vanadium   | 25.0                      | 242   | 228                | 95.2     | 15.6       | 20          |
| Zinc       | 46.8                      | 265   | 228                | 95.7     | 15.4       | 20          |

14.10.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/28/18

| Metal | JC65015-2<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|--------------------|-------|------------|-------------|
|-------|---------------------------|--------------------|-------|------------|-------------|

Zirconium

Associated samples MP6862: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- (c) High rpd due to possible sample nonhomogeneity.

14.10.2 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/28/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   | 2520       | 2530            | 99.8  | 80-120    |
| Antimony   | 198        | 202             | 98.0  | 80-120    |
| Arsenic    | 196        | 202             | 97.0  | 80-120    |
| Barium     | 205        | 202             | 101.5 | 80-120    |
| Beryllium  | 208        | 202             | 103.0 | 80-120    |
| Bismuth    |            |                 |       |           |
| Boron      |            |                 |       |           |
| Cadmium    | 203        | 202             | 100.5 | 80-120    |
| Calcium    | 2580       | 2530            | 102.2 | 80-120    |
| Chromium   | 207        | 202             | 102.5 | 80-120    |
| Cobalt     | 202        | 202             | 100.0 | 80-120    |
| Copper     | 203        | 202             | 100.5 | 80-120    |
| Iron       | 2620       | 2530            | 103.8 | 80-120    |
| Lead       | 206        | 202             | 102.0 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  | 2560       | 2530            | 101.4 | 80-120    |
| Manganese  | 207        | 202             | 102.5 | 80-120    |
| Molybdenum | anr        |                 |       |           |
| Nickel     | 203        | 202             | 100.5 | 80-120    |
| Phosphorus |            |                 |       |           |
| Potassium  | 2550       | 2530            | 101.0 | 80-120    |
| Selenium   | 198        | 202             | 98.0  | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 24.3       | 25.3            | 96.2  | 80-120    |
| Sodium     | 2550       | 2530            | 101.0 | 80-120    |
| Strontium  |            |                 |       |           |
| Sulfur     |            |                 |       |           |
| Thallium   | 211        | 202             | 104.4 | 80-120    |
| Tin        |            |                 |       |           |
| Titanium   | anr        |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   | 205        | 202             | 101.5 | 80-120    |
| Zinc       | 208        | 202             | 103.0 | 80-120    |

14.10.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/28/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP6862: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.10.3  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/28/18

| Metal      | JC65015-2<br>Original | SDL 1:5 | %DIF     | QC<br>Limits |
|------------|-----------------------|---------|----------|--------------|
| Aluminum   | 121000                | 123000  | 1.8      | 0-10         |
| Antimony   | 1.40                  | 0.00    | 100.0(a) | 0-10         |
| Arsenic    | 21.9                  | 26.8    | 22.4 (a) | 0-10         |
| Barium     | 702                   | 736     | 4.9      | 0-10         |
| Beryllium  | 4.20                  | 4.50    | 7.1      | 0-10         |
| Bismuth    |                       |         |          |              |
| Boron      |                       |         |          |              |
| Cadmium    | 0.600                 | 0.00    | 100.0(a) | 0-10         |
| Calcium    | 97100                 | 103000  | 5.8      | 0-10         |
| Chromium   | 161                   | 173     | 7.5      | 0-10         |
| Cobalt     | 68.6                  | 70.5    | 2.8      | 0-10         |
| Copper     | 169                   | 177     | 4.8      | 0-10         |
| Iron       | 181000                | 196000  | 8.3      | 0-10         |
| Lead       | 72.3                  | 76.0    | 5.1      | 0-10         |
| Lithium    |                       |         |          |              |
| Magnesium  | 84100                 | 88800   | 5.6      | 0-10         |
| Manganese  | 3560                  | 3810    | 7.2      | 0-10         |
| Molybdenum | anr                   |         |          |              |
| Nickel     | 135                   | 137     | 1.5      | 0-10         |
| Phosphorus |                       |         |          |              |
| Potassium  | 24800                 | 25700   | 3.4      | 0-10         |
| Selenium   | 0.00                  | 0.00    | NC       | 0-10         |
| Silicon    |                       |         |          |              |
| Silver     | 3.90                  | 3.30    | 15.4 (a) | 0-10         |
| Sodium     | 2650                  | 2700    | 1.8      | 0-10         |
| Strontium  |                       |         |          |              |
| Sulfur     |                       |         |          |              |
| Thallium   | 3.30                  | 0.00    | 100.0(a) | 0-10         |
| Tin        |                       |         |          |              |
| Titanium   | anr                   |         |          |              |
| Tungsten   |                       |         |          |              |
| Vanadium   | 230                   | 239     | 4.0      | 0-10         |
| Zinc       | 431                   | 459     | 6.5      | 0-10         |

14.10.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6862  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/28/18

|       |                       |        |
|-------|-----------------------|--------|
| Metal | JC65015-2             | QC     |
|       | Original SDL 1:5 %DIF | Limits |

Zirconium

Associated samples MP6862: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

14.10.4  
14



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6890  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 04/30/18

| Metal   | RL    | IDL   | MDL  | MB<br>raw | final  |
|---------|-------|-------|------|-----------|--------|
| Mercury | 0.033 | .0042 | .015 | 0.0071    | <0.033 |

Associated samples MP6890: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.11.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6890  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 04/30/18

| Metal | JC65018-1<br>Original MS | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

|         |       |      |       |       |        |
|---------|-------|------|-------|-------|--------|
| Mercury | 0.051 | 0.39 | 0.331 | 102.4 | 80-120 |
|---------|-------|------|-------|-------|--------|

Associated samples MP6890: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.11.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6890  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 04/30/18

| Metal   | JC65018-1<br>Original MSD | Spikelot<br>HGPWS1 | % Rec | MSD<br>RPD | QC<br>Limit |
|---------|---------------------------|--------------------|-------|------------|-------------|
| Mercury | 0.051                     | 0.40               | 0.33  | 105.9      | 2.5 20      |

Associated samples MP6890: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.11.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6890  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 04/30/18

| Metal | BSP<br>Result | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Mercury 0.33 0.333 99.0 80-120

Associated samples MP6890: JC64996-6, JC64996-9

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.11.3

14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/07/18

| Metal      | RL   | IDL  | MDL  | MB<br>raw | final |
|------------|------|------|------|-----------|-------|
| Aluminum   | 48   | 1.8  | 5    |           |       |
| Antimony   | 1.9  | .23  | .36  |           |       |
| Arsenic    | 1.9  | .12  | .24  |           |       |
| Barium     | 19   | .058 | .17  |           |       |
| Beryllium  | 0.19 | .019 | .047 |           |       |
| Bismuth    | 1.9  | .31  | .47  |           |       |
| Boron      | 9.6  | .14  | 1.2  |           |       |
| Cadmium    | 0.48 | .038 | .055 |           |       |
| Calcium    | 480  | .53  | 40   |           |       |
| Chromium   | 0.96 | .067 | .17  |           |       |
| Cobalt     | 4.8  | .038 | .067 |           |       |
| Copper     | 2.4  | .11  | .38  |           |       |
| Iron       | 48   | .34  | 4.4  |           |       |
| Lead       | 1.9  | .21  | .33  |           |       |
| Lithium    | 4.8  | .33  | 1.1  |           |       |
| Magnesium  | 480  | 2.4  | 13   |           |       |
| Manganese  | 1.4  | .013 | .084 |           |       |
| Molybdenum | 1.9  | .038 | .15  |           |       |
| Nickel     | 3.8  | .048 | .24  |           |       |
| Phosphorus | 9.6  | .19  | 3.9  |           |       |
| Potassium  | 960  | 5.7  | 29   |           |       |
| Selenium   | 1.9  | .36  | .62  |           |       |
| Silicon    | 19   | .17  | 2.5  |           |       |
| Silver     | 0.48 | .067 | .28  |           |       |
| Sodium     | 960  | 3.3  | 13   |           |       |
| Strontium  | 4.8  | .019 | .92  |           |       |
| Sulfur     | 9.6  | .3   | 2.8  | 0.79      | <9.6  |
| Thallium   | 0.96 | .17  | .39  |           |       |
| Tin        | 9.6  | .087 | 2.5  |           |       |
| Titanium   | 0.96 | .067 | .26  |           |       |
| Tungsten   | 4.8  | .21  | 1.1  |           |       |
| Vanadium   | 4.8  | .077 | .085 |           |       |
| Zinc       | 4.8  | .019 | 3.7  |           |       |

14.12.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/07/18

| Metal | RL | IDL | MDL | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

Zirconium 1.9 .029 .24

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.12.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/07/18 05/07/18

| Metal      | TD20533-1<br>Original MS |        | SpikeLot<br>MPSPK2 % Rec |          | QC<br>Limits | TD20533-1<br>Original DUP |        | RPD | QC<br>Limits |
|------------|--------------------------|--------|--------------------------|----------|--------------|---------------------------|--------|-----|--------------|
| Aluminum   |                          |        |                          |          |              |                           |        |     |              |
| Antimony   |                          |        |                          |          |              |                           |        |     |              |
| Arsenic    |                          |        |                          |          |              |                           |        |     |              |
| Barium     |                          |        |                          |          |              |                           |        |     |              |
| Beryllium  |                          |        |                          |          |              |                           |        |     |              |
| Bismuth    |                          |        |                          |          |              |                           |        |     |              |
| Boron      |                          |        |                          |          |              |                           |        |     |              |
| Cadmium    |                          |        |                          |          |              |                           |        |     |              |
| Calcium    | anr                      |        |                          |          |              |                           |        |     |              |
| Chromium   | anr                      |        |                          |          |              |                           |        |     |              |
| Cobalt     |                          |        |                          |          |              |                           |        |     |              |
| Copper     | anr                      |        |                          |          |              |                           |        |     |              |
| Iron       | anr                      |        |                          |          |              |                           |        |     |              |
| Lead       | anr                      |        |                          |          |              |                           |        |     |              |
| Lithium    |                          |        |                          |          |              |                           |        |     |              |
| Magnesium  | anr                      |        |                          |          |              |                           |        |     |              |
| Manganese  | anr                      |        |                          |          |              |                           |        |     |              |
| Molybdenum |                          |        |                          |          |              |                           |        |     |              |
| Nickel     | anr                      |        |                          |          |              |                           |        |     |              |
| Phosphorus |                          |        |                          |          |              |                           |        |     |              |
| Potassium  | anr                      |        |                          |          |              |                           |        |     |              |
| Selenium   |                          |        |                          |          |              |                           |        |     |              |
| Silicon    |                          |        |                          |          |              |                           |        |     |              |
| Silver     |                          |        |                          |          |              |                           |        |     |              |
| Sodium     | anr                      |        |                          |          |              |                           |        |     |              |
| Strontium  |                          |        |                          |          |              |                           |        |     |              |
| Sulfur     | 144000                   | 125000 | 192                      | -9880.0a | 75-125       | 144000                    | 138000 | 4.3 | 0-20         |
| Thallium   |                          |        |                          |          |              |                           |        |     |              |
| Tin        |                          |        |                          |          |              |                           |        |     |              |
| Titanium   |                          |        |                          |          |              |                           |        |     |              |
| Tungsten   |                          |        |                          |          |              |                           |        |     |              |
| Vanadium   |                          |        |                          |          |              |                           |        |     |              |
| Zinc       | anr                      |        |                          |          |              |                           |        |     |              |

14.12.2 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/07/18 05/07/18

| Metal | TD20533-1<br>Original MS | Spike/lot<br>MPSPK2 | % Rec | QC<br>Limits | TD20533-1<br>Original DUP | RPD | QC<br>Limits |
|-------|--------------------------|---------------------|-------|--------------|---------------------------|-----|--------------|
|-------|--------------------------|---------------------|-------|--------------|---------------------------|-----|--------------|

Zirconium

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/07/18

| Metal      | TD20533-1<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|--------------------|-------|------------|-------------|
| Aluminum   |                           |                    |       |            |             |
| Antimony   |                           |                    |       |            |             |
| Arsenic    |                           |                    |       |            |             |
| Barium     |                           |                    |       |            |             |
| Beryllium  |                           |                    |       |            |             |
| Bismuth    |                           |                    |       |            |             |
| Boron      |                           |                    |       |            |             |
| Cadmium    |                           |                    |       |            |             |
| Calcium    | anr                       |                    |       |            |             |
| Chromium   | anr                       |                    |       |            |             |
| Cobalt     |                           |                    |       |            |             |
| Copper     | anr                       |                    |       |            |             |
| Iron       | anr                       |                    |       |            |             |
| Lead       | anr                       |                    |       |            |             |
| Lithium    |                           |                    |       |            |             |
| Magnesium  | anr                       |                    |       |            |             |
| Manganese  | anr                       |                    |       |            |             |
| Molybdenum |                           |                    |       |            |             |
| Nickel     | anr                       |                    |       |            |             |
| Phosphorus |                           |                    |       |            |             |
| Potassium  | anr                       |                    |       |            |             |
| Selenium   |                           |                    |       |            |             |
| Silicon    |                           |                    |       |            |             |
| Silver     |                           |                    |       |            |             |
| Sodium     | anr                       |                    |       |            |             |
| Strontium  |                           |                    |       |            |             |
| Sulfur     | 144000                    | 141000             | 192   | -1560.0a   | 12.0 20     |
| Thallium   |                           |                    |       |            |             |
| Tin        |                           |                    |       |            |             |
| Titanium   |                           |                    |       |            |             |
| Tungsten   |                           |                    |       |            |             |
| Vanadium   |                           |                    |       |            |             |
| Zinc       | anr                       |                    |       |            |             |

14.12.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/07/18

| Metal | TD20533-1<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|--------------------|-------|------------|-------------|
|-------|---------------------------|--------------------|-------|------------|-------------|

Zirconium

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

14.12.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/07/18

| Metal      | BSP<br>Result | Spikelot<br>MPSPK2 | QC<br>% Rec | QC<br>Limits |
|------------|---------------|--------------------|-------------|--------------|
| Aluminum   |               |                    |             |              |
| Antimony   |               |                    |             |              |
| Arsenic    |               |                    |             |              |
| Barium     |               |                    |             |              |
| Beryllium  |               |                    |             |              |
| Bismuth    |               |                    |             |              |
| Boron      |               |                    |             |              |
| Cadmium    |               |                    |             |              |
| Calcium    | anr           |                    |             |              |
| Chromium   | anr           |                    |             |              |
| Cobalt     |               |                    |             |              |
| Copper     | anr           |                    |             |              |
| Iron       | anr           |                    |             |              |
| Lead       | anr           |                    |             |              |
| Lithium    |               |                    |             |              |
| Magnesium  | anr           |                    |             |              |
| Manganese  | anr           |                    |             |              |
| Molybdenum |               |                    |             |              |
| Nickel     | anr           |                    |             |              |
| Phosphorus |               |                    |             |              |
| Potassium  | anr           |                    |             |              |
| Selenium   |               |                    |             |              |
| Silicon    |               |                    |             |              |
| Silver     |               |                    |             |              |
| Sodium     | anr           |                    |             |              |
| Strontium  |               |                    |             |              |
| Sulfur     | 184           | 196                | 93.8        | 80-120       |
| Thallium   |               |                    |             |              |
| Tin        |               |                    |             |              |
| Titanium   |               |                    |             |              |
| Tungsten   |               |                    |             |              |
| Vanadium   |               |                    |             |              |
| Zinc       | anr           |                    |             |              |

14.12.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/07/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.12.3  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 05/07/18

| Metal | TD20533-1<br>Original SDL 1:5 | %DIF | QC<br>Limits |
|-------|-------------------------------|------|--------------|
|-------|-------------------------------|------|--------------|

|            |         |         |          |
|------------|---------|---------|----------|
| Aluminum   |         |         |          |
| Antimony   |         |         |          |
| Arsenic    |         |         |          |
| Barium     |         |         |          |
| Beryllium  |         |         |          |
| Bismuth    |         |         |          |
| Boron      |         |         |          |
| Cadmium    |         |         |          |
| Calcium    | anr     |         |          |
| Chromium   | anr     |         |          |
| Cobalt     |         |         |          |
| Copper     | anr     |         |          |
| Iron       | anr     |         |          |
| Lead       | anr     |         |          |
| Lithium    |         |         |          |
| Magnesium  | anr     |         |          |
| Manganese  | anr     |         |          |
| Molybdenum |         |         |          |
| Nickel     | anr     |         |          |
| Phosphorus |         |         |          |
| Potassium  | anr     |         |          |
| Selenium   |         |         |          |
| Silicon    |         |         |          |
| Silver     |         |         |          |
| Sodium     | anr     |         |          |
| Strontium  |         |         |          |
| Sulfur     | 1460000 | 1460000 | 0.1 0-10 |
| Thallium   |         |         |          |
| Tin        |         |         |          |
| Titanium   |         |         |          |
| Tungsten   |         |         |          |
| Vanadium   |         |         |          |
| Zinc       | anr     |         |          |

14.12.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: ug/l

Prep Date: 05/07/18

|       |                       |        |
|-------|-----------------------|--------|
| Metal | TD20533-1             | QC     |
|       | Original SDL 1:5 %DIF | Limits |

Zirconium

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.12.4  
14

POST DIGESTATE SPIKE SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date:

05/07/18

| Metal      | Sample ml | Final ml | TD20533-1 Raw | PS Corr.** | PS ug/l | Spike ml | Spike ug/ml | Spike ug/l | % Rec    | QC Limits |
|------------|-----------|----------|---------------|------------|---------|----------|-------------|------------|----------|-----------|
| Aluminum   |           |          |               |            |         |          |             |            |          |           |
| Antimony   |           |          |               |            |         |          |             |            |          |           |
| Arsenic    |           |          |               |            |         |          |             |            |          |           |
| Barium     |           |          |               |            |         |          |             |            |          |           |
| Beryllium  |           |          |               |            |         |          |             |            |          |           |
| Bismuth    |           |          |               |            |         |          |             |            |          |           |
| Boron      |           |          |               |            |         |          |             |            |          |           |
| Cadmium    |           |          |               |            |         |          |             |            |          |           |
| Calcium    |           |          |               |            |         |          |             |            |          |           |
| Chromium   |           |          |               |            |         |          |             |            |          |           |
| Cobalt     |           |          |               |            |         |          |             |            |          |           |
| Copper     |           |          |               |            |         |          |             |            |          |           |
| Iron       |           |          |               |            |         |          |             |            |          |           |
| Lead       |           |          |               |            |         |          |             |            |          |           |
| Lithium    |           |          |               |            |         |          |             |            |          |           |
| Magnesium  |           |          |               |            |         |          |             |            |          |           |
| Manganese  |           |          |               |            |         |          |             |            |          |           |
| Molybdenum |           |          |               |            |         |          |             |            |          |           |
| Nickel     |           |          |               |            |         |          |             |            |          |           |
| Phosphorus |           |          |               |            |         |          |             |            |          |           |
| Potassium  |           |          |               |            |         |          |             |            |          |           |
| Selenium   |           |          |               |            |         |          |             |            |          |           |
| Silicon    |           |          |               |            |         |          |             |            |          |           |
| Silver     |           |          |               |            |         |          |             |            |          |           |
| Sodium     |           |          |               |            |         |          |             |            |          |           |
| Strontium  |           |          |               |            |         |          |             |            |          |           |
| Sulfur     | 9.0       | 10       | 1458000       | 1312200    | 1401000 | 0.5      | 100         | 5000       | 1776.0*a | 80-120    |
| Thallium   |           |          |               |            |         |          |             |            |          |           |
| Tin        |           |          |               |            |         |          |             |            |          |           |
| Titanium   |           |          |               |            |         |          |             |            |          |           |
| Tungsten   |           |          |               |            |         |          |             |            |          |           |
| Vanadium   |           |          |               |            |         |          |             |            |          |           |
| Zinc       |           |          |               |            |         |          |             |            |          |           |

14.12.5  
14

POST DIGESTATE SPIKE SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6996  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date:

05/07/18

| Metal | Sample<br>ml | Final<br>ml | TD20533-1<br>Raw | PS<br>Corr.** | PS<br>ug/l | Spike<br>ml | Spike<br>ug/ml | Spike<br>ug/l | % Rec | QC<br>Limits |
|-------|--------------|-------------|------------------|---------------|------------|-------------|----------------|---------------|-------|--------------|
|-------|--------------|-------------|------------------|---------------|------------|-------------|----------------|---------------|-------|--------------|

Zirconium

Associated samples MP6996: JC64996-6

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (\*\*) Corr. sample result = Raw \* (sample volume / final volume)  
 (anr) Analyte not requested  
 (a) Spike recovery indicates possible matrix interference.

14.12.5  
**14**



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/14/18

| Metal      | RL   | IDL | MDL  | MB<br>raw | final |
|------------|------|-----|------|-----------|-------|
| Aluminum   | 50   | 1.4 | 5.2  | 1.2       | <50   |
| Antimony   | 2.0  | .14 | .37  | 0.040     | <2.0  |
| Arsenic    | 2.0  | .14 | .25  | 0.15      | <2.0  |
| Barium     | 20   | .03 | .17  | -0.010    | <20   |
| Beryllium  | 0.20 | .01 | .049 | 0.0       | <0.20 |
| Bismuth    | 2.0  | .25 | .49  |           |       |
| Boron      | 10   | .12 | 1.3  |           |       |
| Cadmium    | 0.50 | .03 | .057 | 0.020     | <0.50 |
| Calcium    | 500  | .47 | 42   | 8.1       | <500  |
| Chromium   | 1.0  | .04 | .18  | 0.070     | <1.0  |
| Cobalt     | 5.0  | .04 | .07  | -0.010    | <5.0  |
| Copper     | 2.5  | .11 | .4   | 0.070     | <2.5  |
| Iron       | 50   | .22 | 4.6  | 1.1       | <50   |
| Lead       | 2.0  | .14 | .34  | -0.010    | <2.0  |
| Lithium    | 5.0  | .16 | 1.2  |           |       |
| Magnesium  | 500  | 1.8 | 13   | 1.6       | <500  |
| Manganese  | 1.5  | .01 | .087 | 0.010     | <1.5  |
| Molybdenum | 2.0  | .04 | .15  |           |       |
| Nickel     | 4.0  | .05 | .25  | 0.030     | <4.0  |
| Phosphorus | 10   | .17 | 4.1  |           |       |
| Potassium  | 1000 | 5.6 | 30   | 12.6      | <1000 |
| Selenium   | 2.0  | .33 | .65  | -0.11     | <2.0  |
| Silicon    | 20   | .2  | 2.6  |           |       |
| Silver     | 0.50 | .04 | .29  | 0.060     | <0.50 |
| Sodium     | 1000 | 1.3 | 14   | 7.7       | <1000 |
| Strontium  | 5.0  | .01 | .96  |           |       |
| Sulfur     | 10   | .5  | 2.9  |           |       |
| Thallium   | 1.0  | .16 | .4   | -0.14     | <1.0  |
| Tin        | 10   | .11 | 2.6  |           |       |
| Titanium   | 1.0  | .03 | .27  |           |       |
| Tungsten   | 5.0  | .17 | 1.2  |           |       |
| Vanadium   | 5.0  | .04 | .088 | -0.010    | <5.0  |
| Zinc       | 5.0  | .02 | 3.8  | 0.13      | <5.0  |

14.13.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/14/18

| Metal | RL | IDL | MDL | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

Zirconium 2.0 .03 .25

Associated samples MP7131: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.13.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/14/18

| Metal      | JC65891-6<br>Original MS |       | SpikeLot<br>MPSPK2 | % Rec     | QC<br>Limits |
|------------|--------------------------|-------|--------------------|-----------|--------------|
| Aluminum   | 8240                     | 12500 | 2640               | 161.4N(a) | 75-125       |
| Antimony   | 0.0                      | 160   | 211                | 75.8      | 75-125       |
| Arsenic    | 2.1                      | 218   | 211                | 102.2     | 75-125       |
| Barium     | 32.3                     | 259   | 211                | 107.4     | 75-125       |
| Beryllium  | 0.32                     | 210   | 211                | 99.3      | 75-125       |
| Bismuth    |                          |       |                    |           |              |
| Boron      | anr                      |       |                    |           |              |
| Cadmium    | 0.043                    | 216   | 211                | 102.3     | 75-125       |
| Calcium    | 2240                     | 4560  | 2640               | 87.9      | 75-125       |
| Chromium   | 10.3                     | 230   | 211                | 104.0     | 75-125       |
| Cobalt     | 4.5                      | 224   | 211                | 103.9     | 75-125       |
| Copper     | 11.1                     | 230   | 211                | 103.7     | 75-125       |
| Iron       | 12200                    | 15100 | 2640               | 109.9     | 75-125       |
| Lead       | 11.0                     | 226   | 211                | 101.8     | 75-125       |
| Lithium    |                          |       |                    |           |              |
| Magnesium  | 1630                     | 4180  | 2640               | 96.6      | 75-125       |
| Manganese  | 183                      | 427   | 211                | 115.5     | 75-125       |
| Molybdenum |                          |       |                    |           |              |
| Nickel     | 10                       | 227   | 211                | 102.8     | 75-125       |
| Phosphorus |                          |       |                    |           |              |
| Potassium  | 681                      | 3980  | 2640               | 125.0     | 75-125       |
| Selenium   | 0.57                     | 218   | 211                | 103.0     | 75-125       |
| Silicon    |                          |       |                    |           |              |
| Silver     | 0.31                     | 25.9  | 26.4               | 96.9      | 75-125       |
| Sodium     | 312                      | 2920  | 2640               | 98.8      | 75-125       |
| Strontium  |                          |       |                    |           |              |
| Sulfur     |                          |       |                    |           |              |
| Thallium   | 0.17                     | 219   | 211                | 103.6     | 75-125       |
| Tin        | anr                      |       |                    |           |              |
| Titanium   |                          |       |                    |           |              |
| Tungsten   |                          |       |                    |           |              |
| Vanadium   | 17.7                     | 234   | 211                | 102.4     | 75-125       |
| Zinc       | 22.2                     | 236   | 211                | 101.2     | 75-125       |

14.13.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/14/18

| Metal | JC65891-6<br>Original MS | SpikeLot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

Zirconium

Associated samples MP7131: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.13.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/14/18

| Metal      | JC65891-6<br>Original MSD |       | SpikeLot<br>MPSPK2 | % Rec     | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-------|--------------------|-----------|------------|-------------|
| Aluminum   | 8240                      | 13800 | 2640               | 210.6N(a) | 9.9        | 20          |
| Antimony   | 0.0                       | 153   | 211                | 72.5N(a)  | 4.5        | 20          |
| Arsenic    | 2.1                       | 213   | 211                | 99.9      | 2.3        | 20          |
| Barium     | 32.3                      | 256   | 211                | 105.9     | 1.2        | 20          |
| Beryllium  | 0.32                      | 205   | 211                | 96.9      | 2.4        | 20          |
| Bismuth    |                           |       |                    |           |            |             |
| Boron      | anr                       |       |                    |           |            |             |
| Cadmium    | 0.043                     | 212   | 211                | 100.4     | 1.9        | 20          |
| Calcium    | 2240                      | 4760  | 2640               | 95.5      | 4.3        | 20          |
| Chromium   | 10.3                      | 227   | 211                | 102.6     | 1.3        | 20          |
| Cobalt     | 4.5                       | 219   | 211                | 101.6     | 2.3        | 20          |
| Copper     | 11.1                      | 227   | 211                | 102.2     | 1.3        | 20          |
| Iron       | 12200                     | 15000 | 2640               | 106.1     | 0.7        | 20          |
| Lead       | 11.0                      | 223   | 211                | 100.4     | 1.3        | 20          |
| Lithium    |                           |       |                    |           |            |             |
| Magnesium  | 1630                      | 4240  | 2640               | 98.9      | 1.4        | 20          |
| Manganese  | 183                       | 426   | 211                | 115.1     | 0.2        | 20          |
| Molybdenum |                           |       |                    |           |            |             |
| Nickel     | 10                        | 224   | 211                | 101.3     | 1.3        | 20          |
| Phosphorus |                           |       |                    |           |            |             |
| Potassium  | 681                       | 3930  | 2640               | 123.1     | 1.3        | 20          |
| Selenium   | 0.57                      | 215   | 211                | 101.5     | 1.4        | 20          |
| Silicon    |                           |       |                    |           |            |             |
| Silver     | 0.31                      | 25.5  | 26.4               | 95.4      | 1.6        | 20          |
| Sodium     | 312                       | 2960  | 2640               | 100.3     | 1.4        | 20          |
| Strontium  |                           |       |                    |           |            |             |
| Sulfur     |                           |       |                    |           |            |             |
| Thallium   | 0.17                      | 214   | 211                | 101.3     | 2.3        | 20          |
| Tin        | anr                       |       |                    |           |            |             |
| Titanium   |                           |       |                    |           |            |             |
| Tungsten   |                           |       |                    |           |            |             |
| Vanadium   | 17.7                      | 234   | 211                | 102.4     | 0.0        | 20          |
| Zinc       | 22.2                      | 234   | 211                | 100.3     | 0.9        | 20          |

14.13.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/14/18

| Metal | JC65891-6<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|--------------------|-------|------------|-------------|
|-------|---------------------------|--------------------|-------|------------|-------------|

Zirconium

Associated samples MP7131: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.13.2  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/14/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   | 2590       | 2600            | 99.5  | 80-120    |
| Antimony   | 222        | 208             | 106.6 | 80-120    |
| Arsenic    | 218        | 208             | 104.6 | 80-120    |
| Barium     | 219        | 208             | 105.1 | 80-120    |
| Beryllium  | 213        | 208             | 102.2 | 80-120    |
| Bismuth    |            |                 |       |           |
| Boron      | anr        |                 |       |           |
| Cadmium    | 217        | 208             | 104.2 | 80-120    |
| Calcium    | 2580       | 2600            | 99.1  | 80-120    |
| Chromium   | 222        | 208             | 106.6 | 80-120    |
| Cobalt     | 216        | 208             | 103.7 | 80-120    |
| Copper     | 220        | 208             | 105.6 | 80-120    |
| Iron       | 2530       | 2600            | 97.2  | 80-120    |
| Lead       | 211        | 208             | 101.3 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  | 2420       | 2600            | 92.9  | 80-120    |
| Manganese  | 224        | 208             | 107.5 | 80-120    |
| Molybdenum |            |                 |       |           |
| Nickel     | 215        | 208             | 103.2 | 80-120    |
| Phosphorus |            |                 |       |           |
| Potassium  | 2720       | 2600            | 104.4 | 80-120    |
| Selenium   | 222        | 208             | 106.6 | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 25.7       | 26              | 98.7  | 80-120    |
| Sodium     | 2720       | 2600            | 104.4 | 80-120    |
| Strontium  |            |                 |       |           |
| Sulfur     |            |                 |       |           |
| Thallium   | 220        | 208             | 105.6 | 80-120    |
| Tin        | anr        |                 |       |           |
| Titanium   |            |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   | 220        | 208             | 105.6 | 80-120    |
| Zinc       | 222        | 208             | 106.6 | 80-120    |

14.13.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/14/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP7131: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.13.3  
14



SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 05/14/18

| Metal      | JC65891-6<br>Original | SDL 1:5 | %DIF     | QC<br>Limits |
|------------|-----------------------|---------|----------|--------------|
| Aluminum   | 76600                 | 79600   | 4.0      | 0-10         |
| Antimony   | 0.00                  | 0.00    | NC       | 0-10         |
| Arsenic    | 19.8                  | 16.1    | 18.7 (a) | 0-10         |
| Barium     | 300                   | 316     | 5.3      | 0-10         |
| Beryllium  | 3.00                  | 2.90    | 3.3      | 0-10         |
| Bismuth    |                       |         |          |              |
| Boron      | anr                   |         |          |              |
| Cadmium    | 0.400                 | 0.00    | 100.0(a) | 0-10         |
| Calcium    | 20800                 | 22000   | 6.0      | 0-10         |
| Chromium   | 95.7                  | 102     | 6.5      | 0-10         |
| Cobalt     | 41.4                  | 39.5    | 4.6      | 0-10         |
| Copper     | 103                   | 108     | 4.3      | 0-10         |
| Iron       | 113000                | 121000  | 6.4      | 0-10         |
| Lead       | 102                   | 109     | 6.9      | 0-10         |
| Lithium    |                       |         |          |              |
| Magnesium  | 15200                 | 16000   | 5.5      | 0-10         |
| Manganese  | 1700                  | 1790    | 5.2      | 0-10         |
| Molybdenum |                       |         |          |              |
| Nickel     | 92.9                  | 94.0    | 1.2      | 0-10         |
| Phosphorus |                       |         |          |              |
| Potassium  | 6330                  | 7090    | 12.1*(b) | 0-10         |
| Selenium   | 5.30                  | 0.00    | 100.0(a) | 0-10         |
| Silicon    |                       |         |          |              |
| Silver     | 2.90                  | 7.40    | 155.2(a) | 0-10         |
| Sodium     | 2900                  | 2970    | 2.6      | 0-10         |
| Strontium  |                       |         |          |              |
| Sulfur     |                       |         |          |              |
| Thallium   | 1.60                  | 0.00    | 100.0(a) | 0-10         |
| Tin        | anr                   |         |          |              |
| Titanium   |                       |         |          |              |
| Tungsten   |                       |         |          |              |
| Vanadium   | 164                   | 173     | 4.9      | 0-10         |
| Zinc       | 206                   | 218     | 6.0      | 0-10         |

14.13.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7131  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: ug/l

Prep Date: 05/14/18

|       |                  |             |
|-------|------------------|-------------|
| Metal | JC65891-6        | QC          |
|       | Original SDL 1:5 | %DIF Limits |

Zirconium

Associated samples MP7131: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

14.13.4  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7152  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 05/14/18

| Metal   | RL    | IDL   | MDL  | MB     |        |
|---------|-------|-------|------|--------|--------|
|         |       |       |      | raw    | final  |
| Mercury | 0.033 | .0042 | .015 | 0.0022 | <0.033 |

Associated samples MP7152: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.14.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7152  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 05/14/18

| Metal | JC65784-50<br>Original MS | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|-------|---------------------------|--------------------|-------|--------------|
|-------|---------------------------|--------------------|-------|--------------|

|         |       |      |       |      |        |
|---------|-------|------|-------|------|--------|
| Mercury | 0.040 | 0.40 | 0.372 | 96.8 | 80-120 |
|---------|-------|------|-------|------|--------|

Associated samples MP7152: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.14.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC64996  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7152  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 05/14/18

| Metal   | JC65784-50<br>Original MSD | SpikeLot<br>HGPWS1 | % Rec | MSD<br>RPD | QC<br>Limit |
|---------|----------------------------|--------------------|-------|------------|-------------|
| Mercury | 0.040                      | 0.43               | 0.389 | 100.4      | 7.2 20      |

Associated samples MP7152: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.14.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP7152  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 05/14/18

| Metal   | BSP<br>Result | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|---------|---------------|--------------------|-------|--------------|
| Mercury | 0.33          | 0.333              | 99.1  | 80-120       |

Associated samples MP7152: JC64996-7, JC64996-10

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.14.3  
14

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                     | Batch ID        | RL   | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-----------------------------|-----------------|------|-----------|-------|--------------|------------|------------|-----------|
| Cyanide                     | GP12755/GN79424 | 0.12 | 0.0       | mg/kg | 1            | 1.04       | 104.0      | 90-110%   |
| Cyanide                     | GP13030/GN80064 | 0.24 | 0.0       | mg/kg | 2            | 2.17       | 108.5      | 90-110%   |
| Percent Sulfur              | GP13154/GN80195 | 0.10 | 0.0       | %     | .667         | 0.77       | 114.8      | 80-120%   |
| Percent Sulfur              | GP13154/GN80242 |      |           | %     | 0.667        | 0.62       | 93.4       | 80-120%   |
| Sulfide, Neutral Extraction | GP12727/GN79375 | 4.0  | 0.0       | mg/kg | 40.95        | 41.0       | 100.1      | 80-120%   |

Associated Samples:

Batch GP12727: JC64996-6  
Batch GP12755: JC64996-6  
Batch GP13030: JC64996-7, JC64996-10  
Batch GP13154: JC64996-7  
(\* ) Outside of QC limits

15.1  
15



DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                     | Batch ID        | QC Sample | Units  | Original Result | DUP Result | RPD  | QC Limits |
|-----------------------------|-----------------|-----------|--------|-----------------|------------|------|-----------|
| Cyanide                     | GP12755/GN79424 | JC65018-1 | mg/kg  | 0.0             | 0.0        | 0.0  | 0-49%     |
| Cyanide                     | GP13030/GN80064 | JC66031-1 | mg/kg  | 0.0             | 0.0        | 0.0  | 0-49%     |
| Heat Content, BTU           | GP12667/GN79247 | TD20089-1 | BTU/lb | 19400           | 19600      | 1.0  | 0-32%     |
| Heat Content, BTU           | GP13163/GN80194 | JC64996-7 | BTU/lb | 1950            | 1850       | 5.3  | 0-32%     |
| Percent Sulfur              | GP13154/GN80195 | JC64996-7 | %      | 0.0             | 0.0        | 0.0  | 0-20%     |
| Sulfide, Neutral Extraction | GP12727/GN79375 | JC64996-6 | mg/kg  | 4.5             | 3.4        | 27.8 | 0-43%     |

Associated Samples:

Batch GP12667: JC64996-6  
Batch GP12727: JC64996-6  
Batch GP12755: JC64996-6  
Batch GP13030: JC64996-7, JC64996-10  
Batch GP13154: JC64996-7  
Batch GP13163: JC64996-7  
(\* ) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                     | Batch ID        | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|-----------------------------|-----------------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Cyanide                     | GP12755/GN79424 | JC65018-1 | mg/kg | 0.0             | 1.45         | 1.6       | 110.5 | 75-125%   |
| Cyanide                     | GP13030/GN80064 | JC66031-1 | mg/kg | 0.0             | 1.25         | 1.3       | 104.3 | 75-125%   |
| Sulfide, Neutral Extraction | GP12727/GN79375 | JC64996-6 | mg/kg | 4.5             | 45.8         | 14.6      | 22.1  | 10-147%   |

Associated Samples:

Batch GP12727: JC64996-6

Batch GP12755: JC64996-6

Batch GP13030: JC64996-7, JC64996-10

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050118W1.CN Date Analyzed: 05/01/18 Methods: EPA 335.4, SW846 9012B/LACHAT  
Analyst: TG Run ID: GN79424  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:00 | GN79424-STD1       | 1               |          | STDA   |
| 14:01 | GN79424-STD2       | 1               |          | STDB   |
| 14:03 | GN79424-STD3       | 1               |          | STDC   |
| 14:04 | GN79424-STD4       | 1               |          | STDD   |
| 14:06 | GN79424-STD5       | 1               |          | STDE   |
| 14:07 | GN79424-STD6       | 1               |          | STDF   |
| 14:08 | GN79424-STD7       | 1               |          | STDG   |
| 14:10 | GN79424-ICV1       | 1               |          |  |
| 14:11 | GN79424-ICB1       | 1               |          |  |
| 14:12 | GN79424-CCV1       | 1               |          |  |
| 14:14 | GN79424-CCB1       | 1               |          |  |
| 14:29 | GN79424-CCV2       | 1               |          |  |
| 14:30 | GN79424-CCB2       | 1               |          |  |
| 14:40 | GP12694-MB1        | 1               |          |  |
| 14:41 | GP12694-B1         | 1               |          | bsp high   |
| 14:42 | GP12694-S1         | 1               |          |  |
| 14:44 | GP12694-S2         | 1               |          |  |
| 14:45 | GN79424-CCV3       | 1               |          |  |
| 14:46 | GN79424-CCB3       | 1               |          |  |
| 14:48 | GP12694-D1         | 1               |          | system error   |
| 14:49 | JC64623-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 14:50 | JC64655-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 14:52 | ZZZZZZ             | 1               |          |  |
| 14:53 | ZZZZZZ             | 1               |          |  |
| 14:55 | ZZZZZZ             | 1               |          |  |
| 14:56 | ZZZZZZ             | 1               |          |  |
| 14:57 | ZZZZZZ             | 1               |          |  |
| 14:59 | ZZZZZZ             | 1               |          |  |
| 15:00 | ZZZZZZ             | 1               |          |  |
| 15:01 | GN79424-CCV4       | 1               |          |  |
| 15:09 | GN79424-CCV5       | 1               |          |  |
| 15:10 | GN79424-CCB4       | 1               |          |  |
| 15:12 | GP12694-D1         | 1               |          |  |

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050118W1.CN Date Analyzed: 05/01/18 Methods: EPA 335.4, SW846 9012B/LACHAT  
Analyst: TG Run ID: GN79424  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:13 | JC64623-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 15:15 | JC64655-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 15:16 | ZZZZZZ             | 1               |          |  |
| 15:17 | ZZZZZZ             | 1               |          |  |
| 15:19 | ZZZZZZ             | 1               |          |  |
| 15:20 | ZZZZZZ             | 1               |          |  |
| 15:21 | ZZZZZZ             | 1               |          |  |
| 15:23 | ZZZZZZ             | 1               |          |  |
| 15:24 | ZZZZZZ             | 1               |          |  |
| 15:25 | GN79424-CCV6       | 1               |          |  |
| 15:27 | GN79424-CCB5       | 1               |          |  |
| 15:28 | GP12694-B1         | 1               |          | bsp high   |
| 15:30 | ZZZZZZ             | 1               |          |  |
| 15:31 | ZZZZZZ             | 1               |          |  |
| 15:32 | ZZZZZZ             | 1               |          |  |
| 15:34 | ZZZZZZ             | 1               |          |  |
| 15:35 | ZZZZZZ             | 1               |          |  |
| 15:36 | ZZZZZZ             | 1               |          |  |
| 15:38 | ZZZZZZ             | 1               |          |  |
| 15:39 | ZZZZZZ             | 1               |          |  |
| 15:40 | ZZZZZZ             | 1               |          |  |
| 15:42 | GN79424-CCV7       | 1               |          |  |
| 15:43 | GN79424-CCB6       | 1               |          |  |
| 15:45 | GP12755-MB1        | 1               |          |  |
| 15:46 | GP12755-B1         | 1               |          |  |
| 15:47 | GP12755-S1         | 1               |          |  |
| 15:49 | GP12755-S2         | 1               |          |  |
| 15:50 | GP12755-D1         | 1               |          |  |
| 15:51 | ZZZZZZ             | 1               |          |  |
| 15:53 | ZZZZZZ             | 1               |          |  |
| 15:54 | ZZZZZZ             | 1               |          |  |
| 15:55 | ZZZZZZ             | 1               |          |  |
| 15:57 | ZZZZZZ             | 1               |          |  |

15.4  
15

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050118W1.CN Date Analyzed: 05/01/18 Methods: EPA 335.4, SW846 9012B/LACHAT  
Analyst: TG Run ID: GN79424  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:58 | GN79424-CCV8       | 1               |          |  |
| 15:59 | GN79424-CCB7       | 1               |          |  |
| 16:01 | ZZZZZZ             | 1               |          |  |
| 16:02 | ZZZZZZ             | 1               |          |  |
| 16:04 | JC64996-6          | 1               |          |  |
| 16:05 | JC65018-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 16:06 | JC65070-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 16:08 | ZZZZZZ             | 1               |          |  |
| 16:09 | ZZZZZZ             | 1               |          |  |
| 16:10 | ZZZZZZ             | 1               |          |  |
| 16:12 | ZZZZZZ             | 1               |          |  |
| 16:13 | ZZZZZZ             | 1               |          |  |
| 16:14 | GN79424-CCV9       | 1               |          |  |
| 16:16 | GN79424-CCB8       | 1               |          |  |
| 16:17 | GP12762-MB1        | 1               |          |  |
| 16:19 | GP12762-B1         | 1               |          | bsp high   |
| 16:20 | GP12762-S1         | 1               |          | low REC  |
| 16:21 | GP12762-D1         | 1               |          |  |
| 16:23 | DA4793-3           | 1               |          | (sample used for QC only; not part of login JC64996) |
| 16:24 | GP12577-MB4        | 1               |          |  |
| 16:25 | GP12577-B4         | 1               |          |  |
| 16:27 | GP12577-S2         | 1               |          |  |
| 16:28 | GP12763-MB1        | 1               |          | bsp fail   |
| 16:29 | GP12763-B1         | 1               |          | bsp fail   |
| 16:31 | GN79424-CCV10      | 1               |          |  |
| 16:32 | GN79424-CCB9       | 1               |          |  |
| 16:34 | GP12762-B1         | 1               |          |  |
| 16:35 | GP12763-D1         | 1               |          | bsp fail   |
| 16:36 | JC63800-17P        | 1               |          | (sample used for QC only; not part of login JC64996) |
| 16:38 | GP12763-B1         | 1               |          | bsp fail   |
| 16:41 | GN79424-CCV11      | 1               |          |  |
| 16:42 | GN79424-CCB10      | 1               |          |  |

Refer to raw data for calibration curve and standards.

15.4  
15

Instrument QC Summary  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050118W1.CN      Date Analyzed: 05/01/18      Methods: EPA 335.4, SW846 9012B/LACHAT  
Run ID: GN79424      Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79424-ICV1  | Cyanide   | 0.317    | 0.010 | 0.0058  | .3         | 105.7    | 90-110    |
| GN79424-ICB1  | Cyanide   | -0.00645 | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV1  | Cyanide   | 0.428    | 0.010 | 0.0058  | .4         | 107.0    | 90-110    |
| GN79424-CCB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV2  | Cyanide   | 0.427    | 0.010 | 0.0058  | .4         | 106.8    | 90-110    |
| GN79424-CCB2  | Cyanide   | -0.00605 | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV3  | Cyanide   | 0.424    | 0.010 | 0.0058  | .4         | 106.0    | 90-110    |
| GN79424-CCB3  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV4  | Cyanide   | 0.429    | 0.010 | 0.0058  | .4         | 107.3    | 90-110    |
| GN79424-CCV5  | Cyanide   | 0.431    | 0.010 | 0.0058  | .4         | 107.8    | 90-110    |
| GN79424-CCB4  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV6  | Cyanide   | 0.427    | 0.010 | 0.0058  | .4         | 106.8    | 90-110    |
| GN79424-CCB5  | Cyanide   | -0.00585 | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV7  | Cyanide   | 0.425    | 0.010 | 0.0058  | .4         | 106.3    | 90-110    |
| GN79424-CCB6  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV8  | Cyanide   | 0.426    | 0.010 | 0.0058  | .4         | 106.5    | 90-110    |
| GN79424-CCB7  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV9  | Cyanide   | 0.426    | 0.010 | 0.0058  | .4         | 106.5    | 90-110    |
| GN79424-CCB8  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV10 | Cyanide   | 0.419    | 0.010 | 0.0058  | .4         | 104.8    | 90-110    |
| GN79424-CCB9  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79424-CCV11 | Cyanide   | 0.418    | 0.010 | 0.0058  | .4         | 104.5    | 90-110    |
| GN79424-CCB10 | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |

(!) Outside of QC limits

15.4  
15

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E051618W1.CN Date Analyzed: 05/16/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP  
Analyst: BM Run ID: GN80064  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:07 | GN80064-STD1       | 1               |          | STDA   |
| 12:09 | GN80064-STD2       | 1               |          | STDB   |
| 12:10 | GN80064-STD3       | 1               |          | STDC   |
| 12:12 | GN80064-STD4       | 1               |          | STDD   |
| 12:13 | GN80064-STD5       | 1               |          | STDE   |
| 12:14 | GN80064-STD6       | 1               |          | STDF   |
| 12:16 | GN80064-STD7       | 1               |          | STDG   |
| 12:17 | GN80064-ICV1       | 1               |          |  |
| 12:18 | GN80064-ICB1       | 1               |          |  |
| 12:20 | GN80064-CCV1       | 1               |          |  |
| 12:21 | GN80064-CCB1       | 1               |          |  |
| 12:22 | GP13086-MB1        | 1               |          |  |
| 12:24 | GP13086-B1         | 1               |          |  |
| 12:25 | GP13086-S1         | 1               |          |  |
| 12:27 | GP13086-D1         | 1               |          |  |
| 12:28 | JC65732-11         | 1               |          | (sample used for QC only; not part of login JC64996) |
| 12:29 | ZZZZZZ             | 1               |          |  |
| 12:31 | ZZZZZZ             | 1               |          |  |
| 12:32 | ZZZZZZ             | 1               |          |  |
| 12:33 | ZZZZZZ             | 1               |          |  |
| 12:35 | ZZZZZZ             | 1               |          |  |
| 12:36 | GN80064-CCV2       | 1               |          |  |
| 12:37 | GN80064-CCB2       | 1               |          |  |
| 12:39 | GP13031-MB1        | 1               |          |  |
| 12:40 | GP13031-B1         | 1               |          |  |
| 12:42 | GP13031-S1         | 1               |          |  |
| 12:43 | GP13031-D1         | 1               |          |  |
| 12:44 | ZZZZZZ             | 1               |          |  |
| 12:46 | ZZZZZZ             | 1               |          |  |
| 12:47 | JC65890-4          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 12:48 | ZZZZZZ             | 1               |          |  |
| 12:50 | ZZZZZZ             | 1               |          |  |
| 12:51 | ZZZZZZ             | 1               |          |  |

15.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E051618W1.CN  
Analyst: BM  
Parameters: Cyanide

Date Analyzed: 05/16/18  
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:52 | GN80064-CCV3       | 1               |          |  |
| 12:54 | GN80064-CCB3       | 1               |          |  |
| 12:55 | ZZZZZZ             | 1               |          |  |
| 12:56 | GP13029-MB1        | 1               |          |  |
| 12:58 | GP13029-B1         | 1               |          |  |
| 12:59 | GP13029-S1         | 1               |          |  |
| 13:01 | GP13029-S2         | 1               |          |  |
| 13:02 | GP13029-D1         | 1               |          |  |
| 13:03 | JC65839-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:05 | ZZZZZZ             | 1               |          |  |
| 13:06 | ZZZZZZ             | 1               |          |  |
| 13:07 | ZZZZZZ             | 1               |          |  |
| 13:09 | GN80064-CCV4       | 1               |          |  |
| 13:10 | GN80064-CCB4       | 1               |          |  |
| 13:11 | ZZZZZZ             | 1               |          |  |
| 13:13 | JC65988-4          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:14 | ZZZZZZ             | 1               |          |  |
| 13:15 | ZZZZZZ             | 1               |          |  |
| 13:17 | ZZZZZZ             | 1               |          |  |
| 13:18 | ZZZZZZ             | 1               |          |  |
| 13:20 | ZZZZZZ             | 1               |          |  |
| 13:21 | ZZZZZZ             | 1               |          |  |
| 13:22 | GP13060-MB1        | 1               |          |  |
| 13:24 | GP13060-B1         | 1               |          |  |
| 13:25 | GN80064-CCV5       | 1               |          |  |
| 13:26 | GN80064-CCB5       | 1               |          |  |
| 13:28 | GP13060-D1         | 1               |          |  |
| 13:29 | JC65969-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:31 | GP13051-MB1        | 1               |          |  |
| 13:32 | GP13051-B1         | 1               |          |  |
| 13:33 | GP13051-D1         | 1               |          |  |
| 13:35 | ZZZZZZ             | 1               |          |  |
| 13:36 | JC65918-1          | 1               |          | (sample used for QC only; not part of login JC64996) |

15.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E051618W1.CN Date Analyzed: 05/16/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP  
Analyst: BM Run ID: GN80064  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 13:37 | ZZZZZZ             | 1               |          |  |
| 13:39 | ZZZZZZ             | 1               |          |  |
| 13:40 | ZZZZZZ             | 1               |          |  |
| 13:41 | GN80064-CCV6       | 1               |          |  |
| 13:43 | GN80064-CCB6       | 1               |          |  |
| 13:44 | ZZZZZZ             | 1               |          |  |
| 13:45 | ZZZZZZ             | 1               |          |  |
| 13:47 | ZZZZZZ             | 1               |          |  |
| 13:48 | ZZZZZZ             | 1               |          |  |
| 13:50 | ZZZZZZ             | 1               |          |  |
| 13:51 | ZZZZZZ             | 1               |          |  |
| 13:52 | GP13077-MB1        | 1               |          |  |
| 13:54 | GP13077-B1         | 1               |          |  |
| 13:55 | GP13077-D1         | 1               |          |  |
| 13:56 | JC66110-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 13:58 | GN80064-CCV7       | 1               |          |  |
| 13:59 | GN80064-CCB7       | 1               |          |  |
| 14:00 | ZZZZZZ             | 1               |          |  |
| 14:02 | ZZZZZZ             | 1               |          |  |
| 14:03 | ZZZZZZ             | 1               |          |  |
| 14:05 | ZZZZZZ             | 1               |          |  |
| 14:06 | ZZZZZZ             | 1               |          |  |
| 14:07 | ZZZZZZ             | 1               |          |  |
| 14:09 | ZZZZZZ             | 1               |          |  |
| 14:10 | ZZZZZZ             | 1               |          |  |
| 14:11 | ZZZZZZ             | 1               |          |  |
| 14:13 | ZZZZZZ             | 1               |          |  |
| 14:14 | GN80064-CCV8       | 1               |          |  |
| 14:15 | GN80064-CCB8       | 1               |          |  |
| 14:17 | ZZZZZZ             | 1               |          |  |
| 14:18 | ZZZZZZ             | 1               |          |  |
| 14:20 | ZZZZZZ             | 1               |          |  |
| 14:21 | ZZZZZZ             | 1               |          |  |

15.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E051618W1.CN Date Analyzed: 05/16/18 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHA  
Analyst: BM Run ID: GN80064  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:22 | ZZZZZZ             | 1               |          |  |
| 14:24 | ZZZZZZ             | 1               |          |  |
| 14:25 | ZZZZZZ             | 1               |          |  |
| 14:26 | ZZZZZZ             | 1               |          |  |
| 14:28 | ZZZZZZ             | 1               |          |  |
| 14:29 | GP13030-MB1        | 1               |          |  |
| 14:30 | GN80064-CCV9       | 1               |          |  |
| 14:32 | GN80064-CCB9       | 1               |          |  |
| 14:33 | GP13030-B1         | 1               |          |  |
| 14:35 | GP13030-S1         | 1               |          |  |
| 14:36 | GP13030-S2         | 1               |          |  |
| 14:37 | GP13030-D1         | 1               |          |  |
| 14:39 | JC66031-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 14:40 | ZZZZZZ             | 1               |          |  |
| 14:41 | ZZZZZZ             | 1               |          |  |
| 14:43 | ZZZZZZ             | 1               |          |  |
| 14:44 | JC66034-1          | 1               |          | (sample used for QC only; not part of login JC64996) |
| 14:45 | ZZZZZZ             | 1               |          |  |
| 14:47 | GN80064-CCV10      | 1               |          |  |
| 14:48 | GN80064-CCB10      | 1               |          |  |
| 14:49 | ZZZZZZ             | 1               |          |  |
| 14:51 | ZZZZZZ             | 1               |          |  |
| 14:52 | ZZZZZZ             | 1               |          |  |
| 14:54 | ZZZZZZ             | 1               |          |  |
| 14:55 | ZZZZZZ             | 1               |          |  |
| 14:56 | ZZZZZZ             | 1               |          |  |
| 14:58 | JC64996-7          | 1               |          |  |
| 14:59 | JC64996-10         | 1               |          |  |
| 15:02 | GN80064-CCV11      | 1               |          |  |
| 15:03 | GN80064-CCB11      | 1               |          |  |

Refer to raw data for calibration curve and standards.

15.5  
15

Instrument QC Summary  
Inorganics Analyses

Login Number: JC64996  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E051618W1.CN

Date Analyzed: 05/16/18  
Run ID: GN80064

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT, SW846 CHAP  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN80064-ICV1  | Cyanide   | 0.290    | 0.010 | 0.0058  | .3         | 96.7     | 90-110    |
| GN80064-ICB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV1  | Cyanide   | 0.407    | 0.010 | 0.0058  | .4         | 101.8    | 90-110    |
| GN80064-CCB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV2  | Cyanide   | 0.408    | 0.010 | 0.0058  | .4         | 102.0    | 90-110    |
| GN80064-CCB2  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV3  | Cyanide   | 0.406    | 0.010 | 0.0058  | .4         | 101.5    | 90-110    |
| GN80064-CCB3  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV4  | Cyanide   | 0.406    | 0.010 | 0.0058  | .4         | 101.5    | 90-110    |
| GN80064-CCB4  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV5  | Cyanide   | 0.406    | 0.010 | 0.0058  | .4         | 101.5    | 90-110    |
| GN80064-CCB5  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV6  | Cyanide   | 0.406    | 0.010 | 0.0058  | .4         | 101.5    | 90-110    |
| GN80064-CCB6  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV7  | Cyanide   | 0.403    | 0.010 | 0.0058  | .4         | 100.8    | 90-110    |
| GN80064-CCB7  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV8  | Cyanide   | 0.392    | 0.010 | 0.0058  | .4         | 98.0     | 90-110    |
| GN80064-CCB8  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV9  | Cyanide   | 0.404    | 0.010 | 0.0058  | .4         | 101.0    | 90-110    |
| GN80064-CCB9  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV10 | Cyanide   | 0.403    | 0.010 | 0.0058  | .4         | 100.8    | 90-110    |
| GN80064-CCB10 | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN80064-CCV11 | Cyanide   | 0.401    | 0.010 | 0.0058  | .4         | 100.3    | 90-110    |
| GN80064-CCB11 | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |

(!) Outside of QC limits

15.5  
15

# Percent Solids Raw Data Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-1<br><b>ClientID:</b> TP-101 (7-8) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 34.32 g                          |                            |
| Tare Weight   | 26.64 g                          |                            |
| Dry Weight (Total)  | 33.37 g                          |                            |
| Solids, Percent   | 87.6 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-2<br><b>ClientID:</b> SB-102 (19-21) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 31.87 g                          |                            |
| Tare Weight   | 23.56 g                          |                            |
| Dry Weight (Total)  | 30.92 g                          |                            |
| Solids, Percent   | 88.6 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-3<br><b>ClientID:</b> SB-107 (15-17) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 33.67 g                          |                            |
| Tare Weight   | 26.18 g                          |                            |
| Dry Weight (Total)  | 32.42 g                          |                            |
| Solids, Percent   | 83.3 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-4<br><b>ClientID:</b> SB-106 (17-20) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 31.04 g                          |                            |
| Tare Weight   | 21.12 g                          |                            |
| Dry Weight (Total)  | 29.83 g                          |                            |
| Solids, Percent   | 87.8 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-5<br><b>ClientID:</b> TP-101 (4-8) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 35.56 g                          |                            |
| Tare Weight   | 28.27 g                          |                            |
| Dry Weight (Total)  | 34.19 g                          |                            |
| Solids, Percent   | 81.2 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC64996-6<br><b>ClientID:</b> SB-102 (17-21) | <b>Analyzed:</b> 27-APR-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 27.23 g                          |                            |
| Tare Weight   | 19.98 g                          |                            |
| Dry Weight (Total)  | 26.4 g                           |                            |
| Solids, Percent   | 88.6 %                           |                            |

---

15.6  
15

# Percent Solids Raw Data Summary

**Job Number:** JC64996  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

---

**Sample:** JC64996-7      **Analyzed:** 27-APR-18 by LV      **Method:** SM2540 G-97  
**ClientID:** SB-106 (17-21)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 35.99 | g |
| Tare Weight        | 29.13 | g |
| Dry Weight (Total) | 34.66 | g |
| Solids, Percent    | 80.6  | % |

---

**Sample:** JC64996-8      **Analyzed:** 27-APR-18 by LV      **Method:** SM2540 G-97  
**ClientID:** TP-101 (0-4) (8-10)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 27.37 | g |
| Tare Weight        | 19.02 | g |
| Dry Weight (Total) | 26.78 | g |
| Solids, Percent    | 92.9  | % |

---

**Sample:** JC64996-9      **Analyzed:** 27-APR-18 by LV      **Method:** SM2540 G-97  
**ClientID:** SB-102 (0-17)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 29.13 | g |
| Tare Weight        | 22.9  | g |
| Dry Weight (Total) | 28.2  | g |
| Solids, Percent    | 85.1  | % |

---

**Sample:** JC64996-10      **Analyzed:** 27-APR-18 by LV      **Method:** SM2540 G-97  
**ClientID:** SB-106 (3-5) (11-15)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 28.14 | g |
| Tare Weight        | 21.06 | g |
| Dry Weight (Total) | 27.41 | g |
| Solids, Percent    | 89.7  | % |

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Arcadis

NYSEG - Newark Former MGP Site, Newark, NY

B0013094.0006

SGS Job Number: JC65058

Sampling Dates: 04/25/18 - 04/26/18

Report to:

Arcadis  
295 Woodcliff Drive Suite 301  
Fairport, NY 14450  
Jason.Golubski@arcadis.com; Nicholas.Beyrle@arcadis.com  
  
ATTN: Jason Golubski

Total number of pages in report: **1361**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole  
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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## Sample Summary

Arcadis

**Job No:** JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Collected |          | Received | Matrix |      | Client Sample ID |
|---------------|-----------|----------|----------|--------|------|------------------|
|               | Date      | Time By  |          | Code   | Type |                  |
| JC65058-1     | 04/25/18  | 17:00 RC | 04/27/18 | SO     | Soil | TP-100 (8-10)    |
| JC65058-2     | 04/25/18  | 00:00 RC | 04/27/18 | SO     | Soil | DUP-042518       |
| JC65058-3     | 04/26/18  | 12:00 RC | 04/27/18 | SO     | Soil | SB-108 (15-17)   |
| JC65058-4     | 04/26/18  | 13:00 RC | 04/27/18 | SO     | Soil | SB-105 (13-15)   |
| JC65058-5     | 04/25/18  | 16:00 RC | 04/27/18 | SO     | Soil | SB-104 (13-17)   |
| JC65058-5R    | 04/25/18  | 16:00 RC | 04/27/18 | SO     | Soil | SB-104 (13-17)   |
| JC65058-6     | 04/25/18  | 16:10 RC | 04/27/18 | SO     | Soil | SB-104 (5-9)     |
| JC65058-6R    | 04/25/18  | 16:10 RC | 04/27/18 | SO     | Soil | SB-104 (5-9)     |
| JC65058-7     | 04/25/18  | 17:10 RC | 04/27/18 | SO     | Soil | TP-100 (6-8)     |
| JC65058-7R    | 04/25/18  | 17:10 RC | 04/27/18 | SO     | Soil | TP-100 (6-8)     |
| JC65058-8     | 04/25/18  | 17:15 RC | 04/27/18 | SO     | Soil | TP-100 (8-10)    |
| JC65058-8R    | 04/25/18  | 17:15 RC | 04/27/18 | SO     | Soil | TP-100 (8-10)    |
| JC65058-9     | 04/26/18  | 12:05 RC | 04/27/18 | SO     | Soil | SB-108 (15-25)   |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## Sample Summary

(continued)

Arcadis

**Job No:** JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Collected |          | Received | Matrix |      | Client Sample ID     |
|---------------|-----------|----------|----------|--------|------|----------------------|
|               | Date      | Time By  |          | Code   | Type |                      |
| JC65058-10    | 04/26/18  | 12:30 RC | 04/27/18 | SO     | Soil | TP-100 (2-6)         |
| JC65058-10R   | 04/26/18  | 12:30 RC | 04/27/18 | SO     | Soil | TP-100 (2-6)         |
| JC65058-11    | 04/26/18  | 13:10 RC | 04/27/18 | SO     | Soil | SB-105 (8-15)        |
| JC65058-11R   | 04/26/18  | 13:10 RC | 04/27/18 | SO     | Soil | SB-105 (8-15)        |
| JC65058-12    | 04/25/18  | 16:05 RC | 04/27/18 | SO     | Soil | SB-104 (2-5) (9-13)  |
| JC65058-12R   | 04/25/18  | 16:05 RC | 04/27/18 | SO     | Soil | SB-104 (2-5) (9-13)  |
| JC65058-13    | 04/25/18  | 17:05 RC | 04/27/18 | SO     | Soil | TP-100 (2-6)         |
| JC65058-13A   | 04/25/18  | 17:05 RC | 04/27/18 | SO     | Soil | TP-100 (2-6)         |
| JC65058-13R   | 04/25/18  | 17:05 RC | 04/27/18 | SO     | Soil | TP-100 (2-6)         |
| JC65058-14    | 04/26/18  | 12:10 RC | 04/27/18 | SO     | Soil | SB-108 (0-5) (11-15) |
| JC65058-15    | 04/26/18  | 13:05 RC | 04/27/18 | SO     | Soil | SB-105 (0-5)         |
| JC65058-15R   | 04/26/18  | 13:05 RC | 04/27/18 | SO     | Soil | SB-105 (0-5)         |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Arcadis

**Job No** JC65058

**Site:** NYSEG - Newark Former MGP Site, Newark, NY

**Report Date** 5/24/2018 4:28:28 PM

On 04/27/2018, 14 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65058 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### MS Volatiles By Method SW846 8260C

**Matrix:** LEACHATE

**Batch ID:** V2V2002

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC64956-1MS, JC64956-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VIC6910

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65260-13DUP, JC65260-15MS were used as the QC samples indicated.
- JC65058-9: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-9 for Chloromethane: Associated CCV outside of control limits low.
- JC65058-9 for Bromomethane: Associated CCV outside of control limits low.
- JC65058-9 for Acetone: Associated CCV outside of control limits low.
- JC65058-9 for Carbon disulfide: Associated CCV outside of control limits low.

**Matrix:** SO

**Batch ID:** VY7766

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65058-5MS, JC65058-6DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for Carbon disulfide are outside control limits for sample JC65058-6DUP. RPD acceptable due to low DUP and sample concentrations.
- JC65058-6: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-15: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-12: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-5: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-13: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-10: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-7: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-11: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-8: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65058-5 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for Acetone: Associated CCV outside of control limits low.

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## MS Volatiles By Method SW846 8260C

**Matrix:** SO

**Batch ID:** VY7766

- JC65058-5 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Acetone: Associated CCV outside of control limits low.
- JC65058-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Acetone: Associated CCV outside of control limits low.
- JC65058-8 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for Acetone: Associated CCV outside of control limits low.
- JC65058-10 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for Acetone: Associated CCV outside of control limits low.
- JC65058-10 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for Acetone: Associated CCV outside of control limits low.
- JC65058-7 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Acetone: Associated CCV outside of control limits low.
- JC65058-11 for Acetone: Associated CCV outside of control limits low.
- JC65058-12 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Acetone: Associated CCV outside of control limits low.
- JC65058-12 for Freon 113: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for Freon 113: Associated CCV outside of control limits high, sample was ND.

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## MS Semi-volatiles By Method SW846 8270D

**Matrix:** LEACHATE

**Batch ID:** OP11697

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65130-2LS, JC65130-2MS, JC65130-2MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** OP11647

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65070-1MS, JC65070-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65058-6 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC65058-4 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Benzo(a)pyrene: Associated CCV outside of control limits high.
- JC65058-4 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65058-4 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-2 for Indeno(1,2,3-cd)pyrene: Associated CCV outside of control limits high.
- JC65058-8 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-1 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65058-2 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-2 for Benzo(b)fluoranthene: Associated CCV outside of control limits high.
- JC65058-2 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-2 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-2 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-3 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-8 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-3 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-3 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-6 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-7 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-4 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-3 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-1 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.

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## MS Semi-volatiles By Method SW846 8270D

**Matrix:** SO

**Batch ID:** OP11647

- JC65058-2 for Benzo(a)pyrene: Associated CCV outside of control limits high.
- JC65058-1 for Hexachlorocyclopentadiene: Associated CCV outside of control limits high, sample was ND.
- JC65058-1 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-5 for Pentachlorophenol: Associated CCV outside of control limits high, sample was ND.

**Matrix:** SO

**Batch ID:** OP11648

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65058-10MS, JC65058-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65058-12 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65058-15 for Caprolactam: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for Di-n-butyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for Di-n-butyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-11 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-12 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for 2-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for 2,4-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-13 for Atrazine: Associated CCV outside of control limits high, sample was ND.
- JC65058-15 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65058-10 for 2,6-Dinitrotoluene: Associated CCV outside of control limits high, sample was ND.
- JC65058-10 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.

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### GC Volatiles By Method SW846 8015C

**Matrix:** SO **Batch ID:** GLM3851

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65618-2MS, JC65618-2MSD were used as the QC samples indicated.

**Matrix:** SO **Batch ID:** GPF4600

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65058-5MS, JC65058-5MSD were used as the QC samples indicated.

### GC/LC Semi-volatiles By Method SW846 8015C

**Matrix:** SO **Batch ID:** OP11656

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65141-2MS, JC65141-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8081B

**Matrix:** LEACHATE **Batch ID:** OP11692

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1ALS, JC65070-1AMS, JC65070-1AMSD, OP11692-MSMSD were used as the QC samples indicated.

**Matrix:** SO **Batch ID:** OP11667

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65070-5MS, JC65070-5MSD, OP11667-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP11667-BS1 for beta-BHC: Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

**Matrix:** SO **Batch ID:** OP11917

- Sample(s) JC65058-5MS, JC65058-5MSD, OP11917-MSMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65058-7: Sample extracted outside the holding time.
- JC65058-6: Sample extracted outside the holding time. Confirmation run.
- JC65058-6: Sample extracted outside the holding time.
- JC65058-8: Sample extracted outside the holding time.
- JC65058-5: Sample extracted outside the holding time.
- JC65058-6 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC65058-10 for Decachlorobiphenyl: Outside control limits due to matrix interference.



## GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP11668

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65130-1MS, JC65130-1MSD, OP11668-MSMSD were used as the QC samples indicated.
- JC65058-8 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC65058-6 for Decachlorobiphenyl: Outside control limits due to matrix interference.

**Matrix:** SO

**Batch ID:** OP11775

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65281-54MS, JC65281-54MSD, OP11775-MSMSD were used as the QC samples indicated.
- JC65058-15 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC65058-12 for Decachlorobiphenyl: Outside control limits due to matrix interference.

## GC/LC Semi-volatiles By Method SW846 8151A

**Matrix:** LEACHATE      **Batch ID:** OP11688

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65130-4LS, JC65130-4MS, JC65130-4MSD were used as the QC samples indicated.

**Matrix:** SO      **Batch ID:** OP11676

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65099-2MS, JC65099-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2,4,5-T, 2,4-D, 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 2,4-DB, MCPA, MCPP are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for 2,4,5-T, 2,4,5-TP (Silvex), 2,4-D, Dalapon, Dicamba, Dichloroprop are outside control limits for sample OP11676-MSD. Outside control limits due to matrix interference.
- OP11676-BS1 for Pentachlorophenol: Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.
- JC65058-12 for 2,4-DCAA: Outside of in house control limits, refer to re-extract.
- JC65058-12 for 2,4-DCAA: Outside of in house control limits, refer to re-extract.
- OP11676-BS1 for Dichloroprop: Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

**Matrix:** SO      **Batch ID:** OP11920

- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65058-10MS, JC65058-10MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Dinoseb are outside control limits. Outside the QC limits.
- Matrix Spike Duplicate Recovery(s) for Dinoseb are outside control limits. Outside the QC limits.
- RPD(s) for MSD for 2,4,5-T, 2,4,5-TP (Silvex), 2,4-D, Dalapon, Dicamba, Dichloroprop, MCPA, MCPP, Pentachlorophenol are outside control limits for sample OP11920-MSD. Outside the QC limits.
- JC65058-5: Sample extracted outside the holding time.
- JC65058-8: Sample extracted outside the holding time.
- JC65058-7: Sample extracted outside the holding time.
- JC65058-6: Sample extracted outside the holding time.
- OP11920-BS1 for 2,4-DB: Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

**Matrix:** SO      **Batch ID:** OP12193

- The data for SW846 8151A meets quality control requirements.
- JC65058-12: Confirmation run.

## Metals Analysis By Method SW846 6010C

**Matrix:** LEACHATE      **Batch ID:** MP6897

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1AMS, JC65070-1AMSD, JC65070-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Barium, Chromium are outside control limits for sample MP6897-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC65058-13A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

**Matrix:** SO      **Batch ID:** MP6883

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD20148-1MS, TD20148-1MSD, TD20148-1PS, TD20148-1SDL, TD20148-1DUP were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Copper, Calcium, Sodium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Calcium, Sodium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Barium, Iron, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Duplicate for Arsenic, Magnesium, Potassium, Silver are outside control limits for sample MP6883-D1. RPD acceptable due to low duplicate and sample concentrations.
- RPD(s) for MSD for Barium, Sodium are outside control limits for sample MP6883-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Antimony, Cadmium, Silver are outside control limits for sample MP6883-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JC65058-12 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC65058-5 for Thallium: Elevated detection limit due to dilution required for high interfering element.
- JC65058-12 for Chromium: Elevated detection limit due to dilution required for high interfering element.
- MP6883-PS1 for Lead: Spike recovery indicates possible matrix interference.
- JC65058-5 for Chromium: Elevated detection limit due to dilution required for high interfering element.
- MP6883-PS1 for Copper: Spike recovery indicates possible matrix interference.
- MP6883-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP6883-SD1 for Magnesium: Serial dilution indicates possible matrix interference.
- MP6883-SD1 for Potassium: Serial dilution indicates possible matrix interference.

## Metals Analysis By Method SW846 7470A

**Matrix:** LEACHATE      **Batch ID:** MP6911

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1AMS, JC65070-1AMSD were used as the QC samples for metals.

### Metals Analysis By Method SW846 7471B

**Matrix:** SO **Batch ID:** MP6891

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65141-1MS, JC65141-1MSD were used as the QC samples for metals.

### General Chemistry By Method ASTM D129-95

**Matrix:** SO **Batch ID:** GP13111

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65058-5RDUP were used as the QC samples for Percent Sulfur.

### General Chemistry By Method ASTM D240-92

**Matrix:** SO **Batch ID:** GP12970

- Sample(s) JC65058-11DUP were used as the QC samples for Heat Content, BTU.

### General Chemistry By Method SM2540 G-97

**Matrix:** SO **Batch ID:** GN79381

- The data for SM2540 G-97 meets quality control requirements.

**Matrix:** SO **Batch ID:** GN79421

- The data for SM2540 G-97 meets quality control requirements.

**Matrix:** SO **Batch ID:** GN79472

- The data for SM2540 G-97 meets quality control requirements.

**Matrix:** SO **Batch ID:** GN79804

- The data for SM2540 G-97 meets quality control requirements.

### General Chemistry By Method SW846 1010A/ASTM D93

**Matrix:** SO **Batch ID:** GN79680

- Sample(s) JC65068-1DUP were used as the QC samples for Ignitability (Flashpoint).

### General Chemistry By Method SW846 9012B/LACHAT

**Matrix:** SO **Batch ID:** GP12788

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64440-1RDUP, JC64440-1RMS were used as the QC samples for Cyanide.

### General Chemistry By Method SW846 9045D

**Matrix:** SO **Batch ID:** GN79703

- Sample(s) JC65069-1DUP were used as the QC samples for Corrosivity as pH.

### General Chemistry By Method SW846 CHAP7/9012 B

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP12792 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64656-1DUP were used as the QC samples for Cyanide Reactivity.

### General Chemistry By Method SW846 CHAP7/9034

|                   |                          |
|-------------------|--------------------------|
| <b>Matrix:</b> SO | <b>Batch ID:</b> GP12791 |
|-------------------|--------------------------|

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64656-1DUP, JC64656-1MS were used as the QC samples for Sulfide Reactivity.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC65058-1 TP-100 (8-10)**

|                        |        |    |     |       |             |
|------------------------|--------|----|-----|-------|-------------|
| Acenaphthene           | 296    | 36 | 13  | ug/kg | SW846 8270D |
| Acenaphthylene         | 93.0   | 36 | 18  | ug/kg | SW846 8270D |
| Anthracene             | 908    | 36 | 22  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 2530   | 36 | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 2450   | 36 | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 2830   | 36 | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 1260   | 36 | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 979    | 36 | 17  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          | 21.8 J | 73 | 5.0 | ug/kg | SW846 8270D |
| Carbazole              | 269    | 73 | 5.3 | ug/kg | SW846 8270D |
| Chrysene               | 2070   | 36 | 11  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 285    | 36 | 16  | ug/kg | SW846 8270D |
| Dibenzofuran           | 147    | 73 | 15  | ug/kg | SW846 8270D |
| Fluoranthene           | 5250   | 73 | 32  | ug/kg | SW846 8270D |
| Fluorene               | 330    | 36 | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 1510   | 36 | 17  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    | 51.3   | 36 | 8.2 | ug/kg | SW846 8270D |
| Naphthalene            | 66.4   | 36 | 10  | ug/kg | SW846 8270D |
| Phenanthrene           | 3160   | 36 | 12  | ug/kg | SW846 8270D |
| Pyrene                 | 3850   | 73 | 23  | ug/kg | SW846 8270D |

**JC65058-2 DUP-042518**

|                                     |       |     |     |       |             |
|-------------------------------------|-------|-----|-----|-------|-------------|
| Acenaphthene                        | 1620  | 36  | 12  | ug/kg | SW846 8270D |
| Acenaphthylene                      | 37.0  | 36  | 18  | ug/kg | SW846 8270D |
| Anthracene                          | 3290  | 36  | 22  | ug/kg | SW846 8270D |
| Benzo(a)anthracene                  | 7330  | 360 | 100 | ug/kg | SW846 8270D |
| Benzo(a)pyrene <sup>a</sup>         | 6740  | 360 | 160 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene <sup>a</sup>   | 8070  | 360 | 160 | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene                | 3260  | 36  | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene                | 2520  | 36  | 17  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl                       | 96.0  | 72  | 4.9 | ug/kg | SW846 8270D |
| Carbazole                           | 1660  | 72  | 5.2 | ug/kg | SW846 8270D |
| Chrysene                            | 6250  | 360 | 110 | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene              | 793   | 36  | 16  | ug/kg | SW846 8270D |
| Dibenzofuran                        | 713   | 72  | 15  | ug/kg | SW846 8270D |
| Fluoranthene                        | 18000 | 360 | 160 | ug/kg | SW846 8270D |
| Fluorene                            | 1520  | 36  | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene <sup>a</sup> | 3840  | 360 | 170 | ug/kg | SW846 8270D |
| 2-Methylnaphthalene                 | 279   | 36  | 8.1 | ug/kg | SW846 8270D |
| Naphthalene                         | 907   | 36  | 10  | ug/kg | SW846 8270D |
| Phenanthrene                        | 13000 | 360 | 120 | ug/kg | SW846 8270D |
| Pyrene                              | 12500 | 360 | 120 | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

### JC65058-3 SB-108 (15-17)

|                        |        |    |    |       |             |
|------------------------|--------|----|----|-------|-------------|
| Benzo(a)anthracene     | 67.7   | 39 | 11 | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 103    | 39 | 18 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 105    | 39 | 17 | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 80.0   | 39 | 20 | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 31.0 J | 39 | 18 | ug/kg | SW846 8270D |
| Chrysene               | 69.7   | 39 | 12 | ug/kg | SW846 8270D |
| Fluoranthene           | 140    | 39 | 18 | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 78.5   | 39 | 18 | ug/kg | SW846 8270D |
| Phenanthrene           | 60.2   | 39 | 13 | ug/kg | SW846 8270D |
| Pyrene                 | 158    | 39 | 13 | ug/kg | SW846 8270D |

### JC65058-4 SB-105 (13-15)

|                        |        |    |     |       |             |
|------------------------|--------|----|-----|-------|-------------|
| Acenaphthylene         | 36.5 J | 38 | 19  | ug/kg | SW846 8270D |
| Anthracene             | 51.9   | 38 | 23  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 216    | 38 | 11  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 278    | 38 | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 358    | 38 | 17  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 232    | 38 | 19  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 115    | 38 | 18  | ug/kg | SW846 8270D |
| Carbazole              | 18.9 J | 76 | 5.5 | ug/kg | SW846 8270D |
| Chrysene               | 203    | 38 | 12  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 39.5   | 38 | 17  | ug/kg | SW846 8270D |
| Dibenzofuran           | 16.6 J | 76 | 16  | ug/kg | SW846 8270D |
| Fluoranthene           | 386    | 38 | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 265    | 38 | 18  | ug/kg | SW846 8270D |
| Naphthalene            | 44.8   | 38 | 11  | ug/kg | SW846 8270D |
| Phenanthrene           | 165    | 38 | 13  | ug/kg | SW846 8270D |
| Pyrene                 | 361    | 38 | 12  | ug/kg | SW846 8270D |

### JC65058-5 SB-104 (13-17)

|                             |        |      |      |       |             |
|-----------------------------|--------|------|------|-------|-------------|
| Benzene <sup>b</sup>        | 0.40 J | 0.49 | 0.10 | ug/kg | SW846 8260C |
| Toluene <sup>b</sup>        | 0.94 J | 0.98 | 0.54 | ug/kg | SW846 8260C |
| m,p-Xylene <sup>b</sup>     | 1.5    | 0.98 | 0.54 | ug/kg | SW846 8260C |
| o-Xylene <sup>b</sup>       | 0.54 J | 0.98 | 0.25 | ug/kg | SW846 8260C |
| Xylene (total) <sup>b</sup> | 2.0    | 0.98 | 0.25 | ug/kg | SW846 8260C |
| Benzo(a)anthracene          | 30.7 J | 38   | 11   | ug/kg | SW846 8270D |
| Benzo(a)pyrene              | 36.3 J | 38   | 17   | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene        | 43.5   | 38   | 17   | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene        | 28.5 J | 38   | 19   | ug/kg | SW846 8270D |
| Chrysene                    | 31.0 J | 38   | 12   | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID                    | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units  | Method             |
|----------------------------------|------------------|-----------------|------|------|--------|--------------------|
| Fluoranthene                     |                  | 82.6            | 38   | 17   | ug/kg  | SW846 8270D        |
| Indeno(1,2,3-cd)pyrene           |                  | 31.9 J          | 38   | 18   | ug/kg  | SW846 8270D        |
| 2-Methylnaphthalene              |                  | 20.9 J          | 38   | 8.5  | ug/kg  | SW846 8270D        |
| Naphthalene                      |                  | 93.3            | 38   | 11   | ug/kg  | SW846 8270D        |
| Phenanthrene                     |                  | 34.8 J          | 38   | 13   | ug/kg  | SW846 8270D        |
| Pyrene                           |                  | 80.5            | 38   | 12   | ug/kg  | SW846 8270D        |
| TPH-DRO (C10-C28)                |                  | 19.4            | 11   | 2.7  | mg/kg  | SW846 8015C        |
| Pentachlorophenol <sup>c</sup>   |                  | 2.7             | 1.8  | 1.3  | ug/kg  | SW846 8151A        |
| Arsenic                          |                  | 4.8             | 2.2  |      | mg/kg  | SW846 6010C        |
| Barium                           |                  | 137             | 22   |      | mg/kg  | SW846 6010C        |
| Beryllium                        |                  | 0.23            | 0.22 |      | mg/kg  | SW846 6010C        |
| Chromium <sup>d</sup>            |                  | 11.8            | 5.6  |      | mg/kg  | SW846 6010C        |
| Lead                             |                  | 13.1            | 2.2  |      | mg/kg  | SW846 6010C        |
| Nickel                           |                  | 11.3            | 4.5  |      | mg/kg  | SW846 6010C        |
| Vanadium                         |                  | 13.0            | 5.6  |      | mg/kg  | SW846 6010C        |
| Zinc                             |                  | 56.5            | 5.6  |      | mg/kg  | SW846 6010C        |
| Cyanide                          |                  | 8.6             | 0.25 |      | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU                |                  | 347             | 100  |      | BTU/lb | ASTM D240-92       |
| <b>JC65058-5R SB-104 (13-17)</b> |                  |                 |      |      |        |                    |
| Percent Sulfur                   |                  | 0.80            | 0.10 |      | %      | ASTM D129-95       |
| <b>JC65058-6 SB-104 (5-9)</b>    |                  |                 |      |      |        |                    |
| Benzene <sup>b</sup>             |                  | 0.34 J          | 0.58 | 0.13 | ug/kg  | SW846 8260C        |
| 2-Methylphenol                   |                  | 37.5 J          | 77   | 25   | ug/kg  | SW846 8270D        |
| 3&4-Methylphenol                 |                  | 138             | 77   | 32   | ug/kg  | SW846 8270D        |
| Acenaphthene                     |                  | 132             | 39   | 13   | ug/kg  | SW846 8270D        |
| Acenaphthylene                   |                  | 1520            | 39   | 20   | ug/kg  | SW846 8270D        |
| Acetophenone                     |                  | 41.2 J          | 190  | 8.3  | ug/kg  | SW846 8270D        |
| Anthracene                       |                  | 3390            | 39   | 24   | ug/kg  | SW846 8270D        |
| Benzo(a)anthracene               |                  | 15700           | 390  | 110  | ug/kg  | SW846 8270D        |
| Benzo(a)pyrene                   |                  | 19100           | 390  | 180  | ug/kg  | SW846 8270D        |
| Benzo(b)fluoranthene             |                  | 23700           | 390  | 170  | ug/kg  | SW846 8270D        |
| Benzo(g,h,i)perylene             |                  | 11600           | 390  | 190  | ug/kg  | SW846 8270D        |
| Benzo(k)fluoranthene             |                  | 7490            | 390  | 180  | ug/kg  | SW846 8270D        |
| 1,1'-Biphenyl                    |                  | 58.9 J          | 77   | 5.3  | ug/kg  | SW846 8270D        |
| Carbazole                        |                  | 427             | 77   | 5.6  | ug/kg  | SW846 8270D        |
| Chrysene                         |                  | 12900           | 390  | 120  | ug/kg  | SW846 8270D        |
| Dibenzo(a,h)anthracene           |                  | 2700            | 39   | 17   | ug/kg  | SW846 8270D        |
| Dibenzofuran                     |                  | 326             | 77   | 16   | ug/kg  | SW846 8270D        |
| Fluoranthene                     |                  | 29400           | 390  | 170  | ug/kg  | SW846 8270D        |
| Fluorene                         |                  | 468             | 39   | 18   | ug/kg  | SW846 8270D        |
| Indeno(1,2,3-cd)pyrene           |                  | 15300           | 390  | 180  | ug/kg  | SW846 8270D        |



## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID       | Client Sample ID | Result/<br>Qual | RL    | MDL | Units  | Method             |
|---------------------|------------------|-----------------|-------|-----|--------|--------------------|
| 2-Methylnaphthalene |                  | 158             | 39    | 8.7 | ug/kg  | SW846 8270D        |
| Naphthalene         |                  | 754             | 39    | 11  | ug/kg  | SW846 8270D        |
| Phenanthrene        |                  | 7070            | 390   | 130 | ug/kg  | SW846 8270D        |
| Pyrene              |                  | 24500           | 390   | 120 | ug/kg  | SW846 8270D        |
| TPH-DRO (C10-C28)   |                  | 314             | 12    | 2.8 | mg/kg  | SW846 8015C        |
| Arsenic             |                  | 5.7             | 2.4   |     | mg/kg  | SW846 6010C        |
| Barium              |                  | 65.9            | 24    |     | mg/kg  | SW846 6010C        |
| Beryllium           |                  | 0.41            | 0.24  |     | mg/kg  | SW846 6010C        |
| Chromium            |                  | 12.8            | 1.2   |     | mg/kg  | SW846 6010C        |
| Lead                |                  | 51.9            | 2.4   |     | mg/kg  | SW846 6010C        |
| Mercury             |                  | 0.24            | 0.036 |     | mg/kg  | SW846 7471B        |
| Nickel              |                  | 15.6            | 4.8   |     | mg/kg  | SW846 6010C        |
| Vanadium            |                  | 19.1            | 6.0   |     | mg/kg  | SW846 6010C        |
| Zinc                |                  | 71.0            | 6.0   |     | mg/kg  | SW846 6010C        |
| Cyanide             |                  | 22.9            | 0.68  |     | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU   |                  | 1580            | 100   |     | BTU/lb | ASTM D240-92       |

**JC65058-6R SB-104 (5-9)**

|                |      |      |  |   |              |
|----------------|------|------|--|---|--------------|
| Percent Sulfur | 0.69 | 0.10 |  | % | ASTM D129-95 |
|----------------|------|------|--|---|--------------|

**JC65058-7 TP-100 (6-8)**

|                             |        |      |     |       |             |
|-----------------------------|--------|------|-----|-------|-------------|
| Acenaphthylene              | 52.5   | 36   | 18  | ug/kg | SW846 8270D |
| Anthracene                  | 96.5   | 36   | 22  | ug/kg | SW846 8270D |
| Benzo(a)anthracene          | 322    | 36   | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene <sup>a</sup> | 352    | 36   | 16  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene        | 441    | 36   | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene        | 325    | 36   | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene        | 150    | 36   | 17  | ug/kg | SW846 8270D |
| Carbazole                   | 14.6 J | 72   | 5.2 | ug/kg | SW846 8270D |
| Chrysene                    | 287    | 36   | 11  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene      | 45.9   | 36   | 16  | ug/kg | SW846 8270D |
| Dibenzofuran                | 36.4 J | 72   | 15  | ug/kg | SW846 8270D |
| Fluoranthene                | 568    | 36   | 16  | ug/kg | SW846 8270D |
| Fluorene                    | 45.4   | 36   | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene      | 330    | 36   | 17  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene         | 17.1 J | 36   | 8.1 | ug/kg | SW846 8270D |
| Naphthalene                 | 19.7 J | 36   | 10  | ug/kg | SW846 8270D |
| Phenanthrene                | 356    | 36   | 12  | ug/kg | SW846 8270D |
| Pyrene                      | 601    | 36   | 12  | ug/kg | SW846 8270D |
| TPH-DRO (C10-C28)           | 12.8   | 10   | 2.4 | mg/kg | SW846 8015C |
| Arsenic                     | 3.2    | 2.1  |     | mg/kg | SW846 6010C |
| Barium                      | 26.3   | 21   |     | mg/kg | SW846 6010C |
| Beryllium                   | 0.21   | 0.21 |     | mg/kg | SW846 6010C |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units  | Method             |
|--------------------------|------------------|-----------------|-------|-----|--------|--------------------|
| Chromium                 |                  | 6.0             | 1.1   |     | mg/kg  | SW846 6010C        |
| Lead                     |                  | 9.9             | 2.1   |     | mg/kg  | SW846 6010C        |
| Mercury                  |                  | 0.036           | 0.031 |     | mg/kg  | SW846 7471B        |
| Nickel                   |                  | 7.6             | 4.2   |     | mg/kg  | SW846 6010C        |
| Vanadium                 |                  | 10.2            | 5.3   |     | mg/kg  | SW846 6010C        |
| Zinc                     |                  | 46.8            | 5.3   |     | mg/kg  | SW846 6010C        |
| Cyanide                  |                  | 0.22            | 0.15  |     | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU        |                  | 475             | 100   |     | BTU/lb | ASTM D240-92       |

**JC65058-7R TP-100 (6-8)**

No hits reported in this sample.

**JC65058-8 TP-100 (8-10)**

|                        |        |       |     |       |             |
|------------------------|--------|-------|-----|-------|-------------|
| Acenaphthene           | 437    | 35    | 12  | ug/kg | SW846 8270D |
| Acenaphthylene         | 29.4 J | 35    | 18  | ug/kg | SW846 8270D |
| Anthracene             | 926    | 35    | 21  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 2310   | 35    | 9.9 | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 2270   | 35    | 16  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 2650   | 35    | 15  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 1240   | 35    | 17  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 877    | 35    | 16  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          | 31.2 J | 70    | 4.8 | ug/kg | SW846 8270D |
| Carbazole              | 449    | 70    | 5.1 | ug/kg | SW846 8270D |
| Chrysene               | 2000   | 35    | 11  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 281    | 35    | 15  | ug/kg | SW846 8270D |
| Dibenzofuran           | 184    | 70    | 14  | ug/kg | SW846 8270D |
| Fluoranthene           | 5050   | 70    | 31  | ug/kg | SW846 8270D |
| Fluorene               | 389    | 35    | 16  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 1440   | 35    | 16  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    | 77.8   | 35    | 7.9 | ug/kg | SW846 8270D |
| Naphthalene            | 124    | 35    | 9.9 | ug/kg | SW846 8270D |
| Phenanthrene           | 3370   | 35    | 12  | ug/kg | SW846 8270D |
| Pyrene                 | 3720   | 70    | 22  | ug/kg | SW846 8270D |
| TPH-DRO (C10-C28)      | 69.0   | 11    | 2.6 | mg/kg | SW846 8015C |
| Arsenic                | 4.6    | 2.2   |     | mg/kg | SW846 6010C |
| Barium                 | 31.7   | 22    |     | mg/kg | SW846 6010C |
| Beryllium              | 0.26   | 0.22  |     | mg/kg | SW846 6010C |
| Chromium               | 6.5    | 1.1   |     | mg/kg | SW846 6010C |
| Lead                   | 14.7   | 2.2   |     | mg/kg | SW846 6010C |
| Mercury                | 0.054  | 0.032 |     | mg/kg | SW846 7471B |
| Nickel                 | 9.4    | 4.4   |     | mg/kg | SW846 6010C |
| Vanadium               | 10.6   | 5.5   |     | mg/kg | SW846 6010C |
| Zinc                   | 57.0   | 5.5   |     | mg/kg | SW846 6010C |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

|                   |  |      |      |  |        |                    |
|-------------------|--|------|------|--|--------|--------------------|
| Cyanide           |  | 0.33 | 0.23 |  | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU |  | 463  | 100  |  | BTU/lb | ASTM D240-92       |

**JC65058-8R TP-100 (8-10)**

No hits reported in this sample.

**JC65058-9 SB-108 (15-25)**

No hits reported in this sample.

**JC65058-10 TP-100 (2-6)**

|                        |        |      |     |        |              |
|------------------------|--------|------|-----|--------|--------------|
| Anthracene             | 31.6 J | 36   | 22  | ug/kg  | SW846 8270D  |
| Benzo(a)anthracene     | 115    | 36   | 10  | ug/kg  | SW846 8270D  |
| Benzo(a)pyrene         | 119    | 36   | 16  | ug/kg  | SW846 8270D  |
| Benzo(b)fluoranthene   | 156    | 36   | 16  | ug/kg  | SW846 8270D  |
| Benzo(g,h,i)perylene   | 107    | 36   | 18  | ug/kg  | SW846 8270D  |
| Benzo(k)fluoranthene   | 57.1   | 36   | 17  | ug/kg  | SW846 8270D  |
| 1,1'-Biphenyl          | 5.8 J  | 72   | 5.0 | ug/kg  | SW846 8270D  |
| Carbazole              | 16.2 J | 72   | 5.3 | ug/kg  | SW846 8270D  |
| Chrysene               | 124    | 36   | 11  | ug/kg  | SW846 8270D  |
| Dibenzo(a,h)anthracene | 25.4 J | 36   | 16  | ug/kg  | SW846 8270D  |
| Dibenzofuran           | 16.8 J | 72   | 15  | ug/kg  | SW846 8270D  |
| Fluoranthene           | 262    | 36   | 16  | ug/kg  | SW846 8270D  |
| Indeno(1,2,3-cd)pyrene | 115    | 36   | 17  | ug/kg  | SW846 8270D  |
| 2-Methylnaphthalene    | 8.7 J  | 36   | 8.2 | ug/kg  | SW846 8270D  |
| Naphthalene            | 12.9 J | 36   | 10  | ug/kg  | SW846 8270D  |
| Phenanthrene           | 136    | 36   | 12  | ug/kg  | SW846 8270D  |
| Pyrene                 | 251    | 36   | 12  | ug/kg  | SW846 8270D  |
| TPH-DRO (C10-C28)      | 10.5   | 10   | 2.4 | mg/kg  | SW846 8015C  |
| Arsenic                | 4.3    | 2.1  |     | mg/kg  | SW846 6010C  |
| Barium                 | 35.3   | 21   |     | mg/kg  | SW846 6010C  |
| Beryllium              | 0.45   | 0.21 |     | mg/kg  | SW846 6010C  |
| Chromium               | 7.6    | 1.1  |     | mg/kg  | SW846 6010C  |
| Lead                   | 11.2   | 2.1  |     | mg/kg  | SW846 6010C  |
| Nickel                 | 11.7   | 4.3  |     | mg/kg  | SW846 6010C  |
| Vanadium               | 12.9   | 5.3  |     | mg/kg  | SW846 6010C  |
| Zinc                   | 63.7   | 5.3  |     | mg/kg  | SW846 6010C  |
| Heat Content, BTU      | 1080   | 100  |     | BTU/lb | ASTM D240-92 |

**JC65058-10R TP-100 (2-6)**

No hits reported in this sample.

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC65058-11 SB-105 (8-15)**

|                        |        |       |      |        |                    |
|------------------------|--------|-------|------|--------|--------------------|
| Benzene <sup>b</sup>   | 0.60   | 0.51  | 0.11 | ug/kg  | SW846 8260C        |
| Toluene <sup>b</sup>   | 0.65 J | 1.0   | 0.56 | ug/kg  | SW846 8260C        |
| Acenaphthylene         | 24.6 J | 36    | 18   | ug/kg  | SW846 8270D        |
| Anthracene             | 32.8 J | 36    | 22   | ug/kg  | SW846 8270D        |
| Benzo(a)anthracene     | 147    | 36    | 10   | ug/kg  | SW846 8270D        |
| Benzo(a)pyrene         | 162    | 36    | 16   | ug/kg  | SW846 8270D        |
| Benzo(b)fluoranthene   | 195    | 36    | 16   | ug/kg  | SW846 8270D        |
| Benzo(g,h,i)perylene   | 159    | 36    | 18   | ug/kg  | SW846 8270D        |
| Benzo(k)fluoranthene   | 91.3   | 36    | 17   | ug/kg  | SW846 8270D        |
| 1,1'-Biphenyl          | 6.7 J  | 72    | 5.0  | ug/kg  | SW846 8270D        |
| Carbazole              | 12.8 J | 72    | 5.3  | ug/kg  | SW846 8270D        |
| Chrysene               | 141    | 36    | 11   | ug/kg  | SW846 8270D        |
| Dibenzo(a,h)anthracene | 32.8 J | 36    | 16   | ug/kg  | SW846 8270D        |
| Fluoranthene           | 294    | 36    | 16   | ug/kg  | SW846 8270D        |
| Indeno(1,2,3-cd)pyrene | 163    | 36    | 17   | ug/kg  | SW846 8270D        |
| 2-Methylnaphthalene    | 8.9 J  | 36    | 8.2  | ug/kg  | SW846 8270D        |
| Naphthalene            | 34.7 J | 36    | 10   | ug/kg  | SW846 8270D        |
| Phenanthrene           | 126    | 36    | 12   | ug/kg  | SW846 8270D        |
| Pyrene                 | 279    | 36    | 12   | ug/kg  | SW846 8270D        |
| TPH-DRO (C10-C28)      | 12.2   | 11    | 2.6  | mg/kg  | SW846 8015C        |
| Pentachlorophenol      | 21.5   | 3.5   | 2.5  | ug/kg  | SW846 8151A        |
| Arsenic                | 3.3    | 2.1   |      | mg/kg  | SW846 6010C        |
| Barium                 | 124    | 21    |      | mg/kg  | SW846 6010C        |
| Beryllium              | 0.36   | 0.21  |      | mg/kg  | SW846 6010C        |
| Chromium               | 7.1    | 1.1   |      | mg/kg  | SW846 6010C        |
| Lead                   | 21.0   | 2.1   |      | mg/kg  | SW846 6010C        |
| Mercury                | 0.17   | 0.033 |      | mg/kg  | SW846 7471B        |
| Nickel                 | 10.8   | 4.3   |      | mg/kg  | SW846 6010C        |
| Vanadium               | 10.6   | 5.3   |      | mg/kg  | SW846 6010C        |
| Zinc                   | 43.5   | 5.3   |      | mg/kg  | SW846 6010C        |
| Cyanide                | 4.8    | 0.24  |      | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU      | 170    | 100   |      | BTU/lb | ASTM D240-92       |

**JC65058-11R SB-105 (8-15)**

No hits reported in this sample.

**JC65058-12 SB-104 (2-5) (9-13)**

|                               |        |      |      |       |             |
|-------------------------------|--------|------|------|-------|-------------|
| Benzene <sup>b</sup>          | 0.37 J | 0.50 | 0.11 | ug/kg | SW846 8260C |
| Carbon disulfide <sup>b</sup> | 0.83 J | 2.0  | 0.60 | ug/kg | SW846 8260C |
| Acenaphthene                  | 33.2 J | 38   | 13   | ug/kg | SW846 8270D |
| Acenaphthylene                | 235    | 38   | 19   | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method      |
|--------------------------|------------------|-----------------|-------|-----|-------|-------------|
| Acetophenone             |                  | 45.9 J          | 190   | 8.1 | ug/kg | SW846 8270D |
| Anthracene               |                  | 494             | 38    | 23  | ug/kg | SW846 8270D |
| Benzo(a)anthracene       |                  | 2070            | 38    | 11  | ug/kg | SW846 8270D |
| Benzo(a)pyrene           |                  | 1870            | 38    | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene     |                  | 2250            | 38    | 17  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene     |                  | 1490            | 38    | 19  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene     |                  | 828             | 38    | 18  | ug/kg | SW846 8270D |
| Butyl benzyl phthalate   |                  | 14.9 J          | 76    | 9.2 | ug/kg | SW846 8270D |
| 1,1'-Biphenyl            |                  | 18.8 J          | 76    | 5.2 | ug/kg | SW846 8270D |
| Benzaldehyde             |                  | 17.4 J          | 190   | 9.4 | ug/kg | SW846 8270D |
| Carbazole                |                  | 85.6            | 76    | 5.5 | ug/kg | SW846 8270D |
| Chrysene                 |                  | 1690            | 38    | 12  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene   |                  | 380             | 38    | 17  | ug/kg | SW846 8270D |
| Dibenzofuran             |                  | 97.7            | 76    | 15  | ug/kg | SW846 8270D |
| Fluoranthene             |                  | 3280            | 38    | 17  | ug/kg | SW846 8270D |
| Fluorene                 |                  | 148             | 38    | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene   |                  | 1770            | 38    | 18  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene      |                  | 95.5            | 38    | 8.5 | ug/kg | SW846 8270D |
| Naphthalene              |                  | 499             | 38    | 11  | ug/kg | SW846 8270D |
| Phenanthrene             |                  | 1500            | 38    | 13  | ug/kg | SW846 8270D |
| Pyrene                   |                  | 3510            | 38    | 12  | ug/kg | SW846 8270D |
| Pentachlorophenol        |                  | 19.2            | 7.5   | 5.4 | ug/kg | SW846 8151A |
| Aluminum                 |                  | 5430            | 56    |     | mg/kg | SW846 6010C |
| Arsenic                  |                  | 3.9             | 2.2   |     | mg/kg | SW846 6010C |
| Barium                   |                  | 108             | 22    |     | mg/kg | SW846 6010C |
| Beryllium                |                  | 0.25            | 0.22  |     | mg/kg | SW846 6010C |
| Calcium                  |                  | 61100           | 1700  |     | mg/kg | SW846 6010C |
| Chromium <sup>d</sup>    |                  | 9.1             | 3.3   |     | mg/kg | SW846 6010C |
| Copper                   |                  | 13.4            | 2.8   |     | mg/kg | SW846 6010C |
| Iron                     |                  | 12800           | 56    |     | mg/kg | SW846 6010C |
| Lead                     |                  | 14.2            | 2.2   |     | mg/kg | SW846 6010C |
| Magnesium                |                  | 23900           | 560   |     | mg/kg | SW846 6010C |
| Manganese                |                  | 1500            | 5.0   |     | mg/kg | SW846 6010C |
| Mercury                  |                  | 0.055           | 0.034 |     | mg/kg | SW846 7471B |
| Nickel                   |                  | 11.8            | 4.5   |     | mg/kg | SW846 6010C |
| Potassium                |                  | 1160            | 1100  |     | mg/kg | SW846 6010C |
| Vanadium                 |                  | 12.4            | 5.6   |     | mg/kg | SW846 6010C |
| Zinc                     |                  | 46.8            | 5.6   |     | mg/kg | SW846 6010C |

**JC65058-12R SB-104 (2-5) (9-13)**

No hits reported in this sample.

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC65058-13 TP-100 (2-6)**

|                        |        |       |     |       |             |
|------------------------|--------|-------|-----|-------|-------------|
| Anthracene             | 23.0 J | 36    | 22  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 127    | 36    | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 146    | 36    | 16  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 192    | 36    | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 138    | 36    | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 71.8   | 36    | 17  | ug/kg | SW846 8270D |
| Carbazole              | 20.0 J | 72    | 5.2 | ug/kg | SW846 8270D |
| Chrysene               | 131    | 36    | 11  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 31.5 J | 36    | 16  | ug/kg | SW846 8270D |
| Fluoranthene           | 249    | 36    | 16  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 131    | 36    | 17  | ug/kg | SW846 8270D |
| Phenanthrene           | 100    | 36    | 12  | ug/kg | SW846 8270D |
| Pyrene                 | 241    | 36    | 11  | ug/kg | SW846 8270D |
| Aluminum               | 4820   | 54    |     | mg/kg | SW846 6010C |
| Arsenic                | 3.3    | 2.2   |     | mg/kg | SW846 6010C |
| Barium                 | 28.3   | 22    |     | mg/kg | SW846 6010C |
| Beryllium              | 0.28   | 0.22  |     | mg/kg | SW846 6010C |
| Calcium                | 105000 | 2700  |     | mg/kg | SW846 6010C |
| Chromium               | 6.6    | 1.1   |     | mg/kg | SW846 6010C |
| Copper                 | 17.1   | 2.7   |     | mg/kg | SW846 6010C |
| Iron                   | 10200  | 54    |     | mg/kg | SW846 6010C |
| Lead                   | 15.6   | 2.2   |     | mg/kg | SW846 6010C |
| Magnesium              | 36300  | 540   |     | mg/kg | SW846 6010C |
| Manganese              | 483    | 1.6   |     | mg/kg | SW846 6010C |
| Mercury                | 0.034  | 0.034 |     | mg/kg | SW846 7471B |
| Nickel                 | 8.5    | 4.3   |     | mg/kg | SW846 6010C |
| Potassium              | 1270   | 1100  |     | mg/kg | SW846 6010C |
| Vanadium               | 11.4   | 5.4   |     | mg/kg | SW846 6010C |
| Zinc                   | 52.8   | 5.4   |     | mg/kg | SW846 6010C |

**JC65058-13A TP-100 (2-6)**

|                           |         |  |  |        |                      |
|---------------------------|---------|--|--|--------|----------------------|
| Corrosivity as pH         | 8.29 NC |  |  | su     | SW846 9045D          |
| Ignitability (Flashpoint) | > 200   |  |  | Deg. F | SW846 1010A/ASTM D93 |

**JC65058-13R TP-100 (2-6)**

No hits reported in this sample.

**JC65058-15 SB-105 (0-5)**

|                      |        |      |      |       |             |
|----------------------|--------|------|------|-------|-------------|
| Benzene <sup>b</sup> | 0.40 J | 0.55 | 0.12 | ug/kg | SW846 8260C |
| Acenaphthene         | 55.9   | 37   | 13   | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method      |
|--------------------------|------------------|-----------------|-------|-----|-------|-------------|
| Acenaphthylene           |                  | 223             | 37    | 19  | ug/kg | SW846 8270D |
| Acetophenone             |                  | 19.6 J          | 180   | 7.9 | ug/kg | SW846 8270D |
| Anthracene               |                  | 344             | 37    | 23  | ug/kg | SW846 8270D |
| Benzo(a)anthracene       |                  | 1410            | 37    | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene           |                  | 1360            | 37    | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene     |                  | 1800            | 37    | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene     |                  | 1320            | 37    | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene     |                  | 556             | 37    | 17  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl            |                  | 24.7 J          | 74    | 5.0 | ug/kg | SW846 8270D |
| Benzaldehyde             |                  | 28.4 J          | 180   | 9.1 | ug/kg | SW846 8270D |
| Carbazole                |                  | 112             | 74    | 5.3 | ug/kg | SW846 8270D |
| Chrysene                 |                  | 1330            | 37    | 12  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene   |                  | 285             | 37    | 16  | ug/kg | SW846 8270D |
| Dibenzofuran             |                  | 106             | 74    | 15  | ug/kg | SW846 8270D |
| Fluoranthene             |                  | 2290            | 37    | 16  | ug/kg | SW846 8270D |
| Fluorene                 |                  | 97.1            | 37    | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene   |                  | 1420            | 37    | 17  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene      |                  | 56.2            | 37    | 8.3 | ug/kg | SW846 8270D |
| Naphthalene              |                  | 199             | 37    | 10  | ug/kg | SW846 8270D |
| Phenanthrene             |                  | 1140            | 37    | 12  | ug/kg | SW846 8270D |
| Pyrene                   |                  | 2490            | 37    | 12  | ug/kg | SW846 8270D |
| Pentachlorophenol        |                  | 2.3             | 1.8   | 1.3 | ug/kg | SW846 8151A |
| Aluminum                 |                  | 6870            | 54    |     | mg/kg | SW846 6010C |
| Arsenic                  |                  | 5.8             | 2.1   |     | mg/kg | SW846 6010C |
| Barium                   |                  | 44.0            | 21    |     | mg/kg | SW846 6010C |
| Beryllium                |                  | 0.32            | 0.21  |     | mg/kg | SW846 6010C |
| Calcium                  |                  | 58200           | 1600  |     | mg/kg | SW846 6010C |
| Chromium                 |                  | 11.1            | 1.1   |     | mg/kg | SW846 6010C |
| Cobalt                   |                  | 5.4             | 5.4   |     | mg/kg | SW846 6010C |
| Copper                   |                  | 30.4            | 2.7   |     | mg/kg | SW846 6010C |
| Iron                     |                  | 15600           | 54    |     | mg/kg | SW846 6010C |
| Lead                     |                  | 94.4            | 2.1   |     | mg/kg | SW846 6010C |
| Magnesium                |                  | 21300           | 540   |     | mg/kg | SW846 6010C |
| Manganese                |                  | 524             | 1.6   |     | mg/kg | SW846 6010C |
| Mercury                  |                  | 0.82            | 0.034 |     | mg/kg | SW846 7471B |
| Nickel                   |                  | 12.7            | 4.3   |     | mg/kg | SW846 6010C |
| Potassium                |                  | 1550            | 1100  |     | mg/kg | SW846 6010C |
| Vanadium                 |                  | 16.9            | 5.4   |     | mg/kg | SW846 6010C |
| Zinc                     |                  | 88.3            | 5.4   |     | mg/kg | SW846 6010C |

**JC65058-15R SB-105 (0-5)**

No hits reported in this sample.

(a) Associated CCV outside of control limits high.

## Summary of Hits

**Job Number:** JC65058  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/25/18 thru 04/26/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

- (b) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (c) Sample extracted outside the holding time.
- (d) Elevated detection limit due to dilution required for high interfering element.



Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-1                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176297.D | 1  | 05/07/18 21:52 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176322.D | 2  | 05/08/18 19:40 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 | 30.1 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 73  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 65  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 73  | 23  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 73  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 34  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 73  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 296    | 36  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 93.0   | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 908    | 36  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 73  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2530   | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 2450   | 36  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 2830   | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1260   | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 979    | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 73  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 73  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 21.8   | 73  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 73  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 269    | 73  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-1                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q |
|-----------|--|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND                | 73  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 2070              | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                | 73  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                | 73  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                | 73  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                | 73  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                | 73  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 285               | 36  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 147               | 73  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                | 73  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                | 73  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                | 73  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                | 73  | 6.5 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                | 73  | 8.5 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 5250 <sup>b</sup> | 73  | 32  | ug/kg |   |
| 86-73-7   | Fluorene                               | 330               | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                | 73  | 9.2 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                | 36  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 1510              | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND                | 73  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 51.3              | 36  | 8.2 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND                | 180 | 8.6 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                | 180 | 9.1 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                | 180 | 9.4 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 66.4              | 36  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                | 73  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                | 73  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 3160              | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 3850 <sup>b</sup> | 73  | 23  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                | 180 | 9.2 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 88%    | 83%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-1                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 91.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 79%    | 74%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 100%   | 95%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 74%    | 70%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    | 73%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 77%    | 72%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-042518                                 | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-2                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176300.D | 1  | 05/07/18 23:30 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176320.D | 10 | 05/08/18 18:30 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 | 30.3 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q |
|-----------|--|-------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND                | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND                | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND                | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                | 180 | 38  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND                | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND                | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND                | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND                | 360 | 96  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND                | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND                | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                | 180 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 1620              | 36  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 37.0              | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND                | 180 | 7.7 | ug/kg |   |
| 120-12-7  | Anthracene                             | 3290              | 36  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND                | 72  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 7330 <sup>b</sup> | 360 | 100 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene <sup>c</sup>            | 6740 <sup>b</sup> | 360 | 160 | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene <sup>c</sup>      | 8070 <sup>b</sup> | 360 | 160 | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 3260              | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 2520              | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND                | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 96.0              | 72  | 4.9 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND                | 180 | 8.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND                | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND                | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 1660              | 72  | 5.2 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-042518                                 | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-2                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND                 | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 6250 <sup>b</sup>  | 360 | 110 | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                 | 72  | 7.7 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                 | 72  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                 | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                 | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                 | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                 | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                 | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                 | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 793                | 36  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 713                | 72  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                 | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                 | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                 | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                 | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                 | 72  | 8.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 18000 <sup>b</sup> | 360 | 160 | ug/kg |   |
| 86-73-7   | Fluorene                               | 1520               | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                 | 72  | 9.1 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                 | 36  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                 | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                 | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene <sup>c</sup>    | 3840 <sup>b</sup>  | 360 | 170 | ug/kg |   |
| 78-59-1   | Isophorone                             | ND                 | 72  | 7.7 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 279                | 36  | 8.1 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND                 | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                 | 180 | 9.0 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                 | 180 | 9.3 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 907                | 36  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                 | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                 | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                 | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 13000 <sup>b</sup> | 360 | 120 | ug/kg |   |
| 129-00-0  | Pyrene                                 | 12500 <sup>b</sup> | 360 | 120 | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                 | 180 | 9.1 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 83%    | 75%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> DUP-042518<br><b>Lab Sample ID:</b> JC65058-2<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 91.8 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 75%    | 75%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 99%    | 90%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 70%    | 66%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    | 74%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    | 78%    | 36-134% |

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-17)                    |  |                                |
| <b>Lab Sample ID:</b> JC65058-3                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 84.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176295.D | 1  | 05/07/18 20:45 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 79  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 34  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 70  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 42  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 79  | 25  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 79  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 390 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 160 | 37  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 79  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 30  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 39  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.5 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 79  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 67.7   | 39  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 103    | 39  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 105    | 39  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 80.0   | 39  | 20  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 31.0   | 39  | 18  | ug/kg | J |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 79  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 79  | 9.6 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 79  | 5.4 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 9.8 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 79  | 9.4 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 79  | 5.7 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-108 (15-17)                             | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-3                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 84.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND     | 79  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                               | 69.7   | 39  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 79  | 8.4 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 79  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 79  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 79  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 39  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 79  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | ND     | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | ND     | 79  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 79  | 6.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 79  | 9.8 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 79  | 8.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 79  | 7.0 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 79  | 9.2 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 140    | 39  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                               | ND     | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 79  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 390 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 200 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 78.5   | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND     | 79  | 8.4 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | ND     | 39  | 8.9 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND     | 200 | 9.3 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 200 | 9.9 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                            | ND     | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND     | 79  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 79  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 200 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 60.2   | 39  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 158    | 39  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 95%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-108 (15-17)<br><b>Lab Sample ID:</b> JC65058-3<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/26/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 84.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 86%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 107%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 82%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 83%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

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|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (13-15)                    |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-4                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176296.D | 1  | 05/07/18 21:18 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 76  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 68  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 76  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 76  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 76  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 38  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 36.5   | 38  | 19  | ug/kg | J |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.2 | ug/kg |   |
| 120-12-7  | Anthracene                             | 51.9   | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 76  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 216    | 38  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 278    | 38  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 358    | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 232    | 38  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 115    | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 76  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 76  | 9.3 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 76  | 5.2 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.5 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 76  | 9.1 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | 18.9   | 76  | 5.5 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-105 (13-15)                             | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-4                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.1     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND     | 76  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                               | 203    | 38  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 76  | 8.2 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 76  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 76  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 76  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 76  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 39.5   | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 16.6   | 76  | 16  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 76  | 6.2 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 76  | 9.5 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 76  | 8.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 76  | 6.8 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 76  | 8.9 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 386    | 38  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                               | ND     | 38  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 76  | 9.7 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 265    | 38  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND     | 76  | 8.2 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | ND     | 38  | 8.6 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND     | 190 | 9.0 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 190 | 9.5 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 190 | 9.9 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 44.8   | 38  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND     | 76  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 76  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 165    | 38  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 361    | 38  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 190 | 9.7 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 98%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (13-15)                    | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-4                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 87.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 88%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 110%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 81%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 85%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179601.D | 1  | 05/01/18 11:48 | PS | 05/01/18 08:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.8 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 9.8  | 6.3  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.40   | 0.49 | 0.10 | ug/kg | J |
| 74-97-5    | Bromochloromethane          | ND     | 4.9  | 0.43 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 4.9  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 4.9  | 0.69 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 9.8  | 5.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.60 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.64 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.28 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 4.9  | 0.88 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 4.9  | 0.96 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.66 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.37 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.98 | 0.24 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.98 | 0.50 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.98 | 0.28 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.98 | 0.47 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 4.9  | 0.59 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.98 | 0.25 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.98 | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 0.98 | 0.69 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 0.98 | 0.39 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 0.98 | 0.57 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.39 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.23 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.98 | 0.28 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 4.9  | 0.66 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 4.9  | 2.7  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (13-17)                             | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-5                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.1     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL   | MDL  | Units | Q |
|-----------|-------------------------------------|--------|------|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.0  | 0.24 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 4.9  | 2.5  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.0  | 0.53 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 0.98 | 0.42 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 4.9  | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 4.9  | 2.4  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.0  | 0.49 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.0  | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.0  | 0.62 | ug/kg |   |
| 108-88-3  | Toluene                             | 0.94   | 0.98 | 0.54 | ug/kg | J |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 4.9  | 0.98 | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 4.9  | 0.98 | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.0  | 0.57 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.0  | 0.41 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 0.98 | 0.54 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 4.9  | 0.47 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.0  | 0.75 | ug/kg |   |
|           | m,p-Xylene                          | 1.5    | 0.98 | 0.54 | ug/kg |   |
| 95-47-6   | o-Xylene                            | 0.54   | 0.98 | 0.25 | ug/kg | J |
| 1330-20-7 | Xylene (total)                      | 2.0    | 0.98 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 93%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 109%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-5                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 88.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176293.D | 1  | 05/07/18 19:36 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 75  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 67  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 75  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 75  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 75  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 38  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 38  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.1 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 75  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 30.7   | 38  | 11  | ug/kg | J |
| 50-32-8   | Benzo(a)pyrene                         | 36.3   | 38  | 17  | ug/kg | J |
| 205-99-2  | Benzo(b)fluoranthene                   | 43.5   | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 28.5   | 38  | 19  | ug/kg | J |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 75  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 75  | 9.2 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 75  | 5.1 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 75  | 8.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 75  | 5.4 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND     | 75  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                               | 31.0   | 38  | 12  | ug/kg | J |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 75  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 75  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 75  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 75  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 75  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | ND     | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | ND     | 75  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 75  | 6.1 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 75  | 9.4 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 75  | 8.0 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 75  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 75  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 82.6   | 38  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                               | ND     | 38  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 75  | 9.5 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 31.9   | 38  | 18  | ug/kg | J |
| 78-59-1   | Isophorone                             | ND     | 75  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 20.9   | 38  | 8.5 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                         | ND     | 190 | 8.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 190 | 9.4 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 190 | 9.7 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 93.3   | 38  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND     | 75  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 75  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 34.8   | 38  | 13  | ug/kg | J |
| 129-00-0  | Pyrene                                 | 80.5   | 38  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 96%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 84%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 102%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 82%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 83%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 82%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |  |                                |
| <b>Lab Sample ID:</b> JC65058-5                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145598.D | 1  | 05/01/18 10:12 | KC | 05/01/18 08:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 10.1 g         | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 13     | 6.3     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 80%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |  |                                |
| <b>Lab Sample ID:</b> JC65058-5                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3546                 |  | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | OA133301.D | 1  | 05/11/18 16:06 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2              |            |    |                |     |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.0 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.5  | 3.0  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.5  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.5  | 3.2  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.5  | 2.6  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 7.0  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | 2.7    | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 10   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 27%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 33%    |        | 10-159% |

(a) Sample extracted outside the holding time.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 6G56094.D | 1  | 05/11/18 01:22 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.9 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.71 | 0.59 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.71 | 0.58 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.71 | 0.65 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.71 | 0.69 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.71 | 0.53 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.71 | 0.58 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.71 | 0.32 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.71 | 0.49 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.71 | 0.66 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.71 | 0.63 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.71 | 0.63 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.71 | 0.55 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.71 | 0.56 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.71 | 0.40 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.71 | 0.41 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.71 | 0.45 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.71 | 0.62 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.71 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.4  | 0.57 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.71 | 0.52 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 58%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 72%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 68%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    |        | 10-156% |

(a) Sample extracted outside the holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227808.D | 1  | 05/01/18 21:12 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.5 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 34 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 34 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 34 | 9.2 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 34 | 5.5 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 34 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 34 | 8.5 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 34 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 34 | 5.1 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 34 | 2.6 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 103%   |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 77%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |  |                                |
| <b>Lab Sample ID:</b> JC65058-5                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88780.D | 1  | 05/01/18 14:04 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.0 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 19.4   | 11     | 2.7     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 65%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 88%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 80%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------------------|---------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony              | < 2.2   | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Arsenic               | 4.8     | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium                | 137     | 22    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Beryllium             | 0.23    | 0.22  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium               | < 0.56  | 0.56  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Chromium <sup>a</sup> | 11.8    | 5.6   | mg/kg | 5  | 04/30/18 | 05/02/18    | ND SW846 6010C <sup>3</sup> | SW846 3050B <sup>4</sup> |
| Lead                  | 13.1    | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury               | < 0.034 | 0.034 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>5</sup> |
| Nickel                | 11.3    | 4.5   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Selenium              | < 2.2   | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver                | < 0.56  | 0.56  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Thallium <sup>a</sup> | < 5.6   | 5.6   | mg/kg | 5  | 04/30/18 | 05/02/18    | ND SW846 6010C <sup>3</sup> | SW846 3050B <sup>4</sup> |
| Vanadium              | 13.0    | 5.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Zinc                  | 56.5    | 5.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Instrument QC Batch: MA44327
- (4) Prep QC Batch: MP6883
- (5) Prep QC Batch: MP6891

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

4.5  
4



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | 8.6    | 0.25 | mg/kg  | 1  | 05/02/18 16:29 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 347    | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 88.1   |      | %      | 1  | 04/30/18 21:20 | JV | SM2540 G-97        |

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-5R                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | 0.80   | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179602.D | 1  | 05/01/18 12:17 | PS | 05/01/18 08:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.2 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 12   | 7.5  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.34   | 0.58 | 0.13 | ug/kg | J |
| 74-97-5    | Bromochloromethane          | ND     | 5.8  | 0.51 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.8  | 0.36 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.8  | 0.82 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 12   | 6.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.3  | 0.71 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.3  | 0.76 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.3  | 0.34 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.8  | 1.1  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.3  | 0.38 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.8  | 1.2  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.3  | 0.40 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.3  | 0.79 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.3  | 0.45 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.2  | 0.29 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.2  | 0.60 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.2  | 0.34 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.2  | 0.56 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.8  | 0.71 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.2  | 0.30 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.2  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.2  | 0.83 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.2  | 0.47 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.2  | 0.68 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.3  | 0.46 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.3  | 0.45 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.3  | 0.28 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.2  | 0.34 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.8  | 0.79 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.8  | 3.3  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 82.3    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**VOA TCL List**

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.29 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.8 | 3.0  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.3 | 0.64 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.2 | 0.50 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.8 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.8 | 2.9  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.3 | 0.58 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.30 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.74 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.2 | 0.64 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.68 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.49 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.2 | 0.64 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.8 | 0.56 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.3 | 0.89 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.2 | 0.64 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.2 | 0.29 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.2 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 94%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 111%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176340.D | 1  | 05/09/18 03:44 | CS | 04/30/18 16:00 | OP11647    | EF7512           |
| Run #2 | F176410.D | 10 | 05/11/18 04:33 | CS | 04/30/18 16:00 | OP11647    | EF7515           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.4 g         | 1.0 ml       |
| Run #2 | 31.4 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                       | Result             | RL  | MDL | Units | Q |
|-----------|--------------------------------|--------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                 | ND                 | 77  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol       | ND                 | 190 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol             | ND                 | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol             | ND                 | 190 | 69  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol              | ND                 | 190 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol           | ND                 | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                 | 37.5               | 77  | 25  | ug/kg | J |
|           | 3&4-Methylphenol               | 138                | 77  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                  | ND                 | 190 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>     | ND                 | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup> | ND                 | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                         | ND                 | 77  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol      | ND                 | 190 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol          | ND                 | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol          | ND                 | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                   | 132                | 39  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                 | 1520               | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                   | 41.2               | 190 | 8.3 | ug/kg | J |
| 120-12-7  | Anthracene                     | 3390               | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                       | ND                 | 77  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene             | 15700 <sup>b</sup> | 390 | 110 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                 | 19100 <sup>b</sup> | 390 | 180 | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene           | 23700 <sup>b</sup> | 390 | 170 | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene           | 11600 <sup>b</sup> | 390 | 190 | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene           | 7490 <sup>b</sup>  | 390 | 180 | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether     | ND                 | 77  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate         | ND                 | 77  | 9.4 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                  | 58.9               | 77  | 5.3 | ug/kg | J |
| 100-52-7  | Benzaldehyde                   | ND                 | 190 | 9.6 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene            | ND                 | 77  | 9.2 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                | ND                 | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                      | 427                | 77  | 5.6 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (5-9)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-6                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 82.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>               | ND                 | 77  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                               | 12900 <sup>b</sup> | 390 | 120 | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                 | 77  | 8.3 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                 | 77  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                 | 77  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                 | 77  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                 | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                 | 39  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                 | 77  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                 | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 2700               | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 326                | 77  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                 | 77  | 6.3 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                 | 77  | 9.6 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                 | 77  | 8.2 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                 | 77  | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                 | 77  | 9.1 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 29400 <sup>b</sup> | 390 | 170 | ug/kg |   |
| 86-73-7   | Fluorene                               | 468                | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                 | 77  | 9.8 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                 | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                 | 390 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                 | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 15300 <sup>b</sup> | 390 | 180 | ug/kg |   |
| 78-59-1   | Isophorone                             | ND                 | 77  | 8.3 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 158                | 39  | 8.7 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>            | ND                 | 190 | 9.1 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                 | 190 | 9.7 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                 | 190 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                            | 754                | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                 | 77  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                 | 77  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                 | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 7070 <sup>b</sup>  | 390 | 130 | ug/kg |   |
| 129-00-0  | Pyrene                                 | 24500 <sup>b</sup> | 390 | 120 | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                 | 190 | 9.8 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 83%    | 69%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-104 (5-9)<br><b>Lab Sample ID:</b> JC65058-6<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 82.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 76%    | 64%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 89%    | 76%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 72%    | 65%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 72%    | 66%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 62%    | 64%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145599.D | 1  | 05/01/18 10:38 | KC | 05/01/18 08:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.4 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 15     | 7.5     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 81%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3546                 |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | OA133302.D | 1  | 05/11/18 16:34 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2              |            |    |                |     |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.8 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 19   | 13   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.8  | 3.3  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.8  | 1.8  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.8  | 3.5  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.8  | 2.8  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 19   | 11   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 19   | 7.6  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1900 | 1700 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1900 | 1800 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.9  | 1.4  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 19   | 11   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 38%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 65%    |        | 10-159% |

(a) Sample extracted outside the holding time.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |                                |
| <b>Lab Sample ID:</b> JC65058-6                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

|                     | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 6G56097.D | 1  | 05/11/18 02:16 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2 <sup>b</sup> | 8G15032.D | 5  | 05/11/18 11:58 | MH | 05/10/18 08:00 | OP11917    | G8G489           |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.3 g         | 10.0 ml      |
| Run #2 | 15.3 g         | 10.0 ml      |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.79 | 0.65 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.79 | 0.65 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.79 | 0.72 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.79 | 0.76 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.79 | 0.59 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.79 | 0.64 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.79 | 0.36 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.79 | 0.55 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.79 | 0.73 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.79 | 0.70 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.79 | 0.70 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.79 | 0.62 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.79 | 0.62 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.79 | 0.45 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.79 | 0.46 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.79 | 0.50 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.79 | 0.68 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.79 | 0.56 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.6  | 0.63 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.79 | 0.57 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 20   | 19   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 80%               | 68%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 33%               | 73%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 43%               | 59%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 295% <sup>c</sup> | 104%   | 10-156% |

(a) Sample extracted outside the holding time.

(b) Sample extracted outside the holding time. Confirmation run.

(c) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227820.D | 1  | 05/02/18 00:29 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.7 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 39 | 16  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 39 | 16  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 39 | 10  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 39 | 6.2 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 39 | 23  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 39 | 9.5 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 39 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 39 | 5.8 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 39 | 2.9 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1             | Run# 2 | Limits  |
|-----------|----------------------|--------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 103%               |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 80%                |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 232% <sup>a</sup>  |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 1937% <sup>a</sup> |        | 10-166% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-6                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 82.3    |
| <b>Method:</b> SW846 8015C SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88781.D | 1  | 05/01/18 14:38 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.3 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 314    | 12     | 2.8     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 68%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 97%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 86%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-104 (5-9)<br><b>Lab Sample ID:</b> JC65058-6<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 82.3 |
|--|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.4  | 2.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 5.7    | 2.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 65.9   | 24    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.41   | 0.24  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.60 | 0.60  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 12.8   | 1.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 51.9   | 2.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | 0.24   | 0.036 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 15.6   | 4.8   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.4  | 2.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.60 | 0.60  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.2  | 1.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 19.1   | 6.0   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 71.0   | 6.0   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6883
- (4) Prep QC Batch: MP6891

RL = Reporting Limit

4.7  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-6                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | 22.9   | 0.68 | mg/kg  | 3  | 05/02/18 16:43 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 1580   | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 82.3   |      | %      | 1  | 05/01/18 15:00 | LV | SM2540 G-97        |

RL = Reporting Limit

4.7  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-6R                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | 0.69   | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179603.D | 1  | 05/01/18 12:47 | PS | 05/01/18 08:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.2 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 10   | 6.7  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.52 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.2  | 0.45 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.1  | 0.25 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.2  | 0.32 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.2  | 0.73 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.4  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.1  | 0.63 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.1  | 0.68 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.1  | 0.30 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.2  | 0.94 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.1  | 0.34 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.2  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.1  | 0.36 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.1  | 0.70 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.1  | 0.40 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.54 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.30 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.50 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.2  | 0.63 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.27 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.74 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.42 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.61 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.1  | 0.41 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.1  | 0.40 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.1  | 0.25 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.30 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.2  | 0.70 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.2  | 2.9  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (6-8)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-7                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.4     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.2 | 2.6  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.1 | 0.57 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.0 | 0.45 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.2 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.2 | 2.6  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.1 | 0.52 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.1 | 0.26 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.1 | 0.66 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.0 | 0.57 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.2 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.2 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.1 | 0.60 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.1 | 0.44 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.0 | 0.57 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.2 | 0.50 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.1 | 0.80 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.0 | 0.57 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.0 | 0.26 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.0 | 0.26 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 96%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 109%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 92.4    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176339.D | 1  | 05/09/18 03:11 | CS | 04/30/18 16:00 | OP11647    | EF7512           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                       | Result | RL  | MDL | Units | Q |
|-----------|--------------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                 | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol       | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol             | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol             | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol              | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol           | ND     | 180 | 38  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                 | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol               | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                  | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>     | ND     | 360 | 96  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup> | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                         | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol      | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol          | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol          | ND     | 180 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene                   | ND     | 36  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene                 | 52.5   | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                   | ND     | 180 | 7.7 | ug/kg |   |
| 120-12-7  | Anthracene                     | 96.5   | 36  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                       | ND     | 72  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene             | 322    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene <sup>b</sup>    | 352    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene           | 441    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene           | 325    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene           | 150    | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether     | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate         | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                  | ND     | 72  | 4.9 | ug/kg |   |
| 100-52-7  | Benzaldehyde                   | ND     | 180 | 8.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene            | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                      | 14.6   | 72  | 5.2 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>               | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 287    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 72  | 7.7 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 72  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 45.9   | 36  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 36.4   | 72  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 72  | 8.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 568    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                               | 45.4   | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 72  | 9.1 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 36  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 330    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND     | 72  | 7.7 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 17.1   | 36  | 8.1 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>            | ND     | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 180 | 9.0 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 180 | 9.3 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 19.7   | 36  | 10  | ug/kg | J |
| 98-95-3   | Nitrobenzene                           | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 356    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 601    | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 180 | 9.1 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 97%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.9  
 4

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 87%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 98%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 81%    |        | 36-134% |

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated CCV outside of control limits high.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

4.9  
4

SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 92.4    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145600.D | 1  | 05/01/18 11:04 | KC | 05/01/18 08:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.8 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 12     | 5.9     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 77%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (6-8)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-7                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.4     |
| <b>Method:</b>           | SW846 8151A SW846 8151/3546                |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #               | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | OA133303.D | 1  | 05/11/18 17:03 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2              |            |    |                |     |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.9 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 17   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.4  | 2.9  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.4  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.4  | 3.1  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.4  | 2.4  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 17   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 17   | 6.7  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1700 | 1500 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1700 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.7  | 1.2  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 17   | 9.9  | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 76%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 98%    |        | 10-159% |

(a) Sample extracted outside the holding time.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 6G56098.D | 1  | 05/11/18 02:34 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.67 | 0.59 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.58 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 65%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 75%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 67%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 10-156% |

(a) Sample extracted outside the holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (6-8)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-7                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.4     |
| <b>Method:</b>           | SW846 8082A SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227821.D | 1  | 05/02/18 00:46 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.2 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 9.0 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 89%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 71%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 129%   |        | 10-166% |

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RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8015C SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88782.D | 1  | 05/01/18 15:11 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.7 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 12.8   | 10     | 2.4     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 61%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 83%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 76%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> TP-100 (6-8)<br><b>Lab Sample ID:</b> JC65058-7<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.4 |
|--|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 3.2    | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 26.3   | 21    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.21   | 0.21  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.53 | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 6.0    | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 9.9    | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | 0.036  | 0.031 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 7.6    | 4.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.53 | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 10.2   | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 46.8   | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6883
- (4) Prep QC Batch: MP6891

RL = Reporting Limit

4.9  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.4    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | 0.22   | 0.15 | mg/kg  | 1  | 05/02/18 16:31 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 475    | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 92.4   |      | %      | 1  | 05/01/18 15:00 | LV | SM2540 G-97        |

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7R                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.4    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

4.10  
4

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179604.D | 1  | 05/01/18 13:16 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 4.9 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 11   | 7.0  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.55 | 0.12 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.5  | 0.48 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.2  | 0.27 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.5  | 0.34 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.5  | 0.77 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 11   | 5.7  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.2  | 0.67 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.2  | 0.71 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.2  | 0.32 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.5  | 0.99 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.2  | 0.35 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.5  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.2  | 0.38 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.2  | 0.74 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.2  | 0.42 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.1  | 0.27 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.1  | 0.57 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.1  | 0.32 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.1  | 0.53 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.5  | 0.67 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.1  | 0.28 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.1  | 0.20 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.1  | 0.78 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.1  | 0.44 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.1  | 0.64 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.2  | 0.44 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.2  | 0.42 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.2  | 0.26 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.1  | 0.32 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.5  | 0.74 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.5  | 3.1  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |                                |
| <b>Lab Sample ID:</b> JC65058-8                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.2 | 0.27 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.5 | 2.8  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.2 | 0.60 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.1 | 0.47 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.5 | 2.0  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.5 | 2.7  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.2 | 0.54 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.2 | 0.28 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.2 | 0.70 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.1 | 0.60 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.5 | 1.1  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.5 | 1.1  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.2 | 0.64 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.2 | 0.46 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.1 | 0.60 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.5 | 0.53 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.2 | 0.84 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.1 | 0.60 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.1 | 0.28 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.1 | 0.28 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 110%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-8                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.9     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176298.D | 1  | 05/07/18 22:24 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176323.D | 2  | 05/08/18 20:14 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.8 g         | 1.0 ml       |
| Run #2 | 30.8 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 70  | 17  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 170 | 21  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 170 | 30  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 170 | 62  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 170 | 37  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 70  | 22  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 70  | 29  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 170 | 23  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 350 | 93  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 140 | 33  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 70  | 18  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 170 | 23  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 170 | 26  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 170 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 437    | 35  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 29.4   | 35  | 18  | ug/kg | J |
| 98-86-2   | Acetophenone                           | ND     | 170 | 7.5 | ug/kg |   |
| 120-12-7  | Anthracene                             | 926    | 35  | 21  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 70  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2310   | 35  | 9.9 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 2270   | 35  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 2650   | 35  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1240   | 35  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 877    | 35  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 70  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 70  | 8.5 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 31.2   | 70  | 4.8 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 170 | 8.7 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 70  | 8.3 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 170 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 449    | 70  | 5.1 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-8                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.9     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q |
|-----------|--|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND                | 70  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 2000              | 35  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                | 70  | 7.5 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                | 70  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                | 70  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                | 70  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                | 35  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                | 35  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                | 70  | 29  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                | 35  | 23  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 281               | 35  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 184               | 70  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                | 70  | 5.7 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                | 70  | 8.7 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                | 70  | 7.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                | 70  | 6.2 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                | 70  | 8.2 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 5050 <sup>b</sup> | 70  | 31  | ug/kg |   |
| 86-73-7   | Fluorene                               | 389               | 35  | 16  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                | 70  | 8.8 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                | 35  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                | 350 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                | 170 | 17  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 1440              | 35  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND                | 70  | 7.5 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 77.8              | 35  | 7.9 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND                | 170 | 8.2 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                | 170 | 8.7 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                | 170 | 9.1 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 124               | 35  | 9.9 | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                | 70  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                | 70  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                | 170 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 3370              | 35  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 3720 <sup>b</sup> | 70  | 22  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                | 170 | 8.9 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 89%    | 85%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> TP-100 (8-10)<br><b>Lab Sample ID:</b> JC65058-8<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.9 |
|--|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 76%    | 78%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 96%    | 91%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 73%    | 70%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    | 75%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 76%    | 72%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145601.D | 1  | 05/01/18 11:30 | KC | 04/30/18 15:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.3 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 12     | 6.2     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 79%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-8                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.9     |
| <b>Method:</b>           | SW846 8151A SW846 8151/3546                |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #               | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | OA133304.D | 1  | 05/11/18 17:31 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2              |            |    |                |     |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.9 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 17   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.4  | 2.9  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.4  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.4  | 3.1  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.4  | 2.4  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 17   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 17   | 6.7  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1700 | 1500 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1700 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.7  | 1.2  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 17   | 9.9  | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 79%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 93%    |        | 10-159% |

(a) Sample extracted outside the holding time.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.9    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 6G56099.D | 1  | 05/11/18 02:51 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.8 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.68 | 0.56 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.68 | 0.55 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.68 | 0.62 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.68 | 0.65 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.68 | 0.50 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.68 | 0.55 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.68 | 0.31 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.68 | 0.47 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.68 | 0.63 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.68 | 0.60 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.68 | 0.60 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.68 | 0.53 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.68 | 0.53 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.68 | 0.39 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.68 | 0.39 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.68 | 0.43 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.68 | 0.59 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.68 | 0.48 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.4  | 0.54 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.68 | 0.49 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 71%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 68%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 104%   |        | 10-156% |

(a) Sample extracted outside the holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227822.D | 1  | 05/02/18 01:02 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.1 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 9.0 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 84%               |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 93%               |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 88%               |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 233% <sup>a</sup> |        | 10-166% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88783.D | 1  | 05/01/18 16:16 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.1 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 69.0   | 11     | 2.6     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 61%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 84%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 77%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-8                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 4.6    | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 31.7   | 22    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.26   | 0.22  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.55 | 0.55  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 6.5    | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 14.7   | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | 0.054  | 0.032 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 9.4    | 4.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.55 | 0.55  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 10.6   | 5.5   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 57.0   | 5.5   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6883
- (4) Prep QC Batch: MP6891

RL = Reporting Limit

4.11  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-8                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | 0.33   | 0.23 | mg/kg  | 1  | 05/02/18 16:33 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 463    | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 92.9   |      | %      | 1  | 05/01/18 15:00 | LV | SM2540 G-97        |

RL = Reporting Limit

4.11  
4



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-8R                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-25)                    |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-9                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 86.5    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 1C156646.D | 1  | 05/09/18 17:47 | PS | 04/30/18 15:00 | n/a        | V1C6910          |
| Run #2              |            |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.8 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                      | Result | RL   | MDL  | Units | Q |
|------------|-------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>          | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                       | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane            | ND     | 5.0  | 0.43 | ug/kg |   |
| 75-27-4    | Bromodichloromethane          | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                     | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>b</sup>     | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)              | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide <sup>b</sup> | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride          | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene                 | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                  | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                    | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane <sup>b</sup>    | ND     | 5.0  | 0.98 | ug/kg |   |
| 110-82-7   | Cyclohexane                   | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane   | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane          | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane             | ND     | 1.0  | 0.24 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene           | ND     | 1.0  | 0.51 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene           | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene           | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane       | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane            | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane            | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene            | ND     | 1.0  | 0.70 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene        | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene      | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane           | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene       | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene     | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                  | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                     | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                    | ND     | 5.0  | 2.8  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-25)                    | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-9                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 86.5    |
| <b>Method:</b> SW846 8260C SW846 5035                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### VOA TCL List

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene           | ND     | 2.0 | 0.25 | ug/kg |   |
| 79-20-9   | Methyl Acetate             | ND     | 5.0 | 2.5  | ug/kg |   |
| 108-87-2  | Methylcyclohexane          | ND     | 2.0 | 0.54 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether    | ND     | 1.0 | 0.43 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.49 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.63 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.76 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113%   |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 105%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%    |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.13  
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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-25)                    |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-9                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 86.5    |
| <b>Method:</b> SW846 8015C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | LM94702.D | 1  | 05/09/18 15:24 | KC | 04/30/18 15:00 | n/a        | GLM3851          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.1 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 14     | 7.1     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 96%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179605.D | 1  | 05/01/18 13:44 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.8 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 9.4  | 6.0  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.47 | 0.10 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 4.7  | 0.41 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 1.9  | 0.23 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 4.7  | 0.29 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 4.7  | 0.66 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 9.4  | 4.9  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 1.9  | 0.57 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 1.9  | 0.61 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 1.9  | 0.27 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 4.7  | 0.85 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 1.9  | 0.30 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 4.7  | 0.92 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 1.9  | 0.32 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 1.9  | 0.63 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 1.9  | 0.36 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.94 | 0.23 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.94 | 0.48 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.94 | 0.27 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.94 | 0.45 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 4.7  | 0.57 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.94 | 0.24 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.94 | 0.17 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 0.94 | 0.66 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 0.94 | 0.38 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 0.94 | 0.55 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 1.9  | 0.37 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 1.9  | 0.36 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 1.9  | 0.22 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.94 | 0.27 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 4.7  | 0.63 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 4.7  | 2.6  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8260C SW846 5035                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

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### VOA TCL List

| CAS No.   | Compound                            | Result | RL   | MDL  | Units | Q |
|-----------|-------------------------------------|--------|------|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 1.9  | 0.23 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 4.7  | 2.4  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 1.9  | 0.51 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 0.94 | 0.40 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 4.7  | 1.7  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 4.7  | 2.3  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 1.9  | 0.46 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 1.9  | 0.24 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 1.9  | 0.60 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 0.94 | 0.51 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 4.7  | 0.94 | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 4.7  | 0.94 | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 1.9  | 0.54 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 1.9  | 0.39 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 0.94 | 0.51 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 4.7  | 0.45 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 1.9  | 0.72 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 0.94 | 0.51 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 0.94 | 0.24 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 0.94 | 0.24 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 113%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130529.D | 1  | 05/10/18 22:50 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                 | 31.6   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 115    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 119    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 156    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 107    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 57.1   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 5.8    | 72  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 16.2   | 72  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (2-6)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-10                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                          | Result | RL  | MDL | Units | Q |
|-----------|-----------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                       | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                          | 124    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane        | ND     | 72  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether           | ND     | 72  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)      | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether       | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine            | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                       | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene            | 25.4   | 36  | 16  | ug/kg | J |
| 132-64-9  | Dibenzofuran                      | 16.8   | 72  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate              | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup> | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                 | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate        | ND     | 72  | 8.5 | ug/kg |   |
| 206-44-0  | Fluoranthene                      | 262    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                          | ND     | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                 | ND     | 72  | 9.2 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene               | ND     | 36  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene         | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                  | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene            | 115    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                        | ND     | 72  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene               | 8.7    | 36  | 8.2 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                    | ND     | 180 | 8.6 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                    | ND     | 180 | 9.1 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                    | ND     | 180 | 9.4 | ug/kg |   |
| 91-20-3   | Naphthalene                       | 12.9   | 36  | 10  | ug/kg | J |
| 98-95-3   | Nitrobenzene                      | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine        | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine            | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                      | 136    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                            | 251    | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene        | ND     | 180 | 9.2 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 78%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 78%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 94%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 79%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145602.D | 1  | 05/01/18 11:56 | KC | 04/30/18 15:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 10.5 g         | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 11     | 5.6     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 80%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (2-6)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-10                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.0     |
| <b>Method:</b>           | SW846 8151A SW846 8151/3546                |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | OA133305.D | 1  | 05/11/18 18:00 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.5 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.5  | 3.0  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.5  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.5  | 3.2  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.5  | 2.5  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 6.9  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 10   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 52%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 56%    |        | 10-159% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G56100.D | 1  | 05/11/18 03:09 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.5 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.70 | 0.58 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.70 | 0.57 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.70 | 0.63 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.70 | 0.67 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.70 | 0.52 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.70 | 0.57 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.70 | 0.32 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.70 | 0.48 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.70 | 0.64 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.70 | 0.62 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.70 | 0.62 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.70 | 0.54 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.70 | 0.55 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.70 | 0.40 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.70 | 0.40 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.70 | 0.44 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.70 | 0.60 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.70 | 0.49 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.4  | 0.56 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.70 | 0.51 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 75%               |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 82%               |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 74%               |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 255% <sup>a</sup> |        | 10-156% |

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227823.D | 1  | 05/02/18 01:19 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.2 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 36 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 36 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 36 | 9.6 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 36 | 5.7 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 36 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 36 | 8.8 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 36 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 36 | 5.3 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 36 | 2.7 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 108%   |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 113%   |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 135%   |        | 10-166% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88784.D | 1  | 05/01/18 16:49 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.9 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 10.5   | 10     | 2.4     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 63%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 86%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 79%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> TP-100 (2-6)<br><b>Lab Sample ID:</b> JC65058-10<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/26/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.0 |
|---|--|

### Metals Analysis

| Analyte   | Result  | RL    | Units | DF | Prep     | Analized By | Method                      | Prep Method              |
|-----------|---------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.1   | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 4.3     | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 35.3    | 21    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.45    | 0.21  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.53  | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 7.6     | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 11.2    | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | < 0.032 | 0.032 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 11.7    | 4.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.1   | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.53  | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.1   | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 12.9    | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 63.7    | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6883
- (4) Prep QC Batch: MP6891

RL = Reporting Limit

4.14  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | < 0.20 | 0.20 | mg/kg  | 1  | 05/02/18 16:37 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 1080   | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 92     |      | %      | 1  | 05/01/18 15:00 | LV | SM2540 G-97        |

RL = Reporting Limit

4.14  
4



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10R                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179607.D | 1  | 05/01/18 15:07 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.4 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 10   | 6.6  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.60   | 0.51 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.1  | 0.45 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.1  | 0.25 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.1  | 0.32 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.1  | 0.72 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.4  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.1  | 0.63 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.1  | 0.67 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.1  | 0.30 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.1  | 0.93 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.1  | 0.33 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.1  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.1  | 0.35 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.1  | 0.69 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.1  | 0.39 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.53 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.30 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.49 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.1  | 0.63 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.27 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.73 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.41 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.60 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.1  | 0.41 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.1  | 0.40 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.1  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.30 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.1  | 0.69 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.1  | 2.9  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-105 (8-15)                              | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-11                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 89.9     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.1 | 2.6  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.1 | 0.56 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.0 | 0.44 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.1 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.1 | 2.6  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.1 | 0.51 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.1 | 0.26 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.1 | 0.66 | ug/kg |   |
| 108-88-3  | Toluene                             | 0.65   | 1.0 | 0.56 | ug/kg | J |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.1 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.1 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.1 | 0.60 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.1 | 0.43 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.0 | 0.56 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.1 | 0.49 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.1 | 0.79 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.0 | 0.56 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.0 | 0.26 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.0 | 0.26 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 93%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 111%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130525.D | 1  | 05/10/18 21:02 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.7 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 24.6   | 36  | 18  | ug/kg | J |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                 | 32.8   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 147    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 162    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 195    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 159    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 91.3   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 6.7    | 72  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 12.8   | 72  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 89.9    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                          | Result | RL  | MDL | Units | Q |
|-----------|-----------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                       | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                          | 141    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane        | ND     | 72  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether           | ND     | 72  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)      | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether       | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine            | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                       | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene            | 32.8   | 36  | 16  | ug/kg | J |
| 132-64-9  | Dibenzofuran                      | ND     | 72  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate              | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup> | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                 | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate        | ND     | 72  | 8.5 | ug/kg |   |
| 206-44-0  | Fluoranthene                      | 294    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                          | ND     | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                 | ND     | 72  | 9.2 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene               | ND     | 36  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene         | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                  | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene            | 163    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                        | ND     | 72  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene               | 8.9    | 36  | 8.2 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                    | ND     | 180 | 8.6 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                    | ND     | 180 | 9.1 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                    | ND     | 180 | 9.4 | ug/kg |   |
| 91-20-3   | Naphthalene                       | 34.7   | 36  | 10  | ug/kg | J |
| 98-95-3   | Nitrobenzene                      | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine        | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine            | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                      | 126    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                            | 279    | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene        | ND     | 180 | 9.2 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 68%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.16  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |                                |
| <b>Lab Sample ID:</b> JC65058-11                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 69%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 75%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 70%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 72%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 66%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145609.D | 1  | 05/01/18 15:13 | KC | 04/30/18 15:00 | n/a        | GPF4600          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.3 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 13     | 6.6     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 80%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |                                |
| <b>Lab Sample ID:</b> JC65058-11                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3546                 | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | OA133306.D | 1  | 05/11/18 18:29 | VDT | 05/10/18 11:45 | OP11920    | GOA4567          |
| Run #2 | OA133326.D | 2  | 05/14/18 12:24 | VDT | 05/10/18 11:45 | OP11920    | GOA4568          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.8 g         | 5.0 ml       |
| Run #2 | 15.8 g         | 5.0 ml       |

### Herbicide List

| CAS No.   | Compound          | Result            | RL   | MDL  | Units | Q |
|-----------|-------------------|-------------------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND                | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND                | 3.5  | 3.0  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND                | 3.5  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND                | 3.5  | 3.2  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND                | 3.5  | 2.5  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND                | 18   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND                | 18   | 6.9  | ug/kg |   |
| 94-74-6   | MCPA              | ND                | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND                | 1800 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | 21.5 <sup>a</sup> | 3.5  | 2.5  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND                | 18   | 10   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 24%    | 28%    | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 32%    | 32%    | 10-159% |

(a) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G56101.D | 1  | 05/11/18 03:27 | CP | 05/10/18 08:00 | OP11917    | G6G1681          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.5 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.72 | 0.59 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.72 | 0.58 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.72 | 0.65 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.72 | 0.69 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.72 | 0.53 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.72 | 0.58 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.72 | 0.33 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.72 | 0.49 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.72 | 0.66 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.72 | 0.63 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.72 | 0.64 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.72 | 0.56 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.72 | 0.56 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.72 | 0.41 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.72 | 0.41 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.72 | 0.45 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.72 | 0.62 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.72 | 0.50 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.4  | 0.57 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.72 | 0.52 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 70%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 84%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 70%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 105%   |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | XX227828.D | 1  | 05/02/18 02:41 | TR | 05/01/18 10:30 | OP11668    | GXX6332          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.8 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 35 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 35 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 35 | 9.4 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 35 | 5.6 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 35 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 35 | 8.7 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 35 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 35 | 5.2 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 35 | 2.7 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 101%   |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 112%   |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 127%   |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | ZZ88785.D | 1  | 05/01/18 17:23 | CP | 04/30/18 13:50 | OP11656    | GZZ3198          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.3 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 12.2   | 11     | 2.6     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 60%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 82%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 75%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-11                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analized By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Antimony  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 3.3    | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 124    | 21    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.36   | 0.21  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.53 | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 7.1    | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 21.0   | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | 0.17   | 0.033 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 10.8   | 4.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.53 | 0.53  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 10.6   | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 43.5   | 5.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6883
- (4) Prep QC Batch: MP6891

RL = Reporting Limit

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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-11                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By | Method             |
|-------------------|--------|------|--------|----|----------------|----|--------------------|
| Cyanide           | 4.8    | 0.24 | mg/kg  | 1  | 05/02/18 16:38 | BM | SW846 9012B/LACHAT |
| Heat Content, BTU | 170    | 100  | BTU/lb | 1  | 05/10/18 22:00 | HS | ASTM D240-92       |
| Solids, Percent   | 89.9   |      | %      | 1  | 05/01/18 15:00 | LV | SM2540 G-97        |

RL = Reporting Limit

4.16  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-11R                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (2-5) (9-13)                        | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-12                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.0     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179608.D | 1  | 05/01/18 15:36 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.8 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 9.9  | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.37   | 0.50 | 0.11 | ug/kg | J |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.43 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 9.9  | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | 0.83   | 2.0  | 0.60 | ug/kg | J |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.64 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.89 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.98 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.99 | 0.24 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.99 | 0.51 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.99 | 0.28 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.99 | 0.47 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.60 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.99 | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.99 | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 0.99 | 0.70 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 0.99 | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 0.99 | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.39 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.23 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.99 | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (2-5) (9-13)                        | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-12                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.0     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL   | MDL  | Units | Q |
|-----------|-------------------------------------|--------|------|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.0  | 0.54 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 0.99 | 0.42 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.0  | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.0  | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.0  | 0.49 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.0  | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.0  | 0.63 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 0.99 | 0.54 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.0  | 0.99 | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.0  | 0.99 | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.0  | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.0  | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 0.99 | 0.54 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.0  | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.0  | 0.76 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 0.99 | 0.54 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 0.99 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 0.99 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 94%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 109%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130569.D | 1  | 05/11/18 19:24 | CC | 04/30/18 16:00 | OP11648    | EZ6441           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 76  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 67  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 76  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 76  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 76  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 33.2   | 38  | 13  | ug/kg | J |
| 208-96-8  | Acenaphthylene             | 235    | 38  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | 45.9   | 190 | 8.1 | ug/kg | J |
| 120-12-7  | Anthracene                 | 494    | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 76  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 2070   | 38  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 1870   | 38  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 2250   | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 1490   | 38  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 828    | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 76  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | 14.9   | 76  | 9.2 | ug/kg | J |
| 92-52-4   | 1,1'-Biphenyl              | 18.8   | 76  | 5.2 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | 17.4   | 190 | 9.4 | ug/kg | J |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 76  | 9.0 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                  | 85.6   | 76  | 5.5 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (2-5) (9-13)                        | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-12                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>                | ND     | 76  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1690   | 38  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 76  | 8.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 76  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 76  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 76  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>         | ND     | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 76  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 380    | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 97.7   | 76  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate <sup>a</sup>       | ND     | 76  | 6.2 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup>       | ND     | 76  | 9.4 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 76  | 8.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 76  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate              | ND     | 76  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 3280   | 38  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                                | 148    | 38  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 76  | 9.6 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                     | ND     | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene               | ND     | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1770   | 38  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 76  | 8.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 95.5   | 38  | 8.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>             | ND     | 190 | 8.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 190 | 9.5 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                          | ND     | 190 | 9.8 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 499    | 38  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 76  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 76  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 1500   | 38  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 3510   | 38  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>b</sup> | ND     | 190 | 9.6 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 81%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 83%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 89%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 88%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3546                 | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1              | 3G116242.D | 1  | 05/03/18 00:50 | VDT | 05/01/18 16:15 | OP11676    | G3G4035          |
| Run #2              | OA133517.D | 4  | 05/24/18 12:42 | VDT | 05/01/18 09:30 | OP11676    | GOA4576          |
| Run #3 <sup>a</sup> | OA133509.D | 2  | 05/24/18 08:30 | VDT | 05/23/18 06:20 | OP12193    | GOA4576          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.4 g         | 5.0 ml       |
| Run #2 | 15.4 g         | 5.0 ml       |
| Run #3 | 15.5 g         | 5.0 ml       |

**Herbicide List**

| CAS No.   | Compound          | Result            | RL   | MDL  | Units | Q |
|-----------|-------------------|-------------------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND                | 19   | 13   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND                | 3.7  | 3.2  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND                | 3.7  | 1.7  | ug/kg |   |
| 75-99-0   | Dalapon           | ND                | 3.7  | 3.4  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND                | 3.7  | 2.7  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND                | 19   | 11   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND                | 19   | 7.4  | ug/kg |   |
| 94-74-6   | MCPA              | ND                | 1900 | 1700 | ug/kg |   |
| 93-65-2   | MCPP              | ND                | 1900 | 1700 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | 19.2 <sup>b</sup> | 7.5  | 5.4  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND                | 19   | 11   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1            | Run# 2            | Run# 3 | Limits  |
|------------|----------------------|-------------------|-------------------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 332% <sup>c</sup> | 199% <sup>c</sup> | 58%    | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 196% <sup>c</sup> | 208% <sup>c</sup> | 104%   | 10-159% |

- (a) Confirmation run.
- (b) Result is from Run# 2
- (c) Outside of in house control limits, refer to re-extract.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 1G145824.D | 1  | 05/02/18 07:02 | DM | 05/01/18 09:00 | OP11667    | G1G4635          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.77 | 0.63 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.77 | 0.62 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.77 | 0.69 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.77 | 0.74 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.77 | 0.56 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.77 | 0.62 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.77 | 0.35 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.77 | 0.53 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.77 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.77 | 0.67 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.77 | 0.68 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.77 | 0.60 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.77 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.77 | 0.43 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.77 | 0.44 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.77 | 0.48 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.77 | 0.66 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.77 | 0.54 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.61 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.77 | 0.55 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 19   | 18   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 136%   |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 91%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G163181.D | 1  | 05/09/18 23:09 | TR | 05/05/18 09:20 | OP11775    | G2G4328          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.3 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 35 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 35 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 35 | 9.4 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 35 | 5.6 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 35 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 35 | 8.7 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 35 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 35 | 5.2 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 35 | 2.7 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 98%               |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 95%               |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 74%               |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 202% <sup>a</sup> |        | 10-166% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte               | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------------------|--------|-------|-------|----|----------|-------------|--------|---|
| Aluminum              | 5430   | 56    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Antimony              | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Arsenic               | 3.9    | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Barium                | 108    | 22    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Beryllium             | 0.25   | 0.22  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cadmium               | < 0.56 | 0.56  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Calcium               | 61100  | 1700  | mg/kg | 3  | 04/30/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Chromium <sup>a</sup> | 9.1    | 3.3   | mg/kg | 3  | 04/30/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Cobalt                | < 5.6  | 5.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Copper                | 13.4   | 2.8   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Iron                  | 12800  | 56    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Lead                  | 14.2   | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Magnesium             | 23900  | 560   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Manganese             | 1500   | 5.0   | mg/kg | 3  | 04/30/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Mercury               | 0.055  | 0.034 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP     | SW846 7471B <sup>1</sup> SW846 7471B <sup>5</sup> |
| Nickel                | 11.8   | 4.5   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Potassium             | 1160   | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Selenium              | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Silver                | < 0.56 | 0.56  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Sodium                | < 1100 | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Thallium <sup>a</sup> | < 3.3  | 3.3   | mg/kg | 3  | 04/30/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Vanadium              | 12.4   | 5.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Zinc                  | 46.8   | 5.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Instrument QC Batch: MA44327
- (4) Prep QC Batch: MP6883
- (5) Prep QC Batch: MP6891

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

4.18  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-12R                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 92.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179609.D | 1  | 05/01/18 16:04 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 6.8 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL   | Units | Q |
|------------|-----------------------------|--------|------|-------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 7.9  | 5.1   | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.40 | 0.085 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 4.0  | 0.34  | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 1.6  | 0.19  | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 4.0  | 0.25  | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 4.0  | 0.56  | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 7.9  | 4.1   | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 1.6  | 0.48  | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 1.6  | 0.51  | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 1.6  | 0.23  | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 4.0  | 0.72  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 1.6  | 0.26  | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 4.0  | 0.78  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 1.6  | 0.27  | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 1.6  | 0.53  | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 1.6  | 0.30  | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.79 | 0.19  | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.79 | 0.41  | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.79 | 0.23  | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.79 | 0.38  | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 4.0  | 0.48  | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.79 | 0.21  | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.79 | 0.14  | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 0.79 | 0.56  | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 0.79 | 0.32  | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 0.79 | 0.46  | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 1.6  | 0.31  | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 1.6  | 0.30  | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 1.6  | 0.19  | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.79 | 0.23  | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 4.0  | 0.53  | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 4.0  | 2.2   | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (2-6)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-13                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.8     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL   | MDL  | Units | Q |
|-----------|-------------------------------------|--------|------|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 1.6  | 0.20 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 4.0  | 2.0  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 1.6  | 0.43 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 0.79 | 0.34 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 4.0  | 1.4  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 4.0  | 2.0  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 1.6  | 0.39 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 1.6  | 0.20 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 1.6  | 0.50 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 0.79 | 0.43 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 4.0  | 0.79 | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 4.0  | 0.79 | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 1.6  | 0.46 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 1.6  | 0.33 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 0.79 | 0.43 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 4.0  | 0.38 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 1.6  | 0.61 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 0.79 | 0.43 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 0.79 | 0.20 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 0.79 | 0.20 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 97%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 110%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130526.D | 1  | 05/10/18 21:29 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 38  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 96  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.7 | ug/kg |   |
| 120-12-7  | Anthracene                 | 23.0   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 127    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 146    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 192    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 138    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 71.8   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 72  | 4.9 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 8.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.5 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 20.0   | 72  | 5.2 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

### Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                          | Result | RL  | MDL | Units | Q |
|-----------|-----------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                       | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                          | 131    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane        | ND     | 72  | 7.7 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether           | ND     | 72  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)      | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether       | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine            | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                       | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene            | 31.5   | 36  | 16  | ug/kg | J |
| 132-64-9  | Dibenzofuran                      | ND     | 72  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate              | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup> | ND     | 72  | 8.9 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                 | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate        | ND     | 72  | 8.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                      | 249    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                          | ND     | 36  | 16  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                 | ND     | 72  | 9.1 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene               | ND     | 36  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene         | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                  | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene            | 131    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                        | ND     | 72  | 7.7 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene               | ND     | 36  | 8.1 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                    | ND     | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                    | ND     | 180 | 9.0 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                    | ND     | 180 | 9.3 | ug/kg |   |
| 91-20-3   | Naphthalene                       | ND     | 36  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                      | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine        | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine            | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                      | 100    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                            | 241    | 36  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene        | ND     | 180 | 9.1 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 79%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.20  
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## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 82%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 88%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8151A SW846 8151/3546                 |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | 3G116201.D | 1  | 05/01/18 21:00 | VDT | 05/01/18 16:15 | OP11676    | G3G4034          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.3 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.5  | 3.0  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.5  | 1.6  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.5  | 3.2  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.5  | 2.5  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 10   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 6.9  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1600 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 10   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 88%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 87%    |        | 10-159% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 1G145825.D | 1  | 05/02/18 07:20 | DM | 05/01/18 09:00 | OP11667    | G1G4635          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.3 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.66 | 0.54 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.66 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.66 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.66 | 0.63 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.66 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.66 | 0.53 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.66 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.66 | 0.45 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.66 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.66 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.66 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.66 | 0.51 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.66 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.66 | 0.37 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.66 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.66 | 0.41 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.66 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.66 | 0.46 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.66 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 15   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 86%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 131%   |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 92.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162968.D | 1  | 05/07/18 17:29 | TR | 05/05/18 09:20 | OP11775    | G2G4326          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.0 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 36 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 36 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 36 | 9.6 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 36 | 5.7 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 36 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 36 | 8.8 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 36 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 36 | 5.3 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 36 | 2.7 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 88%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 92%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> TP-100 (2-6)<br><b>Lab Sample ID:</b> JC65058-13<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.8 |
|---|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------|--------|-------|-------|----|----------|-------------|--------|---|
| Aluminum  | 4820   | 54    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Antimony  | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Arsenic   | 3.3    | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Barium    | 28.3   | 22    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Beryllium | 0.28   | 0.22  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cadmium   | < 0.54 | 0.54  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Calcium   | 105000 | 2700  | mg/kg | 5  | 04/30/18 | 05/03/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Chromium  | 6.6    | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cobalt    | < 5.4  | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Copper    | 17.1   | 2.7   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Iron      | 10200  | 54    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Lead      | 15.6   | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Magnesium | 36300  | 540   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Manganese | 483    | 1.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Mercury   | 0.034  | 0.034 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP     | SW846 7471B <sup>1</sup> SW846 7471B <sup>5</sup> |
| Nickel    | 8.5    | 4.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Potassium | 1270   | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Selenium  | < 2.2  | 2.2   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Silver    | < 0.54 | 0.54  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Sodium    | < 1100 | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Vanadium  | 11.4   | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Zinc      | 52.8   | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Instrument QC Batch: MA44334
- (4) Prep QC Batch: MP6883
- (5) Prep QC Batch: MP6891

RL = Reporting Limit

4.20  
4

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13A                          |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8260C SW846 1311                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2V50200.D | 5  | 04/30/18 14:38 | JP | 04/29/18 15:00 | GP12723    | V2V2002          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No.  | Compound             | Result | HW#  | MCL  | RL     | MDL     | Units | Q |
|----------|----------------------|--------|------|------|--------|---------|-------|---|
| 71-43-2  | Benzene              | ND     | D018 | 0.50 | 0.0025 | 0.00087 | mg/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | D035 | 200  | 0.10   | 0.024   | mg/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | D019 | 0.50 | 0.0050 | 0.0017  | mg/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | D021 | 100  | 0.0050 | 0.0012  | mg/l  |   |
| 67-66-3  | Chloroform           | ND     | D022 | 6.0  | 0.0050 | 0.0014  | mg/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | D027 | 7.5  | 0.0050 | 0.00087 | mg/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | D028 | 0.50 | 0.0050 | 0.0010  | mg/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | D029 | 0.70 | 0.0050 | 0.0024  | mg/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | D039 | 0.70 | 0.0050 | 0.0025  | mg/l  |   |
| 79-01-6  | Trichloroethene      | ND     | D040 | 0.50 | 0.0050 | 0.0013  | mg/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | D043 | 0.20 | 0.0050 | 0.0031  | mg/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106%   |        | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   |        | 64-135% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 72-122% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13A                          |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3510C                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2P79180.D | 1  | 05/06/18 03:06 | SB | 05/02/18 04:25 | OP11697    | E2P3489          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 100 ml         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No.  | Compound              | Result | HW#  | MCL  | RL    | MDL    | Units | Q |
|----------|-----------------------|--------|------|------|-------|--------|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | D023 | 200  | 0.020 | 0.0089 | mg/l  |   |
|          | 3&4-Methylphenol      | ND     | D024 | 200  | 0.020 | 0.0088 | mg/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | D037 | 100  | 0.10  | 0.014  | mg/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | D041 | 400  | 0.050 | 0.013  | mg/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | D042 | 2.0  | 0.050 | 0.0092 | mg/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | D027 | 7.5  | 0.020 | 0.0017 | mg/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | D030 | 0.13 | 0.020 | 0.0055 | mg/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | D032 | 0.13 | 0.020 | 0.0033 | mg/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | D033 | 0.50 | 0.010 | 0.0049 | mg/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | D034 | 3.0  | 0.050 | 0.0039 | mg/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | D036 | 2.0  | 0.020 | 0.0064 | mg/l  |   |
| 110-86-1 | Pyridine              | ND     | D038 | 5.0  | 0.020 | 0.0039 | mg/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 40%    |        | 14-88%  |
| 4165-62-2 | Phenol-d5            | 31%    |        | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 98%    |        | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 72%    |        | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    |        | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 86%    |        | 10-126% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-13A                          |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3510C                |  | <b>Percent Solids:</b> 92.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | OA133179.D | 1  | 05/04/18 19:32 | VDT | 05/03/18 10:55 | OP11688    | GOA4562          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 ml        | 2.5 ml       |
| Run #2 |                |              |

## Herbicide TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No. | Compound          | Result | HW#  | MCL | RL     | MDL     | Units | Q |
|---------|-------------------|--------|------|-----|--------|---------|-------|---|
| 94-75-7 | 2,4-D             | ND     | D016 | 10  | 0.0042 | 0.0012  | mg/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | D017 | 1.0 | 0.0012 | 0.00025 | mg/l  |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 96%    |        | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 104%   |        | 50-142% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13A                          |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8081B SW846 3510C                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 8G14793.D | 1  | 05/03/18 19:01 | CP | 05/03/18 05:30 | OP11692    | G8G483           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 ml        | 2.0 ml       |
| Run #2 |                |              |

## Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

| CAS No.    | Compound            | Result | HW#  | MCL    | RL       | MDL      | Units | Q |
|------------|---------------------|--------|------|--------|----------|----------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | D013 | 0.40   | 0.000067 | 0.000040 | mg/l  |   |
| 12789-03-6 | Chlordane           | ND     | D020 | 0.030  | 0.0033   | 0.0014   | mg/l  |   |
| 72-20-8    | Endrin              | ND     | D012 | 0.020  | 0.000067 | 0.000040 | mg/l  |   |
| 76-44-8    | Heptachlor          | ND     | D031 | 0.0080 | 0.000067 | 0.000030 | mg/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | D031 | 0.0080 | 0.000067 | 0.000040 | mg/l  |   |
| 72-43-5    | Methoxychlor        | ND     | D014 | 10     | 0.00013  | 0.000045 | mg/l  |   |
| 8001-35-2  | Toxaphene           | ND     | D015 | 0.50   | 0.0017   | 0.0011   | mg/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 80%    |        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 76%    |        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    |        | 10-137% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> TP-100 (2-6)<br><b>Lab Sample ID:</b> JC65058-13A<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.8 |
|--|--|

4.21  
4

**Metals Analysis, TCLP Leachate SW846 1311**

| Analyte  | Result    | HW#  | MCL  | RL      | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|-----------|------|------|---------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | < 0.50    | D004 | 5.0  | 0.50    | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 1.0     | D005 | 100  | 1.0     | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 0.025   | D006 | 1.0  | 0.025   | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 0.050   | D007 | 5.0  | 0.050   | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 0.50    | D008 | 5.0  | 0.50    | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.00020 | D009 | 0.20 | 0.00020 | mg/l  | 1  | 05/01/18 | 05/01/18 JA | SW846 7470A <sup>1</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 0.50    | D010 | 1.0  | 0.50    | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Silver   | < 0.050   | D011 | 5.0  | 0.050   | mg/l  | 5  | 04/30/18 | 05/01/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |

- (1) Instrument QC Batch: MA44302
- (2) Instrument QC Batch: MA44316
- (3) Prep QC Batch: MP6897
- (4) Prep QC Batch: MP6911

---

RL = Reporting Limit  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13A                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte                   | Result  | RL  | Units  | DF | Analyzed       | By | Method               |
|---------------------------|---------|-----|--------|----|----------------|----|----------------------|
| Corrosivity as pH         | 8.29 NC |     | su     | 1  | 05/08/18 12:51 | RB | SW846 9045D          |
| Cyanide Reactivity        | < 11    | 11  | mg/kg  | 1  | 05/02/18 15:28 | BM | SW846 CHAP7/9012 B   |
| Ignitability (Flashpoint) | > 200   |     | Deg. F | 1  | 05/07/18 14:55 | RB | SW846 1010A/ASTM D93 |
| Sulfide Reactivity        | < 110   | 110 | mg/kg  | 1  | 05/02/18 16:39 | MP | SW846 CHAP7/9034     |

RL = Reporting Limit

4.21  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13R                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 92.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

4.22  
4

### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179610.D | 1  | 05/01/18 16:33 | PS | 04/30/18 15:00 | n/a        | VY7766           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.1 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 11   | 7.1  | ug/kg |   |
| 71-43-2    | Benzene                     | 0.40   | 0.55 | 0.12 | ug/kg | J |
| 74-97-5    | Bromochloromethane          | ND     | 5.5  | 0.48 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.2  | 0.27 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.5  | 0.34 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.5  | 0.78 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 11   | 5.8  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.2  | 0.67 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.2  | 0.72 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.2  | 0.32 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.5  | 1.0  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.2  | 0.36 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.5  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.2  | 0.38 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.2  | 0.74 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.2  | 0.42 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.1  | 0.27 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.1  | 0.57 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.1  | 0.32 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.1  | 0.53 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.5  | 0.67 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.1  | 0.29 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.1  | 0.20 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.1  | 0.78 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.1  | 0.44 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.1  | 0.64 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.2  | 0.44 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.2  | 0.42 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.2  | 0.26 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.1  | 0.32 | ug/kg |   |
| 76-13-1    | Freon 113 <sup>c</sup>      | ND     | 5.5  | 0.74 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.5  | 3.1  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 88.8    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.2 | 0.27 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.5 | 2.8  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.2 | 0.60 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.1 | 0.47 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.5 | 2.0  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.5 | 2.8  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.2 | 0.55 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.2 | 0.28 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.2 | 0.70 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.1 | 0.60 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.5 | 1.1  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.5 | 1.1  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.2 | 0.64 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.2 | 0.46 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.1 | 0.60 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.5 | 0.53 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.2 | 0.84 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.1 | 0.61 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.1 | 0.28 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.1 | 0.28 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 95%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 94%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 110%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130570.D | 1  | 05/11/18 19:50 | CC | 04/30/18 16:00 | OP11648    | EZ6441           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.6 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 98  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 55.9   | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 223    | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | 19.6   | 180 | 7.9 | ug/kg | J |
| 120-12-7  | Anthracene                 | 344    | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 1410   | 37  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 1360   | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 1800   | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 1320   | 37  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 556    | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 24.7   | 74  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | 28.4   | 180 | 9.1 | ug/kg | J |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 112    | 74  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-105 (0-5)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-15                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>                | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1330   | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>         | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 37  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 285    | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 106    | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate <sup>a</sup>       | ND     | 74  | 6.0 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup>       | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 74  | 7.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate              | ND     | 74  | 8.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 2290   | 37  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                                | 97.1   | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 74  | 9.3 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                     | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene               | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1420   | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 56.2   | 37  | 8.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>             | ND     | 180 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.2 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                          | ND     | 180 | 9.5 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 199    | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 1140   | 37  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 2490   | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>b</sup> | ND     | 180 | 9.3 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 78%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-105 (0-5)<br><b>Lab Sample ID:</b> JC65058-15<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/26/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 88.8 |
|--|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 81%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 81%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 80%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-105 (0-5)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-15                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.8     |
| <b>Method:</b>           | SW846 8151A SW846 8151/3546                |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #1 | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | 3G116241.D | 1  | 05/03/18 00:22 | VDT | 05/01/18 16:15 | OP11676    | G3G4035          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.6 g         | 5.0 ml       |
| Run #2 |                |              |

## Herbicide List

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 18   | 12   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.6  | 3.1  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.6  | 1.7  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.6  | 3.3  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.6  | 2.6  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 18   | 11   | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 18   | 7.1  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1800 | 1600 | ug/kg |   |
| 93-65-2   | MCPPP             | ND     | 1800 | 1700 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | 2.3    | 1.8  | 1.3  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 18   | 11   | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 61%    |        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 67%    |        | 10-159% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 1G145826.D | 1  | 05/02/18 07:38 | DM | 05/01/18 09:00 | OP11667    | G1G4635          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.4 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.73 | 0.60 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.73 | 0.59 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.73 | 0.66 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.73 | 0.70 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.73 | 0.54 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.73 | 0.59 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.73 | 0.33 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.73 | 0.50 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.73 | 0.67 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.73 | 0.64 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.73 | 0.65 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.73 | 0.57 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.73 | 0.57 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.73 | 0.41 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.73 | 0.42 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.73 | 0.46 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.73 | 0.63 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.73 | 0.51 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.58 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.73 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 80%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 121%   |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 107%   |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162969.D | 1  | 05/07/18 17:46 | TR | 05/05/18 09:20 | OP11775    | G2G4326          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.6 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 34 | 14  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 34 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 34 | 9.1 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 34 | 5.4 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 34 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 34 | 8.3 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 34 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 34 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 34 | 2.6 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 69%               |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 71%               |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 59%               |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 225% <sup>a</sup> |        | 10-166% |

(a) Outside control limits due to matrix interference.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-15                           | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Aluminum  | 6870   | 54    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Antimony  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Arsenic   | 5.8    | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Barium    | 44.0   | 21    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Beryllium | 0.32   | 0.21  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cadmium   | < 0.54 | 0.54  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Calcium   | 58200  | 1600  | mg/kg | 3  | 04/30/18 | 05/02/18    | ND SW846 6010C <sup>3</sup> | SW846 3050B <sup>4</sup> |
| Chromium  | 11.1   | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Cobalt    | 5.4    | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Copper    | 30.4   | 2.7   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Iron      | 15600  | 54    | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Lead      | 94.4   | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Magnesium | 21300  | 540   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Manganese | 524    | 1.6   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Mercury   | 0.82   | 0.034 | mg/kg | 1  | 04/30/18 | 04/30/18    | DP SW846 7471B <sup>1</sup> | SW846 7471B <sup>5</sup> |
| Nickel    | 12.7   | 4.3   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Potassium | 1550   | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Selenium  | < 2.1  | 2.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Silver    | < 0.54 | 0.54  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Sodium    | < 1100 | 1100  | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Vanadium  | 16.9   | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |
| Zinc      | 88.3   | 5.4   | mg/kg | 1  | 04/30/18 | 05/01/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44305
- (2) Instrument QC Batch: MA44316
- (3) Instrument QC Batch: MA44327
- (4) Prep QC Batch: MP6883
- (5) Prep QC Batch: MP6891

RL = Reporting Limit

4.23  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-15R                          | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

4.24  
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### General Chemistry

| Analyte        | Result | RL   | Units | DF | Analyzed       | By  | Method       |
|----------------|--------|------|-------|----|----------------|-----|--------------|
| Percent Sulfur | < 0.10 | 0.10 | %     | 1  | 05/17/18 15:00 | JOO | ASTM D129-95 |

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

# Parameter Certification Exceptions

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

The following parameters included in this report are exceptions to NELAC certification. The certification status of each is indicated below.

| Parameter          | CAS# | Method             | Mat | Certification Status                                  |
|--------------------|------|--------------------|-----|---|
| Cyanide Reactivity |      | SW846 CHAP7/9012 B | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| Percent Sulfur     |      | ASTM D129-95       | SO  | SGS is not certified for this parameter. <sup>b</sup> |
| Sulfide Reactivity |      | SW846 CHAP7/9034   | SO  | SGS is not certified for this parameter. <sup>a</sup> |

- (a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

5.1  
5

|   |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
|---|--------------------------------|--|--------------------------|------|------|--------------------------|------------|--------|-----------------------------------|--|--------------------|--|--------------------------------|------|-------------------------------------|------|--------|--------------------|--|---|--------------------------|--------------|---|--|--|--|--|--|--|--|--|--|-------|-------|-----|--|--|--|--|--|--|--|--|
| Client / Reporting Information  |                                | Project Information                            |                          |      |      |                          |            |        |                                   |  |                    | Requested Analysis ( see TEST CODE sheet)                                    |                                |      |                                     |      |        |                    |  |   |                          | Matrix Codes |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Company Name<br>Arcadis   |                                | Project Name<br>NYSEG - Newark Former MGP Site |                          |      |      |                          |            |        |                                   |  |                    | 735763447785<br>JK-041818-67<br>JCB5058<br>050708270C<br>7325152151921519215 |                                |      |                                     |      |        |                    |  |   |                          | LAB USE ONLY |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Street Address<br>295 Woodcliff Dr. Suite 301   |                                | Street<br>125 N. Main St.                      |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              | Matrix Codes<br>DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED-Sediment<br>OI - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WP - Wipe<br>FB-Field Blank<br>EB-Equipment Blank<br>RB- Rinse Blank<br>TB-Trip Blank |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| City<br>Fairport NY   |                                | City<br>Newark NY                              |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| State<br>NY   |                                | State<br>NY                                    |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              | Billing Information ( if different from Report to)  |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Zip<br>14450  |                                | Company Name                                   |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              | Street Address  |  |  |  |  |  |  |  |  |  | City  | State | Zip |  |  |  |  |  |  |  |  |
| Project Contact<br>Jason Golubski   |                                | Project #<br>80013094.0006                     |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              | City  |  |  |  |  |  |  |  |  |  | State | Zip   |     |  |  |  |  |  |  |  |  |
| E-mail<br>Jason Golubski  |                                | Client Purchase Order #                        |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              | City  |  |  |  |  |  |  |  |  |  | State | Zip   |     |  |  |  |  |  |  |  |  |
| Phone #<br>315-671-9437   |                                | Attention:                                     |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Fax #   |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Sampler(s) Name(s)<br>Ryan Clare + Jesse Jones  |                                | Project Manager<br>Jason Golubski              |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Phone #   |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Lab Sample #  | Field ID / Point of Collection | MEOH/DI Vial #                                 | Collection               |      | Date | Time                     | Sampled by | Matrix | # of bottles                      | HCI  | NH <sub>4</sub> OH | HNO <sub>3</sub>   | H <sub>2</sub> SO <sub>4</sub> | NONE | DI Water                            | MEOH | ENCORE |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| 1   | TP-100 (8-10)                  | -  | 4-25-18                  | 1700 | RDC  | SO                       | 1          | 1      |                                   |  |                    |  |                                | 1    |                                     |      |        |                    | X  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| 2   | DUP-042518                     | -  | 4-25-18                  |      | RDC  | SO                       | 1          | 1      |                                   |  |                    |  |                                | 1    |                                     |      |        |                    | X  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| 3   | SB-108 (15-17)                 | -  | 4-26-18                  | 1200 | RDC  | SO                       | 1          | 1      |                                   |  |                    |  |                                | 1    |                                     |      |        |                    | X  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| 4   | SB-105 (13-15)                 | -  | 4-26-18                  | 1300 | RDC  | SO                       | 1          | 1      |                                   |  |                    |  |                                | 1    |                                     |      |        |                    | X  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
|   |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Turnaround Time ( Business days)  |                                |  |                          |      |      |                          |            |        |                                   | Data Deliverable Information   |                    |  |                                |      |                                     |      |        |                    |  | Comments / Special Instructions   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other _____ |                                |  |                          |      |      |                          |            |        |                                   | Approved by (SGS Project Manager) Date: _____<br><b>INITIAL ASSESSMENT</b> <u>[Signature]</u><br><b>LABEL VERIFICATION</b> _____ |                    |  |                                |      |                                     |      |        |                    |  | <input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms<br><input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format<br><input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____<br><input type="checkbox"/> NJ Data of Known Quality Protocol Reporting |                          |              |   |  |  |  |  |  |  | <b>Handwritten: HARBASAK PC</b><br><br>Sample inventory is verified upon receipt in the Laboratory |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Emergency & Rush T/A data available via LabLink   |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    | Commercial "A" = Results Only    Commercial "B" = Results + QC Summary<br>NJ Reduced = Results + QC Summary + Partial Raw data |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Sample Custody must be documented below each time samples change possession, including courier delivery.  |                                |  |                          |      |      |                          |            |        |                                   |  |                    |  |                                |      |                                     |      |        |                    | Date Time: _____   |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Relinquished by Sampler:<br>1 [Signature]   |                                |  | Date Time: 4-26-18 14:04 |      |      | Received By: [Signature] |            |        | Relinquished By:<br>2 [Signature] |  |                    | Date Time: 13:30   |                                |      | Received By: [Signature]            |      |        | Date Time: _____   |  |   | Received By: [Signature] |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Relinquished by Sampler:<br>3 [Signature]   |                                |  | Date Time: 4/27 9:15     |      |      | Received By: [Signature] |            |        | Relinquished By:<br>4 [Signature] |  |                    | Date Time: 4/26/18   |                                |      | Received By: [Signature]            |      |        | Date Time: _____   |  |   | Received By: [Signature] |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |
| Relinquished by:<br>5 [Signature]   |                                |  | Date Time: _____         |      |      | Received By: [Signature] |            |        | Custody Seal #                    |  |                    | <input type="checkbox"/> Intact    Preserved where applicable                |                                |      | <input type="checkbox"/> Not Intact |      |        | Cooler Temp. 3.5°C |  |   |                          |              |   |  |  |  |  |  |  |  |  |  |       |       |     |  |  |  |  |  |  |  |  |

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CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

FED. Estimating # 43357634117783
Both Client and Control # 041818-67
SGS Quote #
SGS Job # JC65058

Client / Reporting information, Project Information, Requested Analysis, Matrix Codes, Lab Sample #, Field ID / Point of Collection, MEQ/IDI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NiOH, NiOH2, HNO3, H2SO4, NONE, DI Water, MEQ/IDI, ENCORE, Turnaround Time, Data Deliverable Information, Comments / Special Instructions, Sample Custody must be documented below each time samples change possession including courier delivery.

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SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

Field ID # 4357 (344 778)
SGS Quote #
Batch/Order Control # DK-0418-67
SGS Job # JC65058

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Lab Use Only, Turnaround Time, Data Deliverable Information, Sample Custody, and Requisition/Release logs.

5.2
5

## SGS Sample Receipt Summary

**Job Number:** JC65058

**Client:** ARCADIS

**Project:** NYSEG - NEWARK FORMER MGP SITE, NEWA

**Date / Time Received:** 4/27/2018 9:15:00 AM

**Delivery Method:** FedEx

**Airbill #s:**

**Cooler Temps (Raw Measured) °C:** Cooler 1: (3.5);

**Cooler Temps (Corrected) °C:** Cooler 1: (5.0);

**Cooler Security**

- |                           | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |                       | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|---------------------------|-------------------------------------|-----------|--------------------------|-----------------------|-------------------------------------|-----------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

**Cooler Temperature**

- |                              | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |           |                          |
| 3. Cooler media:             | Ice (Bag)                           |           |                          |
| 4. No. Coolers:              | 1                                   |           |                          |

**Quality Control Preservation**

- |                                 | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|---------------------------------|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**

- |  | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|--|-------------------------------------|-----------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

**Sample Integrity - Condition**

- |                                  | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|----------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |           |                          |

**Sample Integrity - Instructions**

- |   | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:      pH 1-12: 216017      pH 12+: 208717      Other: (Specify)

Comments Soil volatiles was not collected according to 5035 specifications, VOA lab to prep from intact volume.

SM089-03  
Rev. Date 12/7/17

**JC65058: Chain of Custody**

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Responded to by: CSR: N/A

Response Date: Response Date: 4/27/2018

Response:

Response: Proceed with analysis

**JC65058: Chain of Custody**  
**Page 5 of 5**

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number  | Method             | Analyzed        | By | Prepped   | By | Test Codes                       |
|--|--------------------|-----------------|----|-----------|----|----------------------------------|
| JC65058-1 Collected: 25-APR-18 17:00 By: RC Received: 27-APR-18 By: AS<br>TP-100 (8-10)  |                    |                 |    |           |    |                                  |
| JC65058-1  | SM2540 G-97        | 30-APR-18 21:20 | JV |           |    | SOL104                           |
| JC65058-1  | SW846 8270D        | 07-MAY-18 21:52 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-1  | SW846 8270D        | 08-MAY-18 19:40 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-2 Collected: 25-APR-18 00:00 By: RC Received: 27-APR-18 By: AS<br>DUP-042518     |                    |                 |    |           |    |                                  |
| JC65058-2  | SM2540 G-97        | 30-APR-18 21:20 | JV |           |    | SOL104                           |
| JC65058-2  | SW846 8270D        | 07-MAY-18 23:30 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-2  | SW846 8270D        | 08-MAY-18 18:30 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-3 Collected: 26-APR-18 12:00 By: RC Received: 27-APR-18 By: AS<br>SB-108 (15-17) |                    |                 |    |           |    |                                  |
| JC65058-3  | SM2540 G-97        | 30-APR-18 21:20 | JV |           |    | SOL104                           |
| JC65058-3  | SW846 8270D        | 07-MAY-18 20:45 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-4 Collected: 26-APR-18 13:00 By: RC Received: 27-APR-18 By: AS<br>SB-105 (13-15) |                    |                 |    |           |    |                                  |
| JC65058-4  | SM2540 G-97        | 30-APR-18 21:20 | JV |           |    | SOL104                           |
| JC65058-4  | SW846 8270D        | 07-MAY-18 21:18 | CC | 30-APR-18 | LL | AB8270TCL20                      |
| JC65058-5 Collected: 25-APR-18 16:00 By: RC Received: 27-APR-18 By: AS<br>SB-104 (13-17) |                    |                 |    |           |    |                                  |
| JC65058-5  | SW846 7471B        | 30-APR-18 13:28 | DP | 30-APR-18 | DP | HG                               |
| JC65058-5  | SM2540 G-97        | 30-APR-18 21:20 | JV |           |    | SOL104                           |
| JC65058-5  | SW846 8015C        | 01-MAY-18 10:12 | KC |           |    | V8015GRO                         |
| JC65058-5  | SW846 8260C        | 01-MAY-18 11:48 | PS |           |    | V8260TCL20                       |
| JC65058-5  | SW846 8015C        | 01-MAY-18 14:04 | CP | 30-APR-18 | NT | B8015DRO                         |
| JC65058-5  | SW846 6010C        | 01-MAY-18 17:03 | ND | 30-APR-18 | RM | AG,AS,BA,CD,NI,PB,SB,SE,V,<br>ZN |
| JC65058-5  | SW846 8082A        | 01-MAY-18 21:12 | TR | 01-MAY-18 | FN | P8082PCB11                       |
| JC65058-5  | SW846 6010C        | 02-MAY-18 13:53 | ND | 30-APR-18 | RM | CR,TL                            |
| JC65058-5  | SW846 9012B/LACHAT | 02-MAY-18 16:29 | BM | 02-MAY-18 | RP | CN                               |
| JC65058-5  | SW846 8270D        | 07-MAY-18 19:36 | CC | 30-APR-18 | LL | AB8270TCL20                      |

5.3  
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### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number  | Method             | Analyzed        | By  | Prepped      | By | Test Codes                             |
|--|--------------------|-----------------|-----|--------------|----|--|
| JC65058-5  | ASTM D240-92       | 10-MAY-18 22:00 | HS  | 10-MAY-18 HP |    | BTU                                    |
| JC65058-5  | SW846 8081B        | 11-MAY-18 01:22 | CP  | 10-MAY-18 SA |    | P8081PESTTCL                           |
| JC65058-5  | SW846 8151A        | 11-MAY-18 16:06 | VDT | 10-MAY-18 NS |    | H8151FL                                |
| JC65058-6 Collected: 25-APR-18 16:10 By: RC Received: 27-APR-18 By: AS<br>SB-104 (5-9) |                    |                 |     |              |    |  |
| JC65058-6  | SW846 7471B        | 30-APR-18 13:30 | DP  | 30-APR-18 DP |    | HG                                     |
| JC65058-6  | SW846 8015C        | 01-MAY-18 10:38 | KC  |              |    | V8015GRO                               |
| JC65058-6  | SW846 8260C        | 01-MAY-18 12:17 | PS  |              |    | V8260TCL20                             |
| JC65058-6  | SW846 8015C        | 01-MAY-18 14:38 | CP  | 30-APR-18 NT |    | B8015DRO                               |
| JC65058-6  | SM2540 G-97        | 01-MAY-18 15:00 | LV  |              |    | SOL104                                 |
| JC65058-6  | SW846 6010C        | 01-MAY-18 17:06 | ND  | 30-APR-18 RM |    | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65058-6  | SW846 8082A        | 02-MAY-18 00:29 | TR  | 01-MAY-18 FN |    | P8082PCB11                             |
| JC65058-6  | SW846 9012B/LACHAT | 02-MAY-18 16:43 | BM  | 02-MAY-18 RP |    | CN                                     |
| JC65058-6  | SW846 8270D        | 09-MAY-18 03:44 | CS  | 30-APR-18 LL |    | AB8270TCL20                            |
| JC65058-6  | ASTM D240-92       | 10-MAY-18 22:00 | HS  | 10-MAY-18 HP |    | BTU                                    |
| JC65058-6  | SW846 8081B        | 11-MAY-18 02:16 | CP  | 10-MAY-18 SA |    | P8081PESTTCL                           |
| JC65058-6  | SW846 8270D        | 11-MAY-18 04:33 | CS  | 30-APR-18 LL |    | AB8270TCL20                            |
| JC65058-6  | SW846 8081B        | 11-MAY-18 11:58 | MH  | 10-MAY-18 SA |    | P8081PESTTCL                           |
| JC65058-6  | SW846 8151A        | 11-MAY-18 16:34 | VDT | 10-MAY-18 NS |    | H8151FL                                |
| JC65058-7 Collected: 25-APR-18 17:10 By: RC Received: 27-APR-18 By: AS<br>TP-100 (6-8) |                    |                 |     |              |    |  |
| JC65058-7  | SW846 7471B        | 30-APR-18 13:31 | DP  | 30-APR-18 DP |    | HG                                     |
| JC65058-7  | SW846 8015C        | 01-MAY-18 11:04 | KC  |              |    | V8015GRO                               |
| JC65058-7  | SW846 8260C        | 01-MAY-18 12:47 | PS  |              |    | V8260TCL20                             |
| JC65058-7  | SM2540 G-97        | 01-MAY-18 15:00 | LV  |              |    | SOL104                                 |
| JC65058-7  | SW846 8015C        | 01-MAY-18 15:11 | CP  | 30-APR-18 NT |    | B8015DRO                               |
| JC65058-7  | SW846 6010C        | 01-MAY-18 17:16 | ND  | 30-APR-18 RM |    | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65058-7  | SW846 8082A        | 02-MAY-18 00:46 | TR  | 01-MAY-18 FN |    | P8082PCB11                             |
| JC65058-7  | SW846 9012B/LACHAT | 02-MAY-18 16:31 | BM  | 02-MAY-18 RP |    | CN                                     |
| JC65058-7  | SW846 8270D        | 09-MAY-18 03:11 | CS  | 30-APR-18 LL |    | AB8270TCL20                            |
| JC65058-7  | ASTM D240-92       | 10-MAY-18 22:00 | HS  | 10-MAY-18 HP |    | BTU                                    |
| JC65058-7  | SW846 8081B        | 11-MAY-18 02:34 | CP  | 10-MAY-18 SA |    | P8081PESTTCL                           |
| JC65058-7  | SW846 8151A        | 11-MAY-18 17:03 | VDT | 10-MAY-18 NS |    | H8151FL                                |

5.3  
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### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

|   |                    |                 |     |           |    |  |
|---|--------------------|-----------------|-----|-----------|----|--|
| JC65058-8 Collected: 25-APR-18 17:15 By: RC Received: 27-APR-18 By: AS<br>TP-100 (8-10) |                    |                 |     |           |    |  |
| JC65058-8   | SW846 7471B        | 30-APR-18 13:33 | DP  | 30-APR-18 | DP | HG                                     |
| JC65058-8   | SW846 8015C        | 01-MAY-18 11:30 | KC  |           |    | V8015GRO                               |
| JC65058-8   | SW846 8260C        | 01-MAY-18 13:16 | PS  |           |    | V8260TCL20                             |
| JC65058-8   | SM2540 G-97        | 01-MAY-18 15:00 | LV  |           |    | SOL104                                 |
| JC65058-8   | SW846 8015C        | 01-MAY-18 16:16 | CP  | 30-APR-18 | NT | B8015DRO                               |
| JC65058-8   | SW846 6010C        | 01-MAY-18 17:19 | ND  | 30-APR-18 | RM | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65058-8   | SW846 8082A        | 02-MAY-18 01:02 | TR  | 01-MAY-18 | FN | P8082PCB11                             |
| JC65058-8   | SW846 9012B/LACHAT | 02-MAY-18 16:33 | BM  | 02-MAY-18 | RP | CN                                     |
| JC65058-8   | SW846 8270D        | 07-MAY-18 22:24 | CC  | 30-APR-18 | LL | AB8270TCL20                            |
| JC65058-8   | SW846 8270D        | 08-MAY-18 20:14 | CC  | 30-APR-18 | LL | AB8270TCL20                            |
| JC65058-8   | ASTM D240-92       | 10-MAY-18 22:00 | HS  | 10-MAY-18 | HP | BTU                                    |
| JC65058-8   | SW846 8081B        | 11-MAY-18 02:51 | CP  | 10-MAY-18 | SA | P8081PESTTCL                           |
| JC65058-8   | SW846 8151A        | 11-MAY-18 17:31 | VDT | 10-MAY-18 | NS | H8151FL                                |

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|--|--|--|--|--|--|--|
| JC65058-9 Collected: 26-APR-18 12:05 By: RC Received: 27-APR-18 By: AS<br>SB-108 (15-25) |  |  |  |  |  |  |
|--|--|--|--|--|--|--|

|           |             |                 |    |  |  |            |
|-----------|-------------|-----------------|----|--|--|------------|
| JC65058-9 | SW846 8015C | 09-MAY-18 15:24 | KC |  |  | V8015GRO   |
| JC65058-9 | SW846 8260C | 09-MAY-18 17:47 | PS |  |  | V8260TCL20 |
| JC65058-9 | SM2540 G-97 | 10-MAY-18 14:00 | LV |  |  | SOL104     |

|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| JC65058-10 Collected: 26-APR-18 12:30 By: RC Received: 27-APR-18 By: AS<br>TP-100 (2-6) |  |  |  |  |  |  |
|---|--|--|--|--|--|--|

|            |                    |                 |    |           |    |  |
|------------|--------------------|-----------------|----|-----------|----|--|
| JC65058-10 | SW846 7471B        | 30-APR-18 13:34 | DP | 30-APR-18 | DP | HG                                     |
| JC65058-10 | SW846 8015C        | 01-MAY-18 11:56 | KC |           |    | V8015GRO                               |
| JC65058-10 | SW846 8260C        | 01-MAY-18 13:44 | PS |           |    | V8260TCL20                             |
| JC65058-10 | SM2540 G-97        | 01-MAY-18 15:00 | LV |           |    | SOL104                                 |
| JC65058-10 | SW846 8015C        | 01-MAY-18 16:49 | CP | 30-APR-18 | NT | B8015DRO                               |
| JC65058-10 | SW846 6010C        | 01-MAY-18 17:22 | ND | 30-APR-18 | RM | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65058-10 | SW846 8082A        | 02-MAY-18 01:19 | TR | 01-MAY-18 | FN | P8082PCB11                             |
| JC65058-10 | SW846 9012B/LACHAT | 02-MAY-18 16:37 | BM | 02-MAY-18 | RP | CN                                     |
| JC65058-10 | ASTM D240-92       | 10-MAY-18 22:00 | HS | 10-MAY-18 | HP | BTU                                    |
| JC65058-10 | SW846 8270D        | 10-MAY-18 22:50 | CC | 30-APR-18 | LL | AB8270TCL20                            |

## Internal Sample Tracking Chronicle

Arcadis

**Job No:** JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

|                        |                 |     |              |              |
|------------------------|-----------------|-----|--------------|--------------|
| JC65058-10 SW846 8081B | 11-MAY-18 03:09 | CP  | 10-MAY-18 SA | P8081PESTTCL |
| JC65058-10 SW846 8151A | 11-MAY-18 18:00 | VDT | 10-MAY-18 NS | H8151FL      |

JC65058-11 Collected: 26-APR-18 13:10 By: RC      Received: 27-APR-18 By: AS  
 SB-105 (8-15)

|                               |                 |     |              |  |
|-------------------------------|-----------------|-----|--------------|--|
| JC65058-11 SW846 7471B        | 30-APR-18 13:35 | DP  | 30-APR-18 DP | HG                                     |
| JC65058-11 SM2540 G-97        | 01-MAY-18 15:00 | LV  |              | SOL104                                 |
| JC65058-11 SW846 8260C        | 01-MAY-18 15:07 | PS  |              | V8260TCL20                             |
| JC65058-11 SW846 8015C        | 01-MAY-18 15:13 | KC  |              | V8015GRO                               |
| JC65058-11 SW846 8015C        | 01-MAY-18 17:23 | CP  | 30-APR-18 NT | B8015DRO                               |
| JC65058-11 SW846 6010C        | 01-MAY-18 17:25 | ND  | 30-APR-18 RM | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65058-11 SW846 8082A        | 02-MAY-18 02:41 | TR  | 01-MAY-18 FN | P8082PCB11                             |
| JC65058-11 SW846 9012B/LACHAT | 02-MAY-18 16:38 | BM  | 02-MAY-18 RP | CN                                     |
| JC65058-11 SW846 8270D        | 10-MAY-18 21:02 | CC  | 30-APR-18 LL | AB8270TCL20                            |
| JC65058-11 ASTM D240-92       | 10-MAY-18 22:00 | HS  | 10-MAY-18 HP | BTU                                    |
| JC65058-11 SW846 8081B        | 11-MAY-18 03:27 | CP  | 10-MAY-18 SA | P8081PESTTCL                           |
| JC65058-11 SW846 8151A        | 11-MAY-18 18:29 | VDT | 10-MAY-18 NS | H8151FL                                |
| JC65058-11 SW846 8151A        | 14-MAY-18 12:24 | VDT | 10-MAY-18 NS | H8151FL                                |

JC65058-12 Collected: 25-APR-18 16:05 By: RC      Received: 27-APR-18 By: AS  
 SB-104 (2-5) (9-13)

|                        |                 |     |               |   |
|------------------------|-----------------|-----|---------------|---|
| JC65058-12 SW846 7471B | 30-APR-18 13:37 | DP  | 30-APR-18 DP  | HG  |
| JC65058-12 SW846 8260C | 01-MAY-18 15:36 | PS  |               | V8260TCL20  |
| JC65058-12 SW846 6010C | 01-MAY-18 17:28 | ND  | 30-APR-18 RM  | AG,AL,AS,BA,BE,CD,CO,CU,FE,<br>K,MG,NA,NI,PB,SB,SE,V,ZN |
| JC65058-12 SW846 8081B | 02-MAY-18 07:02 | DM  | 01-MAY-18 SLM | P8081PESTTCL  |
| JC65058-12 SW846 6010C | 02-MAY-18 13:57 | ND  | 30-APR-18 RM  | CA,CR,MN,TL   |
| JC65058-12 SM2540 G-97 | 02-MAY-18 14:15 | LV  |               | SOL104  |
| JC65058-12 SW846 8151A | 03-MAY-18 00:50 | VDT | 01-MAY-18 DH  | H8151FL   |
| JC65058-12 SW846 8082A | 09-MAY-18 23:09 | TR  | 05-MAY-18 NT  | P8082PCB11  |
| JC65058-12 SW846 8270D | 11-MAY-18 19:24 | CC  | 30-APR-18 LL  | AB8270TCL20   |
| JC65058-12 SW846 8151A | 24-MAY-18 08:30 | VDT | 23-MAY-18 SLM | H8151FL   |
| JC65058-12 SW846 8151A | 24-MAY-18 12:42 | VDT | 01-MAY-18 DH  | H8151FL   |

JC65058-13 Collected: 25-APR-18 17:05 By: RC      Received: 27-APR-18 By: AS  
 TP-100 (2-6)

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number | Method      | Analyzed        | By  | Prepped   | By  | Test Codes   |
|---------------|-------------|-----------------|-----|-----------|-----|--|
| JC65058-13    | SW846 7471B | 30-APR-18 13:41 | DP  | 30-APR-18 | DP  | HG   |
| JC65058-13    | SW846 8260C | 01-MAY-18 16:04 | PS  |           |     | V8260TCL20   |
| JC65058-13    | SW846 6010C | 01-MAY-18 17:31 | ND  | 30-APR-18 | RM  | AG,AL,AS,BA,BE,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN |
| JC65058-13    | SW846 8151A | 01-MAY-18 21:00 | VDT | 01-MAY-18 | FN  | H8151FL  |
| JC65058-13    | SW846 8081B | 02-MAY-18 07:20 | DM  | 01-MAY-18 | SLM | P8081PESTTCL   |
| JC65058-13    | SM2540 G-97 | 02-MAY-18 14:15 | LV  |           |     | SOL104   |
| JC65058-13    | SW846 6010C | 03-MAY-18 13:54 | ND  | 30-APR-18 | RM  | CA   |
| JC65058-13    | SW846 8082A | 07-MAY-18 17:29 | TR  | 05-MAY-18 | NT  | P8082PCB11   |
| JC65058-13    | SW846 8270D | 10-MAY-18 21:29 | CC  | 30-APR-18 | LL  | AB8270TCL20  |

JC65058-15 Collected: 26-APR-18 13:05 By: RC Received: 27-APR-18 By: AS  
 SB-105 (0-5)

|            |             |                 |     |           |     |  |
|------------|-------------|-----------------|-----|-----------|-----|--|
| JC65058-15 | SW846 7471B | 30-APR-18 13:43 | DP  | 30-APR-18 | DP  | HG   |
| JC65058-15 | SW846 8260C | 01-MAY-18 16:33 | PS  |           |     | V8260TCL20   |
| JC65058-15 | SW846 6010C | 01-MAY-18 17:34 | ND  | 30-APR-18 | RM  | AG,AL,AS,BA,BE,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN |
| JC65058-15 | SW846 8081B | 02-MAY-18 07:38 | DM  | 01-MAY-18 | SLM | P8081PESTTCL   |
| JC65058-15 | SW846 6010C | 02-MAY-18 14:01 | ND  | 30-APR-18 | RM  | CA   |
| JC65058-15 | SM2540 G-97 | 02-MAY-18 14:15 | LV  |           |     | SOL104   |
| JC65058-15 | SW846 8151A | 03-MAY-18 00:22 | VDT | 01-MAY-18 | FN  | H8151FL  |
| JC65058-15 | SW846 8082A | 07-MAY-18 17:46 | TR  | 05-MAY-18 | NT  | P8082PCB11   |
| JC65058-15 | SW846 8270D | 11-MAY-18 19:50 | CC  | 30-APR-18 | LL  | AB8270TCL20  |

JC65058-5R Collected: 25-APR-18 16:00 By: RC Received: 27-APR-18 By: AS  
 SB-104 (13-17)

JC65058-5R ASTM D129-95 17-MAY-18 15:00 JOO 16-MAY-18 HS SULFUR

JC65058-6R Collected: 25-APR-18 16:10 By: RC Received: 27-APR-18 By: AS  
 SB-104 (5-9)

JC65058-6R ASTM D129-95 17-MAY-18 15:00 JOO 16-MAY-18 HS SULFUR

JC65058-7R Collected: 25-APR-18 17:10 By: RC Received: 27-APR-18 By: AS  
 TP-100 (6-8)

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number   | Method               | Analyzed        | By  | Prepped      | By | Test Codes                  |
|---|----------------------|-----------------|-----|--------------|----|-----------------------------|
| JC65058-7R  | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 16-MAY-18 HS |    | SULFUR                      |
| JC65058-8R Collected: 25-APR-18 17:15 By: RC Received: 27-APR-18 By: AS<br>TP-100 (8-10)        |                      |                 |     |              |    |                             |
| JC65058-8R  | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 16-MAY-18 HS |    | SULFUR                      |
| JC65058-10R Collected: 26-APR-18 12:30 By: RC Received: 27-APR-18 By: AS<br>TP-100 (2-6)        |                      |                 |     |              |    |                             |
| JC65058-10R   | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 16-MAY-18 HS |    | SULFUR                      |
| JC65058-11R Collected: 26-APR-18 13:10 By: RC Received: 27-APR-18 By: AS<br>SB-105 (8-15)       |                      |                 |     |              |    |                             |
| JC65058-11R   | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 16-MAY-18 HS |    | SULFUR                      |
| JC65058-12R Collected: 25-APR-18 16:05 By: RC Received: 27-APR-18 By: AS<br>SB-104 (2-5) (9-13) |                      |                 |     |              |    |                             |
| JC65058-12R   | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 17-MAY-18 HS |    | SULFUR                      |
| JC65058-13R Collected: 25-APR-18 17:05 By: RC Received: 27-APR-18 By: AS<br>TP-100 (2-6)        |                      |                 |     |              |    |                             |
| JC65058-13R   | SW846 8260C          | 30-APR-18 14:38 | JP  | 29-APR-18 RB |    | V8260TCLP                   |
| JC65058-13R   | SW846 7470A          | 01-MAY-18 12:23 | JA  | 01-MAY-18 JA |    | EHG                         |
| JC65058-13R   | SW846 6010C          | 01-MAY-18 18:33 | ND  | 30-APR-18 RM |    | EAG,EAS,EBA,ECD,ECR,EPB,ESE |
| JC65058-13R   | SW846 CHAP7/9012 B   | 02-MAY-18 15:28 | BM  | 02-MAY-18 AC |    | CREAC                       |
| JC65058-13R   | SW846 CHAP7/9034     | 02-MAY-18 16:39 | MP  | 02-MAY-18 AC |    | SREAC                       |
| JC65058-13R   | SW846 8081B          | 03-MAY-18 19:01 | CP  | 03-MAY-18 MA |    | P8081TCLP                   |
| JC65058-13R   | SW846 8151A          | 04-MAY-18 19:32 | VDT | 03-MAY-18 JS |    | H8151TCLP                   |
| JC65058-13R   | SW846 8270D          | 06-MAY-18 03:06 | SB  | 02-MAY-18 YB |    | AB8270TCLP                  |
| JC65058-13R   | SW846 1010A/ASTM D97 | 07-MAY-18 14:55 | RB  |              |    | IGN                         |
| JC65058-13R   | SW846 9045D          | 08-MAY-18 12:51 | RB  |              |    | CORR                        |
| JC65058-13R Collected: 25-APR-18 17:05 By: RC Received: 27-APR-18 By: AS<br>TP-100 (2-6)        |                      |                 |     |              |    |                             |
| JC65058-13R   | ASTM D129-95         | 17-MAY-18 15:00 | JOO | 17-MAY-18 HS |    | SULFUR                      |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65058

NYSEG - Newark Former MGP Site, Newark, NY  
Project No: B0013094.0006

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

JC65058-15R Collected: 26-APR-18 13:05 By: RC Received: 27-APR-18 By: AS  
SB-105 (0-5)

JC65058-15R ASTM D129-95 17-MAY-18 15:00 JOO 17-MAY-18 HS SULFUR

5.3  
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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC65058-1.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-1.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-1.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-1.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-1.1          | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-1.1          | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-1.1          | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-1.1          | Secured Storage      | Jennifer Voitovitch  | 04/30/18 19:35 | Retrieve from Storage    |
| JC65058-1.1          | Jennifer Voitovitch  | Secured Storage      | 04/30/18 21:45 | Return to Storage        |
| JC65058-1.1.1        | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-1.1 |
| JC65058-1.1.1        | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-1.1 |
| JC65058-1.1.1        | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-1.1.1        | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-1.1.1        | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-1.1.1        | GCMSF                | John Boudreau        | 05/14/18 13:10 | Unload from Instrument   |
| JC65058-1.1.1        | John Boudreau        | Extract Freezer      | 05/14/18 13:10 | Return to Storage        |
| JC65058-2.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-2.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-2.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-2.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-2.1          | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-2.1          | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-2.1          | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-2.1          | Secured Storage      | Jennifer Voitovitch  | 04/30/18 19:35 | Retrieve from Storage    |
| JC65058-2.1          | Jennifer Voitovitch  | Secured Storage      | 04/30/18 21:45 | Return to Storage        |
| JC65058-2.1.1        | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-2.1 |
| JC65058-2.1.1        | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-2.1 |
| JC65058-2.1.1        | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-2.1.1        | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-2.1.1        | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-2.1.1        | GCMSF                | John Boudreau        | 05/14/18 13:10 | Unload from Instrument   |
| JC65058-2.1.1        | John Boudreau        | Extract Freezer      | 05/14/18 13:10 | Return to Storage        |
| JC65058-3.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-3.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-3.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-3.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-3.1          | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-3.1          | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-3.1          | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-3.1          | Secured Storage      | Jennifer Voitovitch  | 04/30/18 19:35 | Retrieve from Storage    |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC65058-3.1          | Jennifer Voitovitch  | Secured Storage      | 04/30/18 21:45 | Return to Storage        |
| JC65058-3.1.1        | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-3.1 |
| JC65058-3.1.1        | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-3.1 |
| JC65058-3.1.1        | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-3.1.1        | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-3.1.1        | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-3.1.1        | GCMSF                | John Boudreau        | 05/08/18 10:25 | Unload from Instrument   |
| JC65058-3.1.1        | John Boudreau        | Extract Storage      | 05/08/18 10:25 | Return to Storage        |
| JC65058-4.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-4.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-4.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-4.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-4.1          | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-4.1          | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-4.1          | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-4.1          | Secured Storage      | Jennifer Voitovitch  | 04/30/18 19:35 | Retrieve from Storage    |
| JC65058-4.1          | Jennifer Voitovitch  | Secured Storage      | 04/30/18 21:45 | Return to Storage        |
| JC65058-4.1.1        | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-4.1 |
| JC65058-4.1.1        | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-4.1 |
| JC65058-4.1.1        | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-4.1.1        | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-4.1.1        | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-4.1.1        | GCMSF                | John Boudreau        | 05/08/18 10:25 | Unload from Instrument   |
| JC65058-4.1.1        | John Boudreau        | Extract Storage      | 05/08/18 10:25 | Return to Storage        |
| JC65058-5.1          | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-5.1          | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-5.1          | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-5.1          | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-5.1          | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-5.1          | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-5.1          | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-5.1          | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage    |
| JC65058-5.1          | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage        |
| JC65058-5.1          | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage    |
| JC65058-5.1          | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer         |
| JC65058-5.1          | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65058-5.1          | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage    |
| JC65058-5.1          | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage        |
| JC65058-5.1          | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage    |
| JC65058-5.1          | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage        |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC65058-5.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage    |
| JC65058-5.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage        |
| JC65058-5.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65058-5.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage    |
| JC65058-5.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage        |
| JC65058-5.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage    |
| JC65058-5.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage    |
| JC65058-5.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage        |
| JC65058-5.1   | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage    |
| JC65058-5.1   | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage    |
| JC65058-5.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer         |
| JC65058-5.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65058-5.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage    |
| JC65058-5.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage        |
| JC65058-5.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage    |
| JC65058-5.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage    |
| JC65058-5.1   | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage        |
| JC65058-5.1   | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage    |
| JC65058-5.1   | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage        |
| JC65058-5.1   | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage    |
| JC65058-5.1   | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage        |
| Analyst unavailable for custody transfer.                             |                      |                      |                |                          |
| JC65058-5.1.1   | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-5.1 |
| JC65058-5.1.1   | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-5.1 |
| JC65058-5.1.1   | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-5.1.1   | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-5.1.1   | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-5.1.1   | GCMSF                | John Boudreau        | 05/08/18 10:25 | Unload from Instrument   |
| JC65058-5.1.1   | John Boudreau        | Extract Storage      | 05/08/18 10:25 | Return to Storage        |
| JC65058-5.1.2   | Chatiyah Canaday     | Organics Prep        | 04/30/18 13:24 | Extract from JC65058-5.1 |
| JC65058-5.1.2   | Organics Prep        | Natasha Torres       | 04/30/18 20:03 | Extract from JC65058-5.1 |
| JC65058-5.1.2   | Natasha Torres       | Extract Storage      | 04/30/18 20:03 | Return to Storage        |
| JC65058-5.1.2   | Extract Storage      | Christine Phillips   | 05/01/18 00:28 | Retrieve from Storage    |
| JC65058-5.1.2   | Christine Phillips   | GCZZ                 | 05/01/18 00:28 | Load on Instrument       |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65058-5.1.3        | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC65058-5.1   |
| JC65058-5.1.3        | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC65058-5.1   |
| JC65058-5.1.3        | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC65058-5.1.3        | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC65058-5.1.3        | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC65058-5.1.3        | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65058-5.1.3        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65058-5.1.4        | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-5.1 |
| JC65058-5.1.4        | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-5.1 |
| JC65058-5.1.4        | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65058-5.2          | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage      |
| JC65058-5.2          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage          |
| JC65058-5.2          | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage      |
| JC65058-5.2          | Radhika Mistry       | Secured Storage          | 04/30/18 09:34 | Return to Storage          |
| JC65058-5.2          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 19:35 | Retrieve from Storage      |
| JC65058-5.2          | Jennifer Voitovitch  | Secured Storage          | 04/30/18 21:45 | Return to Storage          |
| JC65058-5.2          | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65058-5.2          | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65058-5.2          | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65058-5.2          | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-5.2          | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65058-5.2.1        | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-5.2 |
| JC65058-5.2.1        | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-5.2 |
| JC65058-5.2.1        | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage          |
| JC65058-5.2.2        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-5.2   |
| JC65058-5.2.2        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-5.2   |
| JC65058-5.2.2        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65058-5.2.2        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65058-5.2.2        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65058-5.2.3        | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:23 | Extract from JC65058-5.2   |
| JC65058-5.2.3        | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-5.2   |
| JC65058-5.2.3        | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage          |
| JC65058-5.2.3        | Extract Storage      | Vincent Drago            | 05/11/18 14:38 | Retrieve from Storage      |
| JC65058-5.2.3        | Vincent Drago        | GCOA                     | 05/11/18 14:38 | Load on Instrument         |
| JC65058-5.3          | Secured Storage      | Krizhka Cuenta           | 04/30/18 15:01 | Retrieve from Storage      |
| JC65058-5.3          | Krizhka Cuenta       | Secured Storage          | 04/30/18 15:15 | Return to Storage          |
| JC65058-5.3          | Secured Storage      | Jayna Patel              | 05/01/18 07:36 | Retrieve from Storage      |
| JC65058-5.3          | Jayna Patel          | Secured Storage          | 05/01/18 08:30 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                 |
|---|----------------------|----------------------|----------------|------------------------|
| JC65058-5.4   | Secured Storage      | Krizhka Cuenta       | 05/01/18 09:23 | Retrieve from Storage  |
| JC65058-5.4   | Krizhka Cuenta       | Secured Storage      | 05/01/18 16:16 | Return to Storage      |
| JC65058-5.6   | Secured Storage      | Prashant Shukla      | 05/01/18 11:26 | Retrieve from Storage  |
| JC65058-5.6   | Prashant Shukla      | GCMSY                | 05/01/18 11:26 | Load on Instrument     |
| JC65058-5.6   | GCMSY                | Prashant Shukla      | 05/02/18 10:08 | Unload from Instrument |
| JC65058-5.6   | Prashant Shukla      |                      | 05/02/18 10:09 | Depleted               |
| JC65058-5.7   | Secured Storage      | Prashant Shukla      | 05/01/18 14:22 | Retrieve from Storage  |
| JC65058-5.7   | Prashant Shukla      | GCMSY                | 05/01/18 14:22 | Load on Instrument     |
| JC65058-5.7   | GCMSY                | Prashant Shukla      | 05/02/18 10:08 | Unload from Instrument |
| JC65058-5.7   | Prashant Shukla      |                      | 05/02/18 10:09 | Depleted               |
| JC65058-6.1   | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage  |
| JC65058-6.1   | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage  |
| JC65058-6.1   | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Chatayah Canaday     | 04/30/18 13:24 | Retrieve from Storage  |
| JC65058-6.1   | Chatayah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer       |
| JC65058-6.1   | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage  |
| JC65058-6.1   | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage  |
| JC65058-6.1   | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer       |
| JC65058-6.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage  |
| JC65058-6.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage  |
| JC65058-6.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage  |
| JC65058-6.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage  |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                        |
| JC65058-6.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage  |
| JC65058-6.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage  |
| JC65058-6.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage  |
| JC65058-6.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage      |
| JC65058-6.1   | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage  |
| JC65058-6.1   | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage      |
| JC65058-6.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage  |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC65058-6.1   | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-6.1   | Secured Storage      | Luis Villanueva          | 05/10/18 17:00 | Retrieve from Storage      |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |
| JC65058-6.1   | Luis Villanueva      | Secured Staging Area     | 05/10/18 17:00 | Return to Storage          |
| JC65058-6.1   | Secured Staging Area | Hans Seignon             | 05/10/18 18:41 | Retrieve from Storage      |
| JC65058-6.1   | Hans Seignon         | Secured Storage          | 05/10/18 23:05 | Return to Storage          |
| JC65058-6.1   | Secured Storage      | Dave Hunkele             | 05/12/18 10:20 | Retrieve from Storage      |
| JC65058-6.1   | Dave Hunkele         | Secured Staging Area     | 05/12/18 10:20 | Return to Storage          |
| JC65058-6.1   | Secured Staging Area | Jared O. Onindo          | 05/13/18 09:09 | Retrieve from Storage      |
| JC65058-6.1   | Jared O. Onindo      | Secured Storage          | 05/15/18 08:37 | Return to Storage          |
| JC65058-6.1   | Secured Storage      | Christopher Hall         | 05/15/18 18:25 | Retrieve from Storage      |
| JC65058-6.1   | Christopher Hall     | Secured Staging Area     | 05/15/18 18:25 | Return to Storage          |
| JC65058-6.1   | Secured Staging Area | Hans Seignon             | 05/16/18 17:08 | Retrieve from Storage      |
| JC65058-6.1   | Shirley Grzybowski   | Secured Storage          | 05/17/18 07:12 | Return to Storage          |
| Analyst unavailable for custody transfer.                             |                      |                          |                |                            |
| JC65058-6.1.1   | Sauvelson Auguste    | Organics Prep            | 04/30/18 11:42 | Extract from JC65058-6.1   |
| JC65058-6.1.1   | Organics Prep        | Lindsey Lee              | 04/30/18 21:59 | Extract from JC65058-6.1   |
| JC65058-6.1.1   | Lindsey Lee          | Extract Storage          | 04/30/18 21:59 | Return to Storage          |
| JC65058-6.1.1   | Extract Storage      | Christine Change         | 05/07/18 16:09 | Retrieve from Storage      |
| JC65058-6.1.1   | Christine Change     | GCMSF                    | 05/07/18 16:09 | Load on Instrument         |
| JC65058-6.1.1   | GCMSF                | Sufiyanu Ahmed           | 05/09/18 22:45 | Unload from Instrument     |
| JC65058-6.1.1   | Sufiyanu Ahmed       | Extract Freezer          | 05/09/18 22:45 | Return to Storage          |
| JC65058-6.1.2   | Chadiyah Canaday     | Organics Prep            | 04/30/18 13:24 | Extract from JC65058-6.1   |
| JC65058-6.1.2   | Organics Prep        | Natasha Torres           | 04/30/18 20:03 | Extract from JC65058-6.1   |
| JC65058-6.1.2   | Natasha Torres       | Extract Storage          | 04/30/18 20:03 | Return to Storage          |
| JC65058-6.1.2   | Extract Storage      | Christine Phillips       | 05/01/18 00:28 | Retrieve from Storage      |
| JC65058-6.1.2   | Christine Phillips   | GCZZ                     | 05/01/18 00:28 | Load on Instrument         |
| JC65058-6.1.3   | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC65058-6.1   |
| JC65058-6.1.3   | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC65058-6.1   |
| JC65058-6.1.3   | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC65058-6.1.3   | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC65058-6.1.3   | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC65058-6.1.3   | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65058-6.1.3   | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65058-6.1.4   | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-6.1 |
| JC65058-6.1.4   | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-6.1 |
| JC65058-6.1.4   | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65058-6.2   | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage      |
| JC65058-6.2   | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC65058-6.2   | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage      |
| JC65058-6.2   | Radhika Mistry       | Secured Storage          | 04/30/18 09:34 | Return to Storage          |
| JC65058-6.2   | Secured Storage      | Dwayne Johnson           | 05/01/18 11:16 | Retrieve from Storage      |
| JC65058-6.2   | Dwayne Johnson       | Secured Staging Area     | 05/01/18 11:16 | Return to Storage          |
| JC65058-6.2   | Secured Staging Area | Luis Villanueva          | 05/01/18 12:57 | Retrieve from Storage      |
| JC65058-6.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| JC65058-6.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |
| JC65058-6.2   | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65058-6.2   | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65058-6.2   | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65058-6.2   | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-6.2   | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65058-6.2.1   | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-6.2 |
| JC65058-6.2.1   | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-6.2 |
| JC65058-6.2.1   | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage          |
| JC65058-6.2.2   | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-6.2   |
| JC65058-6.2.2   | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-6.2   |
| JC65058-6.2.2   | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65058-6.2.2   | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65058-6.2.2   | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65058-6.2.2   | GC6G                 | Mailisi Heshuote         | 05/11/18 11:56 | Unload from Instrument     |
| JC65058-6.2.2   | Mailisi Heshuote     | GC8G                     | 05/11/18 11:56 | Load on Instrument         |
| JC65058-6.2.3   | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:23 | Extract from JC65058-6.2   |
| JC65058-6.2.3   | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-6.2   |
| JC65058-6.2.3   | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage          |
| JC65058-6.2.3   | Extract Storage      | Vincent Drago            | 05/11/18 14:38 | Retrieve from Storage      |
| JC65058-6.2.3   | Vincent Drago        | GCOA                     | 05/11/18 14:38 | Load on Instrument         |
| JC65058-6.3   | Secured Storage      | Krizhka Cuenta           | 04/30/18 15:01 | Retrieve from Storage      |
| JC65058-6.3   | Krizhka Cuenta       | Secured Storage          | 04/30/18 15:15 | Return to Storage          |
| JC65058-6.3   | Secured Storage      | Jayna Patel              | 05/01/18 07:36 | Retrieve from Storage      |
| JC65058-6.3   | Jayna Patel          | Secured Storage          | 05/01/18 08:30 | Return to Storage          |
| JC65058-6.4   | Secured Storage      | Krizhka Cuenta           | 05/01/18 09:23 | Retrieve from Storage      |
| JC65058-6.4   | Krizhka Cuenta       | Secured Storage          | 05/01/18 16:16 | Return to Storage          |
| JC65058-6.6   | Secured Storage      | Prashant Shukla          | 05/01/18 11:26 | Retrieve from Storage      |
| JC65058-6.6   | Prashant Shukla      | GCMSY                    | 05/01/18 11:26 | Load on Instrument         |
| JC65058-6.6   | GCMSY                | Prashant Shukla          | 05/02/18 10:08 | Unload from Instrument     |
| JC65058-6.6   | Prashant Shukla      |                          | 05/02/18 10:09 | Depleted                   |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                 |
|---|----------------------|----------------------|----------------|------------------------|
| JC65058-6.7   | Secured Storage      | Prashant Shukla      | 05/01/18 14:22 | Retrieve from Storage  |
| JC65058-6.7   | Prashant Shukla      | GCMSY                | 05/01/18 14:22 | Load on Instrument     |
| JC65058-6.7   | GCMSY                | Prashant Shukla      | 05/02/18 10:08 | Unload from Instrument |
| JC65058-6.7   | Prashant Shukla      |                      | 05/02/18 10:09 | Depleted               |
| JC65058-7.1   | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage  |
| JC65058-7.1   | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage  |
| JC65058-7.1   | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Chatiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage  |
| JC65058-7.1   | Chatiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer       |
| JC65058-7.1   | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage  |
| JC65058-7.1   | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage  |
| JC65058-7.1   | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer       |
| JC65058-7.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage  |
| JC65058-7.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage  |
| JC65058-7.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage  |
| JC65058-7.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage  |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                        |
| JC65058-7.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage  |
| JC65058-7.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage  |
| JC65058-7.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage  |
| JC65058-7.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage  |
| JC65058-7.1   | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage  |
| JC65058-7.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer       |
| JC65058-7.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage  |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                        |
| JC65058-7.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage      |
| JC65058-7.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage  |
| JC65058-7.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage      |
| JC65058-7.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage  |
| JC65058-7.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC65058-7.1   | Secured Staging Area | Jared O. Onindo          | 05/13/18 09:09 | Retrieve from Storage      |
| JC65058-7.1   | Jared O. Onindo      | Secured Storage          | 05/15/18 08:37 | Return to Storage          |
| JC65058-7.1   | Secured Storage      | Christopher Hall         | 05/15/18 18:25 | Retrieve from Storage      |
| JC65058-7.1   | Christopher Hall     | Secured Staging Area     | 05/15/18 18:25 | Return to Storage          |
| JC65058-7.1   | Secured Staging Area | Hans Seignon             | 05/16/18 17:08 | Retrieve from Storage      |
| JC65058-7.1   | Shirley Grzybowski   | Secured Storage          | 05/17/18 07:12 | Return to Storage          |
| Analyst unavailable for custody transfer.                             |                      |                          |                |                            |
| JC65058-7.1.1   | Sauvelson Auguste    | Organics Prep            | 04/30/18 11:42 | Extract from JC65058-7.1   |
| JC65058-7.1.1   | Organics Prep        | Lindsey Lee              | 04/30/18 21:59 | Extract from JC65058-7.1   |
| JC65058-7.1.1   | Lindsey Lee          | Extract Storage          | 04/30/18 21:59 | Return to Storage          |
| JC65058-7.1.1   | Extract Storage      | Christine Change         | 05/07/18 16:09 | Retrieve from Storage      |
| JC65058-7.1.1   | Christine Change     | GCMSF                    | 05/07/18 16:09 | Load on Instrument         |
| JC65058-7.1.1   | GCMSF                | Sufiyanu Ahmed           | 05/09/18 22:45 | Unload from Instrument     |
| JC65058-7.1.1   | Sufiyanu Ahmed       | Extract Freezer          | 05/09/18 22:45 | Return to Storage          |
| JC65058-7.1.2   | Chadiyah Canaday     | Organics Prep            | 04/30/18 13:24 | Extract from JC65058-7.1   |
| JC65058-7.1.2   | Organics Prep        | Natasha Torres           | 04/30/18 20:03 | Extract from JC65058-7.1   |
| JC65058-7.1.2   | Natasha Torres       | Extract Storage          | 04/30/18 20:03 | Return to Storage          |
| JC65058-7.1.2   | Extract Storage      | Christine Phillips       | 05/01/18 00:28 | Retrieve from Storage      |
| JC65058-7.1.2   | Christine Phillips   | GCZZ                     | 05/01/18 00:28 | Load on Instrument         |
| JC65058-7.1.3   | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC65058-7.1   |
| JC65058-7.1.3   | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC65058-7.1   |
| JC65058-7.1.3   | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC65058-7.1.3   | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC65058-7.1.3   | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC65058-7.1.3   | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65058-7.1.3   | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65058-7.1.4   | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-7.1 |
| JC65058-7.1.4   | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-7.1 |
| JC65058-7.1.4   | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65058-7.2   | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage      |
| JC65058-7.2   | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage          |
| JC65058-7.2   | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage      |
| JC65058-7.2   | Radhika Mistry       | Secured Storage          | 04/30/18 09:34 | Return to Storage          |
| JC65058-7.2   | Secured Storage      | Dwayne Johnson           | 05/01/18 11:16 | Retrieve from Storage      |
| JC65058-7.2   | Dwayne Johnson       | Secured Staging Area     | 05/01/18 11:16 | Return to Storage          |
| JC65058-7.2   | Secured Staging Area | Luis Villanueva          | 05/01/18 12:57 | Retrieve from Storage      |
| JC65058-7.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| JC65058-7.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65058-7.2          | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65058-7.2          | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65058-7.2          | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65058-7.2          | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-7.2          | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65058-7.2.1        | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-7.2 |
| JC65058-7.2.1        | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-7.2 |
| JC65058-7.2.1        | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage          |
| JC65058-7.2.2        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-7.2   |
| JC65058-7.2.2        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-7.2   |
| JC65058-7.2.2        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65058-7.2.2        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65058-7.2.2        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65058-7.2.3        | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:23 | Extract from JC65058-7.2   |
| JC65058-7.2.3        | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-7.2   |
| JC65058-7.2.3        | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage          |
| JC65058-7.2.3        | Extract Storage      | Vincent Drago            | 05/11/18 14:38 | Retrieve from Storage      |
| JC65058-7.2.3        | Vincent Drago        | GCOA                     | 05/11/18 14:38 | Load on Instrument         |
| JC65058-7.3          | Secured Storage      | Krizhka Cuenta           | 04/30/18 15:01 | Retrieve from Storage      |
| JC65058-7.3          | Krizhka Cuenta       | Secured Storage          | 04/30/18 15:15 | Return to Storage          |
| JC65058-7.3          | Secured Storage      | Jayna Patel              | 05/01/18 07:36 | Retrieve from Storage      |
| JC65058-7.3          | Jayna Patel          | Secured Storage          | 05/01/18 08:30 | Return to Storage          |
| JC65058-7.4          | Secured Storage      | Krizhka Cuenta           | 05/01/18 09:23 | Retrieve from Storage      |
| JC65058-7.4          | Krizhka Cuenta       | Secured Storage          | 05/01/18 16:16 | Return to Storage          |
| JC65058-7.6          | Secured Storage      | Prashant Shukla          | 05/01/18 11:26 | Retrieve from Storage      |
| JC65058-7.6          | Prashant Shukla      | GCMSY                    | 05/01/18 11:26 | Load on Instrument         |
| JC65058-7.6          | GCMSY                | Prashant Shukla          | 05/02/18 10:08 | Unload from Instrument     |
| JC65058-7.6          | Prashant Shukla      |                          | 05/02/18 10:09 | Depleted                   |
| JC65058-8.1          | Secured Storage      | Sahara Feliciano         | 04/29/18 08:42 | Retrieve from Storage      |
| JC65058-8.1          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 08:43 | Return to Storage          |
| JC65058-8.1          | Secured Staging Area | Sauvelson Auguste        | 04/30/18 04:36 | Retrieve from Storage      |
| JC65058-8.1          | Sauvelson Auguste    | Secured Storage          | 04/30/18 11:54 | Return to Storage          |
| JC65058-8.1          | Secured Storage      | Chatihyah Canaday        | 04/30/18 13:24 | Retrieve from Storage      |
| JC65058-8.1          | Chatihyah Canaday    | Rebecca Gluckman         | 04/30/18 15:14 | Custody Transfer           |
| JC65058-8.1          | Rebecca Gluckman     | Secured Storage          | 04/30/18 17:38 | Return to Storage          |
| JC65058-8.1          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 22:10 | Retrieve from Storage      |
| JC65058-8.1          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 22:10 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC65058-8.1   | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage    |
| JC65058-8.1   | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer         |
| JC65058-8.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage    |
| JC65058-8.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage    |
| JC65058-8.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage    |
| JC65058-8.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65058-8.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage    |
| JC65058-8.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage    |
| JC65058-8.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage    |
| JC65058-8.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage    |
| JC65058-8.1   | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage    |
| JC65058-8.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer         |
| JC65058-8.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65058-8.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage    |
| JC65058-8.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage    |
| JC65058-8.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage    |
| JC65058-8.1   | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage        |
| JC65058-8.1   | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage    |
| JC65058-8.1   | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage        |
| JC65058-8.1   | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage    |
| JC65058-8.1   | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage        |
| Analyst unavailable for custody transfer.                             |                      |                      |                |                          |
| JC65058-8.1.1   | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:42 | Extract from JC65058-8.1 |
| JC65058-8.1.1   | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-8.1 |
| JC65058-8.1.1   | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage        |
| JC65058-8.1.1   | Extract Storage      | Christine Change     | 05/07/18 16:09 | Retrieve from Storage    |
| JC65058-8.1.1   | Christine Change     | GCMSF                | 05/07/18 16:09 | Load on Instrument       |
| JC65058-8.1.1   | GCMSF                | John Boudreau        | 05/14/18 13:10 | Unload from Instrument   |
| JC65058-8.1.1   | John Boudreau        | Extract Freezer      | 05/14/18 13:10 | Return to Storage        |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC65058-8.1.2   | Chadiyah Canaday     | Organics Prep            | 04/30/18 13:24 | Extract from JC65058-8.1   |
| JC65058-8.1.2   | Organics Prep        | Natasha Torres           | 04/30/18 20:03 | Extract from JC65058-8.1   |
| JC65058-8.1.2   | Natasha Torres       | Extract Storage          | 04/30/18 20:03 | Return to Storage          |
| JC65058-8.1.2   | Extract Storage      | Christine Phillips       | 05/01/18 00:28 | Retrieve from Storage      |
| JC65058-8.1.2   | Christine Phillips   | GCZZ                     | 05/01/18 00:28 | Load on Instrument         |
| JC65058-8.1.3   | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC65058-8.1   |
| JC65058-8.1.3   | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC65058-8.1   |
| JC65058-8.1.3   | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage          |
| JC65058-8.1.3   | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage      |
| JC65058-8.1.3   | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument         |
| JC65058-8.1.3   | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65058-8.1.3   | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65058-8.1.4   | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-8.1 |
| JC65058-8.1.4   | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-8.1 |
| JC65058-8.1.4   | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65058-8.2   | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage      |
| JC65058-8.2   | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage          |
| JC65058-8.2   | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage      |
| JC65058-8.2   | Radhika Mistry       | Secured Storage          | 04/30/18 09:35 | Return to Storage          |
| JC65058-8.2   | Secured Storage      | Dwayne Johnson           | 05/01/18 11:16 | Retrieve from Storage      |
| JC65058-8.2   | Dwayne Johnson       | Secured Staging Area     | 05/01/18 11:16 | Return to Storage          |
| JC65058-8.2   | Secured Staging Area | Luis Villanueva          | 05/01/18 12:57 | Retrieve from Storage      |
| JC65058-8.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| JC65058-8.2   | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage          |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |
| JC65058-8.2   | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65058-8.2   | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65058-8.2   | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65058-8.2   | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-8.2   | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65058-8.2.1   | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-8.2 |
| JC65058-8.2.1   | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-8.2 |
| JC65058-8.2.1   | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage          |
| JC65058-8.2.2   | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-8.2   |
| JC65058-8.2.2   | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-8.2   |
| JC65058-8.2.2   | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65058-8.2.2   | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65058-8.2.2   | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65058-8.2.3        | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:23 | Extract from JC65058-8.2   |
| JC65058-8.2.3        | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-8.2   |
| JC65058-8.2.3        | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage          |
| JC65058-8.2.3        | Extract Storage      | Vincent Drago            | 05/11/18 14:38 | Retrieve from Storage      |
| JC65058-8.2.3        | Vincent Drago        | GCOA                     | 05/11/18 14:38 | Load on Instrument         |
| JC65058-8.3          | Secured Storage      | Krizhka Cuenta           | 04/30/18 15:01 | Retrieve from Storage      |
| JC65058-8.3          | Krizhka Cuenta       | Secured Storage          | 04/30/18 15:15 | Return to Storage          |
| JC65058-8.3          | Secured Storage      | Jayna Patel              | 04/30/18 15:57 | Retrieve from Storage      |
| JC65058-8.3          | Jayna Patel          | Secured Storage          | 04/30/18 15:57 | Return to Storage          |
| JC65058-8.4          | Secured Storage      | Krizhka Cuenta           | 05/01/18 09:23 | Retrieve from Storage      |
| JC65058-8.4          | Krizhka Cuenta       | Secured Storage          | 05/01/18 16:16 | Return to Storage          |
| JC65058-8.6          | Secured Storage      | Prashant Shukla          | 05/01/18 11:26 | Retrieve from Storage      |
| JC65058-8.6          | Prashant Shukla      | GCMSY                    | 05/01/18 11:26 | Load on Instrument         |
| JC65058-8.6          | GCMSY                | Prashant Shukla          | 05/02/18 10:08 | Unload from Instrument     |
| JC65058-8.6          | Prashant Shukla      |                          | 05/02/18 10:09 | Deleted                    |
| JC65058-9.1          | Secured Storage      | Dwayne Johnson           | 05/10/18 11:01 | Retrieve from Storage      |
| JC65058-9.1          | Dwayne Johnson       | Secured Staging Area     | 05/10/18 11:01 | Return to Storage          |
| JC65058-9.1          | Secured Staging Area | Luis Villanueva          | 05/10/18 13:16 | Retrieve from Storage      |
| JC65058-9.1          | Luis Villanueva      | Secured Storage          | 05/11/18 16:48 | Return to Storage          |
| JC65058-9.1          | Secured Storage      | Dave Hunkele             | 05/12/18 10:20 | Retrieve from Storage      |
| JC65058-9.1          | Dave Hunkele         | Secured Staging Area     | 05/12/18 10:20 | Return to Storage          |
| JC65058-9.1          | Secured Staging Area | Jared O. Onindo          | 05/13/18 09:09 | Retrieve from Storage      |
| JC65058-9.1          | Jared O. Onindo      | Secured Storage          | 05/15/18 08:37 | Return to Storage          |
| JC65058-9.2          | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage      |
| JC65058-9.2          | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage          |
| JC65058-9.2          | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage      |
| JC65058-9.2          | Radhika Mistry       | Secured Storage          | 04/30/18 09:35 | Return to Storage          |
| JC65058-9.2          | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65058-9.2          | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65058-9.2          | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65058-9.2          | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65058-9.2          | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65058-9.2.1        | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-9.2 |
| JC65058-9.2.1        | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-9.2 |
| JC65058-9.2.1        | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage          |
| JC65058-9.2.2        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:11 | Extract from JC65058-9.2   |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC65058-9.2.2        | Organics Prep        | Lindsey Lee          | 05/10/18 21:39 | Extract from JC65058-9.2 |
| JC65058-9.2.2        | Lindsey Lee          | Extract Storage      | 05/10/18 21:39 | Return to Storage        |
| JC65058-9.2.2        | Extract Storage      | Thomas Lally         | 05/13/18 11:10 | Retrieve from Storage    |
| JC65058-9.2.2        | Thomas Lally         | GCZZ                 | 05/13/18 11:10 | Load on Instrument       |
| JC65058-9.2.3        | Sauvelson Auguste    | Organics Prep        | 05/10/18 07:15 | Extract from JC65058-9.2 |
| JC65058-9.2.3        | Organics Prep        | Sora Lynn Mathurin   | 05/10/18 13:47 | Extract from JC65058-9.2 |
| JC65058-9.2.3        | Sora Lynn Mathurin   | Extract Storage      | 05/10/18 13:47 | Return to Storage        |
| JC65058-9.2.3        | Extract Storage      | Christine Change     | 05/10/18 15:39 | Retrieve from Storage    |
| JC65058-9.2.3        | Christine Change     | GCMS2P               | 05/10/18 15:39 | Load on Instrument       |
| JC65058-9.2.3        | GCMS2P               | John Boudreau        | 05/11/18 09:46 | Unload from Instrument   |
| JC65058-9.2.3        | John Boudreau        | Extract Freezer      | 05/11/18 09:46 | Return to Storage        |
| JC65058-9.2.4        | Sauvelson Auguste    | Organics Prep        | 05/10/18 07:22 | Extract from JC65058-9.2 |
| JC65058-9.3          | Secured Storage      | Jayna Patel          | 04/30/18 15:57 | Retrieve from Storage    |
| JC65058-9.3          | Jayna Patel          | Secured Storage      | 04/30/18 15:57 | Return to Storage        |
| JC65058-9.4          | Secured Storage      | Prashant Shukla      | 05/09/18 12:53 | Retrieve from Storage    |
| JC65058-9.4          | Prashant Shukla      | GCMS1C               | 05/09/18 12:53 | Load on Instrument       |
| JC65058-9.4          | GCMS1C               | Prashant Shukla      | 05/10/18 09:21 | Unload from Instrument   |
| JC65058-9.4          | Prashant Shukla      |                      | 05/10/18 09:21 | Depleted                 |
| JC65058-9.5          | Secured Storage      | Krizhka Cuenta       | 05/09/18 13:59 | Retrieve from Storage    |
| JC65058-9.5          | Krizhka Cuenta       | Secured Storage      | 05/10/18 06:25 | Return to Storage        |
| JC65058-10.1         | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage    |
| JC65058-10.1         | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage        |
| JC65058-10.1         | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage    |
| JC65058-10.1         | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage        |
| JC65058-10.1         | Secured Storage      | Chatiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage    |
| JC65058-10.1         | Chatiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer         |
| JC65058-10.1         | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage        |
| JC65058-10.1         | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage    |
| JC65058-10.1         | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage        |
| JC65058-10.1         | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage    |
| JC65058-10.1         | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer         |
| JC65058-10.1         | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65058-10.1         | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage    |
| JC65058-10.1         | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage        |
| JC65058-10.1         | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage    |
| JC65058-10.1         | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage        |
| JC65058-10.1         | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage    |
| JC65058-10.1         | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage        |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|---|----------------------|----------------------|----------------|---------------------------|
| JC65058-10.1  | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage     |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                           |
| JC65058-10.1  | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage     |
| JC65058-10.1  | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage         |
| JC65058-10.1  | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage     |
| JC65058-10.1  | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage     |
| JC65058-10.1  | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage         |
| JC65058-10.1  | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage     |
| JC65058-10.1  | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage     |
| JC65058-10.1  | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer          |
| JC65058-10.1  | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage     |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                           |
| JC65058-10.1  | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage     |
| JC65058-10.1  | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage         |
| JC65058-10.1  | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage     |
| JC65058-10.1  | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage     |
| JC65058-10.1  | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage         |
| JC65058-10.1  | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage     |
| JC65058-10.1  | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage         |
| JC65058-10.1  | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage     |
| JC65058-10.1  | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage         |
| Analyst unavailable for custody transfer.                             |                      |                      |                |                           |
| JC65058-10.1.1  | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:44 | Extract from JC65058-10.1 |
| JC65058-10.1.2  | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:48 | Extract from JC65058-10.1 |
| JC65058-10.1.2  | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-10.1 |
| JC65058-10.1.2  | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage         |
| JC65058-10.1.2  | Extract Storage      | Christine Change     | 05/10/18 12:38 | Retrieve from Storage     |
| JC65058-10.1.2  | Christine Change     | GCMSZ                | 05/10/18 12:38 | Load on Instrument        |
| JC65058-10.1.2  | GCMSZ                | Christine Change     | 05/11/18 15:23 | Unload from Instrument    |
| JC65058-10.1.2  | Christine Change     | Extract Freezer      | 05/11/18 15:24 | Return to Storage         |
| JC65058-10.1.3  | Chatiyah Canaday     | Organics Prep        | 04/30/18 13:24 | Extract from JC65058-10.1 |
| JC65058-10.1.3  | Organics Prep        | Natasha Torres       | 04/30/18 20:03 | Extract from JC65058-10.1 |
| JC65058-10.1.3  | Natasha Torres       | Extract Storage      | 04/30/18 20:03 | Return to Storage         |
| JC65058-10.1.3  | Extract Storage      | Christine Phillips   | 05/01/18 00:28 | Retrieve from Storage     |
| JC65058-10.1.3  | Christine Phillips   | GCZZ                 | 05/01/18 00:28 | Load on Instrument        |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|---|----------------------|--------------------------|----------------|-----------------------------|
| JC65058-10.1.4  | Meilly Arbelo        | Organics Prep            | 05/01/18 06:36 | Extract from JC65058-10.1   |
| JC65058-10.1.4  | Organics Prep        | Finley Nyaata            | 05/01/18 16:04 | Extract from JC65058-10.1   |
| JC65058-10.1.4  | Finley Nyaata        | Extract Storage          | 05/01/18 16:04 | Return to Storage           |
| JC65058-10.1.4  | Extract Storage      | Tianwei Ruan             | 05/01/18 17:04 | Retrieve from Storage       |
| JC65058-10.1.4  | Tianwei Ruan         | GCXX                     | 05/01/18 17:04 | Load on Instrument          |
| JC65058-10.1.4  | GCXX                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-10.1.4  | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage           |
| JC65058-10.1.5  | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-10.1 |
| JC65058-10.1.5  | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-10.1 |
| JC65058-10.1.5  | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage           |
| JC65058-10.1.6  | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:49 | Extract from JC65058-10.1   |
| JC65058-10.1.6  | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-10.1   |
| JC65058-10.1.6  | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage           |
| JC65058-10.1.6  | Extract Storage      | Vincent Drago            | 05/11/18 14:40 | Retrieve from Storage       |
| JC65058-10.1.6  | Vincent Drago        | GCOA                     | 05/11/18 14:40 | Load on Instrument          |
| JC65058-10.2  | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage       |
| JC65058-10.2  | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage           |
| JC65058-10.2  | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage       |
| JC65058-10.2  | Radhika Mistry       | Secured Storage          | 04/30/18 09:35 | Return to Storage           |
| JC65058-10.2  | Secured Storage      | Dwayne Johnson           | 05/01/18 11:16 | Retrieve from Storage       |
| JC65058-10.2  | Dwayne Johnson       | Secured Staging Area     | 05/01/18 11:16 | Return to Storage           |
| JC65058-10.2  | Secured Staging Area | Luis Villanueva          | 05/01/18 12:57 | Retrieve from Storage       |
| JC65058-10.2  | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage           |
| JC65058-10.2  | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                             |
| JC65058-10.2  | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage       |
| JC65058-10.2  | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage           |
| JC65058-10.2  | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage       |
| JC65058-10.2  | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer            |
| JC65058-10.2  | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage           |
| JC65058-10.2.1  | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-10.2 |
| JC65058-10.2.1  | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-10.2 |
| JC65058-10.2.1  | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage           |
| JC65058-10.2.2  | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-10.2   |
| JC65058-10.2.2  | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-10.2   |
| JC65058-10.2.2  | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage           |
| JC65058-10.2.2  | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage       |
| JC65058-10.2.2  | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument          |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|---|----------------------|----------------------|----------------|---------------------------|
| JC65058-10.2.3  | Sauvelson Auguste    | Organics Prep        | 05/10/18 09:23 | Extract from JC65058-10.2 |
| JC65058-10.2.3  | Organics Prep        | Sora Lynn Mathurin   | 05/11/18 10:27 | Extract from JC65058-10.2 |
| JC65058-10.2.3  | Sora Lynn Mathurin   | Extract Storage      | 05/11/18 10:27 | Return to Storage         |
| JC65058-10.2.3  | Extract Storage      | Vincent Drago        | 05/11/18 14:38 | Retrieve from Storage     |
| JC65058-10.2.3  | Vincent Drago        | GCOA                 | 05/11/18 14:38 | Load on Instrument        |
| JC65058-10.3  | Secured Storage      | Krizhka Cuenta       | 04/30/18 15:01 | Retrieve from Storage     |
| JC65058-10.3  | Krizhka Cuenta       | Secured Storage      | 04/30/18 15:15 | Return to Storage         |
| JC65058-10.3  | Secured Storage      | Jayna Patel          | 04/30/18 15:57 | Retrieve from Storage     |
| JC65058-10.3  | Jayna Patel          | Secured Storage      | 04/30/18 15:57 | Return to Storage         |
| JC65058-10.4  | Secured Storage      | Krizhka Cuenta       | 05/01/18 09:23 | Retrieve from Storage     |
| JC65058-10.4  | Krizhka Cuenta       | Secured Storage      | 05/01/18 16:16 | Return to Storage         |
| JC65058-10.6  | Secured Storage      | Prashant Shukla      | 05/01/18 11:26 | Retrieve from Storage     |
| JC65058-10.6  | Prashant Shukla      | GCMSY                | 05/01/18 11:26 | Load on Instrument        |
| JC65058-10.6  | GCMSY                | Prashant Shukla      | 05/02/18 10:08 | Unload from Instrument    |
| JC65058-10.6  | Prashant Shukla      |                      | 05/02/18 10:09 | Depleted                  |
| JC65058-11.1  | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage     |
| JC65058-11.1  | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage     |
| JC65058-11.1  | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Chadiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage     |
| JC65058-11.1  | Chadiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer          |
| JC65058-11.1  | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage     |
| JC65058-11.1  | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage     |
| JC65058-11.1  | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer          |
| JC65058-11.1  | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage     |
| JC65058-11.1  | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage     |
| JC65058-11.1  | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage     |
| JC65058-11.1  | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage     |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                           |
| JC65058-11.1  | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage     |
| JC65058-11.1  | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage     |
| JC65058-11.1  | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage         |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|---|----------------------|----------------------|----------------|---------------------------|
| JC65058-11.1  | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage     |
| JC65058-11.1  | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Todd Shoemaker       | 05/10/18 08:51 | Retrieve from Storage     |
| JC65058-11.1  | Todd Shoemaker       | Secured Staging Area | 05/10/18 08:52 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Sauvelson Auguste    | 05/10/18 09:47 | Retrieve from Storage     |
| JC65058-11.1  | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer          |
| JC65058-11.1  | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage     |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                           |
| JC65058-11.1  | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage     |
| JC65058-11.1  | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage     |
| JC65058-11.1  | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage     |
| JC65058-11.1  | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage         |
| JC65058-11.1  | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage     |
| JC65058-11.1  | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage         |
| JC65058-11.1  | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage     |
| JC65058-11.1  | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage         |
| Analyst unavailable for custody transfer.                             |                      |                      |                |                           |
| JC65058-11.1.1  | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:44 | Extract from JC65058-11.1 |
| JC65058-11.1.2  | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:48 | Extract from JC65058-11.1 |
| JC65058-11.1.2  | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-11.1 |
| JC65058-11.1.2  | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage         |
| JC65058-11.1.2  | Extract Storage      | Christine Change     | 05/10/18 12:38 | Retrieve from Storage     |
| JC65058-11.1.2  | Christine Change     | GCMSZ                | 05/10/18 12:38 | Load on Instrument        |
| JC65058-11.1.2  | GCMSZ                | Christine Change     | 05/11/18 15:23 | Unload from Instrument    |
| JC65058-11.1.2  | Christine Change     | Extract Freezer      | 05/11/18 15:24 | Return to Storage         |
| JC65058-11.1.3  | Chatiyah Canaday     | Organics Prep        | 04/30/18 13:24 | Extract from JC65058-11.1 |
| JC65058-11.1.3  | Organics Prep        | Natasha Torres       | 04/30/18 20:03 | Extract from JC65058-11.1 |
| JC65058-11.1.3  | Natasha Torres       | Extract Storage      | 04/30/18 20:03 | Return to Storage         |
| JC65058-11.1.3  | Extract Storage      | Christine Phillips   | 05/01/18 00:28 | Retrieve from Storage     |
| JC65058-11.1.3  | Christine Phillips   | GCZZ                 | 05/01/18 00:28 | Load on Instrument        |
| JC65058-11.1.4  | Meilly Arbelo        | Organics Prep        | 05/01/18 06:36 | Extract from JC65058-11.1 |
| JC65058-11.1.4  | Organics Prep        | Finley Nyaata        | 05/01/18 16:04 | Extract from JC65058-11.1 |
| JC65058-11.1.4  | Finley Nyaata        | Extract Storage      | 05/01/18 16:04 | Return to Storage         |
| JC65058-11.1.4  | Extract Storage      | Tianwei Ruan         | 05/01/18 17:04 | Retrieve from Storage     |
| JC65058-11.1.4  | Tianwei Ruan         | GCXX                 | 05/01/18 17:04 | Load on Instrument        |
| JC65058-11.1.4  | GCXX                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |
| JC65058-11.1.4  | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|---|----------------------|--------------------------|----------------|-----------------------------|
| JC65058-11.1.5  | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-11.1 |
| JC65058-11.1.5  | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-11.1 |
| JC65058-11.1.5  | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage           |
| JC65058-11.1.6  | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:49 | Extract from JC65058-11.1   |
| JC65058-11.1.6  | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-11.1   |
| JC65058-11.1.6  | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage           |
| JC65058-11.1.6  | Extract Storage      | Vincent Drago            | 05/11/18 14:38 | Retrieve from Storage       |
| JC65058-11.1.6  | Vincent Drago        | GCOA                     | 05/11/18 14:38 | Load on Instrument          |
| JC65058-11.2  | Secured Storage      | Sahara Feliciano         | 04/29/18 10:27 | Retrieve from Storage       |
| JC65058-11.2  | Sahara Feliciano     | Secured Staging Area     | 04/29/18 10:27 | Return to Storage           |
| JC65058-11.2  | Secured Staging Area | Radhika Mistry           | 04/30/18 07:48 | Retrieve from Storage       |
| JC65058-11.2  | Radhika Mistry       | Secured Storage          | 04/30/18 09:35 | Return to Storage           |
| JC65058-11.2  | Secured Storage      | Dwayne Johnson           | 05/01/18 11:16 | Retrieve from Storage       |
| JC65058-11.2  | Dwayne Johnson       | Secured Staging Area     | 05/01/18 11:16 | Return to Storage           |
| JC65058-11.2  | Secured Staging Area | Luis Villanueva          | 05/01/18 12:57 | Retrieve from Storage       |
| JC65058-11.2  | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage           |
| JC65058-11.2  | Luis Villanueva      | Secured Storage          | 05/01/18 15:30 | Return to Storage           |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                             |
| JC65058-11.2  | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage       |
| JC65058-11.2  | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage           |
| JC65058-11.2  | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage       |
| JC65058-11.2  | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer            |
| JC65058-11.2  | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage           |
| JC65058-11.2.1  | Radhika Mistry       | Metals Digestion         | 04/30/18 09:34 | Digestate from JC65058-11.2 |
| JC65058-11.2.1  | Metals Digestion     | Radhika Mistry           | 04/30/18 09:34 | Digestate from JC65058-11.2 |
| JC65058-11.2.1  | Radhika Mistry       | Metals Digestate Storage | 04/30/18 09:34 | Return to Storage           |
| JC65058-11.2.2  | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65058-11.2   |
| JC65058-11.2.2  | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65058-11.2   |
| JC65058-11.2.2  | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage           |
| JC65058-11.2.2  | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage       |
| JC65058-11.2.2  | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument          |
| JC65058-11.2.3  | Sauvelson Auguste    | Organics Prep            | 05/10/18 09:23 | Extract from JC65058-11.2   |
| JC65058-11.2.3  | Organics Prep        | Sora Lynn Mathurin       | 05/11/18 10:27 | Extract from JC65058-11.2   |
| JC65058-11.2.3  | Sora Lynn Mathurin   | Extract Storage          | 05/11/18 10:27 | Return to Storage           |
| JC65058-11.2.3  | Extract Storage      | Vincent Drago            | 05/11/18 14:40 | Retrieve from Storage       |
| JC65058-11.2.3  | Vincent Drago        | GCOA                     | 05/11/18 14:40 | Load on Instrument          |
| JC65058-11.3  | Secured Storage      | Krizhka Cuenta           | 04/30/18 15:01 | Retrieve from Storage       |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number                      | Transfer FROM        | Transfer TO          | Date/Time      | Reason                 |
|---|----------------------|----------------------|----------------|------------------------|
| JC65058-11.3                              | Krizhka Cuenta       | Secured Storage      | 04/30/18 15:15 | Return to Storage      |
| JC65058-11.3                              | Secured Storage      | Jayna Patel          | 04/30/18 15:57 | Retrieve from Storage  |
| JC65058-11.3                              | Jayna Patel          | Secured Storage      | 04/30/18 15:57 | Return to Storage      |
| JC65058-11.4                              | Secured Storage      | Krizhka Cuenta       | 05/01/18 09:23 | Retrieve from Storage  |
| JC65058-11.4                              | Krizhka Cuenta       | Secured Storage      | 05/01/18 16:16 | Return to Storage      |
| JC65058-11.6                              | Secured Storage      | Prashant Shukla      | 05/01/18 14:22 | Retrieve from Storage  |
| JC65058-11.6                              | Prashant Shukla      | GCMSY                | 05/01/18 14:22 | Load on Instrument     |
| JC65058-11.6                              | GCMSY                | Prashant Shukla      | 05/02/18 10:08 | Unload from Instrument |
| JC65058-11.6                              | Prashant Shukla      |                      | 05/02/18 10:09 | Depleted               |
| JC65058-12.1                              | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage  |
| JC65058-12.1                              | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage  |
| JC65058-12.1                              | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Chatiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage  |
| JC65058-12.1                              | Chatiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer       |
| JC65058-12.1                              | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage  |
| JC65058-12.1                              | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage  |
| JC65058-12.1                              | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer       |
| JC65058-12.1                              | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Dwayne Johnson       | 05/02/18 12:39 | Retrieve from Storage  |
| JC65058-12.1                              | Dwayne Johnson       | Secured Staging Area | 05/02/18 12:39 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Luis Villanueva      | 05/02/18 12:59 | Retrieve from Storage  |
| JC65058-12.1                              | Luis Villanueva      | Secured Storage      | 05/02/18 16:48 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Todd Shoemaker       | 05/04/18 14:40 | Retrieve from Storage  |
| JC65058-12.1                              | Todd Shoemaker       | Secured Staging Area | 05/04/18 14:40 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Natasha Torres       | 05/04/18 15:13 | Retrieve from Storage  |
| JC65058-12.1                              | Natasha Torres       | Secured Storage      | 05/05/18 09:45 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage  |
| JC65058-12.1                              | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage  |
| JC65058-12.1                              | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage      |
| JC65058-12.1                              | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage  |
| JC65058-12.1                              | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage  |
| JC65058-12.1                              | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage      |
| Analyst unavailable for custody transfer. |                      |                      |                |                        |
| JC65058-12.1                              | Secured Storage      | Dwayne Johnson       | 05/17/18 08:35 | Retrieve from Storage  |
| JC65058-12.1                              | Dwayne Johnson       | Secured Staging Area | 05/17/18 08:35 | Return to Storage      |
| JC65058-12.1                              | Secured Staging Area | Jared O. Onindo      | 05/17/18 08:54 | Retrieve from Storage  |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|----------------------|----------------------|----------------------|----------------|---------------------------|
| JC65058-12.1         | Jared O. Onindo      | Secured Storage      | 05/17/18 15:48 | Return to Storage         |
| JC65058-12.1         | Secured Storage      | Dwayne Johnson       | 05/21/18 12:36 | Retrieve from Storage     |
| JC65058-12.1         | Dwayne Johnson       | Secured Staging Area | 05/21/18 12:36 | Return to Storage         |
| JC65058-12.1         | Secured Staging Area | Chadiyah Canaday     | 05/21/18 12:43 | Retrieve from Storage     |
| JC65058-12.1         | Chadiyah Canaday     | Secured Storage      | 05/21/18 16:48 | Return to Storage         |
| JC65058-12.1         | Secured Storage      | Jennifer Voitovitch  | 05/22/18 18:59 | Retrieve from Storage     |
| JC65058-12.1         | Jennifer Voitovitch  | Secured Staging Area | 05/22/18 18:59 | Return to Storage         |
| JC65058-12.1         | Secured Staging Area | Sauvelson Auguste    | 05/23/18 04:25 | Retrieve from Storage     |
| JC65058-12.1         | Sauvelson Auguste    | Chadiyah Canaday     | 05/23/18 12:13 | Custody Transfer          |
| JC65058-12.1         | Chadiyah Canaday     | Lindsey Lee          | 05/23/18 15:18 | Custody Transfer          |
| JC65058-12.1         | Lindsey Lee          | Secured Storage      | 05/23/18 17:18 | Return to Storage         |
| JC65058-12.1.1       | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:44 | Extract from JC65058-12.1 |
| JC65058-12.1.2       | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:48 | Extract from JC65058-12.1 |
| JC65058-12.1.2       | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-12.1 |
| JC65058-12.1.2       | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage         |
| JC65058-12.1.2       | Extract Storage      | Christine Change     | 05/10/18 12:38 | Retrieve from Storage     |
| JC65058-12.1.2       | Christine Change     | GCMSZ                | 05/10/18 12:38 | Load on Instrument        |
| JC65058-12.1.2       | GCMSZ                | Christine Change     | 05/14/18 14:02 | Unload from Instrument    |
| JC65058-12.1.2       | Christine Change     | Extract Freezer      | 05/14/18 14:02 | Return to Storage         |
| JC65058-12.1.3       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:28 | Extract from JC65058-12.1 |
| JC65058-12.1.3       | Organics Prep        | Sora Lynn Mathurin   | 05/01/18 13:53 | Extract from JC65058-12.1 |
| JC65058-12.1.3       | Sora Lynn Mathurin   | Extract Storage      | 05/01/18 13:53 | Return to Storage         |
| JC65058-12.1.3       | Tianwei Ruan         | GC2G                 | 05/01/18 15:32 | Load on Instrument        |
| JC65058-12.1.3       | Extract Storage      | Tianwei Ruan         | 05/01/18 15:32 | Retrieve from Storage     |
| JC65058-12.1.3       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |
| JC65058-12.1.3       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |
| JC65058-12.1.4       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:33 | Extract from JC65058-12.1 |
| JC65058-12.1.4       | Organics Prep        | Sora Lynn Mathurin   | 05/01/18 13:54 | Extract from JC65058-12.1 |
| JC65058-12.1.4       | Sora Lynn Mathurin   | Extract Storage      | 05/01/18 13:54 | Return to Storage         |
| JC65058-12.1.4       | Extract Storage      | Christine Phillips   | 05/02/18 00:18 | Retrieve from Storage     |
| JC65058-12.1.4       | Christine Phillips   | GC1G                 | 05/02/18 00:18 | Load on Instrument        |
| JC65058-12.1.5       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:37 | Extract from JC65058-12.1 |
| JC65058-12.1.5       | Organics Prep        | Finley Nyaata        | 05/01/18 16:05 | Extract from JC65058-12.1 |
| JC65058-12.1.5       | Finley Nyaata        | Extract Storage      | 05/01/18 16:05 | Return to Storage         |
| JC65058-12.1.5       | Extract Storage      | Vincent Drago        | 05/02/18 15:48 | Retrieve from Storage     |
| JC65058-12.1.5       | Vincent Drago        | GC3G                 | 05/02/18 15:48 | Load on Instrument        |
| JC65058-12.1.5       | GC3G                 | Vincent Drago        | 05/07/18 10:24 | Unload from Instrument    |
| JC65058-12.1.5       | Vincent Drago        | Extract Freezer      | 05/07/18 10:24 | Return to Storage         |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC65058-12.1.6       | Natasha Torres       | Organics Prep            | 05/04/18 15:15 | Extract from JC65058-12.1   |
| JC65058-12.1.6       | Organics Prep        | Natasha Torres           | 05/05/18 07:57 | Extract from JC65058-12.1   |
| JC65058-12.1.6       | Natasha Torres       | Extract Storage          | 05/05/18 07:57 | Return to Storage           |
| JC65058-12.1.6       | Extract Storage      | Tianwei Ruan             | 05/07/18 11:52 | Retrieve from Storage       |
| JC65058-12.1.6       | Tianwei Ruan         | GC2G                     | 05/07/18 11:52 | Load on Instrument          |
| JC65058-12.1.6       | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-12.1.6       | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage           |
| JC65058-12.1.7       | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-12.1 |
| JC65058-12.1.7       | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-12.1 |
| JC65058-12.1.7       | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage           |
| JC65058-12.1.8       | Chatiyah Canaday     | Organics Prep            | 05/21/18 12:46 | Extract from JC65058-12.1   |
| JC65058-12.1.8       | Organics Prep        | Lindsey Lee              | 05/21/18 21:59 | Extract from JC65058-12.1   |
| JC65058-12.1.8       | Lindsey Lee          | Extract Storage          | 05/21/18 21:59 | Return to Storage           |
| JC65058-12.1.8       | Extract Storage      | Christine Phillips       | 05/22/18 00:52 | Retrieve from Storage       |
| JC65058-12.1.8       | Christine Phillips   | GC8G                     | 05/22/18 00:52 | Load on Instrument          |
| JC65058-12.1.9       | Sauvelson Auguste    | Organics Prep            | 05/23/18 04:30 | Extract from JC65058-12.1   |
| JC65058-12.1.9       | Organics Prep        | Sora Lynn Mathurin       | 05/23/18 13:26 | Extract from JC65058-12.1   |
| JC65058-12.1.9       | Sora Lynn Mathurin   | Extract Storage          | 05/23/18 13:26 | Return to Storage           |
| JC65058-12.1.9       | Extract Storage      | Vincent Drago            | 05/23/18 16:49 | Retrieve from Storage       |
| JC65058-12.1.9       | Vincent Drago        | GCOA                     | 05/23/18 16:50 | Load on Instrument          |
| JC65058-12.2         | Secured Storage      | Jayna Patel              | 04/30/18 15:57 | Retrieve from Storage       |
| JC65058-12.2         | Jayna Patel          | Secured Storage          | 04/30/18 15:57 | Return to Storage           |
| JC65058-12.4         | Secured Storage      | Prashant Shukla          | 05/01/18 14:22 | Retrieve from Storage       |
| JC65058-12.4         | Prashant Shukla      | GCMSY                    | 05/01/18 14:22 | Load on Instrument          |
| JC65058-12.4         | GCMSY                | Prashant Shukla          | 05/02/18 10:08 | Unload from Instrument      |
| JC65058-12.4         | Prashant Shukla      |                          | 05/02/18 10:09 | Depleted                    |
| JC65058-13.1         | Secured Storage      | Jennifer Voitovitch      | 04/29/18 08:17 | Retrieve from Storage       |
| JC65058-13.1         | Jennifer Voitovitch  | Secured Staging Area     | 04/29/18 08:17 | Return to Storage           |
| JC65058-13.1         | Secured Staging Area | Robert Bandstra          | 04/29/18 10:01 | Retrieve from Storage       |
| JC65058-13.1         | Robert Bandstra      | Secured Storage          | 04/30/18 08:31 | Return to Storage           |
| JC65058-13.1         | Secured Storage      | Jennifer Voitovitch      | 05/01/18 21:04 | Retrieve from Storage       |
| JC65058-13.1         | Jennifer Voitovitch  | Secured Staging Area     | 05/01/18 21:04 | Return to Storage           |
| JC65058-13.1         | Secured Staging Area | Andrew Csimbok           | 05/02/18 10:39 | Retrieve from Storage       |
| JC65058-13.1         | Andrew Csimbok       | Secured Storage          | 05/02/18 11:32 | Return to Storage           |
| JC65058-13.1         | Secured Storage      | Dwayne Johnson           | 05/02/18 12:39 | Retrieve from Storage       |
| JC65058-13.1         | Dwayne Johnson       | Secured Staging Area     | 05/02/18 12:39 | Return to Storage           |
| JC65058-13.1         | Secured Staging Area | Luis Villanueva          | 05/02/18 12:59 | Retrieve from Storage       |
| JC65058-13.1         | Luis Villanueva      | Secured Storage          | 05/02/18 16:48 | Return to Storage           |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                      |
|---|----------------------|----------------------|----------------|-----------------------------|
| JC65058-13.1  | Secured Storage      | Todd Shoemaker       | 05/04/18 14:40 | Retrieve from Storage       |
| JC65058-13.1  | Todd Shoemaker       | Secured Staging Area | 05/04/18 14:40 | Return to Storage           |
| JC65058-13.1  | Secured Staging Area | Natasha Torres       | 05/04/18 15:13 | Retrieve from Storage       |
| JC65058-13.1  | Natasha Torres       | Secured Storage      | 05/05/18 09:45 | Return to Storage           |
| JC65058-13.1  | Secured Storage      | Jennifer Voitovitch  | 05/06/18 12:58 | Retrieve from Storage       |
| JC65058-13.1  | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 12:58 | Return to Storage           |
| JC65058-13.1  | Secured Staging Area | Robert Bandstra      | 05/07/18 08:14 | Retrieve from Storage       |
| JC65058-13.1  | Secured Storage      | Jennifer Voitovitch  | 05/07/18 20:06 | Retrieve from Storage       |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                             |
| JC65058-13.1  | Jennifer Voitovitch  | Secured Staging Area | 05/07/18 20:06 | Return to Storage           |
| JC65058-13.1  | Secured Staging Area | Robert Bandstra      | 05/08/18 09:33 | Retrieve from Storage       |
| JC65058-13.1  | Robert Bandstra      | Secured Storage      | 05/08/18 16:12 | Return to Storage           |
| JC65058-13.1.1  | Robert Bandstra      | TCLP                 | 04/29/18 10:01 | Leachate from JC65058-13.1  |
| JC65058-13.1.1  | TCLP                 | Robert Bandstra      | 04/30/18 08:26 | Leachate from JC65058-13.1  |
| JC65058-13.1.1  | Robert Bandstra      | Secured Storage      | 04/30/18 08:26 | Return to Storage           |
| JC65058-13.1.1  | Secured Storage      | Vikas Parikh         | 05/03/18 04:39 | Retrieve from Storage       |
| JC65058-13.1.1  | Vikas Parikh         | Yaw Britwum          | 05/03/18 07:09 | Custody Transfer            |
| JC65058-13.1.1  | Yaw Britwum          | Jonathan Stanley     | 05/03/18 08:06 | Custody Transfer            |
| JC65058-13.1.1  | Jonathan Stanley     | Secured Storage      | 05/03/18 15:32 | Return to Storage           |
| JC65058-13.1.2  | TCLP                 | Robert Bandstra      | 04/30/18 08:26 | Leachate from JC65058-13.1  |
| JC65058-13.1.2  | Robert Bandstra      | Secured Storage      | 04/30/18 08:26 | Return to Storage           |
| JC65058-13.1.3  | Vikas Parikh         | Organics Prep        | 05/03/18 04:52 | Extract from JC65058-13.1.1 |
| JC65058-13.1.3  | Organics Prep        | Meilly Arbelo        | 05/03/18 14:51 | Extract from JC65058-13.1.1 |
| JC65058-13.1.3  | Meilly Arbelo        | Extract Storage      | 05/03/18 14:51 | Return to Storage           |
| JC65058-13.1.3  | Extract Storage      | Dhara Saparia        | 05/03/18 16:56 | Retrieve from Storage       |
| JC65058-13.1.3  | Dhara Saparia        | GC8G                 | 05/03/18 16:56 | Load on Instrument          |
| JC65058-13.1.4  | Yaw Britwum          | Organics Prep        | 05/03/18 07:12 | Extract from JC65058-13.1.1 |
| JC65058-13.1.4  | Organics Prep        | Jonathan Stanley     | 05/04/18 16:41 | Extract from JC65058-13.1.1 |
| JC65058-13.1.4  | Jonathan Stanley     | Extract Storage      | 05/04/18 16:41 | Return to Storage           |
| JC65058-13.1.4  | Extract Storage      | Vincent Drago        | 05/04/18 17:18 | Retrieve from Storage       |
| JC65058-13.1.4  | Vincent Drago        | GCOA                 | 05/04/18 17:18 | Load on Instrument          |
| JC65058-13.1.4  | GCOA                 | Vincent Drago        | 05/07/18 10:24 | Unload from Instrument      |
| JC65058-13.1.4  | Vincent Drago        | Extract Freezer      | 05/07/18 10:24 | Return to Storage           |
| JC65058-13.1.5  | Yaw Britwum          | Organics Prep        | 05/03/18 07:14 | Extract from JC65058-13.1.1 |
| JC65058-13.1.5  | Organics Prep        | Jonathan Stanley     | 05/04/18 16:42 | Extract from JC65058-13.1.1 |
| JC65058-13.1.5  | Jonathan Stanley     | Extract Storage      | 05/04/18 16:42 | Return to Storage           |
| JC65058-13.1.5  | Extract Storage      | Vincent Drago        | 05/04/18 17:20 | Retrieve from Storage       |
| JC65058-13.1.5  | Vincent Drago        | GCOA                 | 05/04/18 17:20 | Load on Instrument          |
| JC65058-13.1.5  | GCOA                 | Vincent Drago        | 05/07/18 10:24 | Unload from Instrument      |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number                      | Transfer FROM        | Transfer TO          | Date/Time      | Reason                      |
|---|----------------------|----------------------|----------------|-----------------------------|
| JC65058-13.1.5                            | Vincent Drago        | Extract Freezer      | 05/07/18 10:24 | Return to Storage           |
| JC65058-13.1.6                            | Jonathan Stanley     | Organics Prep        | 05/03/18 08:10 | Extract from JC65058-13.1.1 |
| JC65058-13.1.6                            | Organics Prep        | Yaw Britwum          | 05/03/18 16:42 | Extract from JC65058-13.1.1 |
| JC65058-13.1.6                            | Yaw Britwum          | Extract Storage      | 05/03/18 16:43 | Return to Storage           |
| JC65058-13.1.6                            | Extract Storage      | Sean Block           | 05/05/18 21:09 | Retrieve from Storage       |
| JC65058-13.1.6                            | Sean Block           | GCMS2P               | 05/05/18 21:09 | Load on Instrument          |
| JC65058-13.1.6                            | GCMS2P               | John Boudreau        | 05/07/18 13:56 | Unload from Instrument      |
| JC65058-13.1.6                            | John Boudreau        | Extract Storage      | 05/07/18 13:56 | Return to Storage           |
| JC65058-13.1.7                            | Natasha Torres       | Organics Prep        | 05/04/18 15:15 | Extract from JC65058-13.1   |
| JC65058-13.1.7                            | Organics Prep        | Natasha Torres       | 05/05/18 07:57 | Extract from JC65058-13.1   |
| JC65058-13.1.7                            | Natasha Torres       | Extract Storage      | 05/05/18 07:57 | Return to Storage           |
| JC65058-13.1.7                            | Extract Storage      | Tianwei Ruan         | 05/07/18 11:52 | Retrieve from Storage       |
| JC65058-13.1.7                            | Tianwei Ruan         | GC2G                 | 05/07/18 11:52 | Load on Instrument          |
| JC65058-13.1.7                            | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-13.1.7                            | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Sahara Feliciano     | 04/29/18 08:42 | Retrieve from Storage       |
| JC65058-13.2                              | Sahara Feliciano     | Secured Staging Area | 04/29/18 08:43 | Return to Storage           |
| JC65058-13.2                              | Secured Staging Area | Sauvelson Auguste    | 04/30/18 04:36 | Retrieve from Storage       |
| JC65058-13.2                              | Sauvelson Auguste    | Secured Storage      | 04/30/18 11:54 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Chatihyah Canaday    | 04/30/18 13:24 | Retrieve from Storage       |
| JC65058-13.2                              | Chatihyah Canaday    | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer            |
| JC65058-13.2                              | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage       |
| JC65058-13.2                              | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage           |
| JC65058-13.2                              | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage       |
| JC65058-13.2                              | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer            |
| JC65058-13.2                              | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage       |
| JC65058-13.2                              | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage           |
| JC65058-13.2                              | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage       |
| JC65058-13.2                              | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage       |
| JC65058-13.2                              | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage           |
| JC65058-13.2                              | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage       |
| JC65058-13.2                              | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage           |
| Analyst unavailable for custody transfer. |                      |                      |                |                             |
| JC65058-13.2                              | Secured Storage      | Dwayne Johnson       | 05/17/18 08:35 | Retrieve from Storage       |
| JC65058-13.2                              | Dwayne Johnson       | Secured Staging Area | 05/17/18 08:35 | Return to Storage           |
| JC65058-13.2                              | Secured Staging Area | Jared O. Onindo      | 05/17/18 08:54 | Retrieve from Storage       |
| JC65058-13.2                              | Jared O. Onindo      | Secured Storage      | 05/17/18 15:48 | Return to Storage           |
| JC65058-13.2                              | Secured Storage      | Dwayne Johnson       | 05/21/18 12:36 | Retrieve from Storage       |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                      |
|----------------------|----------------------|----------------------|----------------|-----------------------------|
| JC65058-13.2         | Dwayne Johnson       | Secured Staging Area | 05/21/18 12:36 | Return to Storage           |
| JC65058-13.2         | Secured Staging Area | Chadiyah Canaday     | 05/21/18 12:43 | Retrieve from Storage       |
| JC65058-13.2         | Chadiyah Canaday     | Secured Storage      | 05/21/18 16:48 | Return to Storage           |
| JC65058-13.2         | Secured Storage      | Jennifer Voitovitch  | 05/22/18 18:59 | Retrieve from Storage       |
| JC65058-13.2         | Jennifer Voitovitch  | Secured Staging Area | 05/22/18 18:59 | Return to Storage           |
| JC65058-13.2         | Secured Staging Area | Sauvelson Auguste    | 05/23/18 04:25 | Retrieve from Storage       |
| JC65058-13.2         | Sauvelson Auguste    | Chadiyah Canaday     | 05/23/18 12:13 | Custody Transfer            |
| JC65058-13.2         | Chadiyah Canaday     | Lindsey Lee          | 05/23/18 15:18 | Custody Transfer            |
| JC65058-13.2         | Lindsey Lee          | Secured Storage      | 05/23/18 17:18 | Return to Storage           |
| JC65058-13.2.1       | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:44 | Extract from JC65058-13.2   |
| JC65058-13.2.2       | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:48 | Extract from JC65058-13.2   |
| JC65058-13.2.2       | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-13.2   |
| JC65058-13.2.2       | Lindsey Lee          | Extract Storage      | 04/30/18 21:59 | Return to Storage           |
| JC65058-13.2.2       | Extract Storage      | Christine Change     | 05/10/18 12:38 | Retrieve from Storage       |
| JC65058-13.2.2       | Christine Change     | GCMSZ                | 05/10/18 12:38 | Load on Instrument          |
| JC65058-13.2.2       | GCMSZ                | Christine Change     | 05/11/18 15:23 | Unload from Instrument      |
| JC65058-13.2.2       | Christine Change     | Extract Freezer      | 05/11/18 15:24 | Return to Storage           |
| JC65058-13.2.3       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:28 | Extract from JC65058-13.2   |
| JC65058-13.2.3       | Organics Prep        | Sora Lynn Mathurin   | 05/01/18 13:53 | Extract from JC65058-13.2   |
| JC65058-13.2.3       | Sora Lynn Mathurin   | Extract Storage      | 05/01/18 13:53 | Return to Storage           |
| JC65058-13.2.3       | Extract Storage      | Tianwei Ruan         | 05/01/18 15:32 | Retrieve from Storage       |
| JC65058-13.2.3       | Tianwei Ruan         | GC2G                 | 05/01/18 15:32 | Load on Instrument          |
| JC65058-13.2.3       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-13.2.3       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage           |
| JC65058-13.2.4       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:33 | Extract from JC65058-13.2   |
| JC65058-13.2.4       | Organics Prep        | Sora Lynn Mathurin   | 05/01/18 13:54 | Extract from JC65058-13.2   |
| JC65058-13.2.4       | Sora Lynn Mathurin   | Extract Storage      | 05/01/18 13:54 | Return to Storage           |
| JC65058-13.2.4       | Extract Storage      | Christine Phillips   | 05/02/18 00:18 | Retrieve from Storage       |
| JC65058-13.2.4       | Christine Phillips   | GC1G                 | 05/02/18 00:18 | Load on Instrument          |
| JC65058-13.2.5       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:37 | Extract from JC65058-13.2   |
| JC65058-13.2.5       | Organics Prep        | Finley Nyaata        | 05/01/18 16:05 | Extract from JC65058-13.2   |
| JC65058-13.2.5       | Finley Nyaata        | Extract Storage      | 05/01/18 16:05 | Return to Storage           |
| JC65058-13.2.5       | Extract Storage      | Vincent Drago        | 05/01/18 16:59 | Retrieve from Storage       |
| JC65058-13.2.5       | Vincent Drago        | GC3G                 | 05/01/18 16:59 | Load on Instrument          |
| JC65058-13.2.5       | GC3G                 | Vincent Drago        | 05/02/18 10:05 | Unload from Instrument      |
| JC65058-13.2.5       | Vincent Drago        | Extract Freezer      | 05/02/18 10:05 | Return to Storage           |
| JC65058-13.2.6       | Bhooma Patel         | Metals Digestion     | 05/07/18 09:30 | Digestate from JC65058-13.2 |
| JC65058-13.2.6       | Metals Digestion     | Bhooma Patel         | 05/07/18 09:30 | Digestate from JC65058-13.2 |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65058-13.2.6       | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65058-13.2.7       | Chadiyah Canaday     | Organics Prep            | 05/21/18 12:46 | Extract from JC65058-13.2  |
| JC65058-13.2.7       | Organics Prep        | Lindsey Lee              | 05/21/18 21:59 | Extract from JC65058-13.2  |
| JC65058-13.2.7       | Lindsey Lee          | Extract Storage          | 05/21/18 21:59 | Return to Storage          |
| JC65058-13.2.7       | Extract Storage      | Christine Phillips       | 05/22/18 00:52 | Retrieve from Storage      |
| JC65058-13.2.7       | Christine Phillips   | GC8G                     | 05/22/18 00:52 | Load on Instrument         |
| JC65058-13.2.8       | Sauvelson Auguste    | Organics Prep            | 05/23/18 04:30 | Extract from JC65058-13.2  |
| JC65058-13.2.8       | Organics Prep        | Sora Lynn Mathurin       | 05/23/18 13:26 | Extract from JC65058-13.2  |
| JC65058-13.2.8       | Sora Lynn Mathurin   | Extract Storage          | 05/23/18 13:26 | Return to Storage          |
| JC65058-13.2.8       | Extract Storage      | Vincent Drago            | 05/23/18 16:49 | Retrieve from Storage      |
| JC65058-13.2.8       | Vincent Drago        | GCOA                     | 05/23/18 16:50 | Load on Instrument         |
| JC65058-13.3         | Secured Storage      | Jennifer Voitovitch      | 04/29/18 08:17 | Retrieve from Storage      |
| JC65058-13.3         | Jennifer Voitovitch  | Secured Staging Area     | 04/29/18 08:17 | Return to Storage          |
| JC65058-13.3         | Secured Staging Area | Robert Bandstra          | 04/29/18 10:01 | Retrieve from Storage      |
| JC65058-13.3         | Robert Bandstra      | Secured Storage          | 04/30/18 08:31 | Return to Storage          |
| JC65058-13.3         | Secured Storage      | Jayna Patel              | 04/30/18 15:57 | Retrieve from Storage      |
| JC65058-13.3         | Jayna Patel          | Secured Storage          | 04/30/18 15:57 | Return to Storage          |
| JC65058-13.3.1       | Robert Bandstra      | TCLP                     | 04/29/18 10:01 | Leachate from JC65058-13.3 |
| JC65058-13.3.1       | TCLP                 | Brian Miller             | 04/30/18 07:31 | Leachate from JC65058-13.3 |
| JC65058-13.3.1       | Brian Miller         | Secured Storage          | 04/30/18 07:31 | Return to Storage          |
| JC65058-13.3.1       | Secured Storage      | Jessica Potts            | 04/30/18 12:44 | Retrieve from Storage      |
| JC65058-13.3.1       | Jessica Potts        | GCMS2V                   | 04/30/18 12:44 | Load on Instrument         |
| JC65058-13.3.1       | GCMS2V               | Jessica Potts            | 05/01/18 07:39 | Unload from Instrument     |
| JC65058-13.3.1       | Jessica Potts        | Secured Storage          | 05/01/18 07:39 | Return to Storage          |
| JC65058-13.3.2       | TCLP                 | Brian Miller             | 04/30/18 07:31 | Leachate from JC65058-13.3 |
| JC65058-13.3.2       | Brian Miller         | Secured Storage          | 04/30/18 07:31 | Return to Storage          |
| JC65058-13.5         | Secured Storage      | Prashant Shukla          | 05/01/18 14:23 | Retrieve from Storage      |
| JC65058-13.5         | Prashant Shukla      | GCMSY                    | 05/01/18 14:23 | Load on Instrument         |
| JC65058-13.5         | GCMSY                | Prashant Shukla          | 05/02/18 10:08 | Unload from Instrument     |
| JC65058-13.5         | Prashant Shukla      |                          | 05/02/18 10:09 | Deleted                    |
| JC65058-14.2         | Secured Storage      | Jayna Patel              | 04/30/18 15:57 | Retrieve from Storage      |
| JC65058-14.2         | Jayna Patel          | Secured Storage          | 04/30/18 15:57 | Return to Storage          |
| JC65058-15.1         | Secured Storage      | Sahara Feliciano         | 04/29/18 08:42 | Retrieve from Storage      |
| JC65058-15.1         | Sahara Feliciano     | Secured Staging Area     | 04/29/18 08:43 | Return to Storage          |
| JC65058-15.1         | Secured Staging Area | Sauvelson Auguste        | 04/30/18 04:36 | Retrieve from Storage      |
| JC65058-15.1         | Sauvelson Auguste    | Secured Storage          | 04/30/18 11:54 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number                      | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|---|----------------------|----------------------|----------------|---------------------------|
| JC65058-15.1                              | Secured Storage      | Chatiyah Canaday     | 04/30/18 13:24 | Retrieve from Storage     |
| JC65058-15.1                              | Chatiyah Canaday     | Rebecca Gluckman     | 04/30/18 15:14 | Custody Transfer          |
| JC65058-15.1                              | Rebecca Gluckman     | Secured Storage      | 04/30/18 17:38 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage     |
| JC65058-15.1                              | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage     |
| JC65058-15.1                              | Meilly Arbelo        | Rebecca Gluckman     | 05/01/18 14:53 | Custody Transfer          |
| JC65058-15.1                              | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Dwayne Johnson       | 05/02/18 12:39 | Retrieve from Storage     |
| JC65058-15.1                              | Dwayne Johnson       | Secured Staging Area | 05/02/18 12:39 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Luis Villanueva      | 05/02/18 12:59 | Retrieve from Storage     |
| JC65058-15.1                              | Luis Villanueva      | Secured Storage      | 05/02/18 16:48 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Todd Shoemaker       | 05/04/18 14:40 | Retrieve from Storage     |
| JC65058-15.1                              | Todd Shoemaker       | Secured Staging Area | 05/04/18 14:40 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Natasha Torres       | 05/04/18 15:13 | Retrieve from Storage     |
| JC65058-15.1                              | Natasha Torres       | Secured Storage      | 05/05/18 09:45 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage     |
| JC65058-15.1                              | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage     |
| JC65058-15.1                              | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Christopher Hall     | 05/15/18 18:25 | Retrieve from Storage     |
| JC65058-15.1                              | Christopher Hall     | Secured Staging Area | 05/15/18 18:25 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Hans Seignon         | 05/16/18 17:08 | Retrieve from Storage     |
| JC65058-15.1                              | Shirley Grzybowski   | Secured Storage      | 05/17/18 07:12 | Return to Storage         |
| Analyst unavailable for custody transfer. |                      |                      |                |                           |
| JC65058-15.1                              | Secured Storage      | Dwayne Johnson       | 05/17/18 08:35 | Retrieve from Storage     |
| JC65058-15.1                              | Dwayne Johnson       | Secured Staging Area | 05/17/18 08:35 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Jared O. Onindo      | 05/17/18 08:54 | Retrieve from Storage     |
| JC65058-15.1                              | Jared O. Onindo      | Secured Storage      | 05/17/18 15:48 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Dwayne Johnson       | 05/21/18 12:36 | Retrieve from Storage     |
| JC65058-15.1                              | Dwayne Johnson       | Secured Staging Area | 05/21/18 12:36 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Chatiyah Canaday     | 05/21/18 12:43 | Retrieve from Storage     |
| JC65058-15.1                              | Chatiyah Canaday     | Secured Storage      | 05/21/18 16:48 | Return to Storage         |
| JC65058-15.1                              | Secured Storage      | Jennifer Voitovitch  | 05/22/18 18:59 | Retrieve from Storage     |
| JC65058-15.1                              | Jennifer Voitovitch  | Secured Staging Area | 05/22/18 18:59 | Return to Storage         |
| JC65058-15.1                              | Secured Staging Area | Sauvelson Auguste    | 05/23/18 04:25 | Retrieve from Storage     |
| JC65058-15.1                              | Sauvelson Auguste    | Chatiyah Canaday     | 05/23/18 12:13 | Custody Transfer          |
| JC65058-15.1                              | Chatiyah Canaday     | Lindsey Lee          | 05/23/18 15:18 | Custody Transfer          |
| JC65058-15.1                              | Lindsey Lee          | Secured Storage      | 05/23/18 17:18 | Return to Storage         |
| JC65058-15.1.1                            | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:44 | Extract from JC65058-15.1 |
| JC65058-15.1.2                            | Sauvelson Auguste    | Organics Prep        | 04/30/18 11:48 | Extract from JC65058-15.1 |
| JC65058-15.1.2                            | Organics Prep        | Lindsey Lee          | 04/30/18 21:59 | Extract from JC65058-15.1 |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM      | Transfer TO              | Date/Time      | Reason                      |
|----------------------|--------------------|--------------------------|----------------|-----------------------------|
| JC65058-15.1.2       | Lindsey Lee        | Extract Storage          | 04/30/18 21:59 | Return to Storage           |
| JC65058-15.1.2       | Extract Storage    | Christine Change         | 05/10/18 12:38 | Retrieve from Storage       |
| JC65058-15.1.2       | Christine Change   | GCMSZ                    | 05/10/18 12:38 | Load on Instrument          |
| JC65058-15.1.2       | GCMSZ              | Christine Change         | 05/14/18 14:02 | Unload from Instrument      |
| JC65058-15.1.2       | Christine Change   | Extract Freezer          | 05/14/18 14:02 | Return to Storage           |
| JC65058-15.1.3       | Meilly Arbelo      | Organics Prep            | 05/01/18 06:28 | Extract from JC65058-15.1   |
| JC65058-15.1.3       | Organics Prep      | Sora Lynn Mathurin       | 05/01/18 13:53 | Extract from JC65058-15.1   |
| JC65058-15.1.3       | Sora Lynn Mathurin | Extract Storage          | 05/01/18 13:53 | Return to Storage           |
| JC65058-15.1.3       | Tianwei Ruan       | GC2G                     | 05/01/18 15:32 | Load on Instrument          |
| JC65058-15.1.3       | Extract Storage    | Tianwei Ruan             | 05/01/18 15:32 | Retrieve from Storage       |
| JC65058-15.1.3       | GC2G               | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-15.1.3       | Edouard Adrian Lee | Extract Freezer          | 05/12/18 14:55 | Return to Storage           |
| JC65058-15.1.4       | Meilly Arbelo      | Organics Prep            | 05/01/18 06:33 | Extract from JC65058-15.1   |
| JC65058-15.1.4       | Organics Prep      | Sora Lynn Mathurin       | 05/01/18 13:54 | Extract from JC65058-15.1   |
| JC65058-15.1.4       | Sora Lynn Mathurin | Extract Storage          | 05/01/18 13:54 | Return to Storage           |
| JC65058-15.1.4       | Extract Storage    | Christine Phillips       | 05/02/18 00:18 | Retrieve from Storage       |
| JC65058-15.1.4       | Christine Phillips | GC1G                     | 05/02/18 00:18 | Load on Instrument          |
| JC65058-15.1.5       | Meilly Arbelo      | Organics Prep            | 05/01/18 06:37 | Extract from JC65058-15.1   |
| JC65058-15.1.5       | Organics Prep      | Finley Nyaata            | 05/01/18 16:05 | Extract from JC65058-15.1   |
| JC65058-15.1.5       | Finley Nyaata      | Extract Storage          | 05/01/18 16:05 | Return to Storage           |
| JC65058-15.1.5       | Extract Storage    | Vincent Drago            | 05/02/18 15:48 | Retrieve from Storage       |
| JC65058-15.1.5       | Vincent Drago      | GC3G                     | 05/02/18 15:48 | Load on Instrument          |
| JC65058-15.1.5       | GC3G               | Vincent Drago            | 05/07/18 10:24 | Unload from Instrument      |
| JC65058-15.1.5       | Vincent Drago      | Extract Freezer          | 05/07/18 10:24 | Return to Storage           |
| JC65058-15.1.6       | Natasha Torres     | Organics Prep            | 05/04/18 15:15 | Extract from JC65058-15.1   |
| JC65058-15.1.6       | Organics Prep      | Natasha Torres           | 05/05/18 07:57 | Extract from JC65058-15.1   |
| JC65058-15.1.6       | Natasha Torres     | Extract Storage          | 05/05/18 07:57 | Return to Storage           |
| JC65058-15.1.6       | Extract Storage    | Tianwei Ruan             | 05/07/18 11:52 | Retrieve from Storage       |
| JC65058-15.1.6       | Tianwei Ruan       | GC2G                     | 05/07/18 11:52 | Load on Instrument          |
| JC65058-15.1.6       | GC2G               | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument      |
| JC65058-15.1.6       | Edouard Adrian Lee | Extract Freezer          | 05/12/18 14:55 | Return to Storage           |
| JC65058-15.1.7       | Bhooma Patel       | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65058-15.1 |
| JC65058-15.1.7       | Metals Digestion   | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65058-15.1 |
| JC65058-15.1.7       | Bhooma Patel       | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage           |
| JC65058-15.1.8       | Chatihay Canaday   | Organics Prep            | 05/21/18 12:46 | Extract from JC65058-15.1   |
| JC65058-15.1.8       | Organics Prep      | Lindsey Lee              | 05/21/18 21:59 | Extract from JC65058-15.1   |
| JC65058-15.1.8       | Lindsey Lee        | Extract Storage          | 05/21/18 21:59 | Return to Storage           |
| JC65058-15.1.8       | Extract Storage    | Christine Phillips       | 05/22/18 00:52 | Retrieve from Storage       |

# SGS Internal Chain of Custody

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/27/18

| Sample.Bottle Number | Transfer FROM      | Transfer TO        | Date/Time      | Reason                    |
|----------------------|--------------------|--------------------|----------------|---------------------------|
| JC65058-15.1.8       | Christine Phillips | GC8G               | 05/22/18 00:52 | Load on Instrument        |
| JC65058-15.1.9       | Sauvelson Auguste  | Organics Prep      | 05/23/18 04:30 | Extract from JC65058-15.1 |
| JC65058-15.1.9       | Organics Prep      | Sora Lynn Mathurin | 05/23/18 13:26 | Extract from JC65058-15.1 |
| JC65058-15.1.9       | Sora Lynn Mathurin | Extract Storage    | 05/23/18 13:26 | Return to Storage         |
| JC65058-15.1.9       | Extract Storage    | Vincent Drago      | 05/23/18 16:49 | Retrieve from Storage     |
| JC65058-15.1.9       | Vincent Drago      | GCOA               | 05/23/18 16:50 | Load on Instrument        |
| JC65058-15.2         | Secured Storage    | Jayna Patel        | 04/30/18 15:57 | Retrieve from Storage     |
| JC65058-15.2         | Jayna Patel        | Secured Storage    | 04/30/18 15:57 | Return to Storage         |
| JC65058-15.4         | Secured Storage    | Prashant Shukla    | 05/01/18 14:23 | Retrieve from Storage     |
| JC65058-15.4         | Prashant Shukla    | GCMSY              | 05/01/18 14:23 | Load on Instrument        |
| JC65058-15.4         | GCMSY              | Prashant Shukla    | 05/02/18 10:08 | Unload from Instrument    |
| JC65058-15.4         | Prashant Shukla    |                    | 05/02/18 10:09 | Depleted                  |

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| V2V2002-MB | 2V50186.D | 1  | 04/30/18 | JP | n/a       | n/a        | V2V2002          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-13A

| CAS No.  | Compound             | Result | RL   | MDL  | Units | Q |
|----------|----------------------|--------|------|------|-------|---|
| 71-43-2  | Benzene              | ND     | 0.50 | 0.17 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 10   | 4.8  | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 1.0  | 0.34 | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 1.0  | 0.24 | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 1.0  | 0.29 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 1.0  | 0.17 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 1.0  | 0.20 | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 1.0  | 0.47 | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 1.0  | 0.50 | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 1.0  | 0.27 | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 1.0  | 0.62 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   | 64-135% |
| 2037-26-5  | Toluene-D8            | 101%   | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 72-122% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7766-MB | Y179600.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |



# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7766-MB | Y179600.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 96% 75-127%  |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88% 75-130%  |
| 2037-26-5  | Toluene-D8            | 94% 80-120%  |
| 460-00-4   | 4-Bromofluorobenzene  | 108% 79-127% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V1C6910-MB | 1C156633.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V1C6910-MB | 1C156633.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 96% 75-127%  |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% 75-130%  |
| 2037-26-5  | Toluene-D8            | 105% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% 79-127% |

| CAS No. | Tentatively Identified Compounds | R. T. | Est. Conc. | Units | Q |
|---------|----------------------------------|-------|------------|-------|---|
|         | Total TIC, Volatile              |       | 0          | ug/kg |   |

# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| V2V2004-MB | 2V50237.D | 1  | 05/01/18 | JP | n/a       | n/a        | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

GP12723-LS7

| CAS No.  | Compound             | Result | RL   | MDL  | Units | Q |
|----------|----------------------|--------|------|------|-------|---|
| 71-43-2  | Benzene              | ND     | 0.50 | 0.17 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 10   | 4.8  | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 1.0  | 0.34 | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 1.0  | 0.24 | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 1.0  | 0.29 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 1.0  | 0.17 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 1.0  | 0.20 | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 1.0  | 0.47 | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 1.0  | 0.50 | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 1.0  | 0.27 | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 1.0  | 0.62 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%    | 64-135% |
| 2037-26-5  | Toluene-D8            | 104%   | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 72-122% |

6.1.4  
6

## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID     | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-------------|----|----------|----|-----------|------------|------------------|
| V1C6910-MB2 | 1C156667A.D | 1  | 05/10/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65260-15MS

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID     | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-------------|----|----------|----|-----------|------------|------------------|
| V1C6910-MB2 | 1C156667A.D | 1  | 05/10/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65260-15MS

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 96% 75-127%  |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 112% 75-130% |
| 2037-26-5  | Toluene-D8            | 108% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 103% 79-127% |

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| GP12723-LB10 | 2V50199.D | 5  | 04/30/18 | JP | 04/29/18  | GP12723    | V2V2002          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-13A

| CAS No.  | Compound             | Result | RL  | MDL  | Units | Q |
|----------|----------------------|--------|-----|------|-------|---|
| 71-43-2  | Benzene              | ND     | 2.5 | 0.87 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 50  | 24   | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 5.0 | 1.7  | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 5.0 | 1.2  | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 5.0 | 1.4  | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 5.0 | 0.87 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 5.0 | 1.0  | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 5.0 | 2.4  | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 5.0 | 2.5  | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 5.0 | 1.3  | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 5.0 | 3.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   | 64-135% |
| 2037-26-5  | Toluene-D8            | 100%   | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 72-122% |

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| V2V2002-BS | 2V50184.D | 1  | 04/30/18 | JP | n/a       | n/a        | V2V2002          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-13A

| CAS No.  | Compound             | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|----------------------|------------|----------|-------|--------|
| 71-43-2  | Benzene              | 50         | 49.8     | 100   | 75-122 |
| 78-93-3  | 2-Butanone (MEK)     | 200        | 205      | 103   | 64-130 |
| 56-23-5  | Carbon tetrachloride | 50         | 51.4     | 103   | 75-148 |
| 108-90-7 | Chlorobenzene        | 50         | 50.6     | 101   | 76-124 |
| 67-66-3  | Chloroform           | 50         | 48.9     | 98    | 77-124 |
| 106-46-7 | 1,4-Dichlorobenzene  | 50         | 52.9     | 106   | 71-123 |
| 107-06-2 | 1,2-Dichloroethane   | 50         | 49.9     | 100   | 66-150 |
| 75-35-4  | 1,1-Dichloroethene   | 50         | 51.7     | 103   | 61-132 |
| 127-18-4 | Tetrachloroethene    | 50         | 51.7     | 103   | 70-136 |
| 79-01-6  | Trichloroethene      | 50         | 49.8     | 100   | 79-126 |
| 75-01-4  | Vinyl chloride       | 50         | 41.2     | 82    | 56-146 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%  | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%  | 64-135% |
| 2037-26-5  | Toluene-D8            | 98%  | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 72-122% |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7766-BS | Y179598.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 200            | 137          | 69       | 48-149 |
| 71-43-2    | Benzene                     | 50             | 50.7         | 101      | 74-117 |
| 74-97-5    | Bromochloromethane          | 50             | 56.0         | 112      | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50             | 50.3         | 101      | 78-119 |
| 75-25-2    | Bromoform                   | 50             | 56.6         | 113      | 76-130 |
| 74-83-9    | Bromomethane                | 50             | 60.8         | 122      | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200            | 208          | 104      | 65-143 |
| 75-15-0    | Carbon disulfide            | 50             | 52.2         | 104      | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50             | 62.6         | 125      | 69-136 |
| 108-90-7   | Chlorobenzene               | 50             | 52.5         | 105      | 79-117 |
| 75-00-3    | Chloroethane                | 50             | 60.6         | 121      | 62-139 |
| 67-66-3    | Chloroform                  | 50             | 50.2         | 100      | 76-119 |
| 74-87-3    | Chloromethane               | 50             | 60.9         | 122      | 52-144 |
| 110-82-7   | Cyclohexane                 | 50             | 59.6         | 119      | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50             | 50.0         | 100      | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50             | 53.5         | 107      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50             | 54.0         | 108      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50             | 51.9         | 104      | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50             | 54.1         | 108      | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50             | 51.0         | 102      | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50             | 66.9         | 134      | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50             | 53.5         | 107      | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50             | 46.5         | 93       | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50             | 60.0         | 120      | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50             | 47.0         | 94       | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50             | 55.8         | 112      | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50             | 54.3         | 109      | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50             | 58.4         | 117      | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50             | 48.9         | 98       | 78-119 |
| 100-41-4   | Ethylbenzene                | 50             | 50.1         | 100      | 75-118 |
| 76-13-1    | Freon 113                   | 50             | 70.3         | 141      | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200            | 206          | 103      | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50             | 52.0         | 104      | 74-122 |
| 79-20-9    | Methyl Acetate              | 50             | 53.2         | 106      | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50             | 56.4         | 113      | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50             | 46.9         | 94       | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7766-BS | Y179598.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200         | 255       | 128   | 73-136 |
| 75-09-2   | Methylene chloride         | 50          | 53.2      | 106   | 73-120 |
| 100-42-5  | Styrene                    | 50          | 50.6      | 101   | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50          | 50.6      | 101   | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50          | 58.4      | 117   | 69-128 |
| 108-88-3  | Toluene                    | 50          | 51.9      | 104   | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50          | 52.3      | 105   | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50          | 52.6      | 105   | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50          | 56.1      | 112   | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50          | 48.0      | 96    | 79-117 |
| 79-01-6   | Trichloroethene            | 50          | 52.9      | 106   | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50          | 65.6      | 131   | 63-141 |
| 75-01-4   | Vinyl chloride             | 50          | 68.4      | 137   | 55-145 |
|           | m,p-Xylene                 | 100         | 110       | 110   | 75-120 |
| 95-47-6   | o-Xylene                   | 50          | 48.0      | 96    | 75-119 |
| 1330-20-7 | Xylene (total)             | 150         | 158       | 105   | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%  | 75-130% |
| 2037-26-5  | Toluene-D8            | 92%  | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 105% | 79-127% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V1C6910-BS | 1C156631.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 200            | 174          | 87       | 48-149 |
| 71-43-2    | Benzene                     | 50             | 47.2         | 94       | 74-117 |
| 74-97-5    | Bromochloromethane          | 50             | 47.9         | 96       | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50             | 48.9         | 98       | 78-119 |
| 75-25-2    | Bromoform                   | 50             | 47.2         | 94       | 76-130 |
| 74-83-9    | Bromomethane                | 50             | 35.4         | 71       | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200            | 190          | 95       | 65-143 |
| 75-15-0    | Carbon disulfide            | 50             | 41.3         | 83       | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50             | 49.9         | 100      | 69-136 |
| 108-90-7   | Chlorobenzene               | 50             | 47.1         | 94       | 79-117 |
| 75-00-3    | Chloroethane                | 50             | 49.5         | 99       | 62-139 |
| 67-66-3    | Chloroform                  | 50             | 48.6         | 97       | 76-119 |
| 74-87-3    | Chloromethane               | 50             | 43.1         | 86       | 52-144 |
| 110-82-7   | Cyclohexane                 | 50             | 50.7         | 101      | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50             | 51.9         | 104      | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50             | 50.5         | 101      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50             | 54.0         | 108      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50             | 49.9         | 100      | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50             | 48.2         | 96       | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50             | 49.3         | 99       | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50             | 49.4         | 99       | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50             | 47.1         | 94       | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50             | 46.1         | 92       | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50             | 46.7         | 93       | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50             | 44.4         | 89       | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50             | 44.8         | 90       | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50             | 47.8         | 96       | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50             | 50.3         | 101      | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50             | 52.9         | 106      | 78-119 |
| 100-41-4   | Ethylbenzene                | 50             | 47.5         | 95       | 75-118 |
| 76-13-1    | Freon 113                   | 50             | 49.3         | 99       | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200            | 196          | 98       | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50             | 46.1         | 92       | 74-122 |
| 79-20-9    | Methyl Acetate              | 50             | 57.2         | 114      | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50             | 49.9         | 100      | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50             | 53.8         | 108      | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| V1C6910-BS | 1C156631.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.   | Compound                   | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|----------------------------|----------------|--------------|----------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200            | 208          | 104      | 73-136 |
| 75-09-2   | Methylene chloride         | 50             | 47.4         | 95       | 73-120 |
| 100-42-5  | Styrene                    | 50             | 48.2         | 96       | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50             | 56.2         | 112      | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50             | 47.4         | 95       | 69-128 |
| 108-88-3  | Toluene                    | 50             | 49.4         | 99       | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50             | 46.8         | 94       | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50             | 48.1         | 96       | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50             | 49.1         | 98       | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50             | 52.6         | 105      | 79-117 |
| 79-01-6   | Trichloroethene            | 50             | 46.6         | 93       | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50             | 47.5         | 95       | 63-141 |
| 75-01-4   | Vinyl chloride             | 50             | 48.0         | 96       | 55-145 |
|           | m,p-Xylene                 | 100            | 94.0         | 94       | 75-120 |
| 95-47-6   | o-Xylene                   | 50             | 48.3         | 97       | 75-119 |
| 1330-20-7 | Xylene (total)             | 150            | 142          | 95       | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 75-130% |
| 2037-26-5  | Toluene-D8            | 105% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 106% | 79-127% |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65058-5MS            | Y179611.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |
| JC65058-5 <sup>a</sup> | Y179601.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound                    | JC65058-5<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|------------|-----------------------------|--------------------|------------|-------------|---------|--------|
| 67-64-1    | Acetone                     | ND                 |            | 210         | 111     | 53     |
| 71-43-2    | Benzene                     | 0.40               | J          | 52.5        | 50.7    | 96     |
| 74-97-5    | Bromochloromethane          | ND                 |            | 52.5        | 53.3    | 101    |
| 75-27-4    | Bromodichloromethane        | ND                 |            | 52.5        | 48.3    | 92     |
| 75-25-2    | Bromoform                   | ND                 |            | 52.5        | 50.2    | 96     |
| 74-83-9    | Bromomethane                | ND                 |            | 52.5        | 54.9    | 104    |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |            | 210         | 163     | 78     |
| 75-15-0    | Carbon disulfide            | ND                 |            | 52.5        | 50.5    | 96     |
| 56-23-5    | Carbon tetrachloride        | ND                 |            | 52.5        | 59.7    | 114    |
| 108-90-7   | Chlorobenzene               | ND                 |            | 52.5        | 51.6    | 98     |
| 75-00-3    | Chloroethane                | ND                 |            | 52.5        | 58.6    | 112    |
| 67-66-3    | Chloroform                  | ND                 |            | 52.5        | 49.2    | 94     |
| 74-87-3    | Chloromethane               | ND                 |            | 52.5        | 54.1    | 103    |
| 110-82-7   | Cyclohexane                 | ND                 |            | 52.5        | 55.6    | 106    |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |            | 52.5        | 41.8    | 80     |
| 124-48-1   | Dibromochloromethane        | ND                 |            | 52.5        | 51.2    | 97     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |            | 52.5        | 49.9    | 95     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |            | 52.5        | 48.3    | 92     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |            | 52.5        | 49.8    | 95     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |            | 52.5        | 47.7    | 91     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |            | 52.5        | 56.8    | 108    |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |            | 52.5        | 53.3    | 101    |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |            | 52.5        | 45.0    | 86     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |            | 52.5        | 59.5    | 113    |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |            | 52.5        | 46.8    | 89     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |            | 52.5        | 54.9    | 104    |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |            | 52.5        | 53.8    | 102    |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |            | 52.5        | 52.9    | 101    |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |            | 52.5        | 44.2    | 84     |
| 100-41-4   | Ethylbenzene                | ND                 |            | 52.5        | 49.2    | 94     |
| 76-13-1    | Freon 113                   | ND                 |            | 52.5        | 63.8    | 121    |
| 591-78-6   | 2-Hexanone                  | ND                 |            | 210         | 166     | 79     |
| 98-82-8    | Isopropylbenzene            | ND                 |            | 52.5        | 49.2    | 94     |
| 79-20-9    | Methyl Acetate              | ND                 |            | 52.5        | 41.5    | 79     |
| 108-87-2   | Methylcyclohexane           | ND                 |            | 52.5        | 47.6    | 91     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |            | 52.5        | 42.6    | 81     |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65058-5MS            | Y179611.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |
| JC65058-5 <sup>a</sup> | Y179601.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | JC65058-5<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |        |
|-----------|----------------------------|--------------------|------------|-------------|---------|--------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |            | 210         | 205     | 98     | 40-140 |
| 75-09-2   | Methylene chloride         | ND                 |            | 52.5        | 52.3    | 100    | 57-123 |
| 100-42-5  | Styrene                    | ND                 |            | 52.5        | 48.5    | 92     | 46-139 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |            | 52.5        | 44.2    | 84     | 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                 |            | 52.5        | 55.1    | 105    | 39-154 |
| 108-88-3  | Toluene                    | 0.94               | J          | 52.5        | 52.8    | 99     | 54-127 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |            | 52.5        | 39.6    | 75     | 17-151 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |            | 52.5        | 40.0    | 76     | 19-153 |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |            | 52.5        | 53.5    | 102    | 57-138 |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |            | 52.5        | 45.7    | 87     | 53-127 |
| 79-01-6   | Trichloroethene            | ND                 |            | 52.5        | 52.4    | 100    | 52-140 |
| 75-69-4   | Trichlorofluoromethane     | ND                 |            | 52.5        | 61.6    | 117    | 46-142 |
| 75-01-4   | Vinyl chloride             | ND                 |            | 52.5        | 61.4    | 117    | 43-146 |
|           | m,p-Xylene                 | 1.5                |            | 105         | 108     | 101    | 45-137 |
| 95-47-6   | o-Xylene                   | 0.54               | J          | 52.5        | 47.1    | 89     | 48-135 |
| 1330-20-7 | Xylene (total)             | 2.0                |            | 158         | 155     | 97     | 46-137 |

| CAS No.    | Surrogate Recoveries  | MS   | JC65058-5 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 97%  | 98%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 87%  | 90%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%  | 93%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 104% | 109%      | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| JC65260-15MS | 1C156668.D | 1  | 05/10/18 | PS | n/a       | n/a        | V1C6910          |
| JC65260-15   | 1C156636.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.    | Compound                    | JC65260-15<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|------------|-----------------------------|---------------------|------------|-------------|---------|--------|
| 67-64-1    | Acetone                     | ND                  | 204        | 138         | 67      | 10-157 |
| 71-43-2    | Benzene                     | ND                  | 51.1       | 48.0        | 94      | 58-125 |
| 74-97-5    | Bromochloromethane          | ND                  | 51.1       | 46.9        | 92      | 60-127 |
| 75-27-4    | Bromodichloromethane        | ND                  | 51.1       | 47.9        | 94      | 57-128 |
| 75-25-2    | Bromoform                   | ND                  | 51.1       | 47.3        | 93      | 48-133 |
| 74-83-9    | Bromomethane                | ND                  | 51.1       | 33.7        | 66      | 31-141 |
| 78-93-3    | 2-Butanone (MEK)            | ND                  | 204        | 158         | 77      | 29-146 |
| 75-15-0    | Carbon disulfide            | ND                  | 51.1       | 38.2        | 75      | 47-145 |
| 56-23-5    | Carbon tetrachloride        | ND                  | 51.1       | 49.6        | 97      | 51-143 |
| 108-90-7   | Chlorobenzene               | ND                  | 51.1       | 48.2        | 94      | 54-130 |
| 75-00-3    | Chloroethane                | ND                  | 51.1       | 46.1        | 90      | 22-153 |
| 67-66-3    | Chloroform                  | ND                  | 51.1       | 47.0        | 92      | 61-125 |
| 74-87-3    | Chloromethane               | ND                  | 51.1       | 36.2        | 71      | 43-142 |
| 110-82-7   | Cyclohexane                 | ND                  | 51.1       | 43.9        | 86      | 37-148 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                  | 51.1       | 48.4        | 95      | 41-127 |
| 124-48-1   | Dibromochloromethane        | ND                  | 51.1       | 50.4        | 99      | 56-127 |
| 106-93-4   | 1,2-Dibromoethane           | ND                  | 51.1       | 48.7        | 95      | 54-121 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                  | 51.1       | 48.4        | 95      | 41-134 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                  | 51.1       | 48.1        | 94      | 41-135 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                  | 51.1       | 47.7        | 93      | 41-133 |
| 75-71-8    | Dichlorodifluoromethane     | ND                  | 51.1       | 44.2        | 86      | 30-153 |
| 75-34-3    | 1,1-Dichloroethane          | ND                  | 51.1       | 45.0        | 88      | 61-131 |
| 107-06-2   | 1,2-Dichloroethane          | ND                  | 51.1       | 47.1        | 92      | 56-126 |
| 75-35-4    | 1,1-Dichloroethene          | ND                  | 51.1       | 44.5        | 87      | 53-132 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                  | 51.1       | 43.0        | 84      | 57-125 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                  | 51.1       | 41.8        | 82      | 56-130 |
| 78-87-5    | 1,2-Dichloropropane         | ND                  | 51.1       | 46.6        | 91      | 63-126 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                  | 51.1       | 48.7        | 95      | 55-126 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                  | 51.1       | 52.9        | 103     | 51-126 |
| 100-41-4   | Ethylbenzene                | ND                  | 51.1       | 49.0        | 96      | 49-132 |
| 76-13-1    | Freon 113                   | ND                  | 51.1       | 45.9        | 90      | 42-179 |
| 591-78-6   | 2-Hexanone                  | ND                  | 204        | 178         | 87      | 25-150 |
| 98-82-8    | Isopropylbenzene            | ND                  | 51.1       | 48.5        | 95      | 43-141 |
| 79-20-9    | Methyl Acetate              | ND                  | 51.1       | 44.4        | 87      | 32-158 |
| 108-87-2   | Methylcyclohexane           | ND                  | 51.1       | 44.6        | 87      | 22-158 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                  | 51.1       | 48.2        | 94      | 58-123 |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| JC65260-15MS | 1C156668.D | 1  | 05/10/18 | PS | n/a       | n/a        | V1C6910          |
| JC65260-15   | 1C156636.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.   | Compound                   | JC65260-15<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Limits |
|-----------|----------------------------|---------------------|------------|-------------|---------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                  | 204        | 187         | 91      | 40-140 |
| 75-09-2   | Methylene chloride         | ND                  | 51.1       | 46.0        | 90      | 57-123 |
| 100-42-5  | Styrene                    | ND                  | 51.1       | 48.9        | 96      | 46-139 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                  | 51.1       | 50.0        | 98      | 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                  | 51.1       | 45.7        | 89      | 39-154 |
| 108-88-3  | Toluene                    | ND                  | 51.1       | 49.7        | 97      | 54-127 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                  | 51.1       | 44.1        | 86      | 17-151 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                  | 51.1       | 45.8        | 90      | 19-153 |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                  | 51.1       | 47.7        | 93      | 57-138 |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                  | 51.1       | 49.7        | 97      | 53-127 |
| 79-01-6   | Trichloroethene            | ND                  | 51.1       | 46.6        | 91      | 52-140 |
| 75-69-4   | Trichlorofluoromethane     | ND                  | 51.1       | 47.2        | 92      | 46-142 |
| 75-01-4   | Vinyl chloride             | ND                  | 51.1       | 43.0        | 84      | 43-146 |
|           | m,p-Xylene                 | ND                  | 102        | 95.2        | 93      | 45-137 |
| 95-47-6   | o-Xylene                   | ND                  | 51.1       | 49.0        | 96      | 48-135 |
| 1330-20-7 | Xylene (total)             | ND                  | 153        | 144         | 94      | 46-137 |

| CAS No.    | Surrogate Recoveries  | MS   | JC65260-15 | Limits  |
|------------|-----------------------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 94%  | 103%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | 110%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 108% | 100%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 100%       | 79-127% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC64956-1MS  | 2V50203.D | 5  | 04/30/18 | JP | n/a       | n/a        | V2V2002          |
| JC64956-1MSD | 2V50204.D | 5  | 04/30/18 | JP | n/a       | n/a        | V2V2002          |
| JC64956-1    | 2V50189.D | 5  | 04/30/18 | JP | 04/27/18  | GP12692    | V2V2002          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-13A

| CAS No.  | Compound             | JC64956-1<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|----------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 71-43-2  | Benzene              | 7.2               | 250                | 235        | 91      | 250           | 242         | 94       | 3   | 38-139/13         |
| 78-93-3  | 2-Butanone (MEK)     | ND                | 1000               | 1030       | 103     | 1000          | 1020        | 102      | 1   | 58-140/14         |
| 56-23-5  | Carbon tetrachloride | ND                | 250                | 245        | 98      | 250           | 251         | 100      | 2   | 50-161/18         |
| 108-90-7 | Chlorobenzene        | ND                | 250                | 227        | 91      | 250           | 235         | 94       | 3   | 65-128/12         |
| 67-66-3  | Chloroform           | ND                | 250                | 237        | 95      | 250           | 242         | 97       | 2   | 66-132/14         |
| 106-46-7 | 1,4-Dichlorobenzene  | ND                | 250                | 229        | 92      | 250           | 239         | 96       | 4   | 63-126/13         |
| 107-06-2 | 1,2-Dichloroethane   | ND                | 250                | 226        | 90      | 250           | 231         | 92       | 2   | 59-153/15         |
| 75-35-4  | 1,1-Dichloroethene   | ND                | 250                | 258        | 103     | 250           | 264         | 106      | 2   | 41-144/17         |
| 127-18-4 | Tetrachloroethene    | ND                | 250                | 229        | 92      | 250           | 240         | 96       | 5   | 48-145/15         |
| 79-01-6  | Trichloroethene      | ND                | 250                | 226        | 90      | 250           | 235         | 94       | 4   | 53-141/15         |
| 75-01-4  | Vinyl chloride       | ND                | 250                | 211        | 84      | 250           | 212         | 85       | 0   | 34-151/20         |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | JC64956-1 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106% | 105% | 100%      | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | 100% | 101%      | 64-135% |
| 2037-26-5  | Toluene-D8            | 99%  | 101% | 101%      | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 102% | 101%      | 72-122% |

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GP12723-LS7 | 2V50252A.D | 5  | 05/01/18 | JP | 04/29/18  | GP12723    | V2V2004          |
| JC65070-1A  | 2V50238.D  | 5  | 05/01/18 | JP | 04/29/18  | GP12723    | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-13A

| CAS No.  | Compound             | JC65070-1A<br>ug/l | Spike<br>Q ug/l | LS<br>ug/l | LS<br>% | Limits |
|----------|----------------------|--------------------|-----------------|------------|---------|--------|
| 71-43-2  | Benzene              | ND                 | 250             | 233        | 93      | 38-139 |
| 78-93-3  | 2-Butanone (MEK)     | ND                 | 1000            | 970        | 97      | 58-140 |
| 56-23-5  | Carbon tetrachloride | ND                 | 250             | 231        | 92      | 50-161 |
| 108-90-7 | Chlorobenzene        | ND                 | 250             | 223        | 89      | 65-128 |
| 67-66-3  | Chloroform           | ND                 | 250             | 233        | 93      | 66-132 |
| 106-46-7 | 1,4-Dichlorobenzene  | ND                 | 250             | 225        | 90      | 63-126 |
| 107-06-2 | 1,2-Dichloroethane   | ND                 | 250             | 236        | 94      | 59-153 |
| 75-35-4  | 1,1-Dichloroethene   | ND                 | 250             | 251        | 100     | 41-144 |
| 127-18-4 | Tetrachloroethene    | ND                 | 250             | 219        | 88      | 48-145 |
| 79-01-6  | Trichloroethene      | ND                 | 250             | 229        | 92      | 53-141 |
| 75-01-4  | Vinyl chloride       | ND                 | 250             | 198        | 79      | 34-151 |

| CAS No.    | Surrogate Recoveries  | LS   | JC65070-1A | Limits  |
|------------|-----------------------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 103%       | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | 108%       | 64-135% |
| 2037-26-5  | Toluene-D8            | 96%  | 101%       | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 102%       | 72-122% |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65058-6DUP           | Y179606.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |
| JC65058-6 <sup>a</sup> | Y179602.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound                    | JC65058-6<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD               | Limits |
|------------|-----------------------------|--------------------|----------|-------|---|-------------------|--------|
| 67-64-1    | Acetone                     | ND                 |          | ND    |   | nc                | 40     |
| 71-43-2    | Benzene                     | 0.34               | J        | 0.26  | J | 27                | 30     |
| 74-97-5    | Bromochloromethane          | ND                 |          | ND    |   | nc                | 30     |
| 75-27-4    | Bromodichloromethane        | ND                 |          | ND    |   | nc                | 30     |
| 75-25-2    | Bromoform                   | ND                 |          | ND    |   | nc                | 30     |
| 74-83-9    | Bromomethane                | ND                 |          | ND    |   | nc                | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |          | ND    |   | nc                | 30     |
| 75-15-0    | Carbon disulfide            | ND                 |          | 0.82  | J | 200* <sup>b</sup> | 30     |
| 56-23-5    | Carbon tetrachloride        | ND                 |          | ND    |   | nc                | 30     |
| 108-90-7   | Chlorobenzene               | ND                 |          | ND    |   | nc                | 30     |
| 75-00-3    | Chloroethane                | ND                 |          | ND    |   | nc                | 30     |
| 67-66-3    | Chloroform                  | ND                 |          | ND    |   | nc                | 30     |
| 74-87-3    | Chloromethane               | ND                 |          | ND    |   | nc                | 30     |
| 110-82-7   | Cyclohexane                 | ND                 |          | ND    |   | nc                | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |          | ND    |   | nc                | 30     |
| 124-48-1   | Dibromochloromethane        | ND                 |          | ND    |   | nc                | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |          | ND    |   | nc                | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |          | ND    |   | nc                | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |          | ND    |   | nc                | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |          | ND    |   | nc                | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |          | ND    |   | nc                | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |          | ND    |   | nc                | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |          | ND    |   | nc                | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |          | ND    |   | nc                | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |          | ND    |   | nc                | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |          | ND    |   | nc                | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |          | ND    |   | nc                | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |          | ND    |   | nc                | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |          | ND    |   | nc                | 30     |
| 100-41-4   | Ethylbenzene                | ND                 |          | ND    |   | nc                | 30     |
| 76-13-1    | Freon 113                   | ND                 |          | ND    |   | nc                | 30     |
| 591-78-6   | 2-Hexanone                  | ND                 |          | ND    |   | nc                | 30     |
| 98-82-8    | Isopropylbenzene            | ND                 |          | ND    |   | nc                | 30     |
| 79-20-9    | Methyl Acetate              | ND                 |          | ND    |   | nc                | 30     |
| 108-87-2   | Methylcyclohexane           | ND                 |          | ND    |   | nc                | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |          | ND    |   | nc                | 30     |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65058-6DUP           | Y179606.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |
| JC65058-6 <sup>a</sup> | Y179602.D | 1  | 05/01/18 | PS | n/a       | n/a        | VY7766           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | JC65058-6<br>ug/kg | DUP<br>Q | JC65058-6<br>ug/kg | Q | RPD | Limits |
|-----------|----------------------------|--------------------|----------|--------------------|---|-----|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |          | ND                 |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND                 |          | ND                 |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND                 |          | ND                 |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |          | ND                 |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND                 |          | ND                 |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND                 |          | ND                 |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |          | ND                 |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |          | ND                 |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |          | ND                 |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |          | ND                 |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND                 |          | ND                 |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND                 |          | ND                 |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND                 |          | ND                 |   | nc  | 30     |
|           | m,p-Xylene                 | ND                 |          | ND                 |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND                 |          | ND                 |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND                 |          | ND                 |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC65058-6 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%  | 100%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%  | 92%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%  | 94%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 110% | 111%      | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) RPD acceptable due to low DUP and sample concentrations.

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|------------|----|----------|----|-----------|------------|------------------|
| JC65260-13DUP | 1C156640.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |
| JC65260-13    | 1C156634.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.    | Compound                    | JC65260-13 DUP |       | Q  | RPD | Limits |
|------------|-----------------------------|----------------|-------|----|-----|--------|
|            |                             | ug/kg          | ug/kg |    |     |        |
| 67-64-1    | Acetone                     | ND             | ND    | nc |     | 40     |
| 71-43-2    | Benzene                     | ND             | ND    | nc |     | 30     |
| 74-97-5    | Bromochloromethane          | ND             | ND    | nc |     | 30     |
| 75-27-4    | Bromodichloromethane        | ND             | ND    | nc |     | 30     |
| 75-25-2    | Bromoform                   | ND             | ND    | nc |     | 30     |
| 74-83-9    | Bromomethane                | ND             | ND    | nc |     | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND             | ND    | nc |     | 30     |
| 75-15-0    | Carbon disulfide            | ND             | ND    | nc |     | 30     |
| 56-23-5    | Carbon tetrachloride        | ND             | ND    | nc |     | 30     |
| 108-90-7   | Chlorobenzene               | ND             | ND    | nc |     | 30     |
| 75-00-3    | Chloroethane                | ND             | ND    | nc |     | 30     |
| 67-66-3    | Chloroform                  | ND             | ND    | nc |     | 30     |
| 74-87-3    | Chloromethane               | ND             | ND    | nc |     | 30     |
| 110-82-7   | Cyclohexane                 | ND             | ND    | nc |     | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND             | ND    | nc |     | 30     |
| 124-48-1   | Dibromochloromethane        | ND             | ND    | nc |     | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND             | ND    | nc |     | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND             | ND    | nc |     | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND             | ND    | nc |     | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND             | ND    | nc |     | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND             | ND    | nc |     | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND             | ND    | nc |     | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND             | ND    | nc |     | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND             | ND    | nc |     | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND             | ND    | nc |     | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND             | ND    | nc |     | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND             | ND    | nc |     | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND             | ND    | nc |     | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND             | ND    | nc |     | 30     |
| 100-41-4   | Ethylbenzene                | ND             | ND    | nc |     | 30     |
| 76-13-1    | Freon 113                   | ND             | ND    | nc |     | 30     |
| 591-78-6   | 2-Hexanone                  | ND             | ND    | nc |     | 30     |
| 98-82-8    | Isopropylbenzene            | ND             | ND    | nc |     | 30     |
| 79-20-9    | Methyl Acetate              | ND             | ND    | nc |     | 30     |
| 108-87-2   | Methylcyclohexane           | ND             | ND    | nc |     | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND             | ND    | nc |     | 30     |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|------------|----|----------|----|-----------|------------|------------------|
| JC65260-13DUP | 1C156640.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |
| JC65260-13    | 1C156634.D | 1  | 05/09/18 | PS | n/a       | n/a        | V1C6910          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65058-9

| CAS No.   | Compound                   | JC65260-13 DUP |       | Q | RPD | Limits |
|-----------|----------------------------|----------------|-------|---|-----|--------|
|           |                            | ug/kg          | ug/kg |   |     |        |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND             | ND    |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND             | ND    |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND             | ND    |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND             | ND    |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND             | ND    |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND             | ND    |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND             | ND    |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND             | ND    |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND             | ND    |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND             | ND    |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND             | ND    |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND             | ND    |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND             | ND    |   | nc  | 30     |
|           | m,p-Xylene                 | ND             | ND    |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND             | ND    |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND             | ND    |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC65260-13 | Limits  |
|------------|-----------------------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 97%        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | 98%        | 75-130% |
| 2037-26-5  | Toluene-D8            | 102% | 104%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 99%        | 79-127% |

\* = Outside of Control Limits.

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VIC6871-BFB     | <b>Injection Date:</b> 03/23/18 |
| <b>Lab File ID:</b> 1C155647.D | <b>Injection Time:</b> 11:38    |
| <b>Instrument ID:</b> GCMS1C   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 14.99 - 40.0% of mass 95           | 24754         | 18.6                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 64941         | 48.7                     | Pass      |
| 95  | Base peak, 100% relative abundance | 133344        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 9047          | 6.78                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 130786        | 98.1                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9889          | 7.42 (7.56) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 126797        | 95.1 (96.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8329          | 6.25 (6.57) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VIC6871-IC6871  | 1C155648.D  | 03/23/18      | 12:35         | 00:57        | Initial cal 0.2             |
| VIC6871-IC6871  | 1C155649.D  | 03/23/18      | 13:02         | 01:24        | Initial cal 0.5             |
| VIC6871-IC6871  | 1C155650.D  | 03/23/18      | 13:29         | 01:51        | Initial cal 1               |
| VIC6871-IC6871  | 1C155651.D  | 03/23/18      | 13:56         | 02:18        | Initial cal 2               |
| VIC6871-IC6871  | 1C155652.D  | 03/23/18      | 14:22         | 02:44        | Initial cal 4               |
| VIC6871-IC6871  | 1C155653.D  | 03/23/18      | 14:49         | 03:11        | Initial cal 8               |
| VIC6871-IC6871  | 1C155654.D  | 03/23/18      | 15:16         | 03:38        | Initial cal 20              |
| VIC6871-ICC6871 | 1C155655.D  | 03/23/18      | 15:43         | 04:05        | Initial cal 50              |
| VIC6871-IC6871  | 1C155656.D  | 03/23/18      | 16:10         | 04:32        | Initial cal 100             |
| VIC6871-IC6871  | 1C155657.D  | 03/23/18      | 16:37         | 04:59        | Initial cal 200             |
| VIC6871-ICV6871 | 1C155660.D  | 03/23/18      | 17:58         | 06:20        | Initial cal verification 50 |
| VIC6871-ICV6871 | 1C155661.D  | 03/23/18      | 18:24         | 06:46        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VIC6910-BFB     | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> 1C156629.D | <b>Injection Time:</b> 09:36    |
| <b>Instrument ID:</b> GCMS1C   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 14.99 - 40.0% of mass 95           | 31866         | 18.2                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 84798         | 48.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 174784        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10979         | 6.28                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 157397        | 90.1                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 12537         | 7.17 (7.97) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 153589        | 87.9 (97.6) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 10137         | 5.80 (6.60) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| VIC6910-CC6871 | 1C156629.D  | 05/09/18      | 09:36         | 00:00        | Continuing cal 50                           |
| VIC6910-BS     | 1C156631.D  | 05/09/18      | 10:38         | 01:02        | Blank Spike                                 |
| VIC6910-MB     | 1C156633.D  | 05/09/18      | 11:52         | 02:16        | Method Blank                                |
| ZZZZZZ         | 1C156633A.D | 05/09/18      | 11:52         | 02:16        | (unrelated sample)                          |
| JC65260-13     | 1C156634.D  | 05/09/18      | 12:28         | 02:52        | (used for QC only; not part of job JC65058) |
| JC65260-14     | 1C156635.D  | 05/09/18      | 12:54         | 03:18        | (used for QC only; not part of job JC65058) |
| JC65260-15     | 1C156636.D  | 05/09/18      | 13:21         | 03:45        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | 1C156637.D  | 05/09/18      | 13:47         | 04:11        | (unrelated sample)                          |
| ZZZZZZ         | 1C156639.D  | 05/09/18      | 14:41         | 05:05        | (unrelated sample)                          |
| JC65260-13DUP  | 1C156640.D  | 05/09/18      | 15:07         | 05:31        | Duplicate                                   |
| ZZZZZZ         | 1C156642.D  | 05/09/18      | 16:00         | 06:24        | (unrelated sample)                          |
| ZZZZZZ         | 1C156644.D  | 05/09/18      | 16:54         | 07:18        | (unrelated sample)                          |
| JC65058-9      | 1C156646.D  | 05/09/18      | 17:47         | 08:11        | SB-108 (15-25)                              |
| ZZZZZZ         | 1C156647.D  | 05/09/18      | 18:13         | 08:37        | (unrelated sample)                          |
| ZZZZZZ         | 1C156648.D  | 05/09/18      | 18:40         | 09:04        | (unrelated sample)                          |
| ZZZZZZ         | 1C156649.D  | 05/09/18      | 19:06         | 09:30        | (unrelated sample)                          |
| ZZZZZZ         | 1C156651.D  | 05/09/18      | 19:59         | 10:23        | (unrelated sample)                          |



# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VIC6911-BFB     | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 1C156662.D | <b>Injection Time:</b> 12:36    |
| <b>Instrument ID:</b> GCMS1C   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 14.99 - 40.0% of mass 95           | 28677         | 21.6                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 69160         | 52.1                     | Pass      |
| 95  | Base peak, 100% relative abundance | 132755        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 9009          | 6.79                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 118787        | 89.5                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9331          | 7.03 (7.86) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 115085        | 86.7 (96.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 7431          | 5.60 (6.46) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| VIC6911-CC6871 | 1C156663.D  | 05/10/18      | 13:03         | 00:27        | Continuing cal 20                           |
| VIC6910-BS2    | 1C156665A.D | 05/10/18      | 14:11         | 01:35        | Blank Spike                                 |
| VIC6911-BS     | 1C156665.D  | 05/10/18      | 14:11         | 01:35        | Blank Spike                                 |
| VIC6911-MB     | 1C156667.D  | 05/10/18      | 15:17         | 02:41        | Method Blank                                |
| VIC6910-MB2    | 1C156667A.D | 05/10/18      | 15:17         | 02:41        | Method Blank                                |
| JC65260-15MS   | 1C156668.D  | 05/10/18      | 15:52         | 03:16        | Matrix Spike                                |
| JC65854-1      | 1C156670.D  | 05/10/18      | 16:46         | 04:10        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | 1C156671.D  | 05/10/18      | 17:13         | 04:37        | (unrelated sample)                          |
| JC65854-3      | 1C156672.D  | 05/10/18      | 17:39         | 05:03        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | 1C156673.D  | 05/10/18      | 18:06         | 05:30        | (unrelated sample)                          |
| ZZZZZZ         | 1C156674.D  | 05/10/18      | 18:33         | 05:57        | (unrelated sample)                          |
| ZZZZZZ         | 1C156675.D  | 05/10/18      | 19:00         | 06:24        | (unrelated sample)                          |
| ZZZZZZ         | 1C156676.D  | 05/10/18      | 19:26         | 06:50        | (unrelated sample)                          |
| ZZZZZZ         | 1C156677.D  | 05/10/18      | 19:53         | 07:17        | (unrelated sample)                          |
| ZZZZZZ         | 1C156678.D  | 05/10/18      | 20:20         | 07:44        | (unrelated sample)                          |
| ZZZZZZ         | 1C156679.D  | 05/10/18      | 20:47         | 08:11        | (unrelated sample)                          |
| ZZZZZZ         | 1C156680.D  | 05/10/18      | 21:14         | 08:38        | (unrelated sample)                          |
| ZZZZZZ         | 1C156681.D  | 05/10/18      | 21:40         | 09:04        | (unrelated sample)                          |
| ZZZZZZ         | 1C156682.D  | 05/10/18      | 22:07         | 09:31        | (unrelated sample)                          |
| ZZZZZZ         | 1C156683.D  | 05/10/18      | 22:34         | 09:58        | (unrelated sample)                          |
| ZZZZZZ         | 1C156684.D  | 05/10/18      | 23:01         | 10:25        | (unrelated sample)                          |
| JC65854-1MS    | 1C156685.D  | 05/10/18      | 23:27         | 10:51        | Matrix Spike                                |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V1992-BFB    | <b>Injection Date:</b> 04/20/18 |
| <b>Lab File ID:</b> 2V49935.D | <b>Injection Time:</b> 21:15    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 28419         | 19.6                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 69003         | 47.6                     | Pass      |
| 95  | Base peak, 100% relative abundance | 145059        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 9905          | 6.83                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 109355        | 75.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 8677          | 5.98 (7.93) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 104872        | 72.3 (95.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 6929          | 4.78 (6.61) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| V2V1992-IC1992  | 2V49936.D   | 04/20/18      | 21:44         | 00:29        | Initial cal 0.5             |
| V2V1992-IC1992  | 2V49937.D   | 04/20/18      | 22:10         | 00:55        | Initial cal 1               |
| V2V1992-IC1992  | 2V49938.D   | 04/20/18      | 22:35         | 01:20        | Initial cal 2               |
| V2V1992-IC1992  | 2V49939.D   | 04/20/18      | 23:01         | 01:46        | Initial cal 5               |
| V2V1992-IC1992  | 2V49940.D   | 04/20/18      | 23:26         | 02:11        | Initial cal 10              |
| V2V1992-IC1992  | 2V49941.D   | 04/20/18      | 23:51         | 02:36        | Initial cal 20              |
| V2V1992-ICC1992 | 2V49942.D   | 04/21/18      | 00:17         | 03:02        | Initial cal 50              |
| V2V1992-IC1992  | 2V49943.D   | 04/21/18      | 00:42         | 03:27        | Initial cal 100             |
| V2V1992-IC1992  | 2V49944.D   | 04/21/18      | 01:08         | 03:53        | Initial cal 200             |
| V2V1992-ICV1992 | 2V49947.D   | 04/21/18      | 02:24         | 05:09        | Initial cal verification 50 |
| V2V1992-ICV1992 | 2V49948.D   | 04/21/18      | 02:50         | 05:35        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V1992-BFB2   | <b>Injection Date:</b> 04/23/18 |
| <b>Lab File ID:</b> 2V49951.D | <b>Injection Time:</b> 08:45    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 29075         | 18.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 73819         | 46.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 157696        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10395         | 6.59                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 118291        | 75.0                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9358          | 5.93 (7.91) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 116291        | 73.7 (98.3) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 7485          | 4.75 (6.44) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| V2V1992-ICV1992 | 2V49952.D   | 04/23/18      | 09:14         | 00:29        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V2002-BFB    | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 2V50183.D | <b>Injection Time:</b> 06:42    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 33739         | 18.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 85064         | 47.7                     | Pass      |
| 95  | Base peak, 100% relative abundance | 178155        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 11543         | 6.48                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 137707        | 77.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 10725         | 6.02 (7.79) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 130960        | 73.5 (95.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8917          | 5.01 (6.81) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| V2V2002-CC1992 | 2V50183.D   | 04/30/18      | 06:42         | 00:00        | Continuing cal 20                           |
| V2V2002-BS     | 2V50184.D   | 04/30/18      | 07:15         | 00:33        | Blank Spike                                 |
| V2V2002-MB     | 2V50186.D   | 04/30/18      | 08:21         | 01:39        | Method Blank                                |
| GP12593-LB7    | 2V50187.D   | 04/30/18      | 08:55         | 02:13        | Leachate Blank                              |
| GP12692-LB9    | 2V50188.D   | 04/30/18      | 09:29         | 02:47        | Leachate Blank                              |
| JC64956-1      | 2V50189.D   | 04/30/18      | 09:55         | 03:13        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | 2V50191.D   | 04/30/18      | 10:47         | 04:05        | (unrelated sample)                          |
| ZZZZZZ         | 2V50192.D   | 04/30/18      | 11:12         | 04:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50193.D   | 04/30/18      | 11:38         | 04:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50194.D   | 04/30/18      | 12:04         | 05:22        | (unrelated sample)                          |
| ZZZZZZ         | 2V50195.D   | 04/30/18      | 12:30         | 05:48        | (unrelated sample)                          |
| ZZZZZZ         | 2V50196.D   | 04/30/18      | 12:55         | 06:13        | (unrelated sample)                          |
| ZZZZZZ         | 2V50197.D   | 04/30/18      | 13:21         | 06:39        | (unrelated sample)                          |
| GP12723-LB10   | 2V50199.D   | 04/30/18      | 14:13         | 07:31        | Leachate Blank                              |
| JC65058-13A    | 2V50200.D   | 04/30/18      | 14:38         | 07:56        | TP-100 (2-6)                                |
| ZZZZZZ         | 2V50201.D   | 04/30/18      | 15:04         | 08:22        | (unrelated sample)                          |
| ZZZZZZ         | 2V50202.D   | 04/30/18      | 15:30         | 08:48        | (unrelated sample)                          |
| JC64956-1MS    | 2V50203.D   | 04/30/18      | 15:56         | 09:14        | Matrix Spike                                |
| GP12692-LS6    | 2V50203A.D  | 04/30/18      | 15:56         | 09:14        | Leachate Spike                              |
| JC64956-1MSD   | 2V50204.D   | 04/30/18      | 16:21         | 09:39        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 2V50206.D   | 04/30/18      | 17:12         | 10:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50207.D   | 04/30/18      | 17:38         | 10:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50208.D   | 04/30/18      | 18:04         | 11:22        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V2004-BFB    | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2V50234.D | <b>Injection Time:</b> 06:36    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 32608         | 19.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 79392         | 47.2                     | Pass      |
| 95  | Base peak, 100% relative abundance | 168299        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10670         | 6.34                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 125181        | 74.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9270          | 5.51 (7.41) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 121976        | 72.5 (97.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8251          | 4.90 (6.76) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| V2V2004-CC1992 | 2V50234.D   | 05/01/18      | 06:36         | 00:00        | Continuing cal 20                           |
| V2V2004-BS     | 2V50235.D   | 05/01/18      | 07:07         | 00:31        | Blank Spike                                 |
| V2V2004-MB     | 2V50237.D   | 05/01/18      | 08:12         | 01:36        | Method Blank                                |
| JC65070-1A     | 2V50238.D   | 05/01/18      | 08:48         | 02:12        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | 2V50239.D   | 05/01/18      | 09:14         | 02:38        | (unrelated sample)                          |
| ZZZZZZ         | 2V50240.D   | 05/01/18      | 09:40         | 03:04        | (unrelated sample)                          |
| ZZZZZZ         | 2V50241.D   | 05/01/18      | 10:06         | 03:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50242.D   | 05/01/18      | 10:32         | 03:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50243.D   | 05/01/18      | 10:58         | 04:22        | (unrelated sample)                          |
| GP12723-LB11   | 2V50245.D   | 05/01/18      | 11:49         | 05:13        | Leachate Blank                              |
| ZZZZZZ         | 2V50246.D   | 05/01/18      | 12:14         | 05:38        | (unrelated sample)                          |
| ZZZZZZ         | 2V50247.D   | 05/01/18      | 12:40         | 06:04        | (unrelated sample)                          |
| ZZZZZZ         | 2V50248.D   | 05/01/18      | 13:06         | 06:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50249.D   | 05/01/18      | 13:32         | 06:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50250.D   | 05/01/18      | 13:58         | 07:22        | (unrelated sample)                          |
| ZZZZZZ         | 2V50251.D   | 05/01/18      | 14:23         | 07:47        | (unrelated sample)                          |
| GP12723-LS7    | 2V50252A.D  | 05/01/18      | 14:49         | 08:13        | Leachate Spike                              |
| JC65070-1AMS   | 2V50252.D   | 05/01/18      | 14:49         | 08:13        | Matrix Spike                                |
| JC65070-1AMSD  | 2V50253.D   | 05/01/18      | 15:14         | 08:38        | Matrix Spike Duplicate                      |
| GP12692-LB12   | 2V50255.D   | 05/01/18      | 16:05         | 09:29        | Leachate Blank                              |
| ZZZZZZ         | 2V50256.D   | 05/01/18      | 16:31         | 09:55        | (unrelated sample)                          |
| ZZZZZZ         | 2V50257.D   | 05/01/18      | 16:57         | 10:21        | (unrelated sample)                          |
| ZZZZZZ         | 2V50258.D   | 05/01/18      | 17:22         | 10:46        | (unrelated sample)                          |
| ZZZZZZ         | 2V50259.D   | 05/01/18      | 17:48         | 11:12        | (unrelated sample)                          |

6.8.7  
6

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7713-BFB     | <b>Injection Date:</b> 02/27/18 |
| <b>Lab File ID:</b> Y178404.D | <b>Injection Time:</b> 17:32    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10392         | 17.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 26546         | 44.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 59720         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3564          | 5.97                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 55101         | 92.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4101          | 6.87 (7.44) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 54221         | 90.8 (98.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3555          | 5.95 (6.56) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7713-IC7713  | Y178405.D   | 02/27/18      | 18:24         | 00:52        | Initial cal 0.2             |
| VY7713-IC7713  | Y178406.D   | 02/27/18      | 18:53         | 01:21        | Initial cal 0.5             |
| VY7713-IC7713  | Y178407.D   | 02/27/18      | 19:21         | 01:49        | Initial cal 1               |
| VY7713-IC7713  | Y178408.D   | 02/27/18      | 19:50         | 02:18        | Initial cal 2               |
| VY7713-IC7713  | Y178409.D   | 02/27/18      | 20:18         | 02:46        | Initial cal 4               |
| VY7713-IC7713  | Y178410.D   | 02/27/18      | 20:53         | 03:21        | Initial cal 8               |
| VY7713-IC7713  | Y178411.D   | 02/27/18      | 21:21         | 03:49        | Initial cal 20              |
| VY7713-ICC7713 | Y178412.D   | 02/27/18      | 21:50         | 04:18        | Initial cal 50              |
| VY7713-IC7713  | Y178413.D   | 02/27/18      | 22:19         | 04:47        | Initial cal 100             |
| VY7713-IC7713  | Y178414.D   | 02/27/18      | 22:52         | 05:20        | Initial cal 200             |
| VY7713-ICV7713 | Y178417.D   | 02/28/18      | 00:17         | 06:45        | Initial cal verification 50 |
| VY7713-ICV7713 | Y178418.D   | 02/28/18      | 00:45         | 07:13        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7713-BFB2    | <b>Injection Date:</b> 02/28/18 |
| <b>Lab File ID:</b> Y178420.D | <b>Injection Time:</b> 13:40    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 12286         | 18.8                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 30709         | 47.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 65304         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4323          | 6.62                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 60085         | 92.0                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 5068          | 7.76 (8.43) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 59149         | 90.6 (98.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3877          | 5.94 (6.55) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7713-ICV7713 | Y178421.D   | 02/28/18      | 14:19         | 00:39        | Initial cal verification 50 |

6.8.9  
6

# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7766-BFB     | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> Y179596.D | <b>Injection Time:</b> 07:23    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 9590          | 15.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 26845         | 44.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 60293         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3968          | 6.58                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 57117         | 94.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4281          | 7.10 (7.50) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 56328         | 93.4 (98.6) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3754          | 6.23 (6.66) <sup>b</sup> | Pass      |

(a) Value is % of mass 174  
(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID    |
|---------------|-------------|---------------|---------------|--------------|---------------------|
| VY7766-CC7713 | Y179596.D   | 05/01/18      | 07:23         | 00:00        | Continuing cal 20   |
| VY7766-BS     | Y179598.D   | 05/01/18      | 09:35         | 02:12        | Blank Spike         |
| VY7766-MB     | Y179600.D   | 05/01/18      | 10:44         | 03:21        | Method Blank        |
| JC65058-5     | Y179601.D   | 05/01/18      | 11:48         | 04:25        | SB-104 (13-17)      |
| JC65058-6     | Y179602.D   | 05/01/18      | 12:17         | 04:54        | SB-104 (5-9)        |
| JC65058-7     | Y179603.D   | 05/01/18      | 12:47         | 05:24        | TP-100 (6-8)        |
| JC65058-8     | Y179604.D   | 05/01/18      | 13:16         | 05:53        | TP-100 (8-10)       |
| JC65058-10    | Y179605.D   | 05/01/18      | 13:44         | 06:21        | TP-100 (2-6)        |
| JC65058-6DUP  | Y179606.D   | 05/01/18      | 14:39         | 07:16        | Duplicate           |
| JC65058-11    | Y179607.D   | 05/01/18      | 15:07         | 07:44        | SB-105 (8-15)       |
| JC65058-12    | Y179608.D   | 05/01/18      | 15:36         | 08:13        | SB-104 (2-5) (9-13) |
| JC65058-13    | Y179609.D   | 05/01/18      | 16:04         | 08:41        | TP-100 (2-6)        |
| JC65058-15    | Y179610.D   | 05/01/18      | 16:33         | 09:10        | SB-105 (0-5)        |
| JC65058-5MS   | Y179611.D   | 05/01/18      | 17:02         | 09:39        | Matrix Spike        |
| ZZZZZZ        | Y179613.D   | 05/01/18      | 17:59         | 10:36        | (unrelated sample)  |
| ZZZZZZ        | Y179614.D   | 05/01/18      | 18:28         | 11:05        | (unrelated sample)  |
| ZZZZZZ        | Y179615.D   | 05/01/18      | 18:56         | 11:33        | (unrelated sample)  |

6.8.10  
6



# Instrument Performance Check (BFB)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7781-BFB     | <b>Injection Date:</b> 05/16/18 |
| <b>Lab File ID:</b> Y179903.D | <b>Injection Time:</b> 22:31    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 9976          | 15.5                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 27234         | 42.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 64333         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4327          | 6.73                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 62853         | 97.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4537          | 7.05 (7.22) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 61040         | 94.9 (97.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3975          | 6.18 (6.51) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7781-IC7713  | Y179904.D   | 05/16/18      | 22:59         | 00:28        | Initial cal 0.5             |
| VY7781-IC7713  | Y179905.D   | 05/16/18      | 23:28         | 00:57        | Initial cal 1               |
| VY7781-IC7713  | Y179906.D   | 05/16/18      | 23:56         | 01:25        | Initial cal 2               |
| VY7781-IC7713  | Y179907.D   | 05/17/18      | 00:25         | 01:54        | Initial cal 4               |
| VY7781-IC7713  | Y179908.D   | 05/17/18      | 00:54         | 02:23        | Initial cal 8               |
| VY7781-IC7713  | Y179909.D   | 05/17/18      | 01:23         | 02:52        | Initial cal 20              |
| VY7781-IC7713  | Y179910.D   | 05/17/18      | 01:51         | 03:20        | Initial cal 50              |
| VY7781-IC7713  | Y179911.D   | 05/17/18      | 02:20         | 03:49        | Initial cal 100             |
| VY7781-IC7713  | Y179912.D   | 05/17/18      | 02:49         | 04:18        | Initial cal 200             |
| VY7781-ICV7713 | Y179914.D   | 05/17/18      | 03:46         | 05:15        | Initial cal verification 50 |

6.8.11

6

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V1C6910-CC6871 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> 1C156629.D   | <b>Injection Time:</b> 09:36    |
| <b>Instrument ID:</b> GCMS1C     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 189561       | 7.39 | 575250       | 9.62  | 883150       | 10.54 | 707970       | 13.68 | 347167       | 15.99 |
| Upper Limit <sup>a</sup> | 379122       | 7.89 | 1150500      | 10.12 | 1766300      | 11.04 | 1415940      | 14.18 | 694334       | 16.49 |
| Lower Limit <sup>b</sup> | 94781        | 6.89 | 287625       | 9.12  | 441575       | 10.04 | 353985       | 13.18 | 173584       | 15.49 |

| Lab<br>Sample ID       | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA        | RT    |
|------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|---------------------|-------|
| V1C6910-BS             | 180915       | 7.39 | 542244       | 9.62 | 849285       | 10.54 | 677801       | 13.68 | 332635              | 15.99 |
| V1C6910-MB             | 136898       | 7.38 | 543028       | 9.62 | 795062       | 10.54 | 644548       | 13.68 | 308877              | 15.99 |
| ZZZZZZ                 | 136898       | 7.38 | 543028       | 9.62 | 795062       | 10.54 | 644548       | 13.68 | 308877              | 15.99 |
| JC65260-13             | 157323       | 7.38 | 525641       | 9.62 | 754610       | 10.54 | 604891       | 13.68 | 302717              | 15.99 |
| JC65260-14             | 153652       | 7.38 | 464058       | 9.62 | 694311       | 10.54 | 562221       | 13.68 | 277243              | 15.99 |
| JC65260-15             | 153074       | 7.39 | 444151       | 9.62 | 666883       | 10.54 | 551572       | 13.68 | 284239              | 15.99 |
| ZZZZZZ                 | 137637       | 7.38 | 405407       | 9.62 | 607519       | 10.54 | 499251       | 13.68 | 237250              | 15.99 |
| ZZZZZZ                 | 119543       | 7.39 | 398393       | 9.62 | 587038       | 10.54 | 470661       | 13.68 | 225060              | 15.99 |
| JC65260-13DUP          | 133763       | 7.38 | 405528       | 9.62 | 605500       | 10.54 | 502924       | 13.68 | 257308              | 15.99 |
| ZZZZZZ                 | 114179       | 7.38 | 368961       | 9.62 | 551119       | 10.54 | 465028       | 13.68 | 233628              | 15.99 |
| ZZZZZZ                 | 118771       | 7.38 | 341160       | 9.62 | 501734       | 10.54 | 420337       | 13.68 | 195097              | 15.99 |
| JC65058-9 <sup>c</sup> | 107451       | 7.39 | 373289       | 9.62 | 561290       | 10.54 | 462985       | 13.68 | 233571              | 15.99 |
| ZZZZZZ                 | 107859       | 7.38 | 350316       | 9.62 | 535370       | 10.54 | 465023       | 13.68 | 233723              | 15.99 |
| ZZZZZZ                 | 118771       | 7.39 | 369121       | 9.62 | 556785       | 10.54 | 449519       | 13.68 | 214823              | 15.99 |
| ZZZZZZ                 | 107571       | 7.39 | 359780       | 9.62 | 537990       | 10.54 | 452785       | 13.68 | 225703              | 15.99 |
| ZZZZZZ                 | 118075       | 7.38 | 363704       | 9.62 | 537634       | 10.54 | 389264       | 13.68 | 131154 <sup>d</sup> | 15.99 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.  
 (d) Outside control limits due to matrix interference.

6.9.1  
6

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V1C6911-CC6871 | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 1C156663.D   | <b>Injection Time:</b> 13:03    |
| <b>Instrument ID:</b> GCMS1C     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 147019       | 7.38 | 424795       | 9.62  | 637554       | 10.54 | 529349       | 13.68 | 264915       | 15.99 |
| Upper Limit <sup>a</sup> | 294038       | 7.88 | 849590       | 10.12 | 1275108      | 11.04 | 1058698      | 14.18 | 529830       | 16.49 |
| Lower Limit <sup>b</sup> | 73510        | 6.88 | 212398       | 9.12  | 318777       | 10.04 | 264675       | 13.18 | 132458       | 15.49 |

| Lab<br>Sample ID | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| V1C6911-BS       | 155006       | 7.38 | 459975       | 9.62 | 676936       | 10.54 | 558596       | 13.68 | 283108       | 15.99 |
| V1C6910-BS2      | 155006       | 7.38 | 459975       | 9.62 | 676936       | 10.54 | 558596       | 13.68 | 283108       | 15.99 |
| V1C6911-MB       | 129759       | 7.38 | 441467       | 9.62 | 644517       | 10.54 | 535124       | 13.68 | 264970       | 15.99 |
| V1C6910-MB2      | 129759       | 7.38 | 441467       | 9.62 | 644517       | 10.54 | 535124       | 13.68 | 264970       | 15.99 |
| JC65260-15MS     | 112647       | 7.39 | 449705       | 9.62 | 647939       | 10.54 | 498502       | 13.68 | 259428       | 15.99 |
| JC65854-1        | 144436       | 7.38 | 407891       | 9.62 | 597875       | 10.54 | 496806       | 13.68 | 239940       | 15.99 |
| ZZZZZZ           | 184635       | 7.38 | 435004       | 9.62 | 668831       | 10.54 | 552406       | 13.68 | 278815       | 15.99 |
| JC65854-3        | 173820       | 7.38 | 472464       | 9.62 | 714833       | 10.54 | 578356       | 13.68 | 288835       | 15.99 |
| ZZZZZZ           | 184368       | 7.38 | 433202       | 9.62 | 654816       | 10.54 | 546284       | 13.68 | 268194       | 15.99 |
| ZZZZZZ           | 167305       | 7.39 | 457453       | 9.62 | 694775       | 10.54 | 575332       | 13.68 | 286981       | 15.99 |
| ZZZZZZ           | 144213       | 7.38 | 410121       | 9.62 | 631797       | 10.54 | 522497       | 13.68 | 250788       | 15.99 |
| ZZZZZZ           | 187207       | 7.38 | 436617       | 9.62 | 663840       | 10.54 | 548594       | 13.68 | 279860       | 15.99 |
| ZZZZZZ           | 180690       | 7.38 | 467556       | 9.62 | 705471       | 10.54 | 569517       | 13.68 | 273118       | 15.99 |
| ZZZZZZ           | 165624       | 7.38 | 437611       | 9.62 | 664144       | 10.54 | 533318       | 13.68 | 244390       | 15.99 |
| ZZZZZZ           | 164786       | 7.38 | 444286       | 9.62 | 666646       | 10.54 | 555388       | 13.68 | 272350       | 15.99 |
| ZZZZZZ           | 160817       | 7.38 | 401065       | 9.62 | 605381       | 10.54 | 503418       | 13.68 | 237830       | 15.99 |
| ZZZZZZ           | 163359       | 7.38 | 510703       | 9.62 | 785947       | 10.54 | 638536       | 13.68 | 308715       | 15.99 |
| ZZZZZZ           | 204944       | 7.38 | 538458       | 9.62 | 824927       | 10.54 | 669146       | 13.68 | 336900       | 15.99 |
| ZZZZZZ           | 199249       | 7.38 | 518590       | 9.62 | 797401       | 10.54 | 647386       | 13.68 | 319439       | 15.99 |
| ZZZZZZ           | 185865       | 7.38 | 491819       | 9.62 | 758559       | 10.54 | 619900       | 13.68 | 302160       | 15.99 |
| JC65854-1MS      | 147454       | 7.39 | 480374       | 9.62 | 753842       | 10.54 | 606270       | 13.68 | 290829       | 15.99 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V2V2002-CC1992 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 2V50183.D    | <b>Injection Time:</b> 06:42    |
| <b>Instrument ID:</b> GCMS2V     | <b>Method:</b> SW846 8260C      |

|                          | IS 1   | RT   | IS 2   | RT   | IS 3    | RT   | IS 4    | RT   | IS 5   | RT   |
|--------------------------|--------|------|--------|------|---------|------|---------|------|--------|------|
|                          | AREA   |      | AREA   |      | AREA    |      | AREA    |      | AREA   |      |
| Check Std                | 390670 | 2.27 | 470564 | 3.36 | 697673  | 3.88 | 589688  | 6.16 | 270000 | 8.33 |
| Upper Limit <sup>a</sup> | 781340 | 2.77 | 941128 | 3.86 | 1395346 | 4.38 | 1179376 | 6.66 | 540000 | 8.83 |
| Lower Limit <sup>b</sup> | 195335 | 1.77 | 235282 | 2.86 | 348837  | 3.38 | 294844  | 5.66 | 135000 | 7.83 |

| Lab Sample ID | IS 1   | RT   | IS 2   | RT   | IS 3   | RT   | IS 4   | RT   | IS 5   | RT   |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
|               | AREA   |      | AREA   |      | AREA   |      | AREA   |      | AREA   |      |
| V2V2002-BS    | 335602 | 2.27 | 462390 | 3.36 | 687724 | 3.88 | 577340 | 6.17 | 261841 | 8.33 |
| V2V2002-MB    | 323786 | 2.27 | 446873 | 3.36 | 651214 | 3.88 | 537041 | 6.17 | 241010 | 8.33 |
| GP12593-LB7   | 318507 | 2.27 | 454315 | 3.36 | 677742 | 3.88 | 566054 | 6.17 | 254659 | 8.33 |
| GP12692-LB9   | 347614 | 2.27 | 448473 | 3.36 | 662140 | 3.88 | 555679 | 6.17 | 249978 | 8.33 |
| JC64956-1     | 326410 | 2.27 | 419168 | 3.36 | 618070 | 3.88 | 516257 | 6.17 | 233611 | 8.33 |
| ZZZZZZ        | 330687 | 2.27 | 414646 | 3.36 | 616568 | 3.88 | 521238 | 6.17 | 241237 | 8.33 |
| ZZZZZZ        | 339245 | 2.27 | 410787 | 3.36 | 620264 | 3.88 | 523831 | 6.17 | 237876 | 8.33 |
| ZZZZZZ        | 324407 | 2.27 | 410650 | 3.36 | 634970 | 3.88 | 532991 | 6.17 | 242186 | 8.33 |
| ZZZZZZ        | 345475 | 2.27 | 419693 | 3.36 | 635637 | 3.88 | 540358 | 6.17 | 242735 | 8.33 |
| ZZZZZZ        | 331947 | 2.27 | 411072 | 3.36 | 625112 | 3.88 | 528427 | 6.17 | 236499 | 8.33 |
| ZZZZZZ        | 314583 | 2.27 | 395085 | 3.36 | 597892 | 3.88 | 512468 | 6.16 | 231989 | 8.33 |
| ZZZZZZ        | 323012 | 2.27 | 389179 | 3.36 | 591779 | 3.88 | 504333 | 6.17 | 232758 | 8.33 |
| GP12723-LB10  | 319999 | 2.27 | 403235 | 3.36 | 616936 | 3.88 | 522421 | 6.17 | 233906 | 8.33 |
| JC65058-13A   | 314877 | 2.27 | 396281 | 3.36 | 612329 | 3.88 | 519318 | 6.17 | 232312 | 8.33 |
| ZZZZZZ        | 316074 | 2.27 | 391901 | 3.36 | 612536 | 3.88 | 519566 | 6.17 | 232524 | 8.33 |
| ZZZZZZ        | 309620 | 2.27 | 374439 | 3.36 | 571039 | 3.88 | 487666 | 6.17 | 224738 | 8.33 |
| JC64956-1MS   | 344345 | 2.27 | 397300 | 3.36 | 625821 | 3.88 | 534792 | 6.17 | 243082 | 8.33 |
| GP12692-LS6   | 344345 | 2.27 | 397300 | 3.36 | 625821 | 3.88 | 534792 | 6.17 | 243082 | 8.33 |
| JC64956-1MSD  | 345661 | 2.27 | 400561 | 3.36 | 624333 | 3.88 | 527501 | 6.17 | 241892 | 8.33 |
| ZZZZZZ        | 320481 | 2.27 | 387818 | 3.36 | 601884 | 3.88 | 504392 | 6.17 | 227811 | 8.33 |
| ZZZZZZ        | 312418 | 2.27 | 394497 | 3.36 | 607661 | 3.88 | 510955 | 6.16 | 230252 | 8.33 |
| ZZZZZZ        | 300250 | 2.27 | 378696 | 3.36 | 585460 | 3.88 | 492949 | 6.17 | 220879 | 8.33 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V2V2004-CC1992 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2V50234.D    | <b>Injection Time:</b> 06:36    |
| <b>Instrument ID:</b> GCMS2V     | <b>Method:</b> SW846 8260C      |

|                          | IS 1   | RT   | IS 2   | RT   | IS 3    | RT   | IS 4    | RT   | IS 5   | RT   |
|--------------------------|--------|------|--------|------|---------|------|---------|------|--------|------|
|                          | AREA   |      | AREA   |      | AREA    |      | AREA    |      | AREA   |      |
| Check Std                | 334300 | 2.27 | 416132 | 3.36 | 633167  | 3.88 | 537007  | 6.17 | 248348 | 8.33 |
| Upper Limit <sup>a</sup> | 668600 | 2.77 | 832264 | 3.86 | 1266334 | 4.38 | 1074014 | 6.67 | 496696 | 8.83 |
| Lower Limit <sup>b</sup> | 167150 | 1.77 | 208066 | 2.86 | 316584  | 3.38 | 268504  | 5.67 | 124174 | 7.83 |

| Lab Sample ID | IS 1   | RT   | IS 2   | RT   | IS 3   | RT   | IS 4   | RT   | IS 5   | RT   |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
|               | AREA   |      | AREA   |      | AREA   |      | AREA   |      | AREA   |      |
| V2V2004-BS    | 358018 | 2.27 | 437387 | 3.36 | 660675 | 3.88 | 555659 | 6.17 | 253446 | 8.33 |
| V2V2004-MB    | 308420 | 2.27 | 421613 | 3.36 | 632071 | 3.88 | 506387 | 6.16 | 223507 | 8.33 |
| JC65070-1A    | 319883 | 2.27 | 408246 | 3.36 | 610771 | 3.88 | 512425 | 6.17 | 232271 | 8.33 |
| ZZZZZZ        | 316205 | 2.27 | 406781 | 3.36 | 615864 | 3.88 | 514292 | 6.16 | 232324 | 8.33 |
| ZZZZZZ        | 333632 | 2.27 | 389647 | 3.36 | 588081 | 3.88 | 496396 | 6.16 | 224710 | 8.33 |
| ZZZZZZ        | 307699 | 2.27 | 405847 | 3.36 | 604752 | 3.88 | 512582 | 6.16 | 229398 | 8.33 |
| ZZZZZZ        | 309981 | 2.27 | 406228 | 3.36 | 615186 | 3.88 | 514746 | 6.16 | 226762 | 8.33 |
| ZZZZZZ        | 300715 | 2.27 | 369308 | 3.36 | 549929 | 3.88 | 464982 | 6.16 | 209469 | 8.33 |
| GP12723-LB11  | 286159 | 2.27 | 370393 | 3.36 | 545479 | 3.88 | 448985 | 6.17 | 203310 | 8.33 |
| ZZZZZZ        | 272991 | 2.27 | 373707 | 3.36 | 559897 | 3.88 | 470687 | 6.17 | 209312 | 8.33 |
| ZZZZZZ        | 288710 | 2.27 | 368458 | 3.36 | 557307 | 3.88 | 466145 | 6.16 | 205227 | 8.33 |
| ZZZZZZ        | 278813 | 2.27 | 377567 | 3.36 | 566274 | 3.88 | 471237 | 6.17 | 208389 | 8.33 |
| ZZZZZZ        | 288415 | 2.27 | 368837 | 3.36 | 546385 | 3.88 | 460154 | 6.17 | 203959 | 8.33 |
| ZZZZZZ        | 279019 | 2.27 | 345573 | 3.36 | 513938 | 3.88 | 431728 | 6.16 | 194281 | 8.33 |
| ZZZZZZ        | 296853 | 2.27 | 360716 | 3.36 | 542020 | 3.88 | 461411 | 6.16 | 206230 | 8.33 |
| GP12723-LS7   | 308815 | 2.27 | 376568 | 3.36 | 569646 | 3.88 | 499562 | 6.16 | 231089 | 8.33 |
| JC65070-1AMS  | 308815 | 2.27 | 376568 | 3.36 | 569646 | 3.88 | 499562 | 6.16 | 231089 | 8.33 |
| JC65070-1AMSD | 298873 | 2.27 | 370849 | 3.36 | 557480 | 3.88 | 476001 | 6.17 | 221785 | 8.33 |
| GP12692-LB12  | 285898 | 2.27 | 362890 | 3.36 | 546401 | 3.88 | 461594 | 6.17 | 208217 | 8.33 |
| ZZZZZZ        | 279525 | 2.27 | 354431 | 3.36 | 532020 | 3.88 | 446361 | 6.17 | 197450 | 8.33 |
| ZZZZZZ        | 278966 | 2.27 | 364704 | 3.36 | 544968 | 3.88 | 452167 | 6.16 | 198436 | 8.33 |
| ZZZZZZ        | 277066 | 2.27 | 362099 | 3.36 | 541854 | 3.88 | 453574 | 6.17 | 202912 | 8.33 |
| ZZZZZZ        | 286000 | 2.27 | 355944 | 3.36 | 535097 | 3.88 | 442727 | 6.17 | 198925 | 8.33 |

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VY7766-CC7713 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> Y179596.D   | <b>Injection Time:</b> 07:23    |
| <b>Instrument ID:</b> GCMSY     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 77959        | 6.98 | 168486       | 9.20 | 254686       | 10.11 | 248831       | 13.29 | 123651       | 15.60 |
| Upper Limit <sup>a</sup> | 155918       | 7.48 | 336972       | 9.70 | 509372       | 10.61 | 497662       | 13.79 | 247302       | 16.10 |
| Lower Limit <sup>b</sup> | 38980        | 6.48 | 84243        | 8.70 | 127343       | 9.61  | 124416       | 12.79 | 61826        | 15.10 |

| Lab<br>Sample ID        | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|-------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| VY7766-BS               | 82982        | 6.97 | 167851       | 9.20 | 259937       | 10.11 | 258335       | 13.29 | 132754       | 15.60 |
| VY7766-MB               | 69929        | 6.98 | 181157       | 9.20 | 273630       | 10.11 | 259225       | 13.29 | 124417       | 15.60 |
| JC65058-5 <sup>c</sup>  | 80928        | 6.98 | 191732       | 9.20 | 293036       | 10.11 | 297684       | 13.29 | 133018       | 15.60 |
| JC65058-6 <sup>c</sup>  | 78374        | 6.96 | 189295       | 9.20 | 285549       | 10.11 | 279118       | 13.29 | 130205       | 15.60 |
| JC65058-7 <sup>c</sup>  | 66832        | 6.98 | 186403       | 9.20 | 286549       | 10.11 | 263035       | 13.29 | 123960       | 15.60 |
| JC65058-8 <sup>c</sup>  | 70408        | 6.98 | 181879       | 9.20 | 282261       | 10.11 | 269087       | 13.29 | 122978       | 15.60 |
| JC65058-10 <sup>c</sup> | 69724        | 6.98 | 189620       | 9.20 | 290853       | 10.11 | 287668       | 13.29 | 126426       | 15.60 |
| JC65058-6DUP            | 76294        | 6.98 | 189454       | 9.20 | 289660       | 10.11 | 272839       | 13.29 | 124257       | 15.60 |
| JC65058-11 <sup>c</sup> | 76893        | 6.97 | 183996       | 9.20 | 281778       | 10.11 | 279127       | 13.29 | 129062       | 15.60 |
| JC65058-12 <sup>c</sup> | 73994        | 6.97 | 185322       | 9.20 | 283094       | 10.11 | 270722       | 13.29 | 129417       | 15.60 |
| JC65058-13 <sup>c</sup> | 74157        | 6.97 | 191282       | 9.20 | 292058       | 10.11 | 275505       | 13.29 | 128046       | 15.60 |
| JC65058-15 <sup>c</sup> | 86679        | 6.97 | 188535       | 9.20 | 285947       | 10.11 | 276206       | 13.29 | 127537       | 15.60 |
| JC65058-5MS             | 66435        | 6.97 | 187407       | 9.20 | 285031       | 10.11 | 274218       | 13.28 | 139740       | 15.60 |
| ZZZZZZ                  | 81092        | 6.97 | 192041       | 9.20 | 293572       | 10.11 | 289884       | 13.29 | 123863       | 15.60 |
| ZZZZZZ                  | 60125        | 6.97 | 165042       | 9.20 | 248058       | 10.11 | 240767       | 13.28 | 111651       | 15.60 |
| ZZZZZZ                  | 88366        | 6.97 | 193277       | 9.20 | 294080       | 10.11 | 241885       | 13.29 | 68337        | 15.60 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

6.9.5  
6

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8260C | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2  | S3  | S4  |
|---------------|-------------|-----|-----|-----|-----|
| JC65058-13A   | 2V50200.D   | 106 | 104 | 100 | 101 |
| GP12723-LB10  | 2V50199.D   | 105 | 105 | 100 | 102 |
| GP12723-LS7   | 2V50252A.D  | 103 | 108 | 96  | 100 |
| JC64956-1MS   | 2V50203.D   | 106 | 100 | 99  | 101 |
| JC64956-1MSD  | 2V50204.D   | 105 | 100 | 101 | 102 |
| V2V2002-BS    | 2V50184.D   | 99  | 99  | 98  | 100 |
| V2V2002-MB    | 2V50186.D   | 99  | 100 | 101 | 102 |
| V2V2004-MB    | 2V50237.D   | 98  | 98  | 104 | 102 |

|                            |                        |
|----------------------------|------------------------|
| <b>Surrogate Compounds</b> | <b>Recovery Limits</b> |
|----------------------------|------------------------|

|                                   |         |
|-----------------------------------|---------|
| <b>S1</b> = Dibromofluoromethane  | 76-120% |
| <b>S2</b> = 1,2-Dichloroethane-D4 | 64-135% |
| <b>S3</b> = Toluene-D8            | 76-117% |
| <b>S4</b> = 4-Bromofluorobenzene  | 72-122% |

6.10.1  
6

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8260C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2  | S3  | S4  |
|---------------|-------------|-----|-----|-----|-----|
| JC65058-5     | Y179601.D   | 98  | 90  | 93  | 109 |
| JC65058-6     | Y179602.D   | 100 | 92  | 94  | 111 |
| JC65058-7     | Y179603.D   | 99  | 88  | 96  | 109 |
| JC65058-8     | Y179604.D   | 98  | 90  | 95  | 110 |
| JC65058-9     | 1C156646.D  | 100 | 113 | 105 | 99  |
| JC65058-10    | Y179605.D   | 98  | 90  | 95  | 113 |
| JC65058-11    | Y179607.D   | 98  | 92  | 93  | 111 |
| JC65058-12    | Y179608.D   | 101 | 94  | 94  | 109 |
| JC65058-13    | Y179609.D   | 97  | 91  | 95  | 110 |
| JC65058-15    | Y179610.D   | 99  | 95  | 94  | 110 |
| JC65058-5MS   | Y179611.D   | 97  | 87  | 95  | 104 |
| JC65058-6DUP  | Y179606.D   | 99  | 91  | 95  | 110 |
| JC65260-13DUP | 1C156640.D  | 100 | 113 | 102 | 100 |
| JC65260-15MS  | 1C156668.D  | 94  | 102 | 108 | 102 |
| V1C6910-BS    | 1C156631.D  | 100 | 101 | 105 | 106 |
| V1C6910-MB    | 1C156633.D  | 96  | 97  | 105 | 102 |
| VY7766-BS     | Y179598.D   | 100 | 91  | 92  | 105 |
| VY7766-MB     | Y179600.D   | 96  | 88  | 94  | 108 |
| V1C6910-MB2   | 1C156667A.D | 96  | 112 | 108 | 103 |

**Surrogate Compounds**

**Recovery Limits**

|                            |         |
|----------------------------|---------|
| S1 = Dibromofluoromethane  | 75-127% |
| S2 = 1,2-Dichloroethane-D4 | 75-130% |
| S3 = Toluene-D8            | 80-120% |
| S4 = 4-Bromofluorobenzene  | 79-127% |

6.10.2  
6



# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VIC6871-ICC6871  
**Lab FileID:** 1C155655.D

Response Factor Report GCMS1C

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)  
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 Last Update : Tue Mar 27 15:36:36 2018  
 Response via : Initial Calibration

Calibration Files

1 =1C155650.D 0.5 =1C155649.D 100 =1C155656.D 50 =1C155655.D  
 20 =1C155654.D 200 =1C155657.D 4 =1C155652.D 2 =1C155651.D  
 8 =1C155653.D 0.2 =1C155648.D = =

Compound

| Compound   | 1     | 0.5   | 100   | 50    | 20    | 200   | 4     | 2     | 8 | 0.2    | Avg | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|---|--------|-----|-------|
| 1) tert butyl alcohol-d9 -----ISTD-----                        |       |       |       |       |       |       |       |       |   |        |     |       |
| 2) tertiary butyl alcohol                                      |       |       |       |       |       |       |       |       |   |        |     |       |
|  | 1.276 | 1.301 | 1.247 | 1.275 | 1.265 | 1.282 | 1.341 |       |   | 1.284  |     | 2.34  |
| 3) Ethanol   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.101  | 0.117 | 0.128 | 0.118 | 0.123 | 0.133 | 0.128 | 0.126 |       |   | 0.122  |     | 8.11  |
| 4) 1,4-dioxane   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.121  | 0.134 | 0.144 | 0.137 | 0.135 | 0.145 | 0.136 | 0.144 |       |   | 0.137  |     | 5.68  |
| 5) I pentafluorobenzene -----ISTD-----                         |       |       |       |       |       |       |       |       |   |        |     |       |
| 6) chlorodifluoromethane                                       |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.579  | 0.605 | 0.591 | 0.620 | 0.600 | 0.563 | 0.628 | 0.614 | 0.606 |   | 0.601  |     | 3.38  |
| 7) dichlorodifluoromethane                                     |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.740  | 0.770 | 0.766 | 0.796 | 0.771 | 0.725 | 0.794 | 0.786 | 0.794 |   | 0.771  |     | 3.24  |
| 8) Freon 114   |       |       |       |       |       |       |       |       |   |        |     |       |
|  |       |       |       |       |       |       |       |       |   | 0.000# |     | -1.00 |
| 9) freon 142b  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.705  | 0.736 | 0.735 | 0.789 | 0.752 | 0.713 | 0.777 | 0.755 | 0.764 |   | 0.747  |     | 3.76  |
| 10) chloromethane  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.992  | 0.824 | 0.865 | 0.846 | 0.817 | 0.960 | 0.943 | 0.916 |       |   | 0.895  |     | 7.40  |
| 11) vinyl chloride   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.852  | 0.849 | 0.854 | 0.857 | 0.826 | 0.836 | 0.860 | 0.824 | 0.870 |   | 0.847  |     | 1.83  |
| 12) 1,3-Butadiene  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.570  | 0.664 | 0.671 | 0.699 | 0.654 | 0.664 | 0.710 | 0.650 | 0.671 |   | 0.661  |     | 5.96  |
| 13) bromomethane   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.545  | 0.439 | 0.440 | 0.446 | 0.441 | 0.504 | 0.497 | 0.466 |       |   | 0.472  |     | 8.30  |
| 14) chloroethane   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.296  | 0.329 | 0.328 | 0.343 | 0.329 | 0.328 | 0.359 | 0.326 | 0.334 |   | 0.330  |     | 5.07  |
| 15) trichlorofluoromethane                                     |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.834  | 0.811 | 0.816 | 0.843 | 0.818 | 0.792 | 0.860 | 0.834 | 0.851 |   | 0.829  |     | 2.58  |
| 16) vinyl bromide  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.547  | 0.489 | 0.573 | 0.582 | 0.569 | 0.574 | 0.596 | 0.540 | 0.580 |   | 0.561  |     | 5.68  |
| 17) ethyl ether  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.209  | 0.224 | 0.229 | 0.215 | 0.229 | 0.218 | 0.220 | 0.208 |       |   | 0.219  |     | 3.71  |
| 18) acrolein   |       |       |       |       |       |       |       |       |   |        |     |       |
|  | 0.072 | 0.073 | 0.068 | 0.075 | 0.070 |       | 0.071 |       |   | 0.072  |     | 3.41  |
| 19) freon 113  |       |       |       |       |       |       |       |       |   |        |     |       |
|  | 0.342 | 0.352 | 0.349 | 0.342 | 0.357 | 0.334 | 0.333 |       |   | 0.344  |     | 2.61  |
| 20) 1,1-dichloroethene   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.621  | 0.432 | 0.451 | 0.437 | 0.434 | 0.448 | 0.461 | 0.456 |       |   | 0.468  |     | 13.45 |
| 21) acetone  |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.038  | 0.032 | 0.033 | 0.032 | 0.032 | 0.034 | 0.035 | 0.034 |       |   | 0.034  |     | 6.11  |
| 22) acetonitrile   |       |       |       |       |       |       |       |       |   |        |     |       |
| 0.050  | 0.043 | 0.045 | 0.043 | 0.045 | 0.046 | 0.044 | 0.046 |       |   | 0.045  |     | 5.25  |
| 23) iodomethane---The compound does not meet initial criteria. |       |       |       |       |       |       |       |       |   |        |     |       |

6.11.1  
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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VIC6871-ICC6871  
**Lab FileID:** 1C155655.D

|     |  |       |       |       |       |       |       |       |       |       |       |       |      |
|-----|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|     | 0.279  | 0.524 | 0.469 | 0.350 | 0.512 | 0.247 | 0.230 | 0.268 | 0.360 | 34.30 |       |       |      |
|     | ----- Linear regression ----- Coefficient = 0.9909 |       |       |       |       |       |       |       |       |       |       |       |      |
|     | Response Ratio = -0.01172 + 0.50332 *A             |       |       |       |       |       |       |       |       |       |       |       |      |
| 24) | carbon disulfide                                   | 1.890 | 1.538 | 1.574 | 1.531 | 1.561 | 1.735 | 1.674 | 1.566 | 1.634 | 7.69  |       |      |
| 25) | methylene chloride                                 | 0.490 | 0.569 | 0.480 | 0.491 | 0.477 | 0.495 | 0.502 | 0.470 | 0.469 | 0.493 | 6.16  |      |
| 26) | methyl acetate                                     | 0.205 | 0.245 | 0.254 | 0.237 | 0.255 | 0.250 | 0.223 | 0.239 | 0.238 | 7.19  |       |      |
| 27) | methyl tert butyl ether                            | 0.998 | 0.933 | 1.149 | 1.163 | 1.088 | 1.173 | 1.104 | 0.950 | 1.045 | 1.067 | 8.50  |      |
| 28) | trans-1,2-dichloroethene                           | 0.517 | 0.584 | 0.478 | 0.492 | 0.482 | 0.492 | 0.541 | 0.490 | 0.511 | 0.618 | 0.520 | 9.06 |
| 29) | di-isopropyl ether                                 | 1.142 | 1.056 | 1.348 | 1.376 | 1.264 | 1.405 | 1.313 | 1.138 | 1.236 | 1.253 | 9.60  |      |
| 30) | 2-butanone   | 0.045 | 0.046 | 0.043 | 0.045 | 0.037 | 0.037 | 0.042 |       |       | 0.042 | 9.11  |      |
| 31) | 1,1-dichloroethane                                 | 0.845 | 0.854 | 0.805 | 0.834 | 0.830 | 0.827 | 0.885 | 0.810 | 0.837 | 0.728 | 0.825 | 4.95 |
| 32) | chloroprene  | 0.590 | 0.572 | 0.697 | 0.722 | 0.690 | 0.698 | 0.689 | 0.602 | 0.682 | 0.660 | 8.45  |      |
| 33) | acrylonitrile                                      | 0.126 | 0.130 | 0.123 | 0.134 | 0.122 | 0.128 | 0.125 |       |       | 0.127 | 3.23  |      |
| 34) | hexane   | 0.299 | 0.325 | 0.333 | 0.325 | 0.335 | 0.306 | 0.296 | 0.302 |       | 0.315 | 5.09  |      |
| 35) | vinyl acetate                                      | 0.068 | 0.072 | 0.066 | 0.071 | 0.057 |       | 0.062 |       |       | 0.066 | 8.56  |      |
| 36) | ethyl tert-butyl ether                             | 1.136 | 1.110 | 1.321 | 1.361 | 1.231 | 1.370 | 1.223 | 1.129 | 1.193 | 1.231 | 8.13  |      |
| 37) | ethyl acetate                                      | 0.051 | 0.053 | 0.047 | 0.052 | 0.050 |       | 0.050 |       |       | 0.051 | 4.72  |      |
| 38) | 2,2-dichloropropane                                | 0.755 | 0.761 | 0.717 | 0.749 | 0.733 | 0.724 | 0.784 | 0.716 | 0.745 | 0.743 | 3.06  |      |
| 39) | cis-1,2-dichloroethene                             | 0.624 | 0.672 | 0.531 | 0.547 | 0.540 | 0.542 | 0.587 | 0.505 | 0.547 | 0.596 | 0.569 | 8.83 |
| 40) | methyl acrylate                                    | 0.059 | 0.060 | 0.051 | 0.061 | 0.045 |       | 0.045 |       |       | 0.053 | 14.23 |      |
| 41) | propionitrile                                      | 0.052 | 0.057 | 0.059 | 0.056 | 0.060 | 0.059 | 0.054 | 0.058 |       | 0.057 | 4.64  |      |
| 42) | bromochloromethane                                 | 0.253 | 0.211 | 0.229 | 0.240 | 0.235 | 0.231 | 0.236 | 0.243 | 0.241 | 0.236 | 4.81  |      |
| 43) | tetrahydrofuran                                    | 0.051 | 0.053 | 0.051 | 0.053 | 0.063 |       | 0.052 |       |       | 0.054 | 8.30  |      |
| 44) | chloroform   | 0.552 | 0.545 | 0.550 | 0.574 | 0.548 | 0.556 | 0.596 | 0.579 | 0.561 | 0.541 | 0.560 | 3.14 |
| 45) | t-butyl formate                                    | 0.275 | 0.329 | 0.333 | 0.306 | 0.344 | 0.282 | 0.255 | 0.296 |       | 0.303 | 10.28 |      |
| 46) | dibromofluoromethane (s)                           | 0.441 | 0.447 | 0.466 | 0.468 | 0.461 | 0.474 | 0.462 | 0.453 | 0.459 | 0.430 | 0.456 | 2.96 |
| 47) | methacrylonitrile                                  | 0.159 | 0.163 | 0.147 | 0.167 | 0.141 | 0.145 | 0.144 |       |       | 0.152 | 6.92  |      |
| 48) | 1,1,1-trichloroethane                              | 0.727 | 0.764 | 0.765 | 0.803 | 0.777 | 0.767 | 0.817 | 0.760 | 0.795 | 0.721 | 0.770 | 3.99 |
| 49) | cyclohexane  | 0.629 | 0.612 | 0.675 | 0.702 | 0.687 | 0.694 | 0.709 | 0.632 | 0.683 | 0.669 | 5.31  |      |
| 50) | 1,1-dichloropropene                                | 0.605 | 0.581 | 0.654 | 0.677 | 0.650 | 0.674 | 0.639 | 0.590 | 0.662 | 0.637 | 5.66  |      |
| 51) | iso-butyl alcohol                                  | 0.016 | 0.015 | 0.014 | 0.017 | 0.013 |       | 0.014 |       |       | 0.015 | 9.48  |      |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VIC6871-ICC6871  
**Lab FileID:** 1C155655.D

|       |                           |                |       |       |       |       |       |       |       |       |       |        |       |
|-------|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 52)   | carbon tetrachloride      | 0.627          | 0.641 | 0.671 | 0.702 | 0.690 | 0.678 | 0.688 | 0.636 | 0.701 | 0.557 | 0.659  | 6.81  |
| 53)   | tert amyl alcohol         | 0.014          | 0.015 | 0.013 | 0.015 | 0.013 |       |       | 0.014 |       |       | 0.014  | 6.29  |
| 54) I | 1,4-difluorobenzene       | -----ISTD----- |       |       |       |       |       |       |       |       |       |        |       |
| 55)   | 1,2-dichloroethane-d4 (s) | 0.312          | 0.312 | 0.295 | 0.304 | 0.302 | 0.293 | 0.313 | 0.315 | 0.309 | 0.282 | 0.304  | 3.59  |
| 56)   | n-butyl alcohol           | 0.007          | 0.007 | 0.007 | 0.008 | 0.006 |       |       | 0.006 |       |       | 0.007# | 10.68 |
| 57)   | 2,2,4-trimethylpentane    | 1.087          | 1.123 | 1.109 | 1.135 | 1.120 | 1.123 | 1.149 | 1.137 | 1.119 |       | 1.122  | 1.59  |
| 58)   | benzene                   | 1.251          | 1.232 | 1.221 | 1.248 | 1.221 | 1.221 | 1.283 | 1.224 | 1.238 | 1.342 | 1.248  | 3.06  |
| 59)   | tert-amyl methyl ether    | 0.181          | 0.183 | 0.185 | 0.175 | 0.184 | 0.184 | 0.174 | 0.180 |       |       | 0.181  | 2.26  |
| 60)   | heptane                   | 0.234          | 0.234 | 0.253 | 0.261 | 0.259 | 0.256 | 0.257 | 0.263 | 0.259 |       | 0.253  | 4.42  |
| 61)   | isopropyl acetate         | 0.049          | 0.049 | 0.047 | 0.048 | 0.047 |       |       | 0.045 |       |       | 0.048  | 3.00  |
| 62)   | 1,2-dichloroethane        | 0.458          | 0.364 | 0.376 | 0.372 | 0.354 | 0.425 | 0.445 | 0.398 |       |       | 0.399  | 9.86  |
| 63)   | trichloroethene           | 0.327          | 0.303 | 0.332 | 0.343 | 0.340 | 0.326 | 0.336 | 0.314 | 0.330 | 0.399 | 0.335  | 7.65  |
| 64)   | ethyl acrylate            | 0.258          | 0.282 | 0.292 | 0.271 | 0.288 | 0.268 | 0.251 | 0.266 |       |       | 0.272  | 5.34  |
| 65)   | 2-nitropropane            | 0.074          | 0.089 | 0.092 | 0.089 | 0.088 | 0.096 | 0.077 | 0.087 |       |       | 0.087  | 8.63  |
| 66)   | 2-chloroethyl vinyl ether | 0.130          | 0.135 | 0.142 | 0.140 | 0.134 | 0.147 | 0.139 | 0.126 | 0.134 | 0.103 | 0.133  | 9.11  |
| 67)   | methyl methacrylate       | 0.060          | 0.061 | 0.059 | 0.061 | 0.052 | 0.062 | 0.058 |       |       |       | 0.059  | 5.49  |
| 68)   | 1,2-dichloropropane       | 0.284          | 0.300 | 0.297 | 0.305 | 0.299 | 0.301 | 0.312 | 0.297 | 0.300 | 0.219 | 0.291  | 9.02  |
| 69)   | dibromomethane            | 0.184          | 0.161 | 0.176 | 0.185 | 0.180 | 0.175 | 0.186 | 0.183 | 0.190 | 0.160 | 0.178  | 5.79  |
| 70)   | methylcyclohexane         | 0.514          | 0.492 | 0.538 | 0.560 | 0.544 | 0.541 | 0.544 | 0.555 | 0.546 |       | 0.537  | 3.99  |
| 71)   | bromodichloromethane      | 0.443          | 0.425 | 0.434 | 0.447 | 0.431 | 0.429 | 0.441 | 0.427 | 0.448 | 0.369 | 0.429  | 5.30  |
| 72)   | epichlorohydrin           | 0.024          | 0.025 | 0.023 | 0.024 | 0.024 | 0.021 | 0.023 |       |       |       | 0.024  | 4.97  |
| 73)   | cis-1,3-dichloropropene   | 0.450          | 0.431 | 0.491 | 0.503 | 0.482 | 0.500 | 0.487 | 0.449 | 0.483 | 0.375 | 0.465  | 8.48  |
| 74)   | 4-methyl-2-pentanone      | 0.072          | 0.067 | 0.080 | 0.083 | 0.076 | 0.083 | 0.076 | 0.074 | 0.079 | 0.067 | 0.076  | 7.51  |
| 75)   | 3-methyl-1-butanol        | 0.008          | 0.011 | 0.011 | 0.010 | 0.011 | 0.010 | 0.008 | 0.010 |       |       | 0.010# | 13.11 |
| 76) I | chlorobenzene-d5          | -----ISTD----- |       |       |       |       |       |       |       |       |       |        |       |
| 77)   | toluene-d8 (s)            | 1.250          | 1.247 | 1.260 | 1.277 | 1.260 | 1.249 | 1.258 | 1.256 | 1.275 | 1.267 | 1.260  | 0.83  |
| 78)   | toluene                   | 0.826          | 0.839 | 0.856 | 0.879 | 0.853 | 0.866 | 0.902 | 0.847 | 0.856 | 1.036 | 0.876  | 6.87  |
| 79)   | trans-1,3-dichloropropene | 0.441          | 0.450 | 0.498 | 0.515 | 0.499 | 0.502 | 0.501 | 0.456 | 0.495 | 0.420 | 0.478  | 6.86  |
| 80)   | ethyl methacrylate        | 0.351          | 0.349 | 0.361 | 0.342 | 0.349 | 0.365 | 0.341 | 0.342 |       |       | 0.350  | 2.57  |
| 81)   | 1,1,2-trichloroethane     | 0.218          | 0.213 | 0.251 | 0.263 | 0.246 | 0.253 | 0.247 | 0.223 | 0.237 |       | 0.239  | 7.24  |

6.11.1  
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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VIC6871-ICC6871  
**Lab FileID:** 1C155655.D

|      |  |       |       |       |       |       |       |       |       |       |       |        |       |
|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 82)  | tetrachloroethene  | 0.321 | 0.290 | 0.323 | 0.332 | 0.327 | 0.320 | 0.333 | 0.313 | 0.331 | 0.337 | 0.323  | 4.20  |
| 83)  | 1,3-dichloropropane  | 0.373 | 0.383 | 0.436 | 0.454 | 0.430 | 0.446 | 0.454 | 0.425 | 0.428 | 0.395 | 0.422  | 6.85  |
| 84)  | 2-hexanone   | 0.090 | 0.089 | 0.095 | 0.100 | 0.094 | 0.093 | 0.096 | 0.097 | 0.095 |       | 0.094  | 3.77  |
| 85)  | butyl acetate  | 0.137 |       | 0.154 | 0.159 | 0.151 | 0.157 | 0.174 | 0.163 | 0.156 |       | 0.156  | 6.69  |
| 86)  | 3,3-dimethyl-1-butanol   |       |       |       |       |       |       |       |       |       |       | 0.000# | -1.00 |
| 87)  | dibromochloromethane   | 0.335 | 0.322 | 0.375 | 0.392 | 0.362 | 0.379 | 0.369 | 0.334 | 0.354 | 0.336 | 0.356  | 6.51  |
| 88)  | 1,2-dibromoethane  | 0.264 | 0.268 | 0.320 | 0.334 | 0.304 | 0.321 | 0.319 | 0.268 | 0.304 |       | 0.300  | 8.90  |
| 89)  | n-butyl ether  | 1.312 | 1.311 | 1.350 | 1.375 | 1.322 | 1.376 | 1.386 | 1.321 | 1.327 | 1.559 | 1.364  | 5.43  |
| 90)  | chlorobenzene  | 0.962 | 0.864 | 0.910 | 0.941 | 0.897 | 0.929 | 0.952 | 0.901 | 0.899 | 1.142 | 0.940  | 8.18  |
| 91)  | 1,1,1,2-tetrachloroethane  | 0.307 | 0.306 | 0.352 | 0.358 | 0.334 | 0.361 | 0.356 | 0.332 | 0.333 | 0.295 | 0.333  | 7.16  |
| 92)  | ethylbenzene   | 1.636 | 1.619 | 1.606 | 1.659 | 1.618 | 1.616 | 1.684 | 1.661 | 1.651 | 1.911 | 1.666  | 5.37  |
| 93)  | m,p-xylene   | 0.623 | 0.594 | 0.611 | 0.628 | 0.617 | 0.615 | 0.655 | 0.629 | 0.621 | 0.658 | 0.625  | 3.07  |
| 94)  | o-xylene   | 0.570 | 0.582 | 0.596 | 0.607 | 0.597 | 0.608 | 0.628 | 0.606 | 0.602 | 0.559 | 0.595  | 3.38  |
| 95)  | styrene  | 0.967 | 0.936 | 1.007 | 1.031 | 1.015 | 1.024 | 1.055 | 0.989 | 0.995 | 1.039 | 1.006  | 3.54  |
| 96)  | bromoform  | 0.215 |       | 0.250 | 0.254 | 0.233 | 0.252 | 0.237 | 0.217 | 0.234 |       | 0.237  | 6.44  |
| 97)  | butyl acrylate   | 0.466 | 0.447 | 0.521 | 0.521 | 0.499 | 0.524 | 0.507 | 0.496 | 0.498 |       | 0.498  | 5.24  |
| 98)  | isopropylbenzene   | 1.556 | 1.592 | 1.588 | 1.642 | 1.625 | 1.584 | 1.729 | 1.600 | 1.620 | 1.846 | 1.638  | 5.29  |
| 99)  | cis-1,4-dichloro-2-butene  | 0.131 | 0.135 | 0.126 | 0.132 | 0.119 | 0.115 | 0.117 |       |       |       | 0.125  | 6.36  |
| 100) | I 1,4-dichlorobenzene-d -----ISTD-----                                     |       |       |       |       |       |       |       |       |       |       |        |       |
| 101) | 4-bromofluorobenzene (s)   | 0.828 | 0.833 | 0.820 | 0.838 | 0.824 | 0.836 | 0.832 | 0.850 | 0.845 | 0.824 | 0.833  | 1.12  |
| 102) | bromobenzene   | 0.808 | 0.861 | 0.803 | 0.838 | 0.796 | 0.835 | 0.878 | 0.849 | 0.835 | 1.040 | 0.854  | 8.20  |
| 103) | 1,1,2,2-tetrachloroethane  | 0.600 | 0.559 | 0.672 | 0.690 | 0.638 | 0.713 | 0.624 | 0.614 | 0.649 | 0.548 | 0.631  | 8.43  |
| 104) | trans-1,4-dichloro-2-butene---The compound does not meet initial criteria. | 0.158 | 0.169 | 0.160 | 0.165 | 0.155 |       |       | 0.166 |       |       | 0.162  | 3.26  |
| 105) | 1,2,3-trichloropropane   | 0.143 |       | 0.163 | 0.169 | 0.157 | 0.168 | 0.167 | 0.146 | 0.160 |       | 0.159  | 6.21  |
| 106) | n-propylbenzene  | 3.742 | 3.578 | 3.746 | 3.890 | 3.767 | 3.880 | 3.902 | 3.671 | 3.854 | 4.679 | 3.871  | 7.81  |
| 107) | 4-Ethyltoluene   |       |       |       |       |       |       |       |       |       |       | 0.000# | -1.00 |
| 108) | 2-chlorotoluene  | 0.718 | 0.760 | 0.746 | 0.770 | 0.735 | 0.765 | 0.787 | 0.787 | 0.768 | 0.857 | 0.769  | 4.88  |
| 109) | 4-chlorotoluene  | 2.174 | 2.022 | 2.081 | 2.168 | 2.067 | 2.157 | 2.239 | 2.190 | 2.156 | 2.617 | 2.187  | 7.51  |
| 110) | 1,3,5-trimethylbenzene   | 2.578 | 2.597 | 2.430 | 2.481 | 2.412 | 2.544 | 2.638 | 2.515 | 2.505 | 2.835 | 2.554  | 4.77  |
| 111) | tert-butylbenzene  | 0.470 | 0.425 | 0.470 | 0.488 | 0.463 | 0.479 | 0.478 | 0.523 | 0.485 | 0.539 | 0.482  | 6.53  |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VIC6871-ICC6871  
**Lab FileID:** 1C155655.D

|      |                             |   |        |       |
|------|-----------------------------|---|--------|-------|
| 112) | 1,2,4-trimethylbenzene      | 2.607 2.455 2.386 2.489 2.414 2.486 2.617 2.556 2.530             | 2.504  | 3.21  |
| 113) | sec-butylbenzene            | 3.171 3.203 3.383 3.530 3.377 3.520 3.512 3.318 3.454 4.283 3.475 | 8.94   |       |
| 114) | 1,3-dichlorobenzene         | 1.575 1.457 1.498 1.561 1.500 1.532 1.591 1.531 1.568             | 1.535  | 2.85  |
| 115) | p-isopropyltoluene          | 2.788 2.874 2.717 2.836 2.723 2.827 2.948 2.789 2.837 3.574       | 2.891  | 8.62  |
| 116) | 1,4-dichlorobenzene         | 1.531 1.659 1.484 1.525 1.449 1.516 1.579 1.501 1.502             | 1.527  | 3.97  |
| 117) | benzyl chloride             | 1.291 1.383 1.323 1.382 1.310 1.340 1.427 1.332 1.365 1.447       | 1.360  | 3.73  |
| 118) | 1,2-dichlorobenzene         | 1.398 1.420 1.419 1.485 1.396 1.456 1.502 1.389 1.432 1.763       | 1.466  | 7.57  |
| 119) | 1,4-Diethylbenzene          |   | 0.000# | -1.00 |
| 120) | n-butylbenzene              | 1.426 1.517 1.452 1.502 1.465 1.513 1.504 1.518 1.490             | 1.488  | 2.20  |
| 121) | 1,2-dibromo-3-chloropropane | 0.153 0.122 0.130 0.126 0.123 0.136 0.131 0.140                   | 0.133  | 7.75  |
| 122) | 1,3,5-trichlorobenzene      | 1.359 1.381 1.194 1.295 1.230 1.221 1.351 1.272 1.280             | 1.287  | 5.12  |
| 123) | 1,2,4,5-tetramethylbenzene  |   | 0.000# | -1.00 |
| 124) | 2-ethylhexyl acrylate       | 0.762 0.776 0.722 0.793 0.884 0.755                               | 0.782  | 7.05  |
| 125) | 1,2,4-trichlorobenzene      | 1.115 1.215 1.000 1.076 1.052 1.029 1.151 1.095 1.083             | 1.090  | 5.93  |
| 126) | hexachlorobutadiene         | 0.707 0.636 0.650 0.700 0.677 0.642 0.738 0.683 0.706             | 0.682  | 5.04  |
| 127) | naphthalene                 | 2.222 2.458 2.043 2.171 2.034 2.055 2.234 2.150 2.121             | 2.165  | 6.12  |
| 128) | 1,2,3-trichlorobenzene      | 1.071 1.099 0.968 1.035 0.971 0.983 1.100 1.001 1.024             | 1.028  | 5.08  |
| 129) | hexachloroethane            | 0.503 0.547 0.563 0.578 0.549 0.584 0.557 0.510 0.554 0.557       | 0.550  | 4.68  |
| 130) | 2-methylnaphthalene         | 1.705 1.552 1.651 1.545 1.533 1.682 1.733 1.602                   | 1.625  | 4.80  |

-----  
 (#) = Out of Range ### Number of calibration levels exceeded format ###

M1CS6871.M Tue Mar 27 15:45:32 2018

6.11.1  
 6

# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V1C6871-ICV6871  
 Lab FileID: 1C155660.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6871\1C155660.D Vial: 14  
 Acq On : 23 Mar 2018 5:58 pm Operator: PrashanS  
 Sample : ICV6871-50 Inst : GCMS1C  
 Misc : MS24860,V1C6871,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)  
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 Last Update : Tue Mar 27 15:36:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T.  |
|------|--------------------------------|--------|--------|--------------|-------|----------|-------|
| 1    | tert butyl alcohol-d9          | 1.000  | 1.000  | 0.0          | 116   | -0.01    | 7.39  |
| 2 M  | tertiary butyl alcohol         | 1.284  | 1.346  | -4.8         | 120   | -0.01    | 7.50  |
| 3    | Ethanol                        | 0.122  | 0.136  | -11.5        | 123   | -0.02    | 6.14  |
| 4 M  | 1,4-dioxane                    | 0.137  | 0.151  | -10.2        | 122   | 0.00     | 11.27 |
| 5 I  | pentafluorobenzene             | 1.000  | 1.000  | 0.0          | 113   | 0.00     | 9.62  |
| 6 M  | chlorodifluoromethane          | 0.601  | 0.703  | -17.0        | 129   | 0.00     | 3.90  |
| 7 M  | dichlorodifluoromethane        | 0.771  | 0.827  | -7.3         | 118   | 0.00     | 3.86  |
| 8    | Freon 114                      |        |        | -----NA----- |       |          |       |
| 9    | freon 142b                     |        |        | -----NA----- |       |          |       |
| 10 M | chloromethane                  | 0.895  | 0.965  | -7.8         | 127   | 0.00     | 4.29  |
| 11 M | vinyl chloride                 | 0.847  | 0.849  | -0.2         | 112   | 0.00     | 4.52  |
| 12   | 1,3-Butadiene                  |        |        | -----NA----- |       |          |       |
| 13 M | bromomethane                   | 0.472  | 0.484  | -2.5         | 125   | 0.03     | 5.20  |
| 14 M | chloroethane                   | 0.330  | 0.361  | -9.4         | 120   | 0.02     | 5.39  |
| 15 M | trichlorofluoromethane         | 0.829  | 0.802  | 3.3          | 108   | 0.01     | 5.83  |
| 16   | vinyl bromide                  | 0.561  | 0.572  | -2.0         | 111   | 0.00     | 5.74  |
| 17 M | ethyl ether                    | 0.219  | 0.257  | -17.4        | 128   | 0.00     | 6.27  |
| 18 M | acrolein                       | 0.072  | 0.084  | -16.7        | 131   | 0.01     | 6.56  |
| 19   | freon 113                      | 0.344  | 0.443  | -28.8        | 143   | 0.00     | 6.63  |
| 20 M | 1,1-dichloroethene             | 0.468  | 0.482  | -3.0         | 121   | 0.00     | 6.70  |
| 21 M | acetone                        | 0.034  | 0.038  | -11.8        | 129   | 0.00     | 6.77  |
| 22 M | acetonitrile                   | 0.045  | 0.123  | -173.3#      | 308#  | 0.00     | 7.24  |
|      | ----- True Calc. % Drift ----- |        |        |              |       |          |       |
| 23 M | iodomethane                    | 50.000 | 45.095 | 9.8          | 107   | 0.00     | 6.99  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |              |       |          |       |
| 24 M | carbon disulfide               | 1.634  | 1.876  | -14.8        | 135   | 0.00     | 7.10  |
| 25 M | methylene chloride             | 0.493  | 0.541  | -9.7         | 125   | 0.00     | 7.44  |
| 26 M | methyl acetate                 | 0.238  | 0.269  | -13.0        | 120   | 0.00     | 7.23  |
| 27 M | methyl tert butyl ether        | 1.067  | 1.248  | -17.0        | 122   | 0.00     | 7.73  |
| 28 M | trans-1,2-dichloroethene       | 0.520  | 0.534  | -2.7         | 123   | 0.00     | 7.80  |
| 29 M | di-isopropyl ether             | 1.253  | 1.470  | -17.3        | 121   | 0.00     | 8.33  |
| 30 M | 2-butanone                     | 0.042  | 0.051  | -21.4        | 126   | 0.00     | 9.09  |
| 31 M | 1,1-dichloroethane             | 0.825  | 0.897  | -8.7         | 122   | 0.00     | 8.38  |
| 32 M | chloroprene                    | 0.660  | 0.801  | -21.4        | 126   | 0.00     | 8.48  |
| 33 M | acrylonitrile                  | 0.127  | 0.137  | -7.9         | 119   | 0.00     | 7.79  |
| 34   | hexane                         | 0.315  | 0.324  | -2.9         | 110   | 0.00     | 8.08  |
| 35 M | vinyl acetate                  | 0.066  | 0.081  | -22.7        | 128   | 0.00     | 8.36  |
| 36 M | ethyl tert-butyl ether         | 1.231  | 1.405  | -14.1        | 117   | 0.00     | 8.79  |
| 37 M | ethyl acetate                  | 0.051  | 0.054  | -5.9         | 115   | 0.00     | 9.09  |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6871-ICV6871  
**Lab FileID:** 1C155660.D

|    |   |                           |       |        |              |     |      |       |
|----|---|---------------------------|-------|--------|--------------|-----|------|-------|
| 38 | M | 2,2-dichloropropane       | 0.743 | 0.796  | -7.1         | 120 | 0.00 | 9.11  |
| 39 | M | cis-1,2-dichloroethene    | 0.569 | 0.584  | -2.6         | 121 | 0.00 | 9.12  |
| 40 |   | methyl acrylate           | 0.053 | 0.061  | -15.1        | 116 | 0.00 | 9.18  |
| 41 | M | propionitrile             | 0.057 | 0.061  | -7.0         | 118 | 0.00 | 9.22  |
| 42 | M | bromochloromethane        | 0.236 | 0.258  | -9.3         | 122 | 0.00 | 9.44  |
| 43 | M | tetrahydrofuran           | 0.054 | 0.056  | -3.7         | 120 | 0.00 | 9.47  |
| 44 | M | chloroform                | 0.560 | 0.596  | -6.4         | 118 | 0.00 | 9.49  |
| 45 | M | t-butyl formate           | 0.303 | 0.253  | 16.5         | 86  | 0.00 | 9.50  |
| 46 | S | dibromofluoromethane (s)  | 0.456 | 0.477  | -4.6         | 116 | 0.00 | 9.69  |
| 47 | M | methacrylonitrile         | 0.152 | 0.165  | -8.6         | 115 | 0.00 | 9.38  |
| 48 | M | 1,1,1-trichloroethane     | 0.770 | 0.815  | -5.8         | 115 | 0.00 | 9.72  |
| 49 |   | cyclohexane               | 0.669 | 0.716  | -7.0         | 116 | 0.00 | 9.78  |
| 50 |   | 1,1-dichloropropene       | 0.637 | 0.737  | -15.7        | 123 | 0.00 | 9.91  |
| 51 |   | iso-butyl alcohol         | 0.015 | 0.016  | -6.7         | 121 | 0.00 | 9.93  |
| 52 |   | carbon tetrachloride      | 0.659 | 0.722  | -9.6         | 116 | 0.00 | 9.92  |
| 53 |   | tert amyl alcohol         | 0.014 | 0.016  | -14.3        | 120 | 0.00 | 10.04 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000  | 0.0          | 118 | 0.00 | 10.54 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.304 | 0.283  | 6.9          | 110 | 0.00 | 10.11 |
| 56 | M | n-butyl alcohol           | 0.007 | 0.007# | 0.0          | 118 | 0.00 | 10.68 |
| 57 |   | 2,2,4-trimethylpentane    | 1.122 | 1.203  | -7.2         | 125 | 0.00 | 10.13 |
| 58 | M | benzene                   | 1.248 | 1.304  | -4.5         | 124 | 0.00 | 10.17 |
| 59 | M | tert-amyl methyl ether    | 0.181 | 0.188  | -3.9         | 120 | 0.00 | 10.18 |
| 60 | M | heptane                   | 0.253 | 0.311  | -22.9        | 141 | 0.00 | 10.30 |
| 61 | M | isopropyl acetate         | 0.048 | 0.052  | -8.3         | 125 | 0.00 | 10.08 |
| 62 | M | 1,2-dichloroethane        | 0.399 | 0.369  | 7.5          | 116 | 0.00 | 10.20 |
| 63 | M | trichloroethene           | 0.335 | 0.354  | -5.7         | 122 | 0.00 | 10.88 |
| 64 |   | ethyl acrylate            | 0.272 | 0.304  | -11.8        | 123 | 0.00 | 10.88 |
| 65 | M | 2-nitropropane            | 0.087 | 0.088  | -1.1         | 114 | 0.00 | 11.67 |
| 66 | M | 2-chloroethyl vinyl ether | 0.133 | 0.150  | -12.8        | 126 | 0.00 | 11.67 |
| 67 | M | methyl methacrylate       | 0.059 | 0.063  | -6.8         | 123 | 0.00 | 11.15 |
| 68 | M | 1,2-dichloropropane       | 0.291 | 0.313  | -7.6         | 121 | 0.00 | 11.16 |
| 69 | M | dibromomethane            | 0.178 | 0.192  | -7.9         | 123 | 0.00 | 11.32 |
| 70 | M | methylcyclohexane         | 0.537 | 0.570  | -6.1         | 120 | 0.00 | 11.08 |
| 71 | M | bromodichloromethane      | 0.429 | 0.442  | -3.0         | 117 | 0.00 | 11.45 |
| 72 |   | epichlorohydrin           | 0.024 | 0.025  | -4.2         | 118 | 0.00 | 11.81 |
| 73 | M | cis-1,3-dichloropropene   | 0.465 | 0.530  | -14.0        | 125 | 0.00 | 11.89 |
| 74 | M | 4-methyl-2-pentanone      | 0.076 | 0.088  | -15.8        | 125 | 0.00 | 11.98 |
| 75 | M | 3-methyl-1-butanol        | 0.010 | 0.011  | -10.0        | 120 | 0.00 | 12.00 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000  | 0.0          | 117 | 0.00 | 13.68 |
| 77 | S | toluene-d8 (s)            | 1.260 | 1.262  | -0.2         | 115 | 0.00 | 12.17 |
| 78 |   | toluene                   | 0.876 | 0.936  | -6.8         | 124 | 0.00 | 12.24 |
| 79 |   | trans-1,3-dichloropropene | 0.478 | 0.506  | -5.9         | 115 | 0.00 | 12.45 |
| 80 |   | ethyl methacrylate        | 0.350 | 0.361  | -3.1         | 117 | 0.00 | 12.42 |
| 81 |   | 1,1,2-trichloroethane     | 0.239 | 0.270  | -13.0        | 120 | 0.00 | 12.67 |
| 82 | M | tetrachloroethene         | 0.323 | 0.357  | -10.5        | 126 | 0.00 | 12.82 |
| 83 | M | 1,3-dichloropropane       | 0.422 | 0.480  | -13.7        | 124 | 0.00 | 12.85 |
| 84 |   | 2-hexanone                | 0.094 | 0.111  | -18.1        | 129 | 0.00 | 12.82 |
| 85 | M | butyl acetate             | 0.156 | 0.176  | -12.8        | 129 | 0.00 | 12.89 |
| 86 | M | 3,3-dimethyl-1-butanol    |       |        | -----NA----- |     |      |       |
| 87 | M | dibromochloromethane      | 0.356 | 0.408  | -14.6        | 122 | 0.00 | 13.12 |
| 88 | M | 1,2-dibromoethane         | 0.300 | 0.346  | -15.3        | 121 | 0.00 | 13.26 |
| 89 |   | n-butyl ether             | 1.364 | 1.437  | -5.4         | 122 | 0.00 | 13.59 |
| 90 | M | chlorobenzene             | 0.940 | 0.982  | -4.5         | 122 | 0.00 | 13.71 |
| 91 | M | 1,1,1,2-tetrachloroethane | 0.333 | 0.378  | -13.5        | 123 | 0.00 | 13.77 |
| 92 | M | ethylbenzene              | 1.666 | 1.742  | -4.6         | 123 | 0.00 | 13.75 |
| 93 | M | m,p-xylene                | 0.625 | 0.661  | -5.8         | 123 | 0.00 | 13.85 |
| 94 | M | o-xylene                  | 0.595 | 0.635  | -6.7         | 122 | 0.00 | 14.27 |
| 95 | M | styrene                   | 1.006 | 1.086  | -8.0         | 123 | 0.00 | 14.29 |

6.11.2  
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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6871-ICV6871  
**Lab FileID:** 1C155660.D

|     |   |                           |       |       |              |     |      |       |
|-----|---|---------------------------|-------|-------|--------------|-----|------|-------|
| 96  | M | bromoform                 | 0.237 | 0.268 | -13.1        | 123 | 0.00 | 14.57 |
| 97  |   | butyl acrylate            | 0.498 | 0.550 | -10.4        | 123 | 0.00 | 14.09 |
| 98  |   | isopropylbenzene          | 1.638 | 1.691 | -3.2         | 120 | 0.00 | 14.61 |
| 99  |   | cis-1,4-dichloro-2-butene | 0.125 | 0.131 | -4.8         | 114 | 0.00 | 14.70 |
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 113 | 0.00 | 15.99 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.833 | 0.847 | -1.7         | 114 | 0.00 | 14.83 |
| 102 | M | bromobenzene              | 0.854 | 0.891 | -4.3         | 120 | 0.00 | 15.02 |
| 103 | M | 1,1,2,2-tetrachloroethane | 0.631 | 0.727 | -15.2        | 119 | 0.00 | 14.94 |
| 104 | M | trans-1,4-dichloro-2-bute | 0.162 | 0.212 | -30.9#       | 142 | 0.00 | 14.98 |
| 105 | M | 1,2,3-trichloropropane    | 0.159 | 0.177 | -11.3        | 118 | 0.00 | 15.02 |
| 106 | M | n-propylbenzene           | 3.871 | 4.173 | -7.8         | 121 | 0.00 | 15.02 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |      |       |
| 108 | M | 2-chlorotoluene           | 0.769 | 0.796 | -3.5         | 117 | 0.00 | 15.17 |
| 109 | M | 4-chlorotoluene           | 2.187 | 2.355 | -7.7         | 123 | 0.00 | 15.27 |
| 110 | M | 1,3,5-trimethylbenzene    | 2.554 | 2.618 | -2.5         | 119 | 0.00 | 15.16 |
| 111 | M | tert-butylbenzene         | 0.482 | 0.509 | -5.6         | 118 | 0.00 | 15.51 |
| 112 | M | 1,2,4-trimethylbenzene    | 2.504 | 2.652 | -5.9         | 120 | 0.00 | 15.56 |
| 113 | M | sec-butylbenzene          | 3.475 | 3.768 | -8.4         | 120 | 0.00 | 15.73 |
| 114 | M | 1,3-dichlorobenzene       | 1.535 | 1.626 | -5.9         | 118 | 0.00 | 15.94 |
| 115 | M | p-isopropyltoluene        | 2.891 | 3.002 | -3.8         | 119 | 0.00 | 15.84 |
| 116 | M | 1,4-dichlorobenzene       | 1.527 | 1.608 | -5.3         | 119 | 0.00 | 16.01 |
| 117 |   | benzyl chloride           | 1.360 | 1.241 | 8.8          | 101 | 0.00 | 16.14 |
| 118 | M | 1,2-dichlorobenzene       | 1.466 | 1.539 | -5.0         | 117 | 0.00 | 16.42 |
| 119 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |      |       |
| 120 | M | n-butylbenzene            | 1.488 | 1.603 | -7.7         | 120 | 0.00 | 16.27 |
| 121 | M | 1,2-dibromo-3-chloropropa | 0.133 | 0.129 | 3.0          | 111 | 0.00 | 17.21 |
| 122 |   | 1,3,5-trichlorobenzene    | 1.287 | 1.344 | -4.4         | 117 | 0.00 | 17.36 |
| 123 |   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 124 |   | 2-ethylhexyl acrylate     | 0.782 | 0.896 | -14.6        | 130 | 0.00 | 17.90 |
| 125 | M | 1,2,4-trichlorobenzene    | 1.090 | 1.122 | -2.9         | 118 | 0.00 | 17.94 |
| 126 | M | hexachlorobutadiene       | 0.682 | 0.707 | -3.7         | 114 | 0.00 | 18.02 |
| 127 | M | naphthalene               | 2.165 | 2.277 | -5.2         | 118 | 0.00 | 18.18 |
| 128 | M | 1,2,3-trichlorobenzene    | 1.028 | 1.052 | -2.3         | 115 | 0.00 | 18.39 |
| 129 | m | hexachloroethane          | 0.550 | 0.620 | -12.7        | 121 | 0.00 | 16.68 |
| 130 |   | 2-methylnaphthalene       | 1.625 | 1.699 | -4.6         | 116 | 0.00 | 19.14 |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

1C155655.D M1CS6871.M

Tue Mar 27 15:45:12 2018

6.11.2  
6



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6871-ICV6871  
**Lab FileID:** 1C155661.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C6871\1C155661.D Vial: 15  
 Acq On : 23 Mar 2018 6:24 pm Operator: PrashanS  
 Sample : ICV6871-50 Inst : GCMS1C  
 Misc : MS24860,V1C6871,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)  
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 Last Update : Tue Mar 27 15:36:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF  | %Dev    | Area% | Dev(min) | R.T. |
|-------------------------------|-------|-------|---------|-------|----------|------|
| 1 tert butyl alcohol-d9       | 1.000 | 1.000 | 0.0     | 104   | -0.01    | 7.39 |
| 2 M tertiary butyl alcohol    |       |       | NA      |       |          |      |
| 3 Ethanol                     |       |       | NA      |       |          |      |
| 4 M 1,4-dioxane               |       |       | NA      |       |          |      |
| 5 I pentafluorobenzene        | 1.000 | 1.000 | 0.0     | 116   | 0.00     | 9.62 |
| 6 M chlorodifluoromethane     |       |       | NA      |       |          |      |
| 7 M dichlorodifluoromethane   |       |       | NA      |       |          |      |
| 8 Freon 114                   |       |       | NA      |       |          |      |
| 9 freon 142b                  | 0.747 | 0.731 | 2.1     | 107   | 0.00     | 4.20 |
| 10 M chloromethane            |       |       | NA      |       |          |      |
| 11 M vinyl chloride           |       |       | NA      |       |          |      |
| 12 1,3-Butadiene              | 0.661 | 0.717 | -8.5    | 119   | 0.00     | 4.59 |
| 13 M bromomethane             |       |       | NA      |       |          |      |
| 14 M chloroethane             |       |       | NA      |       |          |      |
| 15 M trichlorofluoromethane   |       |       | NA      |       |          |      |
| 16 vinyl bromide              |       |       | NA      |       |          |      |
| 17 M ethyl ether              |       |       | NA      |       |          |      |
| 18 M acrolein                 |       |       | NA      |       |          |      |
| 19 freon 113                  |       |       | NA      |       |          |      |
| 20 M 1,1-dichloroethene       |       |       | NA      |       |          |      |
| 21 M acetone                  |       |       | NA      |       |          |      |
| 22 M acetonitrile             | 0.045 | 0.052 | -15.6   | 133   | 0.00     | 7.24 |
|                               | True  | Calc. | % Drift |       |          |      |
| 23 M iodomethane              |       |       | NA      |       |          |      |
|                               | AvgRF | CCRF  | % Dev   |       |          |      |
| 24 M carbon disulfide         |       |       | NA      |       |          |      |
| 25 M methylene chloride       |       |       | NA      |       |          |      |
| 26 M methyl acetate           |       |       | NA      |       |          |      |
| 27 M methyl tert butyl ether  |       |       | NA      |       |          |      |
| 28 M trans-1,2-dichloroethene |       |       | NA      |       |          |      |
| 29 M di-isopropyl ether       |       |       | NA      |       |          |      |
| 30 M 2-butanone               |       |       | NA      |       |          |      |
| 31 M 1,1-dichloroethane       |       |       | NA      |       |          |      |
| 32 M chloroprene              |       |       | NA      |       |          |      |
| 33 M acrylonitrile            |       |       | NA      |       |          |      |
| 34 hexane                     |       |       | NA      |       |          |      |
| 35 M vinyl acetate            |       |       | NA      |       |          |      |
| 36 M ethyl tert-butyl ether   |       |       | NA      |       |          |      |
| 37 M ethyl acetate            |       |       | NA      |       |          |      |

6.11.3  
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# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VIC6871-ICV6871  
 Lab FileID: 1C155661.D

|    |   |                           |       |       |      |     |      |       |  |
|----|---|---------------------------|-------|-------|------|-----|------|-------|--|
| 38 | M | 2,2-dichloropropane       |       |       |      |     |      |       |  |
| 39 | M | cis-1,2-dichloroethene    |       |       |      |     |      |       |  |
| 40 |   | methyl acrylate           |       |       |      |     |      |       |  |
| 41 | M | propionitrile             |       |       |      |     |      |       |  |
| 42 | M | bromochloromethane        |       |       |      |     |      |       |  |
| 43 | M | tetrahydrofuran           |       |       |      |     |      |       |  |
| 44 | M | chloroform                |       |       |      |     |      |       |  |
| 45 | M | t-butyl formate           |       |       |      |     |      |       |  |
| 46 | S | dibromofluoromethane (s)  | 0.456 | 0.473 | -3.7 | 117 | 0.00 | 9.69  |  |
| 47 | M | methacrylonitrile         |       |       |      |     |      |       |  |
| 48 | M | 1,1,1-trichloroethane     |       |       |      |     |      |       |  |
| 49 |   | cyclohexane               |       |       |      |     |      |       |  |
| 50 |   | 1,1-dichloropropene       |       |       |      |     |      |       |  |
| 51 |   | iso-butyl alcohol         |       |       |      |     |      |       |  |
| 52 |   | carbon tetrachloride      |       |       |      |     |      |       |  |
| 53 |   | tert amyl alcohol         |       |       |      |     |      |       |  |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 111 | 0.00 | 10.54 |  |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.304 | 0.290 | 4.6  | 107 | 0.00 | 10.11 |  |
| 56 | M | n-butyl alcohol           |       |       |      |     |      |       |  |
| 57 |   | 2,2,4-trimethylpentane    |       |       |      |     |      |       |  |
| 58 | M | benzene                   |       |       |      |     |      |       |  |
| 59 | M | tert-amyl methyl ether    |       |       |      |     |      |       |  |
| 60 | M | heptane                   |       |       |      |     |      |       |  |
| 61 | M | isopropyl acetate         |       |       |      |     |      |       |  |
| 62 | M | 1,2-dichloroethane        |       |       |      |     |      |       |  |
| 63 | M | trichloroethene           |       |       |      |     |      |       |  |
| 64 |   | ethyl acrylate            |       |       |      |     |      |       |  |
| 65 | M | 2-nitropropane            |       |       |      |     |      |       |  |
| 66 | M | 2-chloroethyl vinyl ether |       |       |      |     |      |       |  |
| 67 | M | methyl methacrylate       |       |       |      |     |      |       |  |
| 68 | M | 1,2-dichloropropane       |       |       |      |     |      |       |  |
| 69 | M | dibromomethane            |       |       |      |     |      |       |  |
| 70 | M | methylcyclohexane         |       |       |      |     |      |       |  |
| 71 | M | bromodichloromethane      |       |       |      |     |      |       |  |
| 72 |   | epichlorohydrin           |       |       |      |     |      |       |  |
| 73 | M | cis-1,3-dichloropropene   |       |       |      |     |      |       |  |
| 74 | M | 4-methyl-2-pentanone      |       |       |      |     |      |       |  |
| 75 | M | 3-methyl-1-butanol        |       |       |      |     |      |       |  |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 115 | 0.00 | 13.68 |  |
| 77 | S | toluene-d8 (s)            | 1.260 | 1.267 | -0.6 | 115 | 0.00 | 12.17 |  |
| 78 |   | toluene                   |       |       |      |     |      |       |  |
| 79 |   | trans-1,3-dichloropropene |       |       |      |     |      |       |  |
| 80 |   | ethyl methacrylate        |       |       |      |     |      |       |  |
| 81 |   | 1,1,2-trichloroethane     |       |       |      |     |      |       |  |
| 82 | M | tetrachloroethene         | 0.323 | 0.295 | 8.7  | 102 | 0.00 | 12.82 |  |
| 83 | M | 1,3-dichloropropane       |       |       |      |     |      |       |  |
| 84 |   | 2-hexanone                |       |       |      |     |      |       |  |
| 85 | M | butyl acetate             |       |       |      |     |      |       |  |
| 86 | M | 3,3-dimethyl-1-butanol    |       |       |      |     |      |       |  |
| 87 | M | dibromochloromethane      |       |       |      |     |      |       |  |
| 88 | M | 1,2-dibromoethane         |       |       |      |     |      |       |  |
| 89 |   | n-butyl ether             |       |       |      |     |      |       |  |
| 90 | M | chlorobenzene             |       |       |      |     |      |       |  |
| 91 | M | 1,1,1,2-tetrachloroethane |       |       |      |     |      |       |  |
| 92 | M | ethylbenzene              |       |       |      |     |      |       |  |
| 93 | M | m,p-xylene                |       |       |      |     |      |       |  |
| 94 | M | o-xylene                  |       |       |      |     |      |       |  |
| 95 | M | styrene                   |       |       |      |     |      |       |  |

6.11.3  
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# Initial Calibration Verification

Job Number: JC65058

Sample: VIC6871-ICV6871

Account: AGMNYF Arcadis

Lab FileID: 1C155661.D

Project: NYSEG - Newark Former MGP Site, Newark, NY

|     |   |                           |       |       |      |     |      |       |  |              |
|-----|---|---------------------------|-------|-------|------|-----|------|-------|--|--------------|
| 96  | M | bromoform                 |       |       |      |     |      |       |  | -----NA----- |
| 97  |   | butyl acrylate            |       |       |      |     |      |       |  | -----NA----- |
| 98  |   | isopropylbenzene          |       |       |      |     |      |       |  | -----NA----- |
| 99  |   | cis-1,4-dichloro-2-butene |       |       |      |     |      |       |  | -----NA----- |
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 110 | 0.00 | 15.99 |  |              |
| 101 | S | 4-bromofluorobenzene (s)  | 0.833 | 0.845 | -1.4 | 111 | 0.00 | 14.83 |  |              |
| 102 | M | bromobenzene              |       |       |      |     |      |       |  | -----NA----- |
| 103 | M | 1,1,2,2-tetrachloroethane |       |       |      |     |      |       |  | -----NA----- |
| 104 | M | trans-1,4-dichloro-2-bute |       |       |      |     |      |       |  | -----NA----- |
| 105 | M | 1,2,3-trichloropropane    |       |       |      |     |      |       |  | -----NA----- |
| 106 | M | n-propylbenzene           |       |       |      |     |      |       |  | -----NA----- |
| 107 |   | 4-Ethyltoluene            |       |       |      |     |      |       |  | -----NA----- |
| 108 | M | 2-chlorotoluene           |       |       |      |     |      |       |  | -----NA----- |
| 109 | M | 4-chlorotoluene           |       |       |      |     |      |       |  | -----NA----- |
| 110 | M | 1,3,5-trimethylbenzene    |       |       |      |     |      |       |  | -----NA----- |
| 111 | M | tert-butylbenzene         |       |       |      |     |      |       |  | -----NA----- |
| 112 | M | 1,2,4-trimethylbenzene    |       |       |      |     |      |       |  | -----NA----- |
| 113 | M | sec-butylbenzene          |       |       |      |     |      |       |  | -----NA----- |
| 114 | M | 1,3-dichlorobenzene       |       |       |      |     |      |       |  | -----NA----- |
| 115 | M | p-isopropyltoluene        |       |       |      |     |      |       |  | -----NA----- |
| 116 | M | 1,4-dichlorobenzene       |       |       |      |     |      |       |  | -----NA----- |
| 117 |   | benzyl chloride           |       |       |      |     |      |       |  | -----NA----- |
| 118 | M | 1,2-dichlorobenzene       |       |       |      |     |      |       |  | -----NA----- |
| 119 |   | 1,4-Diethylbenzene        |       |       |      |     |      |       |  | -----NA----- |
| 120 | M | n-butylbenzene            |       |       |      |     |      |       |  | -----NA----- |
| 121 | M | 1,2-dibromo-3-chloropropa |       |       |      |     |      |       |  | -----NA----- |
| 122 |   | 1,3,5-trichlorobenzene    |       |       |      |     |      |       |  | -----NA----- |
| 123 |   | 1,2,4,5-tetramethylbenzen |       |       |      |     |      |       |  | -----NA----- |
| 124 |   | 2-ethylhexyl acrylate     |       |       |      |     |      |       |  | -----NA----- |
| 125 | M | 1,2,4-trichlorobenzene    |       |       |      |     |      |       |  | -----NA----- |
| 126 | M | hexachlorobutadiene       |       |       |      |     |      |       |  | -----NA----- |
| 127 | M | naphthalene               |       |       |      |     |      |       |  | -----NA----- |
| 128 | M | 1,2,3-trichlorobenzene    |       |       |      |     |      |       |  | -----NA----- |
| 129 | m | hexachloroethane          |       |       |      |     |      |       |  | -----NA----- |
| 130 |   | 2-methylnaphthalene       |       |       |      |     |      |       |  | -----NA----- |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
1C155655.D M1CS6871.M                      Tue Mar 27 15:45:14 2018

6.11.3  
6

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VIC6910-CC6871  
 Lab FileID: 1C156629.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...18\v1c6910\1c156629.d Vial: 1  
 Acq On : 9 May 2018 9:36 am Operator: prashans  
 Sample : cc6871-50 Inst : GCMS1C  
 Misc : MS26090,V1C6910,5.0,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)  
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 Last Update : Tue Mar 27 15:36:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T.  |
|--------------------------------|--------|--------|--------------|-------|----------|-------|
| 1 tert butyl alcohol-d9        | 1.000  | 1.000  | 0.0          | 124   | -0.01    | 7.39  |
| 2 M tertiary butyl alcohol     | 1.284  | 1.279  | 0.4          | 122   | -0.01    | 7.50  |
| 3 Ethanol                      | 0.122  | 0.104  | 14.8         | 101   | -0.03    | 6.13  |
| 4 M 1,4-dioxane                | 0.137  | 0.118  | 13.9         | 102   | 0.00     | 11.27 |
| 5 I pentafluorobenzene         | 1.000  | 1.000  | 0.0          | 134   | 0.00     | 9.62  |
| 6 M chlorodifluoromethane      | 0.601  | 0.645  | -7.3         | 139   | 0.00     | 3.90  |
| 7 M dichlorodifluoromethane    | 0.771  | 0.715  | 7.3          | 120   | 0.00     | 3.86  |
| 8 Freon 114                    |        |        | -----NA----- |       |          |       |
| 9 freon 142b                   |        |        | -----NA----- |       |          |       |
| 10 M chloromethane             | 0.895  | 0.695  | 22.3#        | 107   | 0.00     | 4.29  |
| 11 M vinyl chloride            | 0.847  | 0.748  | 11.7         | 117   | 0.00     | 4.52  |
| 12 1,3-Butadiene               | 0.661  | 0.467  | 29.3#        | 89    | 0.00     | 4.59  |
| 13 M bromomethane              | 0.472  | 0.301  | 36.2#        | 91    | 0.03     | 5.20  |
| 14 M chloroethane              | 0.330  | 0.291  | 11.8         | 113   | 0.02     | 5.39  |
| 15 M trichlorofluoromethane    | 0.829  | 0.726  | 12.4         | 115   | 0.00     | 5.82  |
| 16 vinyl bromide               | 0.561  | 0.605  | -7.8         | 139   | 0.00     | 5.73  |
| 17 M ethyl ether               | 0.219  | 0.201  | 8.2          | 117   | 0.00     | 6.27  |
| 18 M acrolein                  | 0.072  | 0.065  | 9.7          | 120   | 0.00     | 6.56  |
| 19 freon 113                   | 0.344  | 0.312  | 9.3          | 119   | 0.00     | 6.63  |
| 20 M 1,1-dichloroethene        | 0.468  | 0.399  | 14.7         | 118   | 0.00     | 6.69  |
| 21 M acetone                   | 0.034  | 0.025  | 26.5#        | 101   | 0.00     | 6.78  |
| 22 M acetonitrile              | 0.045  | 0.037  | 17.8         | 109   | 0.00     | 7.24  |
| ----- True Calc. % Drift ----- |        |        |              |       |          |       |
| 23 M iodomethane               | 50.000 | 47.212 | 5.6          | 132   | 0.00     | 6.99  |
| ----- AvgRF CCRF % Dev -----   |        |        |              |       |          |       |
| 24 M carbon disulfide          | 1.634  | 1.244  | 23.9#        | 106   | 0.00     | 7.10  |
| 25 M methylene chloride        | 0.493  | 0.430  | 12.8         | 117   | 0.00     | 7.44  |
| 26 M methyl acetate            | 0.238  | 0.248  | -4.2         | 131   | 0.00     | 7.23  |
| 27 M methyl tert butyl ether   | 1.067  | 1.059  | 0.7          | 122   | 0.00     | 7.73  |
| 28 M trans-1,2-dichloroethene  | 0.520  | 0.425  | 18.3         | 115   | 0.00     | 7.80  |
| 29 M di-isopropyl ether        | 1.253  | 1.172  | 6.5          | 114   | 0.00     | 8.32  |
| 30 M 2-butanone                | 0.042  | 0.038  | 9.5          | 111   | 0.00     | 9.08  |
| 31 M 1,1-dichloroethane        | 0.825  | 0.717  | 13.1         | 115   | 0.00     | 8.38  |
| 32 M chloroprene               | 0.660  | 0.656  | 0.6          | 122   | 0.00     | 8.48  |
| 33 M acrylonitrile             | 0.127  | 0.105  | 17.3         | 108   | 0.00     | 7.79  |
| 34 hexane                      | 0.315  | 0.308  | 2.2          | 124   | 0.00     | 8.07  |
| 35 M vinyl acetate             | 0.066  | 0.050  | 24.2#        | 93    | 0.00     | 8.36  |
| 36 M ethyl tert-butyl ether    | 1.231  | 1.173  | 4.7          | 115   | 0.00     | 8.79  |
| 37 M ethyl acetate             | 0.051  | 0.043  | 15.7         | 107   | 0.00     | 9.09  |

6.11.4  
6

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6910-CC6871  
**Lab FileID:** 1C156629.D

|    |   |                           |       |        |              |     |      |       |
|----|---|---------------------------|-------|--------|--------------|-----|------|-------|
| 38 | M | 2,2-dichloropropane       | 0.743 | 0.673  | 9.4          | 120 | 0.00 | 9.10  |
| 39 | M | cis-1,2-dichloroethene    | 0.569 | 0.475  | 16.5         | 116 | 0.00 | 9.12  |
| 40 |   | methyl acrylate           | 0.053 | 0.053  | 0.0          | 118 | 0.00 | 9.17  |
| 41 | M | propionitrile             | 0.057 | 0.051  | 10.5         | 116 | 0.00 | 9.21  |
| 42 | M | bromochloromethane        | 0.236 | 0.214  | 9.3          | 119 | 0.00 | 9.43  |
| 43 | M | tetrahydrofuran           | 0.054 | 0.047  | 13.0         | 119 | 0.00 | 9.47  |
| 44 | M | chloroform                | 0.560 | 0.505  | 9.8          | 118 | 0.00 | 9.49  |
| 45 | M | t-butyl formate           | 0.303 | 0.303  | 0.0          | 122 | 0.00 | 9.50  |
| 46 | S | dibromofluoromethane (s)  | 0.456 | 0.457  | -0.2         | 131 | 0.00 | 9.69  |
| 47 | M | methacrylonitrile         | 0.152 | 0.138  | 9.2          | 114 | 0.00 | 9.38  |
| 48 | M | 1,1,1-trichloroethane     | 0.770 | 0.697  | 9.5          | 116 | 0.00 | 9.72  |
| 49 |   | cyclohexane               | 0.669 | 0.639  | 4.5          | 122 | 0.00 | 9.77  |
| 50 |   | 1,1-dichloropropene       | 0.637 | 0.599  | 6.0          | 118 | 0.00 | 9.90  |
| 51 |   | iso-butyl alcohol         | 0.015 | 0.013  | 13.3         | 113 | 0.00 | 9.93  |
| 52 |   | carbon tetrachloride      | 0.659 | 0.615  | 6.7          | 117 | 0.00 | 9.92  |
| 53 |   | tert amyl alcohol         | 0.014 | 0.012  | 14.3         | 112 | 0.00 | 10.04 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000  | 0.0          | 132 | 0.00 | 10.54 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.304 | 0.304  | 0.0          | 133 | 0.00 | 10.11 |
| 56 | M | n-butyl alcohol           | 0.007 | 0.006# | 14.3         | 113 | 0.00 | 10.67 |
| 57 |   | 2,2,4-trimethylpentane    | 1.122 | 1.017  | 9.4          | 119 | 0.00 | 10.13 |
| 58 | M | benzene                   | 1.248 | 1.109  | 11.1         | 118 | 0.00 | 10.17 |
| 59 | M | tert-amyl methyl ether    | 0.181 | 0.164  | 9.4          | 117 | 0.00 | 10.17 |
| 60 | M | heptane                   | 0.253 | 0.240  | 5.1          | 122 | 0.00 | 10.30 |
| 61 | M | isopropyl acetate         | 0.048 | 0.046  | 4.2          | 122 | 0.00 | 10.08 |
| 62 | M | 1,2-dichloroethane        | 0.399 | 0.342  | 14.3         | 121 | 0.00 | 10.20 |
| 63 | M | trichloroethene           | 0.335 | 0.293  | 12.5         | 113 | 0.00 | 10.88 |
| 64 |   | ethyl acrylate            | 0.272 | 0.257  | 5.5          | 116 | 0.00 | 10.88 |
| 65 | M | 2-nitropropane            | 0.087 | 0.083  | 4.6          | 120 | 0.00 | 11.67 |
| 66 | M | 2-chloroethyl vinyl ether | 0.133 | 0.130  | 2.3          | 123 | 0.00 | 11.67 |
| 67 | M | methyl methacrylate       | 0.059 | 0.055  | 6.8          | 120 | 0.00 | 11.14 |
| 68 | M | 1,2-dichloropropane       | 0.291 | 0.262  | 10.0         | 114 | 0.00 | 11.16 |
| 69 | M | dibromomethane            | 0.178 | 0.164  | 7.9          | 117 | 0.00 | 11.32 |
| 70 | M | methylcyclohexane         | 0.537 | 0.497  | 7.4          | 117 | 0.00 | 11.07 |
| 71 | M | bromodichloromethane      | 0.429 | 0.395  | 7.9          | 117 | 0.00 | 11.45 |
| 72 |   | epichlorohydrin           | 0.024 | 0.021  | 12.5         | 111 | 0.00 | 11.81 |
| 73 | M | cis-1,3-dichloropropene   | 0.465 | 0.445  | 4.3          | 117 | 0.00 | 11.89 |
| 74 | M | 4-methyl-2-pentanone      | 0.076 | 0.073  | 3.9          | 117 | 0.00 | 11.98 |
| 75 | M | 3-methyl-1-butanol        | 0.010 | 0.010# | 0.0          | 117 | 0.00 | 12.00 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000  | 0.0          | 128 | 0.00 | 13.68 |
| 77 | S | toluene-d8 (s)            | 1.260 | 1.299  | -3.1         | 130 | 0.00 | 12.16 |
| 78 |   | toluene                   | 0.876 | 0.815  | 7.0          | 119 | 0.00 | 12.24 |
| 79 |   | trans-1,3-dichloropropene | 0.478 | 0.468  | 2.1          | 116 | 0.00 | 12.45 |
| 80 |   | ethyl methacrylate        | 0.350 | 0.340  | 2.9          | 121 | 0.00 | 12.42 |
| 81 |   | 1,1,2-trichloroethane     | 0.239 | 0.235  | 1.7          | 114 | 0.00 | 12.67 |
| 82 | M | tetrachloroethene         | 0.323 | 0.288  | 10.8         | 111 | 0.00 | 12.81 |
| 83 | M | 1,3-dichloropropane       | 0.422 | 0.398  | 5.7          | 112 | 0.00 | 12.85 |
| 84 |   | 2-hexanone                | 0.094 | 0.089  | 5.3          | 113 | 0.00 | 12.82 |
| 85 | M | butyl acetate             | 0.156 | 0.146  | 6.4          | 118 | 0.00 | 12.89 |
| 86 | M | 3,3-dimethyl-1-butanol    |       |        | -----NA----- |     |      |       |
| 87 | M | dibromochloromethane      | 0.356 | 0.340  | 4.5          | 111 | 0.00 | 13.11 |
| 88 | M | 1,2-dibromoethane         | 0.300 | 0.313  | -4.3         | 120 | 0.00 | 13.26 |
| 89 |   | n-butyl ether             | 1.364 | 1.240  | 9.1          | 115 | 0.00 | 13.59 |
| 90 | M | chlorobenzene             | 0.940 | 0.844  | 10.2         | 115 | 0.00 | 13.71 |
| 91 | M | 1,1,1,2-tetrachloroethane | 0.333 | 0.313  | 6.0          | 112 | 0.00 | 13.77 |
| 92 | M | ethylbenzene              | 1.666 | 1.498  | 10.1         | 115 | 0.00 | 13.75 |
| 93 | M | m,p-xylene                | 0.625 | 0.563  | 9.9          | 115 | 0.00 | 13.85 |
| 94 | M | o-xylene                  | 0.595 | 0.541  | 9.1          | 114 | 0.00 | 14.27 |
| 95 | M | styrene                   | 1.006 | 0.924  | 8.2          | 115 | 0.00 | 14.28 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6910-CC6871  
**Lab FileID:** 1C156629.D

|     |   |                           |       |       |              |     |      |       |
|-----|---|---------------------------|-------|-------|--------------|-----|------|-------|
| 96  | M | bromoform                 | 0.237 | 0.217 | 8.4          | 109 | 0.00 | 14.57 |
| 97  |   | butyl acrylate            | 0.498 | 0.489 | 1.8          | 120 | 0.00 | 14.09 |
| 98  |   | isopropylbenzene          | 1.638 | 1.435 | 12.4         | 112 | 0.00 | 14.61 |
| 99  |   | cis-1,4-dichloro-2-butene | 0.125 | 0.131 | -4.8         | 124 | 0.00 | 14.70 |
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 121 | 0.00 | 15.99 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.833 | 0.873 | -4.8         | 126 | 0.00 | 14.82 |
| 102 | M | bromobenzene              | 0.854 | 0.752 | 11.9         | 109 | 0.00 | 15.02 |
| 103 | M | 1,1,2,2-tetrachloroethane | 0.631 | 0.658 | -4.3         | 115 | 0.00 | 14.94 |
| 104 | M | trans-1,4-dichloro-2-bute | 0.162 | 0.183 | -13.0        | 131 | 0.00 | 14.97 |
| 105 | M | 1,2,3-trichloropropane    | 0.159 | 0.159 | 0.0          | 114 | 0.00 | 15.01 |
| 106 | M | n-propylbenzene           | 3.871 | 3.617 | 6.6          | 112 | 0.00 | 15.01 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |      |       |
| 108 | M | 2-chlorotoluene           | 0.769 | 0.718 | 6.6          | 113 | 0.00 | 15.17 |
| 109 | M | 4-chlorotoluene           | 2.187 | 2.035 | 7.0          | 114 | 0.00 | 15.27 |
| 110 | M | 1,3,5-trimethylbenzene    | 2.554 | 2.456 | 3.8          | 120 | 0.00 | 15.16 |
| 111 | M | tert-butylbenzene         | 0.482 | 0.421 | 12.7         | 104 | 0.00 | 15.51 |
| 112 | M | 1,2,4-trimethylbenzene    | 2.504 | 2.436 | 2.7          | 118 | 0.00 | 15.55 |
| 113 | M | sec-butylbenzene          | 3.475 | 3.228 | 7.1          | 111 | 0.00 | 15.72 |
| 114 | M | 1,3-dichlorobenzene       | 1.535 | 1.414 | 7.9          | 110 | 0.00 | 15.93 |
| 115 | M | p-isopropyltoluene        | 2.891 | 2.657 | 8.1          | 113 | 0.00 | 15.84 |
| 116 | M | 1,4-dichlorobenzene       | 1.527 | 1.410 | 7.7          | 112 | 0.00 | 16.01 |
| 117 |   | benzyl chloride           | 1.360 | 1.436 | -5.6         | 126 | 0.00 | 16.13 |
| 118 | M | 1,2-dichlorobenzene       | 1.466 | 1.344 | 8.3          | 109 | 0.00 | 16.42 |
| 119 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |      |       |
| 120 | M | n-butylbenzene            | 1.488 | 1.471 | 1.1          | 118 | 0.00 | 16.27 |
| 121 | M | 1,2-dibromo-3-chloropropa | 0.133 | 0.132 | 0.8          | 122 | 0.00 | 17.21 |
| 122 |   | 1,3,5-trichlorobenzene    | 1.287 | 1.198 | 6.9          | 112 | 0.00 | 17.36 |
| 123 |   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 124 |   | 2-ethylhexyl acrylate     | 0.782 | 0.624 | 20.2#        | 97  | 0.00 | 17.89 |
| 125 | M | 1,2,4-trichlorobenzene    | 1.090 | 1.006 | 7.7          | 113 | 0.00 | 17.93 |
| 126 | M | hexachlorobutadiene       | 0.682 | 0.553 | 18.9         | 96  | 0.00 | 18.02 |
| 127 | M | naphthalene               | 2.165 | 2.016 | 6.9          | 112 | 0.00 | 18.18 |
| 128 | M | 1,2,3-trichlorobenzene    | 1.028 | 0.916 | 10.9         | 107 | 0.00 | 18.39 |
| 129 | m | hexachloroethane          | 0.550 | 0.482 | 12.4         | 101 | 0.00 | 16.67 |
| 130 |   | 2-methylnaphthalene       | 1.625 | 1.135 | 30.2#        | 83  | 0.00 | 19.14 |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

1C155655.D M1CS6871.M

Thu May 10 16:31:48 2018

6.11.4

6

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VIC6911-CC6871  
 Lab FileID: 1C156663.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\mi...lc\vlc6911\1c156663.d Vial: 2  
 Acq On : 10 May 2018 1:03 pm Operator: prashans  
 Sample : CC6871-20 Inst : GCMS1C  
 Misc : MS26090,V1C6911,5.0,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS6871.M (RTE Integrator)  
 Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 Last Update : Tue Mar 27 15:36:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                      | AvgRF       | CCRF   | %Dev         | Area% | Dev(min) | R.T.  |
|-------------------------------|-------------|--------|--------------|-------|----------|-------|
| 1 tert butyl alcohol-d9       | 1.000       | 1.000  | 0.0          | 99    | -0.02    | 7.38  |
| 2 M tertiary butyl alcohol    | 1.284       | 1.356  | -5.6         | 108   | -0.01    | 7.50  |
| 3 Ethanol                     | 0.122       | 0.118  | 3.3          | 99    | -0.02    | 6.14  |
| 4 M 1,4-dioxane               | 0.137       | 0.123  | 10.2         | 89    | 0.00     | 11.28 |
| 5 I pentafluorobenzene        | 1.000       | 1.000  | 0.0          | 98    | 0.00     | 9.62  |
| 6 M chlorodifluoromethane     | 0.601       | 0.614  | -2.2         | 100   | 0.00     | 3.90  |
| 7 M dichlorodifluoromethane   | 0.771       | 0.833  | -8.0         | 106   | 0.00     | 3.86  |
| 8 Freon 114                   |             |        | -----NA----- |       |          |       |
| 9 freon 142b                  |             |        | -----NA----- |       |          |       |
| 10 M chloromethane            | 0.895       | 0.908  | -1.5         | 105   | 0.00     | 4.29  |
| 11 M vinyl chloride           | 0.847       | 0.868  | -2.5         | 103   | 0.00     | 4.52  |
| 12 1,3-Butadiene              |             |        | -----NA----- |       |          |       |
| 13 M bromomethane             | 0.472       | 0.333  | 29.4#        | 73    | 0.03     | 5.20  |
| 14 M chloroethane             | 0.330       | 0.345  | -4.5         | 103   | 0.02     | 5.39  |
| 15 M trichlorofluoromethane   | 0.829       | 0.783  | 5.5          | 94    | 0.00     | 5.82  |
| 16 vinyl bromide              | 0.561       | 0.644  | -14.8        | 111   | 0.00     | 5.74  |
| 17 M ethyl ether              | 0.219       | 0.222  | -1.4         | 101   | 0.00     | 6.27  |
| 18 M acrolein                 | 0.072       | 0.065  | 9.7          | 93    | 0.01     | 6.56  |
| 19 freon 113                  | 0.344       | 0.317  | 7.8          | 89    | 0.00     | 6.63  |
| 20 M 1,1-dichloroethene       | 0.468       | 0.430  | 8.1          | 96    | 0.00     | 6.69  |
| 21 M acetone                  | 0.034       | 0.028  | 17.6         | 87    | 0.00     | 6.78  |
| 22 M acetonitrile             | 0.045       | 0.042  | 6.7          | 96    | 0.00     | 7.24  |
|                               | ----- True  | Calc.  | % Drift      | ----- |          |       |
| 23 M iodomethane              | 20.000      | 19.114 | 4.4          | 126   | 0.00     | 6.99  |
|                               | ----- AvgRF | CCRF   | % Dev        | ----- |          |       |
| 24 M carbon disulfide         | 1.634       | 1.361  | 16.7         | 87    | 0.00     | 7.10  |
| 25 M methylene chloride       | 0.493       | 0.469  | 4.9          | 96    | 0.00     | 7.44  |
| 26 M methyl acetate           | 0.238       | 0.269  | -13.0        | 111   | 0.00     | 7.23  |
| 27 M methyl tert butyl ether  | 1.067       | 1.146  | -7.4         | 103   | 0.00     | 7.73  |
| 28 M trans-1,2-dichloroethene | 0.520       | 0.462  | 11.2         | 94    | 0.00     | 7.80  |
| 29 M di-isopropyl ether       | 1.253       | 1.369  | -9.3         | 106   | 0.00     | 8.32  |
| 30 M 2-butanone               | 0.042       | 0.038  | 9.5          | 87    | 0.00     | 9.09  |
| 31 M 1,1-dichloroethane       | 0.825       | 0.846  | -2.5         | 100   | 0.00     | 8.38  |
| 32 M chloroprene              | 0.660       | 0.772  | -17.0        | 110   | 0.00     | 8.48  |
| 33 M acrylonitrile            | 0.127       | 0.114  | 10.2         | 90    | 0.00     | 7.79  |
| 34 hexane                     | 0.315       | 0.287  | 8.9          | 86    | 0.00     | 8.07  |
| 35 M vinyl acetate            | 0.066       | 0.056  | 15.2         | 84    | 0.00     | 8.36  |
| 36 M ethyl tert-butyl ether   | 1.231       | 1.341  | -8.9         | 107   | 0.00     | 8.79  |
| 37 M ethyl acetate            | 0.051       | 0.051  | 0.0          | 106   | 0.00     | 9.09  |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6911-CC6871  
**Lab FileID:** 1C156663.D

|    |   |                           |       |        |              |     |       |       |
|----|---|---------------------------|-------|--------|--------------|-----|-------|-------|
| 38 | M | 2,2-dichloropropane       | 0.743 | 0.683  | 8.1          | 91  | 0.00  | 9.10  |
| 39 | M | cis-1,2-dichloroethene    | 0.569 | 0.518  | 9.0          | 94  | 0.00  | 9.12  |
| 40 |   | methyl acrylate           | 0.053 | 0.054  | -1.9         | 104 | 0.00  | 9.17  |
| 41 | M | propionitrile             | 0.057 | 0.057  | 0.0          | 99  | 0.00  | 9.21  |
| 42 | M | bromochloromethane        | 0.236 | 0.220  | 6.8          | 92  | 0.00  | 9.43  |
| 43 | M | tetrahydrofuran           | 0.054 | 0.049  | 9.3          | 94  | 0.00  | 9.47  |
| 44 | M | chloroform                | 0.560 | 0.578  | -3.2         | 103 | 0.00  | 9.49  |
| 45 | M | t-butyl formate           | 0.303 | 0.357  | -17.8        | 114 | 0.00  | 9.50  |
| 46 | S | dibromofluoromethane (s)  | 0.456 | 0.457  | -0.2         | 97  | 0.00  | 9.69  |
| 47 | M | methacrylonitrile         | 0.152 | 0.153  | -0.7         | 102 | 0.00  | 9.39  |
| 48 | M | 1,1,1-trichloroethane     | 0.770 | 0.813  | -5.6         | 102 | 0.00  | 9.72  |
| 49 |   | cyclohexane               | 0.669 | 0.571  | 14.6         | 81  | 0.00  | 9.77  |
| 50 |   | 1,1-dichloropropene       | 0.637 | 0.670  | -5.2         | 101 | 0.00  | 9.90  |
| 51 |   | iso-butyl alcohol         | 0.015 | 0.017  | -13.3        | 122 | -0.01 | 9.92  |
| 52 |   | carbon tetrachloride      | 0.659 | 0.707  | -7.3         | 100 | 0.00  | 9.92  |
| 53 |   | tert amyl alcohol         | 0.014 | 0.014  | 0.0          | 108 | 0.00  | 10.05 |
|    |   |                           |       |        |              |     |       |       |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000  | 0.0          | 97  | 0.00  | 10.54 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.304 | 0.358  | -17.8        | 115 | 0.00  | 10.11 |
| 56 | M | n-butyl alcohol           | 0.007 | 0.007# | 0.0          | 108 | 0.00  | 10.67 |
| 57 |   | 2,2,4-trimethylpentane    | 1.122 | 1.027  | 8.5          | 89  | 0.00  | 10.13 |
| 58 | M | benzene                   | 1.248 | 1.233  | 1.2          | 98  | 0.00  | 10.17 |
| 59 | M | tert-amyl methyl ether    | 0.181 | 0.180  | 0.6          | 100 | 0.00  | 10.18 |
| 60 | M | heptane                   | 0.253 | 0.225  | 11.1         | 84  | 0.00  | 10.30 |
| 61 | M | isopropyl acetate         | 0.048 | 0.050  | -4.2         | 103 | 0.00  | 10.08 |
| 62 | M | 1,2-dichloroethane        | 0.399 | 0.436  | -9.3         | 114 | 0.00  | 10.20 |
| 63 | M | trichloroethene           | 0.335 | 0.319  | 4.8          | 92  | 0.00  | 10.88 |
| 64 |   | ethyl acrylate            | 0.272 | 0.308  | -13.2        | 111 | 0.00  | 10.88 |
| 65 | M | 2-nitropropane            | 0.087 | 0.110  | -26.4#       | 120 | 0.00  | 11.67 |
| 66 | M | 2-chloroethyl vinyl ether | 0.133 | 0.152  | -14.3        | 110 | 0.00  | 11.67 |
| 67 | M | methyl methacrylate       | 0.059 | 0.060  | -1.7         | 99  | 0.00  | 11.14 |
| 68 | M | 1,2-dichloropropane       | 0.291 | 0.313  | -7.6         | 102 | 0.00  | 11.16 |
| 69 | M | dibromomethane            | 0.178 | 0.181  | -1.7         | 98  | 0.00  | 11.32 |
| 70 | M | methylcyclohexane         | 0.537 | 0.501  | 6.7          | 90  | 0.00  | 11.08 |
| 71 | M | bromodichloromethane      | 0.429 | 0.457  | -6.5         | 103 | 0.00  | 11.45 |
| 72 |   | epichlorohydrin           | 0.024 | 0.023  | 4.2          | 97  | 0.00  | 11.81 |
| 73 | M | cis-1,3-dichloropropene   | 0.465 | 0.501  | -7.7         | 101 | 0.00  | 11.89 |
| 74 | M | 4-methyl-2-pentanone      | 0.076 | 0.085  | -11.8        | 109 | 0.00  | 11.98 |
| 75 | M | 3-methyl-1-butanol        | 0.010 | 0.012  | -20.0        | 115 | 0.00  | 12.00 |
|    |   |                           |       |        |              |     |       |       |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000  | 0.0          | 97  | 0.00  | 13.68 |
| 77 | S | toluene-d8 (s)            | 1.260 | 1.346  | -6.8         | 103 | 0.00  | 12.17 |
| 78 |   | toluene                   | 0.876 | 0.861  | 1.7          | 98  | 0.00  | 12.24 |
| 79 |   | trans-1,3-dichloropropene | 0.478 | 0.519  | -8.6         | 101 | 0.00  | 12.45 |
| 80 |   | ethyl methacrylate        | 0.350 | 0.375  | -7.1         | 106 | 0.00  | 12.42 |
| 81 |   | 1,1,2-trichloroethane     | 0.239 | 0.255  | -6.7         | 100 | 0.00  | 12.67 |
| 82 | M | tetrachloroethene         | 0.323 | 0.298  | 7.7          | 88  | 0.00  | 12.81 |
| 83 | M | 1,3-dichloropropane       | 0.422 | 0.443  | -5.0         | 100 | 0.00  | 12.85 |
| 84 |   | 2-hexanone                | 0.094 | 0.097  | -3.2         | 100 | 0.00  | 12.82 |
| 85 | M | butyl acetate             | 0.156 | 0.163  | -4.5         | 104 | 0.00  | 12.89 |
| 86 | M | 3,3-dimethyl-1-butanol    |       |        | -----NA----- |     |       |       |
| 87 | M | dibromochloromethane      | 0.356 | 0.361  | -1.4         | 96  | 0.00  | 13.11 |
| 88 | M | 1,2-dibromoethane         | 0.300 | 0.319  | -6.3         | 101 | 0.00  | 13.26 |
| 89 |   | n-butyl ether             | 1.364 | 1.404  | -2.9         | 103 | 0.00  | 13.59 |
| 90 | M | chlorobenzene             | 0.940 | 0.907  | 3.5          | 98  | 0.00  | 13.71 |
| 91 | M | 1,1,1,2-tetrachloroethane | 0.333 | 0.337  | -1.2         | 98  | 0.00  | 13.77 |
| 92 | M | ethylbenzene              | 1.666 | 1.642  | 1.4          | 98  | 0.00  | 13.75 |
| 93 | M | m,p-xylene                | 0.625 | 0.601  | 3.8          | 94  | 0.00  | 13.85 |
| 94 | M | o-xylene                  | 0.595 | 0.583  | 2.0          | 95  | 0.00  | 14.27 |
| 95 | M | styrene                   | 1.006 | 0.964  | 4.2          | 92  | 0.00  | 14.29 |

6.11.5  
6



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V1C6911-CC6871  
**Lab FileID:** 1C156663.D

|       |                           |       |       |              |     |       |       |
|-------|---------------------------|-------|-------|--------------|-----|-------|-------|
| 96 M  | bromoform                 | 0.237 | 0.222 | 6.3          | 92  | 0.00  | 14.57 |
| 97    | butyl acrylate            | 0.498 | 0.562 | -12.9        | 109 | 0.00  | 14.09 |
| 98    | isopropylbenzene          | 1.638 | 1.587 | 3.1          | 94  | 0.00  | 14.61 |
| 99    | cis-1,4-dichloro-2-butene | 0.125 | 0.140 | -12.0        | 108 | 0.00  | 14.70 |
| 100 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 93  | 0.00  | 15.99 |
| 101 S | 4-bromofluorobenzene (s)  | 0.833 | 0.873 | -4.8         | 99  | 0.00  | 14.82 |
| 102 M | bromobenzene              | 0.854 | 0.795 | 6.9          | 93  | 0.00  | 15.02 |
| 103 M | 1,1,2,2-tetrachloroethane | 0.631 | 0.694 | -10.0        | 102 | 0.00  | 14.94 |
| 104 M | trans-1,4-dichloro-2-bute | 0.162 | 0.215 | -32.7#       | 125 | 0.00  | 14.98 |
| 105 M | 1,2,3-trichloropropane    | 0.159 | 0.178 | -11.9        | 106 | 0.00  | 15.01 |
| 106 M | n-propylbenzene           | 3.871 | 3.941 | -1.8         | 98  | 0.00  | 15.01 |
| 107   | 4-Ethyltoluene            |       |       | -----NA----- |     |       |       |
| 108 M | 2-chlorotoluene           | 0.769 | 0.757 | 1.6          | 96  | 0.00  | 15.17 |
| 109 M | 4-chlorotoluene           | 2.187 | 2.228 | -1.9         | 101 | 0.00  | 15.27 |
| 110 M | 1,3,5-trimethylbenzene    | 2.554 | 2.658 | -4.1         | 103 | 0.00  | 15.16 |
| 111 M | tert-butylbenzene         | 0.482 | 0.454 | 5.8          | 91  | 0.00  | 15.51 |
| 112 M | 1,2,4-trimethylbenzene    | 2.504 | 2.690 | -7.4         | 104 | 0.00  | 15.55 |
| 113 M | sec-butylbenzene          | 3.475 | 3.459 | 0.5          | 96  | 0.00  | 15.72 |
| 114 M | 1,3-dichlorobenzene       | 1.535 | 1.512 | 1.5          | 94  | 0.00  | 15.93 |
| 115 M | p-isopropyltoluene        | 2.891 | 2.849 | 1.5          | 98  | 0.00  | 15.84 |
| 116 M | 1,4-dichlorobenzene       | 1.527 | 1.502 | 1.6          | 97  | 0.00  | 16.01 |
| 117   | benzyl chloride           | 1.360 | 1.225 | 9.9          | 87  | 0.00  | 16.13 |
| 118 M | 1,2-dichlorobenzene       | 1.466 | 1.433 | 2.3          | 96  | 0.00  | 16.42 |
| 119   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |       |       |
| 120 M | n-butylbenzene            | 1.488 | 1.565 | -5.2         | 100 | 0.00  | 16.27 |
| 121 M | 1,2-dibromo-3-chloropropa | 0.133 | 0.146 | -9.8         | 108 | -0.01 | 17.20 |
| 122   | 1,3,5-trichlorobenzene    | 1.287 | 1.291 | -0.3         | 98  | 0.00  | 17.36 |
| 123   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |       |       |
| 124   | 2-ethylhexyl acrylate     | 0.782 | 0.631 | 19.3         | 82  | 0.00  | 17.89 |
| 125 M | 1,2,4-trichlorobenzene    | 1.090 | 1.081 | 0.8          | 96  | 0.00  | 17.93 |
| 126 M | hexachlorobutadiene       | 0.682 | 0.650 | 4.7          | 90  | 0.00  | 18.02 |
| 127 M | naphthalene               | 2.165 | 2.136 | 1.3          | 98  | 0.00  | 18.18 |
| 128 M | 1,2,3-trichlorobenzene    | 1.028 | 0.978 | 4.9          | 94  | 0.00  | 18.39 |
| 129 m | hexachloroethane          | 0.550 | 0.533 | 3.1          | 91  | -0.01 | 16.67 |
| 130   | 2-methylnaphthalene       | 1.625 | 1.229 | 24.4#        | 74  | 0.00  | 19.14 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 1C15654.D M1CS6871.M                  Fri May 11 12:13:55 2018

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

## Response Factor Report MS2V

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration

### Calibration Files

10 =2V49940.D 0.5 =2V49936.D 5 =2V49939.D 50 =2V49942.D  
 100 =2V49943.D 1 =2V49937.D 200 =2V49944.D 20 =2V49941.D  
 2 =2V49938.D =

| Compound  | 10    | 0.5   | 5     | 50    | 100   | 1     | 200   | 20    | 2     | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD-----             |       |       |       |       |       |       |       |       |       |       |       |
| 2) ethanol  | 0.165 | 0.176 | 0.161 | 0.153 | 0.136 | 0.168 |       | 0.159 | 0.171 | 0.161 | 7.73  |
| 3) tertiary butyl alcohol                             | 1.442 | 1.627 | 1.466 | 1.391 | 1.347 | 1.477 | 1.359 | 1.414 | 1.509 | 1.448 | 5.95  |
| 4) 1,4-dioxane  | 0.140 |       | 0.136 | 0.134 | 0.126 | 0.153 | 0.123 | 0.132 | 0.148 | 0.137 | 7.53  |
| 5) I pentafluorobenzene -----ISTD-----                |       |       |       |       |       |       |       |       |       |       |       |
| 6) chlorodifluoromethane                              | 0.814 | 0.879 | 0.785 | 0.765 | 0.729 | 0.828 | 0.682 | 0.801 | 0.829 | 0.790 | 7.43  |
| 7) dichlorodifluoromethane                            | 0.992 | 0.976 | 0.964 | 0.951 | 0.947 | 1.020 | 0.874 | 0.997 | 0.987 | 0.967 | 4.35  |
| 8) freon 114  |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 9) freon 142b   |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 10) chloromethane                                     | 1.043 |       | 1.041 | 1.036 | 1.005 | 1.159 | 0.910 | 1.068 | 1.113 | 1.047 | 7.04  |
| 11) vinyl chloride                                    | 0.871 | 0.938 | 0.825 | 0.835 | 0.820 | 0.916 | 0.804 | 0.868 | 0.909 | 0.865 | 5.51  |
| 12) bromomethane                                      | 0.352 |       | 0.372 | 0.272 | 0.200 |       |       | 0.338 | 0.423 | 0.326 | 24.16 |
| ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00486 + 0.34213 *A + -0.07233 *A^2 |       |       |       |       |       |       |       |       |       |       |       |
| 13) chloroethane                                      | 0.348 |       | 0.363 | 0.306 | 0.266 | 0.417 |       | 0.345 | 0.404 | 0.350 | 15.01 |
| 14) trichlorofluoromethane                            | 1.094 | 1.087 | 1.058 | 1.048 | 1.050 | 1.141 | 1.006 | 1.105 | 1.137 | 1.081 | 4.09  |
| 15) vinyl bromide                                     | 0.577 | 0.650 | 0.561 | 0.559 | 0.557 | 0.618 | 0.490 | 0.580 | 0.590 | 0.576 | 7.72  |
| 16) 1,3-butadiene                                     |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 17) ethyl ether                                       | 0.315 | 0.309 | 0.300 | 0.302 | 0.297 | 0.341 | 0.296 | 0.306 | 0.323 | 0.310 | 4.73  |
| 18) 2-chloropropane                                   | 0.926 | 0.944 | 0.916 | 0.866 | 0.863 | 0.996 | 0.810 | 0.918 | 0.959 | 0.911 | 6.19  |
| 19) acrolein  | 0.183 | 0.204 | 0.167 | 0.172 | 0.165 | 0.201 | 0.169 | 0.179 | 0.190 | 0.181 | 8.07  |
| 20) freon 113   | 0.396 | 0.403 | 0.382 | 0.354 | 0.369 | 0.356 | 0.357 | 0.384 | 0.384 | 0.376 | 4.80  |
| 21) 1,1-dichloroethene                                | 0.990 | 0.996 | 0.984 | 0.948 | 0.943 | 0.963 | 0.915 | 0.994 | 0.997 | 0.970 | 3.02  |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|     |   |       |       |       |       |       |       |       |       |       |       |                      |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 22) | acetone   | 0.074 | 0.081 | 0.072 | 0.073 | 0.066 | 0.083 | 0.067 | 0.075 | 0.074 | 0.074 | 7.58                 |
| 23) | acetonitrile  | 0.119 | 0.136 | 0.113 | 0.113 | 0.104 | 0.131 | 0.106 | 0.119 | 0.121 | 0.118 | 9.00                 |
| 24) | iodomethane   | 0.272 |       | 0.244 | 0.352 | 0.431 |       | 0.470 | 0.295 | 0.247 | 0.330 | 27.39                |
|     | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |       | Coefficient = 0.9992 |
|     | Response Ratio = -0.02172 + 0.37944 *A + 0.02435 *A^2 |       |       |       |       |       |       |       |       |       |       |                      |
| 25) | carbon disulfide                                      | 1.483 | 1.811 | 1.478 | 1.401 | 1.393 | 1.542 | 1.363 | 1.482 | 1.494 | 1.494 | 8.84                 |
| 26) | methylene chloride                                    | 0.648 | 0.780 | 0.652 | 0.611 | 0.602 | 0.698 | 0.593 | 0.646 | 0.718 | 0.661 | 9.25                 |
| 27) | methyl acetate  | 0.664 | 0.708 | 0.642 | 0.626 | 0.589 | 0.692 | 0.602 | 0.651 | 0.675 | 0.650 | 6.10                 |
| 28) | methyl tert butyl ether                               | 1.845 | 1.955 | 1.790 | 1.786 | 1.769 | 1.888 | 1.737 | 1.832 | 1.794 | 1.822 | 3.68                 |
| 29) | trans-1,2-dichloroethene                              | 0.595 | 0.641 | 0.576 | 0.554 | 0.559 | 0.620 | 0.548 | 0.592 | 0.587 | 0.586 | 5.23                 |
| 30) | hexane  | 0.378 | 0.345 | 0.352 | 0.345 | 0.357 | 0.330 | 0.352 | 0.371 | 0.365 | 0.355 | 4.17                 |
| 31) | di-isopropyl ether                                    | 2.103 | 2.187 | 2.041 | 2.034 | 2.009 | 2.097 | 1.922 | 2.100 | 2.066 | 2.062 | 3.58                 |
| 32) | ethyl tert-butyl ether                                | 1.951 | 1.938 | 1.865 | 1.917 | 1.899 | 1.986 | 1.857 | 1.931 | 1.902 | 1.916 | 2.14                 |
| 33) | 1,1-dichloroethane                                    | 1.245 | 1.265 | 1.225 | 1.189 | 1.189 | 1.252 | 1.146 | 1.245 | 1.272 | 1.225 | 3.44                 |
| 34) | chloroprene   | 0.898 | 0.904 | 0.864 | 0.884 | 0.888 | 0.837 | 0.859 | 0.914 | 0.888 | 0.882 | 2.76                 |
| 35) | acrylonitrile   | 0.316 | 0.331 | 0.304 | 0.310 | 0.287 | 0.326 | 0.292 | 0.321 | 0.317 | 0.312 | 4.71                 |
| 36) | vinyl acetate   | 0.099 |       | 0.095 | 0.097 | 0.095 | 0.086 | 0.098 | 0.099 | 0.088 | 0.095 | 5.29                 |
| 37) | ethyl acetate   | 0.148 |       | 0.146 | 0.147 | 0.135 | 0.152 | 0.132 | 0.152 | 0.153 | 0.146 | 5.46                 |
| 38) | 2-butanone  | 0.098 | 0.103 | 0.095 | 0.097 | 0.089 | 0.096 | 0.091 | 0.097 | 0.094 | 0.095 | 4.33                 |
| 39) | 2,2-dichloropropane                                   | 0.855 | 0.867 | 0.851 | 0.832 | 0.831 | 0.871 | 0.796 | 0.845 | 0.888 | 0.849 | 3.17                 |
| 40) | cis-1,2-dichloroethene                                | 0.670 | 0.785 | 0.661 | 0.644 | 0.649 | 0.661 | 0.628 | 0.678 | 0.684 | 0.673 | 6.72                 |
| 41) | propionitrile   | 0.152 | 0.152 | 0.147 | 0.148 | 0.133 | 0.152 | 0.134 | 0.152 | 0.155 | 0.147 | 5.41                 |
| 42) | methyl acrylate                                       | 0.133 |       | 0.124 | 0.132 | 0.124 | 0.120 | 0.123 | 0.135 | 0.130 | 0.128 | 4.34                 |
| 43) | bromochloromethane                                    | 0.313 | 0.294 | 0.297 | 0.307 | 0.303 | 0.278 | 0.279 | 0.314 | 0.312 | 0.300 | 4.60                 |
| 44) | tetrahydrofuran                                       | 0.115 |       | 0.114 | 0.116 | 0.108 | 0.129 | 0.108 | 0.121 | 0.112 | 0.116 | 6.13                 |
| 45) | chloroform  | 1.226 | 1.376 | 1.184 | 1.176 | 1.163 | 1.325 | 1.129 | 1.211 | 1.260 | 1.228 | 6.52                 |
| 46) | dibromofluoromethane (s)                              | 0.496 | 0.496 | 0.496 | 0.506 | 0.513 | 0.513 | 0.503 | 0.513 | 0.494 | 0.503 | 1.61                 |
| 47) | methacrylonitrile                                     | 0.343 | 0.321 | 0.315 | 0.331 | 0.314 | 0.308 | 0.314 | 0.338 | 0.326 | 0.323 | 3.74                 |
| 48) | 1,1,1-trichloroethane                                 | 0.998 | 1.094 | 0.969 | 0.971 | 0.962 | 1.025 | 0.943 | 1.004 | 1.021 | 0.999 | 4.55                 |
| 49) | cyclohexane   | 0.769 | 0.852 | 0.733 | 0.709 | 0.724 | 0.674 | 0.714 | 0.751 | 0.728 | 0.739 | 6.77                 |
| 50) | 1,1-dichloropropene                                   |       |       |       |       |       |       |       |       |       |       |                      |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|     |                           |                |       |       |       |       |       |       |       |       |       |      |
|-----|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 51) | carbon tetrachloride      | 0.913          | 0.939 | 0.912 | 0.874 | 0.869 | 0.967 | 0.843 | 0.903 | 0.946 | 0.907 | 4.41 |
| 52) | isobutyl alcohol          | 0.830          | 0.857 | 0.804 | 0.786 | 0.778 | 0.826 | 0.745 | 0.814 | 0.818 | 0.806 | 4.06 |
| 53) | tert-amyl alcohol         | 0.044          | 0.043 | 0.039 | 0.043 | 0.040 | 0.042 | 0.042 | 0.044 | 0.040 | 0.042 | 4.45 |
|     |                           | 0.042          | 0.038 | 0.040 | 0.039 | 0.035 | 0.040 | 0.036 | 0.042 | 0.041 | 0.039 | 6.10 |
| 54) | I 1,4-difluorobenzene     | -----ISTD----- |       |       |       |       |       |       |       |       |       |      |
| 55) | 1,2-dichloroethane-d4 (s) | 0.355          | 0.352 | 0.342 | 0.346 | 0.353 | 0.360 | 0.336 | 0.345 | 0.339 | 0.348 | 2.32 |
| 56) | n-butyl alcohol           | 0.019          | 0.017 | 0.018 | 0.020 | 0.018 | 0.017 | 0.019 | 0.020 | 0.017 | 0.019 | 6.73 |
| 57) | benzene                   | 1.675          | 1.806 | 1.634 | 1.589 | 1.570 | 1.737 | 1.509 | 1.650 | 1.680 | 1.650 | 5.41 |
| 58) | tert-amyl methyl ether    | 1.259          | 1.312 | 1.191 | 1.224 | 1.199 | 1.227 | 1.160 | 1.244 | 1.217 | 1.226 | 3.55 |
| 59) | iso-octane                | 1.075          | 1.012 | 1.026 | 0.997 | 1.014 | 1.007 | 0.979 | 1.048 | 1.035 | 1.022 | 2.80 |
| 60) | heptane                   | 0.224          | 0.212 | 0.213 | 0.206 | 0.211 | 0.204 | 0.208 | 0.214 | 0.215 | 0.212 | 2.80 |
| 61) | isopropyl acetate         | 0.085          | 0.081 | 0.085 | 0.080 | 0.088 | 0.080 | 0.088 | 0.086 | 0.084 | 0.084 | 4.01 |
| 62) | 1,2-dichloroethane        | 0.634          | 0.626 | 0.602 | 0.581 | 0.757 | 0.561 | 0.626 | 0.668 | 0.632 | 0.632 | 9.56 |
| 63) | trichloroethene           | 0.447          | 0.479 | 0.437 | 0.432 | 0.426 | 0.484 | 0.420 | 0.444 | 0.465 | 0.448 | 5.10 |
| 64) | ethyl acrylate            | 0.699          | 0.667 | 0.642 | 0.703 | 0.664 | 0.670 | 0.665 | 0.709 | 0.637 | 0.673 | 3.84 |
| 65) | 2-nitropropane            | 0.132          | 0.114 | 0.137 | 0.131 | 0.141 | 0.143 | 0.135 | 0.121 | 0.132 | 0.132 | 7.64 |
| 66) | 2-chloroethyl vinyl ether | 0.242          | 0.204 | 0.286 | 0.284 | 0.276 | 0.260 | 0.178 | 0.247 | 0.247 | 16.90 |      |
| 67) | methyl methacrylate       | 0.339          | 0.324 | 0.310 | 0.341 | 0.326 | 0.322 | 0.324 | 0.343 | 0.309 | 0.327 | 3.81 |
| 68) | 1,2-dichloropropane       | 0.490          | 0.533 | 0.468 | 0.465 | 0.463 | 0.481 | 0.440 | 0.482 | 0.488 | 0.479 | 5.33 |
| 69) | methylcyclohexane         | 0.623          | 0.574 | 0.594 | 0.580 | 0.596 | 0.542 | 0.586 | 0.611 | 0.573 | 0.586 | 4.00 |
| 70) | dibromomethane            | 0.344          | 0.365 | 0.326 | 0.325 | 0.319 | 0.370 | 0.307 | 0.336 | 0.335 | 0.336 | 6.14 |
| 71) | bromodichloromethane      | 0.636          | 0.669 | 0.604 | 0.624 | 0.622 | 0.613 | 0.603 | 0.631 | 0.617 | 0.624 | 3.23 |
| 72) | epichlorohydrin           | 0.057          | 0.053 | 0.052 | 0.056 | 0.052 | 0.053 | 0.053 | 0.060 | 0.053 | 0.054 | 4.92 |
| 73) | cis-1,3-dichloropropene   | 0.715          | 0.729 | 0.674 | 0.715 | 0.715 | 0.695 | 0.683 | 0.724 | 0.674 | 0.703 | 3.03 |
| 74) | 4-methyl-2-pentanone      | 0.237          | 0.216 | 0.220 | 0.235 | 0.216 | 0.216 | 0.216 | 0.239 | 0.222 | 0.224 | 4.51 |
| 75) | 3-methyl-1-butanol        | 0.016          | 0.014 | 0.017 | 0.015 | 0.016 | 0.016 | 0.016 | 0.013 | 0.015 | 0.015 | 9.88 |
| 76) | I chlorobenzene-d5        | -----ISTD----- |       |       |       |       |       |       |       |       |       |      |
| 77) | toluene-d8 (s)            | 1.307          | 1.300 | 1.296 | 1.277 | 1.276 | 1.285 | 1.259 | 1.297 | 1.327 | 1.292 | 1.54 |
| 78) | toluene                   | 1.160          | 1.300 | 1.157 | 1.086 | 1.055 | 1.167 | 1.036 | 1.123 | 1.196 | 1.142 | 7.02 |
| 79) | ethyl methacrylate        | 0.690          | 0.634 | 0.648 | 0.701 | 0.675 | 0.612 | 0.673 | 0.704 | 0.633 | 0.663 | 4.95 |
| 80) | trans-1,3-dichloropropene |                |       |       |       |       |       |       |       |       |       |      |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|      |  |       |       |       |       |       |       |       |       |       |       |       |
|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 81)  | 1,1,2-trichloroethane                  | 0.769 | 0.719 | 0.726 | 0.761 | 0.754 | 0.730 | 0.743 | 0.766 | 0.729 | 0.744 | 2.55  |
| 82)  | 2-hexanone                             | 0.472 | 0.509 | 0.445 | 0.447 | 0.427 | 0.470 | 0.421 | 0.456 | 0.472 | 0.458 | 5.86  |
| 83)  | tetrachloroethene                      | 0.286 | 0.258 | 0.264 | 0.281 | 0.253 | 0.245 | 0.258 | 0.289 | 0.271 | 0.267 | 5.75  |
| 84)  | 1,3-dichloropropane                    | 0.368 | 0.397 | 0.365 | 0.353 | 0.350 | 0.367 | 0.349 | 0.369 | 0.389 | 0.367 | 4.50  |
| 85)  | butyl acetate                          | 0.788 | 0.840 | 0.750 | 0.741 | 0.717 | 0.769 | 0.697 | 0.763 | 0.764 | 0.759 | 5.40  |
| 86)  | dibromochloromethane                   | 0.409 | 0.422 | 0.388 | 0.408 | 0.380 | 0.388 | 0.384 | 0.413 | 0.408 | 0.400 | 3.76  |
| 87)  | 1,2-dibromoethane                      | 0.567 | 0.536 | 0.524 | 0.554 | 0.544 | 0.543 | 0.534 | 0.555 | 0.530 | 0.543 | 2.51  |
| 88)  | n-butyl ether                          | 0.588 | 0.622 | 0.557 | 0.568 | 0.545 | 0.574 | 0.538 | 0.571 | 0.575 | 0.571 | 4.32  |
| 89)  | chlorobenzene                          | 2.090 | 1.989 | 1.996 | 2.032 | 1.964 | 1.934 | 1.863 | 2.070 | 1.980 | 1.991 | 3.48  |
| 90)  | 1,1,1,2-tetrachloroethane              | 1.236 | 1.356 | 1.188 | 1.161 | 1.139 | 1.247 | 1.121 | 1.201 | 1.242 | 1.210 | 5.86  |
| 91)  | ethylbenzene                           | 0.450 | 0.423 | 0.428 | 0.435 | 0.435 | 0.418 | 0.425 | 0.442 | 0.419 | 0.431 | 2.52  |
| 92)  | m,p-xylene                             | 2.151 | 2.219 | 2.084 | 2.079 | 2.039 | 2.038 | 1.958 | 2.129 | 2.166 | 2.096 | 3.78  |
| 93)  | o-xylene                               | 0.779 | 0.785 | 0.752 | 0.735 | 0.720 | 0.741 | 0.702 | 0.761 | 0.777 | 0.750 | 3.78  |
| 94)  | styrene                                | 1.696 | 1.658 | 1.614 | 1.620 | 1.583 | 1.632 | 1.561 | 1.658 | 1.624 | 1.627 | 2.50  |
| 95)  | butyl acrylate                         | 1.290 | 1.134 | 1.200 | 1.257 | 1.218 | 1.168 | 1.196 | 1.261 | 1.163 | 1.210 | 4.27  |
| 96)  | bromoform                              | 0.495 | 0.429 | 0.449 | 0.529 | 0.513 | 0.407 | 0.518 | 0.513 | 0.436 | 0.476 | 9.65  |
| 97)  | isopropylbenzene                       | 0.366 | 0.334 | 0.334 | 0.383 | 0.374 | 0.329 | 0.387 | 0.372 | 0.342 | 0.358 | 6.48  |
| 98)  | cis-1,4-dichloro-2-butene              | 1.880 | 1.877 | 1.830 | 1.840 | 1.808 | 1.791 | 1.796 | 1.891 | 1.866 | 1.842 | 2.07  |
|      |  | 0.207 |       | 0.182 | 0.235 | 0.229 |       | 0.245 | 0.224 | 0.173 | 0.213 | 12.85 |
| 99)  | I 1,4-dichlorobenzene-d -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 100) | 4-bromofluorobenzene (s)               | 1.031 | 1.028 | 1.018 | 1.004 | 1.005 | 1.019 | 0.992 | 1.024 | 1.032 | 1.017 | 1.35  |
| 101) | bromobenzene                           | 1.103 | 1.145 | 1.064 | 1.036 | 1.014 | 1.119 | 0.992 | 1.055 | 1.062 | 1.066 | 4.65  |
| 102) | 1,1,2,2-tetrachloroethane              | 1.834 | 1.797 | 1.642 | 1.696 | 1.602 | 1.669 | 1.593 | 1.739 | 1.832 | 1.712 | 5.48  |
| 103) | trans-1,4-dichloro-2-butene            | 0.357 | 0.339 | 0.332 | 0.373 | 0.346 | 0.340 | 0.360 | 0.372 | 0.347 | 0.352 | 4.15  |
| 104) | 1,2,3-trichloropropane                 | 0.372 | 0.395 | 0.359 | 0.354 | 0.332 | 0.356 | 0.327 | 0.364 | 0.365 | 0.358 | 5.74  |
| 105) | n-propylbenzene                        | 5.192 | 5.105 | 5.027 | 4.953 | 4.779 | 4.783 | 4.655 | 5.089 | 5.027 | 4.957 | 3.62  |
| 106) | 2-chlorotoluene                        | 1.013 | 0.960 | 0.976 | 0.938 | 0.906 | 0.899 | 0.895 | 0.958 | 1.021 | 0.952 | 4.91  |
| 107) | 4-chlorotoluene                        | 0.995 | 1.081 | 0.939 | 0.938 | 0.904 | 0.998 | 0.886 | 0.966 | 0.999 | 0.968 | 6.10  |
| 108) | 4-ethyltoluene                         |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 109) | 1,3,5-trimethylbenzene                 | 3.279 | 3.170 | 3.084 | 3.185 | 3.100 | 2.961 | 3.057 | 3.225 | 3.170 | 3.137 | 3.06  |
| 110) | tert-butylbenzene                      |       |       |       |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|      |                             |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |                             | 2.600 | 2.510 | 2.533 | 2.528 | 2.455 | 2.414 | 2.454 | 2.549 | 2.547 | 2.510 | 2.32  |
| 111) | 1,2,4-trimethylbenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.380 | 4.754 | 3.289 | 3.197 | 3.120 | 3.649 | 3.087 | 3.276 | 3.449 | 3.467 | 14.79 |
| 112) | sec-butylbenzene            |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 4.069 | 3.784 | 3.880 | 3.951 | 3.839 | 3.543 | 3.814 | 3.979 | 3.901 | 3.862 | 3.86  |
| 113) | 1,3-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.877 | 1.933 | 1.752 | 1.801 | 1.752 | 1.815 | 1.752 | 1.807 | 1.875 | 1.818 | 3.56  |
| 114) | p-isopropyltoluene          |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.143 | 3.026 | 3.060 | 3.114 | 3.012 | 2.674 | 3.010 | 3.082 | 2.971 | 3.010 | 4.56  |
| 115) | 1,4-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.892 | 2.022 | 1.850 | 1.828 | 1.767 | 1.884 | 1.779 | 1.869 | 1.969 | 1.873 | 4.41  |
| 116) | 1,2-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.824 | 1.901 | 1.732 | 1.785 | 1.745 | 1.737 | 1.753 | 1.770 | 1.760 | 1.779 | 3.03  |
| 117) | 1,4-diethylbenzene          |       |       |       |       |       |       |       |       |       |       |       |
|      |                             |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 118) | n-butylbenzene              |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.661 | 1.568 | 1.583 | 1.691 | 1.679 | 1.471 | 1.686 | 1.685 | 1.504 | 1.614 | 5.27  |
| 119) | 1,2,4,5-tetramethylbenzene  |       |       |       |       |       |       |       |       |       |       |       |
|      |                             |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 120) | 1,2-dibromo-3-chloropropane |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.275 |       | 0.251 | 0.310 | 0.294 | 0.231 | 0.316 | 0.290 | 0.272 | 0.280 | 10.29 |
| 121) | 1,3,5-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.163 | 1.202 | 1.111 | 1.226 | 1.213 | 1.075 | 1.248 | 1.181 | 1.150 | 1.174 | 4.75  |
| 122) | 1,2,4-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.033 | 0.999 | 1.004 | 1.101 | 1.082 | 1.013 | 1.134 | 1.062 | 0.983 | 1.046 | 4.98  |
| 123) | hexachlorobutadiene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.375 | 0.390 | 0.377 | 0.392 | 0.391 | 0.380 | 0.388 | 0.381 | 0.403 | 0.386 | 2.28  |
| 124) | naphthalene                 |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.429 |       | 3.217 | 3.582 | 3.383 | 3.511 | 3.440 | 3.500 | 3.237 | 3.412 | 3.79  |
| 125) | 1,2,3-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.017 | 0.991 | 0.950 | 1.052 | 1.027 | 0.876 | 1.046 | 1.019 | 0.964 | 0.993 | 5.64  |
| 126) | hexachloroethane            |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.457 | 0.410 | 0.460 | 0.498 | 0.494 | 0.386 | 0.523 | 0.469 | 0.471 | 0.463 | 9.25  |
| 127) | Benzyl chloride             |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 2.153 | 2.181 | 1.987 | 2.276 | 2.199 | 1.893 | 2.269 | 2.200 | 1.972 | 2.126 | 6.54  |
| 128) | 2-ethylhexyl acrylate       |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.577 |       | 0.495 | 0.761 | 0.814 |       | 0.831 | 0.653 |       | 0.689 | 19.71 |
| 129) | 2-methylnaphthalene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.245 |       | 1.116 | 1.502 | 1.464 |       | 1.571 | 1.364 | 1.069 | 1.333 | 14.61 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2V1992.M

Mon Apr 23 10:51:22 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49947.D Vial: 13  
 Acq On : 21 Apr 2018 2:24 am Operator: JessicaP  
 Sample : icv1992-50 Inst : MS2V  
 Misc : MS25736,V2V1992,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | TrueValue | AvgRF | CCRF         | %Dev   | Area%   | Dev(min) | R.T. |
|-----------------------------|-----------|-------|--------------|--------|---------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 500.00    | 1.000 | 1.000        | 0.0    | 102     | 0.00     | 2.27 |
| 2 ethanol                   | 5000.00   | 0.161 | 0.156        | 3.1    | 104     | 0.00     | 1.78 |
| 3 M tertiary butyl alcohol  | 250.00    | 1.448 | 1.428        | 1.4    | 105     | 0.00     | 2.32 |
| 4 1,4-dioxane               | 1250.00   | 0.137 | 0.137        | 0.0    | 105     | 0.00     | 4.28 |
| 5 I pentafluorobenzene      | 50.00     | 1.000 | 1.000        | 0.0    | 103     | 0.00     | 3.36 |
| 6 chlorodifluoromethane     |           |       | -----NA----- |        |         |          |      |
| 7 dichlorodifluoromethane   | 50.00     | 0.967 | 1.029        | -6.4   | 111     | 0.00     | 1.13 |
| 8 freon 114                 |           |       | -----NA----- |        |         |          |      |
| 9 freon 142b                |           |       | -----NA----- |        |         |          |      |
| 10 chloromethane            | 50.00     | 1.047 | 1.057        | -1.0   | 105     | 0.00     | 1.24 |
| 11 vinyl chloride           | 50.00     | 0.865 | 0.828        | 4.3    | 102     | 0.00     | 1.30 |
| -----TrueValue              |           |       | CC-RF        | Calc.  | % Drift | -----    | R.T. |
| 12 bromomethane             | 50.00     | 0.338 | 68.550       | -37.1# | 128     | 0.00     | 1.49 |
| -----TrueValue              |           |       | AvgRF        | CCRF   | % Dev   | -----    | R.T. |
| 13 chloroethane             | 50.00     | 0.350 | 0.361        | -3.1   | 121     | 0.00     | 1.55 |
| 14 trichlorofluoromethane   | 50.00     | 1.081 | 1.063        | 1.7    | 104     | 0.00     | 1.69 |
| 15 vinyl bromide            | 50.00     | 0.576 | 0.577        | -0.2   | 106     | 0.00     | 1.66 |
| 16 1,3-butadiene            |           |       | -----NA----- |        |         |          |      |
| 17 ethyl ether              | 50.00     | 0.310 | 0.299        | 3.5    | 102     | 0.00     | 1.85 |
| 18 2-chloropropane          | 50.00     | 0.911 | 0.911        | 0.0    | 108     | 0.00     | 1.92 |
| 19 acrolein                 | 50.00     | 0.181 | 0.193        | -6.6   | 116     | 0.00     | 1.93 |
| 20 freon 113                | 50.00     | 0.376 | 0.361        | 4.0    | 105     | 0.00     | 1.99 |
| 21 1,1-dichloroethene       | 50.00     | 0.970 | 0.869        | 10.4   | 94      | 0.00     | 1.99 |
| 22 acetone                  | 200.00    | 0.074 | 0.075        | -1.4   | 106     | 0.00     | 2.01 |
| 23 acetonitrile             |           |       | -----NA----- |        |         |          |      |
| -----TrueValue              |           |       | CC-RF        | Calc.  | % Drift | -----    | R.T. |
| 24 iodomethane              | 50.00     | 0.048 | 61.459       | -22.9  | 141     | 0.00     | 2.08 |
| -----TrueValue              |           |       | AvgRF        | CCRF   | % Dev   | -----    | R.T. |
| 25 carbon disulfide         | 50.00     | 1.494 | 1.522        | -1.9   | 112     | 0.00     | 2.12 |
| 26 methylene chloride       | 50.00     | 0.661 | 0.608        | 8.0    | 103     | 0.00     | 2.27 |
| 27 methyl acetate           | 50.00     | 0.650 | 0.613        | 5.7    | 101     | 0.00     | 2.18 |
| 28 methyl tert butyl ether  | 50.00     | 1.822 | 1.833        | -0.6   | 106     | 0.00     | 2.42 |
| 29 trans-1,2-dichloroethene | 50.00     | 0.586 | 0.549        | 6.3    | 102     | 0.00     | 2.43 |
| 30 hexane                   | 50.00     | 0.355 | 0.344        | 3.1    | 103     | 0.00     | 2.59 |
| 31 di-isopropyl ether       | 50.00     | 2.062 | 2.067        | -0.2   | 105     | 0.00     | 2.70 |
| 32 ethyl tert-butyl ether   | 50.00     | 1.916 | 1.930        | -0.7   | 104     | 0.00     | 2.92 |
| 33 M 1,1-dichloroethane     | 50.00     | 1.225 | 1.183        | 3.4    | 102     | 0.00     | 2.69 |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

|      |                           |         |       |              |       |     |      |      |
|------|---------------------------|---------|-------|--------------|-------|-----|------|------|
| 34   | chloroprene               | 50.00   | 0.882 | 0.887        | -0.6  | 103 | 0.00 | 2.73 |
| 35   | acrylonitrile             | 50.00   | 0.312 | 0.349        | -11.9 | 116 | 0.00 | 2.40 |
| 36   | vinyl acetate             | 50.00   | 0.095 | 0.107        | -12.6 | 113 | 0.00 | 2.68 |
| 37   | ethyl acetate             | 50.00   | 0.146 | 0.147        | -0.7  | 103 | 0.00 | 3.04 |
| 38   | 2-butanone                | 200.00  | 0.095 | 0.099        | -4.2  | 104 | 0.00 | 3.03 |
| 39   | 2,2-dichloropropane       | 50.00   | 0.849 | 0.821        | 3.3   | 102 | 0.00 | 3.05 |
| 40   | cis-1,2-dichloroethene    | 50.00   | 0.673 | 0.666        | 1.0   | 106 | 0.00 | 3.04 |
| 41   | propionitrile             | 500.00  | 0.147 | 0.147        | 0.0   | 102 | 0.00 | 3.07 |
| 42   | methyl acrylate           | 50.00   | 0.128 | 0.133        | -3.9  | 104 | 0.00 | 3.07 |
| 43   | bromochloromethane        | 50.00   | 0.300 | 0.317        | -5.7  | 107 | 0.00 | 3.19 |
| 44   | tetrahydrofuran           | 50.00   | 0.116 | 0.115        | 0.9   | 102 | 0.00 | 3.20 |
| 45   | chloroform                | 50.00   | 1.228 | 1.187        | 3.3   | 104 | 0.00 | 3.25 |
| 46 S | dibromofluoromethane (s)  | 50.00   | 0.503 | 0.510        | -1.4  | 104 | 0.00 | 3.35 |
| 47   | methacrylonitrile         | 50.00   | 0.323 | 0.339        | -5.0  | 105 | 0.00 | 3.16 |
| 48   | 1,1,1-trichloroethane     | 50.00   | 0.999 | 0.947        | 5.2   | 100 | 0.00 | 3.36 |
| 49   | cyclohexane               | 50.00   | 0.739 | 0.769        | -4.1  | 112 | 0.00 | 3.41 |
| 50   | 1,1-dichloropropene       | 50.00   | 0.907 | 0.876        | 3.4   | 103 | 0.00 | 3.46 |
| 51   | carbon tetrachloride      | 50.00   | 0.806 | 0.771        | 4.3   | 101 | 0.00 | 3.46 |
| 52   | isobutyl alcohol          | 500.00  | 0.042 | 0.045        | -7.1  | 107 | 0.00 | 3.51 |
| 53   | tert-amyl alcohol         | 250.00  | 0.039 | 0.040        | -2.6  | 105 | 0.00 | 3.59 |
| 54 I | 1,4-difluorobenzene       | 50.00   | 1.000 | 1.000        | 0.0   | 103 | 0.00 | 3.88 |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00   | 0.348 | 0.347        | 0.3   | 103 | 0.00 | 3.58 |
| 56   | n-butyl alcohol           | 2500.00 | 0.019 | 0.020        | -5.3  | 104 | 0.00 | 3.96 |
| 57 M | benzene                   | 50.00   | 1.650 | 1.603        | 2.8   | 104 | 0.00 | 3.60 |
| 58   | tert-amyl methyl ether    | 50.00   | 1.226 | 1.241        | -1.2  | 104 | 0.00 | 3.68 |
| 59   | iso-octane                | 50.00   | 1.022 | 0.971        | 5.0   | 100 | 0.00 | 3.67 |
| 60   | heptane                   | 50.00   | 0.212 | 0.223        | -5.2  | 111 | 0.00 | 3.78 |
| 61   | isopropyl acetate         | 50.00   | 0.084 | 0.088        | -4.8  | 107 | 0.00 | 3.61 |
| 62   | 1,2-dichloroethane        | 50.00   | 0.632 | 0.612        | 3.2   | 105 | 0.00 | 3.62 |
| 63   | trichloroethene           | 50.00   | 0.448 | 0.438        | 2.2   | 104 | 0.00 | 4.04 |
| 64   | ethyl acrylate            | 50.00   | 0.673 | 0.729        | -8.3  | 107 | 0.00 | 4.09 |
| 65   | 2-nitropropane            | 50.00   | 0.132 | 0.149        | -12.9 | 112 | 0.00 | 4.58 |
| 66   | 2-chloroethyl vinyl ether | 250.00  | 0.247 | 0.288        | -16.6 | 104 | 0.00 | 4.63 |
| 67   | methyl methacrylate       | 50.00   | 0.327 | 0.352        | -7.6  | 106 | 0.00 | 4.26 |
| 68   | 1,2-dichloropropane       | 50.00   | 0.479 | 0.468        | 2.3   | 104 | 0.00 | 4.23 |
| 69   | methylcyclohexane         | 50.00   | 0.586 | 0.569        | 2.9   | 101 | 0.00 | 4.22 |
| 70   | dibromomethane            | 50.00   | 0.336 | 0.347        | -3.3  | 110 | 0.00 | 4.29 |
| 71   | bromodichloromethane      | 50.00   | 0.624 | 0.631        | -1.1  | 104 | 0.00 | 4.42 |
| 72   | epichlorohydrin           | 250.00  | 0.054 | 0.057        | -5.6  | 104 | 0.00 | 4.66 |
| 73   | cis-1,3-dichloropropene   | 50.00   | 0.703 | 0.738        | -5.0  | 106 | 0.00 | 4.75 |
| 74   | 4-methyl-2-pentanone      | 200.00  | 0.224 | 0.240        | -7.1  | 105 | 0.00 | 4.86 |
| 75   | 3-methyl-1-butanol        | 1000.00 | 0.015 | 0.017        | -13.3 | 103 | 0.00 | 4.90 |
| 76 I | chlorobenzene-d5          | 50.00   | 1.000 | 1.000        | 0.0   | 103 | 0.00 | 6.17 |
| 77 S | toluene-d8 (s)            | 50.00   | 1.292 | 1.279        | 1.0   | 103 | 0.00 | 4.96 |
| 78   | toluene                   | 50.00   | 1.142 | 1.100        | 3.7   | 104 | 0.00 | 5.01 |
| 79   | ethyl methacrylate        | 50.00   | 0.663 | 0.705        | -6.3  | 103 | 0.00 | 5.24 |
| 80   | trans-1,3-dichloropropene | 50.00   | 0.744 | 0.764        | -2.7  | 103 | 0.00 | 5.19 |
| 81   | 1,1,2-trichloroethane     | 50.00   | 0.458 | 0.454        | 0.9   | 104 | 0.00 | 5.35 |
| 82   | 2-hexanone                | 200.00  | 0.267 | 0.281        | -5.2  | 103 | 0.00 | 5.53 |
| 83   | tetrachloroethene         |         | ----- | -----NA----- |       |     |      |      |
| 84   | 1,3-dichloropropane       | 50.00   | 0.759 | 0.777        | -2.4  | 108 | 0.00 | 5.49 |
| 85   | butyl acetate             | 50.00   | 0.400 | 0.431        | -7.7  | 109 | 0.00 | 5.63 |
| 86   | dibromochloromethane      | 50.00   | 0.543 | 0.590        | -8.7  | 109 | 0.00 | 5.66 |
| 87   | 1,2-dibromoethane         | 50.00   | 0.571 | 0.587        | -2.8  | 106 | 0.00 | 5.77 |
| 88   | n-butyl ether             | 50.00   | 1.991 | 1.997        | -0.3  | 101 | 0.00 | 6.29 |
| 89   | chlorobenzene             | 50.00   | 1.210 | 1.185        | 2.1   | 105 | 0.00 | 6.19 |
| 90   | 1,1,1,2-tetrachloroethane | 50.00   | 0.431 | 0.453        | -5.1  | 107 | 0.00 | 6.27 |
| 91   | ethylbenzene              | 50.00   | 2.096 | 2.111        | -0.7  | 104 | 0.00 | 6.28 |

6.11.7

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

|       |                           |        |              |       |       |     |      |       |
|-------|---------------------------|--------|--------------|-------|-------|-----|------|-------|
| 92    | m,p-xylene                | 100.00 | 0.750        | 0.751 | -0.1  | 105 | 0.00 | 6.40  |
| 93    | o-xylene                  | 50.00  | 1.627        | 1.643 | -1.0  | 104 | 0.00 | 6.74  |
| 94    | styrene                   | 50.00  | 1.210        | 1.289 | -6.5  | 105 | 0.00 | 6.76  |
| 95    | butyl acrylate            | 50.00  | 0.476        | 0.539 | -13.2 | 105 | 0.00 | 6.71  |
| 96    | bromofom                  | 50.00  | 0.358        | 0.415 | -15.9 | 111 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 50.00  | 1.842        | 1.872 | -1.6  | 105 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 50.00  | 0.213        | 0.232 | -8.9  | 101 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 50.00  | 1.000        | 1.000 | 0.0   | 101 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 50.00  | 1.017        | 1.020 | -0.3  | 103 | 0.00 | 7.23  |
| 101   | bromobenzene              | 50.00  | 1.066        | 1.080 | -1.3  | 106 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 50.00  | 1.712        | 1.713 | -0.1  | 102 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 50.00  | 0.352        | 0.405 | -15.1 | 110 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 50.00  | 0.358        | 0.368 | -2.8  | 105 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 50.00  | 4.957        | 5.022 | -1.3  | 103 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 50.00  | 0.952        | 0.950 | 0.2   | 103 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 50.00  | 0.968        | 0.984 | -1.7  | 106 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |        | -----NA----- |       |       |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 50.00  | 3.137        | 3.222 | -2.7  | 103 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 50.00  | 2.510        | 3.218 | -28.2 | 129 | 0.00 | 7.94  |
| 111   | 1,2,4-trimethylbenzene    | 50.00  | 3.467        | 3.357 | 3.2   | 107 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 50.00  | 3.862        | 3.999 | -3.5  | 103 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 50.00  | 1.818        | 1.839 | -1.2  | 104 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 50.00  | 3.010        | 3.147 | -4.6  | 103 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 50.00  | 1.873        | 1.876 | -0.2  | 104 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 50.00  | 1.779        | 1.815 | -2.0  | 103 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |        | -----NA----- |       |       |     |      |       |
| 118   | n-butylbenzene            | 50.00  | 1.614        | 1.691 | -4.8  | 101 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |        | -----NA----- |       |       |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 50.00  | 0.280        | 0.310 | -10.7 | 101 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 50.00  | 1.174        | 1.225 | -4.3  | 101 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 50.00  | 1.046        | 1.125 | -7.6  | 104 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 50.00  | 0.386        | 0.385 | 0.3   | 100 | 0.00 | 10.42 |
| 124   | naphthalene               | 50.00  | 3.412        | 3.664 | -7.4  | 104 | 0.00 | 10.52 |
| 125   | 1,2,3-trichlorobenzene    | 50.00  | 0.993        | 1.043 | -5.0  | 101 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 50.00  | 0.463        | 0.502 | -8.4  | 102 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 50.00  | 2.126        | 1.866 | 12.2  | 83  | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 10.00  | 0.689        | 0.826 | -19.9 | 110 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 25.00  | 1.333        | 1.429 | -7.2  | 97  | 0.00 | 11.61 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M                      Mon Apr 23 10:51:12 2018    RPT1

6.11.7  
6

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49948.D Vial: 14  
Acq On : 21 Apr 2018 2:50 am Operator: JessicaP  
Sample : icv1992-50 Inst : MS2V  
Misc : MS25736,V2V1992,5,,,,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
Last Update : Mon Apr 23 10:47:36 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                 | TrueValue | AvgRF | CCRF         | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------|-----------|-------|--------------|-------|-------|----------|------|
| 1 I  | Tert Butyl Alcohol-d9    | 500.00    | 1.000 | 1.000        | 0.0   | 103   | 0.00     | 2.27 |
| 2    | ethanol                  |           |       | -----NA----- |       |       |          |      |
| 3 M  | tertiary butyl alcohol   |           |       | -----NA----- |       |       |          |      |
| 4    | 1,4-dioxane              |           |       | -----NA----- |       |       |          |      |
| 5 I  | pentafluorobenzene       | 50.00     | 1.000 | 1.000        | 0.0   | 104   | 0.00     | 3.36 |
| 6    | chlorodifluoromethane    | 50.00     | 0.790 | 0.927        | -17.3 | 126   | 0.00     | 1.14 |
| 7    | dichlorodifluoromethane  |           |       | -----NA----- |       |       |          |      |
| 8    | freon 114                |           |       | -----NA----- |       |       |          |      |
| 9    | freon 142b               |           |       | -----NA----- |       |       |          |      |
| 10   | chloromethane            |           |       | -----NA----- |       |       |          |      |
| 11   | vinyl chloride           |           |       | -----NA----- |       |       |          |      |
| 12   | bromomethane             |           |       | -----NA----- |       |       |          |      |
| 13   | chloroethane             |           |       | -----NA----- |       |       |          |      |
| 14   | trichlorofluoromethane   |           |       | -----NA----- |       |       |          |      |
| 15   | vinyl bromide            |           |       | -----NA----- |       |       |          |      |
| 16   | 1,3-butadiene            |           |       | -----NA----- |       |       |          |      |
| 17   | ethyl ether              |           |       | -----NA----- |       |       |          |      |
| 18   | 2-chloropropane          |           |       | -----NA----- |       |       |          |      |
| 19   | acrolein                 |           |       | -----NA----- |       |       |          |      |
| 20   | freon 113                |           |       | -----NA----- |       |       |          |      |
| 21   | 1,1-dichloroethene       |           |       | -----NA----- |       |       |          |      |
| 22   | acetone                  |           |       | -----NA----- |       |       |          |      |
| 23   | acetonitrile             | 500.00    | 0.118 | 0.122        | -3.4  | 112   | 0.00     | 2.17 |
| 24   | iodomethane              |           |       | -----NA----- |       |       |          |      |
| 25   | carbon disulfide         |           |       | -----NA----- |       |       |          |      |
| 26   | methylene chloride       |           |       | -----NA----- |       |       |          |      |
| 27   | methyl acetate           |           |       | -----NA----- |       |       |          |      |
| 28   | methyl tert butyl ether  |           |       | -----NA----- |       |       |          |      |
| 29   | trans-1,2-dichloroethene |           |       | -----NA----- |       |       |          |      |
| 30   | hexane                   |           |       | -----NA----- |       |       |          |      |
| 31   | di-isopropyl ether       |           |       | -----NA----- |       |       |          |      |
| 32   | ethyl tert-butyl ether   |           |       | -----NA----- |       |       |          |      |
| 33 M | 1,1-dichloroethane       |           |       | -----NA----- |       |       |          |      |
| 34   | chloroprene              |           |       | -----NA----- |       |       |          |      |
| 35   | acrylonitrile            |           |       | -----NA----- |       |       |          |      |
| 36   | vinyl acetate            |           |       | -----NA----- |       |       |          |      |
| 37   | ethyl acetate            |           |       | -----NA----- |       |       |          |      |
| 38   | 2-butanone               |           |       | -----NA----- |       |       |          |      |
| 39   | 2,2-dichloropropane      |           |       | -----NA----- |       |       |          |      |
| 40   | cis-1,2-dichloroethene   |           |       | -----NA----- |       |       |          |      |
| 41   | propionitrile            |           |       | -----NA----- |       |       |          |      |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

|      |                           |       |       |       |      |     |      |      |              |
|------|---------------------------|-------|-------|-------|------|-----|------|------|--------------|
| 42   | methyl acrylate           |       |       |       |      |     |      |      | -----NA----- |
| 43   | bromochloromethane        |       |       |       |      |     |      |      | -----NA----- |
| 44   | tetrahydrofuran           |       |       |       |      |     |      |      | -----NA----- |
| 45   | chloroform                |       |       |       |      |     |      |      | -----NA----- |
| 46 S | dibromofluoromethane (s)  | 50.00 | 0.503 | 0.498 | 1.0  | 102 | 0.00 | 3.35 |              |
| 47   | methacrylonitrile         |       |       |       |      |     |      |      | -----NA----- |
| 48   | 1,1,1-trichloroethane     |       |       |       |      |     |      |      | -----NA----- |
| 49   | cyclohexane               |       |       |       |      |     |      |      | -----NA----- |
| 50   | 1,1-dichloropropene       |       |       |       |      |     |      |      | -----NA----- |
| 51   | carbon tetrachloride      |       |       |       |      |     |      |      | -----NA----- |
| 52   | isobutyl alcohol          |       |       |       |      |     |      |      | -----NA----- |
| 53   | tert-amyl alcohol         |       |       |       |      |     |      |      | -----NA----- |
| 54 I | 1,4-difluorobenzene       | 50.00 | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 3.88 |              |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00 | 0.348 | 0.354 | -1.7 | 104 | 0.00 | 3.58 |              |
| 56   | n-butyl alcohol           |       |       |       |      |     |      |      | -----NA----- |
| 57 M | benzene                   |       |       |       |      |     |      |      | -----NA----- |
| 58   | tert-amyl methyl ether    |       |       |       |      |     |      |      | -----NA----- |
| 59   | iso-octane                |       |       |       |      |     |      |      | -----NA----- |
| 60   | heptane                   |       |       |       |      |     |      |      | -----NA----- |
| 61   | isopropyl acetate         |       |       |       |      |     |      |      | -----NA----- |
| 62   | 1,2-dichloroethane        |       |       |       |      |     |      |      | -----NA----- |
| 63   | trichloroethene           |       |       |       |      |     |      |      | -----NA----- |
| 64   | ethyl acrylate            |       |       |       |      |     |      |      | -----NA----- |
| 65   | 2-nitropropane            |       |       |       |      |     |      |      | -----NA----- |
| 66   | 2-chloroethyl vinyl ether |       |       |       |      |     |      |      | -----NA----- |
| 67   | methyl methacrylate       |       |       |       |      |     |      |      | -----NA----- |
| 68   | 1,2-dichloropropane       |       |       |       |      |     |      |      | -----NA----- |
| 69   | methylcyclohexane         |       |       |       |      |     |      |      | -----NA----- |
| 70   | dibromomethane            |       |       |       |      |     |      |      | -----NA----- |
| 71   | bromodichloromethane      |       |       |       |      |     |      |      | -----NA----- |
| 72   | epichlorohydrin           |       |       |       |      |     |      |      | -----NA----- |
| 73   | cis-1,3-dichloropropene   |       |       |       |      |     |      |      | -----NA----- |
| 74   | 4-methyl-2-pentanone      |       |       |       |      |     |      |      | -----NA----- |
| 75   | 3-methyl-1-butanol        |       |       |       |      |     |      |      | -----NA----- |
| 76 I | chlorobenzene-d5          | 50.00 | 1.000 | 1.000 | 0.0  | 98  | 0.00 | 6.16 |              |
| 77 S | toluene-d8 (s)            | 50.00 | 1.292 | 1.288 | 0.3  | 99  | 0.00 | 4.96 |              |
| 78   | toluene                   |       |       |       |      |     |      |      | -----NA----- |
| 79   | ethyl methacrylate        |       |       |       |      |     |      |      | -----NA----- |
| 80   | trans-1,3-dichloropropene |       |       |       |      |     |      |      | -----NA----- |
| 81   | 1,1,2-trichloroethane     |       |       |       |      |     |      |      | -----NA----- |
| 82   | 2-hexanone                |       |       |       |      |     |      |      | -----NA----- |
| 83   | tetrachloroethene         | 50.00 | 0.367 | 0.361 | 1.6  | 101 | 0.00 | 5.43 |              |
| 84   | 1,3-dichloropropane       |       |       |       |      |     |      |      | -----NA----- |
| 85   | butyl acetate             |       |       |       |      |     |      |      | -----NA----- |
| 86   | dibromochloromethane      |       |       |       |      |     |      |      | -----NA----- |
| 87   | 1,2-dibromoethane         |       |       |       |      |     |      |      | -----NA----- |
| 88   | n-butyl ether             |       |       |       |      |     |      |      | -----NA----- |
| 89   | chlorobenzene             |       |       |       |      |     |      |      | -----NA----- |
| 90   | 1,1,1,2-tetrachloroethane |       |       |       |      |     |      |      | -----NA----- |
| 91   | ethylbenzene              |       |       |       |      |     |      |      | -----NA----- |
| 92   | m,p-xylene                |       |       |       |      |     |      |      | -----NA----- |
| 93   | o-xylene                  |       |       |       |      |     |      |      | -----NA----- |
| 94   | styrene                   |       |       |       |      |     |      |      | -----NA----- |
| 95   | butyl acrylate            |       |       |       |      |     |      |      | -----NA----- |
| 96   | bromoform                 |       |       |       |      |     |      |      | -----NA----- |
| 97   | isopropylbenzene          |       |       |       |      |     |      |      | -----NA----- |
| 98   | cis-1,4-dichloro-2-butene |       |       |       |      |     |      |      | -----NA----- |

6.11.8

6

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

|     |   |                           |       |       |       |      |    |      |      |
|-----|---|---------------------------|-------|-------|-------|------|----|------|------|
| 99  | I | 1,4-dichlorobenzene-d4    | 50.00 | 1.000 | 1.000 | 0.0  | 96 | 0.00 | 8.33 |
| 100 | S | 4-bromofluorobenzene (s)  | 50.00 | 1.017 | 1.035 | -1.8 | 99 | 0.00 | 7.23 |
| 101 |   | bromobenzene              |       |       |       |      |    |      |      |
| 102 |   | 1,1,2,2-tetrachloroethane |       |       |       |      |    |      |      |
| 103 |   | trans-1,4-dichloro-2-bute |       |       |       |      |    |      |      |
| 104 |   | 1,2,3-trichloropropane    |       |       |       |      |    |      |      |
| 105 |   | n-propylbenzene           |       |       |       |      |    |      |      |
| 106 |   | 2-chlorotoluene           |       |       |       |      |    |      |      |
| 107 |   | 4-chlorotoluene           |       |       |       |      |    |      |      |
| 108 |   | 4-ethyltoluene            |       |       |       |      |    |      |      |
| 109 |   | 1,3,5-trimethylbenzene    |       |       |       |      |    |      |      |
| 110 |   | tert-butylbenzene         |       |       |       |      |    |      |      |
| 111 |   | 1,2,4-trimethylbenzene    |       |       |       |      |    |      |      |
| 112 |   | sec-butylbenzene          |       |       |       |      |    |      |      |
| 113 |   | 1,3-dichlorobenzene       |       |       |       |      |    |      |      |
| 114 |   | p-isopropyltoluene        |       |       |       |      |    |      |      |
| 115 |   | 1,4-dichlorobenzene       |       |       |       |      |    |      |      |
| 116 |   | 1,2-dichlorobenzene       |       |       |       |      |    |      |      |
| 117 |   | 1,4-diethylbenzene        |       |       |       |      |    |      |      |
| 118 |   | n-butylbenzene            |       |       |       |      |    |      |      |
| 119 |   | 1,2,4,5-tetramethylbenzen |       |       |       |      |    |      |      |
| 120 |   | 1,2-dibromo-3-chloropropa |       |       |       |      |    |      |      |
| 121 |   | 1,3,5-trichlorobenzene    |       |       |       |      |    |      |      |
| 122 |   | 1,2,4-trichlorobenzene    |       |       |       |      |    |      |      |
| 123 |   | hexachlorobutadiene       |       |       |       |      |    |      |      |
| 124 |   | naphthalene               |       |       |       |      |    |      |      |
| 125 |   | 1,2,3-trichlorobenzene    |       |       |       |      |    |      |      |
| 126 |   | hexachloroethane          |       |       |       |      |    |      |      |
| 127 |   | Benzyl chloride           |       |       |       |      |    |      |      |
| 128 |   | 2-ethylhexyl acrylate     |       |       |       |      |    |      |      |
| 129 |   | 2-methylnaphthalene       |       |       |       |      |    |      |      |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M                      Mon Apr 23 10:48:25 2018    RPT1

6.11.8

6

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49952.D Vial: 2  
 Acq On : 23 Apr 2018 9:14 am Operator: JessicaP  
 Sample : icv1992-50 Inst : MS2V  
 Misc : MS25736,V2V1992,5,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:47:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                 | TrueValue      | AvgRF | CCRF         | %Dev    | Area% | Dev(min) | R.T. |
|------|--------------------------|----------------|-------|--------------|---------|-------|----------|------|
| 1 I  | Tert Butyl Alcohol-d9    | 500.00         | 1.000 | 1.000        | 0.0     | 110   | 0.00     | 2.27 |
| 2    | ethanol                  |                |       | -----NA----- |         |       |          |      |
| 3 M  | tertiary butyl alcohol   |                |       | -----NA----- |         |       |          |      |
| 4    | 1,4-dioxane              |                |       | -----NA----- |         |       |          |      |
| 5 I  | pentafluorobenzene       | 50.00          | 1.000 | 1.000        | 0.0     | 113   | 0.00     | 3.36 |
| 6    | chlorodifluoromethane    |                |       | -----NA----- |         |       |          |      |
| 7    | dichlorodifluoromethane  |                |       | -----NA----- |         |       |          |      |
| 8    | freon 114                |                |       | -----NA----- |         |       |          |      |
| 9    | freon 142b               |                |       | -----NA----- |         |       |          |      |
| 10   | chloromethane            |                |       | -----NA----- |         |       |          |      |
| 11   | vinyl chloride           |                |       | -----NA----- |         |       |          |      |
|      |                          | -----TrueValue | CC-RF | Calc.        | % Drift |       |          | R.T. |
| 12   | bromomethane             | 50.00          | 0.273 | 49.707       | 0.6     | 113   | 0.00     | 1.49 |
| 13   | chloroethane             |                |       | -----NA----- |         |       |          |      |
| 14   | trichlorofluoromethane   |                |       | -----NA----- |         |       |          |      |
| 15   | vinyl bromide            |                |       | -----NA----- |         |       |          |      |
| 16   | 1,3-butadiene            |                |       | -----NA----- |         |       |          |      |
| 17   | ethyl ether              |                |       | -----NA----- |         |       |          |      |
| 18   | 2-chloropropane          |                |       | -----NA----- |         |       |          |      |
| 19   | acrolein                 |                |       | -----NA----- |         |       |          |      |
| 20   | freon 113                |                |       | -----NA----- |         |       |          |      |
| 21   | 1,1-dichloroethene       |                |       | -----NA----- |         |       |          |      |
| 22   | acetone                  |                |       | -----NA----- |         |       |          |      |
| 23   | acetonitrile             |                |       | -----NA----- |         |       |          |      |
| 24   | iodomethane              |                |       | -----NA----- |         |       |          |      |
| 25   | carbon disulfide         |                |       | -----NA----- |         |       |          |      |
| 26   | methylene chloride       |                |       | -----NA----- |         |       |          |      |
| 27   | methyl acetate           |                |       | -----NA----- |         |       |          |      |
| 28   | methyl tert butyl ether  |                |       | -----NA----- |         |       |          |      |
| 29   | trans-1,2-dichloroethene |                |       | -----NA----- |         |       |          |      |
| 30   | hexane                   |                |       | -----NA----- |         |       |          |      |
| 31   | di-isopropyl ether       |                |       | -----NA----- |         |       |          |      |
| 32   | ethyl tert-butyl ether   |                |       | -----NA----- |         |       |          |      |
| 33 M | 1,1-dichloroethane       |                |       | -----NA----- |         |       |          |      |
| 34   | chloroprene              |                |       | -----NA----- |         |       |          |      |
| 35   | acrylonitrile            |                |       | -----NA----- |         |       |          |      |
| 36   | vinyl acetate            |                |       | -----NA----- |         |       |          |      |
| 37   | ethyl acetate            |                |       | -----NA----- |         |       |          |      |
| 38   | 2-butanone               |                |       | -----NA----- |         |       |          |      |
| 39   | 2,2-dichloropropane      |                |       | -----NA----- |         |       |          |      |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

|      |                           | -----TrueValue | AvgRF | CCRF  | % Dev | ----- | R.T.      |
|------|---------------------------|----------------|-------|-------|-------|-------|-----------|
| 40   | cis-1,2-dichloroethene    |                |       |       |       |       |           |
| 41   | propionitrile             |                |       |       |       |       |           |
| 42   | methyl acrylate           |                |       |       |       |       |           |
| 43   | bromochloromethane        |                |       |       |       |       |           |
| 44   | tetrahydrofuran           |                |       |       |       |       |           |
| 45   | chloroform                |                |       |       |       |       |           |
| 46 S | dibromofluoromethane (s)  | 50.00          | 0.503 | 0.491 | 2.4   | 109   | 0.00 3.35 |
| 47   | methacrylonitrile         |                |       |       |       |       |           |
| 48   | 1,1,1-trichloroethane     |                |       |       |       |       |           |
| 49   | cyclohexane               |                |       |       |       |       |           |
| 50   | 1,1-dichloropropene       |                |       |       |       |       |           |
| 51   | carbon tetrachloride      |                |       |       |       |       |           |
| 52   | isobutyl alcohol          |                |       |       |       |       |           |
| 53   | tert-amyl alcohol         |                |       |       |       |       |           |
| 54 I | 1,4-difluorobenzene       | 50.00          | 1.000 | 1.000 | 0.0   | 111   | 0.00 3.88 |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00          | 0.348 | 0.340 | 2.3   | 109   | 0.00 3.58 |
| 56   | n-butyl alcohol           |                |       |       |       |       |           |
| 57 M | benzene                   |                |       |       |       |       |           |
| 58   | tert-amyl methyl ether    |                |       |       |       |       |           |
| 59   | iso-octane                |                |       |       |       |       |           |
| 60   | heptane                   |                |       |       |       |       |           |
| 61   | isopropyl acetate         |                |       |       |       |       |           |
| 62   | 1,2-dichloroethane        |                |       |       |       |       |           |
| 63   | trichloroethene           |                |       |       |       |       |           |
| 64   | ethyl acrylate            |                |       |       |       |       |           |
| 65   | 2-nitropropane            |                |       |       |       |       |           |
| 66   | 2-chloroethyl vinyl ether |                |       |       |       |       |           |
| 67   | methyl methacrylate       |                |       |       |       |       |           |
| 68   | 1,2-dichloropropane       |                |       |       |       |       |           |
| 69   | methylcyclohexane         |                |       |       |       |       |           |
| 70   | dibromomethane            |                |       |       |       |       |           |
| 71   | bromodichloromethane      |                |       |       |       |       |           |
| 72   | epichlorohydrin           |                |       |       |       |       |           |
| 73   | cis-1,3-dichloropropene   |                |       |       |       |       |           |
| 74   | 4-methyl-2-pentanone      |                |       |       |       |       |           |
| 75   | 3-methyl-1-butanol        |                |       |       |       |       |           |
| 76 I | chlorobenzene-d5          | 50.00          | 1.000 | 1.000 | 0.0   | 106   | 0.00 6.16 |
| 77 S | toluene-d8 (s)            | 50.00          | 1.292 | 1.296 | -0.3  | 108   | 0.00 4.96 |
| 78   | toluene                   |                |       |       |       |       |           |
| 79   | ethyl methacrylate        |                |       |       |       |       |           |
| 80   | trans-1,3-dichloropropene |                |       |       |       |       |           |
| 81   | 1,1,2-trichloroethane     |                |       |       |       |       |           |
| 82   | 2-hexanone                |                |       |       |       |       |           |
| 83   | tetrachloroethene         |                |       |       |       |       |           |
| 84   | 1,3-dichloropropane       |                |       |       |       |       |           |
| 85   | butyl acetate             |                |       |       |       |       |           |
| 86   | dibromochloromethane      |                |       |       |       |       |           |
| 87   | 1,2-dibromoethane         |                |       |       |       |       |           |
| 88   | n-butyl ether             |                |       |       |       |       |           |
| 89   | chlorobenzene             |                |       |       |       |       |           |
| 90   | 1,1,1,2-tetrachloroethane |                |       |       |       |       |           |
| 91   | ethylbenzene              |                |       |       |       |       |           |
| 92   | m,p-xylene                |                |       |       |       |       |           |
| 93   | o-xylene                  |                |       |       |       |       |           |
| 94   | styrene                   |                |       |       |       |       |           |
| 95   | butyl acrylate            |                |       |       |       |       |           |

6.11.9  
6

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

|     |                            |       |       |       |      |     |      |      |              |
|-----|----------------------------|-------|-------|-------|------|-----|------|------|--------------|
| 96  | bromoform                  |       |       |       |      |     |      |      | -----NA----- |
| 97  | isopropylbenzene           |       |       |       |      |     |      |      | -----NA----- |
| 98  | cis-1,4-dichloro-2-butene  |       |       |       |      |     |      |      | -----NA----- |
| 99  | I 1,4-dichlorobenzene-d4   | 50.00 | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 8.33 |              |
| 100 | S 4-bromofluorobenzene (s) | 50.00 | 1.017 | 1.040 | -2.3 | 106 | 0.00 | 7.23 |              |
| 101 | bromobenzene               |       |       |       |      |     |      |      | -----NA----- |
| 102 | 1,1,2,2-tetrachloroethane  |       |       |       |      |     |      |      | -----NA----- |
| 103 | trans-1,4-dichloro-2-bute  |       |       |       |      |     |      |      | -----NA----- |
| 104 | 1,2,3-trichloropropane     |       |       |       |      |     |      |      | -----NA----- |
| 105 | n-propylbenzene            |       |       |       |      |     |      |      | -----NA----- |
| 106 | 2-chlorotoluene            |       |       |       |      |     |      |      | -----NA----- |
| 107 | 4-chlorotoluene            |       |       |       |      |     |      |      | -----NA----- |
| 108 | 4-ethyltoluene             |       |       |       |      |     |      |      | -----NA----- |
| 109 | 1,3,5-trimethylbenzene     |       |       |       |      |     |      |      | -----NA----- |
| 110 | tert-butylbenzene          |       |       |       |      |     |      |      | -----NA----- |
| 111 | 1,2,4-trimethylbenzene     |       |       |       |      |     |      |      | -----NA----- |
| 112 | sec-butylbenzene           |       |       |       |      |     |      |      | -----NA----- |
| 113 | 1,3-dichlorobenzene        |       |       |       |      |     |      |      | -----NA----- |
| 114 | p-isopropyltoluene         |       |       |       |      |     |      |      | -----NA----- |
| 115 | 1,4-dichlorobenzene        |       |       |       |      |     |      |      | -----NA----- |
| 116 | 1,2-dichlorobenzene        |       |       |       |      |     |      |      | -----NA----- |
| 117 | 1,4-diethylbenzene         |       |       |       |      |     |      |      | -----NA----- |
| 118 | n-butylbenzene             |       |       |       |      |     |      |      | -----NA----- |
| 119 | 1,2,4,5-tetramethylbenzen  |       |       |       |      |     |      |      | -----NA----- |
| 120 | 1,2-dibromo-3-chloropropa  |       |       |       |      |     |      |      | -----NA----- |
| 121 | 1,3,5-trichlorobenzene     |       |       |       |      |     |      |      | -----NA----- |
| 122 | 1,2,4-trichlorobenzene     |       |       |       |      |     |      |      | -----NA----- |
| 123 | hexachlorobutadiene        |       |       |       |      |     |      |      | -----NA----- |
| 124 | naphthalene                |       |       |       |      |     |      |      | -----NA----- |
| 125 | 1,2,3-trichlorobenzene     |       |       |       |      |     |      |      | -----NA----- |
| 126 | hexachloroethane           |       |       |       |      |     |      |      | -----NA----- |
| 127 | Benzyl chloride            |       |       |       |      |     |      |      | -----NA----- |
| 128 | 2-ethylhexyl acrylate      |       |       |       |      |     |      |      | -----NA----- |
| 129 | 2-methylnaphthalene        |       |       |       |      |     |      |      | -----NA----- |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M              Mon Apr 23 10:48:28 2018    RPT1

6.11.9  
6

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V2V2002-CC1992  
 Lab FileID: 2V50183.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\05...nng\v2v2002\2v50183.d Vial: 2  
 Acq On : 30 Apr 2018 6:42 am Operator: JessicaP  
 Sample : cc1992-20 Inst : MS2V  
 Misc : MS25681,V2V2002,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T. |
|------|--------------------------|--------|--------|--------------|-------|----------|------|
| 1 I  | Tert Butyl Alcohol-d9    | 1.000  | 1.000  | 0.0          | 133   | 0.00     | 2.27 |
| 2    | ethanol                  | 0.161  | 0.147  | 8.7          | 123   | 0.00     | 1.78 |
| 3 M  | tertiary butyl alcohol   | 1.448  | 1.337  | 7.7          | 126   | 0.00     | 2.31 |
| 4    | 1,4-dioxane              | 0.137  | 0.123  | 10.2         | 123   | 0.00     | 4.28 |
| 5 I  | pentafluorobenzene       | 1.000  | 1.000  | 0.0          | 134   | 0.00     | 3.36 |
| 6    | chlorodifluoromethane    | 0.790  | 0.785  | 0.6          | 132   | 0.00     | 1.14 |
| 7    | dichlorodifluoromethane  | 0.967  | 0.816  | 15.6         | 110   | 0.00     | 1.13 |
| 8    | freon 114                |        |        | -----NA----- |       |          |      |
| 9    | freon 142b               |        |        | -----NA----- |       |          |      |
| 10   | chloromethane            | 1.047  | 0.794  | 24.2#        | 100   | 0.00     | 1.24 |
| 11   | vinyl chloride           | 0.865  | 0.714  | 17.5         | 111   | 0.00     | 1.30 |
|      | ----- True               |        | Calc.  | % Drift      | ----- |          |      |
| 12   | bromomethane             | 20.000 | 16.923 | 15.4         | 112   | 0.00     | 1.49 |
|      | ----- AvgRF              |        | CCRF   | % Dev        | ----- |          |      |
| 13   | chloroethane             | 0.350  | 0.327  | 6.6          | 128   | 0.00     | 1.55 |
| 14   | trichlorofluoromethane   | 1.081  | 0.990  | 8.4          | 120   | 0.00     | 1.69 |
| 15   | vinyl bromide            | 0.576  | 0.496  | 13.9         | 115   | 0.00     | 1.66 |
| 16   | 1,3-butadiene            |        |        | -----NA----- |       |          |      |
| 17   | ethyl ether              | 0.310  | 0.296  | 4.5          | 130   | 0.00     | 1.85 |
| 18   | 2-chloropropane          | 0.911  | 0.852  | 6.5          | 125   | 0.00     | 1.92 |
| 19   | acrolein                 | 0.181  | 0.173  | 4.4          | 130   | 0.00     | 1.93 |
| 20   | freon 113                | 0.376  | 0.366  | 2.7          | 128   | 0.00     | 1.99 |
| 21   | 1,1-dichloroethene       | 0.970  | 0.927  | 4.4          | 125   | 0.00     | 1.99 |
| 22   | acetone                  | 0.074  | 0.070  | 5.4          | 126   | 0.00     | 2.01 |
| 23   | acetonitrile             | 0.118  | 0.110  | 6.8          | 124   | 0.00     | 2.17 |
|      | ----- True               |        | Calc.  | % Drift      | ----- |          |      |
| 24   | iodomethane              | 20.000 | 20.699 | -3.5         | 159   | 0.00     | 2.08 |
|      | ----- AvgRF              |        | CCRF   | % Dev        | ----- |          |      |
| 25   | carbon disulfide         | 1.494  | 1.436  | 3.9          | 130   | 0.00     | 2.12 |
| 26   | methylene chloride       | 0.661  | 0.600  | 9.2          | 125   | 0.00     | 2.27 |
| 27   | methyl acetate           | 0.650  | 0.660  | -1.5         | 136   | 0.00     | 2.18 |
| 28   | methyl tert butyl ether  | 1.822  | 1.735  | 4.8          | 127   | 0.00     | 2.42 |
| 29   | trans-1,2-dichloroethene | 0.586  | 0.545  | 7.0          | 124   | 0.00     | 2.43 |
| 30   | hexane                   | 0.355  | 0.371  | -4.5         | 134   | 0.00     | 2.59 |
| 31   | di-isopropyl ether       | 2.062  | 1.937  | 6.1          | 124   | 0.00     | 2.70 |
| 32   | ethyl tert-butyl ether   | 1.916  | 1.819  | 5.1          | 127   | 0.00     | 2.92 |
| 33 M | 1,1-dichloroethane       | 1.225  | 1.151  | 6.0          | 124   | 0.00     | 2.69 |

6.11.10  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2002-CC1992  
**Lab FileID:** 2V50183.D

|    |   |                           |       |       |       |     |      |      |
|----|---|---------------------------|-------|-------|-------|-----|------|------|
| 34 |   | chloroprene               | 0.882 | 0.834 | 5.4   | 123 | 0.00 | 2.73 |
| 35 |   | acrylonitrile             | 0.312 | 0.296 | 5.1   | 124 | 0.00 | 2.40 |
| 36 |   | vinyl acetate             | 0.095 | 0.087 | 8.4   | 119 | 0.00 | 2.68 |
| 37 |   | ethyl acetate             | 0.146 | 0.141 | 3.4   | 125 | 0.00 | 3.04 |
| 38 |   | 2-butanone                | 0.095 | 0.092 | 3.2   | 126 | 0.00 | 3.03 |
| 39 |   | 2,2-dichloropropane       | 0.849 | 0.863 | -1.6  | 137 | 0.00 | 3.05 |
| 40 |   | cis-1,2-dichloroethene    | 0.673 | 0.622 | 7.6   | 123 | 0.00 | 3.04 |
| 41 |   | propionitrile             | 0.147 | 0.140 | 4.8   | 124 | 0.00 | 3.06 |
| 42 |   | methyl acrylate           | 0.128 | 0.120 | 6.3   | 120 | 0.00 | 3.07 |
| 43 |   | bromochloromethane        | 0.300 | 0.299 | 0.3   | 128 | 0.00 | 3.19 |
| 44 |   | tetrahydrofuran           | 0.116 | 0.110 | 5.2   | 122 | 0.00 | 3.19 |
| 45 |   | chloroform                | 1.228 | 1.112 | 9.4   | 123 | 0.00 | 3.25 |
| 46 | S | dibromofluoromethane (s)  | 0.503 | 0.507 | -0.8  | 133 | 0.00 | 3.35 |
| 47 |   | methacrylonitrile         | 0.323 | 0.315 | 2.5   | 125 | 0.00 | 3.16 |
| 48 |   | 1,1,1-trichloroethane     | 0.999 | 0.895 | 10.4  | 120 | 0.00 | 3.36 |
| 49 |   | cyclohexane               | 0.739 | 0.682 | 7.7   | 122 | 0.00 | 3.41 |
| 50 |   | 1,1-dichloropropene       | 0.907 | 0.819 | 9.7   | 122 | 0.00 | 3.46 |
| 51 |   | carbon tetrachloride      | 0.806 | 0.744 | 7.7   | 123 | 0.00 | 3.47 |
| 52 |   | isobutyl alcohol          | 0.042 | 0.040 | 4.8   | 123 | 0.00 | 3.50 |
| 53 |   | tert-amyl alcohol         | 0.039 | 0.037 | 5.1   | 119 | 0.00 | 3.58 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 132 | 0.00 | 3.88 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.348 | 0.350 | -0.6  | 134 | 0.00 | 3.58 |
| 56 |   | n-butyl alcohol           | 0.019 | 0.019 | 0.0   | 122 | 0.00 | 3.95 |
| 57 | M | benzene                   | 1.650 | 1.524 | 7.6   | 122 | 0.00 | 3.60 |
| 58 |   | tert-amyl methyl ether    | 1.226 | 1.182 | 3.6   | 125 | 0.00 | 3.67 |
| 59 |   | iso-octane                | 1.022 | 0.983 | 3.8   | 124 | 0.00 | 3.67 |
| 60 |   | heptane                   | 0.212 | 0.217 | -2.4  | 134 | 0.00 | 3.78 |
| 61 |   | isopropyl acetate         | 0.084 | 0.084 | 0.0   | 126 | 0.00 | 3.61 |
| 62 |   | 1,2-dichloroethane        | 0.632 | 0.576 | 8.9   | 121 | 0.00 | 3.63 |
| 63 |   | trichloroethene           | 0.448 | 0.404 | 9.8   | 120 | 0.00 | 4.04 |
| 64 |   | ethyl acrylate            | 0.673 | 0.658 | 2.2   | 123 | 0.00 | 4.09 |
| 65 |   | 2-nitropropane            | 0.132 | 0.131 | 0.8   | 128 | 0.00 | 4.58 |
| 66 |   | 2-chloroethyl vinyl ether | 0.247 | 0.115 | 53.4# | 58  | 0.00 | 4.63 |
| 67 |   | methyl methacrylate       | 0.327 | 0.315 | 3.7   | 121 | 0.00 | 4.26 |
| 68 |   | 1,2-dichloropropane       | 0.479 | 0.442 | 7.7   | 121 | 0.00 | 4.23 |
| 69 |   | methylcyclohexane         | 0.586 | 0.558 | 4.8   | 121 | 0.00 | 4.22 |
| 70 |   | dibromomethane            | 0.336 | 0.313 | 6.8   | 123 | 0.00 | 4.29 |
| 71 |   | bromodichloromethane      | 0.624 | 0.587 | 5.9   | 123 | 0.00 | 4.42 |
| 72 |   | epichlorohydrin           | 0.054 | 0.054 | 0.0   | 119 | 0.00 | 4.66 |
| 73 |   | cis-1,3-dichloropropene   | 0.703 | 0.692 | 1.6   | 126 | 0.00 | 4.75 |
| 74 |   | 4-methyl-2-pentanone      | 0.224 | 0.222 | 0.9   | 122 | 0.00 | 4.86 |
| 75 |   | 3-methyl-1-butanol        | 0.015 | 0.015 | 0.0   | 124 | 0.00 | 4.90 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 131 | 0.00 | 6.16 |
| 77 | S | toluene-d8 (s)            | 1.292 | 1.287 | 0.4   | 130 | 0.00 | 4.96 |
| 78 |   | toluene                   | 1.142 | 1.038 | 9.1   | 121 | 0.00 | 5.01 |
| 79 |   | ethyl methacrylate        | 0.663 | 0.649 | 2.1   | 121 | 0.00 | 5.24 |
| 80 |   | trans-1,3-dichloropropene | 0.744 | 0.745 | -0.1  | 127 | 0.00 | 5.19 |
| 81 |   | 1,1,2-trichloroethane     | 0.458 | 0.424 | 7.4   | 122 | 0.00 | 5.35 |
| 82 |   | 2-hexanone                | 0.267 | 0.268 | -0.4  | 122 | 0.00 | 5.53 |
| 83 |   | tetrachloroethene         | 0.367 | 0.342 | 6.8   | 121 | 0.00 | 5.43 |
| 84 |   | 1,3-dichloropropane       | 0.759 | 0.718 | 5.4   | 123 | 0.00 | 5.49 |
| 85 |   | butyl acetate             | 0.400 | 0.382 | 4.5   | 121 | 0.00 | 5.63 |
| 86 |   | dibromochloromethane      | 0.543 | 0.532 | 2.0   | 126 | 0.00 | 5.66 |
| 87 |   | 1,2-dibromoethane         | 0.571 | 0.545 | 4.6   | 125 | 0.00 | 5.76 |
| 88 |   | n-butyl ether             | 1.991 | 1.901 | 4.5   | 120 | 0.00 | 6.29 |
| 89 |   | chlorobenzene             | 1.210 | 1.117 | 7.7   | 122 | 0.00 | 6.19 |
| 90 |   | 1,1,1,2-tetrachloroethane | 0.431 | 0.418 | 3.0   | 124 | 0.00 | 6.27 |
| 91 |   | ethylbenzene              | 2.096 | 1.968 | 6.1   | 121 | 0.00 | 6.28 |

6.11.10  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2002-CC1992  
**Lab FileID:** 2V50183.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 92    | m,p-xylene                | 0.750 | 0.706 | 5.9          | 122 | 0.00 | 6.39  |
| 93    | o-xylene                  | 1.627 | 1.548 | 4.9          | 122 | 0.00 | 6.74  |
| 94    | styrene                   | 1.210 | 1.201 | 0.7          | 125 | 0.00 | 6.75  |
| 95    | butyl acrylate            | 0.476 | 0.477 | -0.2         | 122 | 0.00 | 6.71  |
| 96    | bromoform                 | 0.358 | 0.359 | -0.3         | 127 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 1.842 | 1.732 | 6.0          | 120 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 0.213 | 0.184 | 13.6         | 108 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 129 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 1.017 | 1.016 | 0.1          | 128 | 0.00 | 7.23  |
| 101   | bromobenzene              | 1.066 | 1.026 | 3.8          | 126 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 1.712 | 1.634 | 4.6          | 122 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 0.352 | 0.298 | 15.3         | 103 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 0.358 | 0.346 | 3.4          | 123 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 4.957 | 4.717 | 4.8          | 120 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 0.952 | 0.916 | 3.8          | 124 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 0.968 | 0.902 | 6.8          | 121 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 3.137 | 3.022 | 3.7          | 121 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 2.510 | 2.355 | 6.2          | 120 | 0.00 | 7.93  |
| 111   | 1,2,4-trimethylbenzene    | 3.467 | 3.126 | 9.8          | 123 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 3.862 | 3.663 | 5.2          | 119 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 1.818 | 1.768 | 2.8          | 127 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 3.010 | 2.894 | 3.9          | 122 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 1.873 | 1.784 | 4.8          | 124 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 1.779 | 1.725 | 3.0          | 126 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 118   | n-butylbenzene            | 1.614 | 1.555 | 3.7          | 119 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 0.280 | 0.284 | -1.4         | 127 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 1.174 | 1.169 | 0.4          | 128 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 1.046 | 1.040 | 0.6          | 127 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 0.386 | 0.376 | 2.6          | 127 | 0.00 | 10.42 |
| 124   | naphthalene               | 3.412 | 3.334 | 2.3          | 123 | 0.00 | 10.51 |
| 125   | 1,2,3-trichlorobenzene    | 0.993 | 1.002 | -0.9         | 127 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 0.463 | 0.439 | 5.2          | 121 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 2.126 | 2.524 | -18.7        | 148 | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 0.689 | 0.637 | 7.5          | 126 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 1.333 | 1.401 | -5.1         | 133 | 0.00 | 11.61 |

(#) = Out of Range  
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 23:06:45 2018

6.11.10  
 6

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V2V2004-CC1992  
 Lab FileID: 2V50234.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\michellc\v2v2004\2v50234.d Vial: 2  
 Acq On : 1 May 2018 6:36 am Operator: JessicaP  
 Sample : cc1992-20 Inst : MS2V  
 Misc : MS25994,V2V2004,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|             | Compound                 | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T. |
|-------------|--------------------------|--------|--------|--------------|-------|----------|------|
| 1 I         | Tert Butyl Alcohol-d9    | 1.000  | 1.000  | 0.0          | 114   | 0.00     | 2.27 |
| 2           | ethanol                  | 0.161  | 0.154  | 4.3          | 110   | 0.00     | 1.78 |
| 3 M         | tertiary butyl alcohol   | 1.448  | 1.363  | 5.9          | 110   | 0.00     | 2.31 |
| 4           | 1,4-dioxane              | 0.137  | 0.131  | 4.4          | 113   | 0.00     | 4.27 |
| 5 I         | pentafluorobenzene       | 1.000  | 1.000  | 0.0          | 119   | 0.00     | 3.36 |
| 6           | chlorodifluoromethane    | 0.790  | 0.890  | -12.7        | 132   | 0.00     | 1.14 |
| 7           | dichlorodifluoromethane  | 0.967  | 0.835  | 13.7         | 99    | 0.00     | 1.13 |
| 8           | freon 114                |        |        | -----NA----- |       |          |      |
| 9           | freon 142b               |        |        | -----NA----- |       |          |      |
| 10          | chloromethane            | 1.047  | 0.884  | 15.6         | 98    | 0.00     | 1.24 |
| 11          | vinyl chloride           | 0.865  | 0.758  | 12.4         | 104   | 0.00     | 1.30 |
| ----- True  |                          |        | Calc.  | % Drift      | ----- |          |      |
| 12          | bromomethane             | 20.000 | 35.747 | -78.7#       | 187   | 0.00     | 1.49 |
| ----- AvgRF |                          |        | CCRF   | % Dev        | ----- |          |      |
| 13          | chloroethane             | 0.350  | 0.327  | 6.6          | 113   | 0.00     | 1.55 |
| 14          | trichlorofluoromethane   | 1.081  | 1.039  | 3.9          | 112   | 0.00     | 1.70 |
| 15          | vinyl bromide            | 0.576  | 0.521  | 9.5          | 107   | 0.00     | 1.66 |
| 16          | 1,3-butadiene            |        |        | -----NA----- |       |          |      |
| 17          | ethyl ether              | 0.310  | 0.320  | -3.2         | 124   | 0.00     | 1.85 |
| 18          | 2-chloropropane          | 0.911  | 0.909  | 0.2          | 118   | 0.00     | 1.92 |
| 19          | acrolein                 | 0.181  | 0.175  | 3.3          | 116   | 0.00     | 1.93 |
| 20          | freon 113                | 0.376  | 0.394  | -4.8         | 122   | 0.00     | 1.99 |
| 21          | 1,1-dichloroethene       | 0.970  | 1.007  | -3.8         | 120   | 0.00     | 1.99 |
| 22          | acetone                  | 0.074  | 0.070  | 5.4          | 112   | 0.00     | 2.01 |
| 23          | acetonitrile             | 0.118  | 0.110  | 6.8          | 110   | 0.00     | 2.17 |
| ----- True  |                          |        | Calc.  | % Drift      | ----- |          |      |
| 24          | iodomethane              | 20.000 | 9.623  | 51.9#        | 52    | 0.00     | 2.08 |
| ----- AvgRF |                          |        | CCRF   | % Dev        | ----- |          |      |
| 25          | carbon disulfide         | 1.494  | 1.507  | -0.9         | 121   | 0.00     | 2.12 |
| 26          | methylene chloride       | 0.661  | 0.652  | 1.4          | 120   | 0.00     | 2.27 |
| 27          | methyl acetate           | 0.650  | 0.650  | 0.0          | 119   | 0.00     | 2.18 |
| 28          | methyl tert butyl ether  | 1.822  | 1.829  | -0.4         | 119   | 0.00     | 2.42 |
| 29          | trans-1,2-dichloroethene | 0.586  | 0.575  | 1.9          | 115   | 0.00     | 2.43 |
| 30          | hexane                   | 0.355  | 0.405  | -14.1        | 130   | 0.00     | 2.59 |
| 31          | di-isopropyl ether       | 2.062  | 2.083  | -1.0         | 118   | 0.00     | 2.70 |
| 32          | ethyl tert-butyl ether   | 1.916  | 1.911  | 0.3          | 118   | 0.00     | 2.92 |
| 33 M        | 1,1-dichloroethane       | 1.225  | 1.229  | -0.3         | 117   | 0.00     | 2.69 |

6.11.11  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2004-CC1992  
**Lab FileID:** 2V50234.D

|    |   |                           |       |       |       |     |      |      |
|----|---|---------------------------|-------|-------|-------|-----|------|------|
| 34 |   | chloroprene               | 0.882 | 0.893 | -1.2  | 116 | 0.00 | 2.73 |
| 35 |   | acrylonitrile             | 0.312 | 0.307 | 1.6   | 113 | 0.00 | 2.40 |
| 36 |   | vinyl acetate             | 0.095 | 0.092 | 3.2   | 111 | 0.00 | 2.68 |
| 37 |   | ethyl acetate             | 0.146 | 0.149 | -2.1  | 117 | 0.00 | 3.04 |
| 38 |   | 2-butanone                | 0.095 | 0.094 | 1.1   | 115 | 0.00 | 3.03 |
| 39 |   | 2,2-dichloropropane       | 0.849 | 0.913 | -7.5  | 128 | 0.00 | 3.05 |
| 40 |   | cis-1,2-dichloroethene    | 0.673 | 0.660 | 1.9   | 116 | 0.00 | 3.04 |
| 41 |   | propionitrile             | 0.147 | 0.143 | 2.7   | 112 | 0.00 | 3.07 |
| 42 |   | methyl acrylate           | 0.128 | 0.127 | 0.8   | 112 | 0.00 | 3.07 |
| 43 |   | bromochloromethane        | 0.300 | 0.308 | -2.7  | 116 | 0.00 | 3.19 |
| 44 |   | tetrahydrofuran           | 0.116 | 0.111 | 4.3   | 109 | 0.00 | 3.20 |
| 45 |   | chloroform                | 1.228 | 1.187 | 3.3   | 116 | 0.00 | 3.25 |
| 46 | S | dibromofluoromethane (s)  | 0.503 | 0.519 | -3.2  | 120 | 0.00 | 3.35 |
| 47 |   | methacrylonitrile         | 0.323 | 0.319 | 1.2   | 112 | 0.00 | 3.16 |
| 48 |   | 1,1,1-trichloroethane     | 0.999 | 0.955 | 4.4   | 113 | 0.00 | 3.36 |
| 49 |   | cyclohexane               | 0.739 | 0.714 | 3.4   | 113 | 0.00 | 3.41 |
| 50 |   | 1,1-dichloropropene       | 0.907 | 0.877 | 3.3   | 115 | 0.00 | 3.47 |
| 51 |   | carbon tetrachloride      | 0.806 | 0.749 | 7.1   | 109 | 0.00 | 3.46 |
| 52 |   | isobutyl alcohol          | 0.042 | 0.040 | 4.8   | 110 | 0.00 | 3.50 |
| 53 |   | tert-amyl alcohol         | 0.039 | 0.038 | 2.6   | 108 | 0.00 | 3.58 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 120 | 0.00 | 3.88 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.348 | 0.361 | -3.7  | 126 | 0.00 | 3.58 |
| 56 |   | n-butyl alcohol           | 0.019 | 0.018 | 5.3   | 107 | 0.00 | 3.95 |
| 57 | M | benzene                   | 1.650 | 1.578 | 4.4   | 115 | 0.00 | 3.60 |
| 58 |   | tert-amyl methyl ether    | 1.226 | 1.189 | 3.0   | 115 | 0.00 | 3.68 |
| 59 |   | iso-octane                | 1.022 | 1.024 | -0.2  | 117 | 0.00 | 3.67 |
| 60 |   | heptane                   | 0.212 | 0.222 | -4.7  | 124 | 0.00 | 3.79 |
| 61 |   | isopropyl acetate         | 0.084 | 0.081 | 3.6   | 110 | 0.00 | 3.61 |
| 62 |   | 1,2-dichloroethane        | 0.632 | 0.615 | 2.7   | 118 | 0.00 | 3.62 |
| 63 |   | trichloroethene           | 0.448 | 0.419 | 6.5   | 113 | 0.00 | 4.04 |
| 64 |   | ethyl acrylate            | 0.673 | 0.666 | 1.0   | 113 | 0.00 | 4.09 |
| 65 |   | 2-nitropropane            | 0.132 | 0.122 | 7.6   | 108 | 0.00 | 4.58 |
| 66 |   | 2-chloroethyl vinyl ether | 0.247 | 0.103 | 58.3# | 47# | 0.00 | 4.63 |
| 67 |   | methyl methacrylate       | 0.327 | 0.324 | 0.9   | 113 | 0.00 | 4.26 |
| 68 |   | 1,2-dichloropropane       | 0.479 | 0.467 | 2.5   | 116 | 0.00 | 4.23 |
| 69 |   | methylcyclohexane         | 0.586 | 0.579 | 1.2   | 114 | 0.00 | 4.22 |
| 70 |   | dibromomethane            | 0.336 | 0.325 | 3.3   | 116 | 0.00 | 4.29 |
| 71 |   | bromodichloromethane      | 0.624 | 0.606 | 2.9   | 115 | 0.00 | 4.42 |
| 72 |   | epichlorohydrin           | 0.054 | 0.054 | 0.0   | 109 | 0.00 | 4.66 |
| 73 |   | cis-1,3-dichloropropene   | 0.703 | 0.705 | -0.3  | 117 | 0.00 | 4.75 |
| 74 |   | 4-methyl-2-pentanone      | 0.224 | 0.225 | -0.4  | 112 | 0.00 | 4.86 |
| 75 |   | 3-methyl-1-butanol        | 0.015 | 0.015 | 0.0   | 106 | 0.00 | 4.90 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 119 | 0.00 | 6.17 |
| 77 | S | toluene-d8 (s)            | 1.292 | 1.294 | -0.2  | 119 | 0.00 | 4.96 |
| 78 |   | toluene                   | 1.142 | 1.066 | 6.7   | 113 | 0.00 | 5.01 |
| 79 |   | ethyl methacrylate        | 0.663 | 0.675 | -1.8  | 114 | 0.00 | 5.24 |
| 80 |   | trans-1,3-dichloropropene | 0.744 | 0.757 | -1.7  | 118 | 0.00 | 5.19 |
| 81 |   | 1,1,2-trichloroethane     | 0.458 | 0.438 | 4.4   | 115 | 0.00 | 5.35 |
| 82 |   | 2-hexanone                | 0.267 | 0.267 | 0.0   | 110 | 0.00 | 5.53 |
| 83 |   | tetrachloroethene         | 0.367 | 0.348 | 5.2   | 112 | 0.00 | 5.43 |
| 84 |   | 1,3-dichloropropane       | 0.759 | 0.744 | 2.0   | 116 | 0.00 | 5.49 |
| 85 |   | butyl acetate             | 0.400 | 0.389 | 2.8   | 112 | 0.00 | 5.63 |
| 86 |   | dibromochloromethane      | 0.543 | 0.540 | 0.6   | 116 | 0.00 | 5.66 |
| 87 |   | 1,2-dibromoethane         | 0.571 | 0.551 | 3.5   | 115 | 0.00 | 5.76 |
| 88 |   | n-butyl ether             | 1.991 | 1.962 | 1.5   | 113 | 0.00 | 6.29 |
| 89 |   | chlorobenzene             | 1.210 | 1.136 | 6.1   | 113 | 0.00 | 6.19 |
| 90 |   | 1,1,1,2-tetrachloroethane | 0.431 | 0.420 | 2.6   | 113 | 0.00 | 6.27 |
| 91 |   | ethylbenzene              | 2.096 | 2.009 | 4.2   | 113 | 0.00 | 6.28 |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2004-CC1992  
**Lab FileID:** 2V50234.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 92    | m,p-xylene                | 0.750 | 0.710 | 5.3          | 111 | 0.00 | 6.39  |
| 93    | o-xylene                  | 1.627 | 1.576 | 3.1          | 113 | 0.00 | 6.74  |
| 94    | styrene                   | 1.210 | 1.213 | -0.2         | 115 | 0.00 | 6.76  |
| 95    | butyl acrylate            | 0.476 | 0.487 | -2.3         | 113 | 0.00 | 6.71  |
| 96    | bromoform                 | 0.358 | 0.349 | 2.5          | 112 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 1.842 | 1.757 | 4.6          | 111 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 0.213 | 0.215 | -0.9         | 114 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 119 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 1.017 | 1.029 | -1.2         | 120 | 0.00 | 7.23  |
| 101   | bromobenzene              | 1.066 | 1.027 | 3.7          | 116 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 1.712 | 1.624 | 5.1          | 111 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 0.352 | 0.349 | 0.9          | 112 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 0.358 | 0.332 | 7.3          | 108 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 4.957 | 4.767 | 3.8          | 111 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 0.952 | 0.916 | 3.8          | 114 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 0.968 | 0.917 | 5.3          | 113 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 3.137 | 3.046 | 2.9          | 112 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 2.510 | 2.347 | 6.5          | 110 | 0.00 | 7.94  |
| 111   | 1,2,4-trimethylbenzene    | 3.467 | 3.036 | 12.4         | 110 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 3.862 | 3.603 | 6.7          | 108 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 1.818 | 1.735 | 4.6          | 114 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 3.010 | 2.835 | 5.8          | 109 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 1.873 | 1.753 | 6.4          | 112 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 1.779 | 1.702 | 4.3          | 114 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 118   | n-butylbenzene            | 1.614 | 1.552 | 3.8          | 110 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 0.280 | 0.265 | 5.4          | 109 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 1.174 | 1.120 | 4.6          | 113 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 1.046 | 0.986 | 5.7          | 110 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 0.386 | 0.358 | 7.3          | 112 | 0.00 | 10.42 |
| 124   | naphthalene               | 3.412 | 3.075 | 9.9          | 105 | 0.00 | 10.51 |
| 125   | 1,2,3-trichlorobenzene    | 0.993 | 0.935 | 5.8          | 109 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 0.463 | 0.417 | 9.9          | 106 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 2.126 | 2.378 | -11.9        | 129 | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 0.689 | 0.554 | 19.6         | 101 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 1.333 | 1.104 | 17.2         | 96  | 0.00 | 11.60 |

(#) = Out of Range  
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 02:23:46 2018

6.11.11  
 6

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

## Response Factor Report MSY

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Thu May 17 08:41:26 2018  
 Response via : Initial Calibration

### Calibration Files

4 =Y178409.D 8 =Y178410.D 0.5 =Y178406.D 50 =Y178412.D  
 100 =Y178413.D 1 =Y178407.D 200 =Y178414.D 20 =Y178411.D  
 2 =Y178408.D 0.2 =Y178405.D = =

| Compound                                  | 4 | 8 | 0.5   | 50    | 100   | 1     | 200   | 20    | 2 | 0.2 | Avg   | %RSD  |
|---|---|---|-------|-------|-------|-------|-------|-------|---|-----|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD----- |   |   |       |       |       |       |       |       |   |     |       |       |
| 2) ethanol                                |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 3) tertiary butyl alcohol                 |   |   |       |       |       |       |       |       |   |     |       |       |
| 1.644 1.453                               |   |   | 1.436 | 1.567 |       | 1.500 | 1.520 |       |   |     | 1.520 | 5.05  |
| 4) 1,4-dioxane                            |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.111 0.103                               |   |   | 0.116 | 0.126 |       | 0.122 | 0.114 |       |   |     | 0.115 | 6.95  |
| 5) I pentafluorobenzene -----ISTD-----    |   |   |       |       |       |       |       |       |   |     |       |       |
| 6) chlorodifluoromethane                  |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.942 0.846                               |   |   | 0.836 | 0.915 | 1.071 | 0.840 | 0.899 | 1.005 |   |     | 0.919 | 9.18  |
| 7) dichlorodifluoromethane                |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.867 0.809                               |   |   | 0.700 | 0.738 | 0.956 | 0.701 | 0.804 | 0.881 |   |     | 0.807 | 11.38 |
| 8) Freon 123                              |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 9) Freon 114                              |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 10) chloromethane                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 1.181 1.106                               |   |   | 0.956 | 1.031 |       | 0.973 | 1.148 | 1.088 |   |     | 1.069 | 8.01  |
| 11) vinyl chloride                        |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.994 0.920                               |   |   | 0.832 | 0.937 | 0.912 | 0.898 | 0.940 | 0.867 |   |     | 0.913 | 5.36  |
| 12) 1,3-butadiene                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.917 0.801                               |   |   | 0.686 | 0.795 |       | 0.729 | 0.798 | 0.891 |   |     | 0.803 | 10.18 |
| 13) bromomethane                          |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.825 0.653                               |   |   | 0.533 | 0.585 |       | 0.545 | 0.632 |       |   |     | 0.629 | 17.01 |
| 14) chloroethane                          |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.592 0.519 0.423                         |   |   | 0.449 | 0.481 |       | 0.459 | 0.508 | 0.596 |   |     | 0.503 | 12.71 |
| 15) vinyl Bromide                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.598 0.549                               |   |   | 0.509 | 0.554 |       | 0.542 | 0.565 |       |   |     | 0.553 | 5.32  |
| 16) trichlorofluoromethane                |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.840 0.770                               |   |   | 0.728 | 0.775 | 0.797 | 0.756 | 0.804 | 0.742 |   |     | 0.776 | 4.69  |
| 17) ethyl ether                           |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.326 0.278                               |   |   | 0.276 | 0.294 | 0.290 | 0.282 | 0.298 | 0.317 |   |     | 0.295 | 6.14  |
| 18) 2-chloropropane                       |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.251 0.234                               |   |   | 0.210 | 0.218 |       | 0.208 | 0.226 | 0.246 |   |     | 0.227 | 7.45  |
| 19) acrolein                              |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.137                                     |   |   | 0.097 | 0.096 |       | 0.094 | 0.115 |       |   |     | 0.108 | 16.92 |
| 20) freon 113                             |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.432 0.392                               |   |   | 0.373 | 0.396 |       | 0.385 | 0.405 | 0.365 |   |     | 0.393 | 5.64  |
| 21) 1,1-dichloroethene                    |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.856 0.797 0.660                         |   |   | 0.735 | 0.782 | 0.723 | 0.737 | 0.784 | 0.739 |   |     | 0.757 | 7.31  |
| 22) acetone                               |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.067 0.064                               |   |   | 0.056 | 0.057 |       | 0.053 | 0.062 | 0.074 |   |     | 0.062 | 11.85 |
| 23) acetonitrile                          |   |   |       |       |       |       |       |       |   |     |       |       |

6.11.12  
6

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|     |  |       |       |       |       |       |       |       |       |  |
|-----|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 24) | iodomethane  | 0.078 | 0.077 | 0.067 | 0.072 | 0.068 | 0.077 | 0.073 | 7.04  |  |
| 25) | carbon disulfide   | 0.968 | 0.949 | 0.863 | 0.871 | 0.952 | 0.912 | 0.915 | 4.08  |  |
| 26) | methylene chloride   | 1.977 | 1.859 | 1.837 | 1.735 | 1.855 | 1.805 | 1.771 | 4.35  |  |
| 27) | methyl acetate   | 0.652 | 0.591 | 0.619 | 0.543 | 0.588 | 0.638 | 0.562 | 5.90  |  |
| 28) | methyl tert butyl ether                                    | 0.393 | 0.355 | 0.335 | 0.374 | 0.351 | 0.365 | 0.362 | 5.56  |  |
| 29) | trans-1,2-dichloroethene                                   | 1.851 | 1.742 | 2.327 | 1.580 | 1.712 | 1.789 | 1.635 | 12.17 |  |
| 30) | hexane   | 0.826 | 0.754 | 0.790 | 0.718 | 0.754 | 0.711 | 0.698 | 5.40  |  |
| 31) | di-isopropyl ether   | 0.815 | 0.775 | 0.688 | 0.701 | 0.663 | 0.761 | 0.700 | 7.53  |  |
| 32) | ethyl tert-butyl ether                                     | 2.500 | 2.264 | 2.124 | 2.267 | 2.974 | 2.130 | 2.279 | 11.81 |  |
| 33) | 2-butanone   | 2.100 | 1.962 | 2.194 | 1.890 | 2.062 | 1.968 | 1.986 | 5.08  |  |
| 34) | 1,1-dichloroethane   | 0.055 | 0.049 | 0.054 | 0.058 | 0.057 | 0.057 | 0.036 | 14.78 |  |
| 35) | chloroprene  | 1.027 | 0.985 | 1.013 | 0.909 | 0.968 | 0.877 | 0.906 | 5.43  |  |
| 36) | acrylonitrile  | 0.818 | 0.755 | 0.827 | 0.706 | 0.731 | 0.801 | 0.676 | 6.68  |  |
| 37) | vinyl acetate  | 0.142 | 0.197 | 0.172 | 0.187 | 0.168 | 0.183 | 0.198 | 13.02 |  |
| 38) | ethyl acetate  | 0.057 | 0.068 | 0.080 | 0.075 | 0.074 | 0.071 | 12.13 |       |  |
|     | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |  |
| 39) | 2,2-dichloropropane  | 0.115 | 0.066 | 0.069 | 0.079 | 0.086 | 0.083 | 23.78 |       |  |
| 40) | cis-1,2-dichloroethene                                     | 0.978 | 0.848 | 0.761 | 0.804 | 1.014 | 0.758 | 0.833 | 11.59 |  |
| 41) | propionitrile  | 0.720 | 0.610 | 0.550 | 0.581 | 0.881 | 0.545 | 0.572 | 19.33 |  |
| 42) | bromochloromethane   | 0.081 | 0.075 | 0.072 | 0.076 | 0.074 | 0.079 | 0.063 | 7.68  |  |
| 43) | tetrahydrofuran  | 0.363 | 0.335 | 0.291 | 0.320 | 0.351 | 0.300 | 0.336 | 9.12  |  |
| 44) | chloroform   | 0.053 | 0.058 | 0.059 | 0.065 | 0.064 | 0.071 | 0.062 | 10.43 |  |
| 45) | tert-Butyl Formate   | 1.008 | 0.918 | 0.854 | 0.914 | 1.116 | 0.859 | 0.903 | 9.19  |  |
|     | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |  |
| 46) | isobutyl alcohol   | 0.234 | 0.228 | 0.251 | 0.241 | 0.251 | 0.241 | 4.25  |       |  |
| 47) | dibromofluoromethane (s)                                   | 0.141 | 0.130 | 0.121 | 0.125 | 0.116 | 0.120 | 0.131 | 6.26  |  |
| 48) | methacrylonitrile  | 0.447 | 0.444 | 0.442 | 0.447 | 0.452 | 0.441 | 0.458 | 1.43  |  |
| 49) | 1,1,1-trichloroethane                                      | 0.159 | 0.182 | 0.177 | 0.186 | 0.270 | 0.183 | 0.195 | 17.63 |  |
| 50) | cyclohexane  | 0.914 | 0.780 | 1.062 | 0.751 | 0.805 | 0.858 | 0.762 | 11.56 |  |
| 51) | 1,1-dichloropropene  | 0.877 | 0.807 | 0.890 | 0.741 | 0.760 | 0.796 | 0.769 | 6.23  |  |
| 52) | tert-amyl alcohol  | 0.685 | 0.642 | 0.728 | 0.615 | 0.651 | 0.614 | 0.608 | 8.84  |  |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|       |                                    |       |       |       |       |       |       |       |       |       |       |       |
|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|       | 0.025                              | 0.026 | 0.021 | 0.023 | 0.022 | 0.024 | 0.023 | 9.12  |       |       |       |       |
| 53)   | carbon tetrachloride               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.742                              | 0.673 | 0.587 | 0.648 | 0.683 | 0.695 | 0.649 | 0.696 | 0.645 | 0.669 | 6.49  |       |
| 54) I | 1,4-difluorobenzene -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 55)   | 1,2-dichloroethane-d4 (s)          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.306                              | 0.301 | 0.291 | 0.284 | 0.287 | 0.289 | 0.283 | 0.295 | 0.297 | 0.292 | 0.292 | 2.47  |
| 56)   | 2,2,4-trimethylpentane             |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.559                              | 1.416 | 1.812 | 1.286 | 1.395 | 1.690 | 1.381 | 1.418 | 1.452 | 1.534 | 1.494 | 10.57 |
| 57)   | tert-amyl methyl ether             |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.344                              | 1.320 | 1.149 | 1.262 | 1.563 | 1.200 | 1.256 | 1.253 | 1.293 | 9.67  |       |       |
| 58)   | n-butyl alcohol                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.009                              | 0.011 | 0.010 | 0.011 | 0.011 | 0.012 | 0.011 | 8.06  |       |       |       |       |
| 59)   | benzene                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.550                              | 1.442 | 1.761 | 1.312 | 1.400 | 1.512 | 1.299 | 1.405 | 1.489 | 1.463 | 9.58  |       |
| 60)   | heptane                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.286                              | 0.276 | 0.255 | 0.269 | 0.250 | 0.277 | 0.379 | 0.285 | 15.24 |       |       |       |
| 61)   | isopropyl acetate                  |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.043                              | 0.051 | 0.057 | 0.061 | 0.061 | 0.058 | 0.055 | 12.52 |       |       |       |       |
| 62)   | 1,2-dichloroethane                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.457                              | 0.426 | 0.577 | 0.389 | 0.420 | 0.452 | 0.383 | 0.422 | 0.424 | 0.417 | 0.437 | 12.44 |
| 63)   | trichloroethene                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.374                              | 0.341 | 0.415 | 0.308 | 0.327 | 0.379 | 0.305 | 0.329 | 0.346 | 0.369 | 0.349 | 9.94  |
| 64)   | ethyl acrylate                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.271                              | 0.365 | 0.332 | 0.359 | 0.350 | 0.352 | 0.338 | 10.31 |       |       |       |       |
| 65)   | 2-nitropropane                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.078                              | 0.076 | 0.062 | 0.068 | 0.064 | 0.069 | 0.069 | 9.25  |       |       |       |       |
| 66)   | 2-chloroethyl vinyl ether          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.180                              | 0.167 | 0.158 | 0.170 | 0.153 | 0.164 | 0.173 | 0.155 | 0.165 | 5.66  |       |       |
| 67)   | methyl methacrylate                |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.059                              | 0.066 | 0.067 | 0.072 | 0.071 | 0.068 | 0.068 | 6.77  |       |       |       |       |
| 68)   | 1,2-dichloropropane                |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.406                              | 0.385 | 0.371 | 0.361 | 0.390 | 0.359 | 0.364 | 0.380 | 0.385 | 0.378 | 4.11  |       |
| 69)   | methylcyclohexane                  |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.763                              | 0.686 | 0.903 | 0.609 | 0.656 | 0.702 | 0.628 | 0.670 | 0.653 | 0.697 | 12.84 |       |
| 70)   | dibromomethane                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.217                              | 0.204 | 0.182 | 0.188 | 0.201 | 0.214 | 0.188 | 0.201 | 0.187 | 0.198 | 6.30  |       |
| 71)   | bromodichloromethane               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.500                              | 0.465 | 0.637 | 0.440 | 0.474 | 0.503 | 0.448 | 0.461 | 0.503 | 0.492 | 12.04 |       |
| 72)   | epichlorohydrin                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.034                              | 0.026 | 0.028 | 0.027 | 0.032 | 0.029 | 11.70 |       |       |       |       |       |
| 73)   | cis-1,3-dichloropropene            |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.577                              | 0.553 | 0.556 | 0.538 | 0.582 | 0.555 | 0.549 | 0.562 | 0.528 | 0.556 | 3.07  |       |
| 74)   | 4-methyl-2-pentanone               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.128                              | 0.123 | 0.075 | 0.117 | 0.126 | 0.097 | 0.122 | 0.131 | 0.114 | 0.115 | 15.56 |       |
| 75)   | 3-methyl-1-butanol                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.010                              | 0.011 | 0.010 | 0.010 | 0.010 | 0.011 | 0.009 | 0.010 | 7.35  |       |       |       |
| 76) I | chlorobenzene-d5 -----ISTD-----    |       |       |       |       |       |       |       |       |       |       |       |
| 77)   | toluene-d8 (s)                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.351                              | 1.352 | 1.344 | 1.374 | 1.371 | 1.344 | 1.355 | 1.372 | 1.368 | 1.356 | 1.359 | 0.85  |
| 78)   | toluene                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.031                              | 0.958 | 0.986 | 0.924 | 0.979 | 0.927 | 0.896 | 0.950 | 0.988 | 0.922 | 0.956 | 4.24  |
| 79)   | trans-1,3-dichloropropene          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.609                              | 0.552 | 0.537 | 0.546 | 0.578 | 0.611 | 0.535 | 0.579 | 0.557 | 0.592 | 0.570 | 4.97  |
| 80)   | ethyl methacrylate                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.544                              | 0.483 | 0.453 | 0.466 | 0.445 | 0.496 | 0.481 | 7.55  |       |       |       |       |
| 81)   | 1,1,2-trichloroethane              |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.305                              | 0.281 | 0.266 | 0.282 | 0.322 | 0.260 | 0.284 | 0.277 | 0.285 | 7.08  |       |       |
| 82)   | 2-hexanone                         |       |       |       |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|      |  |                |       |       |       |       |       |       |       |       |       |       |       |
|------|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)  | tetrachloroethene  | 0.140          | 0.139 | 0.131 | 0.137 | 0.109 | 0.129 | 0.140 | 0.111 | 0.129 | 9.83  |       |       |
| 84)  | 1,3-dichloropropane  | 0.426          | 0.367 | 0.366 | 0.368 | 0.388 | 0.364 | 0.364 | 0.402 | 0.402 | 5.84  |       |       |
| 85)  | butyl acetate  | 0.562          | 0.530 | 0.549 | 0.490 | 0.527 | 0.499 | 0.490 | 0.528 | 0.510 | 7.55  |       |       |
|      | *This compound does not meet initial calibration criteria* |                |       |       |       |       |       |       |       |       |       |       |       |
|      |  | 0.206          |       | 0.202 | 0.218 |       | 0.205 | 0.217 |       | 0.209 | 3.57  |       |       |
| 86)  | dibromochloromethane                                       | 0.371          | 0.363 | 0.335 | 0.354 | 0.386 | 0.321 | 0.368 | 0.381 | 0.361 | 5.81  |       |       |
| 87)  | 1,2-dibromoethane  | 0.327          | 0.325 | 0.323 | 0.312 | 0.333 | 0.291 | 0.312 | 0.328 | 0.314 | 3.95  |       |       |
| 88)  | 3,3-Dimethyl-1-Butanol                                     | 0.047          | 0.048 | 0.043 | 0.047 |       | 0.045 | 0.051 | 0.045 | 0.047 | 5.56  |       |       |
| 89)  | n-butyl ether  | 2.001          | 1.869 | 1.782 | 1.896 |       | 1.720 | 1.865 | 1.844 | 1.854 | 4.78  |       |       |
| 90)  | chlorobenzene  | 1.105          | 1.030 | 1.146 | 0.993 | 1.067 | 0.991 | 0.986 | 1.070 | 1.091 | 7.93  |       |       |
| 91)  | 1,1,1,2-tetrachloroethane                                  | 0.438          | 0.406 | 0.339 | 0.406 | 0.443 | 0.406 | 0.409 | 0.440 | 0.408 | 7.60  |       |       |
| 92)  | ethylbenzene   | 1.898          | 1.791 | 2.128 | 1.669 | 1.783 | 1.700 | 1.632 | 1.813 | 1.844 | 14.23 |       |       |
| 93)  | m,p-xylene   | 0.709          | 0.665 | 0.729 | 0.637 | 0.680 | 0.623 | 0.624 | 0.670 | 0.661 | 5.20  |       |       |
| 94)  | o-xylene   | 1.644          | 1.521 | 1.892 | 1.437 | 1.559 | 1.501 | 1.429 | 1.556 | 1.622 | 11.77 |       |       |
| 95)  | styrene  | 1.270          | 1.134 | 1.237 | 1.111 | 1.178 | 1.126 | 1.097 | 1.164 | 1.149 | 5.96  |       |       |
| 96)  | bromoform  | 0.236          | 0.232 | 0.228 | 0.234 | 0.251 | 0.194 | 0.239 | 0.242 | 0.218 | 7.17  |       |       |
| 97)  | butyl acrylate   | 0.728          | 0.643 | 0.689 | 0.728 |       | 0.683 | 0.786 | 0.554 | 0.687 | 10.77 |       |       |
| 98)  | isopropylbenzene   | 1.949          | 1.779 | 1.888 | 1.728 | 1.871 | 1.767 | 1.709 | 1.855 | 1.806 | 7.47  |       |       |
| 99)  | cis-1,4-dichloro-2-butene                                  | 0.136          | 0.129 | 0.129 | 0.140 |       | 0.128 | 0.137 | 0.089 | 0.127 | 13.57 |       |       |
| 100) | I 1,4-dichlorobenzene-d                                    | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 101) | 4-bromofluorobenzene (s)                                   | 0.821          | 0.825 | 0.834 | 0.833 | 0.829 | 0.838 | 0.827 | 0.818 | 0.843 | 0.830 | 0.92  |       |
| 102) | bromobenzene   | 0.865          | 0.854 | 0.846 | 0.822 | 0.893 | 0.821 | 0.834 | 0.857 | 0.849 | 0.817 | 2.78  |       |
| 103) | 1,1,2,2-tetrachloroethane                                  | 0.881          | 0.815 | 1.117 | 0.775 | 0.829 | 0.985 | 0.779 | 0.829 | 0.913 | 0.880 | 12.63 |       |
| 104) | trans-1,4-dichloro-2-butene                                | 0.198          | 0.175 | 0.164 | 0.170 | 0.197 | 0.156 | 0.173 | 0.174 | 0.176 | 8.38  |       |       |
| 105) | 1,2,3-trichloropropane                                     | 0.214          | 0.185 | 0.170 | 0.187 | 0.129 | 0.172 | 0.177 | 0.186 | 0.178 | 13.42 |       |       |
| 106) | n-propylbenzene  | 4.127          | 3.859 | 4.773 | 3.695 | 3.977 | 3.768 | 3.622 | 3.941 | 4.079 | 5.832 | 4.167 | 16.02 |
| 107) | 4-Ethyltoluene   |                |       |       |       |       |       |       |       | 0.000 | -1.00 |       |       |
| 108) | 2-chlorotoluene  | 0.862          | 0.821 | 0.785 | 0.793 | 0.864 | 0.847 | 0.800 | 0.828 | 0.890 | 0.626 | 0.812 | 9.08  |
| 109) | 4-chlorotoluene  | 2.505          | 2.379 | 3.207 | 2.171 | 2.381 | 2.503 | 2.191 | 2.342 | 2.502 | 2.465 | 12.39 |       |
| 110) | 1,3,5-trimethylbenzene                                     | 2.925          | 2.801 | 3.060 | 2.732 | 3.032 | 2.693 | 2.766 | 2.781 | 2.889 | 3.912 | 2.959 | 12.06 |
| 111) | tert-butylbenzene  | 0.526          | 0.474 | 0.490 | 0.500 | 0.557 | 0.452 | 0.519 | 0.514 | 0.468 | 0.500 | 6.56  |       |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|      |                             |                |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112) | 1,2,4-trimethylbenzene      | 2.986          | 2.870 | 3.238 | 2.795 | 3.089 | 2.686 | 2.830 | 2.906 | 3.004 | 3.424 | 2.983 | 7.39  |
| 113) | sec-butylbenzene            | 3.868          | 3.613 | 4.225 | 3.547 | 3.931 | 3.700 | 3.607 | 3.738 | 3.670 | 4.381 | 3.828 | 7.28  |
| 114) | 1,3-dichlorobenzene         | 1.750          | 1.665 | 1.721 | 1.597 | 1.746 | 1.700 | 1.611 | 1.665 | 1.794 | 1.753 | 1.700 | 3.80  |
| 115) | p-isopropyltoluene          | 3.239          | 3.111 | 3.485 | 3.021 | 3.334 | 3.042 | 3.073 | 3.186 | 3.076 | 3.676 | 3.224 | 6.68  |
| 116) | 1,4-dichlorobenzene         | 1.878          | 1.722 | 2.033 | 1.609 | 1.749 | 1.855 | 1.624 | 1.700 | 1.785 | 1.855 | 1.781 | 7.23  |
| 117) | 1,2-dichlorobenzene         | 1.790          | 1.692 | 1.868 | 1.629 | 1.786 | 1.641 | 1.652 | 1.711 | 1.656 | 1.890 | 1.732 | 5.55  |
| 118) | 1,4-Diethylbenzene          |                |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 119) | n-butylbenzene              | 1.755          | 1.667 | 1.985 | 1.657 | 1.830 | 1.579 | 1.657 | 1.764 | 1.705 | 1.817 | 1.742 | 6.65  |
| 120) | 1,2,4,5-Tetramethylbenzene  |                |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 121) | 1,2-dibromo-3-chloropropane | 0.202          | 0.178 |       | 0.170 | 0.192 |       | 0.177 | 0.185 | 0.174 |       | 0.183 | 6.16  |
| 122) | 1,3,5-Trichlorobenzene      | 1.695          | 1.610 | 1.836 | 1.590 | 1.825 | 1.603 | 1.647 | 1.747 | 1.578 | 2.251 | 1.738 | 11.70 |
| 123) | 1,2,4-trichlorobenzene      | 1.433          | 1.310 | 1.326 | 1.333 | 1.561 | 1.293 | 1.414 | 1.411 | 1.329 | 1.557 | 1.397 | 7.01  |
| 124) | hexachlorobutadiene         | 0.922          | 0.829 | 1.057 | 0.838 | 0.933 | 0.833 | 0.813 | 0.887 | 0.897 | 0.839 | 0.885 | 8.31  |
| 125) | naphthalene                 | 2.622          | 2.382 | 2.840 | 2.326 | 2.751 | 2.468 | 2.535 | 2.602 | 2.535 | 3.062 | 2.612 | 8.48  |
| 126) | 1,2,3-trichlorobenzene      | 1.296          | 1.178 | 1.201 | 1.184 | 1.383 | 1.199 | 1.271 | 1.286 | 1.191 | 1.298 | 1.248 | 5.46  |
| 127) | hexachloroethane            | 0.512          | 0.524 | 0.388 | 0.559 | 0.627 | 0.425 | 0.596 | 0.555 | 0.490 |       | 0.520 | 14.82 |
| 128) | Benzyl chloride             | 1.635          | 1.587 |       | 1.449 | 1.556 | 1.943 | 1.440 | 1.573 | 1.603 |       | 1.598 | 9.75  |
| 129) | 2-ethylhexyl acrylate       | 1.268          | 0.957 |       | 0.990 | 1.206 |       | 1.119 | 1.089 | 1.337 |       | 1.138 | 12.37 |
| 130) | 2-methylnaphthalene         |                | 1.086 |       | 1.147 | 1.469 |       | 1.423 | 1.223 |       |       | 1.269 | 13.32 |
| 131) | pentafluorobenzene(a)       | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 132) | freon 142b                  | 0.979          | 0.882 | 1.115 | 1.040 | 0.898 | 1.015 | 0.968 | 0.827 | 0.886 |       | 0.957 | 9.56  |
| 133) | freon 141b                  | 0.911          | 0.862 | 0.648 | 0.941 | 0.828 | 0.853 | 0.873 | 0.774 | 0.814 |       | 0.834 | 10.29 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MYS7713.M Thu May 17 08:44:26 2018 RPT1

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# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7713-ICV7713  
 Lab FileID: Y178417.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178417.D Vial: 14  
 Acq On : 28 Feb 2018 12:17 am Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Mon Mar 05 14:04:44 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 104   | -0.01    | 6.99  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.520 | 1.613 | -6.1         | 117   | 0.00     | 7.11  |
| 4   | 1,4-dioxane              | 0.115 | 0.126 | -9.6         | 114   | 0.00     | 10.84 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 98    | 0.00     | 9.22  |
| 6   | chlorodifluoromethane    | 0.919 | 0.807 | 12.2         | 94    | 0.00     | 3.86  |
| 7   | dichlorodifluoromethane  | 0.807 | 0.829 | -2.7         | 116   | 0.00     | 3.86  |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |       |
| 9   | Freon 114                |       |       | -----NA----- |       |          |       |
| 10  | chloromethane            | 1.069 | 1.144 | -7.0         | 117   | 0.00     | 4.19  |
| 11  | vinyl chloride           | 0.913 | 0.891 | 2.4          | 105   | 0.00     | 4.42  |
| 12  | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 13  | bromomethane             | 0.629 | 0.618 | 1.7          | 114   | 0.00     | 5.01  |
| 14  | chloroethane             | 0.503 | 0.501 | 0.4          | 109   | 0.00     | 5.16  |
| 15  | vinyl Bromide            | 0.553 | 0.558 | -0.9         | 107   | 0.00     | 5.48  |
| 16  | trichlorofluoromethane   | 0.776 | 0.773 | 0.4          | 104   | 0.01     | 5.61  |
| 17  | ethyl ether              | 0.295 | 0.296 | -0.3         | 105   | 0.00     | 5.96  |
| 18  | 2-chloropropane          | 0.227 | 0.225 | 0.9          | 105   | 0.00     | 6.13  |
| 19  | acrolein                 | 0.108 | 0.110 | -1.9         | 111   | 0.00     | 6.16  |
| 20  | freon 113                | 0.393 | 0.443 | -12.7        | 116   | 0.00     | 6.38  |
| 21  | 1,1-dichloroethene       | 0.757 | 0.741 | 2.1          | 99    | 0.00     | 6.36  |
| 22  | acetone                  | 0.062 | 0.055 | 11.3         | 96    | 0.00     | 6.37  |
| 23  | acetonitrile             | 0.073 | 0.069 | 5.5          | 102   | 0.00     | 6.75  |
| 24  | iodomethane              | 0.919 | 0.928 | -1.0         | 104   | 0.00     | 6.62  |
| 25  | carbon disulfide         | 1.825 | 1.829 | -0.2         | 103   | 0.00     | 6.76  |
| 26  | methylene chloride       | 0.595 | 0.598 | -0.5         | 108   | 0.00     | 7.03  |
| 27  | methyl acetate           | 0.362 | 0.386 | -6.6         | 113   | 0.00     | 6.84  |
| 28  | methyl tert butyl ether  | 1.786 | 1.800 | 0.8          | 112   | 0.00     | 7.40  |
| 29  | trans-1,2-dichloroethene | 0.753 | 0.757 | -0.5         | 103   | 0.00     | 7.42  |
| 30  | hexane                   | 0.729 | 0.603 | 17.3         | 86    | 0.00     | 7.76  |
| 31  | di-isopropyl ether       | 2.350 | 2.362 | -0.5         | 109   | 0.00     | 8.00  |
| 32  | ethyl tert-butyl ether   | 2.003 | 2.135 | -6.6         | 110   | 0.00     | 8.45  |
| 33  | 2-butanone               | 0.052 | 0.059 | -13.5        | 106   | 0.00     | 8.63  |
| 34  | 1,1-dichloroethane       | 0.962 | 0.985 | -2.4         | 106   | 0.00     | 7.96  |
| 35  | chloroprene              | 0.757 | 0.756 | 0.1          | 105   | 0.00     | 8.09  |
| 36  | acrylonitrile            | 0.174 | 0.220 | -26.4        | 125   | 0.00     | 7.30  |
| 37  | vinyl acetate            | 0.071 | 0.087 | -22.5        | 126   | 0.00     | 7.95  |
| 38  | ethyl acetate            | 0.083 | 0.078 | 6.0          | 115   | 0.00     | 8.68  |
| 39  | 2,2-dichloropropane      | 0.870 | 0.818 | 6.0          | 105   | 0.00     | 8.71  |
| 40  | cis-1,2-dichloroethene   | 0.657 | 0.600 | 8.7          | 107   | 0.00     | 8.68  |
| 41  | propionitrile            | 0.074 | 0.075 | -1.4         | 103   | 0.00     | 8.69  |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178417.D

|      |                           |       |       |        |     |      |       |
|------|---------------------------|-------|-------|--------|-----|------|-------|
| 42   | bromochloromethane        | 0.325 | 0.362 | -11.4  | 111 | 0.00 | 8.98  |
| 43   | tetrahydrofuran           | 0.062 | 0.068 | -9.7   | 113 | 0.00 | 9.05  |
| 44   | chloroform                | 0.940 | 0.927 | 1.4    | 106 | 0.00 | 9.04  |
| 45   | tert-Butyl Formate        | 0.241 | 0.339 | -40.7# | 145 | 0.01 | 9.11  |
| 46   | isobutyl alcohol          | 0.126 | 0.131 | -4.0   | 106 | 0.00 | 9.42  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.448 | -0.2   | 98  | 0.00 | 9.24  |
| 48   | methacrylonitrile         | 0.191 | 0.190 | 0.5    | 105 | 0.00 | 8.89  |
| 49   | 1,1,1-trichloroethane     | 0.845 | 0.788 | 6.7    | 103 | 0.00 | 9.33  |
| 50   | cyclohexane               | 0.807 | 0.781 | 3.2    | 103 | 0.00 | 9.43  |
| 51   | 1,1-dichloropropene       | 0.639 | 0.655 | -2.5   | 104 | 0.00 | 9.51  |
| 52   | tert-amyl alcohol         | 0.023 | 0.026 | -13.0  | 122 | 0.00 | 9.61  |
| 53   | carbon tetrachloride      | 0.669 | 0.679 | -1.5   | 102 | 0.00 | 9.54  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0    | 97  | 0.00 | 10.13 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.290 | 0.7    | 99  | 0.00 | 9.65  |
| 56   | 2,2,4-trimethylpentane    | 1.494 | 1.442 | 3.5    | 108 | 0.00 | 9.81  |
| 57   | tert-amyl methyl ether    | 1.293 | 1.332 | -3.0   | 112 | 0.00 | 9.82  |
| 58   | n-butyl alcohol           | 0.011 | 0.012 | -9.1   | 114 | 0.00 | 10.22 |
| 59   | benzene                   | 1.463 | 1.432 | 2.1    | 105 | 0.00 | 9.76  |
| 60   | heptane                   | 0.285 | 0.296 | -3.9   | 112 | 0.00 | 9.99  |
| 61   | isopropyl acetate         | 0.055 | 0.066 | -20.0  | 112 | 0.00 | 9.68  |
| 62   | 1,2-dichloroethane        | 0.437 | 0.439 | -0.5   | 109 | 0.00 | 9.74  |
| 63   | trichloroethene           | 0.349 | 0.335 | 4.0    | 105 | 0.00 | 10.48 |
| 64   | ethyl acrylate            | 0.338 | 0.374 | -10.7  | 109 | 0.00 | 10.47 |
| 65   | 2-nitropropane            | 0.069 | 0.072 | -4.3   | 112 | 0.00 | 11.20 |
| 66   | 2-chloroethyl vinyl ether | 0.165 | 0.182 | -10.3  | 111 | 0.00 | 11.26 |
| 67   | methyl methacrylate       | 0.068 | 0.075 | -10.3  | 107 | 0.00 | 10.74 |
| 68   | 1,2-dichloropropane       | 0.378 | 0.388 | -2.6   | 104 | 0.00 | 10.72 |
| 69   | methylcyclohexane         | 0.697 | 0.620 | 11.0   | 98  | 0.00 | 10.74 |
| 70   | dibromomethane            | 0.198 | 0.212 | -7.1   | 109 | 0.00 | 10.87 |
| 71   | bromodichloromethane      | 0.492 | 0.476 | 3.3    | 104 | 0.00 | 11.00 |
| 72   | epichlorohydrin           | 0.029 | 0.032 | -10.3  | 118 | 0.00 | 11.35 |
| 73   | cis-1,3-dichloropropene   | 0.556 | 0.585 | -5.2   | 105 | 0.00 | 11.48 |
| 74   | 4-methyl-2-pentanone      | 0.115 | 0.139 | -20.9  | 115 | 0.00 | 11.57 |
| 75   | 3-methyl-1-butanol        | 0.010 | 0.011 | -10.0  | 108 | 0.00 | 11.59 |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0    | 96  | 0.00 | 13.29 |
| 77 S | toluene-d8 (s)            | 1.359 | 1.379 | -1.5   | 97  | 0.00 | 11.79 |
| 78   | toluene                   | 0.956 | 0.983 | -2.8   | 102 | 0.00 | 11.87 |
| 79   | trans-1,3-dichloropropene | 0.570 | 0.564 | 1.1    | 99  | 0.00 | 12.03 |
| 80   | ethyl methacrylate        | 0.481 | 0.477 | 0.8    | 101 | 0.00 | 12.06 |
| 81   | 1,1,2-trichloroethane     | 0.285 | 0.291 | -2.1   | 105 | 0.00 | 12.24 |
| 82   | 2-hexanone                | 0.129 | 0.142 | -10.1  | 105 | 0.00 | 12.43 |
| 83   | tetrachloroethene         | 0.381 | 0.429 | -12.6  | 112 | 0.00 | 12.47 |
| 84   | 1,3-dichloropropane       | 0.511 | 0.563 | -10.2  | 111 | 0.00 | 12.43 |
| 85   | butyl acetate             | 0.209 | 0.241 | -15.3  | 115 | 0.00 | 12.53 |
| 86   | dibromochloromethane      | 0.360 | 0.406 | -12.8  | 110 | 0.00 | 12.69 |
| 87   | 1,2-dibromoethane         | 0.318 | 0.347 | -9.1   | 107 | 0.00 | 12.85 |
| 88   | 3,3-Dimethyl-1-Butanol    | 0.047 | 0.051 | -8.5   | 113 | 0.00 | 12.60 |
| 89   | n-butyl ether             | 1.854 | 1.881 | -1.5   | 101 | 0.00 | 13.29 |
| 90   | chlorobenzene             | 1.074 | 1.074 | 0.0    | 104 | 0.00 | 13.33 |
| 91   | 1,1,1,2-tetrachloroethane | 0.411 | 0.456 | -10.9  | 108 | 0.00 | 13.38 |
| 92   | ethylbenzene              | 1.878 | 1.826 | 2.8    | 105 | 0.00 | 13.40 |
| 93   | m,p-xylene                | 0.665 | 0.696 | -4.7   | 105 | 0.00 | 13.50 |
| 94   | o-xylene                  | 1.617 | 1.594 | 1.4    | 107 | 0.00 | 13.92 |
| 95   | styrene                   | 1.177 | 1.226 | -4.2   | 106 | 0.00 | 13.92 |
| 96   | bromoform                 | 0.231 | 0.270 | -16.9  | 111 | 0.00 | 14.15 |
| 97   | butyl acrylate            | 0.687 | 0.791 | -15.1  | 110 | 0.00 | 13.74 |
| 98   | isopropylbenzene          | 1.854 | 1.905 | -2.8   | 106 | 0.00 | 14.26 |
| 99   | cis-1,4-dichloro-2-butene | 0.127 | 0.142 | -11.8  | 106 | 0.00 | 14.29 |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178417.D

|     |   |                           |       |       |              |     |      |       |
|-----|---|---------------------------|-------|-------|--------------|-----|------|-------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 96  | 0.00 | 15.61 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.824 | 0.7          | 95  | 0.00 | 14.45 |
| 102 |   | bromobenzene              | 0.846 | 0.901 | -6.5         | 106 | 0.00 | 14.64 |
| 103 |   | 1,1,2,2-tetrachloroethane | 0.880 | 0.860 | 2.3          | 107 | 0.00 | 14.52 |
| 104 |   | trans-1,4-dichloro-2-bute | 0.176 | 0.222 | -26.1        | 131 | 0.00 | 14.57 |
| 105 |   | 1,2,3-trichloropropane    | 0.178 | 0.192 | -7.9         | 108 | 0.00 | 14.60 |
| 106 |   | n-propylbenzene           | 4.167 | 4.028 | 3.3          | 105 | 0.00 | 14.67 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |      |       |
| 108 |   | 2-chlorotoluene           | 0.812 | 0.864 | -6.4         | 105 | 0.00 | 14.81 |
| 109 |   | 4-chlorotoluene           | 2.465 | 2.470 | -0.2         | 109 | 0.00 | 14.90 |
| 110 |   | 1,3,5-trimethylbenzene    | 2.959 | 3.007 | -1.6         | 106 | 0.00 | 14.82 |
| 111 |   | tert-butylbenzene         | 0.500 | 0.555 | -11.0        | 107 | 0.00 | 15.17 |
| 112 |   | 1,2,4-trimethylbenzene    | 2.983 | 3.161 | -6.0         | 109 | 0.00 | 15.21 |
| 113 |   | sec-butylbenzene          | 3.828 | 3.943 | -3.0         | 107 | 0.00 | 15.38 |
| 114 |   | 1,3-dichlorobenzene       | 1.700 | 1.753 | -3.1         | 106 | 0.00 | 15.55 |
| 115 |   | p-isopropyltoluene        | 3.224 | 3.403 | -5.6         | 108 | 0.00 | 15.50 |
| 116 |   | 1,4-dichlorobenzene       | 1.781 | 1.764 | 1.0          | 106 | 0.00 | 15.63 |
| 117 |   | 1,2-dichlorobenzene       | 1.732 | 1.776 | -2.5         | 105 | 0.00 | 16.01 |
| 118 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |      |       |
| 119 |   | n-butylbenzene            | 1.742 | 1.923 | -10.4        | 112 | 0.00 | 15.92 |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 |   | 1,2-dibromo-3-chloropropa | 0.183 | 0.201 | -9.8         | 114 | 0.00 | 16.77 |
| 122 |   | 1,3,5-Trichlorobenzene    | 1.738 | 1.807 | -4.0         | 109 | 0.00 | 16.99 |
| 123 |   | 1,2,4-trichlorobenzene    | 1.397 | 1.544 | -10.5        | 111 | 0.00 | 17.60 |
| 124 |   | hexachlorobutadiene       | 0.885 | 0.916 | -3.5         | 105 | 0.00 | 17.75 |
| 125 |   | naphthalene               | 2.612 | 2.757 | -5.6         | 114 | 0.00 | 17.87 |
| 126 |   | 1,2,3-trichlorobenzene    | 1.248 | 1.342 | -7.5         | 109 | 0.00 | 18.11 |
| 127 |   | hexachloroethane          | 0.520 | 0.630 | -21.2        | 109 | 0.00 | 16.30 |
| 128 |   | Benzyl chloride           | 1.598 | 1.395 | 12.7         | 93  | 0.00 | 15.73 |
| 129 |   | 2-ethylhexyl acrylate     | 1.138 | 1.285 | -12.9        | 125 | 0.00 | 17.61 |
| 130 |   | 2-methylnaphthalene       | 1.269 | 1.210 | 4.6          | 101 | 0.00 | 19.05 |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Mon Mar 05 14:06:10 2018 RPT1

6.11.13  
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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178418.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178418.D Vial: 15  
 Acq On : 28 Feb 2018 12:45 am Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Wed Feb 28 11:02:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 106   | 0.00     | 7.00 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 94    | 0.00     | 9.22 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |      |
| 9   | Freon 114                |       |       | -----NA----- |       |          |      |
| 10  | chloromethane            |       |       | -----NA----- |       |          |      |
| 11  | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 12  | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 13  | bromomethane             |       |       | -----NA----- |       |          |      |
| 14  | chloroethane             |       |       | -----NA----- |       |          |      |
| 15  | vinyl Bromide            |       |       | -----NA----- |       |          |      |
| 16  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 17  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 18  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 19  | acrolein                 |       |       | -----NA----- |       |          |      |
| 20  | freon 113                |       |       | -----NA----- |       |          |      |
| 21  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 22  | acetone                  |       |       | -----NA----- |       |          |      |
| 23  | acetonitrile             | 0.073 | 0.076 | -4.1         | 106   | 0.01     | 6.76 |
| 24  | iodomethane              |       |       | -----NA----- |       |          |      |
| 25  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 26  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 27  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 28  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 29  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 30  | hexane                   |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 33  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 34  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 35  | chloroprene              |       |       | -----NA----- |       |          |      |
| 36  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 37  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 38  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 39  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 40  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 41  | propionitrile            |       |       | -----NA----- |       |          |      |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178418.D

|      |                           |       |       |      |    |      |       |  |
|------|---------------------------|-------|-------|------|----|------|-------|--|
| 42   | bromochloromethane        |       |       |      |    |      |       |  |
| 43   | tetrahydrofuran           |       |       |      |    |      |       |  |
| 44   | chloroform                |       |       |      |    |      |       |  |
| 45   | tert-Butyl Formate        |       |       |      |    |      |       |  |
| 46   | isobutyl alcohol          |       |       |      |    |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.447 | 0.0  | 94 | 0.00 | 9.23  |  |
| 48   | methacrylonitrile         |       |       |      |    |      |       |  |
| 49   | 1,1,1-trichloroethane     |       |       |      |    |      |       |  |
| 50   | cyclohexane               |       |       |      |    |      |       |  |
| 51   | 1,1-dichloropropene       |       |       |      |    |      |       |  |
| 52   | tert-amyl alcohol         |       |       |      |    |      |       |  |
| 53   | carbon tetrachloride      |       |       |      |    |      |       |  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 91 | 0.00 | 10.13 |  |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.301 | -3.1 | 96 | 0.00 | 9.64  |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      |    |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      |    |      |       |  |
| 58   | n-butyl alcohol           |       |       |      |    |      |       |  |
| 59   | benzene                   |       |       |      |    |      |       |  |
| 60   | heptane                   |       |       |      |    |      |       |  |
| 61   | isopropyl acetate         |       |       |      |    |      |       |  |
| 62   | 1,2-dichloroethane        |       |       |      |    |      |       |  |
| 63   | trichloroethene           |       |       |      |    |      |       |  |
| 64   | ethyl acrylate            |       |       |      |    |      |       |  |
| 65   | 2-nitropropane            |       |       |      |    |      |       |  |
| 66   | 2-chloroethyl vinyl ether |       |       |      |    |      |       |  |
| 67   | methyl methacrylate       |       |       |      |    |      |       |  |
| 68   | 1,2-dichloropropane       |       |       |      |    |      |       |  |
| 69   | methylcyclohexane         |       |       |      |    |      |       |  |
| 70   | dibromomethane            |       |       |      |    |      |       |  |
| 71   | bromodichloromethane      |       |       |      |    |      |       |  |
| 72   | epichlorohydrin           |       |       |      |    |      |       |  |
| 73   | cis-1,3-dichloropropene   |       |       |      |    |      |       |  |
| 74   | 4-methyl-2-pentanone      |       |       |      |    |      |       |  |
| 75   | 3-methyl-1-butanol        |       |       |      |    |      |       |  |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 94 | 0.00 | 13.30 |  |
| 77 S | toluene-d8 (s)            | 1.359 | 1.323 | 2.6  | 90 | 0.00 | 11.79 |  |
| 78   | toluene                   |       |       |      |    |      |       |  |
| 79   | trans-1,3-dichloropropene |       |       |      |    |      |       |  |
| 80   | ethyl methacrylate        |       |       |      |    |      |       |  |
| 81   | 1,1,2-trichloroethane     |       |       |      |    |      |       |  |
| 82   | 2-hexanone                |       |       |      |    |      |       |  |
| 83   | tetrachloroethene         | 0.381 | 0.383 | -0.5 | 98 | 0.00 | 12.47 |  |
| 84   | 1,3-dichloropropane       |       |       |      |    |      |       |  |
| 85   | butyl acetate             |       |       |      |    |      |       |  |
| 86   | dibromochloromethane      |       |       |      |    |      |       |  |
| 87   | 1,2-dibromoethane         |       |       |      |    |      |       |  |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       |      |    |      |       |  |
| 89   | n-butyl ether             |       |       |      |    |      |       |  |
| 90   | chlorobenzene             |       |       |      |    |      |       |  |
| 91   | 1,1,1,2-tetrachloroethane |       |       |      |    |      |       |  |
| 92   | ethylbenzene              |       |       |      |    |      |       |  |
| 93   | m,p-xylene                |       |       |      |    |      |       |  |
| 94   | o-xylene                  |       |       |      |    |      |       |  |
| 95   | styrene                   |       |       |      |    |      |       |  |
| 96   | bromoform                 |       |       |      |    |      |       |  |
| 97   | butyl acrylate            |       |       |      |    |      |       |  |
| 98   | isopropylbenzene          |       |       |      |    |      |       |  |
| 99   | cis-1,4-dichloro-2-butene |       |       |      |    |      |       |  |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178418.D

|     |   |                           |       |       |     |    |      |              |
|-----|---|---------------------------|-------|-------|-----|----|------|--------------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0 | 98 | 0.00 | 15.61        |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.818 | 1.4 | 96 | 0.00 | 14.45        |
| 102 |   | bromobenzene              |       |       |     |    |      | -----NA----- |
| 103 |   | 1,1,2,2-tetrachloroethane |       |       |     |    |      | -----NA----- |
| 104 |   | trans-1,4-dichloro-2-bute |       |       |     |    |      | -----NA----- |
| 105 |   | 1,2,3-trichloropropane    |       |       |     |    |      | -----NA----- |
| 106 |   | n-propylbenzene           |       |       |     |    |      | -----NA----- |
| 107 |   | 4-Ethyltoluene            |       |       |     |    |      | -----NA----- |
| 108 |   | 2-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 109 |   | 4-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 110 |   | 1,3,5-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 111 |   | tert-butylbenzene         |       |       |     |    |      | -----NA----- |
| 112 |   | 1,2,4-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 113 |   | sec-butylbenzene          |       |       |     |    |      | -----NA----- |
| 114 |   | 1,3-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 115 |   | p-isopropyltoluene        |       |       |     |    |      | -----NA----- |
| 116 |   | 1,4-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 117 |   | 1,2-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 118 |   | 1,4-Diethylbenzene        |       |       |     |    |      | -----NA----- |
| 119 |   | n-butylbenzene            |       |       |     |    |      | -----NA----- |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       |     |    |      | -----NA----- |
| 121 |   | 1,2-dibromo-3-chloropropa |       |       |     |    |      | -----NA----- |
| 122 |   | 1,3,5-Trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 123 |   | 1,2,4-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 124 |   | hexachlorobutadiene       |       |       |     |    |      | -----NA----- |
| 125 |   | naphthalene               |       |       |     |    |      | -----NA----- |
| 126 |   | 1,2,3-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 127 |   | hexachloroethane          |       |       |     |    |      | -----NA----- |
| 128 |   | Benzyl chloride           |       |       |     |    |      | -----NA----- |
| 129 |   | 2-ethylhexyl acrylate     |       |       |     |    |      | -----NA----- |
| 130 |   | 2-methylnaphthalene       |       |       |     |    |      | -----NA----- |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 01 09:38:46 2018 RPT1

6.11.14

6



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178421.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178421.D Vial: 18  
 Acq On : 28 Feb 2018 2:19 pm Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Wed Feb 28 11:02:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 104   | 0.00     | 7.01 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 91    | 0.00     | 9.22 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |      |
| 9   | Freon 114                |       |       | -----NA----- |       |          |      |
| 10  | chloromethane            |       |       | -----NA----- |       |          |      |
| 11  | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 12  | 1,3-butadiene            | 0.803 | 0.977 | -21.7        | 130   | 0.00     | 4.45 |
| 13  | bromomethane             |       |       | -----NA----- |       |          |      |
| 14  | chloroethane             |       |       | -----NA----- |       |          |      |
| 15  | vinyl Bromide            |       |       | -----NA----- |       |          |      |
| 16  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 17  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 18  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 19  | acrolein                 |       |       | -----NA----- |       |          |      |
| 20  | freon 113                |       |       | -----NA----- |       |          |      |
| 21  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 22  | acetone                  |       |       | -----NA----- |       |          |      |
| 23  | acetonitrile             |       |       | -----NA----- |       |          |      |
| 24  | iodomethane              |       |       | -----NA----- |       |          |      |
| 25  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 26  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 27  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 28  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 29  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 30  | hexane                   |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 33  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 34  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 35  | chloroprene              |       |       | -----NA----- |       |          |      |
| 36  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 37  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 38  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 39  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 40  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 41  | propionitrile            |       |       | -----NA----- |       |          |      |

6.11.15  
6

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178421.D

|      |                           |       |       |      |    |      |       |  |
|------|---------------------------|-------|-------|------|----|------|-------|--|
| 42   | bromochloromethane        |       |       |      |    |      |       |  |
| 43   | tetrahydrofuran           |       |       |      |    |      |       |  |
| 44   | chloroform                |       |       |      |    |      |       |  |
| 45   | tert-Butyl Formate        |       |       |      |    |      |       |  |
| 46   | isobutyl alcohol          |       |       |      |    |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.452 | -1.1 | 92 | 0.00 | 9.24  |  |
| 48   | methacrylonitrile         |       |       |      |    |      |       |  |
| 49   | 1,1,1-trichloroethane     |       |       |      |    |      |       |  |
| 50   | cyclohexane               |       |       |      |    |      |       |  |
| 51   | 1,1-dichloropropene       |       |       |      |    |      |       |  |
| 52   | tert-amyl alcohol         |       |       |      |    |      |       |  |
| 53   | carbon tetrachloride      |       |       |      |    |      |       |  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 88 | 0.00 | 10.13 |  |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.306 | -4.8 | 95 | 0.00 | 9.65  |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      |    |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      |    |      |       |  |
| 58   | n-butyl alcohol           |       |       |      |    |      |       |  |
| 59   | benzene                   |       |       |      |    |      |       |  |
| 60   | heptane                   |       |       |      |    |      |       |  |
| 61   | isopropyl acetate         |       |       |      |    |      |       |  |
| 62   | 1,2-dichloroethane        |       |       |      |    |      |       |  |
| 63   | trichloroethene           |       |       |      |    |      |       |  |
| 64   | ethyl acrylate            |       |       |      |    |      |       |  |
| 65   | 2-nitropropane            |       |       |      |    |      |       |  |
| 66   | 2-chloroethyl vinyl ether |       |       |      |    |      |       |  |
| 67   | methyl methacrylate       |       |       |      |    |      |       |  |
| 68   | 1,2-dichloropropane       |       |       |      |    |      |       |  |
| 69   | methylcyclohexane         |       |       |      |    |      |       |  |
| 70   | dibromomethane            |       |       |      |    |      |       |  |
| 71   | bromodichloromethane      |       |       |      |    |      |       |  |
| 72   | epichlorohydrin           |       |       |      |    |      |       |  |
| 73   | cis-1,3-dichloropropene   |       |       |      |    |      |       |  |
| 74   | 4-methyl-2-pentanone      |       |       |      |    |      |       |  |
| 75   | 3-methyl-1-butanol        |       |       |      |    |      |       |  |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 90 | 0.00 | 13.30 |  |
| 77 S | toluene-d8 (s)            | 1.359 | 1.330 | 2.1  | 87 | 0.00 | 11.79 |  |
| 78   | toluene                   |       |       |      |    |      |       |  |
| 79   | trans-1,3-dichloropropene |       |       |      |    |      |       |  |
| 80   | ethyl methacrylate        |       |       |      |    |      |       |  |
| 81   | 1,1,2-trichloroethane     |       |       |      |    |      |       |  |
| 82   | 2-hexanone                |       |       |      |    |      |       |  |
| 83   | tetrachloroethene         |       |       |      |    |      |       |  |
| 84   | 1,3-dichloropropane       |       |       |      |    |      |       |  |
| 85   | butyl acetate             |       |       |      |    |      |       |  |
| 86   | dibromochloromethane      |       |       |      |    |      |       |  |
| 87   | 1,2-dibromoethane         |       |       |      |    |      |       |  |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       |      |    |      |       |  |
| 89   | n-butyl ether             |       |       |      |    |      |       |  |
| 90   | chlorobenzene             |       |       |      |    |      |       |  |
| 91   | 1,1,1,2-tetrachloroethane |       |       |      |    |      |       |  |
| 92   | ethylbenzene              |       |       |      |    |      |       |  |
| 93   | m,p-xylene                |       |       |      |    |      |       |  |
| 94   | o-xylene                  |       |       |      |    |      |       |  |
| 95   | styrene                   |       |       |      |    |      |       |  |
| 96   | bromoform                 |       |       |      |    |      |       |  |
| 97   | butyl acrylate            |       |       |      |    |      |       |  |
| 98   | isopropylbenzene          |       |       |      |    |      |       |  |
| 99   | cis-1,4-dichloro-2-butene |       |       |      |    |      |       |  |

6.11.15  
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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178421.D

|     |   |                           |       |       |     |    |      |              |
|-----|---|---------------------------|-------|-------|-----|----|------|--------------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0 | 92 | 0.00 | 15.61        |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.827 | 0.4 | 92 | 0.00 | 14.45        |
| 102 |   | bromobenzene              |       |       |     |    |      | -----NA----- |
| 103 |   | 1,1,2,2-tetrachloroethane |       |       |     |    |      | -----NA----- |
| 104 |   | trans-1,4-dichloro-2-bute |       |       |     |    |      | -----NA----- |
| 105 |   | 1,2,3-trichloropropane    |       |       |     |    |      | -----NA----- |
| 106 |   | n-propylbenzene           |       |       |     |    |      | -----NA----- |
| 107 |   | 4-Ethyltoluene            |       |       |     |    |      | -----NA----- |
| 108 |   | 2-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 109 |   | 4-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 110 |   | 1,3,5-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 111 |   | tert-butylbenzene         |       |       |     |    |      | -----NA----- |
| 112 |   | 1,2,4-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 113 |   | sec-butylbenzene          |       |       |     |    |      | -----NA----- |
| 114 |   | 1,3-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 115 |   | p-isopropyltoluene        |       |       |     |    |      | -----NA----- |
| 116 |   | 1,4-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 117 |   | 1,2-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 118 |   | 1,4-Diethylbenzene        |       |       |     |    |      | -----NA----- |
| 119 |   | n-butylbenzene            |       |       |     |    |      | -----NA----- |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       |     |    |      | -----NA----- |
| 121 |   | 1,2-dibromo-3-chloropropa |       |       |     |    |      | -----NA----- |
| 122 |   | 1,3,5-Trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 123 |   | 1,2,4-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 124 |   | hexachlorobutadiene       |       |       |     |    |      | -----NA----- |
| 125 |   | naphthalene               |       |       |     |    |      | -----NA----- |
| 126 |   | 1,2,3-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 127 |   | hexachloroethane          |       |       |     |    |      | -----NA----- |
| 128 |   | Benzyl chloride           |       |       |     |    |      | -----NA----- |
| 129 |   | 2-ethylhexyl acrylate     |       |       |     |    |      | -----NA----- |
| 130 |   | 2-methylnaphthalene       |       |       |     |    |      | -----NA----- |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 01 09:29:58 2018 RPT1

6.11.15  
 6

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7766-CC7713  
 Lab FileID: Y179596.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\vy7766\y179596.d Vial: 1  
 Acq On : 1 May 2018 7:23 am Operator: PrashanS  
 Sample : CC7713-20 Inst : MSY  
 Misc : MS25979,VY7766,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 81    | -0.02    | 6.98  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.520 | 1.463 | 3.7          | 78    | -0.02    | 7.08  |
| 4   | 1,4-dioxane              | 0.115 | 0.138 | -20.0#       | 99    | 0.02     | 10.85 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 90    | -0.02    | 9.20  |
| 6   | chlorodifluoromethane    | 0.919 | 1.055 | -14.8        | 105   | 0.00     | 3.86  |
| 7   | dichlorodifluoromethane  | 0.807 | 0.956 | -18.5        | 107   | 0.01     | 3.86  |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |       |
| 9   | Freon 114                |       |       | -----NA----- |       |          |       |
| 10  | chloromethane            | 1.069 | 1.281 | -19.8        | 100   | 0.01     | 4.21  |
| 11  | vinyl chloride           | 0.913 | 1.156 | -26.6#       | 110   | 0.00     | 4.42  |
| 12  | 1,3-butadiene            | 0.803 | 0.846 | -5.4         | 95    | 0.00     | 4.44  |
| 13  | bromomethane             | 0.629 | 0.740 | -17.6        | 105   | 0.00     | 5.01  |
| 14  | chloroethane             | 0.503 | 0.577 | -14.7        | 102   | 0.00     | 5.16  |
| 15  | vinyl Bromide            | 0.553 | 0.665 | -20.3#       | 105   | -0.01    | 5.47  |
| 16  | trichlorofluoromethane   | 0.776 | 0.938 | -20.9#       | 105   | 0.00     | 5.60  |
| 17  | ethyl ether              | 0.295 | 0.275 | 6.8          | 83    | -0.02    | 5.95  |
| 18  | 2-chloropropane          | 0.227 | 0.234 | -3.1         | 93    | -0.01    | 6.12  |
| 19  | acrolein                 | 0.108 | 0.085 | 21.3#        | 67    | -0.02    | 6.14  |
| 20  | freon 113                | 0.393 | 0.527 | -34.1#       | 117   | -0.01    | 6.37  |
| 21  | 1,1-dichloroethene       | 0.757 | 0.872 | -15.2        | 100   | -0.01    | 6.35  |
| 22  | acetone                  | 0.062 | 0.040 | 35.5#        | 57    | -0.01    | 6.35  |
| 23  | acetonitrile             | 0.073 | 0.075 | -2.7         | 87    | -0.01    | 6.74  |
| 24  | iodomethane              | 0.919 | 0.862 | 6.2          | 82    | -0.02    | 6.60  |
| 25  | carbon disulfide         | 1.825 | 1.842 | -0.9         | 88    | -0.01    | 6.75  |
| 26  | methylene chloride       | 0.595 | 0.613 | -3.0         | 94    | -0.02    | 7.01  |
| 27  | methyl acetate           | 0.362 | 0.387 | -6.9         | 95    | -0.02    | 6.82  |
| 28  | methyl tert butyl ether  | 1.786 | 1.575 | 11.8         | 82    | -0.02    | 7.38  |
| 29  | trans-1,2-dichloroethene | 0.753 | 0.820 | -8.9         | 98    | -0.01    | 7.41  |
| 30  | hexane                   | 0.729 | 0.760 | -4.3         | 90    | -0.01    | 7.75  |
| 31  | di-isopropyl ether       | 2.350 | 2.051 | 12.7         | 81    | -0.02    | 7.98  |
| 32  | ethyl tert-butyl ether   | 2.003 | 1.794 | 10.4         | 81    | 0.00     | 8.45  |
| 33  | 2-butanone               | 0.052 | 0.050 | 3.8          | 79    | 0.00     | 8.62  |
| 34  | 1,1-dichloroethane       | 0.962 | 0.981 | -2.0         | 90    | -0.02    | 7.94  |
| 35  | chloroprene              | 0.757 | 0.731 | 3.4          | 87    | -0.02    | 8.07  |
| 36  | acrylonitrile            | 0.174 | 0.165 | 5.2          | 75    | 0.00     | 7.30  |
| 37  | vinyl acetate            | 0.071 | 0.051 | 28.2#        | 61    | 0.00     | 7.95  |
| 38  | ethyl acetate            | 0.083 | 0.079 | 4.8          | 83    | 0.01     | 8.69  |
| 39  | 2,2-dichloropropane      | 0.870 | 0.926 | -6.4         | 100   | -0.01    | 8.70  |
| 40  | cis-1,2-dichloroethene   | 0.657 | 0.605 | 7.9          | 95    | -0.01    | 8.67  |
| 41  | propionitrile            | 0.074 | 0.076 | -2.7         | 86    | 0.00     | 8.68  |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7766-CC7713  
**Lab FileID:** Y179596.D

|      |                           |       |       |              |     |       |       |
|------|---------------------------|-------|-------|--------------|-----|-------|-------|
| 42   | bromochloromethane        | 0.325 | 0.344 | -5.8         | 87  | -0.01 | 8.97  |
| 43   | tetrahydrofuran           | 0.062 | 0.061 | 1.6          | 77  | 0.00  | 9.04  |
| 44   | chloroform                | 0.940 | 0.915 | 2.7          | 91  | -0.02 | 9.03  |
| 45   | tert-Butyl Formate        | 0.241 | 0.452 | -87.6#       | 161 | -0.02 | 9.08  |
| 46   | isobutyl alcohol          | 0.126 | 0.139 | -10.3        | 95  | -0.01 | 9.40  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.429 | 4.0          | 84  | -0.02 | 9.22  |
| 48   | methacrylonitrile         | 0.191 | 0.163 | 14.7         | 75  | -0.01 | 8.88  |
| 49   | 1,1,1-trichloroethane     | 0.845 | 0.879 | -4.0         | 98  | -0.01 | 9.31  |
| 50   | cyclohexane               | 0.807 | 0.877 | -8.7         | 96  | 0.00  | 9.43  |
| 51   | 1,1-dichloropropene       | 0.639 | 0.713 | -11.6        | 96  | -0.01 | 9.50  |
| 52   | tert-amyl alcohol         | 0.023 | 0.026 | -13.0        | 99  | -0.01 | 9.60  |
| 53   | carbon tetrachloride      | 0.669 | 0.775 | -15.8        | 100 | 0.00  | 9.54  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 92  | 0.00  | 10.11 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.260 | 11.0         | 81  | -0.02 | 9.63  |
| 56   | 2,2,4-trimethylpentane    | 1.494 | 1.472 | 1.5          | 95  | 0.00  | 9.81  |
| 57   | tert-amyl methyl ether    | 1.293 | 1.122 | 13.2         | 82  | -0.02 | 9.81  |
| 58   | n-butyl alcohol           | 0.011 | 0.011 | 0.0          | 83  | 0.00  | 10.22 |
| 59   | benzene                   | 1.463 | 1.485 | -1.5         | 97  | -0.02 | 9.74  |
| 60   | heptane                   | 0.285 | 0.314 | -10.2        | 104 | -0.01 | 9.98  |
| 61   | isopropyl acetate         | 0.055 | 0.059 | -7.3         | 93  | 0.00  | 9.68  |
| 62   | 1,2-dichloroethane        | 0.437 | 0.400 | 8.5          | 87  | -0.02 | 9.72  |
| 63   | trichloroethene           | 0.349 | 0.357 | -2.3         | 100 | -0.01 | 10.47 |
| 64   | ethyl acrylate            | 0.338 | 0.383 | -13.3        | 100 | 0.00  | 10.48 |
| 65   | 2-nitropropane            | 0.069 | 0.064 | 7.2          | 85  | -0.02 | 11.18 |
| 66   | 2-chloroethyl vinyl ether | 0.165 | 0.178 | -7.9         | 94  | 0.00  | 11.25 |
| 67   | methyl methacrylate       | 0.068 | 0.071 | -4.4         | 95  | 0.00  | 10.75 |
| 68   | 1,2-dichloropropane       | 0.378 | 0.401 | -6.1         | 97  | -0.01 | 10.71 |
| 69   | methylcyclohexane         | 0.697 | 0.732 | -5.0         | 100 | -0.01 | 10.73 |
| 70   | dibromomethane            | 0.198 | 0.206 | -4.0         | 94  | -0.01 | 10.86 |
| 71   | bromodichloromethane      | 0.492 | 0.477 | 3.0          | 95  | 0.00  | 10.99 |
| 72   | epichlorohydrin           | 0.029 | 0.032 | -10.3        | 93  | 0.00  | 11.35 |
| 73   | cis-1,3-dichloropropene   | 0.556 | 0.617 | -11.0        | 101 | -0.01 | 11.47 |
| 74   | 4-methyl-2-pentanone      | 0.115 | 0.136 | -18.3        | 95  | 0.00  | 11.56 |
| 75   | 3-methyl-1-butanol        | 0.010 | 0.010 | 0.0          | 83  | 0.00  | 11.58 |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 110 | 0.00  | 13.29 |
| 77 S | toluene-d8 (s)            | 1.359 | 1.287 | 5.3          | 103 | -0.01 | 11.78 |
| 78   | toluene                   | 0.956 | 0.993 | -3.9         | 115 | 0.00  | 11.86 |
| 79   | trans-1,3-dichloropropene | 0.570 | 0.537 | 5.8          | 102 | 0.00  | 12.03 |
| 80   | ethyl methacrylate        | 0.481 | 0.406 | 15.6         | 90  | 0.00  | 12.05 |
| 81   | 1,1,2-trichloroethane     | 0.285 | 0.272 | 4.6          | 105 | -0.01 | 12.23 |
| 82   | 2-hexanone                | 0.129 | 0.121 | 6.2          | 95  | 0.00  | 12.43 |
| 83   | tetrachloroethene         | 0.381 | 0.443 | -16.3        | 121 | 0.00  | 12.46 |
| 84   | 1,3-dichloropropane       | 0.511 | 0.529 | -3.5         | 110 | 0.00  | 12.42 |
| 85   | butyl acetate             | 0.209 | 0.211 | -1.0         | 107 | 0.00  | 12.53 |
| 86   | dibromochloromethane      | 0.360 | 0.382 | -6.1         | 110 | -0.01 | 12.69 |
| 87   | 1,2-dibromoethane         | 0.318 | 0.340 | -6.9         | 114 | 0.00  | 12.84 |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       | -----NA----- |     |       |       |
| 89   | n-butyl ether             | 1.854 | 1.751 | 5.6          | 103 | 0.00  | 13.28 |
| 90   | chlorobenzene             | 1.074 | 1.122 | -4.5         | 115 | 0.00  | 13.32 |
| 91   | 1,1,1,2-tetrachloroethane | 0.411 | 0.392 | 4.6          | 98  | -0.01 | 13.37 |
| 92   | ethylbenzene              | 1.878 | 1.836 | 2.2          | 111 | -0.01 | 13.39 |
| 93   | m,p-xylene                | 0.665 | 0.721 | -8.4         | 118 | 0.00  | 13.50 |
| 94   | o-xylene                  | 1.617 | 1.507 | 6.8          | 106 | -0.01 | 13.91 |
| 95   | styrene                   | 1.177 | 1.123 | 4.6          | 106 | 0.00  | 13.92 |
| 96   | bromoform                 | 0.231 | 0.243 | -5.2         | 110 | -0.01 | 14.15 |
| 97   | butyl acrylate            | 0.687 | 0.536 | 22.0#        | 75  | 0.00  | 13.74 |
| 98   | isopropylbenzene          | 1.854 | 1.840 | 0.8          | 109 | 0.00  | 14.26 |
| 99   | cis-1,4-dichloro-2-butene | 0.127 | 0.125 | 1.6          | 100 | 0.00  | 14.29 |

6.11.16  
6

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7766-CC7713  
**Lab FileID:** Y179596.D

|     |   |                           |       |       |              |     |       |       |
|-----|---|---------------------------|-------|-------|--------------|-----|-------|-------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 96  | -0.01 | 15.60 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.867 | -4.5         | 101 | 0.00  | 14.44 |
| 102 |   | bromobenzene              | 0.846 | 0.976 | -15.4        | 109 | -0.01 | 14.63 |
| 103 |   | 1,1,2,2-tetrachloroethane | 0.880 | 0.889 | -1.0         | 103 | -0.01 | 14.51 |
| 104 |   | trans-1,4-dichloro-2-bute | 0.176 | 0.167 | 5.1          | 92  | 0.00  | 14.57 |
| 105 |   | 1,2,3-trichloropropane    | 0.178 | 0.203 | -14.0        | 110 | -0.01 | 14.59 |
| 106 |   | n-propylbenzene           | 4.167 | 4.355 | -4.5         | 106 | 0.00  | 14.66 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |       |       |
| 108 |   | 2-chlorotoluene           | 0.812 | 0.938 | -15.5        | 108 | -0.01 | 14.80 |
| 109 |   | 4-chlorotoluene           | 2.465 | 2.565 | -4.1         | 105 | 0.00  | 14.89 |
| 110 |   | 1,3,5-trimethylbenzene    | 2.959 | 3.156 | -6.7         | 109 | 0.00  | 14.82 |
| 111 |   | tert-butylbenzene         | 0.500 | 0.586 | -17.2        | 109 | 0.00  | 15.16 |
| 112 |   | 1,2,4-trimethylbenzene    | 2.983 | 3.106 | -4.1         | 102 | 0.00  | 15.20 |
| 113 |   | sec-butylbenzene          | 3.828 | 4.100 | -7.1         | 105 | 0.00  | 15.38 |
| 114 |   | 1,3-dichlorobenzene       | 1.700 | 1.807 | -6.3         | 104 | 0.00  | 15.54 |
| 115 |   | p-isopropyltoluene        | 3.224 | 3.351 | -3.9         | 101 | 0.00  | 15.50 |
| 116 |   | 1,4-dichlorobenzene       | 1.781 | 1.802 | -1.2         | 101 | -0.01 | 15.62 |
| 117 |   | 1,2-dichlorobenzene       | 1.732 | 1.746 | -0.8         | 98  | -0.01 | 16.01 |
| 118 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |       |       |
| 119 |   | n-butylbenzene            | 1.742 | 1.750 | -0.5         | 95  | 0.00  | 15.91 |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       | -----NA----- |     |       |       |
| 121 |   | 1,2-dibromo-3-chloropropa | 0.183 | 0.165 | 9.8          | 85  | -0.01 | 16.76 |
| 122 |   | 1,3,5-Trichlorobenzene    | 1.738 | 1.763 | -1.4         | 96  | 0.00  | 16.98 |
| 123 |   | 1,2,4-trichlorobenzene    | 1.397 | 1.301 | 6.9          | 88  | 0.00  | 17.60 |
| 124 |   | hexachlorobutadiene       | 0.885 | 0.917 | -3.6         | 99  | -0.01 | 17.73 |
| 125 |   | naphthalene               | 2.612 | 2.008 | 23.1#        | 74  | 0.00  | 17.86 |
| 126 |   | 1,2,3-trichlorobenzene    | 1.248 | 1.121 | 10.2         | 83  | 0.00  | 18.10 |
| 127 |   | hexachloroethane          | 0.520 | 0.606 | -16.5        | 104 | 0.00  | 16.29 |
| 128 |   | Benzyl chloride           | 1.598 | 1.497 | 6.3          | 91  | 0.00  | 15.73 |
| 129 |   | 2-ethylhexyl acrylate     | 1.138 | 0.250 | 78.0#        | 22# | 0.00  | 17.60 |
| 130 |   | 2-methylnaphthalene       | 1.269 | 0.523 | 58.8#        | 41# | 0.00  | 19.04 |

(#) = Out of Range  
 Y178411.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Fri May 04 00:19:29 2018

6.11.16  
6

MS Volatiles

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Raw Data

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7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179601.d  
 Acq On : 1 May 2018 11:48 am  
 Operator : PrashanS  
 Sample : JC65058-5 Inst : MSY  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:31:12 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Tert Butyl Alcohol-d9      | 6.976  | 65    | 80928    | 500.00   | ug/L   | -0.03    |
| 5) pentafluorobenzene         | 9.199  | 168   | 191732   | 50.00    | ug/L   | -0.02    |
| 54) 1,4-difluorobenzene       | 10.115 | 114   | 293036   | 50.00    | ug/L   | 0.00     |
| 76) chlorobenzene-d5          | 13.289 | 117   | 297684   | 50.00    | ug/L   | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.601 | 152   | 133018   | 50.00    | ug/L   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 84228    | 49.16    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =      | 98.32%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 76785    | 44.79    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =      | 89.58%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 377163   | 46.62    | ug/L   | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =      | 93.24%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 120645   | 54.63    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =      | 109.26%  |
| Target Compounds              |        |       |          |          |        |          |
| 25) carbon disulfide          | 6.736  | 76    | 1682     | 0.24     | ug/L   | 71       |
| 26) methylene chloride        | 7.008  | 84    | 919      | 0.40     | ug/L   | 87       |
| 59) benzene                   | 9.748  | 78    | 3540     | 0.41     | ug/L   | 95       |
| 69) methylcyclohexane         | 10.737 | 83    | 1754     | 0.43     | ug/L # | 64       |
| 78) toluene                   | 11.861 | 92    | 5460     | 0.96     | ug/L   | 96       |
| 92) ethylbenzene              | 13.399 | 91    | 2502     | 0.22     | ug/L   | 89       |
| 93) m,p-xylene                | 13.499 | 106   | 5875     | 1.48     | ug/L   | 95       |
| 94) o-xylene                  | 13.917 | 91    | 5336     | 0.55     | ug/L   | 87       |
| 95) styrene                   | 13.922 | 104   | 1399     | 0.20     | ug/L   | 79       |
| 110) 1,3,5-trimethylbenzene   | 14.817 | 105   | 6139     | 0.78     | ug/L   | 91       |
| 112) 1,2,4-trimethylbenzene   | 15.209 | 105   | 13006    | 1.64     | ug/L   | 95       |
| 125) naphthalene              | 17.855 | 128   | 176044   | 25.33    | ug/L   | 99       |
| 130) 2-methylnaphthalene      | 19.037 | 142   | 8117     | 2.40     | ug/L   | 99       |
| -----                         |        |       |          |          |        |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1  
7

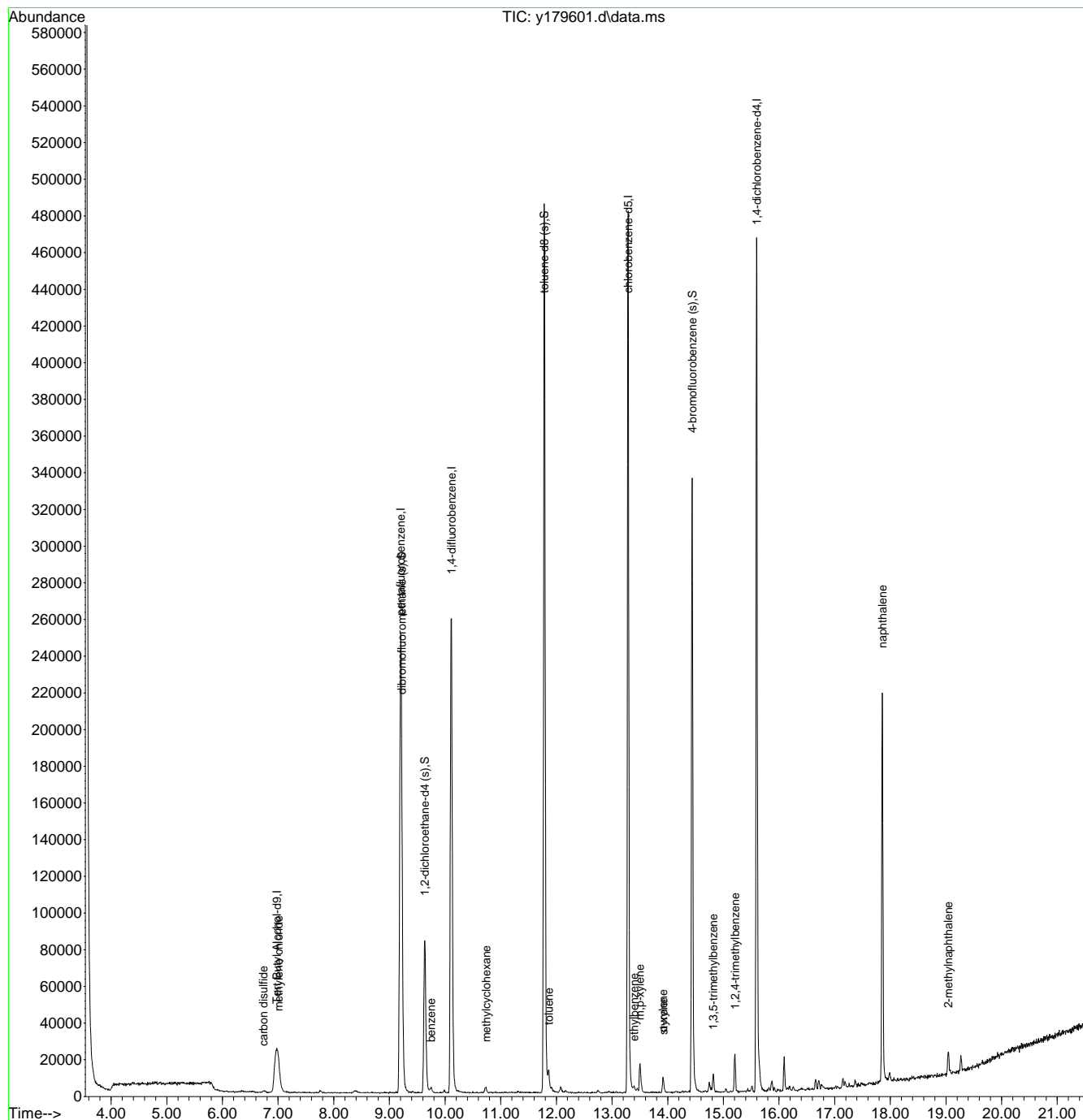


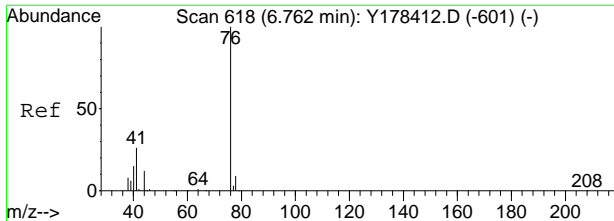
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179601.d  
 Acq On : 1 May 2018 11:48 am  
 Operator : Prashans  
 Sample : JC65058-5  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSY

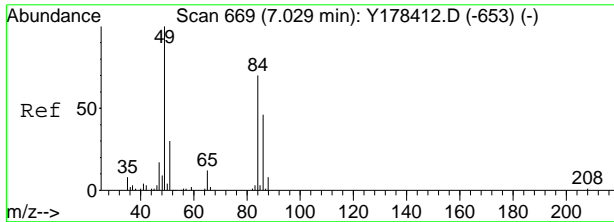
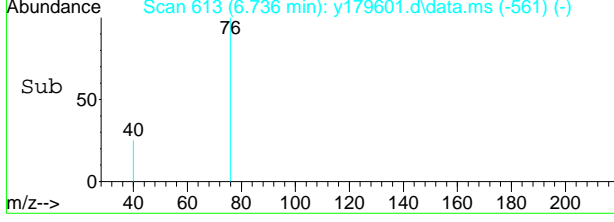
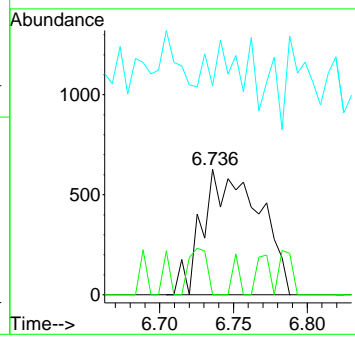
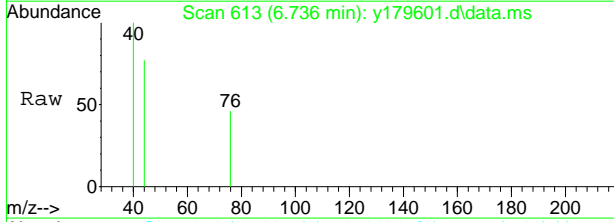
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:31:12 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration





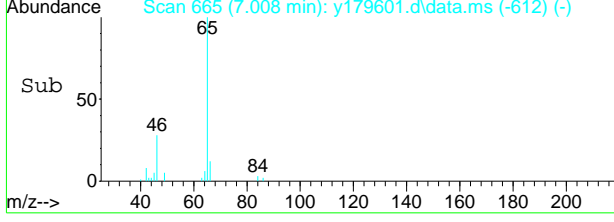
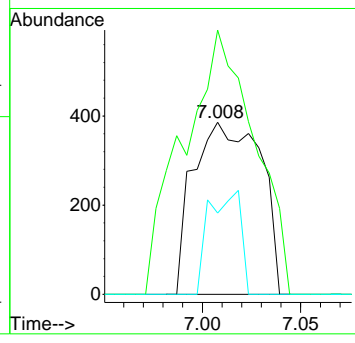
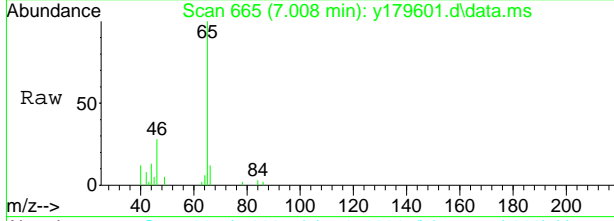
#25  
 carbon disulfide  
 Concen: 0.24 ug/L  
 RT: 6.736 min Scan# 613  
 Delta R.T. -0.026 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 1682 |       |       |
| 78      | 0.0  | 0.0   | 39.3  |
| 44      | 0.0  | 0.0   | 42.1  |

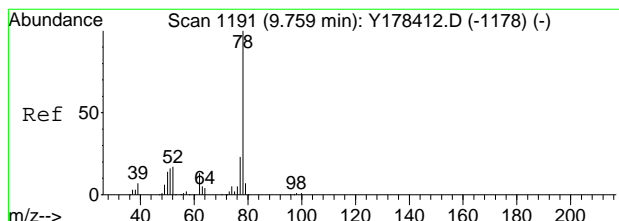


#26  
 methylene chloride  
 Concen: 0.40 ug/L  
 RT: 7.008 min Scan# 665  
 Delta R.T. -0.021 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 919   |       |       |
| 84      | 100   |       |       |
| 49      | 153.6 | 113.5 | 173.5 |
| 86      | 47.2  | 35.7  | 95.7  |

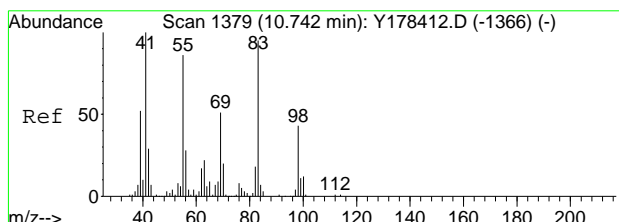
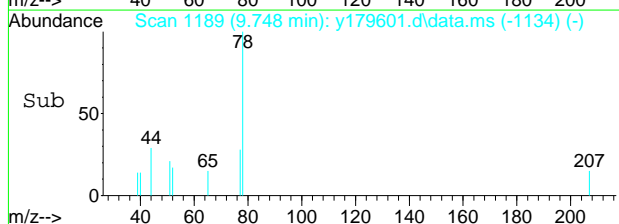
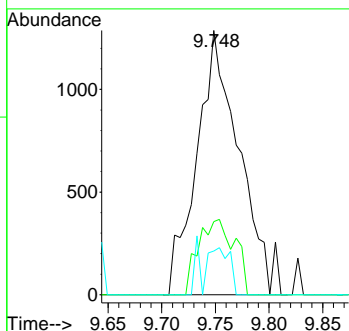
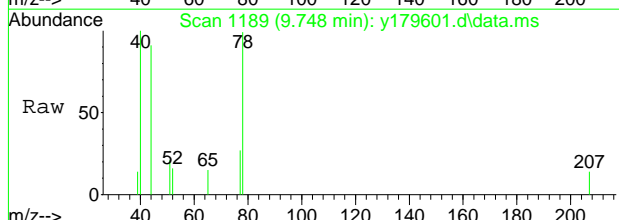


7.1.1  
 7



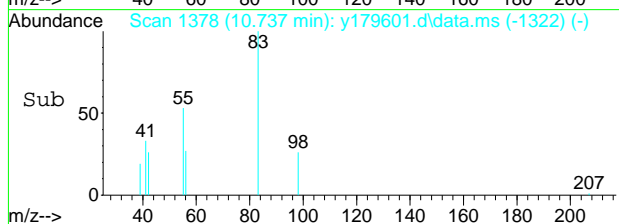
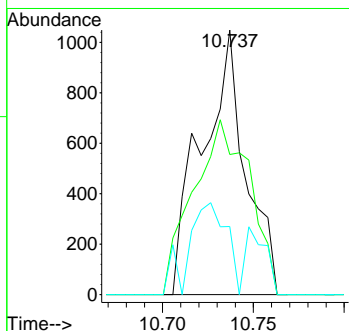
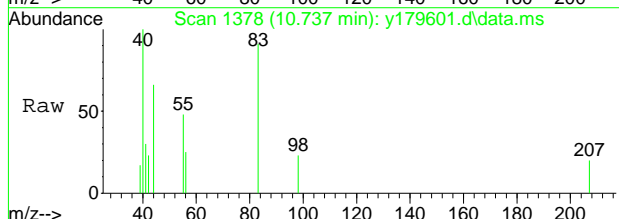
#59  
benzene  
Concen: 0.41 ug/L  
RT: 9.748 min Scan# 1189  
Delta R.T. -0.011 min  
Lab File: y179601.d  
Acq: 1 May 2018 11:48 am

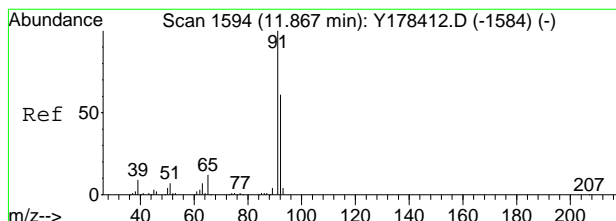
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 3540 | 100   |       |
| 77      | 27.6 | 0.0   | 53.1  |
| 52      | 16.5 | 0.0   | 46.6  |



#69  
methylcyclohexane  
Concen: 0.43 ug/L  
RT: 10.737 min Scan# 1378  
Delta R.T. -0.005 min  
Lab File: y179601.d  
Acq: 1 May 2018 11:48 am

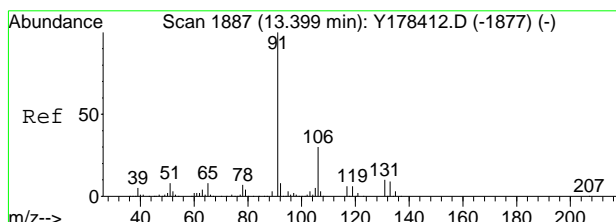
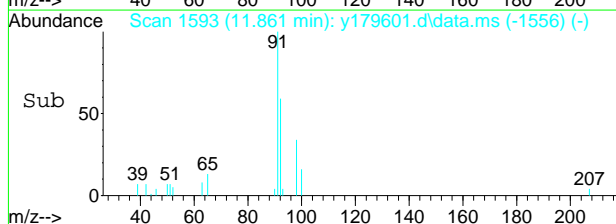
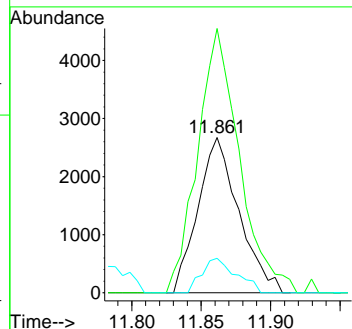
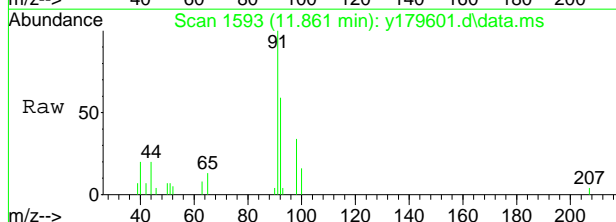
| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 83      | 1754 | 100   |        |
| 55      | 52.9 | 60.1  | 120.1# |
| 98      | 25.7 | 15.2  | 75.2   |





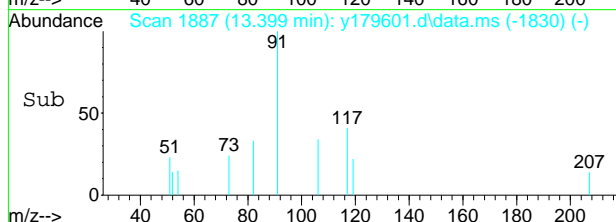
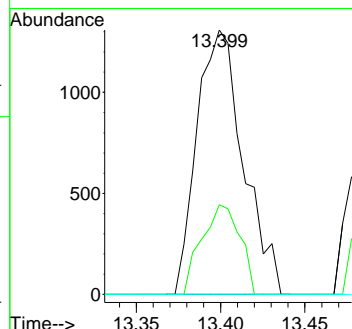
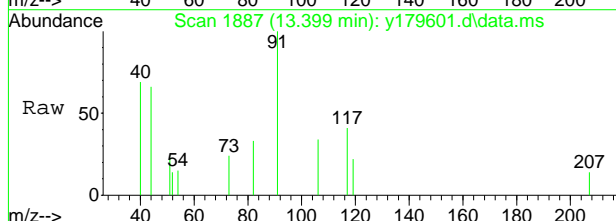
#78  
 toluene  
 Concen: 0.96 ug/L  
 RT: 11.861 min Scan# 1593  
 Delta R.T. -0.005 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 5460  |       |       |
| 92      | 100   |       |       |
| 91      | 170.3 | 145.2 | 185.2 |
| 65      | 22.3  | 0.0   | 39.8  |

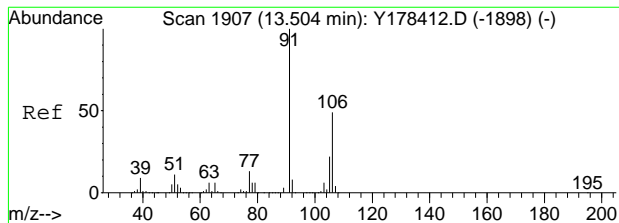


#92  
 ethylbenzene  
 Concen: 0.22 ug/L  
 RT: 13.399 min Scan# 1887  
 Delta R.T. -0.000 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 91      | 2502 |       |       |
| 91      | 100  |       |       |
| 106     | 33.9 | 0.0   | 59.9  |
| 77      | 0.0  | 0.0   | 38.4  |

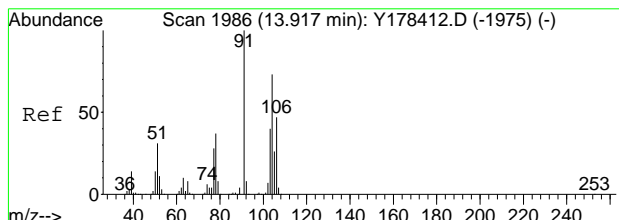
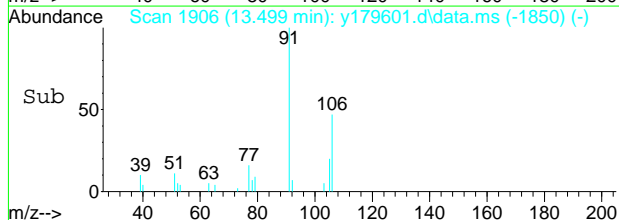
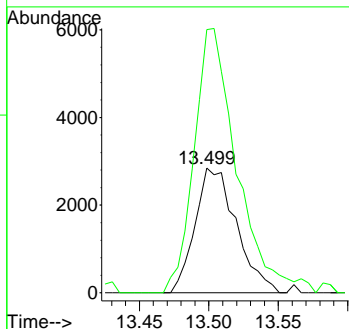
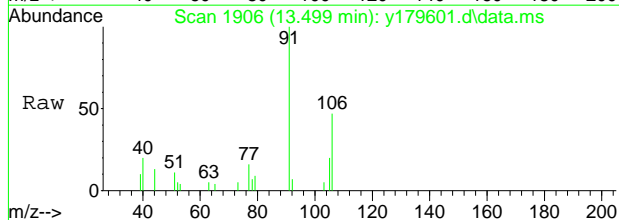


7.1.1  
 7



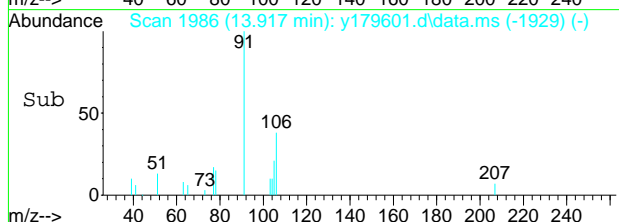
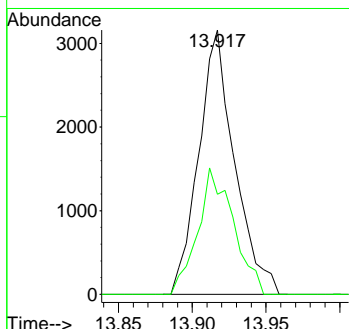
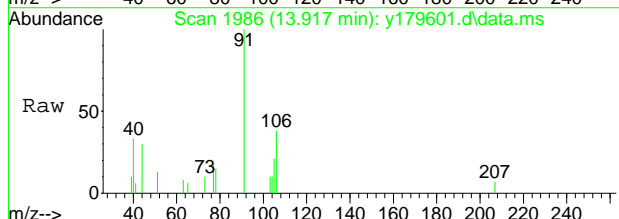
#93  
 m,p-xylene  
 Concen: 1.48 ug/L  
 RT: 13.499 min Scan# 1906  
 Delta R.T. -0.005 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

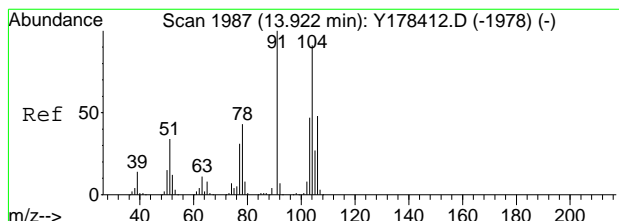
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 100   |       |       |
| 91      | 211.1 | 172.8 | 232.8 |



#94  
 o-xylene  
 Concen: 0.55 ug/L  
 RT: 13.917 min Scan# 1986  
 Delta R.T. -0.000 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

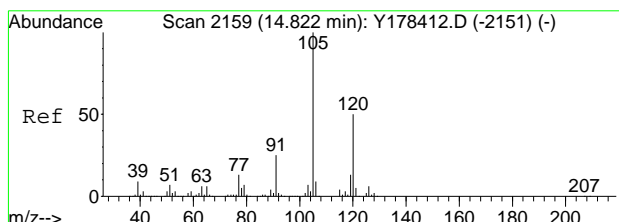
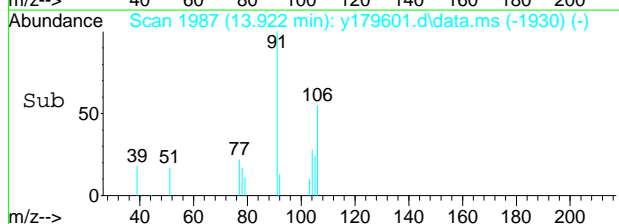
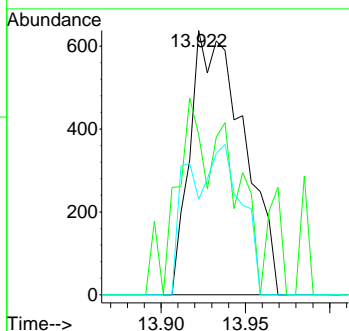
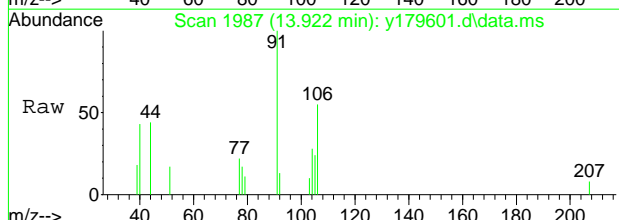
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 37.8  | 16.6  | 76.6  |





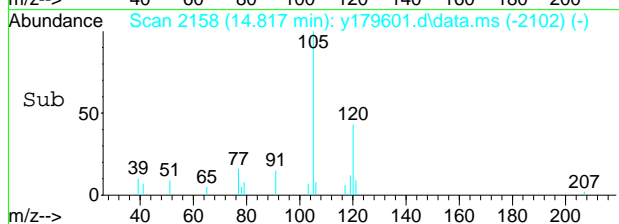
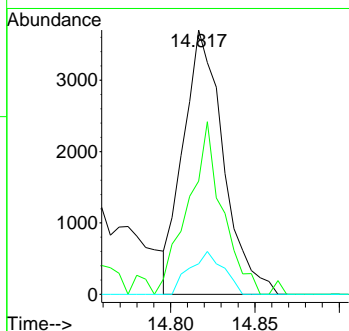
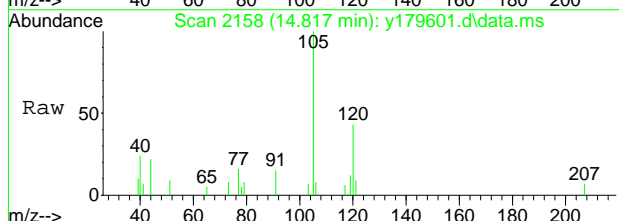
#95  
 styrene  
 Concen: 0.20 ug/L  
 RT: 13.922 min Scan# 1987  
 Delta R.T. -0.000 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 104     | 1399 |       |       |
| 78      | 60.7 | 16.8  | 76.8  |
| 103     | 36.2 | 21.6  | 81.6  |

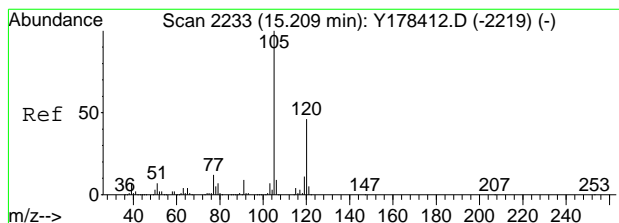


#110  
 1,3,5-trimethylbenzene  
 Concen: 0.78 ug/L  
 RT: 14.817 min Scan# 2158  
 Delta R.T. -0.005 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 105     | 6139 |       |       |
| 120     | 42.8 | 20.1  | 80.1  |
| 119     | 11.6 | 0.0   | 42.6  |

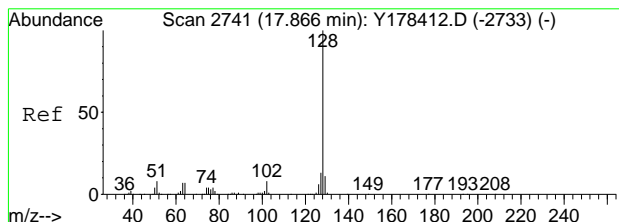
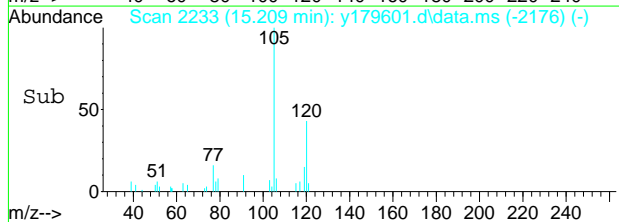
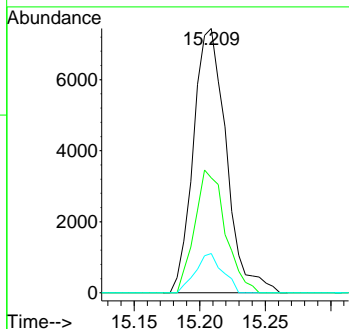
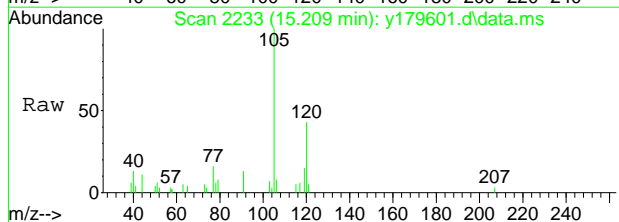


7.1.1  
7



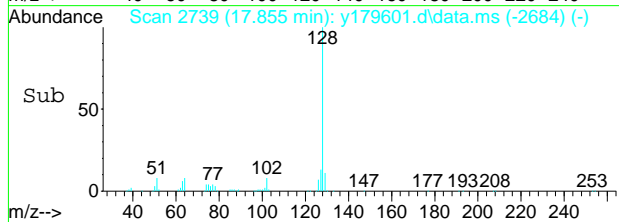
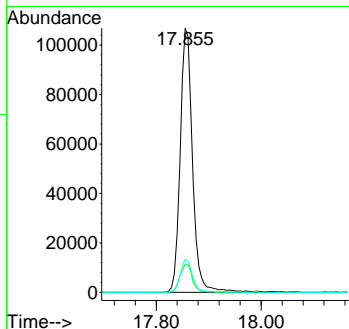
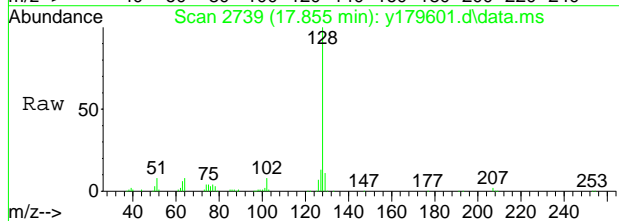
#112  
 1,2,4-trimethylbenzene  
 Concen: 1.64 ug/L  
 RT: 15.209 min Scan# 2233  
 Delta R.T. -0.000 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 43.5  | 16.3  | 76.3  |
| 119     | 14.9  | 0.0   | 42.3  |

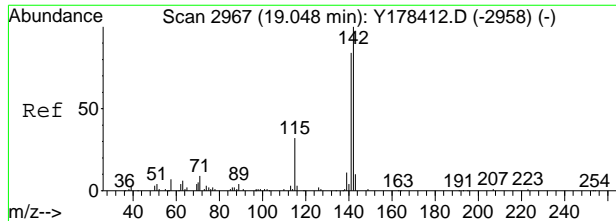


#125  
 naphthalene  
 Concen: 25.33 ug/L  
 RT: 17.855 min Scan# 2739  
 Delta R.T. -0.011 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.9  | 0.0   | 41.3  |
| 127     | 12.7  | 0.0   | 42.9  |

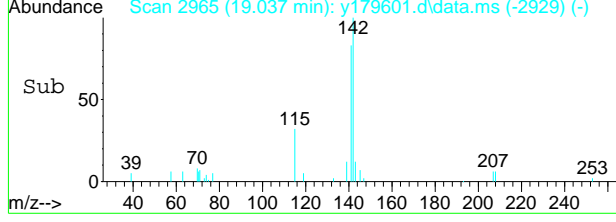
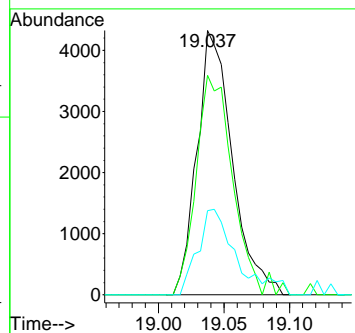
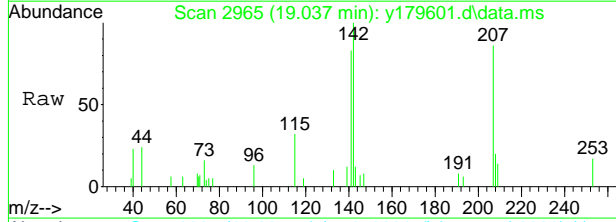


7.1.1  
7



#130  
 2-methylnaphthalene  
 Concen: 2.40 ug/L  
 RT: 19.037 min Scan# 2965  
 Delta R.T. -0.011 min  
 Lab File: y179601.d  
 Acq: 1 May 2018 11:48 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 142     | 100   |       |       |
| 141     | 83.0  | 64.3  | 104.3 |
| 115     | 31.9  | 11.6  | 51.6  |



7.1.1  
7





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179602.d  
 Acq On : 1 May 2018 12:17 pm  
 Operator : PrashanS  
 Sample : JC65058-6 Inst : MSY  
 Misc : MS25979,VY7766,5.2,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:58:22 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.961  | 65    | 78374    | 500.00   | ug/L  | -0.04    |
| 5) pentafluorobenzene         | 9.199  | 168   | 189295   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 285549   | 50.00    | ug/L  | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 279118   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 130205   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 84434    | 49.92    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 99.84%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 77195    | 46.21    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 92.42%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 355053   | 46.81    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 93.62%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 119582   | 55.32    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 110.64%  |
| Target Compounds              |        |       |          |          |       |          |
| 25) carbon disulfide          | 6.746  | 76    | 4015     | 0.58     | ug/L  | 85       |
| 59) benzene                   | 9.754  | 78    | 2403     | 0.29     | ug/L  | 74       |
| 125) naphthalene              | 17.866 | 128   | 7242     | 1.06     | ug/L  | 92       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.12  
7

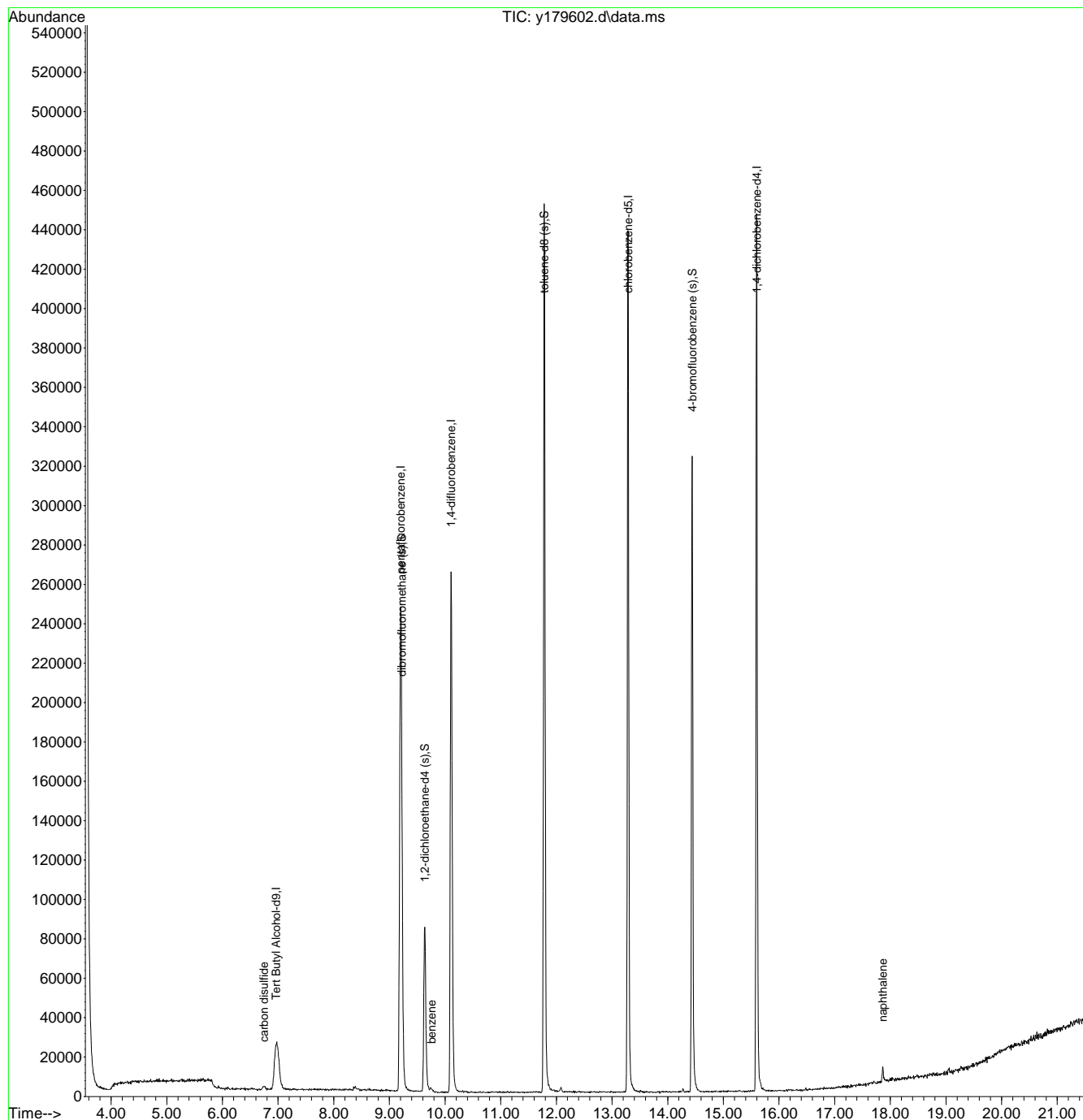


Quantitation Report (QT Reviewed)

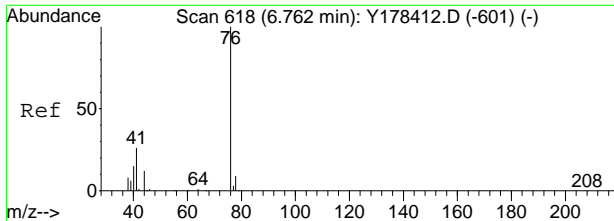
Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179602.d  
 Acq On : 1 May 2018 12:17 pm  
 Operator : Prashans  
 Sample : JC65058-6  
 Misc : MS25979,VY7766,5.2,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSY

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:58:22 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

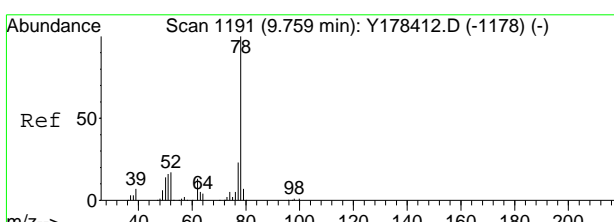
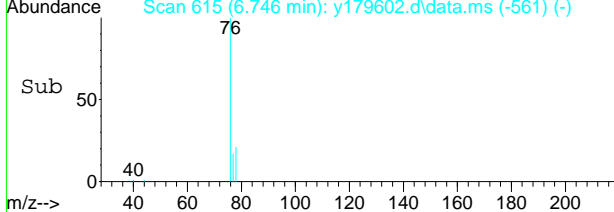
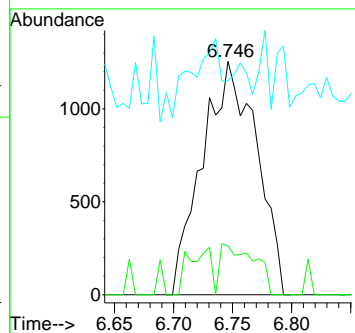
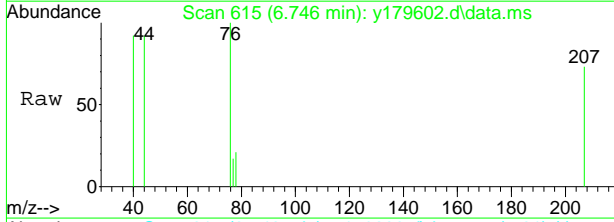


7.1.2  
7



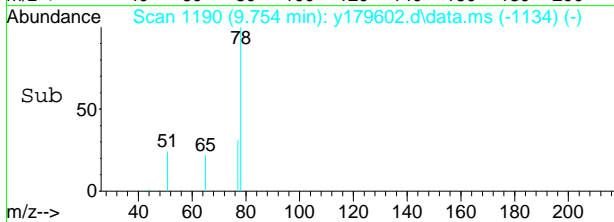
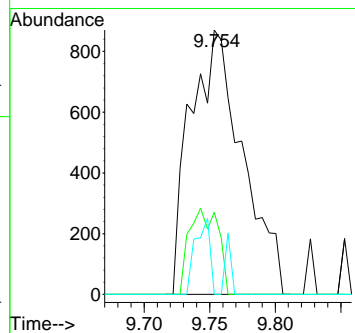
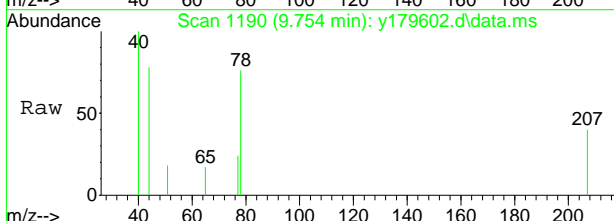
#25  
 carbon disulfide  
 Concen: 0.58 ug/L  
 RT: 6.746 min Scan# 615  
 Delta R.T. -0.016 min  
 Lab File: y179602.d  
 Acq: 1 May 2018 12:17 pm

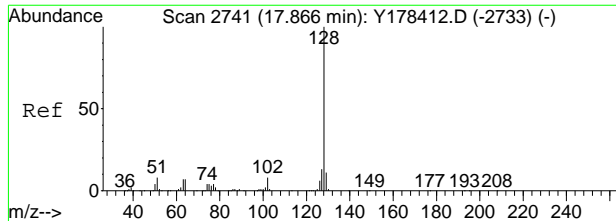
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 4015 |       |       |
| 76      | 100  |       |       |
| 78      | 20.9 | 0.0   | 39.3  |
| 44      | 11.3 | 0.0   | 42.1  |



#59  
 benzene  
 Concen: 0.29 ug/L  
 RT: 9.754 min Scan# 1190  
 Delta R.T. -0.005 min  
 Lab File: y179602.d  
 Acq: 1 May 2018 12:17 pm

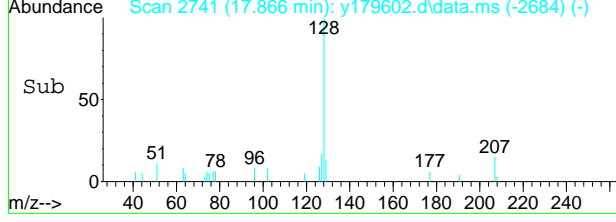
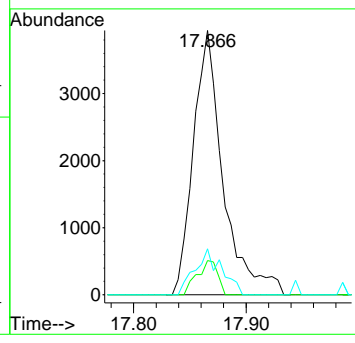
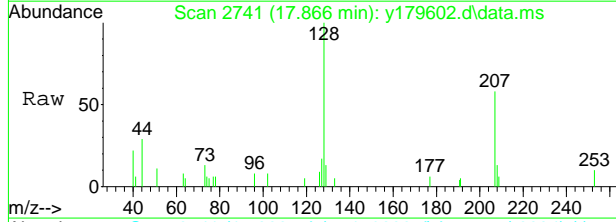
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 2403 |       |       |
| 78      | 100  |       |       |
| 77      | 31.1 | 0.0   | 53.1  |
| 52      | 0.0  | 0.0   | 46.6  |





#125  
 naphthalene  
 Concen: 1.06 ug/L  
 RT: 17.866 min Scan# 2741  
 Delta R.T. -0.000 min  
 Lab File: y179602.d  
 Acq: 1 May 2018 12:17 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 128     | 100  |       |       |
| 129     | 12.9 | 0.0   | 41.3  |
| 127     | 17.4 | 0.0   | 42.9  |



7.12  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179603.d  
 Acq On : 1 May 2018 12:47 pm  
 Operator : PrashanS  
 Sample : JC65058-7 Inst : MSY  
 Misc : MS25979,VY7766,5.2,,,,,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:59:25 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min)     |
|-------------------------------|--------|-------|----------|----------|-------|--------------|
| -----                         |        |       |          |          |       |              |
| Internal Standards            |        |       |          |          |       |              |
| 1) Tert Butyl Alcohol-d9      | 6.976  | 65    | 66832    | 500.00   | ug/L  | -0.03        |
| 5) pentafluorobenzene         | 9.199  | 168   | 186403   | 50.00    | ug/L  | -0.02        |
| 54) 1,4-difluorobenzene       | 10.115 | 114   | 286549   | 50.00    | ug/L  | 0.00         |
| 76) chlorobenzene-d5          | 13.289 | 117   | 263035   | 50.00    | ug/L  | 0.00         |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 123960   | 50.00    | ug/L  | -0.01        |
| System Monitoring Compounds   |        |       |          |          |       |              |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 82307    | 49.41    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 98.82%       |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 73900    | 44.09    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 88.18%       |
| 77) toluene-d8 (s)            | 11.783 | 98    | 344416   | 48.18    | ug/L  | -0.01        |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 96.36%       |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 111658   | 54.26    | ug/L  | 0.00         |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 108.52%      |
| Target Compounds              |        |       |          |          |       |              |
| 26) methylene chloride        | 7.024  | 84    | 1245     | 0.56     | ug/L  | Qvalue<br>83 |
| -----                         |        |       |          |          |       |              |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.3  
7

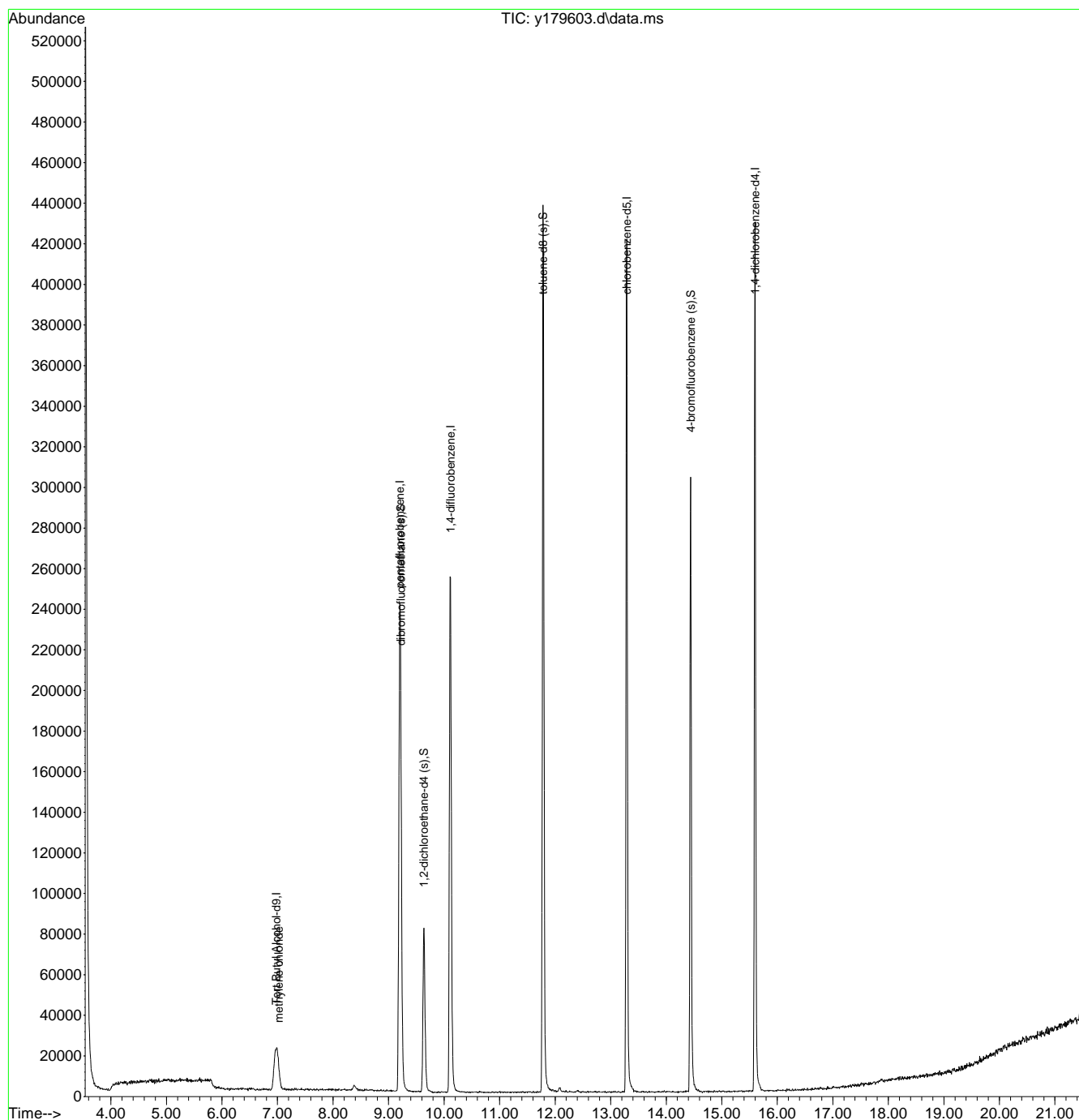


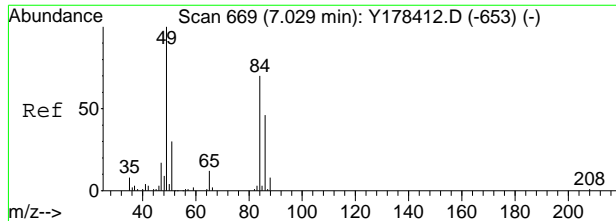
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
Data File : y179603.d  
Acq On : 1 May 2018 12:47 pm  
Operator : PrashanS  
Sample : JC65058-7  
Misc : MS25979,VY7766,5.2,,,,,1  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSY

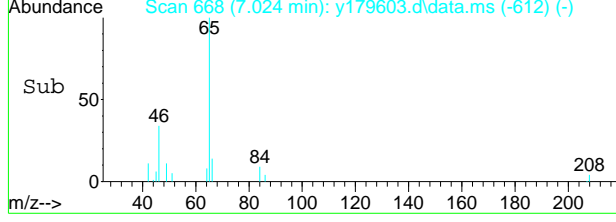
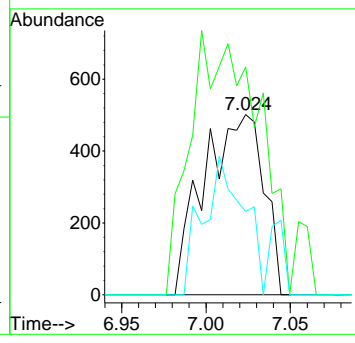
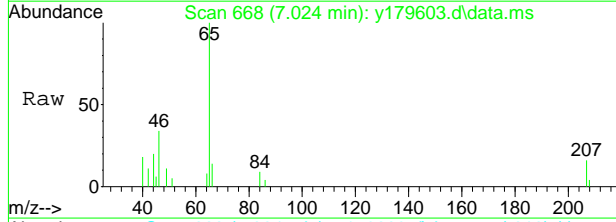
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
Quant Results File: MYS7713.RES  
Quant Time: May 04 00:59:25 2018  
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
QLast Update : Mon Mar 05 14:04:44 2018  
Response via : Initial Calibration





#26  
 methylene chloride  
 Concen: 0.56 ug/L  
 RT: 7.024 min Scan# 668  
 Delta R.T. -0.005 min  
 Lab File: y179603.d  
 Acq: 1 May 2018 12:47 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 126.3 | 113.5 | 173.5 |
| 86      | 46.2  | 35.7  | 95.7  |



7.1.3  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179604.d  
 Acq On : 1 May 2018 1:16 pm  
 Operator : PrashanS  
 Sample : JC65058-8 Inst : MSY  
 Misc : MS25979,VY7766,4.9,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:00:52 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.976  | 65    | 70408    | 500.00   | ug/L  | -0.03    |
| 5) pentafluorobenzene         | 9.199  | 168   | 181879   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 282261   | 50.00    | ug/L  | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 269087   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 122978   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.215  | 113   | 79291    | 48.79    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 97.58%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 74400    | 45.06    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 90.12%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 346091   | 47.33    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 94.66%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 112502   | 55.10    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 110.20%  |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

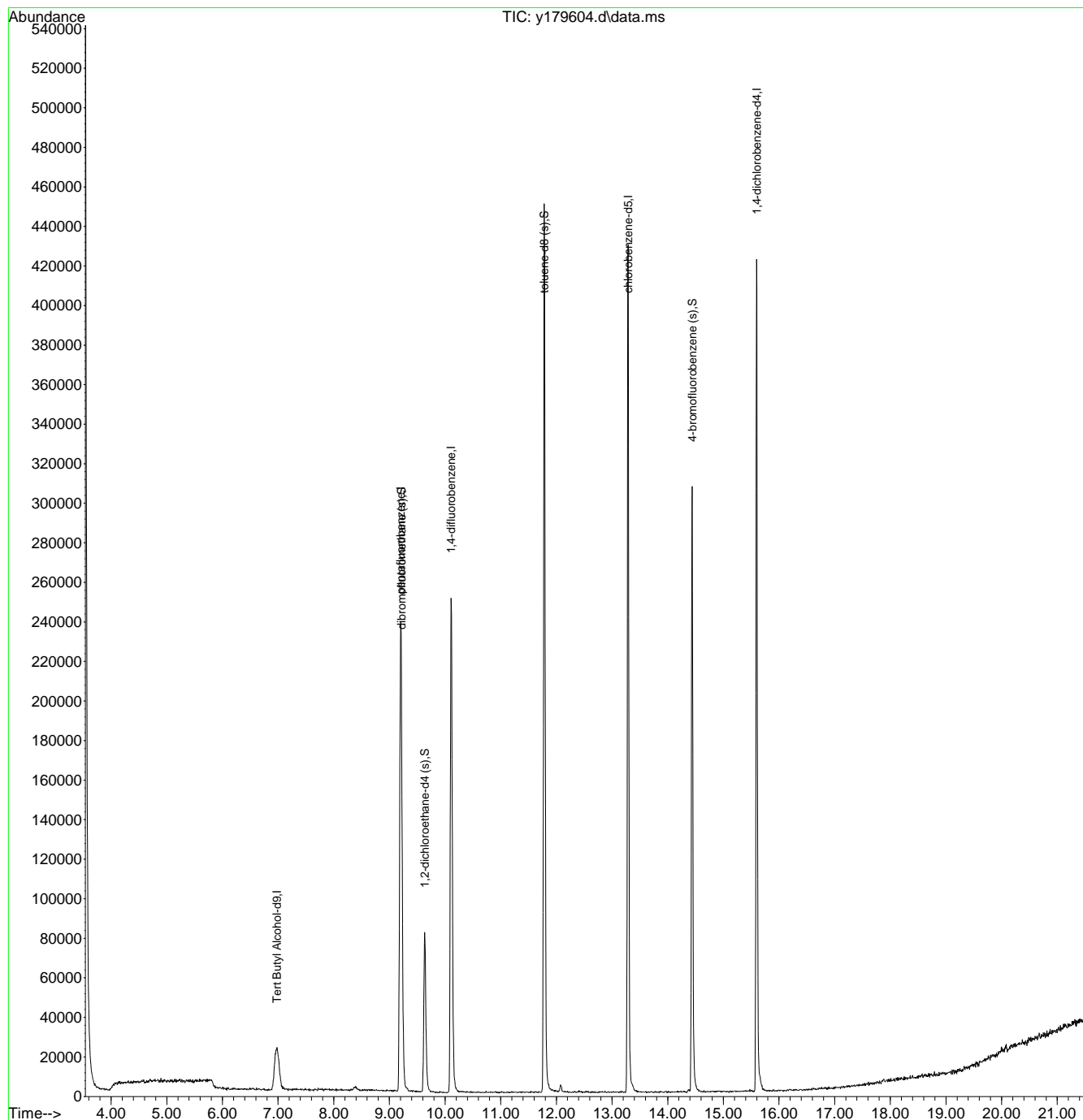
7.14  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179604.d  
 Acq On : 1 May 2018 1:16 pm  
 Operator : Prashans  
 Sample : JC65058-8 Inst : MSY  
 Misc : MS25979,VY7766,4.9,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:00:52 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.1.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-10-18\vlc6910\  
 Data File : 1c156646.d  
 Acq On : 9 May 2018 5:47 pm  
 Operator : prashans  
 Sample : JC65058-9 Inst : GCMS1C  
 Misc : MS26176,VLC6910,5.8,,,,,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MICS6871.M  
 Quant Results File: MICS6871.RES  
 Quant Time: May 10 17:21:30 2018  
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 QLast Update : Fri Apr 13 06:52:32 2018  
 Response via : Initial Calibration

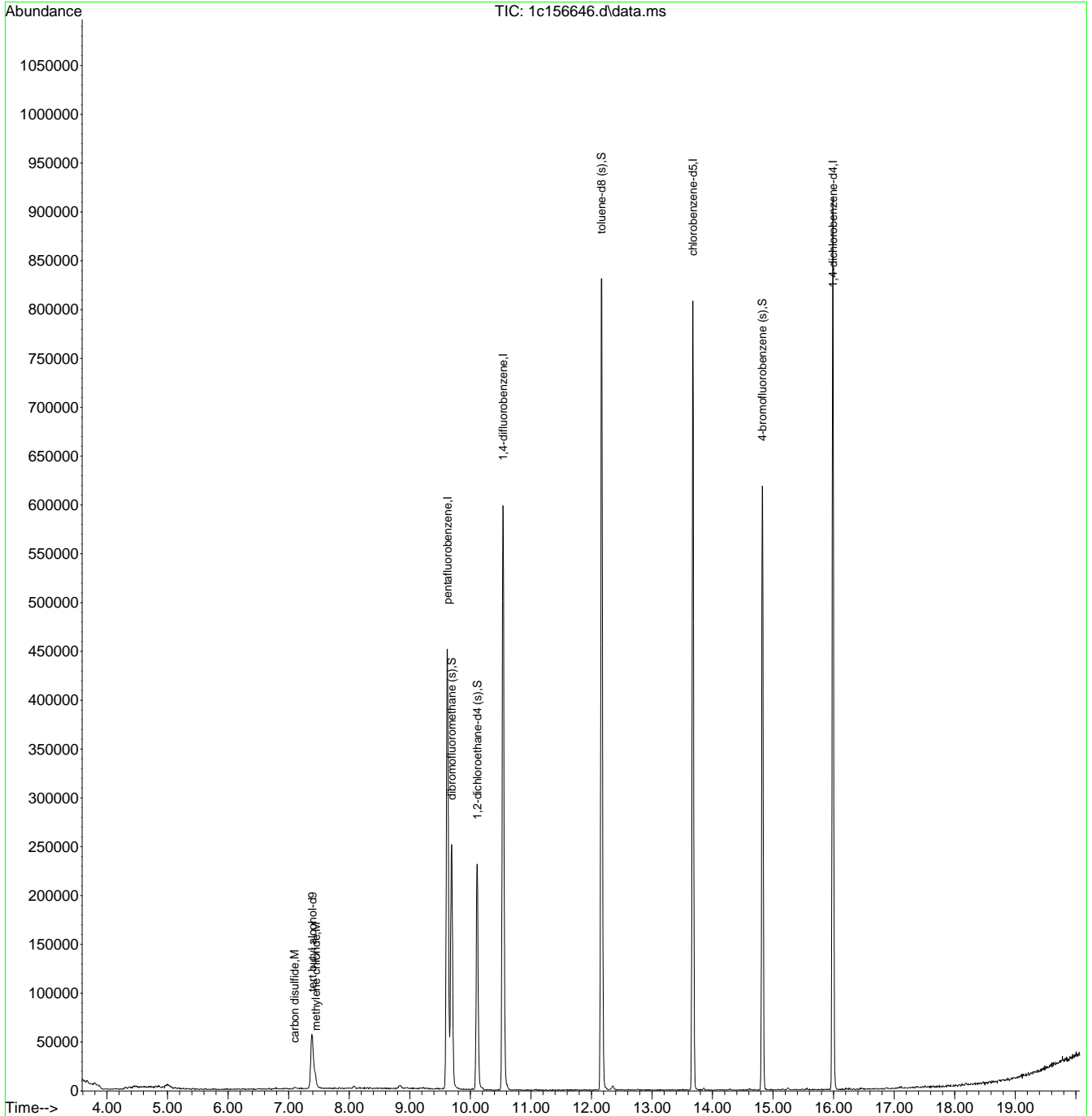
| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) tert butyl alcohol-d9      | 7.390  | 65    | 107451   | 500.00   | ug/L  | -0.01    |
| 5) pentafluorobenzene         | 9.623  | 168   | 373289   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 10.538 | 114   | 561290   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 13.676 | 117   | 462985   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.988 | 152   | 233571   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 9.691  | 113   | 170303   | 50.03    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 127 | Recovery | =     | 100.06%  |
| 55) 1,2-dichloroethane-d4 (s) | 10.114 | 65    | 193338   | 56.71    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 130 | Recovery | =     | 113.42%  |
| 77) toluene-d8 (s)            | 12.165 | 98    | 613084   | 52.55    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 105.10%  |
| 101) 4-bromofluorobenzene (s) | 14.822 | 95    | 192150   | 49.38    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 79 - 127 | Recovery | =     | 98.76%   |
| Target Compounds              |        |       |          |          |       |          |
| 24) carbon disulfide          | 7.097  | 76    | 3009     | 0.25     | ug/L  | 74       |
| 25) methylene chloride        | 7.447  | 84    | 4172     | 1.13     | ug/L  | 92       |
| -----                         |        |       |          |          |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

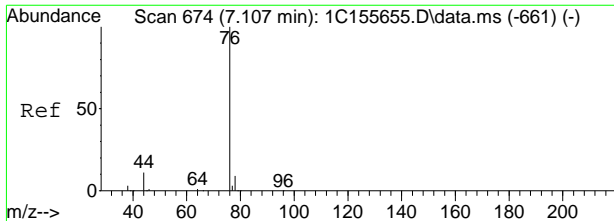
Data Path : C:\msdchem\1\data\nizele\5-10-18\vlc6910\  
 Data File : 1c156646.d  
 Acq On : 9 May 2018 5:47 pm  
 Operator : prashans  
 Sample : JC65058-9 Inst : GCMS1C  
 Misc : MS26176,Vlc6910,5.8,,,,,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M  
 Quant Results File: M1CS6871.RES  
 Quant Time: May 10 17:21:30 2018  
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 QLast Update : Fri Apr 13 06:52:32 2018  
 Response via : Initial Calibration

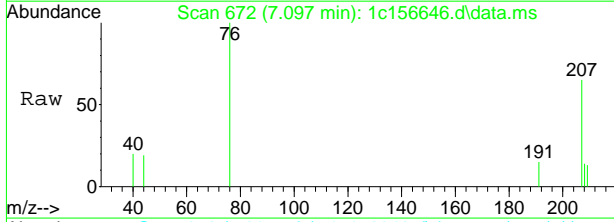


7.15  
7



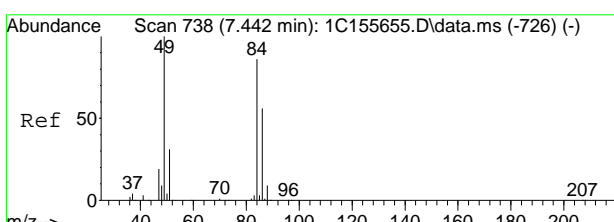
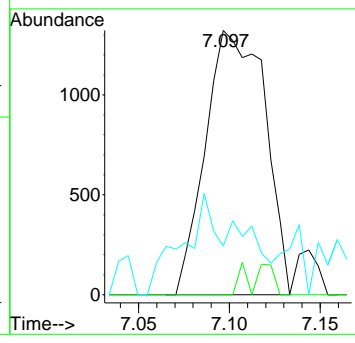
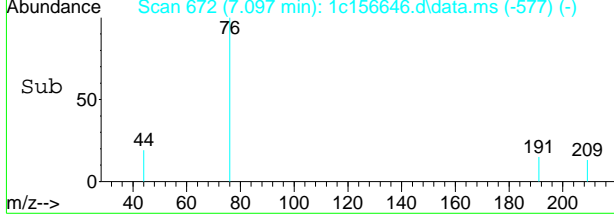


#24  
 carbon disulfide  
 Concen: 0.25 ug/L  
 RT: 7.097 min Scan# 672  
 Delta R.T. -0.005 min  
 Lab File: 1c156646.d  
 Acq: 9 May 2018 5:47 pm

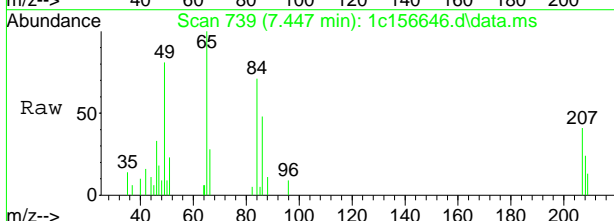


Tgt Ion: 76 Resp: 3009

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 76  | 100   |       |       |
| 78  | 0.0   | 0.0   | 39.0  |
| 44  | 1.3   | 0.0   | 41.5  |

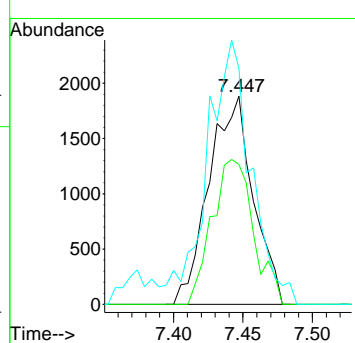
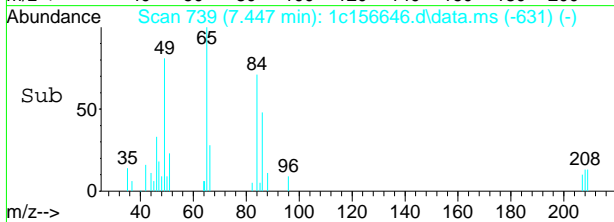


#25  
 methylene chloride  
 Concen: 1.13 ug/L  
 RT: 7.447 min Scan# 739  
 Delta R.T. 0.005 min  
 Lab File: 1c156646.d  
 Acq: 9 May 2018 5:47 pm



Tgt Ion: 84 Resp: 4172

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 84  | 100   |       |       |
| 86  | 67.2  | 35.1  | 95.1  |
| 49  | 104.1 | 86.7  | 146.7 |



7.15  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179605.d  
 Acq On : 1 May 2018 1:44 pm  
 Operator : PrashanS  
 Sample : JC65058-10 Inst : MSY  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:01:46 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.976  | 65    | 69724    | 500.00   | ug/L  | -0.03    |
| 5) pentafluorobenzene         | 9.199  | 168   | 189620   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 290853   | 50.00    | ug/L  | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 287668   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 126426   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 83444    | 49.25    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 98.50%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 76282    | 44.83    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 89.66%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 369981   | 47.33    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 94.66%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 118176   | 56.30    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 112.60%  |
| Target Compounds              |        |       |          |          |       |          |
| 26) methylene chloride        | 7.008  | 84    | 1358     | 0.60     | ug/L  | 81       |

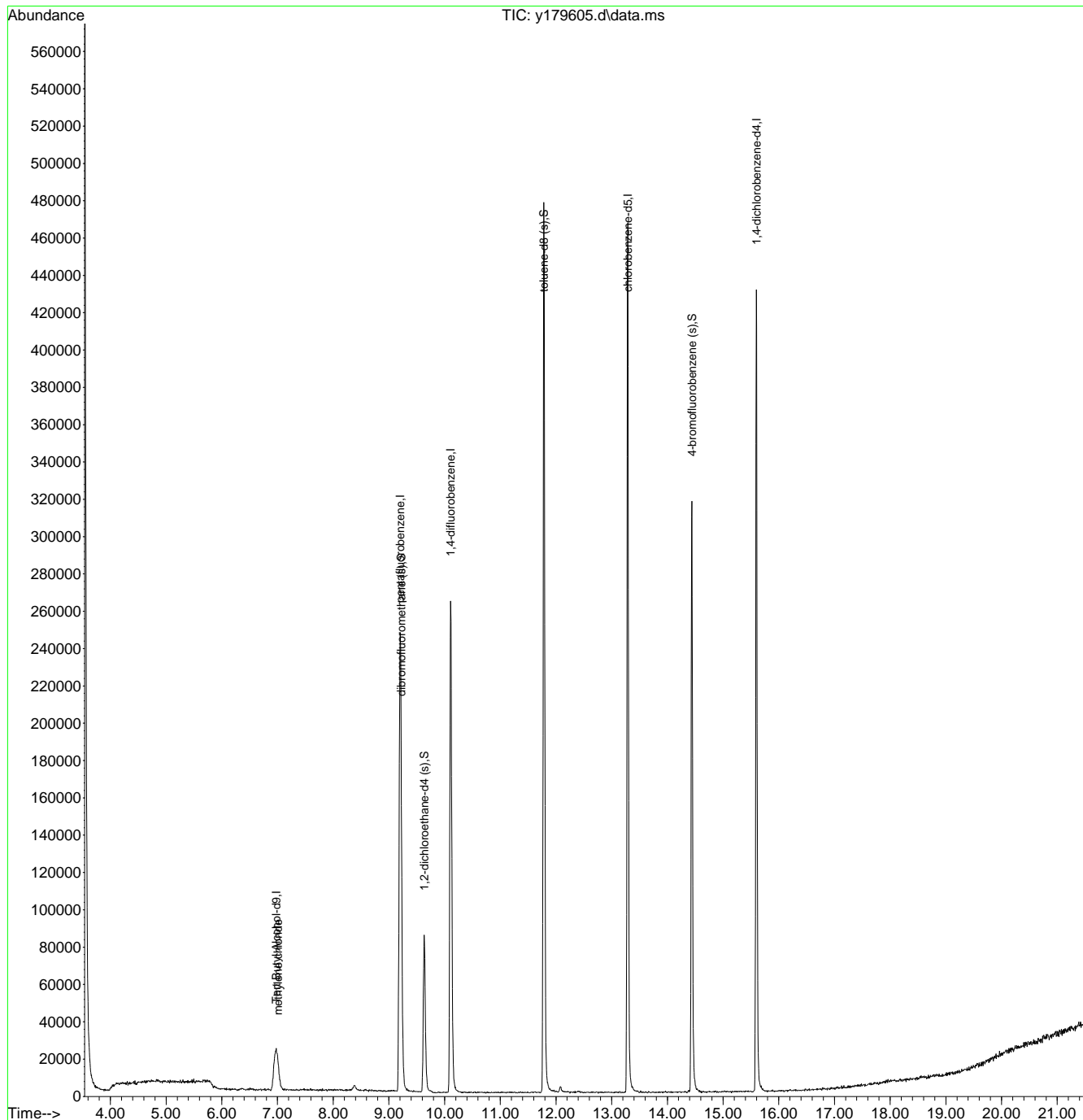
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.6  
7

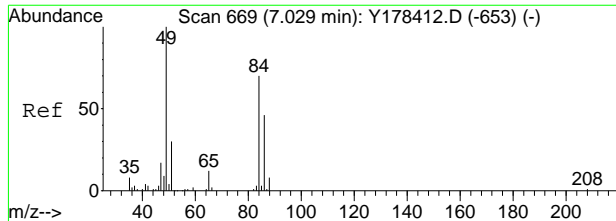
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179605.d  
 Acq On : 1 May 2018 1:44 pm  
 Operator : Prashans  
 Sample : JC65058-10 Inst : MSY  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:01:46 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

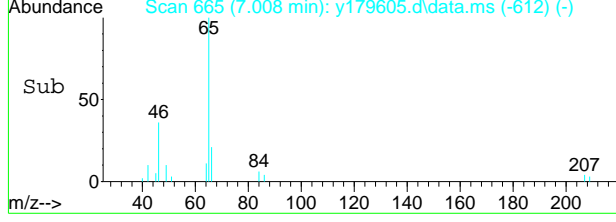
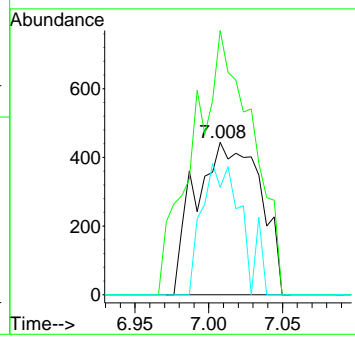
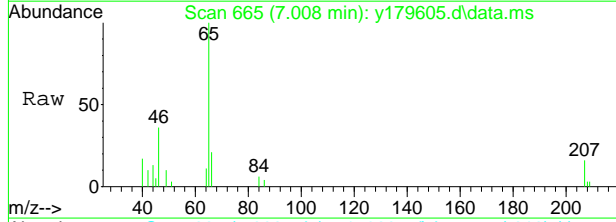


7.1.6  
7



#26  
 methylene chloride  
 Concen: 0.60 ug/L  
 RT: 7.008 min Scan# 665  
 Delta R.T. -0.021 min  
 Lab File: y179605.d  
 Acq: 1 May 2018 1:44 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 173.4 | 113.5 | 173.5 |
| 86      | 70.5  | 35.7  | 95.7  |



7.1.6  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179607.d  
 Acq On : 1 May 2018 3:07 pm  
 Operator : PrashanS  
 Sample : JC65058-11 Inst : MSY  
 Misc : MS25979,VY7766,5.4,,,,,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:04:10 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min)    |
|-------------------------------|--------|-------|----------|----------|-------|-------------|
| -----                         |        |       |          |          |       |             |
| Internal Standards            |        |       |          |          |       |             |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 76893    | 500.00   | ug/L  | -0.03       |
| 5) pentafluorobenzene         | 9.199  | 168   | 183996   | 50.00    | ug/L  | -0.02       |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 281778   | 50.00    | ug/L  | -0.01       |
| 76) chlorobenzene-d5          | 13.289 | 117   | 279127   | 50.00    | ug/L  | 0.00        |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 129062   | 50.00    | ug/L  | -0.01       |
| System Monitoring Compounds   |        |       |          |          |       |             |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 80879    | 49.19    | ug/L  | -0.02       |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 98.38%      |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 75616    | 45.87    | ug/L  | -0.02       |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 91.74%      |
| 77) toluene-d8 (s)            | 11.783 | 98    | 351321   | 46.32    | ug/L  | -0.01       |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 92.64%      |
| 101) 4-bromofluorobenzene (s) | 14.435 | 95    | 118847   | 55.47    | ug/L  | -0.01       |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 110.94%     |
| Target Compounds              |        |       |          |          |       |             |
| 22) acetone                   | 6.343  | 58    | 1299     | 5.70     | ug/L  | Qvalue # 16 |
| 26) methylene chloride        | 6.997  | 84    | 1368m    | 0.62     | ug/L  |             |
| 59) benzene                   | 9.753  | 78    | 4790     | 0.58     | ug/L  | 87          |
| 78) toluene                   | 11.866 | 92    | 3355     | 0.63     | ug/L  | 93          |
| 93) m,p-xylene                | 13.509 | 106   | 1115     | 0.30     | ug/L  | 83          |
| -----                         |        |       |          |          |       |             |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.17  
7

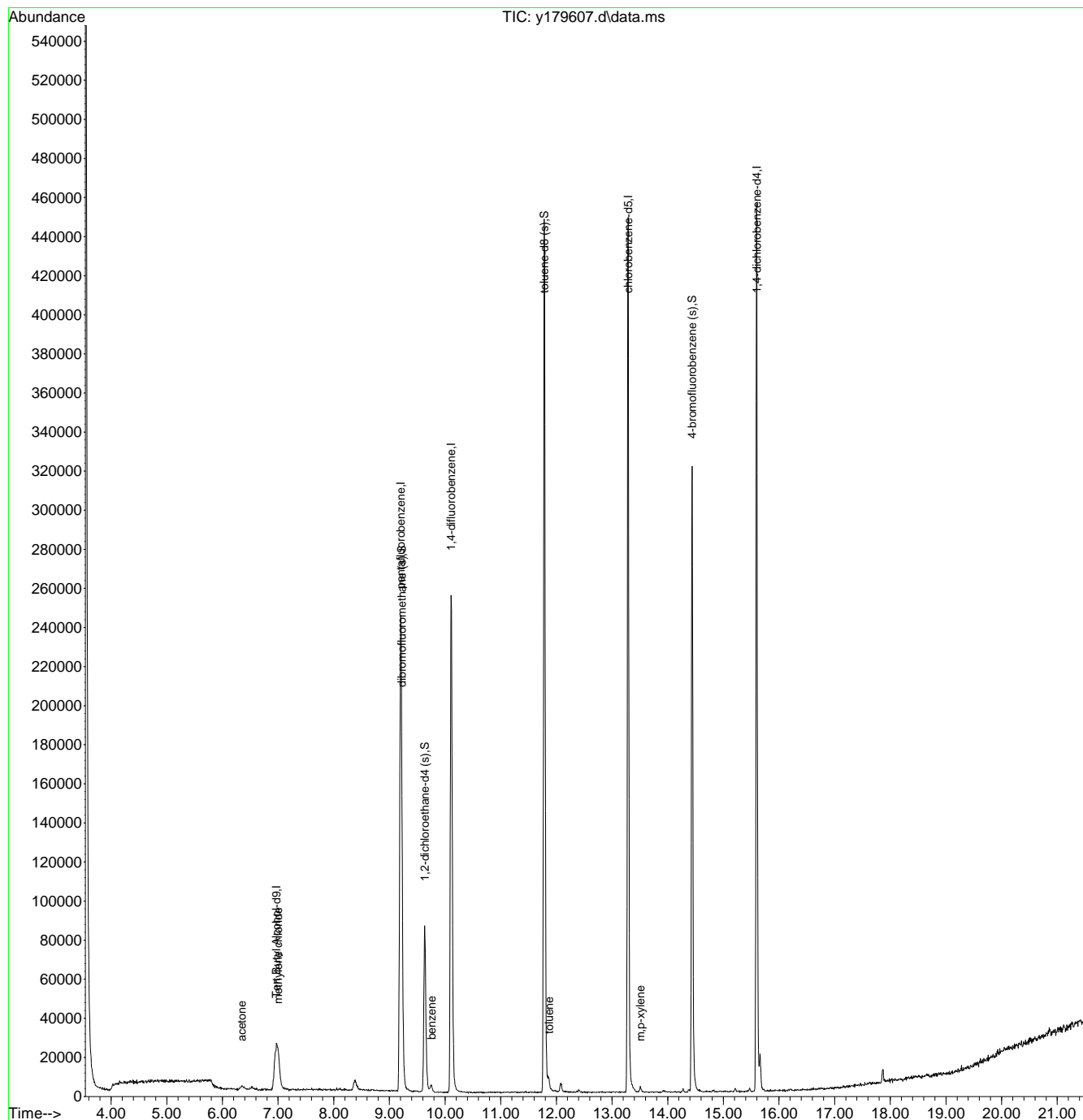


Quantitation Report (QT Reviewed)

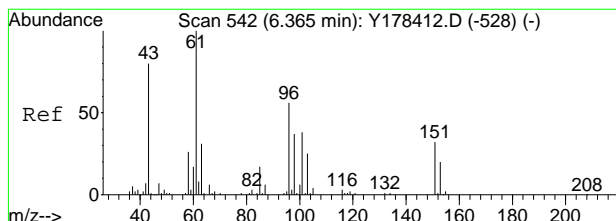
Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179607.d  
 Acq On : 1 May 2018 3:07 pm  
 Operator : Prashans  
 Sample : JC65058-11  
 Misc : MS25979,VY7766,5.4,,,,,1  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSY

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:04:10 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

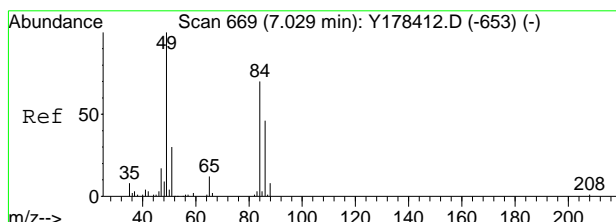
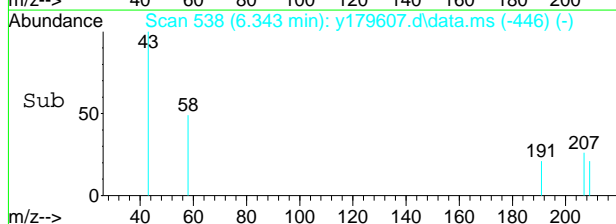
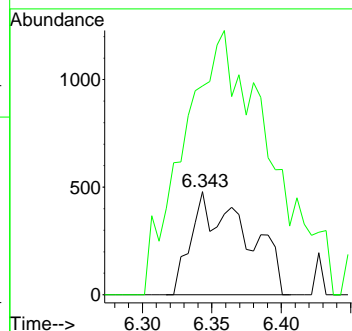
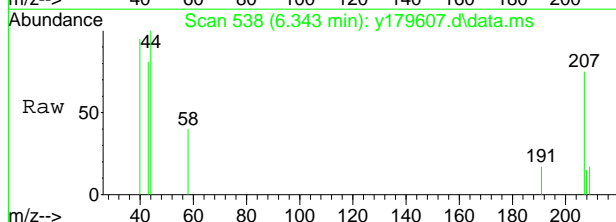


7.1.7  
7



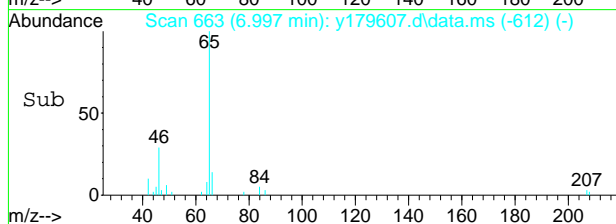
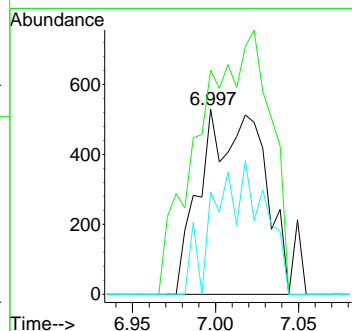
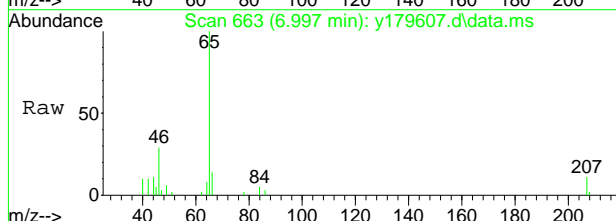
#22  
 acetone  
 Concen: 5.70 ug/L  
 RT: 6.343 min Scan# 538  
 Delta R.T. -0.021 min  
 Lab File: y179607.d  
 Acq: 1 May 2018 3:07 pm

Tgt Ion: 58 Resp: 1299  
 Ion Ratio Lower Upper  
 58 100  
 43 135.9 270.7 330.7#

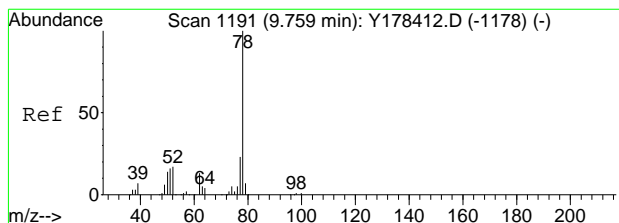


#26  
 methylene chloride  
 Concen: 0.62 ug/L m  
 RT: 6.997 min Scan# 663  
 Delta R.T. -0.032 min  
 Lab File: y179607.d  
 Acq: 1 May 2018 3:07 pm

Tgt Ion: 84 Resp: 1368  
 Ion Ratio Lower Upper  
 84 100  
 49 121.2 113.5 173.5  
 86 55.2 35.7 95.7

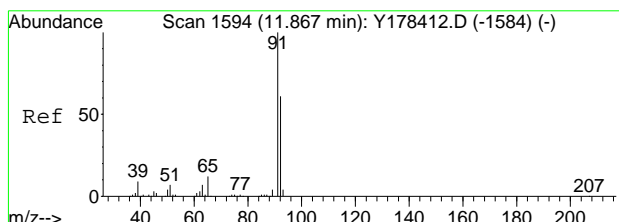
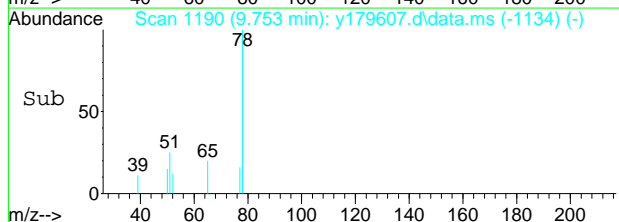
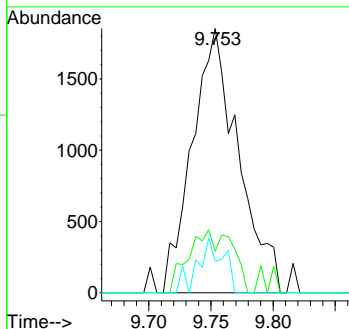
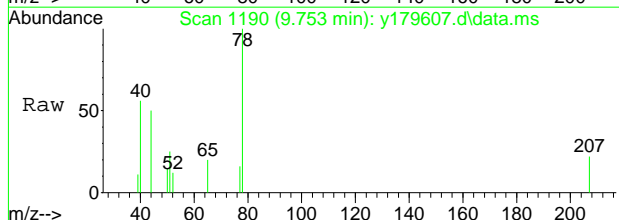


7.17  
 7



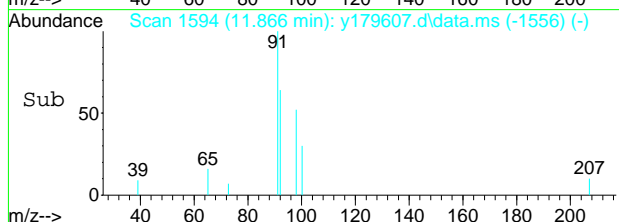
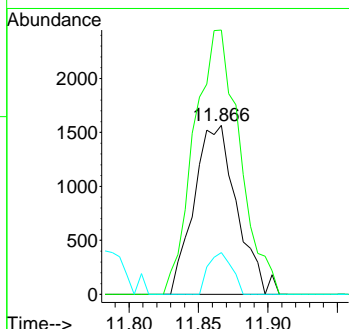
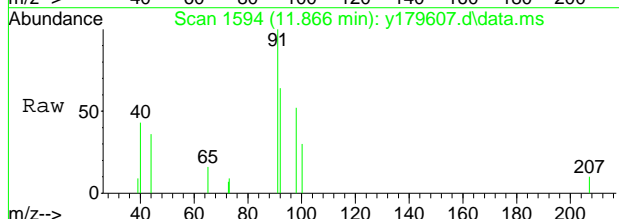
#59  
benzene  
Concen: 0.58 ug/L  
RT: 9.753 min Scan# 1190  
Delta R.T. -0.006 min  
Lab File: y179607.d  
Acq: 1 May 2018 3:07 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 4790 |       |       |
| 77      | 15.7 | 0.0   | 53.1  |
| 52      | 12.0 | 0.0   | 46.6  |

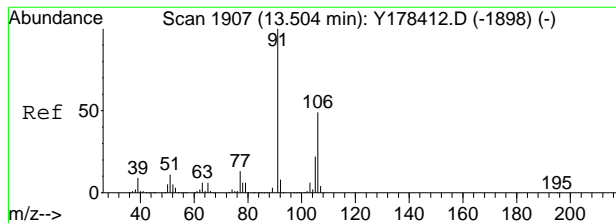


#78  
toluene  
Concen: 0.63 ug/L  
RT: 11.866 min Scan# 1594  
Delta R.T. -0.000 min  
Lab File: y179607.d  
Acq: 1 May 2018 3:07 pm

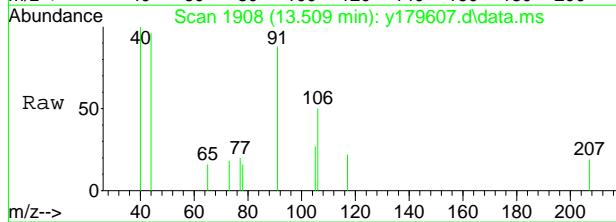
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 3355  |       |       |
| 91      | 156.3 | 145.2 | 185.2 |
| 65      | 24.6  | 0.0   | 39.8  |



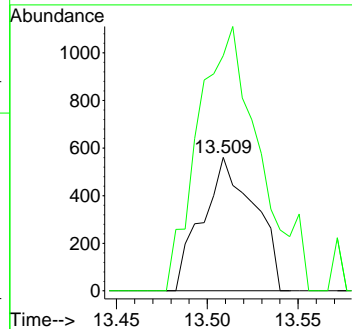
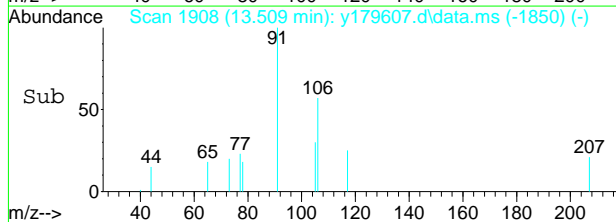
7.17



#93  
 m,p-xylene  
 Concen: 0.30 ug/L  
 RT: 13.509 min Scan# 1908  
 Delta R.T. 0.005 min  
 Lab File: y179607.d  
 Acq: 1 May 2018 3:07 pm



Tgt Ion:106 Resp: 1115  
 Ion Ratio Lower Upper  
 106 100  
 91 176.1 172.8 232.8



7.17  
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179608.d  
 Acq On : 1 May 2018 3:36 pm  
 Operator : PrashanS  
 Sample : JC65058-12 Inst : MSY  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:05:07 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Tert Butyl Alcohol-d9      | 6.966  | 65    | 73994    | 500.00   | ug/L   | -0.04    |
| 5) pentafluorobenzene         | 9.199  | 168   | 185322   | 50.00    | ug/L   | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 283094   | 50.00    | ug/L   | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 270722   | 50.00    | ug/L   | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 129417   | 50.00    | ug/L   | -0.01    |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 83222    | 50.25    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =      | 100.50%  |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 77922    | 47.05    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =      | 94.10%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 346947   | 47.16    | ug/L   | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =      | 94.32%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 116679   | 54.31    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =      | 108.62%  |
| Target Compounds              |        |       |          |          |        |          |
| 25) carbon disulfide          | 6.746  | 76    | 5677     | 0.84     | ug/L   | 88       |
| 26) methylene chloride        | 7.013  | 84    | 1487     | 0.67     | ug/L   | 86       |
| 59) benzene                   | 9.748  | 78    | 3100     | 0.37     | ug/L   | 78       |
| 78) toluene                   | 11.856 | 92    | 2391     | 0.46     | ug/L # | 85       |
| 93) m,p-xylene                | 13.509 | 106   | 1674     | 0.46     | ug/L   | 81       |
| 94) o-xylene                  | 13.912 | 91    | 1841     | 0.21     | ug/L   | 92       |
| 110) 1,3,5-trimethylbenzene   | 14.822 | 105   | 1870     | 0.24     | ug/L   | 88       |
| 112) 1,2,4-trimethylbenzene   | 15.214 | 105   | 3162     | 0.41     | ug/L   | 93       |
| 125) naphthalene              | 17.860 | 128   | 59536    | 8.80     | ug/L   | 97       |
| -----                         |        |       |          |          |        |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

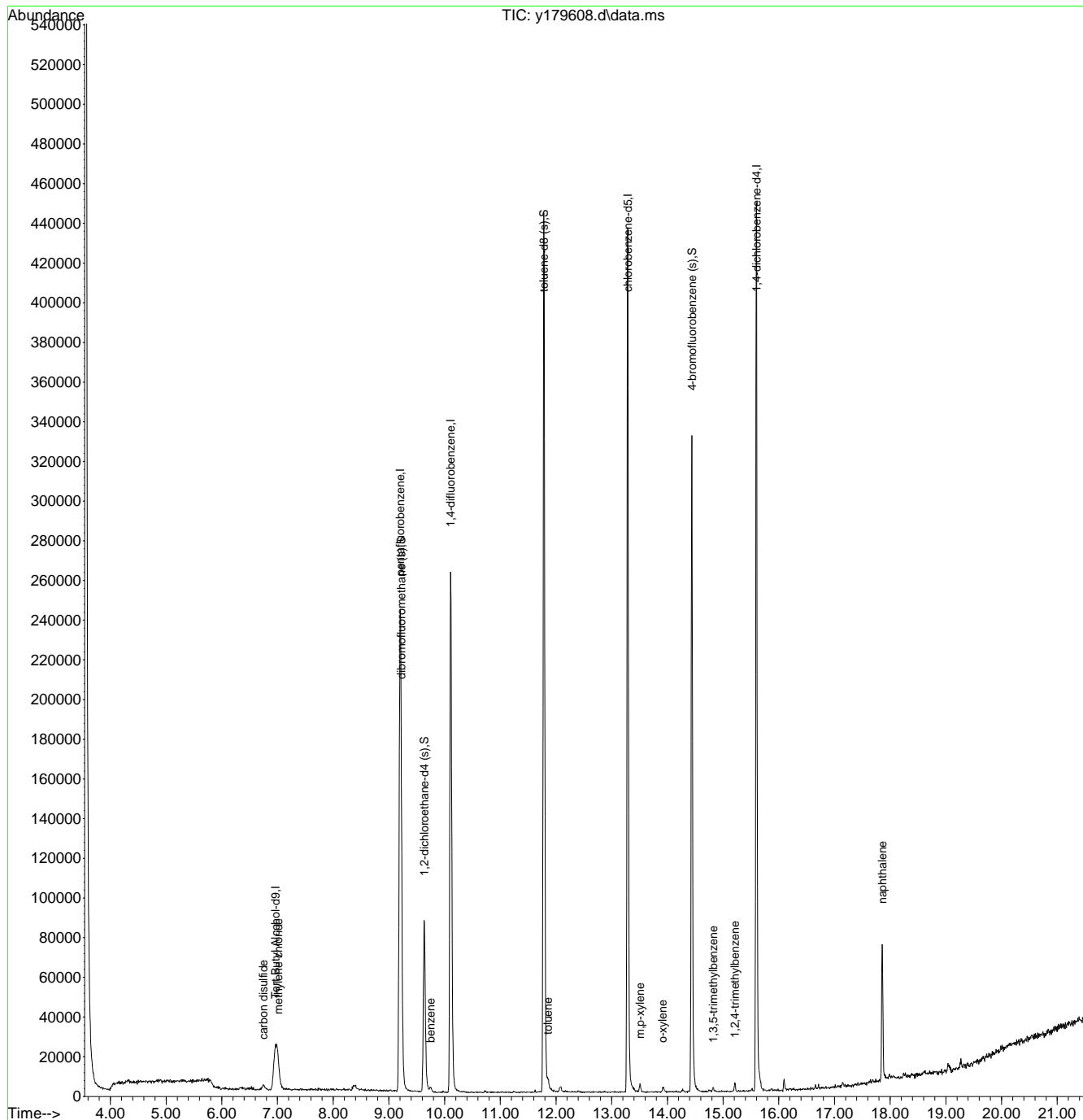
7.18  
7

Quantitation Report (QT Reviewed)

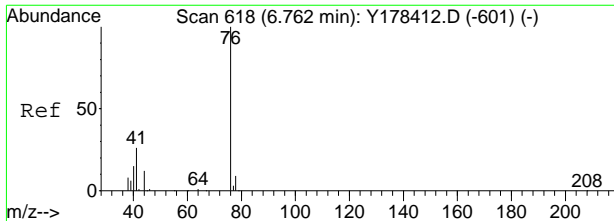
Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179608.d  
 Acq On : 1 May 2018 3:36 pm  
 Operator : Prashans  
 Sample : JC65058-12  
 Misc : MS25979,VY7766,5.8,,,,,1  
 ALS Vial : 13 Sample Multiplier: 1

Inst : MSY

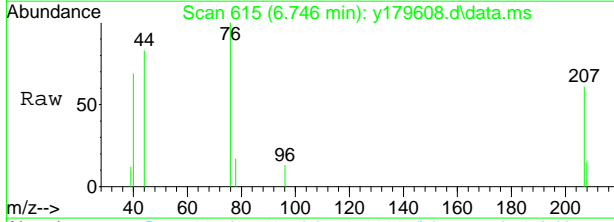
Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:05:07 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



718

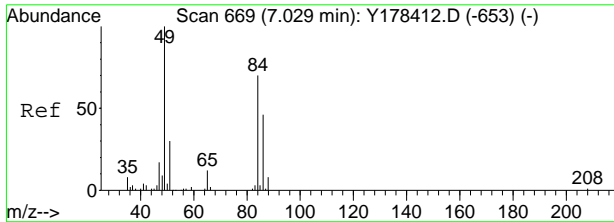
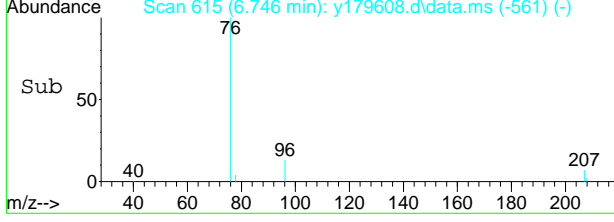
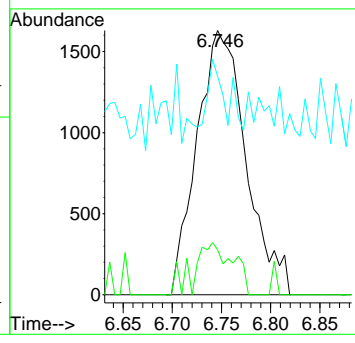


#25  
 carbon disulfide  
 Concen: 0.84 ug/L  
 RT: 6.746 min Scan# 615  
 Delta R.T. -0.016 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm

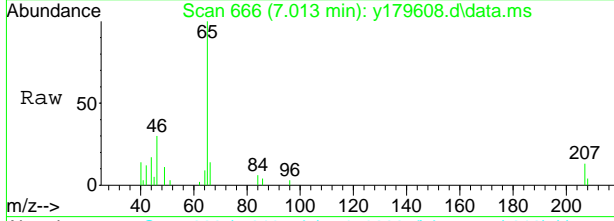


Tgt Ion: 76 Resp: 5677

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 76  | 100   |       |       |
| 78  | 17.1  | 0.0   | 39.3  |
| 44  | 14.0  | 0.0   | 42.1  |

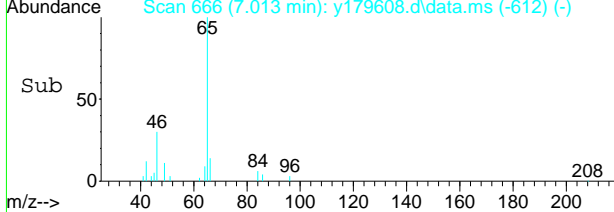
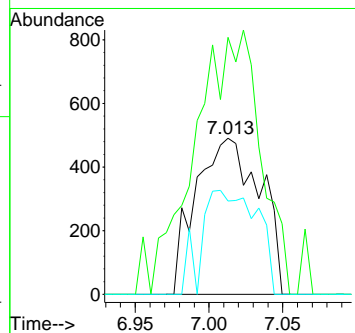


#26  
 methylene chloride  
 Concen: 0.67 ug/L  
 RT: 7.013 min Scan# 666  
 Delta R.T. -0.016 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm



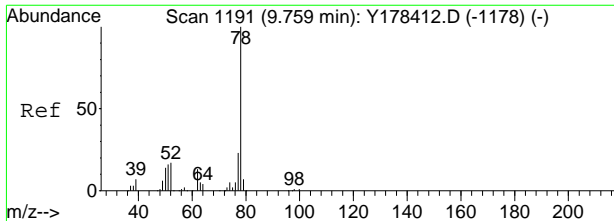
Tgt Ion: 84 Resp: 1487

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 84  | 100   |       |       |
| 49  | 164.6 | 113.5 | 173.5 |
| 86  | 59.7  | 35.7  | 95.7  |

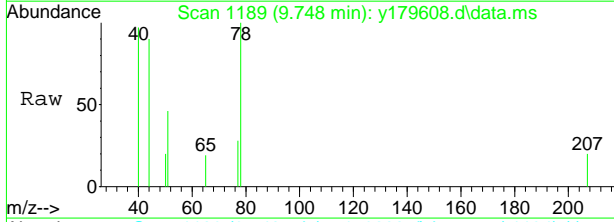


7.18  
7



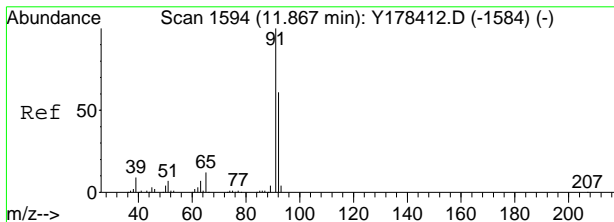
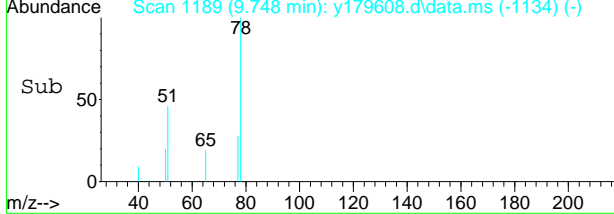
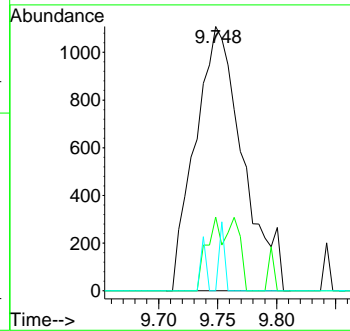


#59  
benzene  
Concen: 0.37 ug/L  
RT: 9.748 min Scan# 1189  
Delta R.T. -0.011 min  
Lab File: y179608.d  
Acq: 1 May 2018 3:36 pm

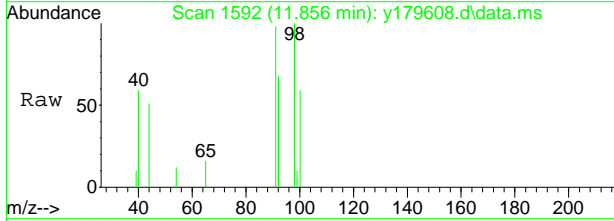


Tgt Ion: 78 Resp: 3100

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 78  | 100   |       |       |
| 77  | 27.9  | 0.0   | 53.1  |
| 52  | 0.0   | 0.0   | 46.6  |

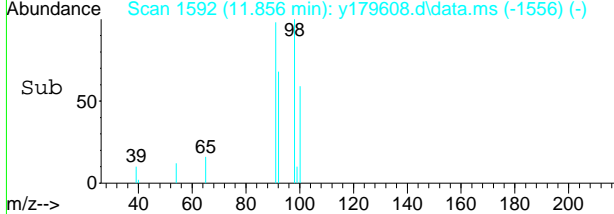
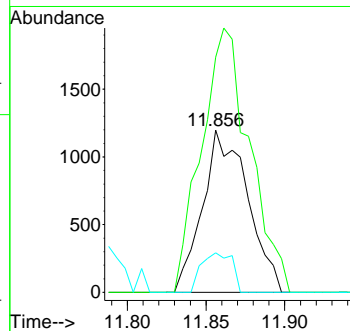


#78  
toluene  
Concen: 0.46 ug/L  
RT: 11.856 min Scan# 1592  
Delta R.T. -0.011 min  
Lab File: y179608.d  
Acq: 1 May 2018 3:36 pm

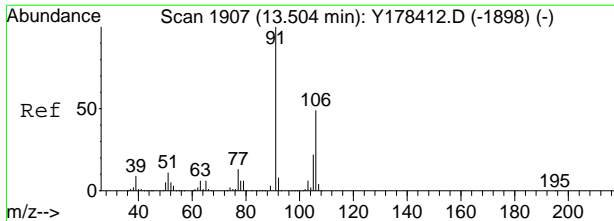


Tgt Ion: 92 Resp: 2391

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 92  | 100   |       |        |
| 91  | 144.8 | 145.2 | 185.2# |
| 65  | 24.4  | 0.0   | 39.8   |

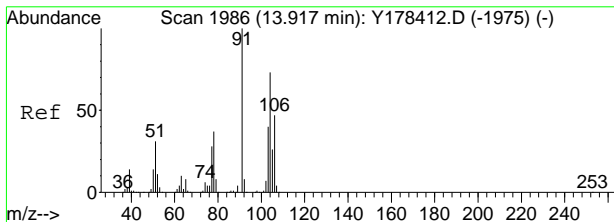
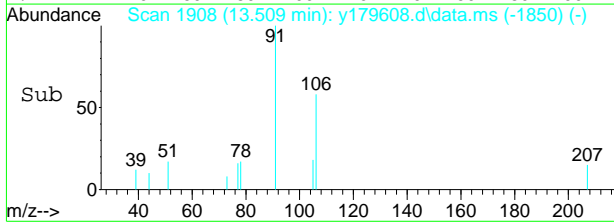
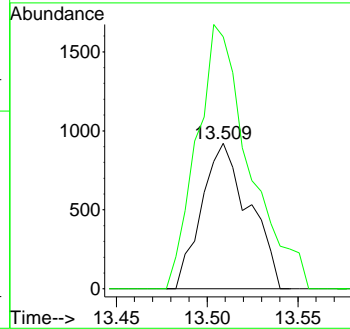
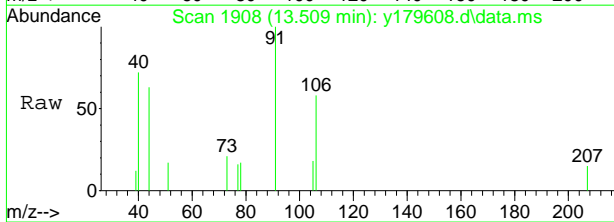






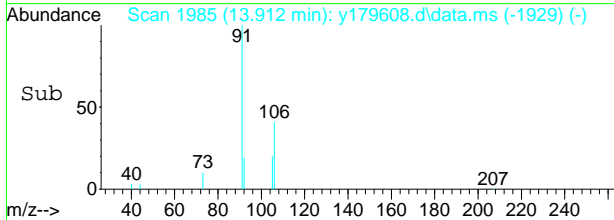
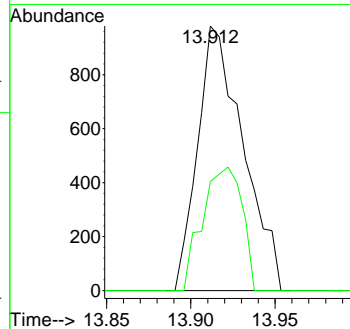
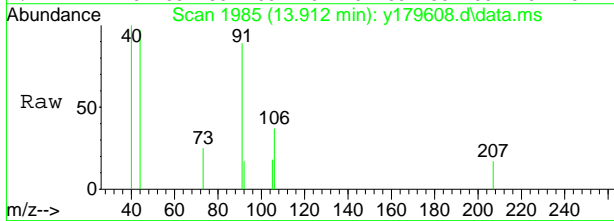
#93  
 m,p-xylene  
 Concen: 0.46 ug/L  
 RT: 13.509 min Scan# 1908  
 Delta R.T. 0.005 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm

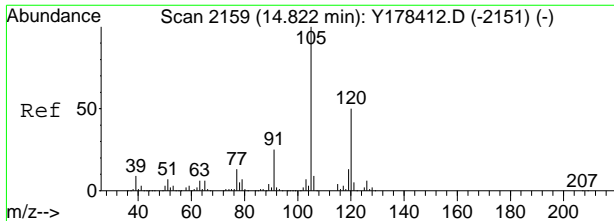
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 1674  |       |       |
| 106     | 100   |       |       |
| 91      | 173.3 | 172.8 | 232.8 |



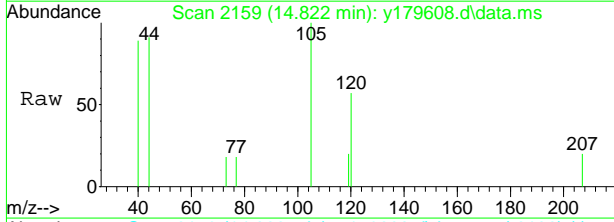
#94  
 o-xylene  
 Concen: 0.21 ug/L  
 RT: 13.912 min Scan# 1985  
 Delta R.T. -0.006 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 91      | 1841 |       |       |
| 91      | 100  |       |       |
| 106     | 41.2 | 16.6  | 76.6  |



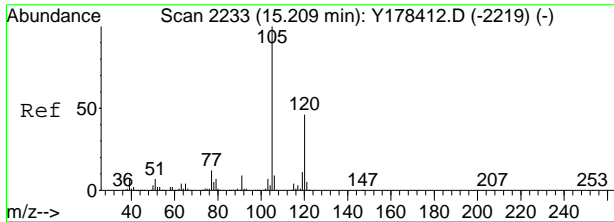
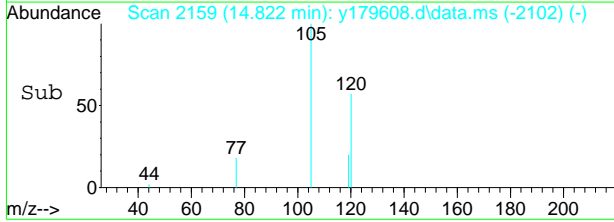
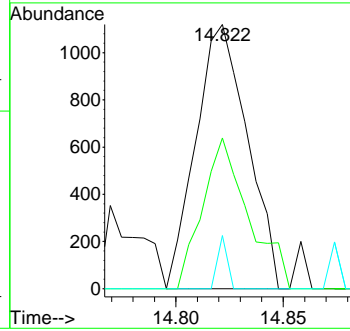


#110  
 1,3,5-trimethylbenzene  
 Concen: 0.24 ug/L  
 RT: 14.822 min Scan# 2159  
 Delta R.T. -0.000 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm

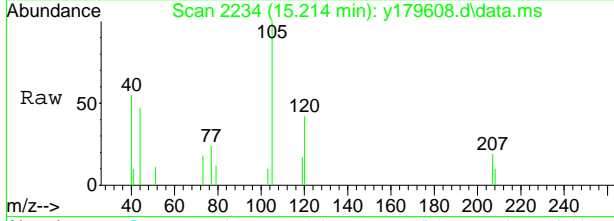


Tgt Ion:105 Resp: 1870

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 105 | 100   |       |       |
| 120 | 57.1  | 20.1  | 80.1  |
| 119 | 20.2  | 0.0   | 42.6  |

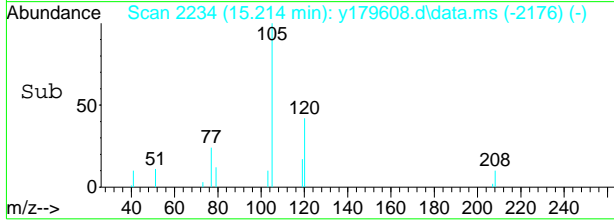
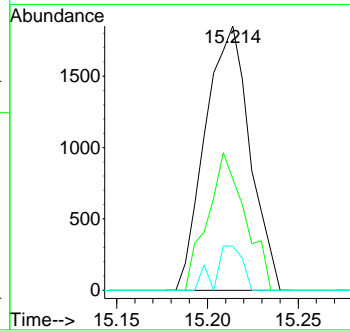


#112  
 1,2,4-trimethylbenzene  
 Concen: 0.41 ug/L  
 RT: 15.214 min Scan# 2234  
 Delta R.T. 0.005 min  
 Lab File: y179608.d  
 Acq: 1 May 2018 3:36 pm

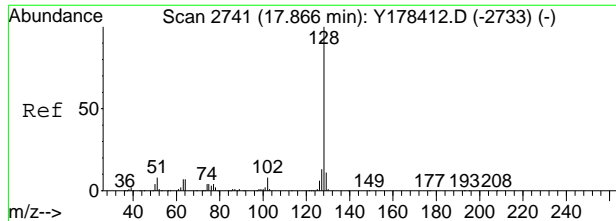


Tgt Ion:105 Resp: 3162

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 105 | 100   |       |       |
| 120 | 42.2  | 16.3  | 76.3  |
| 119 | 16.7  | 0.0   | 42.3  |

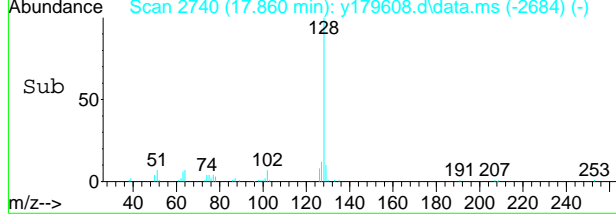
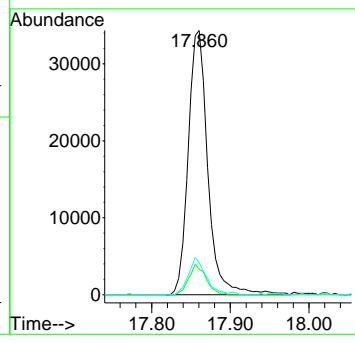
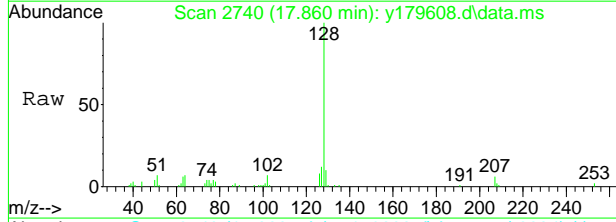


7.1.8  
7



#125  
naphthalene  
Concen: 8.80 ug/L  
RT: 17.860 min Scan# 2740  
Delta R.T. -0.006 min  
Lab File: y179608.d  
Acq: 1 May 2018 3:36 pm

| Tgt Ion | Resp  |
|---------|-------|
| 128     | 59536 |
| 129     | 41.3  |
| 127     | 42.9  |



7.1.8  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179609.d  
 Acq On : 1 May 2018 4:04 pm  
 Operator : PrashanS  
 Sample : JC65058-13 Inst : MSY  
 Misc : MS25979,VY7766,6.8,,,,,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:05:45 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min)     |
|-------------------------------|--------|-------|----------|----------|-------|--------------|
| -----                         |        |       |          |          |       |              |
| Internal Standards            |        |       |          |          |       |              |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 74157    | 500.00   | ug/L  | -0.03        |
| 5) pentafluorobenzene         | 9.199  | 168   | 191282   | 50.00    | ug/L  | -0.02        |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 292058   | 50.00    | ug/L  | -0.01        |
| 76) chlorobenzene-d5          | 13.289 | 117   | 275505   | 50.00    | ug/L  | 0.00         |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 128046   | 50.00    | ug/L  | -0.01        |
| System Monitoring Compounds   |        |       |          |          |       |              |
| 47) dibromofluoromethane (s)  | 9.215  | 113   | 83215    | 48.68    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 97.36%       |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 77742    | 45.50    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 91.00%       |
| 77) toluene-d8 (s)            | 11.783 | 98    | 355667   | 47.51    | ug/L  | -0.01        |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 95.02%       |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 116805   | 54.95    | ug/L  | 0.00         |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 109.90%      |
| Target Compounds              |        |       |          |          |       |              |
| 26) methylene chloride        | 7.013  | 84    | 5460     | 2.40     | ug/L  | Qvalue<br>96 |
| -----                         |        |       |          |          |       |              |

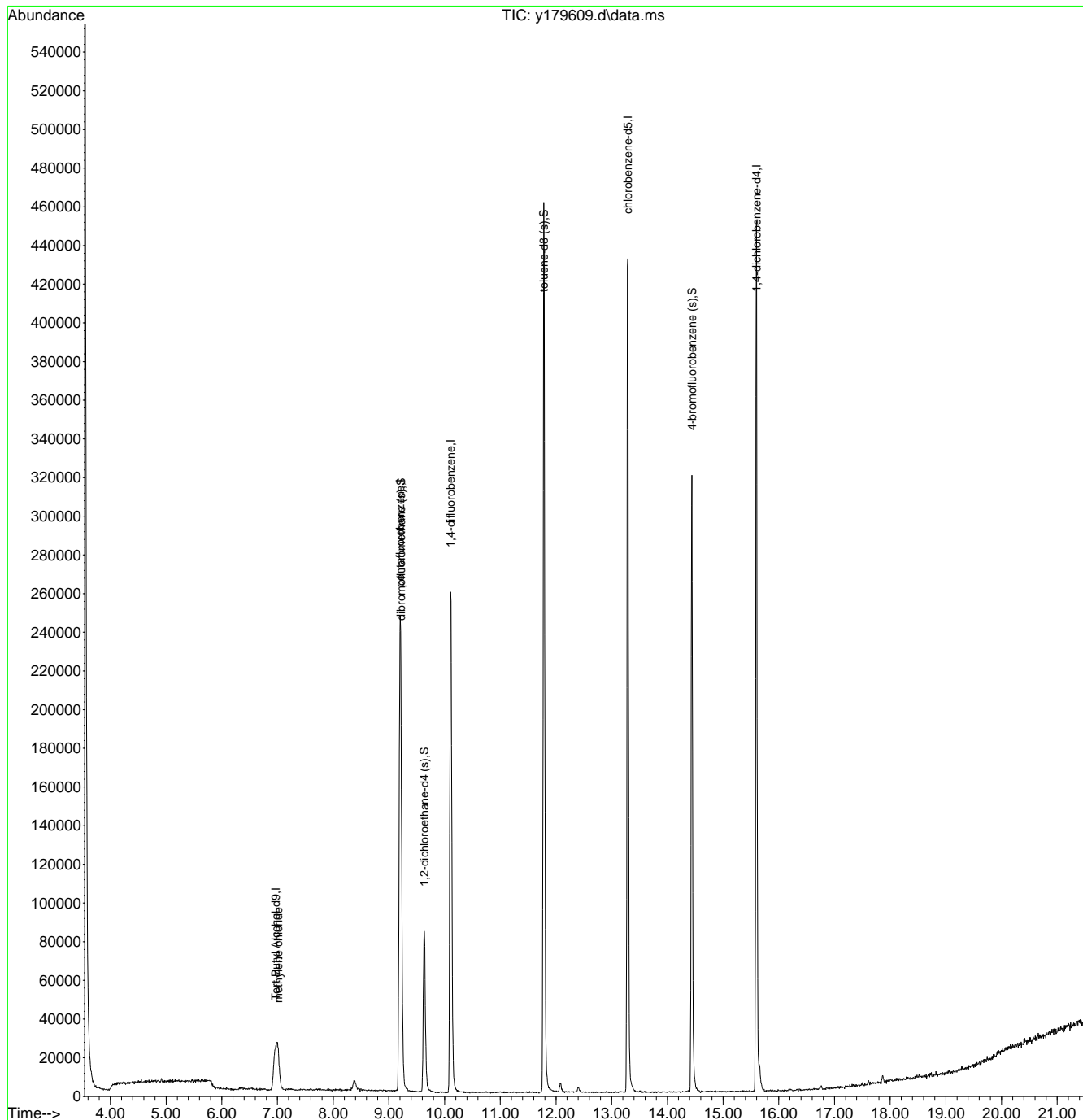
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.9  
7

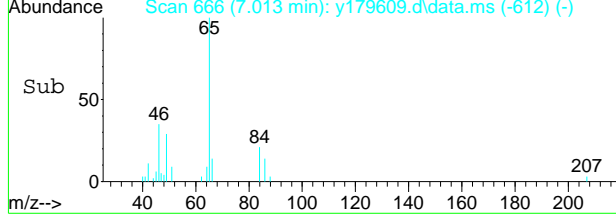
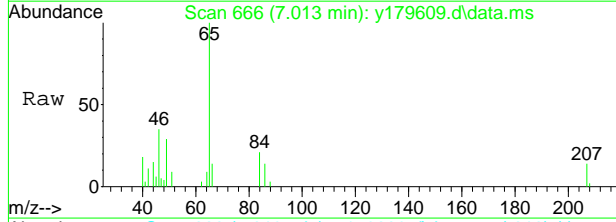
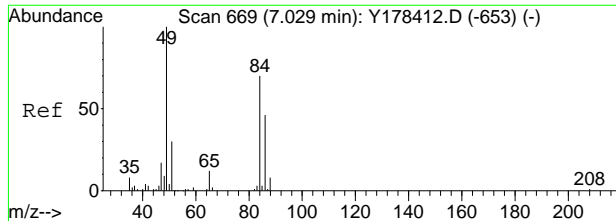
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179609.d  
 Acq On : 1 May 2018 4:04 pm  
 Operator : Prashans  
 Sample : JC65058-13 Inst : MSY  
 Misc : MS25979,VY7766,6.8,,,,,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 01:05:45 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

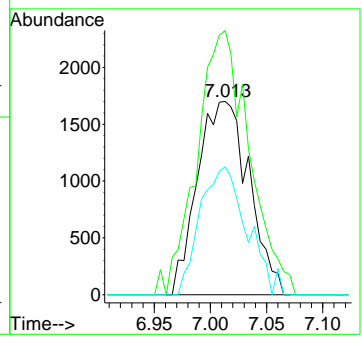


6.1.7



#26  
methylene chloride  
Concen: 2.40 ug/L  
RT: 7.013 min Scan# 666  
Delta R.T. -0.016 min  
Lab File: y179609.d  
Acq: 1 May 2018 4:04 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 136.7 | 113.5 | 173.5 |
| 86      | 66.2  | 35.7  | 95.7  |



7.1.9  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\marianng\v2v2002\  
 Data File : 2v50200.d  
 Acq On : 30 Apr 2018 2:38 pm  
 Operator : JessicaP  
 Sample : JC65058-13A Inst : MS2V  
 Misc : MS25977,V2V2002,5,,,,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 02 01:04:56 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 2.266  | 65    | 314877   | 500.00   | ug/L  | 0.00     |
| 5) pentafluorobenzene         | 3.357  | 168   | 396281   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 3.876  | 114   | 612329   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 6.167  | 117   | 519318   | 50.00    | ug/L  | 0.00     |
| 99) 1,4-dichlorobenzene-d4    | 8.327  | 152   | 232312   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 3.346  | 113   | 210428   | 52.75    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 120 | Recovery | =     | 105.50%  |
| 55) 1,2-dichloroethane-d4 (s) | 3.577  | 65    | 220797   | 51.88    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 64 - 135 | Recovery | =     | 103.76%  |
| 77) toluene-d8 (s)            | 4.956  | 98    | 671542   | 50.06    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 117 | Recovery | =     | 100.12%  |
| 100) 4-bromofluorobenzene (s) | 7.232  | 95    | 238704   | 50.52    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 122 | Recovery | =     | 101.04%  |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

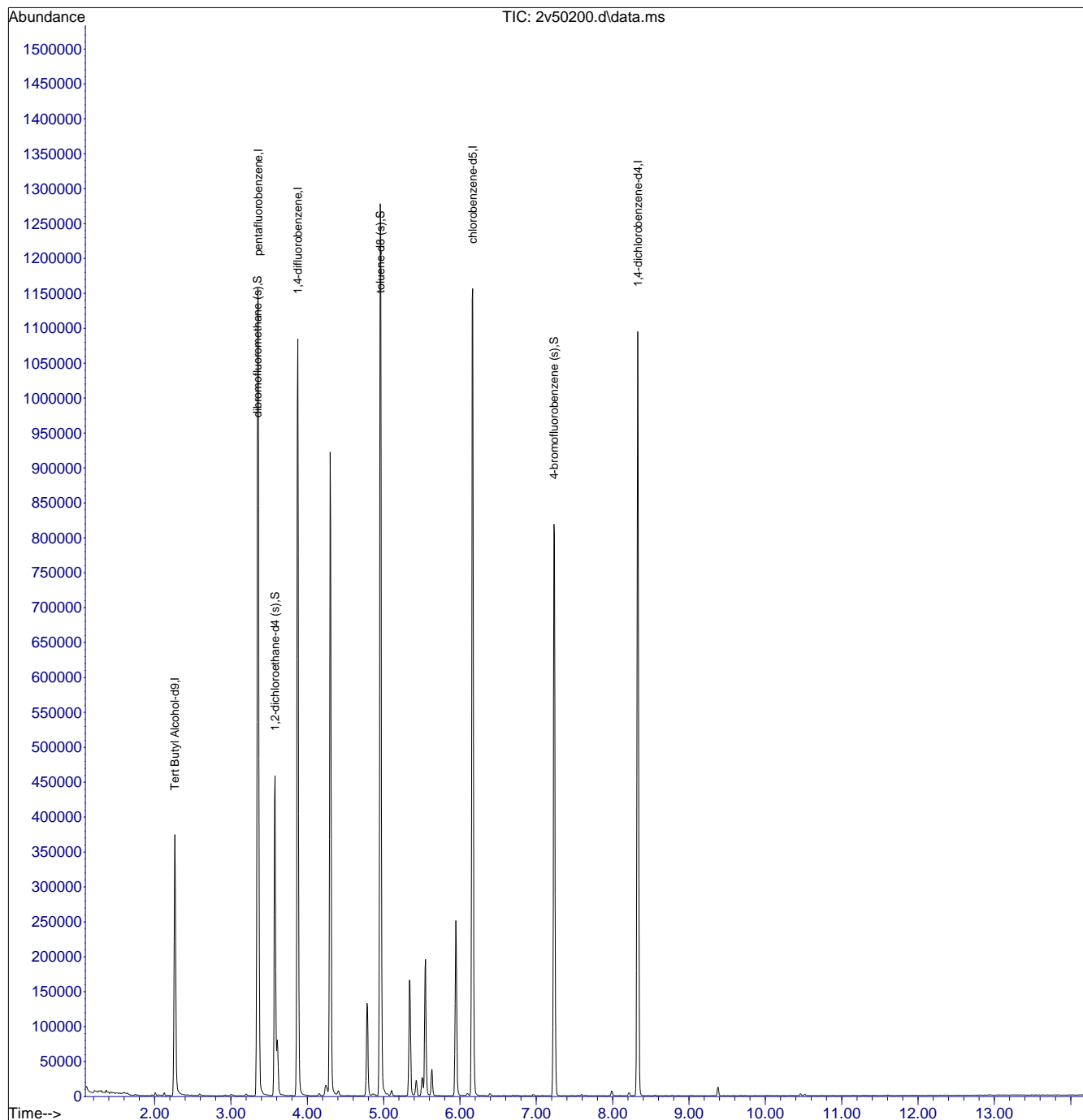
7.1.10  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\marianng\v2v2002\  
 Data File : 2v50200.d  
 Acq On : 30 Apr 2018 2:38 pm  
 Operator : JessicaP  
 Sample : JC65058-13A Inst : MS2V  
 Misc : MS25977,V2V2002,5,,,,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 02 01:04:56 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration



7.1.10  
7



Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-04-18\kenrickb\vy7766\  
 Data File : y179610.d  
 Acq On : 1 May 2018 4:33 pm  
 Operator : PrashanS  
 Sample : JC65058-15 Inst : MSY  
 Misc : MS25979,VY7766,5.1,,,,,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 08 14:57:14 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| Internal Standards            |        |       |          |          |        |          |
| 1) Tert Butyl Alcohol-d9      | 6.966  | 65    | 86679    | 500.00   | ug/L   | -0.04    |
| 5) pentafluorobenzene         | 9.199  | 168   | 188535   | 50.00    | ug/L   | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 285947   | 50.00    | ug/L   | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 276206   | 50.00    | ug/L   | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 127537   | 50.00    | ug/L   | -0.01    |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 47) dibromofluoromethane (s)  | 9.215  | 113   | 83345    | 49.47    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =      | 98.94%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 79076    | 47.27    | ug/L   | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =      | 94.54%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 353201   | 47.06    | ug/L   | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =      | 94.12%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 116910   | 55.22    | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =      | 110.44%  |
| Target Compounds              |        |       |          |          |        |          |
| 25) carbon disulfide          | 6.746  | 76    | 2439     | 0.35     | ug/L   | 51       |
| 26) methylene chloride        | 7.023  | 84    | 2963     | 1.32     | ug/L # | 70       |
| 59) benzene                   | 9.754  | 78    | 3019     | 0.36     | ug/L   | 79       |
| 125) naphthalene              | 17.866 | 128   | 11371    | 1.71     | ug/L   | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

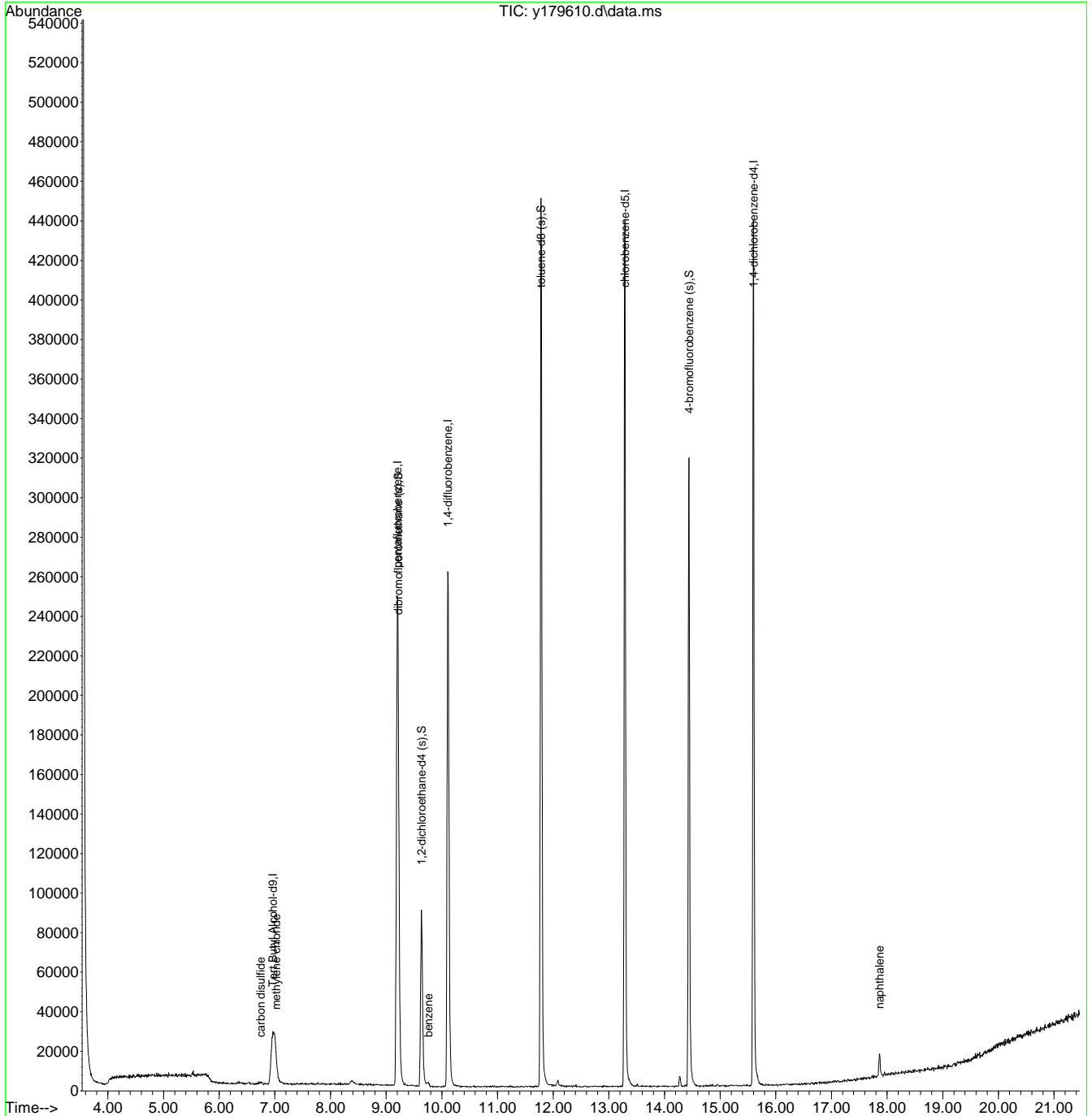
7.1.11  
7



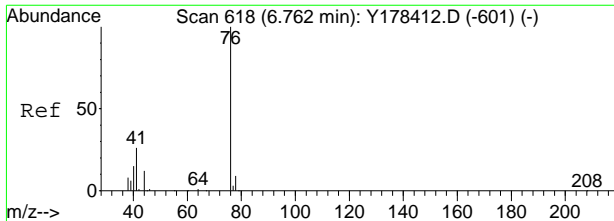
Quantitation Report (QT Reviewed)

Data Path : X:\complete\2018\dayton201805\05-04-18\kenrickb\vy7766\  
 Data File : y179610.d  
 Acq On : 1 May 2018 4:33 pm  
 Operator : Prashans  
 Sample : JC65058-15 Inst : MSY  
 Misc : MS25979,VY7766,5.1,,,,,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 08 14:57:14 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

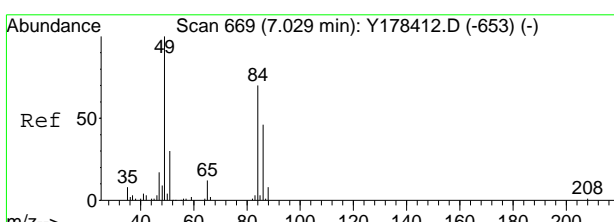
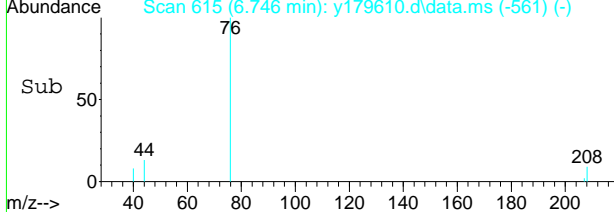
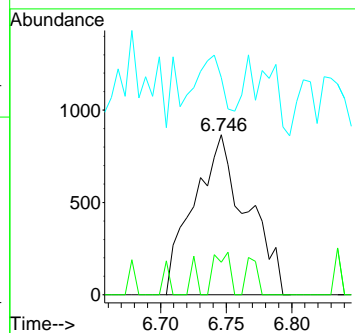
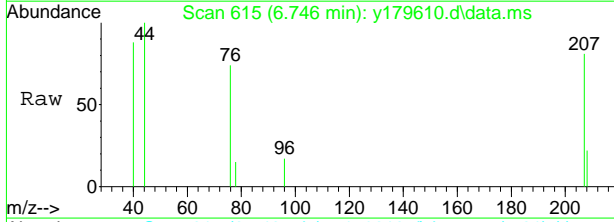


7.1.11  
7



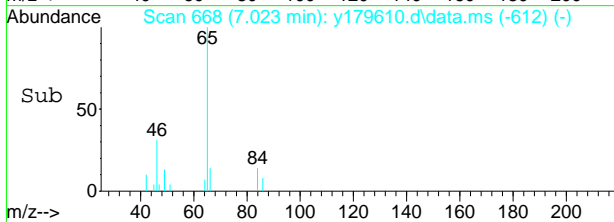
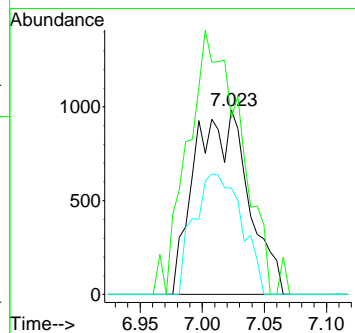
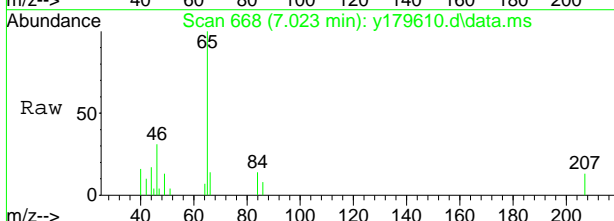
#25  
 carbon disulfide  
 Concen: 0.35 ug/L  
 RT: 6.746 min Scan# 615  
 Delta R.T. -0.016 min  
 Lab File: y179610.d  
 Acq: 1 May 2018 4:33 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 76      | 2439 |       |       |
| 76      | 100  |       |       |
| 78      | 20.4 | 0.0   | 39.3  |
| 44      | 36.4 | 0.0   | 42.1  |

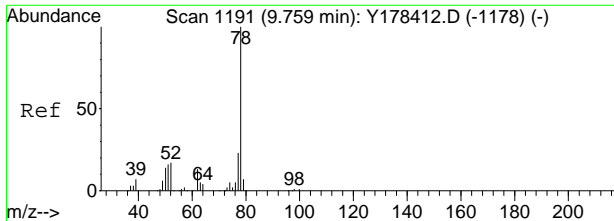


#26  
 methylene chloride  
 Concen: 1.32 ug/L  
 RT: 7.023 min Scan# 668  
 Delta R.T. -0.006 min  
 Lab File: y179610.d  
 Acq: 1 May 2018 4:33 pm

| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 84      | 2963 |       |        |
| 84      | 100  |       |        |
| 49      | 95.6 | 113.5 | 173.5# |
| 86      | 57.8 | 35.7  | 95.7   |

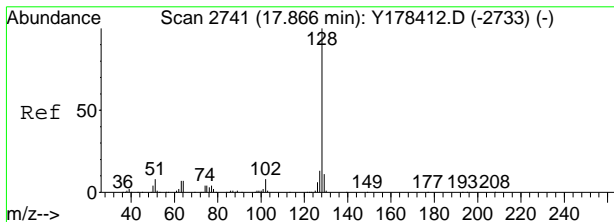
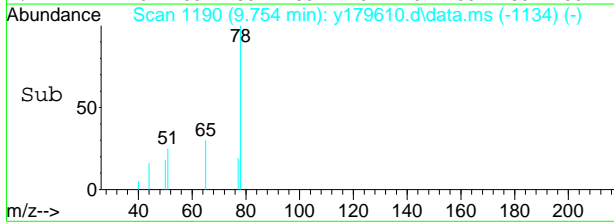
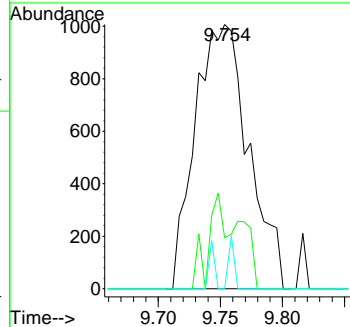
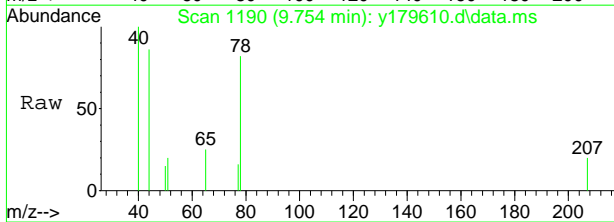


7.1.11  
7



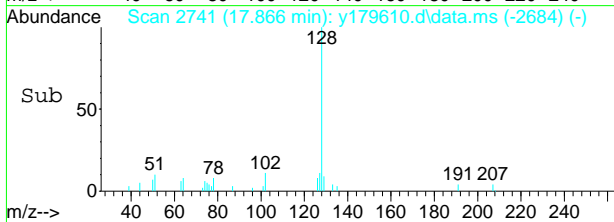
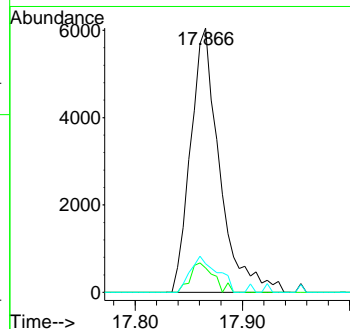
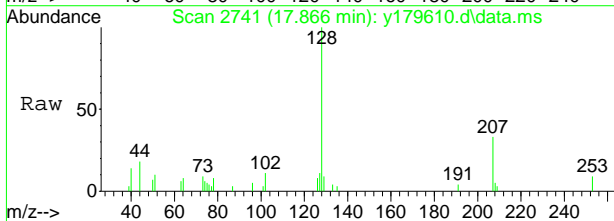
#59  
benzene  
Concen: 0.36 ug/L  
RT: 9.754 min Scan# 1190  
Delta R.T. -0.005 min  
Lab File: y179610.d  
Acq: 1 May 2018 4:33 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 3019 |       |       |
| 77      | 19.4 | 0.0   | 53.1  |
| 52      | 0.0  | 0.0   | 46.6  |



#125  
naphthalene  
Concen: 1.71 ug/L  
RT: 17.866 min Scan# 2741  
Delta R.T. -0.000 min  
Lab File: y179610.d  
Acq: 1 May 2018 4:33 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 11371 |       |       |
| 129     | 9.2   | 0.0   | 41.3  |
| 127     | 10.8  | 0.0   | 42.9  |



7.1.11  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-10-18\vlc6910\  
 Data File : 1c156633.d  
 Acq On : 9 May 2018 11:52 am  
 Operator : prashans  
 Sample : MB Inst : GCMS1C  
 Misc : MS26090,V1C6910,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M  
 Quant Results File: M1CS6871.RES  
 Quant Time: May 10 16:41:37 2018  
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 QLast Update : Fri Apr 13 06:52:32 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) tert butyl alcohol-d9      | 7.384  | 65    | 136898   | 500.00   | ug/L  | -0.02    |
| 5) pentafluorobenzene         | 9.623  | 168   | 543028   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 10.538 | 114   | 795062   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 13.676 | 117   | 644548   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.988 | 152   | 308877   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 9.691  | 113   | 236804   | 47.82    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 127 | Recovery | =     | 95.64%   |
| 55) 1,2-dichloroethane-d4 (s) | 10.109 | 65    | 234273   | 48.51    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 75 - 130 | Recovery | =     | 97.02%   |
| 77) toluene-d8 (s)            | 12.170 | 98    | 855722   | 52.69    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 105.38%  |
| 101) 4-bromofluorobenzene (s) | 14.822 | 95    | 261250   | 50.77    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 79 - 127 | Recovery | =     | 101.54%  |

Target Compounds Qvalue

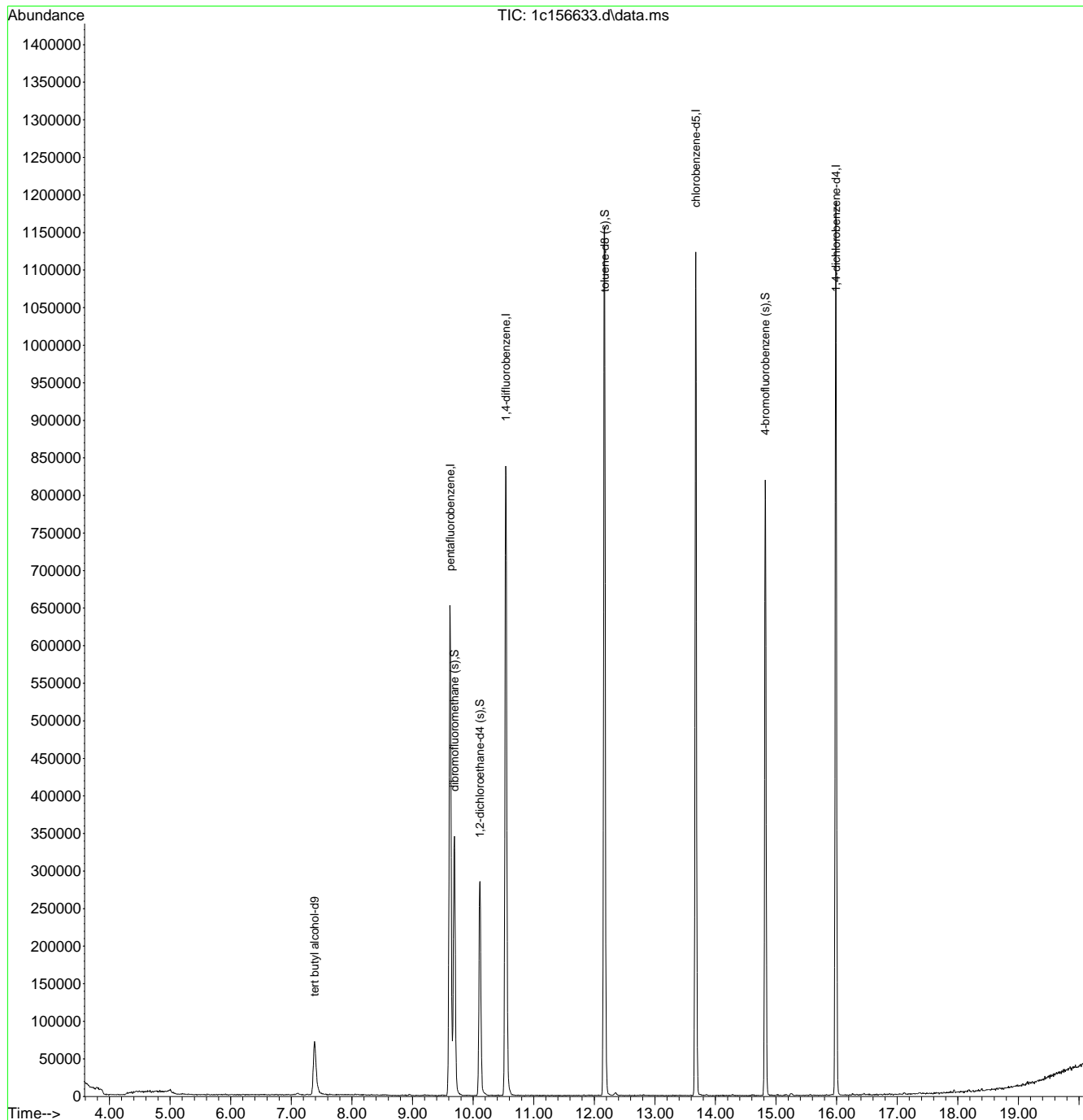
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5-10-18\v1c6910\  
 Data File : 1c156633.d  
 Acq On : 9 May 2018 11:52 am  
 Operator : prashans  
 Sample : MB Inst : GCMS1C  
 Misc : MS26090,V1C6910,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS6871.M  
 Quant Results File: M1CS6871.RES  
 Quant Time: May 10 16:41:37 2018  
 Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um  
 QLast Update : Fri Apr 13 06:52:32 2018  
 Response via : Initial Calibration



7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\marianng\v2v2002\  
 Data File : 2v50186.d  
 Acq On : 30 Apr 2018 8:21 am  
 Operator : JessicaP  
 Sample : mb Inst : MS2V  
 Misc : MS25681,V2V2002,5,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 01 23:12:19 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:38:21 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 2.266  | 65    | 323786   | 500.00   | ug/L  | 0.00     |
| 5) pentafluorobenzene         | 3.357  | 168   | 446873   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 3.876  | 114   | 651214   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 6.167  | 117   | 537041   | 50.00    | ug/L  | 0.00     |
| 99) 1,4-dichlorobenzene-d4    | 8.327  | 152   | 241010   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 3.346  | 113   | 222983   | 49.57    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 120 | Recovery | =     | 99.14%   |
| 55) 1,2-dichloroethane-d4 (s) | 3.577  | 65    | 227389   | 50.24    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 64 - 135 | Recovery | =     | 100.48%  |
| 77) toluene-d8 (s)            | 4.956  | 98    | 702061   | 50.60    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 117 | Recovery | =     | 101.20%  |
| 100) 4-bromofluorobenzene (s) | 7.232  | 95    | 249391   | 50.87    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 122 | Recovery | =     | 101.74%  |

Target Compounds Qvalue

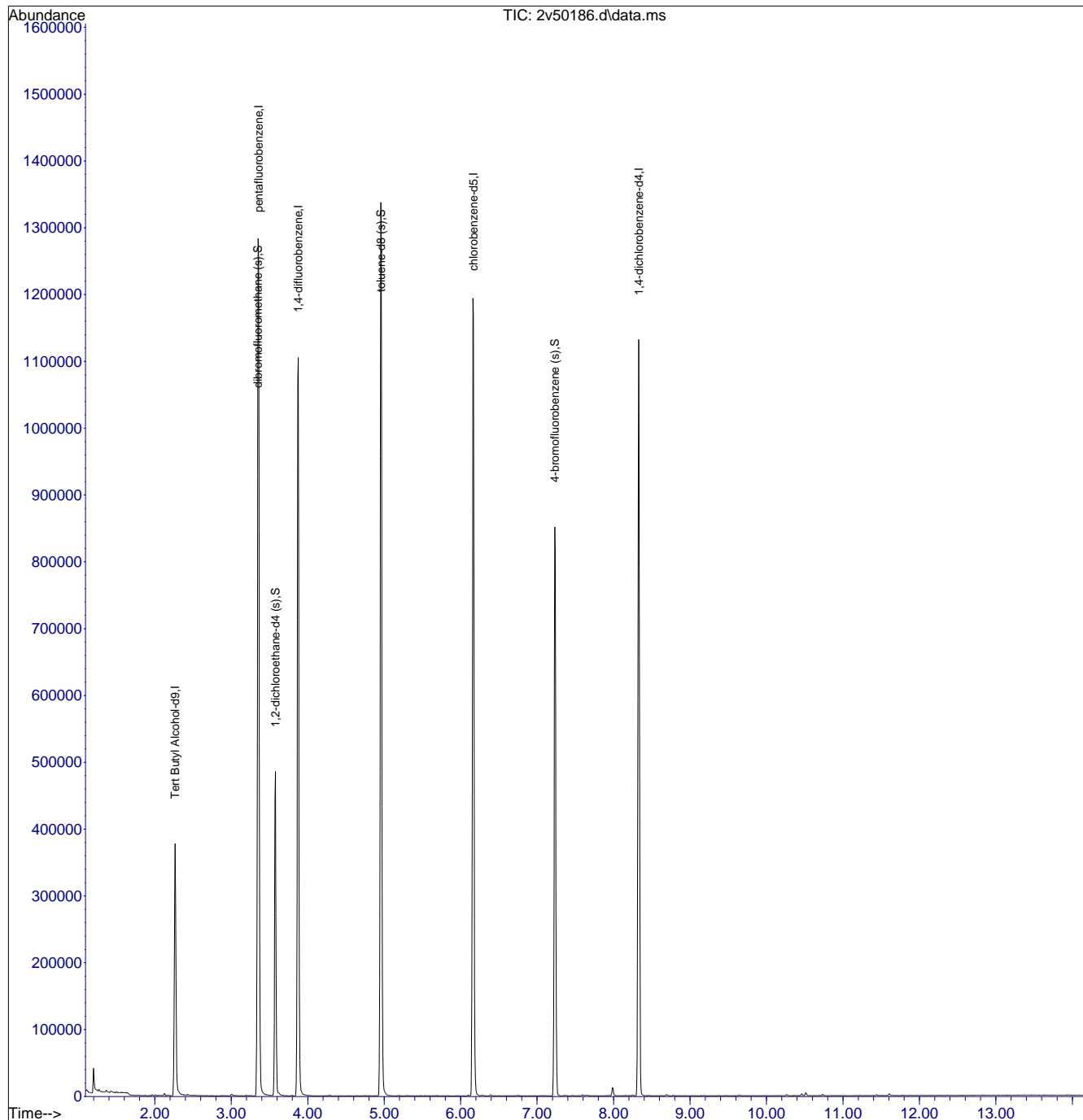
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\05-02-18\marianng\v2v2002\  
 Data File : 2v50186.d  
 Acq On : 30 Apr 2018 8:21 am  
 Operator : JessicaP  
 Sample : mb Inst : MS2V  
 Misc : MS25681,V2V2002,5,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 01 23:12:19 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:38:21 2018  
 Response via : Initial Calibration



7.2.2  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179600.d  
 Acq On : 1 May 2018 10:44 am  
 Operator : PrashanS  
 Sample : MB Inst : MSY  
 Misc : MS25978,VY7766,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:28:38 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.981  | 65    | 69929    | 500.00   | ug/L  | -0.02    |
| 5) pentafluorobenzene         | 9.199  | 168   | 181157   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.114 | 114   | 273630   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 13.289 | 117   | 259225   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 124417   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 77841    | 48.09    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 96.18%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 70782    | 44.22    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 88.44%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 332615   | 47.22    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 94.44%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 111231   | 53.85    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 107.70%  |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

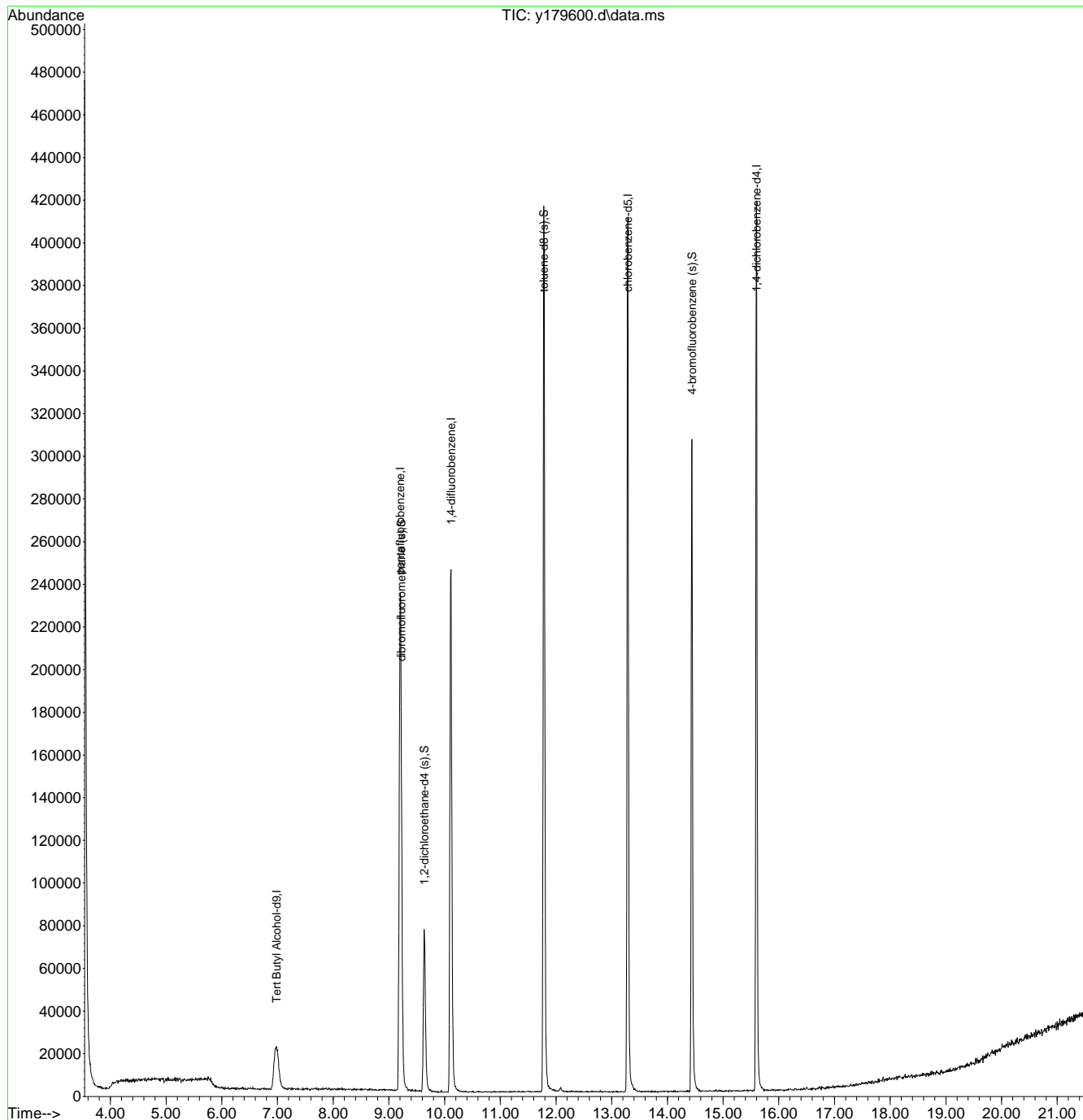
7.2.3  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\vy7766\  
 Data File : y179600.d  
 Acq On : 1 May 2018 10:44 am  
 Operator : Prashans  
 Sample : MB Inst : MSY  
 Misc : MS25978,VY7766,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 04 00:28:38 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.2.3  
7

## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MB1 | F176110.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MB1 | F176110.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MB1 | F176110.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 91%    | 23-115% |
| 4165-62-2 | Phenol-d5            | 82%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 105%   | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 77%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%    | 36-134% |

| CAS No. | Tentatively Identified Compounds   | R.T. | Est. Conc. | Units | Q |
|---------|------------------------------------|------|------------|-------|---|
|         | system artifact/aldol-condensation | 3.00 | 240        | ug/kg | J |
|         | Total TIC, Semi-Volatile           |      | 0          | ug/kg |   |

8.1.1  
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**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MB1 | Z130506.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MB1 | Z130506.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |



## Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MB1 | Z130506.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 85%    | 23-115% |
| 4165-62-2 | Phenol-d5            | 88%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 93%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 86%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 84%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 81%    | 36-134% |

| CAS No. | Tentatively Identified Compounds   | R.T. | Est. Conc. | Units | Q |
|---------|------------------------------------|------|------------|-------|---|
|         | system artifact                    | 2.34 | 150        | ug/kg | J |
|         | system artifact                    | 3.28 | 140        | ug/kg | J |
|         | system artifact/aldol-condensation | 3.65 | 260        | ug/kg | J |
|         | Total TIC, Semi-Volatile           |      | 0          | ug/kg |   |

8.1.2  
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**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-MB1 | M145715.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | Result | RL  | MDL  | Units | Q |
|----------|-----------------------|--------|-----|------|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 2.0 | 0.89 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 2.0 | 0.88 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 10  | 1.4  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 5.0 | 0.92 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 2.0 | 0.17 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 2.0 | 0.55 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 2.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 1.0 | 0.49 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 5.0 | 0.39 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 2.0 | 0.64 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 2.0 | 0.39 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 30% 14-88%  |
| 4165-62-2 | Phenol-d5            | 22% 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 88% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 75% 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 69% 35-119% |
| 1718-51-0 | Terphenyl-d14        | 43% 10-126% |

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB25 | M145717.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 367-12-4  | 2-Fluorophenol       | 52% 14-88%   |
| 4165-62-2 | Phenol-d5            | 37% 10-110%  |
| 118-79-6  | 2,4,6-Tribromophenol | 125% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 99% 32-128%  |
| 321-60-8  | 2-Fluorobiphenyl     | 89% 35-119%  |
| 1718-51-0 | Terphenyl-d14        | 81% 10-126%  |

8.2.1  
8

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB26 | M145765.D | 1  | 05/04/18 | SA | 05/02/18  | OP11697    | EM6194           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 367-12-4  | 2-Fluorophenol       | 43% 14-88%   |
| 4165-62-2 | Phenol-d5            | 29% 10-110%  |
| 118-79-6  | 2,4,6-Tribromophenol | 105% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 83% 32-128%  |
| 321-60-8  | 2-Fluorobiphenyl     | 75% 35-119%  |
| 1718-51-0 | Terphenyl-d14        | 71% 10-126%  |

8.2.2  
8

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB28 | 2P79163.D | 1  | 05/05/18 | SB | 05/02/18  | OP11697    | E2P3489          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 26% 14-88%  |
| 4165-62-2 | Phenol-d5            | 21% 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 82% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 70% 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 79% 35-119% |
| 1718-51-0 | Terphenyl-d14        | 65% 10-126% |

8.2.3  
8

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-BS1 | F176111.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                   | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|----------------------------|----------------|--------------|----------|--------|
| 95-57-8   | 2-Chlorophenol             | 1670           | 1170         | 70       | 44-122 |
| 59-50-7   | 4-Chloro-3-methyl phenol   | 1670           | 1340         | 80       | 50-123 |
| 120-83-2  | 2,4-Dichlorophenol         | 1670           | 1310         | 79       | 48-122 |
| 105-67-9  | 2,4-Dimethylphenol         | 1670           | 1550         | 93       | 48-124 |
| 51-28-5   | 2,4-Dinitrophenol          | 3330           | 2790         | 84       | 34-146 |
| 534-52-1  | 4,6-Dinitro-o-cresol       | 1670           | 1230         | 74       | 49-140 |
| 95-48-7   | 2-Methylphenol             | 1670           | 1130         | 68       | 40-126 |
|           | 3&4-Methylphenol           | 1670           | 1130         | 68       | 40-127 |
| 88-75-5   | 2-Nitrophenol              | 1670           | 1430         | 86       | 44-133 |
| 100-02-7  | 4-Nitrophenol              | 1670           | 1480         | 89       | 35-153 |
| 87-86-5   | Pentachlorophenol          | 1670           | 1780         | 107      | 15-149 |
| 108-95-2  | Phenol                     | 1670           | 1110         | 67       | 50-109 |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1670           | 1490         | 89       | 44-132 |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1670           | 1380         | 83       | 45-124 |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1670           | 1470         | 88       | 57-122 |
| 83-32-9   | Acenaphthene               | 1670           | 1200         | 72       | 53-119 |
| 208-96-8  | Acenaphthylene             | 1670           | 1220         | 73       | 41-125 |
| 98-86-2   | Acetophenone               | 1670           | 1220         | 73       | 52-112 |
| 120-12-7  | Anthracene                 | 1670           | 1240         | 74       | 51-120 |
| 1912-24-9 | Atrazine                   | 1670           | 1460         | 88       | 49-139 |
| 56-55-3   | Benzo(a)anthracene         | 1670           | 1230         | 74       | 54-118 |
| 50-32-8   | Benzo(a)pyrene             | 1670           | 1440         | 86       | 55-121 |
| 205-99-2  | Benzo(b)fluoranthene       | 1670           | 1460         | 88       | 57-116 |
| 191-24-2  | Benzo(g,h,i)perylene       | 1670           | 1280         | 77       | 40-124 |
| 207-08-9  | Benzo(k)fluoranthene       | 1670           | 1250         | 75       | 59-116 |
| 101-55-3  | 4-Bromophenyl phenyl ether | 1670           | 1420         | 85       | 60-122 |
| 85-68-7   | Butyl benzyl phthalate     | 1670           | 1220         | 73       | 51-134 |
| 92-52-4   | 1,1'-Biphenyl              | 1670           | 1240         | 74       | 46-122 |
| 100-52-7  | Benzaldehyde               | 1670           | 1010         | 61       | 14-139 |
| 91-58-7   | 2-Chloronaphthalene        | 1670           | 1210         | 73       | 49-120 |
| 106-47-8  | 4-Chloroaniline            | 1670           | 432          | 26       | 10-115 |
| 86-74-8   | Carbazole                  | 1670           | 1240         | 74       | 52-124 |
| 105-60-2  | Caprolactam                | 1670           | 1300         | 78       | 16-139 |
| 218-01-9  | Chrysene                   | 1670           | 1070         | 64       | 51-115 |
| 111-91-1  | bis(2-Chloroethoxy)methane | 1670           | 1270         | 76       | 36-131 |
| 111-44-4  | bis(2-Chloroethyl)ether    | 1670           | 1130         | 68       | 41-131 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-BS1 | F176111.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|------------------------------|----------------|--------------|----------|--------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 1670           | 1180         | 71       | 22-134 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 1670           | 1370         | 82       | 56-118 |
| 121-14-2  | 2,4-Dinitrotoluene           | 1670           | 1400         | 84       | 57-131 |
| 606-20-2  | 2,6-Dinitrotoluene           | 1670           | 1350         | 81       | 57-132 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 3330           | 1430         | 43       | 10-129 |
| 123-91-1  | 1,4-Dioxane                  | 1670           | 686          | 41       | 10-110 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 1670           | 1240         | 74       | 48-121 |
| 132-64-9  | Dibenzofuran                 | 1670           | 1260         | 76       | 51-119 |
| 84-74-2   | Di-n-butyl phthalate         | 1670           | 1350         | 81       | 59-125 |
| 117-84-0  | Di-n-octyl phthalate         | 1670           | 1320         | 79       | 47-147 |
| 84-66-2   | Diethyl phthalate            | 1670           | 1320         | 79       | 57-116 |
| 131-11-3  | Dimethyl phthalate           | 1670           | 1270         | 76       | 56-116 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | 1670           | 1240         | 74       | 53-133 |
| 206-44-0  | Fluoranthene                 | 1670           | 1300         | 78       | 58-117 |
| 86-73-7   | Fluorene                     | 1670           | 1290         | 77       | 56-114 |
| 118-74-1  | Hexachlorobenzene            | 1670           | 1310         | 79       | 50-128 |
| 87-68-3   | Hexachlorobutadiene          | 1670           | 1610         | 97       | 43-129 |
| 77-47-4   | Hexachlorocyclopentadiene    | 3330           | 3580         | 107      | 15-140 |
| 67-72-1   | Hexachloroethane             | 1670           | 1250         | 75       | 43-123 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 1670           | 1370         | 82       | 49-124 |
| 78-59-1   | Isophorone                   | 1670           | 1220         | 73       | 38-128 |
| 91-57-6   | 2-Methylnaphthalene          | 1670           | 1300         | 78       | 37-124 |
| 88-74-4   | 2-Nitroaniline               | 1670           | 1380         | 83       | 45-144 |
| 99-09-2   | 3-Nitroaniline               | 1670           | 713          | 43       | 10-134 |
| 100-01-6  | 4-Nitroaniline               | 1670           | 1140         | 68       | 41-130 |
| 91-20-3   | Naphthalene                  | 1670           | 1200         | 72       | 44-116 |
| 98-95-3   | Nitrobenzene                 | 1670           | 1210         | 73       | 36-132 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | 1670           | 1170         | 70       | 38-125 |
| 86-30-6   | N-Nitrosodiphenylamine       | 1670           | 1250         | 75       | 51-122 |
| 85-01-8   | Phenanthrene                 | 1670           | 1200         | 72       | 53-119 |
| 129-00-0  | Pyrene                       | 1670           | 1110         | 67       | 54-124 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | 1670           | 982          | 59       | 45-128 |

\* = Outside of Control Limits.

8.3.1  
8

## Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-BS1 | F176111.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 367-12-4  | 2-Fluorophenol       | 81% | 23-115% |
| 4165-62-2 | Phenol-d5            | 74% | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 96% | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 70% | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 67% | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 65% | 36-134% |

8.3.1

8

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-BS1 | Z130507.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|----------------------------|----------------|--------------|----------|--------|
| 95-57-8   | 2-Chlorophenol             | 1670           | 1500         | 90       | 44-122 |
| 59-50-7   | 4-Chloro-3-methyl phenol   | 1670           | 1380         | 83       | 50-123 |
| 120-83-2  | 2,4-Dichlorophenol         | 1670           | 1370         | 82       | 48-122 |
| 105-67-9  | 2,4-Dimethylphenol         | 1670           | 1430         | 86       | 48-124 |
| 51-28-5   | 2,4-Dinitrophenol          | 3330           | 3200         | 96       | 34-146 |
| 534-52-1  | 4,6-Dinitro-o-cresol       | 1670           | 1460         | 88       | 49-140 |
| 95-48-7   | 2-Methylphenol             | 1670           | 1470         | 88       | 40-126 |
|           | 3&4-Methylphenol           | 1670           | 1440         | 86       | 40-127 |
| 88-75-5   | 2-Nitrophenol              | 1670           | 1500         | 90       | 44-133 |
| 100-02-7  | 4-Nitrophenol              | 1670           | 1620         | 97       | 35-153 |
| 87-86-5   | Pentachlorophenol          | 1670           | 1640         | 98       | 15-149 |
| 108-95-2  | Phenol                     | 1670           | 1440         | 86       | 50-109 |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1670           | 1600         | 96       | 44-132 |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1670           | 1560         | 94       | 45-124 |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1670           | 1610         | 97       | 57-122 |
| 83-32-9   | Acenaphthene               | 1670           | 1440         | 86       | 53-119 |
| 208-96-8  | Acenaphthylene             | 1670           | 1470         | 88       | 41-125 |
| 98-86-2   | Acetophenone               | 1670           | 1310         | 79       | 52-112 |
| 120-12-7  | Anthracene                 | 1670           | 1370         | 82       | 51-120 |
| 1912-24-9 | Atrazine                   | 1670           | 1610         | 97       | 49-139 |
| 56-55-3   | Benzo(a)anthracene         | 1670           | 1420         | 85       | 54-118 |
| 50-32-8   | Benzo(a)pyrene             | 1670           | 1320         | 79       | 55-121 |
| 205-99-2  | Benzo(b)fluoranthene       | 1670           | 1300         | 78       | 57-116 |
| 191-24-2  | Benzo(g,h,i)perylene       | 1670           | 1560         | 94       | 40-124 |
| 207-08-9  | Benzo(k)fluoranthene       | 1670           | 1210         | 73       | 59-116 |
| 101-55-3  | 4-Bromophenyl phenyl ether | 1670           | 1470         | 88       | 60-122 |
| 85-68-7   | Butyl benzyl phthalate     | 1670           | 1630         | 98       | 51-134 |
| 92-52-4   | 1,1'-Biphenyl              | 1670           | 1430         | 86       | 46-122 |
| 100-52-7  | Benzaldehyde               | 1670           | 424          | 25       | 14-139 |
| 91-58-7   | 2-Chloronaphthalene        | 1670           | 1380         | 83       | 49-120 |
| 106-47-8  | 4-Chloroaniline            | 1670           | 423          | 25       | 10-115 |
| 86-74-8   | Carbazole                  | 1670           | 1470         | 88       | 52-124 |
| 105-60-2  | Caprolactam                | 1670           | 1330         | 80       | 16-139 |
| 218-01-9  | Chrysene                   | 1670           | 1380         | 83       | 51-115 |
| 111-91-1  | bis(2-Chloroethoxy)methane | 1670           | 1370         | 82       | 36-131 |
| 111-44-4  | bis(2-Chloroethyl)ether    | 1670           | 1460         | 88       | 41-131 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-BS1 | Z130507.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|-----------|------------------------------|----------------|--------------|----------|--------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 1670           | 1400         | 84       | 22-134 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 1670           | 1490         | 89       | 56-118 |
| 121-14-2  | 2,4-Dinitrotoluene           | 1670           | 1640         | 98       | 57-131 |
| 606-20-2  | 2,6-Dinitrotoluene           | 1670           | 1680         | 101      | 57-132 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 3330           | 1470         | 44       | 10-129 |
| 123-91-1  | 1,4-Dioxane                  | 1670           | 833          | 50       | 10-110 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 1670           | 1470         | 88       | 48-121 |
| 132-64-9  | Dibenzofuran                 | 1670           | 1490         | 89       | 51-119 |
| 84-74-2   | Di-n-butyl phthalate         | 1670           | 1540         | 92       | 59-125 |
| 117-84-0  | Di-n-octyl phthalate         | 1670           | 1450         | 87       | 47-147 |
| 84-66-2   | Diethyl phthalate            | 1670           | 1530         | 92       | 57-116 |
| 131-11-3  | Dimethyl phthalate           | 1670           | 1460         | 88       | 56-116 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | 1670           | 1570         | 94       | 53-133 |
| 206-44-0  | Fluoranthene                 | 1670           | 1470         | 88       | 58-117 |
| 86-73-7   | Fluorene                     | 1670           | 1430         | 86       | 56-114 |
| 118-74-1  | Hexachlorobenzene            | 1670           | 1390         | 83       | 50-128 |
| 87-68-3   | Hexachlorobutadiene          | 1670           | 1330         | 80       | 43-129 |
| 77-47-4   | Hexachlorocyclopentadiene    | 3330           | 3220         | 97       | 15-140 |
| 67-72-1   | Hexachloroethane             | 1670           | 1410         | 85       | 43-123 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 1670           | 1620         | 97       | 49-124 |
| 78-59-1   | Isophorone                   | 1670           | 1300         | 78       | 38-128 |
| 91-57-6   | 2-Methylnaphthalene          | 1670           | 1250         | 75       | 37-124 |
| 88-74-4   | 2-Nitroaniline               | 1670           | 1670         | 100      | 45-144 |
| 99-09-2   | 3-Nitroaniline               | 1670           | 962          | 58       | 10-134 |
| 100-01-6  | 4-Nitroaniline               | 1670           | 1480         | 89       | 41-130 |
| 91-20-3   | Naphthalene                  | 1670           | 1150         | 69       | 44-116 |
| 98-95-3   | Nitrobenzene                 | 1670           | 1270         | 76       | 36-132 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | 1670           | 1260         | 76       | 38-125 |
| 86-30-6   | N-Nitrosodiphenylamine       | 1670           | 1350         | 81       | 51-122 |
| 85-01-8   | Phenanthrene                 | 1670           | 1360         | 82       | 53-119 |
| 129-00-0  | Pyrene                       | 1670           | 1550         | 93       | 54-124 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | 1670           | 1080         | 65       | 45-128 |

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-BS1 | Z130507.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 367-12-4  | 2-Fluorophenol       | 97% | 23-115% |
| 4165-62-2 | Phenol-d5            | 92% | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 97% | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 77% | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 79% | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 89% | 36-134% |

8.3.2  
8

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-BS1 | M145716.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------|------------|----------|-------|--------|
| 95-48-7  | 2-Methylphenol        | 500        | 311      | 62    | 42-103 |
|          | 3&4-Methylphenol      | 500        | 314      | 63    | 39-110 |
| 87-86-5  | Pentachlorophenol     | 500        | 513      | 103   | 30-136 |
| 95-95-4  | 2,4,5-Trichlorophenol | 500        | 459      | 92    | 55-116 |
| 88-06-2  | 2,4,6-Trichlorophenol | 500        | 482      | 96    | 56-115 |
| 106-46-7 | 1,4-Dichlorobenzene   | 500        | 366      | 73    | 39-110 |
| 121-14-2 | 2,4-Dinitrotoluene    | 500        | 525      | 105   | 57-122 |
| 118-74-1 | Hexachlorobenzene     | 500        | 423      | 85    | 49-122 |
| 87-68-3  | Hexachlorobutadiene   | 500        | 400      | 80    | 24-112 |
| 67-72-1  | Hexachloroethane      | 500        | 372      | 74    | 31-107 |
| 98-95-3  | Nitrobenzene          | 500        | 435      | 87    | 44-116 |
| 110-86-1 | Pyridine              | 500        | 127      | 25    | 10-110 |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 367-12-4  | 2-Fluorophenol       | 46%  | 14-88%  |
| 4165-62-2 | Phenol-d5            | 33%  | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 100% | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 87%  | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 75%  | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 69%  | 10-126% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MS  | F176118.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| OP11647-MSD | F176119.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| JC65070-1   | F176120.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                   | JC65070-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 95-57-8   | 2-Chlorophenol             | ND                 | 1880                | 1460        | 78      | 1880           | 1310         | 70       | 11  | 10-137/34         |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND                 | 1880                | 1660        | 89      | 1880           | 1580         | 84       | 5   | 11-147/35         |
| 120-83-2  | 2,4-Dichlorophenol         | ND                 | 1880                | 1680        | 90      | 1880           | 1530         | 82       | 9   | 15-140/34         |
| 105-67-9  | 2,4-Dimethylphenol         | ND                 | 1880                | 1970        | 105     | 1880           | 1780         | 95       | 10  | 10-151/34         |
| 51-28-5   | 2,4-Dinitrophenol          | ND                 | 3750                | 2910        | 78      | 3750           | 3100         | 83       | 6   | 10-148/49         |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND                 | 1880                | 1500        | 80      | 1880           | 1520         | 81       | 1   | 10-150/48         |
| 95-48-7   | 2-Methylphenol             | ND                 | 1880                | 1480        | 79      | 1880           | 1300         | 69       | 13  | 10-138/33         |
|           | 3&4-Methylphenol           | ND                 | 1880                | 1420        | 76      | 1880           | 1290         | 69       | 10  | 10-143/33         |
| 88-75-5   | 2-Nitrophenol              | ND                 | 1880                | 1730        | 92      | 1880           | 1590         | 85       | 8   | 10-150/39         |
| 100-02-7  | 4-Nitrophenol              | ND                 | 1880                | 1900        | 101     | 1880           | 1760         | 94       | 8   | 10-163/38         |
| 87-86-5   | Pentachlorophenol          | ND                 | 1880                | 2340        | 125     | 1880           | 2170         | 116      | 8   | 10-148/39         |
| 108-95-2  | Phenol                     | ND                 | 1880                | 1450        | 77      | 1880           | 1230         | 66       | 16  | 24-114/32         |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND                 | 1880                | 1950        | 104     | 1880           | 1870         | 100      | 4   | 14-140/38         |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND                 | 1880                | 1790        | 95      | 1880           | 1690         | 90       | 6   | 10-146/36         |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND                 | 1880                | 1900        | 101     | 1880           | 1810         | 97       | 5   | 16-148/36         |
| 83-32-9   | Acenaphthene               | ND                 | 1880                | 1510        | 81      | 1880           | 1510         | 81       | 0   | 21-136/34         |
| 208-96-8  | Acenaphthylene             | ND                 | 1880                | 1550        | 83      | 1880           | 1540         | 82       | 1   | 10-143/36         |
| 98-86-2   | Acetophenone               | ND                 | 1880                | 1410        | 75      | 1880           | 1350         | 72       | 4   | 24-127/31         |
| 120-12-7  | Anthracene                 | ND                 | 1880                | 1570        | 84      | 1880           | 1590         | 85       | 1   | 10-147/39         |
| 1912-24-9 | Atrazine                   | ND                 | 1880                | 1680        | 90      | 1880           | 1830         | 98       | 9   | 10-161/38         |
| 56-55-3   | Benzo(a)anthracene         | ND                 | 1880                | 1580        | 84      | 1880           | 1590         | 85       | 1   | 10-151/41         |
| 50-32-8   | Benzo(a)pyrene             | ND                 | 1880                | 1880        | 100     | 1880           | 1880         | 100      | 0   | 10-149/40         |
| 205-99-2  | Benzo(b)fluoranthene       | ND                 | 1880                | 1800        | 96      | 1880           | 1850         | 99       | 3   | 10-147/42         |
| 191-24-2  | Benzo(g,h,i)perylene       | ND                 | 1880                | 1760        | 94      | 1880           | 1690         | 90       | 4   | 10-150/41         |
| 207-08-9  | Benzo(k)fluoranthene       | ND                 | 1880                | 1650        | 88      | 1880           | 1690         | 90       | 2   | 12-142/41         |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND                 | 1880                | 1800        | 96      | 1880           | 1820         | 97       | 1   | 26-138/37         |
| 85-68-7   | Butyl benzyl phthalate     | ND                 | 1880                | 1590        | 85      | 1880           | 1620         | 86       | 2   | 24-143/36         |
| 92-52-4   | 1,1'-Biphenyl              | ND                 | 1880                | 1490        | 79      | 1880           | 1550         | 83       | 4   | 18-138/32         |
| 100-52-7  | Benzaldehyde               | ND                 | 1880                | 1260        | 67      | 1880           | 1180         | 63       | 7   | 10-149/37         |
| 91-58-7   | 2-Chloronaphthalene        | ND                 | 1880                | 1530        | 82      | 1880           | 1480         | 79       | 3   | 24-130/31         |
| 106-47-8  | 4-Chloroaniline            | ND                 | 1880                | 575         | 31      | 1880           | 729          | 39       | 24  | 10-111/52         |
| 86-74-8   | Carbazole                  | ND                 | 1880                | 1460        | 78      | 1880           | 1520         | 81       | 4   | 12-146/39         |
| 105-60-2  | Caprolactam                | ND                 | 1880                | 1450        | 77      | 1880           | 1440         | 77       | 1   | 10-147/40         |
| 218-01-9  | Chrysene                   | ND                 | 1880                | 1400        | 75      | 1880           | 1420         | 76       | 1   | 10-151/41         |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND                 | 1880                | 1620        | 86      | 1880           | 1500         | 80       | 8   | 10-144/35         |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND                 | 1880                | 1410        | 75      | 1880           | 1290         | 69       | 9   | 12-142/35         |

\* = Outside of Control Limits.

8.4.1  
8

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MS  | F176118.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| OP11647-MSD | F176119.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| JC65070-1   | F176120.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Compound                     | JC65070-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|------------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND                 | 1880                | 1500        | 80      | 1880           | 1360         | 73       | 10  | 10-137/33         |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND                 | 1880                | 1770        | 94      | 1880           | 1760         | 94       | 1   | 21-136/35         |
| 121-14-2  | 2,4-Dinitrotoluene           | ND                 | 1880                | 1730        | 92      | 1880           | 1800         | 96       | 4   | 14-148/41         |
| 606-20-2  | 2,6-Dinitrotoluene           | ND                 | 1880                | 1690        | 90      | 1880           | 1720         | 92       | 2   | 14-152/40         |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND                 | 3750                | 1970        | 53      | 3750           | 2590         | 69       | 27  | 10-137/47         |
| 123-91-1  | 1,4-Dioxane                  | ND                 | 1880                | 864         | 46      | 1880           | 768          | 41       | 12  | 10-110/40         |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND                 | 1880                | 1690        | 90      | 1880           | 1600         | 85       | 5   | 10-152/38         |
| 132-64-9  | Dibenzofuran                 | ND                 | 1880                | 1560        | 83      | 1880           | 1550         | 83       | 1   | 17-141/36         |
| 84-74-2   | Di-n-butyl phthalate         | ND                 | 1880                | 1700        | 91      | 1880           | 1730         | 92       | 2   | 26-137/35         |
| 117-84-0  | Di-n-octyl phthalate         | ND                 | 1880                | 1670        | 89      | 1880           | 1730         | 92       | 4   | 23-145/36         |
| 84-66-2   | Diethyl phthalate            | ND                 | 1880                | 1650        | 88      | 1880           | 1680         | 90       | 2   | 25-133/35         |
| 131-11-3  | Dimethyl phthalate           | ND                 | 1880                | 1610        | 86      | 1880           | 1630         | 87       | 1   | 21-134/36         |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND                 | 1880                | 1720        | 92      | 1880           | 1640         | 87       | 5   | 26-144/39         |
| 206-44-0  | Fluoranthene                 | ND                 | 1880                | 1640        | 87      | 1880           | 1670         | 89       | 2   | 10-151/44         |
| 86-73-7   | Fluorene                     | ND                 | 1880                | 1640        | 87      | 1880           | 1650         | 88       | 1   | 19-133/36         |
| 118-74-1  | Hexachlorobenzene            | ND                 | 1880                | 1600        | 85      | 1880           | 1650         | 88       | 3   | 18-142/37         |
| 87-68-3   | Hexachlorobutadiene          | ND                 | 1880                | 1970        | 105     | 1880           | 1820         | 97       | 8   | 16-137/32         |
| 77-47-4   | Hexachlorocyclopentadiene    | ND                 | 3750                | 3910        | 104     | 3750           | 3890         | 104      | 1   | 10-150/50         |
| 67-72-1   | Hexachloroethane             | ND                 | 1880                | 1560        | 83      | 1880           | 1420         | 76       | 9   | 10-131/38         |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND                 | 1880                | 1870        | 100     | 1880           | 1840         | 98       | 2   | 10-148/41         |
| 78-59-1   | Isophorone                   | ND                 | 1880                | 1560        | 83      | 1880           | 1500         | 80       | 4   | 11-142/33         |
| 91-57-6   | 2-Methylnaphthalene          | ND                 | 1880                | 1590        | 85      | 1880           | 1540         | 82       | 3   | 10-141/35         |
| 88-74-4   | 2-Nitroaniline               | ND                 | 1880                | 1770        | 94      | 1880           | 1750         | 93       | 1   | 14-156/38         |
| 99-09-2   | 3-Nitroaniline               | ND                 | 1880                | 1090        | 58      | 1880           | 1300         | 69       | 18  | 10-144/45         |
| 100-01-6  | 4-Nitroaniline               | ND                 | 1880                | 968         | 52      | 1880           | 1400         | 75       | 36  | 10-156/44         |
| 91-20-3   | Naphthalene                  | ND                 | 1880                | 1480        | 79      | 1880           | 1390         | 74       | 6   | 10-136/36         |
| 98-95-3   | Nitrobenzene                 | ND                 | 1880                | 1520        | 81      | 1880           | 1430         | 76       | 6   | 10-142/34         |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND                 | 1880                | 1450        | 77      | 1880           | 1380         | 74       | 5   | 10-142/31         |
| 86-30-6   | N-Nitrosodiphenylamine       | ND                 | 1880                | 1550        | 83      | 1880           | 1620         | 86       | 4   | 10-156/37         |
| 85-01-8   | Phenanthrene                 | ND                 | 1880                | 1490        | 79      | 1880           | 1520         | 81       | 2   | 11-145/45         |
| 129-00-0  | Pyrene                       | ND                 | 1880                | 1490        | 79      | 1880           | 1480         | 79       | 1   | 11-155/44         |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND                 | 1880                | 1250        | 67      | 1880           | 1210         | 65       | 3   | 23-136/32         |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11647-MS  | F176118.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| OP11647-MSD | F176119.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |
| JC65070-1   | F176120.D | 1  | 05/03/18 | CS | 04/30/18  | OP11647    | EF7502           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-1, JC65058-2, JC65058-3, JC65058-4, JC65058-5, JC65058-6, JC65058-7, JC65058-8

| CAS No.   | Surrogate Recoveries | MS   | MSD  | JC65070-1 | Limits  |
|-----------|----------------------|------|------|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 88%  | 82%  | 87%       | 23-115% |
| 4165-62-2 | Phenol-d5            | 82%  | 77%  | 78%       | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 105% | 106% | 98%       | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%  | 73%  | 72%       | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 75%  | 74%  | 73%       | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%  | 76%  | 75%       | 36-134% |

8.4.1  
8

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MS  | Z130527.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| OP11648-MSD | Z130528.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| JC65058-10  | Z130529.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                   | JC65058-10<br>ug/kg | Spike<br>Q | ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|----------------------------|---------------------|------------|-------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 95-57-8   | 2-Chlorophenol             | ND                  |            | 1800  | 1400        | 78      | 1810           | 1380         | 76       | 1   | 10-137/34         |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND                  |            | 1800  | 1410        | 78      | 1810           | 1430         | 79       | 1   | 11-147/35         |
| 120-83-2  | 2,4-Dichlorophenol         | ND                  |            | 1800  | 1410        | 78      | 1810           | 1410         | 78       | 0   | 15-140/34         |
| 105-67-9  | 2,4-Dimethylphenol         | ND                  |            | 1800  | 1410        | 78      | 1810           | 1430         | 79       | 1   | 10-151/34         |
| 51-28-5   | 2,4-Dinitrophenol          | ND                  |            | 3600  | 2020        | 56      | 3620           | 2010         | 55       | 0   | 10-148/49         |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND                  |            | 1800  | 1240        | 69      | 1810           | 1240         | 68       | 0   | 10-150/48         |
| 95-48-7   | 2-Methylphenol             | ND                  |            | 1800  | 1470        | 82      | 1810           | 1370         | 76       | 7   | 10-138/33         |
|           | 3&4-Methylphenol           | ND                  |            | 1800  | 1420        | 79      | 1810           | 1410         | 78       | 1   | 10-143/33         |
| 88-75-5   | 2-Nitrophenol              | ND                  |            | 1800  | 1430        | 79      | 1810           | 1390         | 77       | 3   | 10-150/39         |
| 100-02-7  | 4-Nitrophenol              | ND                  |            | 1800  | 1550        | 86      | 1810           | 1620         | 89       | 4   | 10-163/38         |
| 87-86-5   | Pentachlorophenol          | ND                  |            | 1800  | 1470        | 82      | 1810           | 1540         | 85       | 5   | 10-148/39         |
| 108-95-2  | Phenol                     | ND                  |            | 1800  | 1410        | 78      | 1810           | 1360         | 75       | 4   | 24-114/32         |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND                  |            | 1800  | 1540        | 86      | 1810           | 1560         | 86       | 1   | 14-140/38         |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND                  |            | 1800  | 1590        | 88      | 1810           | 1590         | 88       | 0   | 10-146/36         |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND                  |            | 1800  | 1620        | 90      | 1810           | 1610         | 89       | 1   | 16-148/36         |
| 83-32-9   | Acenaphthene               | ND                  |            | 1800  | 1470        | 82      | 1810           | 1440         | 79       | 2   | 21-136/34         |
| 208-96-8  | Acenaphthylene             | ND                  |            | 1800  | 1500        | 83      | 1810           | 1480         | 82       | 1   | 10-143/36         |
| 98-86-2   | Acetophenone               | ND                  |            | 1800  | 1250        | 69      | 1810           | 1230         | 68       | 2   | 24-127/31         |
| 120-12-7  | Anthracene                 | 31.6                | J          | 1800  | 1400        | 76      | 1810           | 1390         | 75       | 1   | 10-147/39         |
| 1912-24-9 | Atrazine                   | ND                  |            | 1800  | 1640        | 91      | 1810           | 1630         | 90       | 1   | 10-161/38         |
| 56-55-3   | Benzo(a)anthracene         | 115                 |            | 1800  | 1490        | 76      | 1810           | 1490         | 76       | 0   | 10-151/41         |
| 50-32-8   | Benzo(a)pyrene             | 119                 |            | 1800  | 1370        | 70      | 1810           | 1380         | 70       | 1   | 10-149/40         |
| 205-99-2  | Benzo(b)fluoranthene       | 156                 |            | 1800  | 1320        | 65      | 1810           | 1310         | 64       | 1   | 10-147/42         |
| 191-24-2  | Benzo(g,h,i)perylene       | 107                 |            | 1800  | 1680        | 87      | 1810           | 1650         | 85       | 2   | 10-150/41         |
| 207-08-9  | Benzo(k)fluoranthene       | 57.1                |            | 1800  | 1260        | 67      | 1810           | 1250         | 66       | 1   | 12-142/41         |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND                  |            | 1800  | 1460        | 81      | 1810           | 1450         | 80       | 1   | 26-138/37         |
| 85-68-7   | Butyl benzyl phthalate     | ND                  |            | 1800  | 1660        | 92      | 1810           | 1650         | 91       | 1   | 24-143/36         |
| 92-52-4   | 1,1'-Biphenyl              | 5.8                 | J          | 1800  | 1460        | 81      | 1810           | 1440         | 79       | 1   | 18-138/32         |
| 100-52-7  | Benzaldehyde               | ND                  |            | 1800  | 1300        | 72      | 1810           | 1180         | 65       | 10  | 10-149/37         |
| 91-58-7   | 2-Chloronaphthalene        | ND                  |            | 1800  | 1420        | 79      | 1810           | 1380         | 76       | 3   | 24-130/31         |
| 106-47-8  | 4-Chloroaniline            | ND                  |            | 1800  | 673         | 37      | 1810           | 624          | 34       | 8   | 10-111/52         |
| 86-74-8   | Carbazole                  | 16.2                | J          | 1800  | 1470        | 81      | 1810           | 1460         | 80       | 1   | 12-146/39         |
| 105-60-2  | Caprolactam                | ND                  |            | 1800  | 1220        | 68      | 1810           | 1250         | 69       | 2   | 10-147/40         |
| 218-01-9  | Chrysene                   | 124                 |            | 1800  | 1490        | 76      | 1810           | 1490         | 75       | 0   | 10-151/41         |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND                  |            | 1800  | 1340        | 74      | 1810           | 1300         | 72       | 3   | 10-144/35         |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND                  |            | 1800  | 1360        | 76      | 1810           | 1310         | 72       | 4   | 12-142/35         |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MS  | Z130527.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| OP11648-MSD | Z130528.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| JC65058-10  | Z130529.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound                     | JC65058-10<br>ug/kg | Spike<br>Q | ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|------------------------------|---------------------|------------|-------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND                  |            | 1800  | 1310        | 73      | 1810           | 1270         | 70       | 3   | 10-137/33         |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND                  |            | 1800  | 1500        | 83      | 1810           | 1500         | 83       | 0   | 21-136/35         |
| 121-14-2  | 2,4-Dinitrotoluene           | ND                  |            | 1800  | 1650        | 92      | 1810           | 1640         | 91       | 1   | 14-148/41         |
| 606-20-2  | 2,6-Dinitrotoluene           | ND                  |            | 1800  | 1650        | 92      | 1810           | 1650         | 91       | 0   | 14-152/40         |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND                  |            | 3600  | 2060        | 57      | 3620           | 1970         | 54       | 4   | 10-137/47         |
| 123-91-1  | 1,4-Dioxane                  | ND                  |            | 1800  | 798         | 44      | 1810           | 782          | 43       | 2   | 10-110/40         |
| 53-70-3   | Dibenzo(a,h)anthracene       | 25.4                | J          | 1800  | 1510        | 82      | 1810           | 1520         | 83       | 1   | 10-152/38         |
| 132-64-9  | Dibenzofuran                 | 16.8                | J          | 1800  | 1500        | 82      | 1810           | 1480         | 81       | 1   | 17-141/36         |
| 84-74-2   | Di-n-butyl phthalate         | ND                  |            | 1800  | 1550        | 86      | 1810           | 1530         | 84       | 1   | 26-137/35         |
| 117-84-0  | Di-n-octyl phthalate         | ND                  |            | 1800  | 1360        | 76      | 1810           | 1360         | 75       | 0   | 23-145/36         |
| 84-66-2   | Diethyl phthalate            | ND                  |            | 1800  | 1540        | 86      | 1810           | 1520         | 84       | 1   | 25-133/35         |
| 131-11-3  | Dimethyl phthalate           | ND                  |            | 1800  | 1490        | 83      | 1810           | 1470         | 81       | 1   | 21-134/36         |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND                  |            | 1800  | 1610        | 89      | 1810           | 1600         | 88       | 1   | 26-144/39         |
| 206-44-0  | Fluoranthene                 | 262                 |            | 1800  | 1600        | 74      | 1810           | 1610         | 74       | 1   | 10-151/44         |
| 86-73-7   | Fluorene                     | ND                  |            | 1800  | 1450        | 81      | 1810           | 1430         | 79       | 1   | 19-133/36         |
| 118-74-1  | Hexachlorobenzene            | ND                  |            | 1800  | 1400        | 78      | 1810           | 1390         | 77       | 1   | 18-142/37         |
| 87-68-3   | Hexachlorobutadiene          | ND                  |            | 1800  | 1290        | 72      | 1810           | 1240         | 68       | 4   | 16-137/32         |
| 77-47-4   | Hexachlorocyclopentadiene    | ND                  |            | 3600  | 2770        | 77      | 3620           | 2660         | 73       | 4   | 10-150/50         |
| 67-72-1   | Hexachloroethane             | ND                  |            | 1800  | 1290        | 72      | 1810           | 1280         | 71       | 1   | 10-131/38         |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 115                 |            | 1800  | 1700        | 88      | 1810           | 1660         | 85       | 2   | 10-148/41         |
| 78-59-1   | Isophorone                   | ND                  |            | 1800  | 1310        | 73      | 1810           | 1270         | 70       | 3   | 11-142/33         |
| 91-57-6   | 2-Methylnaphthalene          | 8.7                 | J          | 1800  | 1240        | 68      | 1810           | 1220         | 67       | 2   | 10-141/35         |
| 88-74-4   | 2-Nitroaniline               | ND                  |            | 1800  | 1670        | 93      | 1810           | 1680         | 93       | 1   | 14-156/38         |
| 99-09-2   | 3-Nitroaniline               | ND                  |            | 1800  | 1340        | 74      | 1810           | 1260         | 70       | 6   | 10-144/45         |
| 100-01-6  | 4-Nitroaniline               | ND                  |            | 1800  | 1460        | 81      | 1810           | 1450         | 80       | 1   | 10-156/44         |
| 91-20-3   | Naphthalene                  | 12.9                | J          | 1800  | 1140        | 63      | 1810           | 1110         | 61       | 3   | 10-136/36         |
| 98-95-3   | Nitrobenzene                 | ND                  |            | 1800  | 1230        | 68      | 1810           | 1190         | 66       | 3   | 10-142/34         |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND                  |            | 1800  | 1220        | 68      | 1810           | 1190         | 66       | 2   | 10-142/31         |
| 86-30-6   | N-Nitrosodiphenylamine       | ND                  |            | 1800  | 1380        | 77      | 1810           | 1370         | 76       | 1   | 10-156/37         |
| 85-01-8   | Phenanthrene                 | 136                 |            | 1800  | 1410        | 71      | 1810           | 1430         | 71       | 1   | 11-145/45         |
| 129-00-0  | Pyrene                       | 251                 |            | 1800  | 1720        | 82      | 1810           | 1700         | 80       | 1   | 11-155/44         |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND                  |            | 1800  | 1100        | 61      | 1810           | 1070         | 59       | 3   | 23-136/32         |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11648-MS  | Z130527.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| OP11648-MSD | Z130528.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |
| JC65058-10  | Z130529.D | 1  | 05/10/18 | CC | 04/30/18  | OP11648    | EZ6439           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65058-10 | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 367-12-4  | 2-Fluorophenol       | 83% | 79% | 78%        | 23-115% |
| 4165-62-2 | Phenol-d5            | 80% | 79% | 78%        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 90% | 89% | 94%        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 71% | 68% | 80%        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76% | 75% | 81%        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84% | 83% | 79%        | 36-134% |

8.4.2  
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\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-MS  | M145730.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| OP11697-MSD | M145731.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| JC65130-2   | M145732.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | JC65130-2<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|-----------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 95-48-7  | 2-Methylphenol        | ND                | 500                | 270        | 54      | 500           | 250         | 50       | 8   | 47-112/18         |
|          | 3&4-Methylphenol      | ND                | 500                | 271        | 54      | 500           | 246         | 49       | 10  | 44-113/19         |
| 87-86-5  | Pentachlorophenol     | ND                | 500                | 486        | 97      | 500           | 456         | 91       | 6   | 25-151/25         |
| 95-95-4  | 2,4,5-Trichlorophenol | ND                | 500                | 461        | 92      | 500           | 422         | 84       | 9   | 51-124/20         |
| 88-06-2  | 2,4,6-Trichlorophenol | ND                | 500                | 465        | 93      | 500           | 431         | 86       | 8   | 53-120/21         |
| 106-46-7 | 1,4-Dichlorobenzene   | ND                | 500                | 347        | 69      | 500           | 343         | 69       | 1   | 40-105/22         |
| 121-14-2 | 2,4-Dinitrotoluene    | ND                | 500                | 528        | 106     | 500           | 498         | 100      | 6   | 54-123/27         |
| 118-74-1 | Hexachlorobenzene     | ND                | 500                | 411        | 82      | 500           | 388         | 78       | 6   | 46-125/24         |
| 87-68-3  | Hexachlorobutadiene   | ND                | 500                | 373        | 75      | 500           | 372         | 74       | 0   | 26-121/24         |
| 67-72-1  | Hexachloroethane      | ND                | 500                | 348        | 70      | 500           | 346         | 69       | 1   | 35-111/26         |
| 98-95-3  | Nitrobenzene          | ND                | 500                | 426        | 85      | 500           | 404         | 81       | 5   | 35-130/25         |
| 110-86-1 | Pyridine              | ND                | 500                | 98.7       | 20      | 500           | 80.0        | 16       | 21  | 12-102/41         |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65130-2 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 38% | 33% | 45%       | 14-88%  |
| 4165-62-2 | Phenol-d5            | 28% | 25% | 32%       | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 90% | 87% | 107%      | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 79% | 77% | 80%       | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 72% | 70% | 74%       | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 61% | 57% | 78%       | 10-126% |

\* = Outside of Control Limits.

8.4.3  
 8

# Leachate Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LS10 | M145730.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| JC65130-2    | M145732.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65058-13A

| CAS No.  | Compound              | JC65130-2<br>ug/l | Spike<br>Q | ug/l | LS<br>ug/l | LS<br>% | Limits |
|----------|-----------------------|-------------------|------------|------|------------|---------|--------|
| 95-48-7  | 2-Methylphenol        | ND                | 500        | 270  | 54         | 47-112  |        |
|          | 3&4-Methylphenol      | ND                | 500        | 271  | 54         | 44-113  |        |
| 87-86-5  | Pentachlorophenol     | ND                | 500        | 486  | 97         | 25-151  |        |
| 95-95-4  | 2,4,5-Trichlorophenol | ND                | 500        | 461  | 92         | 51-124  |        |
| 88-06-2  | 2,4,6-Trichlorophenol | ND                | 500        | 465  | 93         | 53-120  |        |
| 106-46-7 | 1,4-Dichlorobenzene   | ND                | 500        | 347  | 69         | 40-105  |        |
| 121-14-2 | 2,4-Dinitrotoluene    | ND                | 500        | 528  | 106        | 54-123  |        |
| 118-74-1 | Hexachlorobenzene     | ND                | 500        | 411  | 82         | 46-125  |        |
| 87-68-3  | Hexachlorobutadiene   | ND                | 500        | 373  | 75         | 26-121  |        |
| 67-72-1  | Hexachloroethane      | ND                | 500        | 348  | 70         | 35-111  |        |
| 98-95-3  | Nitrobenzene          | ND                | 500        | 426  | 85         | 35-130  |        |
| 110-86-1 | Pyridine              | ND                | 500        | 98.7 | 20         | 12-102  |        |

| CAS No.   | Surrogate Recoveries | LS  | JC65130-2 | Limits  |
|-----------|----------------------|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 38% | 45%       | 14-88%  |
| 4165-62-2 | Phenol-d5            | 28% | 32%       | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 90% | 107%      | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 79% | 80%       | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 72% | 74%       | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 61% | 78%       | 10-126% |

\* = Outside of Control Limits.

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3481-DFTPP  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2P79036.D | <b>Injection Time:</b> 20:08    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 100824        | 37.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1207          | 0.45 (0.86) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 140923        | 52.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 673           | 0.25 (0.48) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 151036        | 55.8                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 270763        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 19261         | 7.11                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 64885         | 24.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 8152          | 3.01                     | Pass      |
| 441 | Present, but less than mass 443    | 33955         | 12.5 (83.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 216021        | 79.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 40507         | 15.0 (18.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3481-IC3481  | 2P79037.D   | 05/01/18      | 20:33         | 00:25        | Initial cal 100             |
| E2P3481-IC3481  | 2P79038.D   | 05/01/18      | 20:55         | 00:47        | Initial cal 80              |
| E2P3481-ICC3481 | 2P79039.D   | 05/01/18      | 21:16         | 01:08        | Initial cal 50              |
| E2P3481-IC3481  | 2P79040.D   | 05/01/18      | 21:38         | 01:30        | Initial cal 25              |
| E2P3481-IC3481  | 2P79041.D   | 05/01/18      | 22:00         | 01:52        | Initial cal 10              |
| E2P3481-IC3481  | 2P79042.D   | 05/01/18      | 22:22         | 02:14        | Initial cal 5               |
| E2P3481-IC3481  | 2P79043.D   | 05/01/18      | 22:44         | 02:36        | Initial cal 2               |
| E2P3481-IC3481  | 2P79044.D   | 05/01/18      | 23:05         | 02:57        | Initial cal 1               |
| E2P3481-ICV3479 | 2P79045.D   | 05/01/18      | 23:27         | 03:19        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79046.D   | 05/01/18      | 23:49         | 03:41        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79047.D   | 05/02/18      | 00:11         | 04:03        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79048.D   | 05/02/18      | 00:32         | 04:24        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79049.D   | 05/02/18      | 00:54         | 04:46        | Initial cal verification 50 |

8.6.1  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3484-DFTPP  | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 2P79079.D | <b>Injection Time:</b> 02:24    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 47513         | 40.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1010          | 0.85 (1.56) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 64706         | 54.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 314           | 0.26 (0.49) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 69344         | 58.5                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 118616        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 8351          | 7.04                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 28589         | 24.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4437          | 3.74                     | Pass      |
| 441 | Present, but less than mass 443    | 15602         | 13.2 (80.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 100016        | 84.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 19461         | 16.4 (19.5) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3484-IC3484  | 2P79081.D   | 05/03/18      | 03:21         | 00:57        | Initial cal 100             |
| E2P3484-IC3484  | 2P79082.D   | 05/03/18      | 03:43         | 01:19        | Initial cal 80              |
| E2P3484-ICC3484 | 2P79083.D   | 05/03/18      | 04:05         | 01:41        | Initial cal 50              |
| E2P3484-IC3484  | 2P79084.D   | 05/03/18      | 04:26         | 02:02        | Initial cal 25              |
| E2P3484-IC3484  | 2P79085.D   | 05/03/18      | 04:48         | 02:24        | Initial cal 10              |
| E2P3484-IC3484  | 2P79086.D   | 05/03/18      | 05:10         | 02:46        | Initial cal 5               |
| E2P3484-IC3484  | 2P79087.D   | 05/03/18      | 05:31         | 03:07        | Initial cal 2               |
| E2P3484-IC3484  | 2P79088.D   | 05/03/18      | 05:53         | 03:29        | Initial cal 1               |
| E2P3484-ICV3484 | 2P79089.D   | 05/03/18      | 06:14         | 03:50        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79090.D   | 05/03/18      | 06:36         | 04:12        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79091.D   | 05/03/18      | 06:58         | 04:34        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79092.D   | 05/03/18      | 07:19         | 04:55        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79093.D   | 05/03/18      | 07:41         | 05:17        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79094.D   | 05/03/18      | 08:02         | 05:38        | Initial cal verification 50 |

8.6.2  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3489-DFTPP  | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79159.D | <b>Injection Time:</b> 19:44    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 71296         | 35.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 569           | 0.28 (0.57) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 99917         | 49.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 439           | 0.22 (0.44) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 110661        | 54.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 202325        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 13280         | 6.56                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 52915         | 26.2                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 7509          | 3.71                     | Pass      |
| 441 | Present, but less than mass 443    | 25027         | 12.4 (83.1) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 156629        | 77.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 30109         | 14.9 (19.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|----------------|-------------|---------------|---------------|--------------|--------------------|
| E2P3489-CC3484 | 2P79160.D   | 05/05/18      | 19:56         | 00:12        | Continuing cal 50  |
| E2P3489-CC3481 | 2P79161.D   | 05/05/18      | 20:17         | 00:33        | Continuing cal 50  |
| OP11696-MB1    | 2P79162.D   | 05/05/18      | 20:39         | 00:55        | Method Blank       |
| OP11697-LB28   | 2P79163.D   | 05/05/18      | 21:00         | 01:16        | Leachate Blank     |
| OP11696-LB32   | 2P79164.D   | 05/05/18      | 21:22         | 01:38        | Leachate Blank     |
| OP11696-LB34   | 2P79165.D   | 05/05/18      | 21:43         | 01:59        | Leachate Blank     |
| OP11696-BS1    | 2P79166.D   | 05/05/18      | 22:05         | 02:21        | Blank Spike        |
| ZZZZZZ         | 2P79167.D   | 05/05/18      | 22:26         | 02:42        | (unrelated sample) |
| ZZZZZZ         | 2P79168.D   | 05/05/18      | 22:48         | 03:04        | (unrelated sample) |
| ZZZZZZ         | 2P79169.D   | 05/05/18      | 23:09         | 03:25        | (unrelated sample) |
| ZZZZZZ         | 2P79170.D   | 05/05/18      | 23:31         | 03:47        | (unrelated sample) |
| ZZZZZZ         | 2P79171.D   | 05/05/18      | 23:52         | 04:08        | (unrelated sample) |
| ZZZZZZ         | 2P79172.D   | 05/06/18      | 00:14         | 04:30        | (unrelated sample) |
| ZZZZZZ         | 2P79173.D   | 05/06/18      | 00:36         | 04:52        | (unrelated sample) |
| ZZZZZZ         | 2P79174.D   | 05/06/18      | 00:57         | 05:13        | (unrelated sample) |
| ZZZZZZ         | 2P79175.D   | 05/06/18      | 01:19         | 05:35        | (unrelated sample) |
| ZZZZZZ         | 2P79176.D   | 05/06/18      | 01:40         | 05:56        | (unrelated sample) |
| ZZZZZZ         | 2P79177.D   | 05/06/18      | 02:02         | 06:18        | (unrelated sample) |
| ZZZZZZ         | 2P79178.D   | 05/06/18      | 02:23         | 06:39        | (unrelated sample) |

8.6.3  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3489-DFTPP  | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79159.D | <b>Injection Time:</b> 19:44    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| ZZZZZZ        | 2P79179.D   | 05/06/18      | 02:45         | 07:01        | (unrelated sample)                          |
| JC65058-13A   | 2P79180.D   | 05/06/18      | 03:06         | 07:22        | TP-100 (2-6)                                |
| ZZZZZZ        | 2P79181.D   | 05/06/18      | 03:28         | 07:44        | (unrelated sample)                          |
| ZZZZZZ        | 2P79182.D   | 05/06/18      | 03:49         | 08:05        | (unrelated sample)                          |
| ZZZZZZ        | 2P79183.D   | 05/06/18      | 04:10         | 08:26        | (unrelated sample)                          |
| ZZZZZZ        | 2P79184.D   | 05/06/18      | 04:32         | 08:48        | (unrelated sample)                          |
| ZZZZZZ        | 2P79185.D   | 05/06/18      | 04:53         | 09:09        | (unrelated sample)                          |
| OP11558-MB1   | 2P79186.D   | 05/06/18      | 05:15         | 09:31        | Method Blank                                |
| OP11558-BS1   | 2P79187.D   | 05/06/18      | 05:36         | 09:52        | Blank Spike                                 |
| OP11558-BSD   | 2P79188.D   | 05/06/18      | 05:58         | 10:14        | Blank Spike Duplicate                       |
| OP11558-MB2   | 2P79189.D   | 05/06/18      | 06:19         | 10:35        | Method Blank                                |
| OP11558-BS2   | 2P79190.D   | 05/06/18      | 06:41         | 10:57        | Blank Spike                                 |
| OP11558-MS    | 2P79191.D   | 05/06/18      | 07:02         | 11:18        | Matrix Spike                                |
| OP11558-MSD   | 2P79192.D   | 05/06/18      | 07:24         | 11:40        | Matrix Spike Duplicate                      |
| ZZZZZZ        | 2P79193.D   | 05/06/18      | 07:45         | 12:01        | (unrelated sample)                          |
| ZZZZZZ        | 2P79194.D   | 05/06/18      | 08:07         | 12:23        | (unrelated sample)                          |
| ZZZZZZ        | 2P79195.D   | 05/06/18      | 08:28         | 12:44        | (unrelated sample)                          |
| ZZZZZZ        | 2P79196.D   | 05/06/18      | 08:50         | 13:06        | (unrelated sample)                          |
| ZZZZZZ        | 2P79197.D   | 05/06/18      | 09:11         | 13:27        | (unrelated sample)                          |
| ZZZZZZ        | 2P79198.D   | 05/06/18      | 09:33         | 13:49        | (unrelated sample)                          |
| ZZZZZZ        | 2P79199.D   | 05/06/18      | 09:54         | 14:10        | (unrelated sample)                          |
| ZZZZZZ        | 2P79202.D   | 05/06/18      | 10:59         | 15:15        | (unrelated sample)                          |
| ZZZZZZ        | 2P79203.D   | 05/06/18      | 11:20         | 15:36        | (unrelated sample)                          |
| ZZZZZZ        | 2P79204.D   | 05/06/18      | 11:42         | 15:58        | (unrelated sample)                          |
| ZZZZZZ        | 2P79205.D   | 05/06/18      | 12:03         | 16:19        | (unrelated sample)                          |
| ZZZZZZ        | 2P79206.D   | 05/06/18      | 12:25         | 16:41        | (unrelated sample)                          |
| ZZZZZZ        | 2P79207.D   | 05/06/18      | 12:46         | 17:02        | (unrelated sample)                          |
| JC64815-13    | 2P79208.D   | 05/06/18      | 13:08         | 17:24        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | 2P79209.D   | 05/06/18      | 13:29         | 17:45        | (unrelated sample)                          |
| ZZZZZZ        | 2P79211.D   | 05/06/18      | 14:13         | 18:29        | (unrelated sample)                          |
| ZZZZZZ        | 2P79212.D   | 05/06/18      | 14:34         | 18:50        | (unrelated sample)                          |

8.6.3  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7484-DFTPP   | <b>Injection Date:</b> 04/18/18 |
| <b>Lab File ID:</b> F175736.D | <b>Injection Time:</b> 23:05    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 32632         | 41.8                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 358           | 0.46 (0.98) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 36688         | 47.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 126           | 0.16 (0.34) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 42536         | 54.5                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 78096         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 5366          | 6.87                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 20106         | 25.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2460          | 3.15                     | Pass      |
| 441 | Present, but less than mass 443    | 7344          | 9.40 (71.0) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 54050         | 69.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 10339         | 13.2 (19.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EF7484-IC7484  | F175737.D   | 04/18/18      | 23:19         | 00:14        | Initial cal 2               |
| EF7484-IC7484  | F175738.D   | 04/18/18      | 23:49         | 00:44        | Initial cal 100             |
| EF7484-IC7484  | F175739.D   | 04/19/18      | 00:17         | 01:12        | Initial cal 80              |
| EF7484-ICC7484 | F175740.D   | 04/19/18      | 00:45         | 01:40        | Initial cal 50              |
| EF7484-IC7484  | F175741.D   | 04/19/18      | 01:13         | 02:08        | Initial cal 25              |
| EF7484-IC7484  | F175742.D   | 04/19/18      | 01:41         | 02:36        | Initial cal 10              |
| EF7484-IC7484  | F175743.D   | 04/19/18      | 02:10         | 03:05        | Initial cal 5               |
| EF7484-IC7484  | F175744.D   | 04/19/18      | 02:38         | 03:33        | Initial cal 1               |
| EF7484-ICV7484 | F175745.D   | 04/19/18      | 03:06         | 04:01        | Initial cal verification 50 |
| EF7484-ICV7484 | F175746.D   | 04/19/18      | 03:34         | 04:29        | Initial cal verification 50 |
| EF7484-ICV7484 | F175748.D   | 04/19/18      | 04:30         | 05:25        | Initial cal verification 50 |
| EF7484-ICV7484 | F175749.D   | 04/19/18      | 04:58         | 05:53        | Initial cal verification 50 |
| EF7484-ICV7484 | F175750.D   | 04/19/18      | 05:26         | 06:21        | Initial cal verification 50 |

8.6.4  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7485-DFTPP   | <b>Injection Date:</b> 04/19/18 |
| <b>Lab File ID:</b> F175751.D | <b>Injection Time:</b> 05:51    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 29992         | 42.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 123           | 0.17 (0.37) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 32818         | 46.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 102           | 0.14 (0.31) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 36864         | 51.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 71285         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 4865          | 6.82                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 18726         | 26.3                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2488          | 3.49                     | Pass      |
| 441 | Present, but less than mass 443    | 7776          | 10.9 (73.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 55312         | 77.6                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 10616         | 14.9 (19.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EF7485-IC7485  | F175752.D   | 04/19/18      | 06:03         | 00:12        | Initial cal 100             |
| EF7485-IC7485  | F175753.D   | 04/19/18      | 06:31         | 00:40        | Initial cal 80              |
| EF7485-ICC7485 | F175754.D   | 04/19/18      | 06:59         | 01:08        | Initial cal 50              |
| EF7485-IC7485  | F175755.D   | 04/19/18      | 07:27         | 01:36        | Initial cal 25              |
| EF7485-IC7485  | F175756.D   | 04/19/18      | 07:56         | 02:05        | Initial cal 10              |
| EF7485-IC7485  | F175757.D   | 04/19/18      | 08:24         | 02:33        | Initial cal 5               |
| EF7485-IC7485  | F175758.D   | 04/19/18      | 08:52         | 03:01        | Initial cal 2               |
| EF7485-IC7485  | F175759.D   | 04/19/18      | 09:20         | 03:29        | Initial cal 1               |
| EF7485-ICV7485 | F175760.D   | 04/19/18      | 09:48         | 03:57        | Initial cal verification 50 |
| EF7485-ICV7485 | F175762.D   | 04/19/18      | 10:44         | 04:53        | Initial cal verification 50 |
| EF7485-ICV7485 | F175763.D   | 04/19/18      | 11:13         | 05:22        | Initial cal verification 50 |
| EF7485-ICV7485 | F175764.D   | 04/19/18      | 11:41         | 05:50        | Initial cal verification 50 |

8.6.5  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7486-DFTPP   | <b>Injection Date:</b> 04/19/18 |
| <b>Lab File ID:</b> F175765.D | <b>Injection Time:</b> 20:24    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 30188         | 38.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 64            | 0.08 (0.19) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 34420         | 44.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 156           | 0.20 (0.45) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 41176         | 52.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 78184         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 5380          | 6.88                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 20884         | 26.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2798          | 3.58                     | Pass      |
| 441 | Present, but less than mass 443    | 8685          | 11.1 (72.3) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 60800         | 77.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 12012         | 15.4 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EF7486-IC7486  | F175766.D   | 04/19/18      | 20:49         | 00:25        | Initial cal 100             |
| EF7486-IC7486  | F175767.D   | 04/19/18      | 21:17         | 00:53        | Initial cal 80              |
| EF7486-ICC7486 | F175768.D   | 04/19/18      | 21:45         | 01:21        | Initial cal 50              |
| EF7486-IC7486  | F175769.D   | 04/19/18      | 22:13         | 01:49        | Initial cal 25              |
| EF7486-IC7486  | F175770.D   | 04/19/18      | 22:40         | 02:16        | Initial cal 10              |
| EF7486-IC7486  | F175771.D   | 04/19/18      | 23:08         | 02:44        | Initial cal 5               |
| EF7486-IC7486  | F175772.D   | 04/19/18      | 23:36         | 03:12        | Initial cal 2               |
| EF7486-IC7486  | F175773.D   | 04/20/18      | 00:04         | 03:40        | Initial cal 1               |
| EF7486-ICV7486 | F175774.D   | 04/20/18      | 00:32         | 04:08        | Initial cal verification 50 |
| EF7486-ICV7486 | F175775.D   | 04/20/18      | 01:00         | 04:36        | Initial cal verification 50 |
| EF7486-ICV7486 | F175776.D   | 04/20/18      | 01:50         | 05:26        | Initial cal verification 50 |
| EF7486-ICV7486 | F175777.D   | 04/20/18      | 02:17         | 05:53        | Initial cal verification 50 |

8.6.6  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7487-DFTPP   | <b>Injection Date:</b> 04/20/18 |
| <b>Lab File ID:</b> F175779.D | <b>Injection Time:</b> 23:21    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 22379         | 36.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 78            | 0.13 (0.28) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 27865         | 44.9                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 126           | 0.20 (0.45) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 32935         | 53.1                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 62061         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 3987          | 6.42                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 16254         | 26.2                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2196          | 3.54                     | Pass      |
| 441 | Present, but less than mass 443    | 6136          | 9.89 (71.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 44552         | 71.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 8535          | 13.8 (19.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| EF7487-ICV7484 | F175780.D   | 04/20/18      | 23:46         | 00:25        | Initial cal verification 50                 |
| EF7487-CC7484  | F175781.D   | 04/21/18      | 00:17         | 00:56        | Continuing cal 50                           |
| EF7487-CC7485  | F175782.D   | 04/21/18      | 00:44         | 01:23        | Continuing cal 50                           |
| OP11442-MB1    | F175787.D   | 04/21/18      | 03:17         | 03:56        | Method Blank                                |
| OP11442-BS1    | F175788.D   | 04/21/18      | 03:44         | 04:23        | Blank Spike                                 |
| OP11442-MS     | F175789.D   | 04/21/18      | 04:11         | 04:50        | Matrix Spike                                |
| OP11442-MSD    | F175790.D   | 04/21/18      | 04:39         | 05:18        | Matrix Spike Duplicate                      |
| JC64415-1      | F175791.D   | 04/21/18      | 05:07         | 05:46        | (used for QC only; not part of job JC65058) |
| ZZZZZZ         | F175792.D   | 04/21/18      | 05:34         | 06:13        | (unrelated sample)                          |
| ZZZZZZ         | F175793.D   | 04/21/18      | 06:02         | 06:41        | (unrelated sample)                          |
| ZZZZZZ         | F175794.D   | 04/21/18      | 06:29         | 07:08        | (unrelated sample)                          |
| ZZZZZZ         | F175795.D   | 04/21/18      | 06:57         | 07:36        | (unrelated sample)                          |
| ZZZZZZ         | F175796.D   | 04/21/18      | 07:26         | 08:05        | (unrelated sample)                          |

8.6.7  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7502-DFTPP   | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> F176107.D | <b>Injection Time:</b> 22:40    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 18541         | 31.7                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 53            | 0.09 (0.23) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 23064         | 39.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 107           | 0.18 (0.46) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 27396         | 46.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 193           | 0.33                     | Pass      |
| 198 | Base peak, 100% relative abundance | 58546         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 4089          | 6.98                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 17060         | 29.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2448          | 4.18                     | Pass      |
| 441 | Present, but less than mass 443    | 7148          | 12.2 (82.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 47866         | 81.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 8674          | 14.8 (18.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EF7502-CC7484 | F176108.D   | 05/02/18      | 22:59         | 00:19        | Continuing cal 25                           |
| EF7502-CC7485 | F176109.D   | 05/02/18      | 23:33         | 00:53        | Continuing cal 25                           |
| OP11647-MB1   | F176110.D   | 05/03/18      | 00:07         | 01:27        | Method Blank                                |
| OP11647-BS1   | F176111.D   | 05/03/18      | 00:41         | 02:01        | Blank Spike                                 |
| ZZZZZZ        | F176112.D   | 05/03/18      | 01:15         | 02:35        | (unrelated sample)                          |
| ZZZZZZ        | F176113.D   | 05/03/18      | 01:49         | 03:09        | (unrelated sample)                          |
| ZZZZZZ        | F176114.D   | 05/03/18      | 02:22         | 03:42        | (unrelated sample)                          |
| ZZZZZZ        | F176115.D   | 05/03/18      | 02:56         | 04:16        | (unrelated sample)                          |
| ZZZZZZ        | F176116.D   | 05/03/18      | 03:29         | 04:49        | (unrelated sample)                          |
| ZZZZZZ        | F176117.D   | 05/03/18      | 04:02         | 05:22        | (unrelated sample)                          |
| OP11647-MS    | F176118.D   | 05/03/18      | 04:36         | 05:56        | Matrix Spike                                |
| OP11647-MSD   | F176119.D   | 05/03/18      | 05:09         | 06:29        | Matrix Spike Duplicate                      |
| JC65070-1     | F176120.D   | 05/03/18      | 05:43         | 07:03        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | F176121.D   | 05/03/18      | 06:15         | 07:35        | (unrelated sample)                          |
| OP11679-MSD   | F176122.D   | 05/03/18      | 06:49         | 08:09        | Matrix Spike Duplicate                      |
| ZZZZZZ        | F176123.D   | 05/03/18      | 07:23         | 08:43        | (unrelated sample)                          |
| ZZZZZZ        | F176124.D   | 05/03/18      | 07:56         | 09:16        | (unrelated sample)                          |

8.6.8  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7510-DFTPP   | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> F176280.D | <b>Injection Time:</b> 12:19    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 32582         | 37.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 37888         | 43.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 172           | 0.20 (0.45) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 43589         | 49.6                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 87861         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 6015          | 6.85                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 23182         | 26.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 3437          | 3.91                     | Pass      |
| 441 | Present, but less than mass 443    | 7862          | 8.95 (78.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 53013         | 60.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 9959          | 11.3 (18.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EF7510-CC7484 | F176281.D   | 05/07/18      | 12:38         | 00:19        | Continuing cal 25                           |
| EF7510-CC7485 | F176282.D   | 05/07/18      | 13:12         | 00:53        | Continuing cal 25                           |
| ZZZZZZ        | F176283.D   | 05/07/18      | 14:25         | 02:06        | (unrelated sample)                          |
| ZZZZZZ        | F176284.D   | 05/07/18      | 15:00         | 02:41        | (unrelated sample)                          |
| OP11704-MS    | F176285.D   | 05/07/18      | 15:35         | 03:16        | Matrix Spike                                |
| OP11704-MSD   | F176286.D   | 05/07/18      | 16:11         | 03:52        | Matrix Spike Duplicate                      |
| JC65198-1     | F176287.D   | 05/07/18      | 16:45         | 04:26        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | F176288.D   | 05/07/18      | 17:21         | 05:02        | (unrelated sample)                          |
| ZZZZZZ        | F176291.D   | 05/07/18      | 18:28         | 06:09        | (unrelated sample)                          |
| ZZZZZZ        | F176292.D   | 05/07/18      | 19:02         | 06:43        | (unrelated sample)                          |
| JC65058-5     | F176293.D   | 05/07/18      | 19:36         | 07:17        | SB-104 (13-17)                              |
| JC65058-3     | F176295.D   | 05/07/18      | 20:45         | 08:26        | SB-108 (15-17)                              |
| JC65058-4     | F176296.D   | 05/07/18      | 21:18         | 08:59        | SB-105 (13-15)                              |
| JC65058-1     | F176297.D   | 05/07/18      | 21:52         | 09:33        | TP-100 (8-10)                               |
| JC65058-8     | F176298.D   | 05/07/18      | 22:24         | 10:05        | TP-100 (8-10)                               |
| ZZZZZZ        | F176299.D   | 05/07/18      | 22:58         | 10:39        | (unrelated sample)                          |
| JC65058-2     | F176300.D   | 05/07/18      | 23:30         | 11:11        | DUP-042518                                  |
| ZZZZZZ        | F176301.D   | 05/08/18      | 00:03         | 11:44        | (unrelated sample)                          |

8.6.9  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7511-DFTPP   | <b>Injection Date:</b> 05/08/18 |
| <b>Lab File ID:</b> F176303.D | <b>Injection Time:</b> 08:47    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 41330         | 42.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 45672         | 47.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 380           | 0.39 (0.83) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 51056         | 52.6                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 97096         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 6588          | 6.79                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 24749         | 25.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 3511          | 3.62                     | Pass      |
| 441 | Present, but less than mass 443    | 7762          | 7.99 (75.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 53807         | 55.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 10223         | 10.5 (19.0) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| EF7511-CC7484 | F176305.D   | 05/08/18      | 09:38         | 00:51        | Continuing cal 50  |
| EF7511-CC7485 | F176306.D   | 05/08/18      | 10:11         | 01:24        | Continuing cal 50  |
| OP11546-MB1   | F176308.D   | 05/08/18      | 11:20         | 02:33        | Method Blank       |
| ZZZZZZ        | F176309.D   | 05/08/18      | 11:55         | 03:08        | (unrelated sample) |
| ZZZZZZ        | F176310.D   | 05/08/18      | 12:29         | 03:42        | (unrelated sample) |
| ZZZZZZ        | F176311.D   | 05/08/18      | 13:06         | 04:19        | (unrelated sample) |
| ZZZZZZ        | F176312.D   | 05/08/18      | 13:43         | 04:56        | (unrelated sample) |
| ZZZZZZ        | F176313.D   | 05/08/18      | 14:20         | 05:33        | (unrelated sample) |
| ZZZZZZ        | F176314.D   | 05/08/18      | 14:57         | 06:10        | (unrelated sample) |
| ZZZZZZ        | F176315.D   | 05/08/18      | 15:33         | 06:46        | (unrelated sample) |
| ZZZZZZ        | F176316.D   | 05/08/18      | 16:09         | 07:22        | (unrelated sample) |
| ZZZZZZ        | F176317.D   | 05/08/18      | 16:45         | 07:58        | (unrelated sample) |
| ZZZZZZ        | F176318.D   | 05/08/18      | 17:21         | 08:34        | (unrelated sample) |
| JC65058-2     | F176320.D   | 05/08/18      | 18:30         | 09:43        | DUP-042518         |
| ZZZZZZ        | F176321.D   | 05/08/18      | 19:05         | 10:18        | (unrelated sample) |
| JC65058-1     | F176322.D   | 05/08/18      | 19:40         | 10:53        | TP-100 (8-10)      |
| JC65058-8     | F176323.D   | 05/08/18      | 20:14         | 11:27        | TP-100 (8-10)      |

8.6.10  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7512-DFTPP   | <b>Injection Date:</b> 05/08/18 |
| <b>Lab File ID:</b> F176331.D | <b>Injection Time:</b> 23:03    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 36714         | 39.7                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 43279         | 46.8                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 372           | 0.40 (0.86) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 47768         | 51.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 92392         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 6511          | 7.05                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 25356         | 27.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 3618          | 3.92                     | Pass      |
| 441 | Present, but less than mass 443    | 8203          | 8.88 (76.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 56332         | 61.0                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 10742         | 11.6 (19.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| EF7512-CC7484 | F176332.D   | 05/08/18      | 23:20         | 00:17        | Continuing cal 25  |
| EF7512-CC7485 | F176333.D   | 05/08/18      | 23:53         | 00:50        | Continuing cal 25  |
| EF7512-CC7486 | F176334.D   | 05/09/18      | 00:29         | 01:26        | Continuing cal 25  |
| OP11851-MB1   | F176336.D   | 05/09/18      | 01:34         | 02:31        | Method Blank       |
| JC65058-7     | F176339.D   | 05/09/18      | 03:11         | 04:08        | TP-100 (6-8)       |
| JC65058-6     | F176340.D   | 05/09/18      | 03:44         | 04:41        | SB-104 (5-9)       |
| ZZZZZZ        | F176341.D   | 05/09/18      | 04:16         | 05:13        | (unrelated sample) |
| ZZZZZZ        | F176342.D   | 05/09/18      | 04:49         | 05:46        | (unrelated sample) |

8.6.11  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7515-DFTPP   | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> F176403.D | <b>Injection Time:</b> 00:54    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 28976         | 45.9                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 31497         | 49.9                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 143           | 0.23 (0.45) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 34029         | 53.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 217           | 0.34                     | Pass      |
| 198 | Base peak, 100% relative abundance | 63141         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 4350          | 6.89                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 15963         | 25.3                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2596          | 4.11                     | Pass      |
| 441 | Present, but less than mass 443    | 4763          | 7.54 (78.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 31866         | 50.5                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 6079          | 9.63 (19.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| EF7515-CC7484 | F176404.D   | 05/11/18      | 01:14         | 00:20        | Continuing cal 25  |
| ZZZZZZ        | F176405.D   | 05/11/18      | 01:47         | 00:53        | (unrelated sample) |
| ZZZZZZ        | F176406.D   | 05/11/18      | 02:21         | 01:27        | (unrelated sample) |
| ZZZZZZ        | F176407.D   | 05/11/18      | 02:54         | 02:00        | (unrelated sample) |
| ZZZZZZ        | F176408.D   | 05/11/18      | 03:27         | 02:33        | (unrelated sample) |
| ZZZZZZ        | F176409.D   | 05/11/18      | 04:00         | 03:06        | (unrelated sample) |
| JC65058-6     | F176410.D   | 05/11/18      | 04:33         | 03:39        | SB-104 (5-9)       |

8.6.12  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EF7524-DFTPP   | <b>Injection Date:</b> 05/18/18 |
| <b>Lab File ID:</b> F176842.D | <b>Injection Time:</b> 00:43    |
| <b>Instrument ID:</b> GCMSF   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 26087         | 41.3                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 104           | 0.16 (0.35) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 29354         | 46.5                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 207           | 0.33 (0.71) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 32852         | 52.0                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 63170         | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 4420          | 7.00                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 17189         | 27.2                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 2803          | 4.44                     | Pass      |
| 441 | Present, but less than mass 443    | 5337          | 8.45 (72.5) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 38784         | 61.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 7357          | 11.6 (19.0) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EF7524-IC7524  | F176843.D   | 05/18/18      | 01:11         | 00:28        | Initial cal 100             |
| EF7524-IC7524  | F176844.D   | 05/18/18      | 01:45         | 01:02        | Initial cal 80              |
| EF7524-ICC7524 | F176845.D   | 05/18/18      | 02:19         | 01:36        | Initial cal 50              |
| EF7524-IC7524  | F176846.D   | 05/18/18      | 02:54         | 02:11        | Initial cal 25              |
| EF7524-IC7524  | F176847.D   | 05/18/18      | 03:29         | 02:46        | Initial cal 10              |
| EF7524-IC7524  | F176848.D   | 05/18/18      | 04:04         | 03:21        | Initial cal 5               |
| EF7524-IC7524  | F176849.D   | 05/18/18      | 04:39         | 03:56        | Initial cal 2               |
| EF7524-IC7524  | F176850.D   | 05/18/18      | 05:13         | 04:30        | Initial cal 1               |
| EF7524-ICV7524 | F176851.D   | 05/18/18      | 05:48         | 05:05        | Initial cal verification 50 |
| EF7524-ICV7486 | F176852.D   | 05/18/18      | 06:21         | 05:38        | Initial cal verification 50 |
| EF7524-ICV7486 | F176853.D   | 05/18/18      | 10:08         | 09:25        | Initial cal verification 50 |
| EF7524-ICV7486 | F176854.D   | 05/18/18      | 10:40         | 09:57        | Initial cal verification 50 |
| EF7524-ICV7486 | F176855.D   | 05/18/18      | 11:13         | 10:30        | Initial cal verification 50 |

8.6.13  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6168-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145273.D | <b>Injection Time:</b> 03:46    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 59257         | 34.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 71939         | 41.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 174           | 0.10 (0.24) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 91976         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 173922        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11453         | 6.59                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 41398         | 23.8                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4915          | 2.83                     | Pass      |
| 441 | Present, but less than mass 443    | 18451         | 10.6 (77.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 120712        | 69.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 23676         | 13.6 (19.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6168-IC6168  | M145274.D   | 04/17/18      | 04:09         | 00:23        | Initial cal 100             |
| EM6168-IC6168  | M145275.D   | 04/17/18      | 04:38         | 00:52        | Initial cal 80              |
| EM6168-ICC6168 | M145276.D   | 04/17/18      | 05:08         | 01:22        | Initial cal 50              |
| EM6168-IC6168  | M145277.D   | 04/17/18      | 05:37         | 01:51        | Initial cal 25              |
| EM6168-IC6168  | M145278.D   | 04/17/18      | 06:06         | 02:20        | Initial cal 10              |
| EM6168-IC6168  | M145279.D   | 04/17/18      | 06:35         | 02:49        | Initial cal 5               |
| EM6168-IC6168  | M145280.D   | 04/17/18      | 07:05         | 03:19        | Initial cal 2               |
| EM6168-IC6168  | M145281.D   | 04/17/18      | 07:34         | 03:48        | Initial cal 1               |
| EM6168-ICV6168 | M145282.D   | 04/17/18      | 08:03         | 04:17        | Initial cal verification 50 |
| EM6168-ICV6168 | M145284.D   | 04/17/18      | 09:02         | 05:16        | Initial cal verification 50 |
| EM6168-ICV6168 | M145285.D   | 04/17/18      | 09:31         | 05:45        | Initial cal verification 50 |
| EM6168-ICV6168 | M145286.D   | 04/17/18      | 10:00         | 06:14        | Initial cal verification 50 |
| EM6168-ICV6168 | M145287.D   | 04/17/18      | 10:30         | 06:44        | Initial cal verification 50 |

8.6.14  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6169-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145288.D | <b>Injection Time:</b> 10:55    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 54344         | 32.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 349           | 0.21 (0.51) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 68186         | 40.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 378           | 0.22 (0.55) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 89104         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 462           | 0.27                     | Pass      |
| 198 | Base peak, 100% relative abundance | 168576        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11591         | 6.88                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 39557         | 23.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4960          | 2.94                     | Pass      |
| 441 | Present, but less than mass 443    | 18883         | 11.2 (73.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 132344        | 78.5                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 25736         | 15.3 (19.4) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6169-IC6169  | M145289.D   | 04/17/18      | 11:39         | 00:44        | Initial cal 100             |
| EM6169-IC6169  | M145290.D   | 04/17/18      | 12:08         | 01:13        | Initial cal 80              |
| EM6169-ICC6169 | M145291.D   | 04/17/18      | 12:37         | 01:42        | Initial cal 50              |
| EM6169-IC6169  | M145292.D   | 04/17/18      | 13:07         | 02:12        | Initial cal 25              |
| EM6169-IC6169  | M145293.D   | 04/17/18      | 13:36         | 02:41        | Initial cal 10              |
| EM6169-IC6169  | M145294.D   | 04/17/18      | 14:06         | 03:11        | Initial cal 5               |
| EM6169-IC6169  | M145295.D   | 04/17/18      | 14:35         | 03:40        | Initial cal 2               |
| EM6169-IC6169  | M145296.D   | 04/17/18      | 15:04         | 04:09        | Initial cal 1               |
| EM6169-ICV6169 | M145297.D   | 04/17/18      | 15:34         | 04:39        | Initial cal verification 50 |
| EM6169-ICV6169 | M145298.D   | 04/17/18      | 16:03         | 05:08        | Initial cal verification 50 |
| EM6169-ICV6169 | M145299.D   | 04/17/18      | 16:32         | 05:37        | Initial cal verification 50 |
| EM6169-ICV6169 | M145300.D   | 04/17/18      | 17:02         | 06:07        | Initial cal verification 50 |
| EM6169-ICV6169 | M145301.D   | 04/17/18      | 17:31         | 06:36        | Initial cal verification 50 |

8.6.15  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6170-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145302.D | <b>Injection Time:</b> 20:36    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 57893         | 30.8                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 73598         | 39.2                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 465           | 0.25 (0.63) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 97176         | 51.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 187690        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 13198         | 7.03                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 44914         | 23.9                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6194          | 3.30                     | Pass      |
| 441 | Present, but less than mass 443    | 24056         | 12.8 (73.3) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 165570        | 88.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 32797         | 17.5 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6170-ICV6168 | M145303.D   | 04/17/18      | 20:55         | 00:19        | Initial cal verification 50 |

8.6.16  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6192-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145713.D | <b>Injection Time:</b> 01:08    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 40781         | 39.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 325           | 0.31 (0.67) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 48618         | 46.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 353           | 0.34 (0.73) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 56570         | 54.2                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 104397        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 7262          | 6.96                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 26112         | 25.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4067          | 3.90                     | Pass      |
| 441 | Present, but less than mass 443    | 13568         | 13.0 (77.1) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 92680         | 88.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 17599         | 16.9 (19.0) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EM6192-CC6168 | M145714.D   | 05/03/18      | 01:21         | 00:13        | Continuing cal 50                           |
| OP11695-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11696-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11697-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11696-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11695-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11697-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11697-LB25  | M145717.D   | 05/03/18      | 02:55         | 01:47        | Leachate Blank                              |
| OP11696-LB17  | M145718.D   | 05/03/18      | 03:25         | 02:17        | Leachate Blank                              |
| OP11696-MS    | M145719.D   | 05/03/18      | 03:55         | 02:47        | Matrix Spike                                |
| OP11696-LS5   | M145719.D   | 05/03/18      | 03:55         | 02:47        | Leachate Spike                              |
| OP11696-MSD   | M145720.D   | 05/03/18      | 04:25         | 03:17        | Matrix Spike Duplicate                      |
| JC64929-1     | M145721.D   | 05/03/18      | 04:55         | 03:47        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | M145722.D   | 05/03/18      | 05:25         | 04:17        | (unrelated sample)                          |
| ZZZZZZ        | M145723.D   | 05/03/18      | 05:54         | 04:46        | (unrelated sample)                          |
| ZZZZZZ        | M145724.D   | 05/03/18      | 06:25         | 05:17        | (unrelated sample)                          |
| ZZZZZZ        | M145725.D   | 05/03/18      | 06:54         | 05:46        | (unrelated sample)                          |
| ZZZZZZ        | M145726.D   | 05/03/18      | 07:23         | 06:15        | (unrelated sample)                          |
| ZZZZZZ        | M145727.D   | 05/03/18      | 07:53         | 06:45        | (unrelated sample)                          |

8.6.17  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |              |                        |          |
|-----------------------|--------------|------------------------|----------|
| <b>Sample:</b>        | EM6192-DFTPP | <b>Injection Date:</b> | 05/03/18 |
| <b>Lab File ID:</b>   | M145713.D    | <b>Injection Time:</b> | 01:08    |
| <b>Instrument ID:</b> | GCMSM        |                        |          |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| ZZZZZZ        | M145728.D   | 05/03/18      | 08:23         | 07:15        | (unrelated sample)                          |
| ZZZZZZ        | M145729.D   | 05/03/18      | 08:52         | 07:44        | (unrelated sample)                          |
| OP11697-MS    | M145730.D   | 05/03/18      | 09:22         | 08:14        | Matrix Spike                                |
| OP11697-LS10  | M145730.D   | 05/03/18      | 09:22         | 08:14        | Leachate Spike                              |
| OP11697-MSD   | M145731.D   | 05/03/18      | 09:52         | 08:44        | Matrix Spike Duplicate                      |
| JC65130-2     | M145732.D   | 05/03/18      | 10:21         | 09:13        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | M145733.D   | 05/03/18      | 10:51         | 09:43        | (unrelated sample)                          |
| ZZZZZZ        | M145734.D   | 05/03/18      | 11:21         | 10:13        | (unrelated sample)                          |
| ZZZZZZ        | M145735.D   | 05/03/18      | 11:51         | 10:43        | (unrelated sample)                          |
| ZZZZZZ        | M145736.D   | 05/03/18      | 12:21         | 11:13        | (unrelated sample)                          |
| ZZZZZZ        | M145737.D   | 05/03/18      | 12:51         | 11:43        | (unrelated sample)                          |

8.6.17  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6194-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145756.D | <b>Injection Time:</b> 23:54    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 47472         | 35.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 551           | 0.41 (0.98) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 56094         | 42.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 517           | 0.39 (0.92) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 67528         | 50.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 133312        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 9269          | 6.95                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 32864         | 24.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4880          | 3.66                     | Pass      |
| 441 | Present, but less than mass 443    | 17819         | 13.4 (73.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 122261        | 91.7                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 24149         | 18.1 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EM6194-CC6168 | M145757.D   | 05/04/18      | 00:06         | 00:12        | Continuing cal 50                           |
| EM6194-CC6169 | M145759.D   | 05/04/18      | 01:07         | 01:13        | Continuing cal 50                           |
| OP11465-MB1   | M145762.D   | 05/04/18      | 02:38         | 02:44        | Method Blank                                |
| OP11607-MB1   | M145763.D   | 05/04/18      | 03:08         | 03:14        | Method Blank                                |
| OP11510-MB1   | M145764.D   | 05/04/18      | 03:39         | 03:45        | Method Blank                                |
| OP11697-LB26  | M145765.D   | 05/04/18      | 04:09         | 04:15        | Leachate Blank                              |
| OP11695-LB18  | M145766.D   | 05/04/18      | 04:39         | 04:45        | Leachate Blank                              |
| ZZZZZZ        | M145767.D   | 05/04/18      | 05:09         | 05:15        | (unrelated sample)                          |
| ZZZZZZ        | M145768.D   | 05/04/18      | 05:40         | 05:46        | (unrelated sample)                          |
| ZZZZZZ        | M145769.D   | 05/04/18      | 06:10         | 06:16        | (unrelated sample)                          |
| ZZZZZZ        | M145780.D   | 05/04/18      | 06:40         | 06:46        | (unrelated sample)                          |
| ZZZZZZ        | M145782.D   | 05/04/18      | 07:39         | 07:45        | (unrelated sample)                          |
| ZZZZZZ        | M145783.D   | 05/04/18      | 08:09         | 08:15        | (unrelated sample)                          |
| OP11695-MS    | M145770.D   | 05/04/18      | 08:39         | 08:45        | Matrix Spike                                |
| OP11695-LS6   | M145770.D   | 05/04/18      | 08:39         | 08:45        | Leachate Spike                              |
| OP11695-MSD   | M145771.D   | 05/04/18      | 09:09         | 09:15        | Matrix Spike Duplicate                      |
| ZZZZZZ        | M145777.D   | 05/04/18      | 09:39         | 09:45        | (unrelated sample)                          |
| JC64994-1     | M145772.D   | 05/04/18      | 10:08         | 10:14        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | M145773.D   | 05/04/18      | 10:38         | 10:44        | (unrelated sample)                          |

8.6.18  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6194-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145756.D | <b>Injection Time:</b> 23:54    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | M145774.D   | 05/04/18      | 11:09         | 11:15        | (unrelated sample) |
| ZZZZZZ        | M145775.D   | 05/04/18      | 11:38         | 11:44        | (unrelated sample) |

8.6.18  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6436-DFTPP   | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> Z130440.D | <b>Injection Time:</b> 18:48    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 57058         | 36.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1013          | 0.65 (1.64) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 61632         | 39.5                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 376           | 0.24 (0.61) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 84122         | 54.0                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 707           | 0.45                     | Pass      |
| 198 | Base peak, 100% relative abundance | 155912        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 10520         | 6.75                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 43853         | 28.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6467          | 4.15                     | Pass      |
| 441 | Present, but less than mass 443    | 22304         | 14.3 (83.3) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 146432        | 93.9                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 26784         | 17.2 (18.3) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EZ6436-IC6436  | Z130441.D   | 05/04/18      | 19:14         | 00:26        | Initial cal 100             |
| EZ6436-IC6436  | Z130442.D   | 05/04/18      | 19:41         | 00:53        | Initial cal 80              |
| EZ6436-ICC6436 | Z130443.D   | 05/04/18      | 20:08         | 01:20        | Initial cal 50              |
| EZ6436-IC6436  | Z130444.D   | 05/04/18      | 20:35         | 01:47        | Initial cal 25              |
| EZ6436-IC6436  | Z130445.D   | 05/04/18      | 21:02         | 02:14        | Initial cal 10              |
| EZ6436-IC6436  | Z130446.D   | 05/04/18      | 21:30         | 02:42        | Initial cal 5               |
| EZ6436-IC6436  | Z130447.D   | 05/04/18      | 21:57         | 03:09        | Initial cal 2               |
| EZ6436-IC6436  | Z130448.D   | 05/04/18      | 22:24         | 03:36        | Initial cal 1               |
| EZ6436-ICV6436 | Z130449.D   | 05/04/18      | 22:51         | 04:03        | Initial cal verification 50 |
| EZ6436-ICV6436 | Z130450.D   | 05/04/18      | 23:18         | 04:30        | Initial cal verification 50 |
| EZ6436-ICV6436 | Z130451.D   | 05/04/18      | 23:44         | 04:56        | Initial cal verification 50 |
| EZ6436-ICV6436 | Z130452.D   | 05/05/18      | 00:11         | 05:23        | Initial cal verification 50 |
| EZ6436-ICV6436 | Z130453.D   | 05/05/18      | 00:38         | 05:50        | Initial cal verification 50 |
| EZ6436-ICV6436 | Z130454.D   | 05/05/18      | 01:05         | 06:17        | Initial cal verification 50 |

8.6.19  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6437-DFTPP   | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> Z130457.D | <b>Injection Time:</b> 13:19    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 56786         | 31.7                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1148          | 0.64 (1.78) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 64605         | 36.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 293           | 0.16 (0.45) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 90496         | 50.6                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 511           | 0.29                     | Pass      |
| 198 | Base peak, 100% relative abundance | 178973        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11982         | 6.69                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 51293         | 28.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 7589          | 4.24                     | Pass      |
| 441 | Present, but less than mass 443    | 25773         | 14.4 (79.7) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 175018        | 97.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 32322         | 18.1 (18.5) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EZ6437-IC6437  | Z130458.D   | 05/09/18      | 13:34         | 00:15        | Initial cal 100             |
| EZ6437-IC6437  | Z130459.D   | 05/09/18      | 14:01         | 00:42        | Initial cal 80              |
| EZ6437-ICC6437 | Z130460.D   | 05/09/18      | 14:28         | 01:09        | Initial cal 50              |
| EZ6437-IC6437  | Z130461.D   | 05/09/18      | 14:56         | 01:37        | Initial cal 25              |
| EZ6437-IC6437  | Z130462.D   | 05/09/18      | 15:23         | 02:04        | Initial cal 10              |
| EZ6437-IC6437  | Z130463.D   | 05/09/18      | 15:50         | 02:31        | Initial cal 5               |
| EZ6437-IC6437  | Z130464.D   | 05/09/18      | 16:17         | 02:58        | Initial cal 2               |
| EZ6437-IC6437  | Z130465.D   | 05/09/18      | 16:44         | 03:25        | Initial cal 1               |
| EZ6437-ICV6437 | Z130466.D   | 05/09/18      | 17:11         | 03:52        | Initial cal verification 50 |
| EZ6437-ICV6437 | Z130467.D   | 05/09/18      | 17:39         | 04:20        | Initial cal verification 50 |
| EZ6437-ICV6436 | Z130468A.D  | 05/09/18      | 18:05         | 04:46        | Initial cal verification 50 |
| EZ6437-ICV6437 | Z130468.D   | 05/09/18      | 18:05         | 04:46        | Initial cal verification 50 |
| EZ6437-ICV6437 | Z130470.D   | 05/09/18      | 19:00         | 05:41        | Initial cal verification 50 |

8.6.20  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6439-DFTPP   | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> Z130503.D | <b>Injection Time:</b> 10:51    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 70456         | 33.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 873           | 0.41 (1.11) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 78547         | 36.9                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 268           | 0.13 (0.34) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 110632        | 51.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 653           | 0.31                     | Pass      |
| 198 | Base peak, 100% relative abundance | 213141        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 14390         | 6.75                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 59133         | 27.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 8570          | 4.02                     | Pass      |
| 441 | Present, but less than mass 443    | 28653         | 13.4 (80.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 198605        | 93.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 35400         | 16.6 (17.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| EZ6439-CC6436 | Z130504.D   | 05/10/18      | 11:06         | 00:15        | Continuing cal 25  |
| EZ6439-CC6437 | Z130505.D   | 05/10/18      | 11:33         | 00:42        | Continuing cal 25  |
| OP11648-MB1   | Z130506.D   | 05/10/18      | 12:00         | 01:09        | Method Blank       |
| OP11648-BS1   | Z130507.D   | 05/10/18      | 12:27         | 01:36        | Blank Spike        |
| ZZZZZZ        | Z130508.D   | 05/10/18      | 12:54         | 02:03        | (unrelated sample) |
| ZZZZZZ        | Z130510.D   | 05/10/18      | 13:49         | 02:58        | (unrelated sample) |
| ZZZZZZ        | Z130511.D   | 05/10/18      | 14:16         | 03:25        | (unrelated sample) |
| ZZZZZZ        | Z130512.D   | 05/10/18      | 14:43         | 03:52        | (unrelated sample) |
| ZZZZZZ        | Z130513.D   | 05/10/18      | 15:10         | 04:19        | (unrelated sample) |
| ZZZZZZ        | Z130532.D   | 05/10/18      | 15:37         | 04:46        | (unrelated sample) |
| ZZZZZZ        | Z130514.D   | 05/10/18      | 16:04         | 05:13        | (unrelated sample) |
| ZZZZZZ        | Z130515.D   | 05/10/18      | 16:31         | 05:40        | (unrelated sample) |
| ZZZZZZ        | Z130516.D   | 05/10/18      | 16:58         | 06:07        | (unrelated sample) |
| ZZZZZZ        | Z130517.D   | 05/10/18      | 17:26         | 06:35        | (unrelated sample) |
| ZZZZZZ        | Z130518.D   | 05/10/18      | 17:52         | 07:01        | (unrelated sample) |
| ZZZZZZ        | Z130519.D   | 05/10/18      | 18:19         | 07:28        | (unrelated sample) |
| ZZZZZZ        | Z130520.D   | 05/10/18      | 18:47         | 07:56        | (unrelated sample) |
| ZZZZZZ        | Z130521.D   | 05/10/18      | 19:14         | 08:23        | (unrelated sample) |
| ZZZZZZ        | Z130522.D   | 05/10/18      | 19:41         | 08:50        | (unrelated sample) |

8.6.21  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6439-DFTPP   | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> Z130503.D | <b>Injection Time:</b> 10:51    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| ZZZZZZ        | Z130523.D   | 05/10/18      | 20:08         | 09:17        | (unrelated sample)     |
| ZZZZZZ        | Z130524.D   | 05/10/18      | 20:35         | 09:44        | (unrelated sample)     |
| JC65058-11    | Z130525.D   | 05/10/18      | 21:02         | 10:11        | SB-105 (8-15)          |
| JC65058-13    | Z130526.D   | 05/10/18      | 21:29         | 10:38        | TP-100 (2-6)           |
| OP11648-MS    | Z130527.D   | 05/10/18      | 21:56         | 11:05        | Matrix Spike           |
| OP11648-MSD   | Z130528.D   | 05/10/18      | 22:23         | 11:32        | Matrix Spike Duplicate |
| JC65058-10    | Z130529.D   | 05/10/18      | 22:50         | 11:59        | TP-100 (2-6)           |

8.6.21  
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# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6441-DFTPP   | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> Z130561.D | <b>Injection Time:</b> 15:59    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 52884         | 32.0                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 445           | 0.27 (0.77) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 58120         | 35.2                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 332           | 0.20 (0.57) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 82008         | 49.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 165163        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 10639         | 6.44                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 48120         | 29.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 7072          | 4.28                     | Pass      |
| 441 | Present, but less than mass 443    | 22306         | 13.5 (84.1) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 142253        | 86.1                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 26514         | 16.1 (18.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EZ6441-CC6436 | Z130562.D   | 05/11/18      | 16:14         | 00:15        | Continuing cal 25                           |
| EZ6441-CC6437 | Z130563.D   | 05/11/18      | 16:41         | 00:42        | Continuing cal 25                           |
| OP11790-MB1   | Z130565.D   | 05/11/18      | 17:36         | 01:37        | Method Blank                                |
| OP11924-MB1   | Z130566.D   | 05/11/18      | 18:03         | 02:04        | Method Blank                                |
| OP11924-BS1   | Z130567.D   | 05/11/18      | 18:30         | 02:31        | Blank Spike                                 |
| ZZZZZZ        | Z130568.D   | 05/11/18      | 18:57         | 02:58        | (unrelated sample)                          |
| JC65058-12    | Z130569.D   | 05/11/18      | 19:24         | 03:25        | SB-104 (2-5) (9-13)                         |
| JC65058-15    | Z130570.D   | 05/11/18      | 19:50         | 03:51        | SB-105 (0-5)                                |
| ZZZZZZ        | Z130571.D   | 05/11/18      | 20:17         | 04:18        | (unrelated sample)                          |
| ZZZZZZ        | Z130572.D   | 05/11/18      | 20:44         | 04:45        | (unrelated sample)                          |
| ZZZZZZ        | Z130573.D   | 05/11/18      | 21:11         | 05:12        | (unrelated sample)                          |
| ZZZZZZ        | Z130574.D   | 05/11/18      | 21:38         | 05:39        | (unrelated sample)                          |
| OP11924-MS    | Z130575.D   | 05/11/18      | 22:05         | 06:06        | Matrix Spike                                |
| OP11924-MSD   | Z130576.D   | 05/11/18      | 22:32         | 06:33        | Matrix Spike Duplicate                      |
| ZZZZZZ        | Z130577.D   | 05/11/18      | 22:59         | 07:00        | (unrelated sample)                          |
| JC65773-17    | Z130578.D   | 05/11/18      | 23:26         | 07:27        | (used for QC only; not part of job JC65058) |
| ZZZZZZ        | Z130579.D   | 05/11/18      | 23:53         | 07:54        | (unrelated sample)                          |
| ZZZZZZ        | Z130580.D   | 05/12/18      | 00:20         | 08:21        | (unrelated sample)                          |
| ZZZZZZ        | Z130581.D   | 05/12/18      | 00:47         | 08:48        | (unrelated sample)                          |

8.6.22  
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# Instrument Performance Check (DFTPP)

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EZ6441-DFTPP   | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> Z130561.D | <b>Injection Time:</b> 15:59    |
| <b>Instrument ID:</b> GCMSZ   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | Z130582.D   | 05/12/18      | 01:14         | 09:15        | (unrelated sample) |
| ZZZZZZ        | Z130583.D   | 05/12/18      | 01:41         | 09:42        | (unrelated sample) |
| ZZZZZZ        | Z130584.D   | 05/12/18      | 02:08         | 10:09        | (unrelated sample) |
| ZZZZZZ        | Z130585.D   | 05/12/18      | 02:34         | 10:35        | (unrelated sample) |
| ZZZZZZ        | Z130586.D   | 05/12/18      | 03:01         | 11:02        | (unrelated sample) |
| ZZZZZZ        | Z130587.D   | 05/12/18      | 03:28         | 11:29        | (unrelated sample) |
| ZZZZZZ        | Z130588.D   | 05/12/18      | 03:55         | 11:56        | (unrelated sample) |

8.6.22  
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# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3489-CC3484 | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79160.D    | <b>Injection Time:</b> 19:56    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 459384 | 4.59 | 1488420 | 5.65 | 826753  | 7.09 | 1540036 | 8.36 | 1632380 | 11.55 | 1481788 | 13.52 |
| Upper Limit <sup>a</sup> | 918768 | 5.09 | 2976840 | 6.15 | 1653506 | 7.59 | 3080072 | 8.86 | 3264760 | 12.05 | 2963576 | 14.02 |
| Lower Limit <sup>b</sup> | 229692 | 4.09 | 744210  | 5.15 | 413377  | 6.59 | 770018  | 7.86 | 816190  | 11.05 | 740894  | 13.02 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP11696-MB1   | 770703 | 4.59 | 2650905 | 5.65 | 1204233 | 7.08 | 2217599 | 8.35 | 2144271 | 11.54 | 1962947 | 13.51 |
| OP11697-LB28  | 776166 | 4.59 | 2698986 | 5.65 | 1252930 | 7.08 | 2326705 | 8.35 | 2270231 | 11.54 | 2160309 | 13.51 |
| OP11696-LB32  | 750812 | 4.59 | 2696941 | 5.65 | 1247630 | 7.08 | 2345238 | 8.35 | 2280045 | 11.54 | 2155236 | 13.51 |
| OP11696-LB34  | 784348 | 4.59 | 2789761 | 5.65 | 1275612 | 7.08 | 2371184 | 8.35 | 2271628 | 11.54 | 2168505 | 13.51 |
| OP11696-BS1   | 569887 | 4.60 | 1853642 | 5.65 | 899520  | 7.09 | 1712343 | 8.36 | 1766941 | 11.55 | 1653408 | 13.51 |
| ZZZZZZ        | 843791 | 4.59 | 2965052 | 5.65 | 1259070 | 7.08 | 2090693 | 8.35 | 2216029 | 11.54 | 2189521 | 13.51 |
| ZZZZZZ        | 848029 | 4.59 | 2935568 | 5.65 | 1246236 | 7.08 | 2112715 | 8.35 | 2184339 | 11.54 | 2147695 | 13.51 |
| ZZZZZZ        | 741828 | 4.59 | 2744781 | 5.65 | 1298219 | 7.08 | 2429215 | 8.35 | 2393486 | 11.54 | 2183611 | 13.51 |
| ZZZZZZ        | 713498 | 4.59 | 2577662 | 5.65 | 1200123 | 7.08 | 2210748 | 8.35 | 2164756 | 11.54 | 2052309 | 13.51 |
| ZZZZZZ        | 787833 | 4.59 | 2793570 | 5.65 | 1303031 | 7.08 | 2442214 | 8.35 | 2388415 | 11.54 | 2292804 | 13.51 |
| ZZZZZZ        | 710757 | 4.59 | 2547543 | 5.65 | 1264106 | 7.08 | 2164192 | 8.35 | 2064562 | 11.54 | 1957512 | 13.51 |
| ZZZZZZ        | 816444 | 4.59 | 2745565 | 5.65 | 1332305 | 7.08 | 2260904 | 8.35 | 2209890 | 11.54 | 2078725 | 13.51 |
| ZZZZZZ        | 738678 | 4.59 | 2652313 | 5.65 | 1238187 | 7.08 | 2292569 | 8.35 | 2270349 | 11.54 | 2177636 | 13.51 |
| ZZZZZZ        | 798674 | 4.59 | 2685763 | 5.65 | 1269916 | 7.08 | 2323541 | 8.35 | 2260746 | 11.54 | 2189612 | 13.51 |
| ZZZZZZ        | 729791 | 4.59 | 2441442 | 5.65 | 1160196 | 7.08 | 2014933 | 8.35 | 2113438 | 11.54 | 2048739 | 13.51 |
| ZZZZZZ        | 797132 | 4.59 | 2751971 | 5.65 | 1258203 | 7.08 | 2284539 | 8.35 | 2203811 | 11.54 | 2152538 | 13.51 |
| ZZZZZZ        | 638515 | 4.59 | 2136663 | 5.65 | 985767  | 7.08 | 1802361 | 8.35 | 1893011 | 11.54 | 1984072 | 13.51 |
| ZZZZZZ        | 751827 | 4.59 | 2727452 | 5.65 | 1258348 | 7.08 | 2337841 | 8.35 | 2276053 | 11.54 | 2169917 | 13.51 |
| JC65058-13A   | 733277 | 4.59 | 2682691 | 5.65 | 1244309 | 7.08 | 2295597 | 8.35 | 2249538 | 11.54 | 2197240 | 13.51 |
| ZZZZZZ        | 804783 | 4.59 | 2819309 | 5.65 | 1295682 | 7.08 | 2415426 | 8.35 | 2306183 | 11.54 | 2213731 | 13.51 |
| ZZZZZZ        | 786791 | 4.59 | 2782669 | 5.65 | 1397328 | 7.08 | 2350638 | 8.35 | 2266783 | 11.54 | 2195828 | 13.51 |
| ZZZZZZ        | 770682 | 4.59 | 2616957 | 5.65 | 1291650 | 7.08 | 2210262 | 8.35 | 2114217 | 11.54 | 2041424 | 13.51 |
| ZZZZZZ        | 792717 | 4.59 | 2721758 | 5.65 | 1339505 | 7.08 | 2282478 | 8.35 | 2218226 | 11.54 | 2111908 | 13.51 |
| ZZZZZZ        | 767531 | 4.59 | 2633715 | 5.65 | 1298763 | 7.08 | 2144557 | 8.35 | 2168446 | 11.54 | 2130103 | 13.51 |
| OP11558-MB1   | 872317 | 4.59 | 2939742 | 5.65 | 1438597 | 7.08 | 2448285 | 8.35 | 2364545 | 11.54 | 2298843 | 13.51 |
| OP11558-BS1   | 575800 | 4.60 | 1878377 | 5.65 | 972076  | 7.09 | 1713629 | 8.35 | 1766069 | 11.55 | 1619761 | 13.51 |
| OP11558-BSD   | 598864 | 4.60 | 1934420 | 5.65 | 1000846 | 7.08 | 1734452 | 8.35 | 1797177 | 11.55 | 1650102 | 13.51 |
| OP11558-MB2   | 837493 | 4.59 | 2798869 | 5.65 | 1366234 | 7.08 | 2315140 | 8.35 | 2251095 | 11.54 | 2163432 | 13.51 |
| OP11558-BS2   | 519321 | 4.60 | 1806677 | 5.65 | 990537  | 7.09 | 1747119 | 8.35 | 1806086 | 11.55 | 1671153 | 13.51 |
| OP11558-MS    | 549056 | 4.60 | 1770371 | 5.65 | 942841  | 7.09 | 1633428 | 8.35 | 1659187 | 11.55 | 1538656 | 13.51 |
| OP11558-MSD   | 334861 | 4.60 | 1756495 | 5.65 | 952821  | 7.08 | 1737068 | 8.35 | 1904533 | 11.55 | 1720393 | 13.51 |
| ZZZZZZ        | 852911 | 4.59 | 2952009 | 5.65 | 1498379 | 7.08 | 2568697 | 8.35 | 2428897 | 11.54 | 2380453 | 13.51 |
| ZZZZZZ        | 867145 | 4.59 | 2923772 | 5.65 | 1442735 | 7.08 | 2441422 | 8.35 | 2366827 | 11.54 | 2254586 | 13.51 |
| ZZZZZZ        | 764922 | 4.59 | 2637839 | 5.65 | 1318922 | 7.08 | 2274739 | 8.35 | 2216614 | 11.54 | 2082702 | 13.51 |
| ZZZZZZ        | 834688 | 4.59 | 2904573 | 5.65 | 1426108 | 7.08 | 2420213 | 8.35 | 2318429 | 11.54 | 2194003 | 13.51 |

8.7.1  
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# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3489-CC3484 | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79160.D    | <b>Injection Time:</b> 19:56    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| ZZZZZZ        | 854056 | 4.59 | 2901672 | 5.65 | 1412711 | 7.08 | 2409674 | 8.35 | 2317960 | 11.54 | 2202907 | 13.51 |
| ZZZZZZ        | 838455 | 4.59 | 2824347 | 5.65 | 1390685 | 7.08 | 2364908 | 8.35 | 2284902 | 11.54 | 2161085 | 13.51 |
| ZZZZZZ        | 824130 | 4.59 | 2808254 | 5.65 | 1386730 | 7.08 | 2377774 | 8.35 | 2291036 | 11.54 | 2202400 | 13.51 |
| ZZZZZZ        | 832670 | 4.59 | 2775612 | 5.65 | 1367955 | 7.08 | 2343540 | 8.35 | 2227099 | 11.54 | 2095192 | 13.51 |
| ZZZZZZ        | 711569 | 4.59 | 2454822 | 5.65 | 1224604 | 7.08 | 2024229 | 8.35 | 1897489 | 11.54 | 1827007 | 13.51 |
| ZZZZZZ        | 785542 | 4.59 | 2654877 | 5.65 | 1288887 | 7.08 | 2091634 | 8.35 | 1977403 | 11.54 | 1884773 | 13.51 |
| ZZZZZZ        | 763685 | 4.59 | 2490361 | 5.65 | 1139718 | 7.08 | 1885113 | 8.35 | 1876963 | 11.54 | 1752223 | 13.51 |
| ZZZZZZ        | 842441 | 4.59 | 2953763 | 5.65 | 1484326 | 7.08 | 2480388 | 8.35 | 2278429 | 11.54 | 2113201 | 13.51 |
| ZZZZZZ        | 871287 | 4.59 | 2902093 | 5.65 | 1450896 | 7.08 | 2461360 | 8.35 | 2301849 | 11.54 | 2110189 | 13.51 |
| JC64815-13    | 845010 | 4.59 | 2849214 | 5.65 | 1412731 | 7.08 | 2252245 | 8.35 | 2030847 | 11.54 | 2069903 | 13.51 |
| ZZZZZZ        | 840207 | 4.59 | 2862178 | 5.65 | 1405238 | 7.08 | 2406717 | 8.35 | 2252218 | 11.54 | 2038109 | 13.51 |
| ZZZZZZ        | 674309 | 4.59 | 1691111 | 5.65 | 658837  | 7.10 | 1166121 | 8.37 | 1552761 | 11.55 | 1760519 | 13.52 |
| ZZZZZZ        | 621632 | 4.59 | 1852075 | 5.65 | 730286  | 7.09 | 1207830 | 8.36 | 1224837 | 11.56 | 1147367 | 13.54 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.1  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EF7502-CC7484 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> F176108.D   | <b>Injection Time:</b> 22:59    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| Check Std                | 69114  | 4.28 | 278970 | 5.19 | 159776 | 6.50 | 289798 | 8.17 | 307040 | 13.20 | 299072 | 16.21 |
| Upper Limit <sup>a</sup> | 138228 | 4.78 | 557940 | 5.69 | 319552 | 7.00 | 579596 | 8.67 | 614080 | 13.70 | 598144 | 16.71 |
| Lower Limit <sup>b</sup> | 34557  | 3.78 | 139485 | 4.69 | 79888  | 6.00 | 144899 | 7.67 | 153520 | 12.70 | 149536 | 15.71 |

| Lab Sample ID | IS 1  |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA  | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| OP11647-MB1   | 68544 | 4.28 | 257040 | 5.19 | 141852 | 6.49 | 259299 | 8.16 | 256320 | 13.19 | 241638 | 16.19 |
| OP11647-BS1   | 84118 | 4.28 | 306722 | 5.19 | 174656 | 6.50 | 317136 | 8.17 | 329698 | 13.20 | 301318 | 16.20 |
| ZZZZZZ        | 67437 | 4.27 | 266435 | 5.19 | 147149 | 6.49 | 269882 | 8.17 | 270731 | 13.19 | 258040 | 16.19 |
| ZZZZZZ        | 68956 | 4.27 | 268172 | 5.19 | 146460 | 6.49 | 268756 | 8.17 | 266851 | 13.19 | 256994 | 16.19 |
| ZZZZZZ        | 70754 | 4.27 | 267600 | 5.19 | 143937 | 6.49 | 264702 | 8.16 | 274736 | 13.19 | 262690 | 16.19 |
| ZZZZZZ        | 71571 | 4.27 | 271880 | 5.19 | 149682 | 6.49 | 275322 | 8.16 | 269997 | 13.19 | 253281 | 16.19 |
| ZZZZZZ        | 72080 | 4.27 | 273139 | 5.19 | 150357 | 6.49 | 281867 | 8.16 | 279517 | 13.19 | 259260 | 16.19 |
| ZZZZZZ        | 71561 | 4.27 | 273406 | 5.19 | 146649 | 6.49 | 266196 | 8.17 | 262950 | 13.18 | 249066 | 16.18 |
| OP11647-MS    | 75804 | 4.27 | 272444 | 5.19 | 152359 | 6.49 | 282014 | 8.16 | 274798 | 13.19 | 248638 | 16.19 |
| OP11647-MSD   | 78938 | 4.27 | 282162 | 5.19 | 155135 | 6.49 | 284356 | 8.16 | 283456 | 13.19 | 255300 | 16.19 |
| JC65070-1     | 72712 | 4.27 | 274374 | 5.19 | 149435 | 6.49 | 284573 | 8.16 | 282478 | 13.18 | 263383 | 16.18 |
| ZZZZZZ        | 75701 | 4.27 | 284788 | 5.19 | 155558 | 6.49 | 282033 | 8.16 | 282253 | 13.18 | 270136 | 16.18 |
| OP11679-MSD   | 79394 | 4.27 | 283825 | 5.19 | 148184 | 6.50 | 259108 | 8.18 | 243780 | 13.27 | 261313 | 16.29 |
| ZZZZZZ        | 76165 | 4.28 | 286764 | 5.19 | 149898 | 6.49 | 278748 | 8.17 | 303505 | 13.22 | 310444 | 16.25 |
| ZZZZZZ        | 51308 | 4.28 | 195729 | 5.20 | 108453 | 6.50 | 205276 | 8.18 | 228076 | 13.26 | 237292 | 16.32 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.2  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EF7510-CC7484 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> F176281.D   | <b>Injection Time:</b> 12:38    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| Check Std                | 83422  | 4.22 | 323877 | 5.14 | 183346 | 6.43 | 318807 | 8.07 | 312988 | 13.06 | 305576 | 16.06 |
| Upper Limit <sup>a</sup> | 166844 | 4.72 | 647754 | 5.64 | 366692 | 6.93 | 637614 | 8.57 | 625976 | 13.56 | 611152 | 16.56 |
| Lower Limit <sup>b</sup> | 41711  | 3.72 | 161939 | 4.64 | 91673  | 5.93 | 159404 | 7.57 | 156494 | 12.56 | 152788 | 15.56 |

| Lab Sample ID | IS 1  |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA  | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| ZZZZZZ        | 71357 | 4.22 | 273738 | 5.14 | 132385 | 6.43 | 242260 | 8.07 | 243756 | 13.08 | 265097 | 16.10 |
| ZZZZZZ        | 80085 | 4.22 | 305151 | 5.14 | 146620 | 6.43 | 255607 | 8.08 | 229837 | 13.07 | 243825 | 16.08 |
| OP11704-MS    | 87021 | 4.22 | 328153 | 5.14 | 160351 | 6.43 | 283584 | 8.08 | 259335 | 13.07 | 267274 | 16.07 |
| OP11704-MSD   | 84991 | 4.22 | 315286 | 5.14 | 154371 | 6.43 | 271525 | 8.08 | 246429 | 13.07 | 259136 | 16.07 |
| JC65198-1     | 95648 | 4.22 | 372009 | 5.14 | 180136 | 6.43 | 307942 | 8.08 | 264502 | 13.07 | 268265 | 16.07 |
| ZZZZZZ        | 86601 | 4.22 | 327977 | 5.14 | 157349 | 6.43 | 276308 | 8.07 | 269577 | 13.07 | 294801 | 16.08 |
| ZZZZZZ        | 71615 | 4.22 | 274229 | 5.14 | 137223 | 6.43 | 248260 | 8.07 | 225258 | 13.06 | 230229 | 16.07 |
| ZZZZZZ        | 77036 | 4.22 | 297061 | 5.14 | 146286 | 6.43 | 263797 | 8.07 | 238761 | 13.06 | 244275 | 16.07 |
| JC65058-5     | 77938 | 4.22 | 299557 | 5.14 | 147820 | 6.43 | 265389 | 8.07 | 232569 | 13.06 | 237382 | 16.07 |
| JC65058-3     | 77258 | 4.22 | 295795 | 5.14 | 145319 | 6.43 | 255584 | 8.07 | 231076 | 13.06 | 242619 | 16.06 |
| JC65058-4     | 77063 | 4.22 | 300326 | 5.14 | 143909 | 6.43 | 252992 | 8.07 | 226844 | 13.06 | 248393 | 16.06 |
| JC65058-1     | 79698 | 4.22 | 307720 | 5.14 | 147447 | 6.43 | 262328 | 8.08 | 237675 | 13.07 | 255012 | 16.07 |
| JC65058-8     | 83783 | 4.22 | 325723 | 5.14 | 157987 | 6.43 | 283356 | 8.07 | 249900 | 13.07 | 261778 | 16.07 |
| ZZZZZZ        | 79836 | 4.22 | 305017 | 5.14 | 149220 | 6.43 | 266716 | 8.07 | 238334 | 13.06 | 248031 | 16.06 |
| JC65058-2     | 89151 | 4.22 | 343996 | 5.14 | 166299 | 6.43 | 286225 | 8.08 | 261953 | 13.10 | 279786 | 16.09 |
| ZZZZZZ        | 79268 | 4.22 | 299582 | 5.14 | 144997 | 6.43 | 258681 | 8.07 | 241118 | 13.07 | 260602 | 16.08 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.3  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EF7511-CC7484 | <b>Injection Date:</b> 05/08/18 |
| <b>Lab File ID:</b> F176305.D   | <b>Injection Time:</b> 09:38    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| Check Std                | 78936  | 4.31 | 308737 | 5.23 | 176651 | 6.54 | 311571 | 8.23 | 314433 | 13.29 | 306722 | 16.30 |
| Upper Limit <sup>a</sup> | 157872 | 4.81 | 617474 | 5.73 | 353302 | 7.04 | 623142 | 8.73 | 628866 | 13.79 | 613444 | 16.80 |
| Lower Limit <sup>b</sup> | 39468  | 3.81 | 154369 | 4.73 | 88326  | 6.04 | 155786 | 7.73 | 157217 | 12.79 | 153361 | 15.80 |

| Lab Sample ID | IS 1  |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA  | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| OP11546-MB1   | 74985 | 4.31 | 305340 | 5.23 | 170604 | 6.54 | 320921 | 8.23 | 324972 | 13.28 | 297791 | 16.29 |
| ZZZZZZ        | 78787 | 4.31 | 303245 | 5.23 | 173355 | 6.54 | 319613 | 8.23 | 318701 | 13.28 | 302645 | 16.29 |
| ZZZZZZ        | 78337 | 4.31 | 302892 | 5.23 | 174054 | 6.54 | 323867 | 8.23 | 324871 | 13.28 | 311551 | 16.29 |
| ZZZZZZ        | 82429 | 4.31 | 318352 | 5.23 | 176254 | 6.54 | 322265 | 8.23 | 333906 | 13.28 | 323467 | 16.29 |
| ZZZZZZ        | 69706 | 4.31 | 284988 | 5.23 | 151641 | 6.54 | 276916 | 8.23 | 266330 | 13.28 | 289005 | 16.29 |
| ZZZZZZ        | 69772 | 4.31 | 283358 | 5.23 | 148737 | 6.54 | 268580 | 8.23 | 263979 | 13.28 | 281765 | 16.29 |
| ZZZZZZ        | 69995 | 4.31 | 285998 | 5.23 | 149850 | 6.54 | 278504 | 8.23 | 266949 | 13.28 | 288062 | 16.29 |
| ZZZZZZ        | 73249 | 4.31 | 205199 | 5.24 | 93210  | 6.57 | 191405 | 8.28 | 262423 | 13.29 | 272769 | 16.29 |
| ZZZZZZ        | 65099 | 4.31 | 267688 | 5.23 | 140254 | 6.54 | 258901 | 8.23 | 251523 | 13.28 | 274329 | 16.29 |
| ZZZZZZ        | 70232 | 4.31 | 251187 | 5.23 | 113818 | 6.56 | 229271 | 8.26 | 238389 | 13.28 | 252386 | 16.29 |
| ZZZZZZ        | 71822 | 4.31 | 290610 | 5.23 | 147328 | 6.54 | 275895 | 8.23 | 277684 | 13.28 | 288119 | 16.29 |
| JC65058-2     | 65369 | 4.31 | 270091 | 5.23 | 142839 | 6.54 | 270636 | 8.23 | 270300 | 13.28 | 269098 | 16.29 |
| ZZZZZZ        | 70222 | 4.31 | 284019 | 5.23 | 140089 | 6.54 | 265001 | 8.23 | 257544 | 13.28 | 270865 | 16.30 |
| JC65058-1     | 69326 | 4.31 | 275569 | 5.23 | 137714 | 6.54 | 252907 | 8.23 | 254413 | 13.28 | 264979 | 16.30 |
| JC65058-8     | 69315 | 4.31 | 273153 | 5.23 | 136864 | 6.54 | 256657 | 8.23 | 249898 | 13.28 | 260283 | 16.30 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.4  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EF7512-CC7484 | <b>Injection Date:</b> 05/08/18 |
| <b>Lab File ID:</b> F176332.D   | <b>Injection Time:</b> 23:20    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| Check Std                | 84137  | 4.30 | 346437 | 5.22 | 200305 | 6.52 | 359411 | 8.21 | 375781 | 13.25 | 361364 | 16.26 |
| Upper Limit <sup>a</sup> | 168274 | 4.80 | 692874 | 5.72 | 400610 | 7.02 | 718822 | 8.71 | 751562 | 13.75 | 722728 | 16.76 |
| Lower Limit <sup>b</sup> | 42069  | 3.80 | 173219 | 4.72 | 100153 | 6.02 | 179706 | 7.71 | 187891 | 12.75 | 180682 | 15.76 |

| Lab Sample ID | IS 1  |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA  | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| OP11851-MB1   | 68668 | 4.30 | 283456 | 5.22 | 144018 | 6.52 | 274407 | 8.20 | 271302 | 13.25 | 282090 | 16.25 |
| JC65058-7     | 73540 | 4.30 | 294876 | 5.22 | 150403 | 6.52 | 270038 | 8.21 | 249348 | 13.25 | 258101 | 16.25 |
| JC65058-6     | 71097 | 4.30 | 277723 | 5.22 | 136006 | 6.53 | 254615 | 8.21 | 281418 | 13.30 | 296676 | 16.33 |
| ZZZZZZ        | 85229 | 4.30 | 343929 | 5.22 | 183397 | 6.52 | 343086 | 8.21 | 336829 | 13.26 | 350066 | 16.28 |
| ZZZZZZ        | 91155 | 4.30 | 377416 | 5.22 | 196831 | 6.52 | 367884 | 8.21 | 377108 | 13.28 | 401123 | 16.32 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.5  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EF7515-CC7484 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> F176404.D   | <b>Injection Time:</b> 01:14    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|--------------------------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| Check Std                | 75878  | 4.27 | 307560 | 5.19 | 178603 | 6.49 | 309917 | 8.16 | 312678 | 13.19 | 299703 | 16.19 |
| Upper Limit <sup>a</sup> | 151756 | 4.77 | 615120 | 5.69 | 357206 | 6.99 | 619834 | 8.66 | 625356 | 13.69 | 599406 | 16.69 |
| Lower Limit <sup>b</sup> | 37939  | 3.77 | 153780 | 4.69 | 89302  | 5.99 | 154959 | 7.66 | 156339 | 12.69 | 149852 | 15.69 |

| Lab Sample ID | IS 1  |      | IS 2   |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|-------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA  | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| ZZZZZZ        | 50510 | 4.27 | 212736 | 5.19 | 112470 | 6.49 | 221438 | 8.16 | 212051 | 13.18 | 216774 | 16.19 |
| ZZZZZZ        | 54983 | 4.27 | 224948 | 5.19 | 117749 | 6.49 | 233329 | 8.16 | 220888 | 13.18 | 227375 | 16.19 |
| ZZZZZZ        | 56214 | 4.27 | 228561 | 5.19 | 122822 | 6.49 | 235380 | 8.15 | 229238 | 13.18 | 232743 | 16.19 |
| ZZZZZZ        | 55588 | 4.27 | 225595 | 5.19 | 121628 | 6.49 | 237259 | 8.15 | 227080 | 13.18 | 230951 | 16.18 |
| ZZZZZZ        | 50389 | 4.27 | 201162 | 5.18 | 106755 | 6.49 | 207240 | 8.15 | 198172 | 13.18 | 202216 | 16.18 |
| JC65058-6     | 58132 | 4.27 | 241763 | 5.18 | 126477 | 6.49 | 237197 | 8.16 | 230997 | 13.19 | 229217 | 16.19 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.6  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6192-CC6168 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145714.D   | <b>Injection Time:</b> 01:21    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA    | RT    | AREA    | RT    |
| Check Std                | 124100 | 4.56 | 470425 | 5.66 | 291470 | 7.95 | 562578  | 10.53 | 516502  | 15.69 | 514657  | 18.30 |
| Upper Limit <sup>a</sup> | 248200 | 5.06 | 940850 | 6.16 | 582940 | 8.45 | 1125156 | 11.03 | 1033004 | 16.19 | 1029314 | 18.80 |
| Lower Limit <sup>b</sup> | 62050  | 4.06 | 235213 | 5.16 | 145735 | 7.45 | 281289  | 10.03 | 258251  | 15.19 | 257329  | 17.80 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| OP11697-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11695-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11696-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11695-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11696-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11697-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11697-LB25  | 128498 | 4.56 | 454295 | 5.66 | 258170 | 7.94 | 494799 | 10.53 | 492160 | 15.68 | 458800 | 18.29 |
| OP11696-LB17  | 141690 | 4.55 | 501466 | 5.66 | 285535 | 7.94 | 556195 | 10.53 | 561365 | 15.68 | 528407 | 18.29 |
| OP11696-LS5   | 129368 | 4.56 | 455491 | 5.66 | 271097 | 7.95 | 537378 | 10.53 | 510743 | 15.68 | 500989 | 18.29 |
| OP11696-MS    | 129368 | 4.56 | 455491 | 5.66 | 271097 | 7.95 | 537378 | 10.53 | 510743 | 15.68 | 500989 | 18.29 |
| OP11696-MSD   | 139279 | 4.56 | 494217 | 5.66 | 296758 | 7.94 | 594301 | 10.53 | 577654 | 15.68 | 573820 | 18.29 |
| JC64929-1     | 155354 | 4.56 | 545656 | 5.66 | 304225 | 7.94 | 576009 | 10.53 | 581433 | 15.68 | 562062 | 18.29 |
| ZZZZZZ        | 157093 | 4.55 | 554199 | 5.65 | 315206 | 7.94 | 610977 | 10.53 | 622248 | 15.68 | 592779 | 18.29 |
| ZZZZZZ        | 152804 | 4.56 | 542989 | 5.66 | 304856 | 7.94 | 599946 | 10.53 | 603031 | 15.68 | 582213 | 18.29 |
| ZZZZZZ        | 142385 | 4.56 | 507311 | 5.66 | 285627 | 7.94 | 555060 | 10.53 | 558147 | 15.68 | 530535 | 18.29 |
| ZZZZZZ        | 153673 | 4.56 | 543312 | 5.66 | 304875 | 7.94 | 592153 | 10.53 | 598106 | 15.68 | 577014 | 18.29 |
| ZZZZZZ        | 153323 | 4.55 | 547019 | 5.66 | 312460 | 7.94 | 608974 | 10.53 | 626005 | 15.67 | 600065 | 18.29 |
| ZZZZZZ        | 155685 | 4.56 | 550179 | 5.66 | 313326 | 7.94 | 602948 | 10.53 | 611930 | 15.68 | 591015 | 18.29 |
| ZZZZZZ        | 166779 | 4.56 | 587632 | 5.66 | 329523 | 7.94 | 651820 | 10.53 | 672643 | 15.68 | 642437 | 18.29 |
| ZZZZZZ        | 155151 | 4.56 | 554042 | 5.66 | 317366 | 7.94 | 614322 | 10.53 | 624500 | 15.68 | 607200 | 18.29 |
| OP11697-MS    | 129559 | 4.56 | 462491 | 5.66 | 273308 | 7.94 | 566340 | 10.53 | 545845 | 15.68 | 527055 | 18.29 |
| OP11697-LS10  | 129559 | 4.56 | 462491 | 5.66 | 273308 | 7.94 | 566340 | 10.53 | 545845 | 15.68 | 527055 | 18.29 |
| OP11697-MSD   | 135585 | 4.56 | 486458 | 5.66 | 294408 | 7.94 | 589179 | 10.53 | 573402 | 15.68 | 548168 | 18.29 |
| JC65130-2     | 153125 | 4.56 | 544522 | 5.66 | 312052 | 7.94 | 610944 | 10.53 | 618352 | 15.67 | 587207 | 18.29 |
| ZZZZZZ        | 158079 | 4.55 | 559011 | 5.65 | 327351 | 7.94 | 628602 | 10.53 | 641315 | 15.67 | 612201 | 18.28 |
| ZZZZZZ        | 159298 | 4.56 | 553689 | 5.66 | 315264 | 7.94 | 620560 | 10.53 | 626717 | 15.67 | 613903 | 18.29 |
| ZZZZZZ        | 163167 | 4.56 | 576406 | 5.66 | 331434 | 7.94 | 638398 | 10.53 | 651638 | 15.67 | 618948 | 18.29 |
| ZZZZZZ        | 155042 | 4.56 | 557440 | 5.66 | 320301 | 7.94 | 624188 | 10.53 | 628652 | 15.67 | 585556 | 18.29 |
| ZZZZZZ        | 160611 | 4.56 | 556801 | 5.66 | 320150 | 7.94 | 623894 | 10.53 | 623536 | 15.67 | 601595 | 18.28 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12

8.7.7  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6192-CC6168 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145714.D   | <b>Injection Time:</b> 01:21    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

| Lab       | IS 1 | IS 2 | IS 3 | IS 4 | IS 5 | IS 6 |      |    |      |    |
|-----------|------|------|------|------|------|------|------|----|------|----|
| Sample ID | AREA | RT   | AREA | RT   | AREA | RT   | AREA | RT | AREA | RT |

IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.



# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6194-CC6168 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> M145757.D   | <b>Injection Time:</b> 00:06    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA    | RT    | AREA    | RT    |
| Check Std                | 123849 | 4.55 | 453939 | 5.65 | 281287 | 7.93 | 561575  | 10.52 | 533104  | 15.67 | 554381  | 18.27 |
| Upper Limit <sup>a</sup> | 247698 | 5.05 | 907878 | 6.15 | 562574 | 8.43 | 1123150 | 11.02 | 1066208 | 16.17 | 1108762 | 18.77 |
| Lower Limit <sup>b</sup> | 61925  | 4.05 | 226970 | 5.15 | 140644 | 7.43 | 280788  | 10.02 | 266552  | 15.17 | 277191  | 17.77 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| OP11465-MB1   | 177789 | 4.55 | 665088 | 5.65 | 375014 | 7.93 | 678361 | 10.51 | 630384 | 15.66 | 627482 | 18.27 |
| OP11607-MB1   | 167317 | 4.55 | 605626 | 5.65 | 357467 | 7.93 | 663680 | 10.51 | 661971 | 15.66 | 667467 | 18.27 |
| OP11510-MB1   | 178733 | 4.55 | 649367 | 5.65 | 384492 | 7.93 | 716333 | 10.51 | 724976 | 15.65 | 732079 | 18.27 |
| OP11697-LB26  | 165967 | 4.55 | 576378 | 5.65 | 328794 | 7.93 | 642423 | 10.51 | 658007 | 15.66 | 626832 | 18.27 |
| OP11695-LB18  | 156030 | 4.55 | 549148 | 5.65 | 309215 | 7.93 | 605660 | 10.51 | 622272 | 15.65 | 591628 | 18.27 |
| ZZZZZZ        | 155715 | 4.54 | 552508 | 5.64 | 312965 | 7.93 | 614623 | 10.51 | 635123 | 15.65 | 605710 | 18.27 |
| ZZZZZZ        | 161063 | 4.55 | 548789 | 5.65 | 315318 | 7.93 | 616049 | 10.51 | 631204 | 15.65 | 592809 | 18.26 |
| ZZZZZZ        | 161136 | 4.55 | 573860 | 5.65 | 320155 | 7.93 | 583098 | 10.51 | 631649 | 15.65 | 618106 | 18.26 |
| ZZZZZZ        | 170243 | 4.55 | 600835 | 5.65 | 360930 | 7.93 | 707397 | 10.51 | 738351 | 15.65 | 704295 | 18.26 |
| ZZZZZZ        | 176251 | 4.55 | 599489 | 5.64 | 356187 | 7.93 | 700837 | 10.51 | 741299 | 15.65 | 714376 | 18.26 |
| ZZZZZZ        | 190879 | 4.55 | 667545 | 5.65 | 367517 | 7.93 | 678061 | 10.51 | 615329 | 15.67 | 584673 | 18.27 |
| OP11695-MS    | 145359 | 4.55 | 519027 | 5.64 | 313169 | 7.93 | 634404 | 10.52 | 596952 | 15.66 | 587666 | 18.27 |
| OP11695-LS6   | 145359 | 4.55 | 519027 | 5.64 | 313169 | 7.93 | 634404 | 10.52 | 596952 | 15.66 | 587666 | 18.27 |
| OP11695-MSD   | 131153 | 4.55 | 472388 | 5.65 | 282158 | 7.93 | 568151 | 10.51 | 556476 | 15.66 | 541988 | 18.26 |
| ZZZZZZ        | 160696 | 4.55 | 598591 | 5.65 | 347242 | 7.93 | 628640 | 10.51 | 568949 | 15.65 | 518641 | 18.27 |
| JC64994-1     | 157128 | 4.55 | 556546 | 5.65 | 323276 | 7.93 | 638264 | 10.51 | 619763 | 15.66 | 568631 | 18.27 |
| ZZZZZZ        | 183103 | 4.55 | 671422 | 5.64 | 396800 | 7.93 | 739361 | 10.51 | 710949 | 15.65 | 683457 | 18.26 |
| ZZZZZZ        | 190391 | 4.55 | 701443 | 5.65 | 414885 | 7.93 | 787702 | 10.51 | 753215 | 15.65 | 738327 | 18.27 |
| ZZZZZZ        | 168087 | 4.55 | 624026 | 5.65 | 365180 | 7.93 | 689951 | 10.51 | 658556 | 15.66 | 642384 | 18.27 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.8  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EZ6439-CC6436 | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> Z130504.D   | <b>Injection Time:</b> 11:06    |
| <b>Instrument ID:</b> GCMSZ     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 249837 | 4.89 | 976965  | 5.81 | 586276  | 7.21 | 1065018 | 8.83 | 998588  | 12.66 | 970909  | 14.75 |
| Upper Limit <sup>a</sup> | 499674 | 5.39 | 1953930 | 6.31 | 1172552 | 7.71 | 2130036 | 9.33 | 1997176 | 13.16 | 1941818 | 15.25 |
| Lower Limit <sup>b</sup> | 124919 | 4.39 | 488483  | 5.31 | 293138  | 6.71 | 532509  | 8.33 | 499294  | 12.16 | 485455  | 14.25 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3   |      | IS 4   |      | IS 5   |       | IS 6   |       |
|---------------|--------|------|---------|------|--------|------|--------|------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| OP11648-MB1   | 244960 | 4.89 | 975866  | 5.81 | 506288 | 7.20 | 966078 | 8.83 | 885917 | 12.66 | 833130 | 14.75 |
| OP11648-BS1   | 223419 | 4.89 | 937218  | 5.81 | 459200 | 7.21 | 858862 | 8.83 | 688550 | 12.66 | 729640 | 14.75 |
| ZZZZZZ        | 222898 | 4.89 | 892378  | 5.81 | 468255 | 7.21 | 884727 | 8.83 | 730214 | 12.66 | 774544 | 14.75 |
| ZZZZZZ        | 251203 | 4.89 | 990316  | 5.81 | 489956 | 7.20 | 899227 | 8.83 | 716749 | 12.66 | 698342 | 14.75 |
| ZZZZZZ        | 253513 | 4.89 | 991315  | 5.81 | 493466 | 7.20 | 903858 | 8.83 | 729160 | 12.66 | 723206 | 14.75 |
| ZZZZZZ        | 257956 | 4.89 | 1008260 | 5.81 | 505964 | 7.21 | 924055 | 8.83 | 755931 | 12.66 | 719160 | 14.75 |
| ZZZZZZ        | 267736 | 4.89 | 1041130 | 5.81 | 515167 | 7.21 | 926707 | 8.83 | 771476 | 12.66 | 760275 | 14.75 |
| ZZZZZZ        | 248904 | 4.89 | 965273  | 5.81 | 500618 | 7.21 | 919580 | 8.83 | 783114 | 12.66 | 816829 | 14.75 |
| ZZZZZZ        | 243760 | 4.89 | 968112  | 5.81 | 470677 | 7.20 | 851475 | 8.83 | 715052 | 12.66 | 698441 | 14.75 |
| ZZZZZZ        | 251760 | 4.89 | 979129  | 5.81 | 479158 | 7.21 | 862561 | 8.83 | 730545 | 12.66 | 726837 | 14.75 |
| ZZZZZZ        | 248536 | 4.89 | 961224  | 5.81 | 478762 | 7.20 | 879984 | 8.83 | 742937 | 12.66 | 731921 | 14.75 |
| ZZZZZZ        | 238649 | 4.89 | 927275  | 5.81 | 455490 | 7.20 | 825500 | 8.83 | 695752 | 12.66 | 686421 | 14.75 |
| ZZZZZZ        | 243723 | 4.89 | 954211  | 5.81 | 477257 | 7.20 | 870537 | 8.83 | 730081 | 12.66 | 730161 | 14.75 |
| ZZZZZZ        | 247969 | 4.89 | 975495  | 5.81 | 485605 | 7.20 | 881834 | 8.83 | 737560 | 12.66 | 739935 | 14.75 |
| ZZZZZZ        | 243552 | 4.89 | 932480  | 5.81 | 466836 | 7.21 | 856737 | 8.83 | 742841 | 12.66 | 750242 | 14.75 |
| ZZZZZZ        | 252352 | 4.89 | 977767  | 5.81 | 491746 | 7.21 | 883694 | 8.83 | 750787 | 12.66 | 743600 | 14.75 |
| ZZZZZZ        | 241106 | 4.89 | 943707  | 5.81 | 466490 | 7.20 | 858287 | 8.83 | 732875 | 12.66 | 743220 | 14.75 |
| ZZZZZZ        | 253629 | 4.89 | 972868  | 5.81 | 477391 | 7.20 | 877835 | 8.83 | 746569 | 12.66 | 743219 | 14.75 |
| ZZZZZZ        | 251048 | 4.88 | 963198  | 5.80 | 476266 | 7.20 | 877030 | 8.83 | 746415 | 12.66 | 746420 | 14.75 |
| JC65058-11    | 237893 | 4.89 | 929887  | 5.81 | 452285 | 7.20 | 816035 | 8.83 | 697596 | 12.66 | 709613 | 14.75 |
| JC65058-13    | 235764 | 4.89 | 936577  | 5.80 | 477792 | 7.20 | 907710 | 8.83 | 802726 | 12.66 | 761032 | 14.75 |
| OP11648-MS    | 213335 | 4.89 | 871375  | 5.81 | 413694 | 7.21 | 762669 | 8.83 | 598685 | 12.66 | 700118 | 14.75 |
| OP11648-MSD   | 211532 | 4.89 | 860103  | 5.81 | 411660 | 7.21 | 757963 | 8.83 | 590723 | 12.66 | 684412 | 14.75 |
| JC65058-10    | 246509 | 4.89 | 939563  | 5.81 | 463455 | 7.20 | 823581 | 8.83 | 683103 | 12.66 | 714821 | 14.75 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.9  
8

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EZ6441-CC6436 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> Z130562.D   | <b>Injection Time:</b> 16:14    |
| <b>Instrument ID:</b> GCMSZ     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 228502 | 4.86 | 903387  | 5.78 | 518342  | 7.18 | 918318  | 8.80 | 837082  | 12.63 | 788235  | 14.71 |
| Upper Limit <sup>a</sup> | 457004 | 5.36 | 1806774 | 6.28 | 1036684 | 7.68 | 1836636 | 9.30 | 1674164 | 13.13 | 1576470 | 15.21 |
| Lower Limit <sup>b</sup> | 114251 | 4.36 | 451694  | 5.28 | 259171  | 6.68 | 459159  | 8.30 | 418541  | 12.13 | 394118  | 14.21 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3   |      | IS 4    |      | IS 5   |       | IS 6   |       |
|---------------|--------|------|---------|------|--------|------|---------|------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA   | RT   | AREA    | RT   | AREA   | RT    | AREA   | RT    |
| OP11790-MB1   | 218950 | 4.86 | 877254  | 5.78 | 446068 | 7.18 | 828245  | 8.80 | 737929 | 12.62 | 685884 | 14.71 |
| OP11924-MB1   | 238693 | 4.86 | 936899  | 5.78 | 457157 | 7.17 | 822506  | 8.80 | 693023 | 12.62 | 656837 | 14.71 |
| OP11924-BS1   | 204048 | 4.86 | 880984  | 5.78 | 415781 | 7.18 | 770288  | 8.80 | 648323 | 12.63 | 654694 | 14.71 |
| ZZZZZZ        | 168401 | 4.87 | 516605  | 5.78 | 348917 | 7.18 | 720868  | 8.80 | 581805 | 12.62 | 583549 | 14.71 |
| JC65058-12    | 248919 | 4.86 | 964711  | 5.78 | 454923 | 7.18 | 806598  | 8.80 | 573102 | 12.63 | 638309 | 14.72 |
| JC65058-15    | 241153 | 4.86 | 968548  | 5.78 | 472934 | 7.18 | 854557  | 8.80 | 619563 | 12.63 | 648671 | 14.72 |
| ZZZZZZ        | 267066 | 4.86 | 1052628 | 5.78 | 541246 | 7.18 | 1009213 | 8.80 | 812879 | 12.62 | 718653 | 14.71 |
| ZZZZZZ        | 213523 | 4.86 | 610986  | 5.78 | 361013 | 7.18 | 721932  | 8.81 | 775998 | 12.63 | 761532 | 14.72 |
| ZZZZZZ        | 177297 | 4.86 | 316453* | 5.79 | 294139 | 7.19 | 587918  | 8.83 | 472348 | 12.64 | 601882 | 14.72 |
| ZZZZZZ        | 252269 | 4.86 | 863493  | 5.78 | 462657 | 7.18 | 789341  | 8.80 | 657293 | 12.64 | 746112 | 14.72 |
| OP11924-MS    | 190999 | 4.86 | 829237  | 5.78 | 416169 | 7.18 | 785758  | 8.80 | 687210 | 12.63 | 657256 | 14.72 |
| OP11924-MSD   | 195710 | 4.86 | 851468  | 5.78 | 417313 | 7.18 | 785515  | 8.80 | 656096 | 12.63 | 652980 | 14.71 |
| ZZZZZZ        | 156935 | 4.88 | 814610  | 5.79 | 422631 | 7.18 | 819364  | 8.80 | 620785 | 12.62 | 508273 | 14.72 |
| JC65773-17    | 220893 | 4.86 | 892064  | 5.78 | 450144 | 7.18 | 815030  | 8.80 | 680480 | 12.62 | 632612 | 14.71 |
| ZZZZZZ        | 226011 | 4.86 | 917457  | 5.78 | 458602 | 7.18 | 867258  | 8.80 | 752027 | 12.62 | 690075 | 14.71 |
| ZZZZZZ        | 228012 | 4.86 | 913763  | 5.78 | 473974 | 7.18 | 909914  | 8.80 | 797386 | 12.62 | 754544 | 14.71 |
| ZZZZZZ        | 219883 | 4.86 | 894766  | 5.78 | 461508 | 7.18 | 888465  | 8.80 | 799238 | 12.62 | 726307 | 14.71 |
| ZZZZZZ        | 190600 | 4.86 | 778149  | 5.78 | 460035 | 7.18 | 877631  | 8.80 | 774528 | 12.62 | 740639 | 14.71 |
| ZZZZZZ        | 177982 | 4.86 | 740726  | 5.78 | 395972 | 7.18 | 740738  | 8.80 | 715307 | 12.62 | 687764 | 14.71 |
| ZZZZZZ        | 132729 | 4.87 | 553872  | 5.79 | 340503 | 7.19 | 657753  | 8.81 | 702142 | 12.63 | 679246 | 14.72 |
| ZZZZZZ        | 173837 | 4.87 | 743007  | 5.78 | 411591 | 7.18 | 760225  | 8.80 | 694416 | 12.63 | 647012 | 14.72 |
| ZZZZZZ        | 252449 | 4.86 | 980281  | 5.78 | 476937 | 7.18 | 830639  | 8.80 | 632774 | 12.63 | 640950 | 14.72 |
| ZZZZZZ        | 249775 | 4.86 | 938570  | 5.78 | 440981 | 7.18 | 759599  | 8.80 | 592776 | 12.63 | 634609 | 14.72 |
| ZZZZZZ        | 197100 | 4.86 | 635465  | 5.78 | 325781 | 7.18 | 544078  | 8.81 | 497571 | 12.66 | 561166 | 14.77 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.10  
8

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8270D | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3  | S4 | S5 | S6 |
|---------------|-------------|----|----|-----|----|----|----|
| JC65058-13A   | 2P79180.D   | 40 | 31 | 98  | 72 | 84 | 86 |
| OP11697-BS1   | M145716.D   | 46 | 33 | 100 | 87 | 75 | 69 |
| OP11697-LB25  | M145717.D   | 52 | 37 | 125 | 99 | 89 | 81 |
| OP11697-LB26  | M145765.D   | 43 | 29 | 105 | 83 | 75 | 71 |
| OP11697-LB28  | 2P79163.D   | 26 | 21 | 82  | 70 | 79 | 65 |
| OP11697-LS10  | M145730.D   | 38 | 28 | 90  | 79 | 72 | 61 |
| OP11697-MB1   | M145715.D   | 30 | 22 | 88  | 75 | 69 | 43 |
| OP11697-MS    | M145730.D   | 38 | 28 | 90  | 79 | 72 | 61 |
| OP11697-MSD   | M145731.D   | 33 | 25 | 87  | 77 | 70 | 57 |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = 2-Fluorophenol       | 14-88%          |
| S2 = Phenol-d5            | 10-110%         |
| S3 = 2,4,6-Tribromophenol | 39-149%         |
| S4 = Nitrobenzene-d5      | 32-128%         |
| S5 = 2-Fluorobiphenyl     | 35-119%         |
| S6 = Terphenyl-d14        | 10-126%         |

8.8.1  
8

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Method:** SW846 8270D

**Matrix:** SO

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3  | S4 | S5 | S6 |
|---------------|-------------|----|----|-----|----|----|----|
| JC65058-1     | F176322.D   | 83 | 74 | 95  | 70 | 73 | 72 |
| JC65058-1     | F176297.D   | 88 | 79 | 100 | 74 | 76 | 77 |
| JC65058-2     | F176320.D   | 75 | 75 | 90  | 66 | 74 | 78 |
| JC65058-2     | F176300.D   | 83 | 75 | 99  | 70 | 73 | 75 |
| JC65058-3     | F176295.D   | 95 | 86 | 107 | 79 | 82 | 83 |
| JC65058-4     | F176296.D   | 98 | 88 | 110 | 81 | 85 | 84 |
| JC65058-5     | F176293.D   | 96 | 84 | 102 | 82 | 83 | 82 |
| JC65058-6     | F176340.D   | 83 | 76 | 89  | 72 | 72 | 62 |
| JC65058-6     | F176410.D   | 69 | 64 | 76  | 65 | 66 | 64 |
| JC65058-7     | F176339.D   | 97 | 87 | 98  | 80 | 79 | 81 |
| JC65058-8     | F176323.D   | 85 | 78 | 91  | 70 | 75 | 72 |
| JC65058-8     | F176298.D   | 89 | 76 | 96  | 73 | 76 | 76 |
| JC65058-10    | Z130529.D   | 78 | 78 | 94  | 80 | 81 | 79 |
| JC65058-11    | Z130525.D   | 68 | 69 | 75  | 70 | 72 | 66 |
| JC65058-12    | Z130569.D   | 81 | 83 | 89  | 83 | 87 | 88 |
| JC65058-13    | Z130526.D   | 79 | 82 | 88  | 79 | 81 | 78 |
| JC65058-15    | Z130570.D   | 78 | 81 | 81  | 77 | 80 | 78 |
| OP11647-BS1   | F176111.D   | 81 | 74 | 96  | 70 | 67 | 65 |
| OP11647-MB1   | F176110.D   | 91 | 82 | 105 | 77 | 76 | 78 |
| OP11647-MS    | F176118.D   | 88 | 82 | 105 | 79 | 75 | 78 |
| OP11647-MSD   | F176119.D   | 82 | 77 | 106 | 73 | 74 | 76 |
| OP11648-BS1   | Z130507.D   | 97 | 92 | 97  | 77 | 79 | 89 |
| OP11648-MB1   | Z130506.D   | 85 | 88 | 93  | 86 | 84 | 81 |
| OP11648-MS    | Z130527.D   | 83 | 80 | 90  | 71 | 76 | 84 |
| OP11648-MSD   | Z130528.D   | 79 | 79 | 89  | 68 | 75 | 83 |

**Surrogate Compounds**

**Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = 2-Fluorophenol       | 23-115% |
| S2 = Phenol-d5            | 27-114% |
| S3 = 2,4,6-Tribromophenol | 19-152% |
| S4 = Nitrobenzene-d5      | 26-134% |
| S5 = 2-Fluorobiphenyl     | 39-124% |
| S6 = Terphenyl-d14        | 36-134% |

8.8.2  
8

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICC3481  
**Lab FileID:** 2P79039.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D  
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

| Compound   | 2     | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg    | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d                           |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde                                      | 1.115 | 1.081 | 1.036 | 1.024 | 1.044 | 1.038 | 1.056 | 1.066 | 1.057  | 2.79  |
| 103) I Naphthalene-d8a                                 |       |       |       |       |       |       |       |       |        |       |
| 104) Hydroquinone                                      | 0.289 | 0.310 | 0.347 | 0.329 | 0.312 | 0.345 | 0.229 | 0.334 | 0.312  | 12.37 |
| 105) I Acenaphthene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 106) Atrazine  | 0.172 | 0.177 | 0.176 | 0.169 | 0.156 | 0.178 | 0.173 | 0.173 | 0.172  | 4.10  |
| 107) 1,2,4,5-Tetr                                      | 0.659 | 0.629 | 0.576 | 0.507 | 0.483 | 0.539 | 0.633 | 0.595 | 0.577  | 10.94 |
| 108) I Chrysene-d12a                                   |       |       |       |       |       |       |       |       |        |       |
| 109) Benzidine   | 0.331 | 0.474 | 0.558 | 0.508 | 0.488 | 0.551 | 0.227 | 0.601 | 0.467  | 27.02 |
| ----- Quadratic regression -----                       |       |       |       |       |       |       |       |       |        |       |
| Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 110) I Phenanthrene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 111) 1-Chloroocta                                      | 0.291 | 0.300 | 0.294 | 0.277 | 0.271 | 0.295 | 0.273 | 0.309 | 0.289  | 4.71  |
| 112) o-terphenyl                                       | 0.546 | 0.547 | 0.535 | 0.511 | 0.499 | 0.537 | 0.553 | 0.561 | 0.536  | 3.94  |
| 113) Pentachloron                                      | 0.040 | 0.044 | 0.047 | 0.047 | 0.045 | 0.047 | 0.040 | 0.046 | 0.044# | 6.91  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79046.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11  
Acq On : 1 May 2018 11:49 pm Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF   | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|--------------------------------|---------|--------|-------|-------|----------|-------|
| 105 I Acenaphthene-d10a        | 1.000   | 1.000  | 0.0   | 100   | 0.00     | 7.11  |
| 107 1,2,4,5-Tetrachlorobenzen  | 0.577   | 0.708  | -22.7 | 132   | 0.00     | 6.39  |
| 108 I Chrysene-d12a            | 1.000   | 1.000  | 0.0   | 84    | 0.00     | 11.59 |
| ----- True Calc. % Drift ----- |         |        |       |       |          |       |
| 109 Benzidine                  | 100.000 | 82.100 | 17.9  | 128   | 0.00     | 9.91  |
| -----                          |         |        |       |       |          |       |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:41 2018 RPT1

8.9.2  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79047.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12  
Acq On : 2 May 2018 12:11 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-------|-------------------------|-------|-------|-------|-------|----------|------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0   | 118   | 0.00     | 4.62 |
| 102   | Benzaldehyde            | 1.057 | 0.996 | 5.8   | 113   | 0.00     | 4.28 |
| 105 I | Acenaphthene-d10a       | 1.000 | 1.000 | 0.0   | 105   | 0.00     | 7.11 |
| 106   | Atrazine                | 0.172 | 0.218 | -26.7 | 129   | 0.00     | 8.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

8.9.3  
8



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79048.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13  
Acq On : 2 May 2018 12:32 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 110 I Phenanthrene-d10a     | 1.000 | 1.000  | 0.0  | 116   | 0.00     | 8.38 |
| 113 Pentachloronitrobenzene | 0.044 | 0.048# | -9.1 | 118   | 0.00     | 8.22 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:45 2018 RPT1

8.9.4

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79049.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14  
Acq On : 2 May 2018 12:54 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|-------|-------|----------|------|
| 103 I Naphthalene-d8a | 1.000 | 1.000 | 0.0   | 134   | 0.00     | 5.67 |
| 104 Hydroquinone      | 0.312 | 0.353 | -13.1 | 138   | -0.02    | 6.13 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

8.9.5  
8

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D  
100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

| Compound  | 2              | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1,4-Dichlorobenzene-d                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane  | 0.559          | 0.542 | 0.656 | 0.782 | 0.943 | 0.662 | 0.339 | 0.613 | 0.637 | 27.84 |
| ----- Quadratic regression -----                      |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = 0.02544 + 0.37596 *A + 0.21544 *A^2  |                |       |       |       |       |       |       |       |       |       |
| Coefficient = 0.9974                                  |                |       |       |       |       |       |       |       |       |       |
| 3) Pyridine   | 1.381          | 1.345 | 1.578 | 1.740 | 2.026 | 1.670 | 1.495 | 1.302 | 1.567 | 15.45 |
| 4) N-Nitrosodim                                       | 0.694          | 0.699 | 0.952 | 1.106 | 1.158 | 0.961 | 0.614 | 0.855 | 0.880 | 22.69 |
| ----- Linear regression -----                         |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.07189 + 1.14713 *A                |                |       |       |       |       |       |       |       |       |       |
| Coefficient = 0.9948                                  |                |       |       |       |       |       |       |       |       |       |
| 5) 2-Fluorophen                                       | 1.291          | 1.363 | 1.649 | 1.887 |       | 1.773 |       | 1.510 | 1.579 | 14.77 |
| 6) Indene   | 2.056          | 2.057 | 2.089 | 2.046 | 1.969 | 2.057 | 2.057 | 2.157 | 2.061 | 2.51  |
| 7) Cumene   | 3.433          | 3.540 | 3.999 | 4.094 | 4.067 | 4.020 | 3.617 | 3.825 | 3.824 | 6.83  |
| 8) Phenol-d5  | 1.540          | 1.599 | 1.737 | 1.701 | 1.660 | 1.689 | 1.476 | 1.687 | 1.636 | 5.48  |
| 9) Phenol   | 1.575          | 1.674 | 1.745 | 1.651 | 1.644 | 1.675 | 1.687 | 1.733 | 1.673 | 3.18  |
| 10) Aniline   | 1.838          | 1.955 | 2.321 | 2.428 | 2.318 | 2.373 | 1.877 | 2.137 | 2.156 | 11.01 |
| 11) bis(2-Chloro                                      | 1.283          | 1.342 | 1.370 | 1.315 | 1.360 | 1.300 | 1.202 | 1.356 | 1.316 | 4.21  |
| 12) 2-Chlorophen                                      | 1.461          | 1.485 | 1.411 | 1.310 | 1.267 | 1.326 | 1.469 | 1.476 | 1.401 | 6.20  |
| 13) Decane  | 1.357          | 1.268 | 1.236 | 1.131 | 1.101 | 1.135 | 1.324 | 1.289 | 1.230 | 7.85  |
| 14) 1,3-Dichloro                                      | 1.674          | 1.649 | 1.593 | 1.555 | 1.508 | 1.532 | 1.699 | 1.658 | 1.609 | 4.45  |
| 15) 1,4-Dichloro                                      | 1.493          | 1.474 | 1.466 | 1.471 | 1.447 | 1.445 | 1.526 | 1.505 | 1.478 | 1.90  |
| 16) Benzyl alcoh                                      | 0.478          | 0.607 | 0.700 | 0.707 | 0.691 | 0.708 |       | 0.677 | 0.652 | 12.98 |
| 17) 1,2-Dichloro                                      | 1.380          | 1.450 | 1.495 | 1.546 | 1.504 | 1.492 | 1.464 | 1.521 | 1.481 | 3.43  |
| 18) Acetophenone                                      | 1.730          | 1.705 | 1.714 | 1.686 | 1.635 | 1.666 | 1.698 | 1.811 | 1.706 | 3.04  |
| 19) 2-Methylphen                                      | 1.112          | 1.079 | 1.163 | 1.158 | 1.102 | 1.137 | 1.042 | 1.229 | 1.128 | 5.11  |
| 20) 2,2'-oxybis(                                      | 0.265          | 0.324 | 0.317 | 0.295 | 0.289 | 0.299 | 0.340 | 0.343 | 0.309 | 8.67  |
| 21) 3&4-Methylph                                      | 1.108          | 1.144 | 1.149 | 1.103 | 1.097 | 1.128 | 1.018 | 1.227 | 1.122 | 5.25  |
| 22) n-Nitroso-di                                      | 0.796          | 0.806 | 0.805 | 0.766 | 0.737 | 0.774 | 0.779 | 0.852 | 0.790 | 4.32  |
| 23) Hexachloroet                                      | 0.464          | 0.450 | 0.457 | 0.467 | 0.452 | 0.453 | 0.486 | 0.480 | 0.464 | 2.90  |
| 24) I Naphthalene-d8                                  | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene                                      | 0.353          | 0.371 | 0.372 | 0.366 | 0.366 | 0.374 | 0.360 | 0.387 | 0.369 | 2.78  |
| 26) Nitrobenzene                                      | 0.361          | 0.369 | 0.352 | 0.339 | 0.335 | 0.351 | 0.386 | 0.376 | 0.359 | 4.95  |
| 27) Quinoline   | 0.659          | 0.700 | 0.721 | 0.764 | 0.767 | 0.756 | 0.665 | 0.747 | 0.722 | 6.03  |
| 28) Isophorone  | 0.560          | 0.598 | 0.632 | 0.654 | 0.663 | 0.665 | 0.547 | 0.633 | 0.619 | 7.44  |
| 29) 2-Nitropheno                                      |                | 0.189 | 0.206 | 0.203 | 0.202 | 0.207 |       | 0.206 | 0.202 | 3.32  |
| 30) 2,4-Dimethyl                                      | 0.342          | 0.358 | 0.361 | 0.358 | 0.352 | 0.365 | 0.320 | 0.376 | 0.354 | 4.81  |
| 31) Benzoic acid                                      | 0.074          | 0.093 | 0.168 | 0.207 | 0.217 | 0.207 |       | 0.133 | 0.157 | 36.86 |
| ----- Quadratic regression -----                      |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01219 + 0.19449 *A + 0.01053 *A^2 |                |       |       |       |       |       |       |       |       |       |
| Coefficient = 0.9990                                  |                |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro                                      | 0.362          | 0.363 | 0.347 | 0.342 | 0.339 | 0.354 | 0.364 | 0.369 | 0.355 | 3.21  |
| 33) 2,4-Dichloro                                      | 0.287          | 0.300 | 0.317 | 0.329 | 0.330 | 0.329 | 0.264 | 0.315 | 0.309 | 7.67  |
| 34) 2,6-Dichloro                                      | 0.250          | 0.266 | 0.290 | 0.304 | 0.306 | 0.301 | 0.236 | 0.287 | 0.280 | 9.35  |
| 35) 1,3,5-Trichl                                      | 0.364          | 0.362 | 0.362 | 0.364 | 0.357 | 0.367 | 0.373 | 0.373 | 0.365 | 1.48  |
| 36) 1,2,4-Trichl                                      | 0.336          | 0.338 | 0.319 | 0.317 | 0.317 | 0.323 | 0.362 | 0.345 | 0.332 | 4.86  |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

|     |                                  |  |       |       |       |       |       |       |       |       |       |
|-----|----------------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 37) | 1,2,3-Trichl                     | 0.301                                  | 0.291 | 0.287 | 0.278 | 0.276 | 0.287 | 0.300 | 0.307 | 0.291 | 3.77  |
| 38) | Naphthalene                      | 0.974                                  | 0.951 | 0.955 | 0.954 | 0.935 | 0.968 | 1.002 | 1.001 | 0.968 | 2.47  |
| 39) | 4-Chloroanil                     | 0.403                                  | 0.419 | 0.435 | 0.432 | 0.421 | 0.444 | 0.425 | 0.459 | 0.430 | 3.93  |
| 40) | 2,3-Dichloro                     | 0.364                                  | 0.374 | 0.370 | 0.376 | 0.375 | 0.377 | 0.359 | 0.386 | 0.373 | 2.21  |
| 41) | Caprolactam                      | 0.075                                  | 0.092 | 0.112 | 0.123 | 0.122 | 0.118 |       | 0.110 | 0.107 | 16.51 |
| 42) | Hexachlorobu                     | 0.158                                  | 0.162 | 0.157 | 0.156 | 0.153 | 0.160 | 0.158 | 0.166 | 0.159 | 2.53  |
| 43) | 4-Chloro-3-m                     | 0.278                                  | 0.296 | 0.327 | 0.340 | 0.338 | 0.340 | 0.264 | 0.326 | 0.314 | 9.59  |
| 44) | 2-Methylnaph                     | 0.608                                  | 0.608 | 0.616 | 0.598 | 0.589 | 0.619 | 0.600 | 0.645 | 0.611 | 2.78  |
| 45) | 1-Methylnaph                     | 0.650                                  | 0.640 | 0.641 | 0.619 | 0.616 | 0.640 | 0.662 | 0.675 | 0.643 | 3.09  |
| 46) | Dimethylnaph                     | 0.621                                  | 0.596 | 0.587 | 0.608 | 0.612 | 0.609 | 0.623 | 0.630 | 0.611 | 2.30  |
| 47) | I Acenaphthene-d10               | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy                     | 0.243                                  | 0.273 | 0.331 | 0.331 | 0.324 | 0.336 |       | 0.317 | 0.308 | 11.53 |
| 49) | 2,4,6-Trichl                     | 0.339                                  | 0.364 | 0.402 | 0.394 | 0.389 | 0.400 | 0.335 | 0.392 | 0.377 | 7.20  |
| 50) | 2,4,5-Trichl                     | 0.367                                  | 0.385 | 0.394 | 0.368 | 0.354 | 0.383 | 0.329 | 0.405 | 0.373 | 6.42  |
| 51) | 2-Fluorobiph                     | 1.485                                  | 1.450 | 1.358 | 1.212 | 1.151 | 1.262 | 1.601 | 1.458 | 1.372 | 11.20 |
| 52) | 2-Chloronaph                     | 1.258                                  | 1.200 | 1.079 | 0.954 | 0.931 | 1.005 | 1.254 | 1.216 | 1.112 | 12.27 |
| 53) | Biphenyl                         | 1.713                                  | 1.650 | 1.529 | 1.404 | 1.367 | 1.445 | 1.716 | 1.632 | 1.557 | 8.97  |
| 54) | 2-Nitroanili                     | 0.291                                  | 0.328 | 0.332 | 0.303 | 0.288 | 0.315 | 0.279 | 0.355 | 0.311 | 8.32  |
| 55) | Dimethylphth                     | 1.331                                  | 1.334 | 1.302 | 1.247 | 1.225 | 1.277 | 1.335 | 1.385 | 1.305 | 4.02  |
| 56) | Acenaphthyle                     | 1.957                                  | 2.009 | 1.905 | 1.711 | 1.664 | 1.810 | 1.899 | 2.030 | 1.873 | 7.15  |
| 57) | 2,6-Dinitrot                     | 0.242                                  | 0.272 | 0.302 | 0.289 | 0.291 | 0.297 | 0.211 | 0.304 | 0.276 | 12.03 |
| 58) | 3-Nitroanili                     | 0.267                                  | 0.297 | 0.333 | 0.320 | 0.307 | 0.335 | 0.238 | 0.334 | 0.304 | 11.62 |
| 59) | Acenaphthene                     | 1.129                                  | 1.138 | 1.156 | 1.131 | 1.110 | 1.165 | 1.199 | 1.189 | 1.152 | 2.68  |
| 60) | 2,4-Dinitrop                     | 0.042                                  | 0.069 | 0.134 | 0.162 | 0.161 | 0.152 | 0.030 | 0.101 | 0.106 | 50.75 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9993                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.01619 + 0.14975 *A + 0.00329 *A^2$ |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno                     | 0.161                                  | 0.196 | 0.186 | 0.183 | 0.188 |       | 0.189 | 0.184 |       | 6.42  |
| 62) | Dibenzofuran                     | 1.582                                  | 1.619 | 1.645 | 1.556 | 1.527 | 1.600 | 1.600 | 1.689 | 1.602 | 3.16  |
| 63) | 2,4-Dinitrot                     | 0.306                                  | 0.340 | 0.373 | 0.352 | 0.341 | 0.364 | 0.234 | 0.375 | 0.336 | 13.97 |
| 64) | 2,3,4,6-Tetr                     | 0.268                                  | 0.278 | 0.319 | 0.330 | 0.327 | 0.325 | 0.233 | 0.314 | 0.299 | 11.87 |
| 65) | Diethylphtha                     | 1.308                                  | 1.343 | 1.344 | 1.239 | 1.210 | 1.268 | 1.274 | 1.411 | 1.300 | 5.00  |
| 66) | Fluorene                         | 1.313                                  | 1.330 | 1.304 | 1.197 | 1.139 | 1.271 | 1.336 | 1.396 | 1.286 | 6.40  |
| 67) | 4-Chlorophen                     | 0.586                                  | 0.577 | 0.592 | 0.584 | 0.565 | 0.594 | 0.574 | 0.623 | 0.587 | 2.94  |
| 68) | 4-Nitroanili                     | 0.296                                  | 0.338 | 0.361 | 0.347 | 0.336 | 0.350 | 0.266 | 0.374 | 0.333 | 10.65 |
| 69) | I Phenanthrene-d10               | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-                     | 0.043                                  | 0.067 | 0.109 | 0.123 | 0.125 | 0.120 | 0.036 | 0.091 | 0.089 | 40.74 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9997                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.00500 + 0.11879 *A + 0.00328 *A^2$ |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip                     | 0.569                                  | 0.561 | 0.521 | 0.504 | 0.489 | 0.511 | 0.576 | 0.567 | 0.537 | 6.42  |
| 72) | 1,2-Diphenyl                     | 0.822                                  | 0.815 | 0.745 | 0.643 | 0.620 | 0.690 | 0.807 | 0.833 | 0.747 | 11.51 |
| 73) | 2,4,6-Tribr                      | 0.107                                  | 0.113 | 0.125 | 0.136 | 0.140 | 0.134 | 0.097 | 0.124 | 0.122 | 12.39 |
| 74) | 4-Bromopheny                     | 0.199                                  | 0.206 | 0.215 | 0.226 | 0.231 | 0.225 | 0.199 | 0.220 | 0.215 | 5.93  |
| 75) | Hexachlorobe                     | 0.259                                  | 0.266 | 0.267 | 0.271 | 0.271 | 0.270 | 0.281 | 0.278 | 0.270 | 2.59  |
| 76) | Pentachlorop                     | 0.055                                  | 0.081 | 0.112 | 0.134 | 0.136 | 0.130 | 0.048 | 0.099 | 0.099 | 35.16 |
|     | ----- Quadratic regression ----- | Coefficient = 0.9995                   |       |       |       |       |       |       |       |       |       |
|     | Response Ratio =                 | $-0.00956 + 0.12388 *A + 0.00287 *A^2$ |       |       |       |       |       |       |       |       |       |
| 77) | Phenanthrene                     | 1.022                                  | 1.003 | 0.991 | 1.008 | 0.993 | 1.021 | 1.070 | 1.035 | 1.018 | 2.54  |
| 78) | Anthracene                       | 0.978                                  | 1.009 | 1.007 | 0.974 | 0.959 | 1.001 | 0.948 | 1.052 | 0.991 | 3.37  |
| 79) | Carbazole                        | 1.018                                  | 1.061 | 1.082 | 1.079 | 1.064 | 1.108 | 1.012 | 1.118 | 1.068 | 3.56  |
| 80) | Di-n-butylph                     | 1.135                                  | 1.299 | 1.465 | 1.460 | 1.444 | 1.497 | 1.034 | 1.453 | 1.348 | 13.01 |
| 81) | Fluoranthene                     | 1.201                                  | 1.266 | 1.407 | 1.411 | 1.397 | 1.435 | 1.174 | 1.381 | 1.334 | 7.78  |
| 82) | Octadecane                       | 0.317                                  | 0.333 | 0.332 | 0.311 | 0.299 | 0.328 | 0.296 | 0.349 | 0.320 | 5.70  |
| 83) | I Chrysene-d12                   | -----ISTD-----                         |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene                           | 1.365                                  | 1.385 | 1.317 | 1.266 | 1.266 | 1.327 | 1.363 | 1.440 | 1.341 | 4.45  |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

|      |                |  |       |       |       |       |       |       |       |               |       |        |
|------|----------------|--|-------|-------|-------|-------|-------|-------|-------|---------------|-------|--------|
| 85)  | Terphenyl-d1   | 0.853  | 0.846 | 0.844 | 0.889 | 0.878 | 0.873 | 0.874 | 0.901 | 0.870         | 2.36  |        |
| 86)  | Butylbenzylp   | 0.520  | 0.607 | 0.701 | 0.748 | 0.744 | 0.746 |       | 0.700 | 0.681         | 12.67 |        |
| 87)  | Benzo[a]anth   | 1.164  | 1.185 | 1.258 | 1.336 | 1.323 | 1.324 | 1.130 | 1.278 | 1.250         | 6.40  |        |
| 88)  | 3,3'-Dichlor   | 0.292  | 0.330 | 0.378 | 0.408 | 0.412 | 0.403 |       | 0.373 | 0.371         | 12.09 |        |
| 89)  | Chrysene       | 1.025  | 1.006 | 0.971 | 0.928 | 0.915 | 0.965 | 1.043 | 1.034 | 0.986         | 4.92  |        |
| 90)  | bis(2-Ethylh   | 0.546  | 0.636 | 0.714 | 0.703 | 0.692 | 0.717 | 0.465 | 0.731 | 0.650         | 14.82 |        |
| 91)  | I Perylene-d12 | -----ISTD-----   |       |       |       |       |       |       |       |               |       |        |
| 92)  | Di-n-octylph   | 0.934  | 1.253 | 1.742 | 1.851 | 1.823 | 1.835 | 0.761 | 1.583 | 1.473         | 29.55 |        |
|      |                | ----- Quadratic regression -----                       |       |       |       |       |       |       |       | Coefficient = |       | 0.9998 |
|      |                | Response Ratio = -0.06116 + 1.89887 *A + -0.01697 *A^2 |       |       |       |       |       |       |       |               |       |        |
| 93)  | Benzo[b]fluo   | 1.323  | 1.293 | 1.359 | 1.332 | 1.348 | 1.350 | 1.276 | 1.419 | 1.338         | 3.28  |        |
| 94)  | Benzo[k]fluo   | 1.119  | 1.136 | 1.067 | 0.975 | 0.927 | 1.031 | 1.128 | 1.157 | 1.068         | 7.82  |        |
| 95)  | Benzo[alpyre   | 0.951  | 1.031 | 1.156 | 1.173 | 1.162 | 1.175 | 0.964 | 1.137 | 1.094         | 8.78  |        |
| 96)  | Indeno[1,2,3   | 1.019  | 1.102 | 1.264 | 1.325 | 1.317 | 1.320 | 0.992 | 1.234 | 1.197         | 11.59 |        |
| 97)  | Dibenz(a,h)a   | 0.717  | 0.810 | 0.952 | 1.052 | 1.055 | 1.017 | 0.668 | 0.894 | 0.896         | 16.84 |        |
| 98)  | Dibenz[a,h]a   | 0.846  | 0.909 | 1.006 | 1.025 | 1.025 | 1.023 | 0.850 | 1.004 | 0.961         | 8.29  |        |
| 99)  | 7,12-Dimethy   | 0.498  | 0.549 | 0.614 | 0.620 | 0.629 | 0.624 | 0.473 | 0.620 | 0.578         | 10.93 |        |
| 100) | Benzo[g,h,i]   | 0.860  | 0.858 | 0.994 | 1.047 | 1.038 | 1.044 | 0.845 | 0.970 | 0.957         | 9.28  |        |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

8.9.6

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79089.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11  
Acq On : 3 May 2018 6:14 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 4.61  |
| 5 S  | 2-Fluorophenol         | 1.579 | 1.555 | 1.5  | 151   | 0.00     | 3.59  |
| 8 S  | Phenol-d5              | 1.636 | 1.614 | 1.3  | 165   | 0.00     | 4.42  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 187   | 0.00     | 5.66  |
| 25 S | Nitrobenzene-d5        | 0.369 | 0.380 | -3.0 | 190   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 7.09  |
| 51 S | 2-Fluorobiphenyl       | 1.372 | 1.371 | 0.1  | 188   | 0.00     | 6.55  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 161   | 0.00     | 8.36  |
| 73 S | 2,4,6-Tribromophenol   | 0.122 | 0.127 | -4.1 | 153   | 0.00     | 7.75  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 149   | 0.00     | 11.56 |
| 85 S | Terphenyl-d14          | 0.870 | 0.915 | -5.2 | 156   | 0.00     | 10.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:22 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79090.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12  
Acq On : 3 May 2018 6:36 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 152   | 0.00     | 4.61 |
| 9 t  | Phenol                         | 1.673  | 1.903  | -13.7 | 173   | 0.00     | 4.43 |
| 12 t | 2-Chlorophenol                 | 1.401  | 1.531  | -9.3  | 176   | 0.00     | 4.47 |
| 19 t | 2-Methylphenol                 | 1.128  | 1.161  | -2.9  | 155   | 0.00     | 4.90 |
| 21 t | 3&4-Methylphenol               | 1.122  | 1.176  | -4.8  | 159   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 135   | 0.00     | 5.66 |
| 29 t | 2-Nitrophenol                  | 0.202  | 0.240  | -18.8 | 157   | 0.00     | 5.37 |
| 30 t | 2,4-Dimethylphenol             | 0.354  | 0.369  | -4.2  | 136   | 0.00     | 5.44 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 31 t | Benzoic acid                   | 50.000 | 27.287 | 45.4# | 66    | 0.00     | 5.60 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 33 t | 2,4-Dichlorophenol             | 0.309  | 0.320  | -3.6  | 131   | 0.00     | 5.58 |
| 34 t | 2,6-Dichlorophenol             | 0.280  | 0.304  | -8.6  | 137   | 0.00     | 5.76 |
| 43 t | 4-Chloro-3-methylphenol        | 0.314  | 0.331  | -5.4  | 132   | -0.01    | 6.20 |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 134   | 0.00     | 7.09 |
| 49 t | 2,4,6-Trichlorophenol          | 0.377  | 0.403  | -6.9  | 135   | 0.00     | 6.50 |
| 50 t | 2,4,5-Trichlorophenol          | 0.373  | 0.380  | -1.9  | 133   | -0.01    | 6.54 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 48.263 | 3.5   | 122   | 0.00     | 7.18 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 61 t | 4-Nitrophenol                  | 0.184  | 0.196  | -6.5  | 140   | 0.00     | 7.32 |
| 64   | 2,3,4,6-Tetrachlorophenol      | 0.299  | 0.302  | -1.0  | 125   | 0.00     | 7.38 |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 132   | 0.00     | 8.36 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 52.365 | -4.7  | 137   | 0.00     | 7.60 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 76 t | Pentachlorophenol              | 50.000 | 59.284 | -18.6 | 151   | 0.00     | 8.21 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:24 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79091.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13  
Acq On : 3 May 2018 6:58 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 141   | 0.00     | 4.61 |
| 3 t  | Pyridine               | 1.567 | 1.173 | 25.1  | 99    | 0.14     | 2.49 |
| 10   | Aniline                | 2.156 | 2.116 | 1.9   | 125   | 0.01     | 4.39 |
| 16 t | Benzyl alcohol         | 0.652 | 0.721 | -10.6 | 143   | 0.00     | 4.78 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 165   | 0.00     | 5.66 |
| 39 t | 4-Chloroaniline        | 0.430 | 0.371 | 13.7  | 138   | 0.00     | 5.77 |
| 44 t | 2-Methylnaphthalene    | 0.611 | 0.517 | 15.4  | 138   | 0.00     | 6.24 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 145   | 0.00     | 7.09 |
| 54 t | 2-Nitroaniline         | 0.311 | 0.343 | -10.3 | 157   | 0.00     | 6.78 |
| 58 t | 3-Nitroaniline         | 0.304 | 0.306 | -0.7  | 132   | 0.00     | 7.12 |
| 62 t | Dibenzofuran           | 1.602 | 1.452 | 9.4   | 131   | 0.00     | 7.26 |
| 68 t | 4-Nitroaniline         | 0.333 | 0.329 | 1.2   | 136   | 0.00     | 7.64 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 138   | 0.00     | 8.36 |
| 79 t | Carbazole              | 1.068 | 1.029 | 3.7   | 128   | 0.00     | 8.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:26 2018 RPT1



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14  
 Acq On : 3 May 2018 7:19 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 146   | 0.00     | 4.61 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 27.362  | 45.3# | 86    | 0.01     | 2.30 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.389   | -5.5  | 156   | 0.00     | 4.41 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.690   | -5.0  | 161   | 0.00     | 4.56 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.358   | 8.1   | 137   | 0.00     | 4.62 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.347   | 9.0   | 131   | 0.00     | 4.75 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.314   | -1.6  | 153   | 0.00     | 4.84 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.732   | 7.3   | 138   | -0.01    | 4.96 |
| 23 t | Hexachloroethane          | 0.464  | 0.447   | 3.7   | 144   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 5.66 |
| 26 t | Nitrobenzene              | 0.359  | 0.336   | 6.4   | 134   | 0.00     | 5.11 |
| 28 t | Isophorone                | 0.619  | 0.592   | 4.4   | 125   | 0.00     | 5.29 |
| 32 t | bis(2-Chloroethoxy)methan | 0.355  | 0.388   | -9.3  | 153   | 0.00     | 5.48 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332  | 0.344   | -3.6  | 149   | 0.00     | 5.61 |
| 38 t | Naphthalene               | 0.968  | 0.909   | 6.1   | 131   | 0.00     | 5.68 |
| 42 t | Hexachlorobutadiene       | 0.159  | 0.171   | -7.5  | 149   | 0.00     | 5.78 |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 130   | 0.00     | 7.10 |
| 48 t | Hexachlorocyclopentadiene | 0.308  | 0.361   | -17.2 | 127   | 0.00     | 6.37 |
| 52 t | 2-Chloronaphthalene       | 1.112  | 1.271   | -14.3 | 165   | 0.00     | 6.64 |
| 55 t | Dimethylphthalate         | 1.305  | 1.374   | -5.3  | 140   | 0.00     | 6.90 |
| 56 t | Acenaphthylene            | 1.873  | 1.768   | 5.6   | 127   | 0.00     | 6.98 |
| 57 t | 2,6-Dinitrotoluene        | 0.276  | 0.283   | -2.5  | 124   | 0.00     | 6.95 |
| 59 t | Acenaphthene              | 1.152  | 1.079   | 6.3   | 121   | 0.00     | 7.12 |
| 63 t | 2,4-Dinitrotoluene        | 0.336  | 0.361   | -7.4  | 129   | 0.00     | 7.28 |
| 65 t | Diethylphthalate          | 1.300  | 1.340   | -3.1  | 137   | 0.00     | 7.46 |
| 66 t | Fluorene                  | 1.286  | 1.206   | 6.2   | 123   | 0.00     | 7.54 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587  | 0.572   | 2.6   | 125   | 0.00     | 7.53 |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 8.36 |
| 71 t | n-Nitrosodiphenylamine    | 0.537  | 0.449   | 16.4  | 123   | 0.00     | 7.65 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747  | 0.612   | 18.1  | 124   | 0.00     | 7.67 |
| 74 t | 4-Bromophenyl-phenylether | 0.215  | 0.199   | 7.4   | 124   | 0.00     | 7.95 |
| 75 t | Hexachlorobenzene         | 0.270  | 0.236   | 12.6  | 122   | 0.00     | 8.01 |
| 77 t | Phenanthrene              | 1.018  | 0.921   | 9.5   | 126   | 0.00     | 8.39 |
| 78 t | Anthracene                | 0.991  | 0.857   | 13.5  | 120   | 0.00     | 8.44 |
| 80 t | Di-n-butylphthalate       | 1.348  | 1.282   | 4.9   | 120   | 0.00     | 8.95 |

8.9.10

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

|       |                           |             |        |         |       |      |       |
|-------|---------------------------|-------------|--------|---------|-------|------|-------|
| 81 t  | Fluoranthene              | 1.334       | 1.206  | 9.6     | 117   | 0.00 | 9.66  |
| 83 I  | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 117   | 0.00 | 11.56 |
| 84 t  | Pyrene                    | 1.341       | 1.268  | 5.4     | 112   | 0.00 | 9.94  |
| 86 t  | Butylbenzylphthalate      | 0.681       | 0.746  | -9.5    | 117   | 0.00 | 10.81 |
| 87 t  | Benzo[a]anthracene        | 1.250       | 1.285  | -2.8    | 113   | 0.00 | 11.54 |
| 89 t  | Chrysene                  | 0.986       | 0.877  | 11.1    | 106   | 0.00 | 11.60 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650       | 0.647  | 0.5     | 105   | 0.00 | 11.60 |
| 91 I  | Perylene-d12              | 1.000       | 1.000  | 0.0     | 119   | 0.00 | 13.54 |
|       |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92 t  | Di-n-octylphthalate       | 50.000      | 46.822 | 6.4     | 111   | 0.00 | 12.51 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338       | 1.276  | 4.6     | 113   | 0.00 | 13.03 |
| 94 t  | Benzo[k]fluoranthene      | 1.068       | 1.073  | -0.5    | 124   | 0.00 | 13.07 |
| 95 t  | Benzo[a]pyrene            | 1.094       | 1.126  | -2.9    | 114   | 0.00 | 13.46 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197       | 1.361  | -13.7   | 123   | 0.00 | 14.86 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961       | 1.025  | -6.7    | 120   | 0.00 | 14.88 |
| 100 t | Benzo[g,h,i]perylene      | 0.957       | 1.092  | -14.1   | 125   | 0.00 | 15.23 |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 12:39:28 2018 RPT1

8.9.10  
8

# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3484-ICV3484  
 Lab FileID: 2P79093.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15  
 Acq On : 3 May 2018 7:41 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T.  |
|------|---------------------------|--------|---------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 151   | 0.00     | 4.61  |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 2 t  | 1,4-Dioxane               | 50.000 | 51.921  | -3.8  | 160   | 0.01     | 1.96  |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 6 t  | Indene                    | 2.061  | 2.197   | -6.6  | 162   | 0.00     | 4.82  |
| 7 t  | Cumene                    | 3.824  | 3.688   | 3.6   | 139   | 0.00     | 3.92  |
| 13 t | Decane                    | 1.230  | 1.136   | 7.6   | 151   | 0.00     | 4.45  |
| 18 t | Acetophenone              | 1.706  | 1.554   | 8.9   | 141   | 0.00     | 4.96  |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 174   | 0.00     | 5.66  |
| 27 t | Quinoline                 | 0.722  | 0.618   | 14.4  | 142   | -0.01    | 5.97  |
| 40 t | 2,3-Dichloroaniline       | 0.373  | 0.267   | 28.4  | 123   | 0.00     | 6.51  |
| 41 t | Caprolactam               | 0.107  | 0.081   | 24.3  | 120   | -0.03    | 6.06  |
| 45 t | 1-Methylnaphthalene       | 0.643  | 0.470   | 26.9  | 128   | 0.00     | 6.32  |
| 46 t | Dimethylnaphthalene       | 0.611  | 0.451   | 26.2  | 129   | 0.00     | 6.74  |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 7.09  |
| 53 t | Biphenyl                  | 1.557  | 1.517   | 2.6   | 136   | 0.00     | 6.63  |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 8.36  |
| 82 t | Octadecane                | 0.320  | 0.310   | 3.1   | 122   | 0.00     | 8.20  |
| 91 I | Perylene-d12              | 1.000  | 1.000   | 0.0   | 125   | 0.00     | 13.53 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.378   | 34.6# | 76    | -0.01    | 13.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79083a.D M2P3484.M Thu May 03 12:39:30 2018 RPT1

8.9.11  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79094.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16  
Acq On : 3 May 2018 8:02 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 152   | 0.00     | 11.56 |
| 88 t 3,3'-Dichlorobenzidine | 0.371 | 0.353 | 4.9  | 133   | 0.00     | 11.58 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:32 2018 RPT1

8.9.12  
8

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3489-CC3484  
 Lab FileID: 2P79160.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2p3489\2p79160.d Vial: 2  
 Acq On : 5 May 2018 7:56 pm Operator: seanbl  
 Sample : cc3484-50 Inst : MS2P  
 Misc : op10929,e2p3489,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Mon May 07 21:27:43 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 84    | -0.02    | 4.59 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 2 t  | 1,4-Dioxane               | 50.000 | 57.004  | -14.0 | 102   | -0.04    | 1.91 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 3 t  | Pyridine                  | 1.567  | 1.867   | -19.1 | 94    | -0.05    | 2.29 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 48.345  | 3.3   | 92    | -0.04    | 2.26 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 5 S  | 2-Fluorophenol            | 1.579  | 1.858   | -17.7 | 88    | -0.02    | 3.56 |
| 6 t  | Indene                    | 2.061  | 2.040   | 1.0   | 84    | -0.01    | 4.81 |
| 7 t  | Cumene                    | 3.824  | 4.296   | -12.3 | 90    | -0.02    | 3.90 |
| 8 S  | Phenol-d5                 | 1.636  | 1.717   | -5.0  | 86    | -0.01    | 4.41 |
| 9 t  | Phenol                    | 1.673  | 1.742   | -4.1  | 88    | -0.01    | 4.42 |
| 10   | Aniline                   | 2.156  | 2.418   | -12.2 | 86    | -0.01    | 4.37 |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.394   | -5.9  | 90    | -0.01    | 4.39 |
| 12 t | 2-Chlorophenol            | 1.401  | 1.372   | 2.1   | 87    | -0.02    | 4.45 |
| 13 t | Decane                    | 1.230  | 1.240   | -0.8  | 92    | -0.01    | 4.43 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.593   | 1.0   | 88    | -0.01    | 4.54 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.521   | -2.9  | 89    | -0.01    | 4.61 |
| 16 t | Benzyl alcohol            | 0.652  | 0.693   | -6.3  | 82    | -0.02    | 4.76 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.515   | -2.3  | 85    | -0.01    | 4.74 |
| 18 t | Acetophenone              | 1.706  | 1.653   | 3.1   | 84    | -0.02    | 4.95 |
| 19 t | 2-Methylphenol            | 1.128  | 1.119   | 0.8   | 83    | -0.01    | 4.89 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.301   | 2.6   | 85    | -0.02    | 4.83 |
| 21 t | 3&4-Methylphenol          | 1.122  | 1.117   | 0.4   | 83    | -0.01    | 5.02 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.769   | 2.7   | 84    | -0.01    | 4.96 |
| 23 t | Hexachloroethane          | 0.464  | 0.480   | -3.4  | 89    | -0.01    | 5.02 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 84    | -0.01    | 5.65 |
| 25 S | Nitrobenzene-d5           | 0.369  | 0.373   | -1.1  | 84    | -0.01    | 5.08 |
| 26 t | Nitrobenzene              | 0.359  | 0.351   | 2.2   | 84    | -0.01    | 5.10 |
| 27 t | Quinoline                 | 0.722  | 0.734   | -1.7  | 82    | -0.01    | 5.97 |
| 28 t | Isophorone                | 0.619  | 0.649   | -4.8  | 82    | -0.02    | 5.28 |
| 29 t | 2-Nitrophenol             | 0.202  | 0.211   | -4.5  | 86    | -0.01    | 5.36 |
| 30 t | 2,4-Dimethylphenol        | 0.354  | 0.357   | -0.8  | 82    | -0.01    | 5.43 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 31 t | Benzoic acid              | 50.000 | 34.878  | 30.2# | 54    | -0.02    | 5.59 |

8.9.13  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3484  
**Lab FileID:** 2P79160.D

|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
|------|---------------------------|---------|---------|---------|-----|-------|------|
| 32 t | bis(2-Chloroethoxy)methan | 0.355   | 0.342   | 3.7     | 81  | -0.01 | 5.47 |
| 33 t | 2,4-Dichlorophenol        | 0.309   | 0.331   | -7.1    | 84  | -0.01 | 5.57 |
| 34 t | 2,6-Dichlorophenol        | 0.280   | 0.300   | -7.1    | 84  | -0.01 | 5.75 |
| 35   | 1,3,5-Trichlorobenzene    | 0.365   | 0.385   | -5.5    | 88  | -0.01 | 5.33 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332   | 0.338   | -1.8    | 88  | -0.01 | 5.60 |
| 37   | 1,2,3-Trichlorobenzene    | 0.291   | 0.301   | -3.4    | 88  | -0.01 | 5.80 |
| 38 t | Naphthalene               | 0.968   | 0.969   | -0.1    | 84  | -0.01 | 5.67 |
| 39 t | 4-Chloroaniline           | 0.430   | 0.434   | -0.9    | 82  | -0.01 | 5.76 |
| 40 t | 2,3-Dichloroaniline       | 0.373   | 0.379   | -1.6    | 84  | -0.01 | 6.50 |
| 41 t | Caprolactam               | 0.107   | 0.112   | -4.7    | 80  | -0.02 | 6.07 |
| 42 t | Hexachlorobutadiene       | 0.159   | 0.177   | -11.3   | 93  | 0.00  | 5.77 |
| 43 t | 4-Chloro-3-methylphenol   | 0.314   | 0.337   | -7.3    | 83  | -0.01 | 6.20 |
| 44 t | 2-Methylnaphthalene       | 0.611   | 0.620   | -1.5    | 84  | -0.01 | 6.23 |
| 45 t | 1-Methylnaphthalene       | 0.643   | 0.640   | 0.5     | 84  | 0.00  | 6.32 |
| 46 t | Dimethylnaphthalene       | 0.611   | 0.608   | 0.5     | 84  | 0.00  | 6.74 |
| 47 I | Acenaphthene-d10          | 1.000   | 1.000   | 0.0     | 83  | 0.00  | 7.09 |
| 48 t | Hexachlorocyclopentadiene | 0.308   | 0.405   | -31.5#  | 100 | -0.01 | 6.36 |
| 49 t | 2,4,6-Trichlorophenol     | 0.377   | 0.407   | -8.0    | 85  | 0.00  | 6.50 |
| 50 t | 2,4,5-Trichlorophenol     | 0.373   | 0.406   | -8.8    | 88  | -0.01 | 6.54 |
| 51 S | 2-Fluorobiphenyl          | 1.372   | 1.283   | 6.5     | 85  | -0.01 | 6.54 |
| 52 t | 2-Chloronaphthalene       | 1.112   | 1.051   | 5.5     | 87  | -0.01 | 6.63 |
| 53 t | Biphenyl                  | 1.557   | 1.463   | 6.0     | 84  | 0.00  | 6.62 |
| 54 t | 2-Nitroaniline            | 0.311   | 0.307   | 1.3     | 81  | -0.01 | 6.77 |
| 55 t | Dimethylphthalate         | 1.305   | 1.315   | -0.8    | 86  | 0.00  | 6.89 |
| 56 t | Acenaphthylene            | 1.873   | 1.865   | 0.4     | 86  | -0.01 | 6.97 |
| 57 t | 2,6-Dinitrotoluene        | 0.276   | 0.304   | -10.1   | 85  | 0.00  | 6.95 |
| 58 t | 3-Nitroaniline            | 0.304   | 0.342   | -12.5   | 85  | 0.00  | 7.12 |
| 59 t | Acenaphthene              | 1.152   | 1.192   | -3.5    | 85  | 0.00  | 7.11 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 60 t | 2,4-Dinitrophenol         | 100.000 | 116.110 | -16.1   | 98  | -0.01 | 7.17 |
|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
| 61 t | 4-Nitrophenol             | 0.184   | 0.190   | -3.3    | 84  | -0.01 | 7.32 |
| 62 t | Dibenzofuran              | 1.602   | 1.631   | -1.8    | 85  | 0.00  | 7.26 |
| 63 t | 2,4-Dinitrotoluene        | 0.336   | 0.375   | -11.6   | 86  | 0.00  | 7.27 |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.299   | 0.356   | -19.1   | 91  | -0.01 | 7.38 |
| 65 t | Diethylphthalate          | 1.300   | 1.317   | -1.3    | 86  | -0.01 | 7.45 |
| 66 t | Fluorene                  | 1.286   | 1.280   | 0.5     | 84  | -0.01 | 7.53 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587   | 0.639   | -8.9    | 90  | 0.00  | 7.53 |
| 68 t | 4-Nitroaniline            | 0.333   | 0.369   | -10.8   | 88  | 0.00  | 7.64 |
| 69 I | Phenanthrene-d10          | 1.000   | 1.000   | 0.0     | 90  | 0.00  | 8.36 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000  | 52.416  | -4.8    | 94  | -0.01 | 7.60 |
|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
| 71 t | n-Nitrosodiphenylamine    | 0.537   | 0.490   | 8.8     | 87  | 0.00  | 7.65 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747   | 0.651   | 12.9    | 85  | 0.00  | 7.66 |
| 73 S | 2,4,6-Tribromophenol      | 0.122   | 0.124   | -1.6    | 84  | -0.01 | 7.74 |
| 74 t | 4-Bromophenyl-phenylether | 0.215   | 0.235   | -9.3    | 94  | 0.00  | 7.94 |
| 75 t | Hexachlorobenzene         | 0.270   | 0.269   | 0.4     | 90  | -0.01 | 7.99 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 76 t | Pentachlorophenol         | 100.000 | 94.052  | 5.9     | 83  | -0.01 | 8.21 |

8.9.13

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3484  
**Lab FileID:** 2P79160.D

| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
|-------|---------------------------|--------|--------|---------|-------|-------|-------|
| 77 t  | Phenanthrene              | 1.018  | 1.026  | -0.8    | 91    | -0.01 | 8.38  |
| 78 t  | Anthracene                | 0.991  | 1.016  | -2.5    | 92    | 0.00  | 8.43  |
| 79 t  | Carbazole                 | 1.068  | 1.045  | 2.2     | 85    | 0.00  | 8.63  |
| 80 t  | Di-n-butylphthalate       | 1.348  | 1.404  | -4.2    | 85    | -0.01 | 8.94  |
| 81 t  | Fluoranthene              | 1.334  | 1.438  | -7.8    | 91    | -0.01 | 9.65  |
| 82 t  | Octadecane                | 0.320  | 0.297  | 7.2     | 82    | 0.00  | 8.19  |
|       |                           |        |        |         |       |       |       |
| 83 I  | Chrysene-d12              | 1.000  | 1.000  | 0.0     | 96    | -0.01 | 11.55 |
| 84 t  | Pyrene                    | 1.341  | 1.244  | 7.2     | 90    | -0.01 | 9.93  |
| 85 S  | Terphenyl-d14             | 0.870  | 0.851  | 2.2     | 94    | -0.01 | 10.13 |
| 86 t  | Butylbenzylphthalate      | 0.681  | 0.657  | 3.5     | 85    | -0.01 | 10.80 |
| 87 t  | Benzo[a]anthracene        | 1.250  | 1.311  | -4.9    | 96    | -0.02 | 11.52 |
| 88 t  | 3,3'-Dichlorobenzidine    | 0.371  | 0.402  | -8.4    | 96    | -0.02 | 11.57 |
| 89 t  | Chrysene                  | 0.986  | 0.963  | 2.3     | 96    | -0.02 | 11.58 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650  | 0.647  | 0.5     | 87    | -0.01 | 11.59 |
|       |                           |        |        |         |       |       |       |
| 91 I  | Perylene-d12              | 1.000  | 1.000  | 0.0     | 97    | -0.02 | 13.52 |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |       |
| 92 t  | Di-n-octylphthalate       | 50.000 | 44.885 | 10.2    | 87    | -0.01 | 12.49 |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338  | 1.421  | -6.2    | 103   | -0.01 | 13.02 |
| 94 t  | Benzo[k]fluoranthene      | 1.068  | 1.013  | 5.1     | 96    | -0.01 | 13.06 |
| 95 t  | Benzo[a]pyrene            | 1.094  | 1.190  | -8.8    | 99    | -0.02 | 13.44 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197  | 1.331  | -11.2   | 98    | -0.02 | 14.84 |
| 97 t  | Dibenz(a,h)acridine       | 0.896  | 1.037  | -15.7   | 99    | -0.02 | 14.55 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961  | 1.038  | -8.0    | 99    | -0.02 | 14.87 |
| 99 t  | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.634  | -9.7    | 99    | -0.01 | 13.02 |
| 100 t | Benzo[g,h,i]perylene      | 0.957  | 1.043  | -9.0    | 97    | -0.02 | 15.21 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2p79160.d    M2P3484.M                      Mon May 07 21:43:58 2018

8.9.13  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3481  
**Lab FileID:** 2P79161.D

## Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...meel\2p3489\2p79161.d Vial: 3  
 Acq On : 5 May 2018 8:17 pm Operator: seanbl  
 Sample : cc3481-50 Inst : MS2P  
 Misc : op10929,e2p3489,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4a  | 1.000  | 1.000  | 0.0   | 61    | -0.01    | 4.59  |
| 102 Benzaldehyde               | 1.057  | 0.914  | 13.5  | 53    | -0.02    | 4.25  |
| 103 I Naphthalene-d8a          | 1.000  | 1.000  | 0.0   | 58    | -0.01    | 5.65  |
| 104 Hydroquinone               | 0.312  | 0.289  | 7.4   | 48#   | -0.01    | 6.11  |
| 105 I Acenaphthene-d10a        | 1.000  | 1.000  | 0.0   | 54    | -0.01    | 7.08  |
| 106 Atrazine                   | 0.172  | 0.174  | -1.2  | 52    | -0.01    | 8.11  |
| 107 1,2,4,5-Tetrachlorobenzen  | 0.577  | 0.592  | -2.6  | 59    | -0.02    | 6.36  |
| 108 I Chrysene-d12a            | 1.000  | 1.000  | 0.0   | 57    | -0.02    | 11.54 |
| ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 109 Benzidine                  | 50.000 | 38.805 | 22.4# | 45    | -0.02    | 9.88  |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 110 I Phenanthrene-d10a        | 1.000  | 1.000  | 0.0   | 56    | -0.01    | 8.35  |
| 111 s 1-Chlorooctadecane       | 0.289  | 0.263  | 9.0   | 50#   | -0.01    | 9.45  |
| 112 s o-terphenyl              | 0.536  | 0.534  | 0.4   | 56    | 0.00     | 8.73  |
| 113 Pentachloronitrobenzene    | 0.044  | 0.050# | -13.6 | 59    | 0.00     | 8.19  |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPPC's out = 0 CCC's out = 0  
 Wed May 09 13:13:22 2018 MANAGER

8.9.14

8



# Initial Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EF7484-ICC7484  
Lab FileID: F175740.D

## Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Initial Calibration

### Calibration Files

2 =F175737.D 5 =F175743.D 25 =F175741.D 80 =F175739.D  
100 =F175738.D 50 =F175740.D 10 =F175742.D 1 =F175744.D

| Compound  | 2              | 5     | 25    | 80    | 100   | 50    | 10    | 1     | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----   |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzene-d                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane  | 0.680          | 0.686 | 0.632 | 0.624 | 0.653 | 0.627 | 0.621 | 0.759 | 0.660 | 7.15  |
| 3) Pyridine   | 1.463          | 1.523 | 1.713 | 1.716 | 1.699 | 1.600 | 1.509 | 1.115 | 1.542 | 12.92 |
| 4) N-Nitrosodim                                       | 0.416          | 0.497 | 0.523 | 0.556 | 0.548 | 0.523 | 0.489 | 0.716 | 0.534 | 16.06 |
| 5) 2-Fluorophen                                       | 1.062          | 1.086 | 1.266 | 1.352 | 1.356 | 1.300 | 1.141 | 0.760 | 1.165 | 17.21 |
| 6) Indene   | 2.694          | 2.673 | 2.418 | 2.213 | 2.143 | 2.258 | 2.445 | 2.694 | 2.442 | 9.24  |
| 7) Cumene   | 4.043          | 3.809 | 3.513 | 3.209 | 3.161 | 3.292 | 3.532 | 4.082 | 3.580 | 10.14 |
| 8) Phenol-d5  | 1.754          | 1.751 | 1.770 | 1.642 | 1.587 | 1.671 | 1.702 | 1.474 | 1.669 | 6.01  |
| 9) Phenol   | 2.155          | 2.118 | 1.965 | 1.857 | 1.807 | 1.906 | 2.100 | 1.760 | 1.958 | 7.71  |
| 10) Aniline   | 1.875          | 2.023 | 1.944 | 1.753 | 1.671 | 1.768 | 1.974 | 1.632 | 1.830 | 7.92  |
| 11) bis(2-Chloro                                      | 1.608          | 1.265 | 1.399 | 1.342 | 1.356 | 1.361 | 1.550 | 1.686 | 1.446 | 10.31 |
| 12) 2-Chlorophen                                      | 1.565          | 1.525 | 1.489 | 1.409 | 1.383 | 1.421 | 1.472 | 1.421 | 1.461 | 4.31  |
| 13) Decane  | 1.622          | 1.541 | 1.317 | 1.037 | 0.988 | 1.123 | 1.431 | 1.616 | 1.334 | 19.37 |
| 14) 1,3-Dichloro                                      | 1.725          | 1.683 | 1.562 | 1.443 | 1.445 | 1.481 | 1.546 | 1.785 | 1.584 | 8.32  |
| 15) 1,4-Dichloro                                      | 1.924          | 1.859 | 1.646 | 1.501 | 1.461 | 1.545 | 1.690 | 1.906 | 1.691 | 10.97 |
| 16) Benzyl alcoh                                      | 0.856          | 0.824 | 0.903 | 0.829 | 0.790 | 0.858 | 0.845 | 0.649 | 0.819 | 9.30  |
| 17) 1,2-Dichloro                                      | 1.754          | 1.745 | 1.537 | 1.353 | 1.306 | 1.422 | 1.570 | 1.789 | 1.559 | 12.14 |
| 18) Acetophenone                                      | 2.233          | 2.152 | 2.011 | 1.828 | 1.791 | 1.913 | 2.106 | 2.076 | 2.014 | 7.84  |
| 19) 2-Methylphen                                      | 1.508          | 1.511 | 1.394 | 1.252 | 1.227 | 1.315 | 1.384 | 1.379 | 1.371 | 7.68  |
| 20) 2,2'-oxybis(                                      | 0.488          | 0.476 | 0.433 | 0.392 | 0.386 | 0.405 | 0.430 | 0.452 | 0.433 | 8.71  |
| 21) 3&4-Methylph                                      | 1.509          | 1.567 | 1.536 | 1.412 | 1.375 | 1.461 | 1.415 | 1.293 | 1.446 | 6.27  |
| 22) n-Nitroso-di                                      | 1.255          | 1.245 | 1.159 | 0.977 | 0.945 | 1.039 | 1.217 | 1.103 | 1.117 | 10.84 |
| 23) Hexachloroet                                      | 0.595          | 0.581 | 0.525 | 0.490 | 0.480 | 0.496 | 0.531 | 0.643 | 0.542 | 10.69 |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 24) I Naphthalene-d8                                  | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene                                      | 0.438          | 0.474 | 0.447 | 0.417 | 0.408 | 0.431 | 0.439 | 0.425 | 0.435 | 4.66  |
| 26) Nitrobenzene                                      | 0.429          | 0.460 | 0.419 | 0.389 | 0.376 | 0.400 | 0.423 | 0.470 | 0.421 | 7.78  |
| 27) Quinoline   | 0.730          | 0.749 | 0.726 | 0.697 | 0.692 | 0.712 | 0.734 | 0.735 | 0.722 | 2.74  |
| 28) Isophorone  | 0.791          | 0.797 | 0.741 | 0.673 | 0.654 | 0.700 | 0.723 | 0.773 | 0.732 | 7.31  |
| 29) 2-Nitropheno                                      | 0.166          | 0.187 | 0.198 | 0.185 | 0.179 | 0.192 | 0.185 | 0.142 | 0.179 | 9.90  |
| 30) 2,4-Dimethyl                                      | 0.306          | 0.352 | 0.335 | 0.344 | 0.339 | 0.343 | 0.327 | 0.250 | 0.324 | 10.21 |
| 31) Benzoic acid                                      | 0.143          | 0.159 | 0.258 | 0.317 | 0.318 | 0.304 | 0.199 |       | 0.243 | 31.10 |
| ----- Quadratic regression -----                      |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01894 + 0.30193 *A + 0.01028 *A^2 |                |       |       |       |       |       |       |       |       |       |
| Coefficient = 0.9992                                  |                |       |       |       |       |       |       |       |       |       |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro                                      | 0.426          | 0.421 | 0.410 | 0.385 | 0.374 | 0.390 | 0.401 | 0.424 | 0.404 | 4.89  |
| 33) 2,4-Dichloro                                      | 0.276          | 0.295 | 0.301 | 0.284 | 0.277 | 0.292 | 0.287 | 0.253 | 0.283 | 5.29  |
| 34) 2,6-Dichloro                                      | 0.306          | 0.309 | 0.293 | 0.266 | 0.250 | 0.273 | 0.295 | 0.280 | 0.284 | 7.22  |
| 35) 1,3,5-Trichl                                      | 0.385          | 0.370 | 0.331 | 0.291 | 0.276 | 0.304 | 0.343 | 0.359 | 0.332 | 11.78 |
| 36) 1,2,4-Trichl                                      | 0.386          | 0.361 | 0.329 | 0.297 | 0.288 | 0.307 | 0.333 | 0.377 | 0.335 | 11.00 |
| 37) 1,2,3-Trichl                                      | 0.366          | 0.352 | 0.320 | 0.284 | 0.275 | 0.301 | 0.326 | 0.376 | 0.325 | 11.57 |
| 38) Naphthalene                                       | 1.229          | 1.206 | 1.064 | 0.960 | 0.931 | 0.988 | 1.098 | 1.298 | 1.097 | 12.39 |
| 39) 4-Chloroanil                                      | 0.476          | 0.469 | 0.442 | 0.401 | 0.383 | 0.428 | 0.458 | 0.444 | 0.438 | 7.42  |
| 40) 2,3-Dichloro                                      | 0.401          | 0.398 | 0.370 | 0.323 | 0.311 | 0.334 | 0.377 | 0.388 | 0.363 | 9.74  |
| 41) Caprolactam                                       | 0.155          | 0.167 | 0.172 | 0.166 | 0.164 | 0.170 | 0.168 | 0.133 | 0.162 | 7.99  |
| 42) Hexachlorobu                                      | 0.194          | 0.194 | 0.170 | 0.158 | 0.152 | 0.160 | 0.178 | 0.208 | 0.177 | 11.46 |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICC7484  
**Lab FileID:** F175740.D

|     |   |                |       |       |       |       |       |       |       |       |                      |
|-----|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 43) | 4-Chloro-3-m  | 0.313          | 0.331 | 0.332 | 0.320 | 0.313 | 0.326 | 0.321 | 0.272 | 0.316 | 6.11                 |
| 44) | 2-Methylnaph  | 0.652          | 0.644 | 0.590 | 0.531 | 0.500 | 0.551 | 0.606 | 0.648 | 0.590 | 9.80                 |
| 45) | 1-Methylnaph  | 0.852          | 0.816 | 0.729 | 0.639 | 0.605 | 0.681 | 0.730 | 0.888 | 0.742 | 13.70                |
| 46) | Dimethylnaph  | 0.723          | 0.717 | 0.658 | 0.580 | 0.556 | 0.608 | 0.666 | 0.691 | 0.650 | 9.62                 |
| 47) | I Acenaphthene-d10                                    | -----ISTD----- |       |       |       |       |       |       |       |       |                      |
| 48) | Hexachlorocy  | 0.271          | 0.295 | 0.311 | 0.289 | 0.282 | 0.297 | 0.290 | 0.225 | 0.282 | 9.24                 |
| 49) | 2,4,6-Trichl  | 0.356          | 0.371 | 0.370 | 0.335 | 0.320 | 0.342 | 0.354 | 0.322 | 0.346 | 5.69                 |
| 50) | 2,4,5-Trichl  | 0.436          | 0.439 | 0.438 | 0.395 | 0.394 | 0.411 | 0.419 | 0.342 | 0.409 | 7.96                 |
| 51) | 2-Fluorobiph  | 1.707          | 1.688 | 1.490 | 1.299 | 1.247 | 1.358 | 1.542 | 1.788 | 1.515 | 13.35                |
| 52) | 2-Chloronaph  | 1.404          | 1.371 | 1.231 | 1.075 | 1.036 | 1.123 | 1.250 | 1.438 | 1.241 | 12.40                |
| 53) | Biphenyl  | 1.801          | 1.733 | 1.580 | 1.362 | 1.307 | 1.440 | 1.598 | 1.772 | 1.574 | 12.04                |
| 54) | 2-Nitroanili  | 0.346          | 0.403 | 0.415 | 0.382 | 0.376 | 0.392 | 0.400 | 0.300 | 0.377 | 9.94                 |
| 55) | Dimethylphth  | 1.489          | 1.497 | 1.339 | 1.222 | 1.202 | 1.260 | 1.374 | 1.470 | 1.357 | 8.90                 |
| 56) | Acenaphthyle  | 2.039          | 2.075 | 1.958 | 1.735 | 1.686 | 1.813 | 1.912 | 2.008 | 1.903 | 7.58                 |
| 57) | 2,6-Dinitrot  | 0.241          | 0.300 | 0.319 | 0.307 | 0.300 | 0.310 | 0.297 | 0.215 | 0.286 | 12.99                |
| 58) | 3-Nitroanili  | 0.275          | 0.300 | 0.361 | 0.350 | 0.349 | 0.350 | 0.321 | 0.226 | 0.316 | 14.86                |
| 59) | Acenaphthene  | 1.487          | 1.452 | 1.266 | 1.113 | 1.077 | 1.166 | 1.282 | 1.527 | 1.296 | 13.47                |
| 60) | 2,4-Dinitrop  | 0.055          | 0.078 | 0.162 | 0.186 | 0.188 | 0.181 | 0.112 |       | 0.137 | 40.15                |
|     | ----- Quadratic regression -----                      |                |       |       |       |       |       |       |       |       | Coefficient = 0.9996 |
|     | Response Ratio = -0.02531 + 0.18422 *A + 0.00182 *A^2 |                |       |       |       |       |       |       |       |       |                      |
| 61) | 4-Nitropheno  | 0.120          | 0.172 | 0.190 | 0.192 | 0.157 | 0.146 |       | 0.163 |       | 16.95                |
| 62) | Dibenzofuran  | 1.996          | 1.909 | 1.738 | 1.494 | 1.429 | 1.570 | 1.743 | 2.020 | 1.737 | 13.03                |
| 63) | 2,4-Dinitrot  | 0.316          | 0.424 | 0.441 | 0.398 | 0.382 | 0.411 | 0.407 | 0.243 | 0.378 | 17.45                |
| 64) | 2,3,4,6-Tetr  | 0.286          | 0.320 | 0.331 | 0.316 | 0.317 | 0.323 | 0.310 | 0.199 | 0.300 | 14.36                |
| 65) | Diethylphtha  | 1.411          | 1.465 | 1.369 | 1.274 | 1.234 | 1.306 | 1.358 | 1.384 | 1.350 | 5.57                 |
| 66) | Fluorene  | 1.558          | 1.515 | 1.373 | 1.160 | 1.108 | 1.227 | 1.379 | 1.487 | 1.351 | 12.53                |
| 67) | 4-Chlorophen  | 0.688          | 0.712 | 0.621 | 0.531 | 0.506 | 0.564 | 0.650 | 0.701 | 0.622 | 12.84                |
| 68) | 4-Nitroanili  | 0.213          | 0.291 | 0.351 | 0.353 | 0.355 | 0.344 | 0.303 |       | 0.316 | 16.53                |
| 69) | I Phenanthrene-d10                                    | -----ISTD----- |       |       |       |       |       |       |       |       |                      |
| 70) | 4,6-Dinitro-  | 0.072          | 0.091 | 0.145 | 0.155 | 0.153 | 0.149 | 0.113 |       | 0.125 | 26.70                |
|     | ----- Quadratic regression -----                      |                |       |       |       |       |       |       |       |       | Coefficient = 0.9997 |
|     | Response Ratio = -0.00755 + 0.15623 *A + 0.00022 *A^2 |                |       |       |       |       |       |       |       |       |                      |
| 71) | n-Nitrosodip  | 0.532          | 0.559 | 0.546 | 0.511 | 0.493 | 0.519 | 0.541 | 0.514 | 0.527 | 4.08                 |
| 72) | 1,2-Diphenyl  | 0.903          | 0.906 | 0.870 | 0.802 | 0.767 | 0.822 | 0.888 | 0.850 | 0.851 | 5.90                 |
| 73) | 2,4,6-Tribo   | 0.096          | 0.105 | 0.117 | 0.117 | 0.114 | 0.117 | 0.110 | 0.077 | 0.107 | 13.21                |
| 74) | 4-Bromopheny  | 0.213          | 0.216 | 0.210 | 0.200 | 0.195 | 0.204 | 0.212 | 0.187 | 0.205 | 4.88                 |
| 75) | Hexachlorobe  | 0.286          | 0.281 | 0.248 | 0.228 | 0.220 | 0.235 | 0.248 | 0.295 | 0.255 | 11.18                |
| 76) | Pentachlorop  | 0.096          | 0.088 | 0.131 | 0.145 | 0.141 | 0.138 | 0.104 |       | 0.121 | 19.76                |
| 77) | Phenanthrene  | 1.272          | 1.246 | 1.123 | 1.021 | 0.994 | 1.054 | 1.146 | 1.372 | 1.153 | 11.55                |
| 78) | Anthracene  | 1.196          | 1.185 | 1.136 | 1.051 | 1.006 | 1.080 | 1.151 | 1.211 | 1.127 | 6.59                 |
| 79) | Carbazole   | 1.062          | 1.098 | 1.073 | 1.036 | 0.995 | 1.038 | 1.047 | 0.913 | 1.033 | 5.53                 |
| 80) | Di-n-butylph  | 1.139          | 1.227 | 1.306 | 1.258 | 1.216 | 1.268 | 1.239 | 1.014 | 1.208 | 7.63                 |
| 81) | Fluoranthene  | 1.214          | 1.194 | 1.173 | 1.128 | 1.094 | 1.138 | 1.148 | 1.058 | 1.143 | 4.50                 |
| 82) | Octadecane  | 0.557          | 0.562 | 0.540 | 0.466 | 0.441 | 0.498 | 0.540 | 0.484 | 0.511 | 8.82                 |
| 83) | I Chrysene-d12  | -----ISTD----- |       |       |       |       |       |       |       |       |                      |
| 84) | Pyrene  | 1.419          | 1.402 | 1.341 | 1.274 | 1.285 | 1.298 | 1.315 | 1.283 | 1.327 | 4.20                 |
| 85) | Terphenyl-d1  | 0.966          | 0.941 | 0.925 | 0.888 | 0.884 | 0.897 | 0.904 | 0.858 | 0.908 | 3.80                 |
| 86) | Butylbenzylp  | 0.447          | 0.498 | 0.591 | 0.610 | 0.617 | 0.606 | 0.519 |       | 0.555 | 12.07                |
| 87) | Benzo[a]anth  | 1.198          | 1.121 | 1.124 | 1.105 | 1.122 | 1.112 | 1.066 | 1.151 | 1.125 | 3.37                 |
| 88) | 3,3'-Dichlor  | 0.289          | 0.353 | 0.430 | 0.425 | 0.428 | 0.435 | 0.377 |       | 0.391 | 14.03                |
| 89) | Chrysene  | 1.407          | 1.349 | 1.225 | 1.141 | 1.129 | 1.158 | 1.232 | 1.386 | 1.253 | 8.97                 |
| 90) | bis(2-Ethylh  | 0.561          | 0.642 | 0.807 | 0.827 | 0.832 | 0.824 | 0.688 |       | 0.740 | 14.81                |
| 91) | I Perylene-d12  | -----ISTD----- |       |       |       |       |       |       |       |       |                      |
| 92) | Di-n-octylph  | 0.763          | 0.854 | 1.238 | 1.323 | 1.293 | 1.300 | 0.971 | 0.466 | 1.026 | 30.70                |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICC7484  
**Lab FileID:** F175740.D

---

```
----- Quadratic regression -----                Coefficient = 0.9995
               Response Ratio = -0.05243 + 1.35688 *A + -0.01342 *A^2

93) Benzo[b]fluo 1.003 1.075 1.119 1.067 1.063 1.096 1.044 0.859 1.041 7.77
94) Benzo[k]fluo 1.312 1.211 1.200 1.117 1.028 1.113 1.180 1.016 1.147 8.63
95) Benzo[a]pyre 0.903 0.918 0.993 0.973 0.967 0.982 0.914 0.673 0.915 11.32
96) Indeno[1,2,3 0.776 0.825 0.954 0.943 0.940 0.959 0.857 0.568 0.853 15.65
97) Dibenz(a,h)a 0.750 0.799 0.924 0.908 0.893 0.904 0.827      0.858 7.74
98) Dibenz[a,h]a 0.958 1.021 1.085 1.014 0.995 1.030 1.025 0.839 0.996 7.29
99) 7,12-Dimethy 0.357 0.442 0.495 0.491 0.471 0.495 0.457 0.250 0.432 20.01
               ----- Quadratic regression -----                Coefficient = 0.9998
               Response Ratio = -0.01188 + 0.53528 *A + -0.02250 *A^2

100) Benzo[g,h,i] 1.028 1.029 1.043 0.983 0.970 0.992 0.994 0.829 0.983 6.86
-----
(# ) = Out of Range  ###  Number of calibration levels exceeded format  ###

MF7484.M                Fri Apr 20 16:30:48 2018
```

8.9.15  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICV7484  
**Lab FileID:** F175745.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175745.D Vial: 10  
 Acq On : 19 Apr 2018 3:06 am Operator: chriss2  
 Sample : icv7484-50 Inst : GCMSF  
 Misc : op9377,ef7484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 20 15:07:20 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 4.39  |
| 5 S  | 2-Fluorophenol         | 1.165 | 1.328 | -14.0 | 99    | 0.00     | 3.42  |
| 8 S  | Phenol-d5              | 1.669 | 1.786 | -7.0  | 104   | 0.00     | 4.15  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 93    | 0.00     | 5.31  |
| 25 S | Nitrobenzene-d5        | 0.435 | 0.421 | 3.2   | 91    | 0.00     | 4.80  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 94    | 0.00     | 6.64  |
| 51 S | 2-Fluorobiphenyl       | 1.515 | 1.290 | 14.9  | 90    | 0.00     | 6.09  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 88    | 0.00     | 8.37  |
| 73 S | 2,4,6-Tribromophenol   | 0.107 | 0.107 | 0.0   | 80    | 0.00     | 7.46  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0   | 86    | -0.01    | 13.46 |
| 85 S | Terphenyl-d14          | 0.908 | 0.910 | -0.2  | 87    | 0.00     | 11.31 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175754A.D MF7484.M Fri Apr 20 16:22:04 2018

8.9.16  
8

# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EF7484-ICV7484  
 Lab FileID: F175746.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175746.D Vial: 11  
 Acq On : 19 Apr 2018 3:34 am Operator: chriss2  
 Sample : icv7484-50 Inst : GCMSF  
 Misc : op9377,ef7484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 20 15:07:20 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 94    | 0.00     | 4.39 |
| 9 t  | Phenol                         | 1.958  | 1.819  | 7.1   | 90    | 0.00     | 4.16 |
| 12 t | 2-Chlorophenol                 | 1.461  | 1.425  | 2.5   | 95    | 0.00     | 4.24 |
| 19 t | 2-Methylphenol                 | 1.371  | 1.281  | 6.6   | 92    | 0.00     | 4.60 |
| 21 t | 3&4-Methylphenol               | 1.446  | 1.411  | 2.4   | 91    | 0.00     | 4.71 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 91    | 0.00     | 5.31 |
| 29 t | 2-Nitrophenol                  | 0.179  | 0.195  | -8.9  | 93    | 0.00     | 5.04 |
| 30 t | 2,4-Dimethylphenol             | 0.324  | 0.352  | -8.6  | 94    | 0.00     | 5.08 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 31 t | Benzoic acid                   | 50.000 | 39.766 | 20.5  | 70    | 0.00     | 5.18 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 33 t | 2,4-Dichlorophenol             | 0.283  | 0.291  | -2.8  | 91    | 0.00     | 5.22 |
| 34   | 2,6-Dichlorophenol             | 0.284  | 0.298  | -4.9  | 100   | 0.00     | 5.38 |
| 43 t | 4-Chloro-3-methylphenol        | 0.316  | 0.326  | -3.2  | 91    | 0.00     | 5.72 |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 80    | 0.00     | 6.64 |
| 49 t | 2,4,6-Trichlorophenol          | 0.346  | 0.386  | -11.6 | 91    | 0.00     | 6.03 |
| 50 t | 2,4,5-Trichlorophenol          | 0.409  | 0.439  | -7.3  | 86    | 0.00     | 6.06 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 42.600 | 14.8  | 70    | 0.00     | 6.70 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 61 t | 4-Nitrophenol                  | 0.163  | 0.161  | 1.2   | 83    | 0.00     | 6.78 |
| 64   | 2,3,4,6-Tetrachlorophenol      | 0.300  | 0.323  | -7.7  | 81    | 0.00     | 6.96 |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 83    | 0.00     | 8.37 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 46.204 | 7.6   | 77    | -0.01    | 7.25 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 76 t | Pentachlorophenol              | 0.121  | 0.125  | -3.3  | 80    | 0.00     | 8.12 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175754A.D MF7484.M Fri Apr 20 16:22:06 2018

8.9.17

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICV7484  
**Lab FileID:** F175748.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175748.D Vial: 13  
 Acq On : 19 Apr 2018 4:30 am Operator: chriss2  
 Sample : icv7484-50 Inst : GCMSF  
 Misc : op9377,ef7484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri Apr 20 15:07:20 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 4.39  |
| 4 t  | N-Nitrosodimethylamine    | 0.534 | 0.451 | 15.5 | 85    | 0.01     | 2.18  |
| 11 t | bis(2-Chloroethyl)ether   | 1.446 | 1.355 | 6.3  | 98    | 0.00     | 4.20  |
| 14 t | 1,3-Dichlorobenzene       | 1.584 | 1.447 | 8.6  | 96    | 0.00     | 4.35  |
| 15 t | 1,4-Dichlorobenzene       | 1.691 | 1.503 | 11.1 | 96    | 0.00     | 4.40  |
| 17 t | 1,2-Dichlorobenzene       | 1.559 | 1.413 | 9.4  | 98    | 0.00     | 4.52  |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.433 | 0.437 | -0.9 | 106   | 0.00     | 4.60  |
| 22   | n-Nitroso-di-n-propylamin | 1.117 | 1.042 | 6.7  | 99    | 0.00     | 4.69  |
| 23 t | Hexachloroethane          | 0.542 | 0.490 | 9.6  | 97    | 0.00     | 4.76  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 95    | 0.00     | 5.31  |
| 26 t | Nitrobenzene              | 0.421 | 0.388 | 7.8  | 92    | 0.00     | 4.81  |
| 28 t | Isophorone                | 0.732 | 0.693 | 5.3  | 94    | 0.00     | 4.98  |
| 32 t | bis(2-Chloroethoxy)methan | 0.404 | 0.406 | -0.5 | 99    | 0.00     | 5.14  |
| 36 t | 1,2,4-Trichlorobenzene    | 0.335 | 0.309 | 7.8  | 96    | 0.00     | 5.28  |
| 38 t | Naphthalene               | 1.097 | 1.022 | 6.8  | 98    | 0.00     | 5.33  |
| 42 t | Hexachlorobutadiene       | 0.177 | 0.171 | 3.4  | 102   | 0.00     | 5.42  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 6.64  |
| 48 t | Hexachlorocyclopentadiene | 0.282 | 0.281 | 0.4  | 83    | 0.00     | 5.94  |
| 52 t | 2-Chloronaphthalene       | 1.241 | 1.145 | 7.7  | 91    | 0.00     | 6.18  |
| 55 t | Dimethylphthalate         | 1.357 | 1.248 | 8.0  | 89    | 0.00     | 6.41  |
| 56 t | Acenaphthylene            | 1.903 | 1.800 | 5.4  | 89    | 0.00     | 6.51  |
| 57 t | 2,6-Dinitrotoluene        | 0.286 | 0.275 | 3.8  | 79    | 0.00     | 6.46  |
| 59 t | Acenaphthene              | 1.296 | 1.172 | 9.6  | 90    | 0.00     | 6.67  |
| 63 t | 2,4-Dinitrotoluene        | 0.378 | 0.353 | 6.6  | 77    | 0.00     | 6.82  |
| 65 t | Diethylphthalate          | 1.350 | 1.254 | 7.1  | 86    | 0.00     | 7.07  |
| 66 t | Fluorene                  | 1.351 | 1.228 | 9.1  | 90    | 0.00     | 7.19  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622 | 0.567 | 8.8  | 90    | 0.00     | 7.19  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 86    | 0.00     | 8.37  |
| 71 t | n-Nitrosodiphenylamine    | 0.527 | 0.527 | 0.0  | 87    | 0.00     | 7.32  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851 | 0.853 | -0.2 | 89    | 0.00     | 7.36  |
| 74 t | 4-Bromophenyl-phenylether | 0.205 | 0.204 | 0.5  | 86    | 0.00     | 7.77  |
| 75 t | Hexachlorobenzene         | 0.255 | 0.236 | 7.5  | 86    | 0.00     | 7.86  |
| 77 t | Phenanthrene              | 1.153 | 1.069 | 7.3  | 87    | 0.00     | 8.41  |
| 78 t | Anthracene                | 1.127 | 1.078 | 4.3  | 86    | 0.00     | 8.49  |
| 80 t | Di-n-butylphthalate       | 1.208 | 1.220 | -1.0 | 83    | 0.00     | 9.43  |
| 81 t | Fluoranthene              | 1.143 | 1.093 | 4.4  | 82    | 0.00     | 10.45 |
| 83 I | Chrysene-d12              | 1.000 | 1.000 | 0.0  | 81    | 0.00     | 13.47 |
| 84 t | Pyrene                    | 1.327 | 1.325 | 0.2  | 83    | 0.00     | 10.88 |

8.9.18

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICV7484  
**Lab FileID:** F175748.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 86  | t | Butylbenzylphthalate      | 0.555       | 0.580  | -4.5    | 78    | 0.00  | 12.47 |
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.074  | 4.5     | 78    | 0.00  | 13.45 |
| 89  | t | Chrysene                  | 1.253       | 1.148  | 8.4     | 81    | 0.00  | 13.53 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.792  | -7.0    | 78    | 0.00  | 13.88 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 81    | 0.00  | 16.48 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 47.359 | 5.3     | 76    | 0.00  | 15.30 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 0.995  | 4.4     | 73    | 0.00  | 15.74 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.123  | 2.1     | 82    | -0.01 | 15.79 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 0.967  | -5.7    | 80    | 0.00  | 16.36 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 0.931  | -9.1    | 78    | 0.00  | 18.41 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 0.988  | 0.8     | 77    | 0.00  | 18.47 |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 1.068  | -8.6    | 87    | 0.00  | 18.83 |

(#) = Out of Range  
 F175754A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
 Fri Apr 20 16:22:08 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICV7484  
**Lab FileID:** F175749.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175749.D Vial: 14  
Acq On : 19 Apr 2018 4:58 am Operator: chriss2  
Sample : icv7484-50 Inst : GCMSF  
Misc : op9377,ef7484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 100   | 0.00     | 4.39 |
| 2 t  | 1,4-Dioxane            | 0.660 | 0.610 | 7.6  | 97    | 0.00     | 1.87 |
| 6 t  | Indene                 | 2.442 | 2.507 | -2.7 | 111   | 0.00     | 4.58 |
| 7 t  | Cumene                 | 3.580 | 3.300 | 7.8  | 100   | 0.00     | 3.80 |
| 13 t | Decane                 | 1.334 | 1.148 | 13.9 | 102   | 0.00     | 4.29 |
| 18 t | Acetophenone           | 2.014 | 1.984 | 1.5  | 104   | 0.00     | 4.69 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 95    | 0.00     | 5.31 |
| 27 t | Quinoline              | 0.722 | 0.721 | 0.1  | 97    | -0.01    | 5.56 |
| 40 t | 2,3-Dichloroaniline    | 0.363 | 0.339 | 6.6  | 97    | 0.00     | 6.02 |
| 41 t | Caprolactam            | 0.162 | 0.159 | 1.9  | 90    | -0.02    | 5.61 |
| 45 t | 1-Methylnaphthalene    | 0.742 | 0.655 | 11.7 | 92    | 0.00     | 5.89 |
| 46 t | Dimethylnaphthalene    | 0.650 | 0.636 | 2.2  | 100   | 0.00     | 6.28 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 86    | 0.00     | 6.64 |
| 53 t | Biphenyl               | 1.574 | 1.672 | -6.2 | 100   | 0.00     | 6.16 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 88    | 0.00     | 8.37 |
| 82 t | Octadecane             | 0.511 | 0.555 | -8.6 | 99    | 0.00     | 8.30 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:10 2018

8.9.19

8



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7484-ICV7484  
**Lab FileID:** F175750.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175750.D Vial: 15  
Acq On : 19 Apr 2018 5:26 am Operator: chriss2  
Sample : icv7484-50 Inst : GCMSF  
Misc : op9377,ef7484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 80    | -0.01    | 13.46 |
| 88 t 3,3'-Dichlorobenzidine | 0.391 | 0.427 | -9.2 | 78    | 0.00     | 13.51 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:12 2018

8.9.20

8

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7485-ICC7485  
**Lab FileID:** F175754.D

## Response Factor Report GCMSEF

Method : C:\MSDCHEM\1\METHODS\MF7485.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Initial Calibration

### Calibration Files

2 =F175758.D 5 =F175757.D 25 =F175755.D 80 =F175753.D  
100 =F175752.D 50 =F175754.D 10 =F175756.D 1 =F175759.D

| Compound   | 2     | 5     | 25    | 80    | 100   | 50    | 10    | 1     | Avg   | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 101) I 1,4-Dichlorobenzene-d                           |       |       |       |       |       |       |       |       |       |       |
| 102) Benzaldehyde                                      | 0.888 | 1.152 | 1.176 | 1.157 | 1.051 | 1.102 | 1.126 | 0.736 | 1.049 | 14.91 |
| 103) I Phenanthrene-d10a                               |       |       |       |       |       |       |       |       |       |       |
| 104) Atrazine  | 0.153 | 0.198 | 0.213 | 0.213 | 0.208 | 0.208 | 0.192 | 0.131 | 0.189 | 16.25 |
| 105) I Chrysene-d12a                                   |       |       |       |       |       |       |       |       |       |       |
| 106) Benzidine   | 0.272 | 0.548 | 0.639 | 0.580 |       | 0.613 | 0.576 |       | 0.538 | 24.95 |
| ----- Quadratic regression -----                       |       |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.02139 + 0.70052 *A + -0.05519 *A^2 |       |       |       |       |       |       |       |       |       |       |
| 107) I Naphthalene-d8a                                 |       |       |       |       |       |       |       |       |       |       |
| 108) Hydroquinone                                      | 0.273 | 0.329 | 0.383 | 0.380 | 0.359 | 0.268 |       |       | 0.332 | 15.54 |
| 109) I Acenaphthene-d10a                               |       |       |       |       |       |       |       |       |       |       |
| 110) 1,2,4,5-Tetr                                      | 0.730 | 0.716 | 0.633 | 0.579 | 0.555 | 0.591 | 0.647 | 0.695 | 0.643 | 10.22 |

(#) = Out of Range ###

Number of calibration levels exceeded format ###

MF7484.M

Fri Apr 20 16:32:24 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7485-ICV7485  
**Lab FileID:** F175760.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175760.D Vial: 24  
Acq On : 19 Apr 2018 9:48 am Operator: chriss2  
Sample : icv7485-50 Inst : GCMSF  
Misc : op9377,ef7485,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 107 I Naphthalene-d8a | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 5.31 |
| 108 Hydroquinone      | 0.332 | 0.363 | -9.3 | 100   | 0.00     | 5.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:14 2018

8.9.22  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7485-ICV7485  
**Lab FileID:** F175762.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175762.D Vial: 13  
Acq On : 19 Apr 2018 10:44 am Operator: chriss2  
Sample : icv7485-50 Inst : GCMSF  
Misc : op9377,ef7485,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-------------------------------|-------|-------|------|-------|----------|------|
| 109 I Acenaphthene-d10a       | 1.000 | 1.000 | 0.0  | 101   | 0.00     | 6.64 |
| 110 1,2,4,5-Tetrachlorobenzen | 0.643 | 0.612 | 4.8  | 104   | 0.00     | 5.94 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:16 2018

8.9.23  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7485-ICV7485  
**Lab FileID:** F175763.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175763.D Vial: 14  
Acq On : 19 Apr 2018 11:13 am Operator: chriss2  
Sample : icv7485-50 Inst : GCMSF  
Misc : op9377,ef7485,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-------|-------------------------|-------|-------|-------|-------|----------|------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0   | 100   | 0.00     | 4.39 |
| 102   | Benzaldehyde            | 1.049 | 1.015 | 3.2   | 92    | 0.00     | 4.07 |
| 103 I | Phenanthrene-d10a       | 1.000 | 1.000 | 0.0   | 87    | 0.00     | 8.37 |
| 104   | Atrazine                | 0.189 | 0.215 | -13.8 | 90    | 0.00     | 8.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:18 2018

8.9.24

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7485-ICV7485  
**Lab FileID:** F175764.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7484\F175764.D Vial: 15  
Acq On : 19 Apr 2018 11:41 am Operator: chriss2  
Sample : icv7485-50 Inst : GCMSF  
Misc : op9377,ef7485,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound            | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|---------------------|------------|--------|---------|-------|----------|-------|
| 105 I Chrysene-d12a | 1.000      | 1.000  | 0.0     | 82    | 0.00     | 13.46 |
|                     | ----- True | Calc.  | % Drift | ----- |          |       |
| 106 Benzidine       | 50.000     | 60.746 | -21.5   | 98    | 0.00     | 10.79 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175754A.D MF7484.M Fri Apr 20 16:22:20 2018

8.9.25  
8

# Initial Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EF7486-ICC7486  
Lab FileID: F175768.D

## Response Factor Report GCMSEF

Method : C:\MSDCHEM\1\METHODS\MF7486.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 27 09:35:24 2018  
Response via : Initial Calibration

### Calibration Files

2 =F175772.D 5 =F175771.D 25 =F175769.D 80 =F175767.D  
100 =F175766.D 50 =F175768.D 10 =F175770.D 1 =F175773.D

| Compound                     | 2  | 5     | 25    | 80    | 100   | 50    | 10    | 1     | Avg                  | %RSD  |
|------------------------------|--|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|
| 101) I 1,4-Dichlorobenzene-d | -----ISTD-----   |       |       |       |       |       |       |       |                      |       |
| 102) 2-Picoline              | 1.016  | 1.208 | 1.510 | 1.582 | 1.598 | 1.570 | 1.389 | 1.410 | 15.78                |       |
| 103) Pentachloroe            | 0.515  | 0.529 | 0.538 | 0.524 | 0.515 | 0.539 | 0.535 | 0.521 | 0.527                | 1.84  |
| 104) Methyl metha            | 0.660  | 0.677 | 0.802 | 0.820 | 0.827 | 0.819 | 0.807 | 0.417 | 0.729                | 19.56 |
| 105) N-Nitrosodie            | 0.521  | 0.619 | 0.685 | 0.710 | 0.703 | 0.687 | 0.662 | 0.371 | 0.620                | 19.01 |
| 106) N-Nitrosomet            |  | 0.588 | 0.564 | 0.577 | 0.567 | 0.574 | 0.599 |       | 0.578                | 2.30  |
| 107) Ethyl methan            | 0.871  | 0.996 | 1.074 | 1.097 | 1.073 | 1.126 | 1.070 | 0.664 | 0.996                | 15.68 |
| 108) N-Nitrosopyr            | 0.356  | 0.425 | 0.465 | 0.498 | 0.385 | 0.490 | 0.486 |       | 0.444                | 12.62 |
| 109) N-Nitrosomor            | 0.888  | 0.893 | 0.841 | 0.670 | 0.591 | 0.763 | 0.925 | 0.800 | 0.797                | 14.67 |
| 110) o-Toluidine             | 2.453  | 2.573 | 2.225 | 1.765 | 1.579 | 2.009 | 2.425 | 2.384 | 2.177                | 16.43 |
| 111) I Naphthalene-d8A       | -----ISTD-----   |       |       |       |       |       |       |       |                      |       |
| 112) O,O,O-Trieth            | 0.165  | 0.160 | 0.167 | 0.155 | 0.148 | 0.160 | 0.168 | 0.166 | 0.161                | 4.23  |
| 113) N-Nitrosopip            | 0.235  | 0.230 | 0.212 | 0.196 | 0.188 | 0.205 | 0.218 | 0.228 | 0.214                | 7.80  |
| 114) A,A-Dimethyl            | 0.671  | 0.820 | 0.927 | 0.953 | 0.790 | 0.947 | 0.939 | 0.522 | 0.821                | 19.06 |
| 115) Hexachloropr            | 0.194  | 0.204 | 0.216 | 0.203 | 0.194 | 0.208 | 0.207 | 0.192 | 0.202                | 4.19  |
| 116) N-Nitrosodi-            | 0.219  | 0.237 | 0.263 | 0.253 | 0.243 | 0.255 | 0.255 | 0.249 | 0.247                | 5.61  |
| 117) p-Phenylened            |  | 0.064 | 0.175 | 0.149 | 0.132 | 0.158 | 0.127 |       | 0.134                | 28.71 |
|                              | ----- Quadratic regression -----                       |       |       |       |       |       |       |       | Coefficient = 0.9990 |       |
|                              | Response Ratio = -0.01862 + 0.21571 *A + -0.03007 *A^2 |       |       |       |       |       |       |       |                      |       |
| 118) Safrole                 | 0.214  | 0.231 | 0.249 | 0.242 | 0.236 | 0.251 | 0.251 | 0.195 | 0.234                | 8.51  |
| 119) Isosafrole              | 0.150  | 0.165 | 0.181 | 0.184 | 0.184 | 0.186 | 0.171 | 0.132 | 0.169                | 11.55 |
| 120) Acenaphthene-d10A       | -----ISTD-----   |       |       |       |       |       |       |       |                      |       |
| 121) Thionazin               | 0.170  | 0.189 | 0.177 | 0.179 | 0.175 | 0.181 | 0.200 | 0.137 | 0.176                | 10.40 |
| 122) Tetraethyl d            | 0.197  | 0.230 | 0.245 | 0.229 | 0.223 | 0.235 | 0.241 | 0.181 | 0.223                | 9.98  |
| 123) Phorate                 | 1.001  | 1.166 | 1.311 | 1.245 | 1.181 | 1.293 | 1.267 | 0.864 | 1.166                | 13.45 |
| 124) Phenacetin              |  | 0.487 | 0.682 | 0.724 | 0.716 | 0.724 | 0.592 |       | 0.654                | 14.72 |
| 125) 1,4-Naphthoq            |  | 0.313 | 0.432 | 0.417 | 0.399 | 0.444 | 0.382 |       | 0.398                | 11.86 |
| 126) m-Dinitroben            |  | 0.151 | 0.206 | 0.229 | 0.231 | 0.223 | 0.187 |       | 0.205                | 15.13 |
| 127) Pentachlorob            | 0.556  | 0.534 | 0.529 | 0.482 | 0.467 | 0.499 | 0.547 | 0.539 | 0.519                | 6.22  |
| 128) 2-Naphthylam            | 0.933  | 0.988 | 1.107 | 1.057 | 1.043 | 1.085 | 1.094 | 0.746 | 1.007                | 11.97 |
| 129) 1-Naphthylam            | 1.112  | 1.093 | 1.254 | 1.149 | 1.113 | 1.210 | 1.191 | 0.981 | 1.138                | 7.39  |
| 130) 5-Nitro-o-to            | 0.217  | 0.305 | 0.390 | 0.384 | 0.388 | 0.378 | 0.350 |       | 0.345                | 18.54 |
| 131) I Phenanthrene-d10A     | -----ISTD-----   |       |       |       |       |       |       |       |                      |       |
| 132) Disulfoton              | 0.408  | 0.413 | 0.432 | 0.390 | 0.368 | 0.412 | 0.436 | 0.349 | 0.401                | 7.54  |
| 133) Dinoseb                 | 0.059  | 0.090 | 0.168 | 0.187 | 0.181 | 0.183 | 0.125 |       | 0.142                | 36.30 |
|                              | ----- Quadratic regression -----                       |       |       |       |       |       |       |       | Coefficient = 0.9993 |       |
|                              | Response Ratio = -0.01356 + 0.19970 *A + -0.00465 *A^2 |       |       |       |       |       |       |       |                      |       |
| 134) Dimethoate              | 0.219  | 0.294 | 0.343 | 0.315 | 0.311 | 0.335 | 0.314 |       | 0.304                | 13.47 |
| 135) 4-Aminobiphe            | 0.568  | 0.687 | 0.709 | 0.711 | 0.669 | 0.749 | 0.688 | 0.465 | 0.656                | 14.21 |
| 136) Methyl parat            |  | 0.143 | 0.202 | 0.195 | 0.189 | 0.201 | 0.176 |       | 0.184                | 12.17 |
| 137) Parathion               |  | 0.135 | 0.169 | 0.162 | 0.151 | 0.168 | 0.157 |       | 0.157                | 8.24  |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICC7486  
**Lab FileID:** F175768.D

|      |                                  |       |       |       |       |       |       |       |       |                  |                                       |
|------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|---------------------------------------|
| 138) | Diphenylamin                     | 0.541 | 0.602 | 0.590 | 0.522 | 0.496 | 0.562 | 0.606 | 0.503 | 0.553            | 7.94                                  |
| 139) | Isodrin                          | 0.123 | 0.133 | 0.129 | 0.127 | 0.123 | 0.128 | 0.130 | 0.103 | 0.124            | 7.31                                  |
| 140) | Diallate                         |       | 0.063 | 0.063 | 0.061 | 0.059 | 0.060 | 0.061 |       | 0.061            | 2.49                                  |
| 141) | Pentachloron                     | 0.035 | 0.039 | 0.042 | 0.037 | 0.036 | 0.040 | 0.042 | 0.030 | 0.038#           | 11.06                                 |
| 142) | Pronamide                        | 0.155 | 0.192 | 0.230 | 0.235 | 0.234 | 0.239 | 0.212 |       | 0.214            | 14.43                                 |
| 143) | 4-Nitroquino                     |       | 0.034 | 0.092 | 0.099 | 0.097 | 0.102 | 0.056 |       | 0.080            | 35.35                                 |
|      | ----- Quadratic regression ----- |       |       |       |       |       |       |       |       | Coefficient =    | 0.9997                                |
|      |                                  |       |       |       |       |       |       |       |       | Response Ratio = | -0.05191 + 0.11889 *A + -0.00162 *A^2 |
| 144) | Methapyrilin                     | 0.344 | 0.413 | 0.479 | 0.296 |       | 0.368 | 0.468 |       | 0.395            | 18.19                                 |
| 145) | sym-Trinitro                     |       | 0.031 | 0.066 | 0.081 | 0.080 | 0.077 | 0.044 |       | 0.063            | 33.15                                 |
|      | ----- Quadratic regression ----- |       |       |       |       |       |       |       |       | Coefficient =    | 0.9993                                |
|      |                                  |       |       |       |       |       |       |       |       | Response Ratio = | -0.00893 + 0.08396 *A + 0.00012 *A^2  |
| 146) | I Chrysene-d12A                  |       |       |       |       |       |       |       |       |                  |                                       |
| 147) | Aramite                          | 0.013 | 0.024 | 0.041 | 0.047 | 0.049 | 0.045 | 0.032 |       | 0.036#           | 38.31                                 |
|      | ----- Quadratic regression ----- |       |       |       |       |       |       |       |       | Coefficient =    | 0.9998                                |
|      |                                  |       |       |       |       |       |       |       |       | Response Ratio = | -0.00222 + 0.04286 *A + 0.00287 *A^2  |
| 148) | p-(Dimethyla                     |       | 0.245 | 0.360 | 0.382 | 0.391 | 0.380 | 0.305 |       | 0.344            | 16.79                                 |
| 149) | Kepone                           | 0.085 | 0.089 | 0.087 | 0.062 | 0.053 | 0.070 | 0.093 | 0.073 | 0.077            | 18.54                                 |
| 150) | Famphur                          | 0.427 | 0.471 | 0.394 | 0.197 | 0.175 | 0.271 | 0.464 | 0.358 | 0.345            | 33.91                                 |
| 151) | 2-Acetylamin                     | 0.095 | 0.177 | 0.422 | 0.504 | 0.522 | 0.485 | 0.297 |       | 0.357            | 47.68                                 |
|      | ----- Quadratic regression ----- |       |       |       |       |       |       |       |       | Coefficient =    | 0.9997                                |
|      |                                  |       |       |       |       |       |       |       |       | Response Ratio = | -0.03335 + 0.46983 *A + 0.02633 *A^2  |
| 152) | Chlorobenzil                     | 0.231 | 0.299 | 0.358 | 0.354 | 0.360 | 0.366 | 0.342 |       | 0.330            | 14.86                                 |
| 153) | I Perylene-d12A                  |       |       |       |       |       |       |       |       |                  |                                       |
| 155) | 3-Methylchol                     |       | 0.134 | 0.198 | 0.216 | 0.218 | 0.210 | 0.167 |       | 0.191            | 17.45                                 |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

MF7484ap9.M

Fri Apr 27 09:36:09 2018



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICV7486  
**Lab FileID:** F175774.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7486\F175774.D Vial: 10  
 Acq On : 20 Apr 2018 12:32 am Operator: sufiyana  
 Sample : icv7486-50 Inst : GCMSF  
 Misc : op9377,ef7486,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484ap9.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Mon Apr 30 12:19:31 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound | AvgRF                          | CCRF   | %Dev   | Area% | Dev(min) | R.T.  |       |
|----------|--------------------------------|--------|--------|-------|----------|-------|-------|
| 101 I    | 1,4-Dichlorobenzene-d4A        | 1.000  | 1.000  | 0.0   | 104      | 0.00  | 4.39  |
| 102 M    | 2-Picoline                     | 1.410  | 1.686  | -19.6 | 112      | -0.08 | 2.90  |
| 103      | Pentachloroethane              | 0.527  | 0.439  | 16.7  | 85       | 0.00  | 4.19  |
| 105 M    | N-Nitrosodiethylamine          | 0.620  | 0.698  | -12.6 | 106      | -0.02 | 3.58  |
| 106 M    | N-Nitrosomethylethylamine      | 0.578  | 0.641  | -10.9 | 116      | -0.03 | 3.01  |
| 107 M    | Ethyl methanesulfonate         | 1.044  | 1.130  | -8.2  | 104      | -0.02 | 3.83  |
| 108 M    | N-Nitrosopyrrolidine           | 0.420  | 0.509  | -21.2 | 108      | -0.01 | 4.67  |
| 109 M    | N-Nitrosomorpholine            | 0.797  | 0.814  | -2.1  | 111      | 0.00  | 4.70  |
| 111 I    | Naphthalene-d8A                | 1.000  | 1.000  | 0.0   | 104      | 0.00  | 5.31  |
| 112 M    | O,O,O-Triethyl phosphorot      | 0.161  | 0.160  | 0.6   | 104      | 0.00  | 5.12  |
| 113 M    | N-Nitrosopiperidine            | 0.214  | 0.214  | 0.0   | 108      | 0.00  | 4.92  |
| 114 M    | A,A-Dimethylphenethylamin      | 0.854  | 0.945  | -10.7 | 103      | -0.10 | 5.19  |
| 115 M    | Hexachloropropene              | 0.202  | 0.192  | 5.0   | 95       | 0.00  | 5.39  |
|          | ----- True Calc. % Drift ----- |        |        |       |          |       |       |
| 117      | p-Phenylenediamine             | 50.000 | 55.057 | -10.1 | 115      | -0.04 | 5.62  |
|          | ----- AvgRF CCRF % Dev -----   |        |        |       |          |       |       |
| 118 M    | Safrole                        | 0.234  | 0.272  | -16.2 | 112      | 0.00  | 5.76  |
| 120      | Acenaphthene-d10A              | 1.000  | 1.000  | 0.0   | 97       | 0.00  | 6.64  |
| 121 M    | Thionazin                      | 0.176  | 0.191  | -8.5  | 103      | 0.00  | 7.16  |
| 122 M    | Tetraethyl dithiopyrophos      | 0.223  | 0.246  | -10.3 | 102      | 0.00  | 7.52  |
| 123 M    | Phorate                        | 0.993  | 0.998  | -0.5  | 98       | 0.00  | 7.68  |
| 124 M    | Phenacetin                     | 0.654  | 0.697  | -6.6  | 93       | 0.00  | 7.72  |
| 125 M    | 1,4-Naphthoquinone             | 0.398  | 0.326  | 18.1  | 71       | -0.01 | 6.32  |
| 127 M    | Pentachlorobenzene             | 0.519  | 0.521  | -0.4  | 101      | 0.00  | 6.80  |
| 130 M    | 5-Nitro-o-toluidine            | 0.345  | 0.320  | 7.2   | 82       | -0.02 | 7.20  |
| 131 I    | Phenanthrene-d10A              | 1.000  | 1.000  | 0.0   | 99       | 0.00  | 8.38  |
| 132 M    | Disulfoton                     | 0.401  | 0.444  | -10.7 | 106      | 0.00  | 8.42  |
| 134 M    | Dimethoate                     | 0.304  | 0.278  | 8.6   | 82       | 0.00  | 7.90  |
| 136 M    | Methyl parathion               | 0.184  | 0.144  | 21.7  | 71       | 0.00  | 9.01  |
| 137 M    | Parathion                      | 0.157  | 0.159  | -1.3  | 93       | 0.00  | 9.72  |
| 139 M    | Isodrin                        | 0.124  | 0.128  | -3.2  | 99       | 0.01  | 10.16 |
| 140 M    | Diallate                       | 0.064  | 0.056  | 12.5  | 91       | 0.00  | 7.79  |
| 145 M    | sym-Trinitrobenzene            | 50.000 | 35.609 | 28.8  | 67       | 0.00  | 7.66  |

8.9.27

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICV7486  
**Lab FileID:** F175774.D

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|     |   |                           |             |        |         |       |      |       |
|-----|---|---------------------------|-------------|--------|---------|-------|------|-------|
| 146 | I | Chrysene-d12A             | 1.000       | 1.000  | 0.0     | 91    | 0.00 | 13.46 |
| 148 | M | p-(Dimethylamine)azobenze | 0.344       | 0.395  | -14.8   | 95    | 0.00 | 11.62 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 151 | M | 2-Acetylaminofluorene     | 50.000      | 52.773 | -5.5    | 95    | 0.00 | 12.89 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 152 | M | Chlorobenzilate           | 0.330       | 0.363  | -10.0   | 90    | 0.00 | 11.77 |
| 153 | I | Perylene-d12A             | 1.000       | 1.000  | 0.0     | 87    | 0.00 | 16.47 |
| 155 |   | 3-Methylcholanthrene      | 0.191       | 0.215  | -12.6   | 89    | 0.00 | 17.08 |

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(#) = Out of Range                      SPC's out = 0    CCC's out = 0  
F175768A.D MF7484ap9.M            Mon Apr 30 12:38:12 2018

8.9.27  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICV7486  
**Lab FileID:** F175775.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7486\F175775.D Vial: 11  
Acq On : 20 Apr 2018 1:00 am Operator: sufiyana  
Sample : icv7486-50 Inst : GCMSF  
Misc : op9377,ef7486,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484ap9.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Mon Apr 30 12:19:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 101 I 1,4-Dichlorobenzene-d4A  | 1.000 | 1.000 | 0.0   | 93    | 0.00     | 4.39 |
| 110 M o-Toluidine              | 2.177 | 2.429 | -11.6 | 112   | 0.00     | 4.71 |
| 111 I Naphthalene-d8A          | 1.000 | 1.000 | 0.0   | 99    | 0.00     | 5.31 |
| 116 M N-Nitrosodi-n-butylamine | 0.247 | 0.264 | -6.9  | 102   | 0.00     | 5.61 |
| 120 Acenaphthene-d10A          | 1.000 | 1.000 | 0.0   | 106   | 0.00     | 6.64 |
| 128 M 2-Naphthylamine          | 1.133 | 1.334 | -17.7 | 117   | 0.00     | 6.99 |
| 129 M 1-Naphthylamine          | 1.007 | 1.263 | -25.4 | 123   | 0.00     | 6.91 |
| 131 I Phenanthrene-d10A        | 1.000 | 1.000 | 0.0   | 101   | 0.00     | 8.37 |
| 135 M 4-Aminobiphenyl          | 0.656 | 0.826 | -25.9 | 111   | -0.01    | 8.12 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175768A.D MF7484ap9.M Mon Apr 30 18:31:53 2018

8.9.28

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICV7486  
**Lab FileID:** F175776.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7486\F175776.D Vial: 12  
Acq On : 20 Apr 2018 1:50 am Operator: sufiyana  
Sample : icv7486-50 Inst : GCMSF  
Misc : op9377,ef7486,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484ap9.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 19:54:50 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|-------------------------------|-------|-------|-------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4A | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 4.39  |
| 104 M Methyl methanesulfonate | 0.729 | 0.844 | -15.8 | 100   | 0.00     | 3.27  |
| 146 I Chrysene-d12A           | 1.000 | 1.000 | 0.0   | 99    | 0.00     | 13.47 |
| 149 Kepone                    | 0.077 | 0.096 | -24.7 | 132   | 0.00     | 12.29 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175768A.D MF7484ap9.M Thu Apr 26 12:34:02 2018

8.9.29

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7486-ICV7486  
**Lab FileID:** F175777.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7486\F175777.D Vial: 13  
Acq On : 20 Apr 2018 2:17 am Operator: sufiyana  
Sample : icv7486-50 Inst : GCMSF  
Misc : op9377,ef7486,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484ap9.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 19:54:50 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------------------------|-------|-------|-------|-------|----------|------|
| 120 Acenaphthene-d10A  | 1.000 | 1.000 | 0.0   | 101   | 0.00     | 6.64 |
| 126 M m-Dinitrobenzene | 0.205 | 0.240 | -17.1 | 109   | 0.00     | 6.43 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
F175768A.D MF7484ap9.M Thu Apr 26 12:34:04 2018

8.9.30

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7487-ICV7484  
**Lab FileID:** F175780.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7487\F175780.D Vial: 2  
Acq On : 20 Apr 2018 11:46 pm Operator: chriss2  
Sample : icv7484-50 Inst : GCMSF  
Misc : op9377,ef7487,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Fri Apr 20 15:07:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 115   | -0.03    | 4.37 |
| 3 t  | Pyridine               | 1.542 | 1.717 | -11.3 | 124   | 0.06     | 2.27 |
| 10 t | Aniline                | 1.830 | 2.360 | -29.0 | 154   | -0.03    | 4.13 |
| 16 t | Benzyl alcohol         | 0.819 | 0.964 | -17.7 | 129   | -0.03    | 4.48 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 114   | -0.03    | 5.28 |
| 39 t | 4-Chloroaniline        | 0.438 | 0.428 | 2.3   | 114   | -0.03    | 5.34 |
| 44 t | 2-Methylnaphthalene    | 0.590 | 0.539 | 8.6   | 112   | -0.03    | 5.79 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 107   | -0.04    | 6.60 |
| 54 t | 2-Nitroaniline         | 0.377 | 0.364 | 3.4   | 99    | -0.04    | 6.23 |
| 58 t | 3-Nitroaniline         | 0.316 | 0.333 | -5.4  | 102   | -0.04    | 6.57 |
| 62 t | Dibenzofuran           | 1.737 | 1.624 | 6.5   | 111   | -0.04    | 6.79 |
| 68 t | 4-Nitroaniline         | 0.316 | 0.286 | 9.5   | 89    | -0.05    | 7.18 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 101   | -0.06    | 8.32 |
| 79 t | Carbazole              | 1.033 | 1.023 | 1.0   | 99    | -0.06    | 8.70 |

(#) = Out of Range  
F175754A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
Sat Apr 21 02:19:52 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7502-CC7484  
**Lab FileID:** F176108.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7502\F176108.D Vial: 2  
 Acq On : 2 May 2018 10:59 pm Operator: chriss2  
 Sample : cc7484-25 Inst : GCMSF  
 Misc : op9377,ef7502,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Wed May 02 21:46:32 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 69    | -0.02    | 4.28 |
| 2 t  | 1,4-Dioxane                    | 0.660  | 0.592  | 10.3  | 64    | -0.12    | 1.70 |
| 3 t  | Pyridine                       | 1.542  | 1.432  | 7.1   | 57    | -0.11    | 2.04 |
| 4 t  | N-Nitrosodimethylamine         | 0.534  | 0.578  | -8.2  | 76    | -0.12    | 2.00 |
| 5 S  | 2-Fluorophenol                 | 1.165  | 1.236  | -6.1  | 67    | -0.04    | 3.30 |
| 6 t  | Indene                         | 2.442  | 2.306  | 5.6   | 65    | -0.01    | 4.46 |
| 7 t  | Cumene                         | 3.580  | 3.514  | 1.8   | 69    | -0.04    | 3.67 |
| 8 S  | Phenol-d5                      | 1.669  | 1.680  | -0.7  | 65    | -0.02    | 4.04 |
| 9 t  | Phenol                         | 1.958  | 2.006  | -2.5  | 70    | -0.02    | 4.05 |
| 10 t | Aniline                        | 1.830  | 2.037  | -11.3 | 72    | -0.02    | 4.04 |
| 11 t | bis(2-Chloroethyl)ether        | 1.446  | 1.266  | 12.4  | 62    | -0.02    | 4.09 |
| 12 t | 2-Chlorophenol                 | 1.461  | 1.429  | 2.2   | 66    | -0.02    | 4.13 |
| 13 t | Decane                         | 1.334  | 1.435  | -7.6  | 75    | -0.02    | 4.17 |
| 14 t | 1,3-Dichlorobenzene            | 1.584  | 1.553  | 2.0   | 68    | -0.02    | 4.23 |
| 15 t | 1,4-Dichlorobenzene            | 1.691  | 1.617  | 4.4   | 67    | -0.02    | 4.29 |
| 16 t | Benzyl alcohol                 | 0.819  | 0.897  | -9.5  | 68    | -0.01    | 4.39 |
| 17 t | 1,2-Dichlorobenzene            | 1.559  | 1.556  | 0.2   | 69    | -0.01    | 4.40 |
| 18 t | Acetophenone                   | 2.014  | 2.090  | -3.8  | 71    | 0.00     | 4.58 |
| 19 t | 2-Methylphenol                 | 1.371  | 1.337  | 2.5   | 66    | 0.00     | 4.49 |
| 20 t | 2,2'-oxybis(1-Chloropropa      | 0.433  | 0.405  | 6.5   | 64    | 0.00     | 4.48 |
| 21 t | 3&4-Methylphenol               | 1.446  | 1.362  | 5.8   | 61    | 0.00     | 4.60 |
| 22   | n-Nitroso-di-n-propylamin      | 1.117  | 1.141  | -2.1  | 67    | 0.00     | 4.58 |
| 23 t | Hexachloroethane               | 0.542  | 0.595  | -9.8  | 78    | 0.00     | 4.64 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 70    | -0.02    | 5.19 |
| 25 S | Nitrobenzene-d5                | 0.435  | 0.411  | 5.5   | 64    | -0.03    | 4.68 |
| 26 t | Nitrobenzene                   | 0.421  | 0.399  | 5.2   | 66    | -0.04    | 4.69 |
| 27 t | Quinoline                      | 0.722  | 0.703  | 2.6   | 67    | -0.02    | 5.45 |
| 28 t | Isophorone                     | 0.732  | 0.696  | 4.9   | 65    | -0.03    | 4.87 |
| 29 t | 2-Nitrophenol                  | 0.179  | 0.203  | -13.4 | 71    | -0.03    | 4.93 |
| 30 t | 2,4-Dimethylphenol             | 0.324  | 0.372  | -14.8 | 77    | -0.01    | 4.98 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 31 t | Benzoic acid                   | 25.000 | 27.138 | -8.6  | 82    | -0.03    | 5.07 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 32 t | bis(2-Chloroethoxy)methan      | 0.404  | 0.370  | 8.4   | 63    | -0.02    | 5.03 |
| 33 t | 2,4-Dichlorophenol             | 0.283  | 0.299  | -5.7  | 69    | -0.02    | 5.11 |
| 34   | 2,6-Dichlorophenol             | 0.284  | 0.310  | -9.2  | 74    | -0.02    | 5.26 |
| 35   | 1,3,5-Trichlorobenzene         | 0.332  | 0.363  | -9.3  | 76    | -0.03    | 4.93 |
| 36 t | 1,2,4-Trichlorobenzene         | 0.335  | 0.345  | -3.0  | 73    | -0.02    | 5.16 |
| 37   | 1,2,3-Trichlorobenzene         | 0.325  | 0.347  | -6.8  | 76    | -0.02    | 5.32 |

8.9.32

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7502-CC7484  
**Lab FileID:** F176108.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.097       | 0.999  | 8.9     | 65    | -0.02 | 5.21  |
| 39 t | 4-Chloroaniline           | 0.438       | 0.429  | 2.1     | 68    | -0.01 | 5.26  |
| 40 t | 2,3-Dichloroaniline       | 0.363       | 0.375  | -3.3    | 71    | 0.00  | 5.91  |
| 41 t | Caprolactam               | 0.162       | 0.175  | -8.0    | 71    | -0.02 | 5.50  |
| 42 t | Hexachlorobutadiene       | 0.177       | 0.210  | -18.6   | 86    | -0.01 | 5.31  |
| 43 t | 4-Chloro-3-methylphenol   | 0.316       | 0.334  | -5.7    | 70    | 0.00  | 5.62  |
| 44 t | 2-Methylnaphthalene       | 0.590       | 0.595  | -0.8    | 70    | -0.01 | 5.70  |
| 45 t | 1-Methylnaphthalene       | 0.742       | 0.738  | 0.5     | 71    | -0.01 | 5.77  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.671  | -3.2    | 71    | -0.01 | 6.16  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 72    | -0.03 | 6.50  |
| 48 t | Hexachlorocyclopentadiene | 0.282       | 0.388  | -37.6#  | 89    | -0.01 | 5.82  |
| 49 t | 2,4,6-Trichlorophenol     | 0.346       | 0.401  | -15.9   | 78    | -0.02 | 5.91  |
| 50 t | 2,4,5-Trichlorophenol     | 0.409       | 0.454  | -11.0   | 74    | -0.01 | 5.95  |
| 51 S | 2-Fluorobiphenyl          | 1.515       | 1.447  | 4.5     | 69    | -0.02 | 5.96  |
| 52 t | 2-Chloronaphthalene       | 1.241       | 1.211  | 2.4     | 70    | -0.02 | 6.05  |
| 53 t | Biphenyl                  | 1.574       | 1.563  | 0.7     | 71    | -0.01 | 6.04  |
| 54 t | 2-Nitroaniline            | 0.377       | 0.407  | -8.0    | 70    | -0.02 | 6.13  |
| 55 t | Dimethylphthalate         | 1.357       | 1.371  | -1.0    | 73    | -0.02 | 6.27  |
| 56 t | Acenaphthylene            | 1.903       | 1.901  | 0.1     | 69    | -0.02 | 6.38  |
| 57 t | 2,6-Dinitrotoluene        | 0.286       | 0.318  | -11.2   | 71    | -0.02 | 6.32  |
| 58 t | 3-Nitroaniline            | 0.316       | 0.332  | -5.1    | 66    | -0.02 | 6.47  |
| 59 t | Acenaphthene              | 1.296       | 1.234  | 4.8     | 70    | -0.03 | 6.52  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 58.168 | -16.3   | 87    | -0.03 | 6.56  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.163       | 0.204  | -25.2#  | 85    | -0.01 | 6.65  |
| 62 t | Dibenzofuran              | 1.737       | 1.707  | 1.7     | 70    | -0.03 | 6.68  |
| 63 t | 2,4-Dinitrotoluene        | 0.378       | 0.435  | -15.1   | 70    | -0.02 | 6.68  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.384  | -28.0#  | 83    | -0.03 | 6.81  |
| 65 t | Diethylphthalate          | 1.350       | 1.430  | -5.9    | 75    | -0.04 | 6.91  |
| 66 t | Fluorene                  | 1.351       | 1.402  | -3.8    | 73    | -0.04 | 7.02  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.692  | -11.3   | 80    | -0.04 | 7.02  |
| 68 t | 4-Nitroaniline            | 0.316       | 0.312  | 1.3     | 64    | -0.04 | 7.06  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 73    | -0.04 | 8.17  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 26.377 | -5.5    | 77    | -0.02 | 7.09  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.527       | 0.557  | -5.7    | 75    | -0.02 | 7.16  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851       | 0.779  | 8.5     | 66    | -0.02 | 7.20  |
| 73 S | 2,4,6-Tribromophenol      | 0.107       | 0.138  | -29.0#  | 87    | -0.02 | 7.29  |
| 74 t | 4-Bromophenyl-phenylether | 0.205       | 0.239  | -16.6   | 83    | -0.03 | 7.59  |
| 75 t | Hexachlorobenzene         | 0.255       | 0.269  | -5.5    | 80    | -0.03 | 7.66  |
| 76 t | Pentachlorophenol         | 0.121       | 0.160  | -32.2#  | 90    | -0.03 | 7.94  |
| 77 t | Phenanthrene              | 1.153       | 1.107  | 4.0     | 72    | -0.04 | 8.20  |
| 78 t | Anthracene                | 1.127       | 1.159  | -2.8    | 75    | -0.04 | 8.28  |
| 79 t | Carbazole                 | 1.033       | 1.008  | 2.4     | 69    | -0.03 | 8.54  |
| 80 t | Di-n-butylphthalate       | 1.208       | 1.322  | -9.4    | 74    | -0.03 | 9.21  |
| 81 t | Fluoranthene              | 1.143       | 1.231  | -7.7    | 77    | -0.04 | 10.20 |
| 82 t | Octadecane                | 0.511       | 0.525  | -2.7    | 71    | -0.03 | 8.11  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 82    | -0.09 | 13.20 |
| 84 t | Pyrene                    | 1.327       | 1.222  | 7.9     | 75    | -0.11 | 10.62 |
| 85 S | Terphenyl-d14             | 0.908       | 0.886  | 2.4     | 79    | -0.10 | 11.06 |
| 86 t | Butylbenzylphthalate      | 0.555       | 0.571  | -2.9    | 79    | -0.08 | 12.21 |

8.9.32

8



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7502-CC7484  
**Lab FileID:** F176108.D

|       |                           |        |         |        |    |       |       |
|-------|---------------------------|--------|---------|--------|----|-------|-------|
| 87 t  | Benzo[a]anthracene        | 1.125  | 1.177   | -4.6   | 86 | -0.10 | 13.18 |
| 88 t  | 3,3'-Dichlorobenzidine    | 0.391  | 0.450   | -15.1  | 86 | -0.08 | 13.25 |
| 89 t  | Chrysene                  | 1.253  | 1.187   | 5.3    | 79 | -0.10 | 13.25 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.740  | 0.778   | -5.1   | 79 | -0.06 | 13.62 |
| 91 I  | Perylene-d12              | 1.000  | 1.000   | 0.0    | 76 | -0.11 | 16.21 |
|       | ----- True                | Calc.  | % Drift | -----  |    |       |       |
| 92 t  | Di-n-octylphthalate       | 25.000 | 26.740  | -7.0   | 83 | -0.10 | 15.05 |
|       | ----- AvgRF               | CCRF   | % Dev   | -----  |    |       |       |
| 93 t  | Benzo[b]fluoranthene      | 1.041  | 1.230   | -18.2  | 83 | -0.12 | 15.46 |
| 94 t  | Benzo[k]fluoranthene      | 1.147  | 1.197   | -4.4   | 75 | -0.13 | 15.52 |
| 95 t  | Benzo[a]pyrene            | 0.915  | 1.106   | -20.9# | 84 | -0.12 | 16.08 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 0.853  | 1.016   | -19.1  | 81 | -0.10 | 18.13 |
| 97 t  | Dibenz(a,h)acridine       | 0.858  | 0.963   | -12.2  | 79 | -0.09 | 17.78 |
| 98 t  | Dibenz[a,h]anthracene     | 0.996  | 1.090   | -9.4   | 76 | -0.09 | 18.20 |
|       | ----- True                | Calc.  | % Drift | -----  |    |       |       |
| 99 t  | 7,12-Dimethylbenz(a)anthr | 25.000 | 29.060  | -16.2  | 89 | -0.12 | 15.48 |
|       | ----- AvgRF               | CCRF   | % Dev   | -----  |    |       |       |
| 100 t | Benzo[g,h,i]perylene      | 0.983  | 1.027   | -4.5   | 75 | -0.09 | 18.55 |

(#) = Out of Range  
 F175755A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 09:27:28 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7502-CC7485  
**Lab FileID:** F176109.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7502\F176109.D Vial: 3  
 Acq On : 2 May 2018 11:33 pm Operator: chriss2  
 Sample : cc7485-25 Inst : GCMSF  
 Misc : op9377,ef7502,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Wed May 02 21:46:32 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       |                           | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T.  |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|-------|
| 101 I                          | 1,4-Dichlorobenzene-d4a   | 1.000  | 1.000  | 0.0    | 97    | -0.02    | 4.27  |
| 102                            | Benzaldehyde              | 1.049  | 1.072  | -2.2   | 89    | -0.03    | 3.94  |
| 103 I                          | Phenanthrene-d10a         | 1.000  | 1.000  | 0.0    | 103   | -0.04    | 8.17  |
| 104                            | Atrazine                  | 0.189  | 0.234  | -23.8# | 113   | -0.03    | 7.83  |
| 105 I                          | Chrysene-d12a             | 1.000  | 1.000  | 0.0    | 117   | -0.05    | 13.20 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |       |
| 106                            | Benzidine                 | 25.000 | 22.901 | 8.4    | 106   | -0.08    | 10.55 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |       |
| 107 I                          | Naphthalene-d8a           | 1.000  | 1.000  | 0.0    | 98    | -0.02    | 5.19  |
| 108                            | Hydroquinone              | 0.332  | 0.316  | 4.8    | 94    | -0.01    | 5.52  |
| 109 I                          | Acenaphthene-d10a         | 1.000  | 1.000  | 0.0    | 99    | -0.03    | 6.50  |
| 110                            | 1,2,4,5-Tetrachlorobenzen | 0.643  | 0.671  | -4.4   | 104   | -0.02    | 5.83  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175755A.D MF7484.M Thu May 03 09:27:30 2018

8.9.33

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7510-CC7484  
**Lab FileID:** F176281.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7510\F176281.D Vial: 2  
 Acq On : 7 May 2018 12:38 pm Operator: christc2  
 Sample : cc7484-25 Inst : GCMSF  
 Misc : op9377,ef7510,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 10:01:22 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 83    | -0.09    | 4.22 |
| 2 t                            | 1,4-Dioxane               | 0.660  | 0.621  | 5.9    | 81    | -0.21    | 1.62 |
| 3 t                            | Pyridine                  | 1.542  | 1.544  | -0.1   | 75    | -0.21    | 1.95 |
| 4 t                            | N-Nitrosodimethylamine    | 0.534  | 0.692  | -29.6# | 109   | -0.22    | 1.90 |
| 5 S                            | 2-Fluorophenol            | 1.165  | 1.259  | -8.1   | 82    | -0.12    | 3.23 |
| 6 t                            | Indene                    | 2.442  | 2.254  | 7.7    | 77    | -0.09    | 4.40 |
| 7 t                            | Cumene                    | 3.580  | 3.596  | -0.4   | 85    | -0.11    | 3.61 |
| 8 S                            | Phenol-d5                 | 1.669  | 1.703  | -2.0   | 80    | -0.08    | 3.99 |
| 9 t                            | Phenol                    | 1.958  | 2.036  | -4.0   | 86    | -0.09    | 3.99 |
| 10 t                           | Aniline                   | 1.830  | 2.038  | -11.4  | 87    | -0.09    | 3.98 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.446  | 1.282  | 11.3   | 76    | -0.09    | 4.03 |
| 12 t                           | 2-Chlorophenol            | 1.461  | 1.354  | 7.3    | 75    | -0.09    | 4.07 |
| 13 t                           | Decane                    | 1.334  | 1.646  | -23.4# | 103   | -0.09    | 4.12 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.584  | 1.536  | 3.0    | 81    | -0.09    | 4.17 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.691  | 1.598  | 5.5    | 80    | -0.09    | 4.23 |
| 16 t                           | Benzyl alcohol            | 0.819  | 0.862  | -5.3   | 79    | -0.08    | 4.33 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.559  | 1.506  | 3.4    | 81    | -0.09    | 4.34 |
| 18 t                           | Acetophenone              | 2.014  | 2.034  | -1.0   | 84    | -0.08    | 4.52 |
| 19 t                           | 2-Methylphenol            | 1.371  | 1.305  | 4.8    | 77    | -0.08    | 4.43 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.433  | 0.399  | 7.9    | 76    | -0.08    | 4.43 |
| 21 t                           | 3&4-Methylphenol          | 1.446  | 1.358  | 6.1    | 73    | -0.07    | 4.54 |
| 22                             | n-Nitroso-di-n-propylamin | 1.117  | 1.142  | -2.2   | 81    | -0.08    | 4.53 |
| 23 t                           | Hexachloroethane          | 0.542  | 0.593  | -9.4   | 93    | -0.08    | 4.59 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 81    | -0.09    | 5.14 |
| 25 S                           | Nitrobenzene-d5           | 0.435  | 0.424  | 2.5    | 77    | -0.10    | 4.63 |
| 26 t                           | Nitrobenzene              | 0.421  | 0.427  | -1.4   | 82    | -0.10    | 4.64 |
| 27 t                           | Quinoline                 | 0.722  | 0.682  | 5.5    | 76    | -0.09    | 5.40 |
| 28 t                           | Isophorone                | 0.732  | 0.730  | 0.3    | 80    | -0.10    | 4.82 |
| 29 t                           | 2-Nitrophenol             | 0.179  | 0.201  | -12.3  | 82    | -0.10    | 4.87 |
| 30 t                           | 2,4-Dimethylphenol        | 0.324  | 0.373  | -15.1  | 90    | -0.08    | 4.92 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 25.000 | 28.452 | -13.8  | 101   | -0.10    | 5.02 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.404  | 0.376  | 6.9    | 74    | -0.09    | 4.98 |
| 33 t                           | 2,4-Dichlorophenol        | 0.283  | 0.299  | -5.7   | 80    | -0.09    | 5.06 |
| 34                             | 2,6-Dichlorophenol        | 0.284  | 0.300  | -5.6   | 83    | -0.09    | 5.21 |
| 35                             | 1,3,5-Trichlorobenzene    | 0.332  | 0.372  | -12.0  | 91    | -0.09    | 4.88 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.335  | 0.351  | -4.8   | 86    | -0.09    | 5.10 |
| 37                             | 1,2,3-Trichlorobenzene    | 0.325  | 0.343  | -5.5   | 87    | -0.09    | 5.26 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7510-CC7484  
**Lab FileID:** F176281.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.097       | 1.000  | 8.8     | 76    | -0.09 | 5.16  |
| 39 t | 4-Chloroaniline           | 0.438       | 0.430  | 1.8     | 79    | -0.08 | 5.21  |
| 40 t | 2,3-Dichloroaniline       | 0.363       | 0.377  | -3.9    | 82    | -0.08 | 5.85  |
| 41 t | Caprolactam               | 0.162       | 0.180  | -11.1   | 84    | -0.09 | 5.45  |
| 42 t | Hexachlorobutadiene       | 0.177       | 0.206  | -16.4   | 98    | -0.09 | 5.25  |
| 43 t | 4-Chloro-3-methylphenol   | 0.316       | 0.323  | -2.2    | 78    | -0.08 | 5.56  |
| 44 t | 2-Methylnaphthalene       | 0.590       | 0.571  | 3.2     | 78    | -0.08 | 5.65  |
| 45 t | 1-Methylnaphthalene       | 0.742       | 0.725  | 2.3     | 80    | -0.08 | 5.72  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.661  | -1.7    | 81    | -0.09 | 6.10  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 82    | -0.11 | 6.43  |
| 48 t | Hexachlorocyclopentadiene | 0.282       | 0.386  | -36.9#  | 102   | -0.08 | 5.77  |
| 49 t | 2,4,6-Trichlorophenol     | 0.346       | 0.400  | -15.6   | 89    | -0.08 | 5.86  |
| 50 t | 2,4,5-Trichlorophenol     | 0.409       | 0.446  | -9.0    | 83    | -0.08 | 5.89  |
| 51 S | 2-Fluorobiphenyl          | 1.515       | 1.417  | 6.5     | 78    | -0.08 | 5.91  |
| 52 t | 2-Chloronaphthalene       | 1.241       | 1.173  | 5.5     | 78    | -0.09 | 5.99  |
| 53 t | Biphenyl                  | 1.574       | 1.558  | 1.0     | 81    | -0.09 | 5.98  |
| 54 t | 2-Nitroaniline            | 0.377       | 0.422  | -11.9   | 83    | -0.09 | 6.08  |
| 55 t | Dimethylphthalate         | 1.357       | 1.329  | 2.1     | 81    | -0.09 | 6.21  |
| 56 t | Acenaphthylene            | 1.903       | 1.864  | 2.0     | 78    | -0.10 | 6.31  |
| 57 t | 2,6-Dinitrotoluene        | 0.286       | 0.307  | -7.3    | 79    | -0.10 | 6.26  |
| 58 t | 3-Nitroaniline            | 0.316       | 0.315  | 0.3     | 72    | -0.10 | 6.41  |
| 59 t | Acenaphthene              | 1.296       | 1.202  | 7.3     | 78    | -0.11 | 6.46  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 53.313 | -6.6    | 91    | -0.11 | 6.50  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.163       | 0.196  | -20.2#  | 93    | -0.10 | 6.58  |
| 62 t | Dibenzofuran              | 1.737       | 1.665  | 4.1     | 79    | -0.12 | 6.61  |
| 63 t | 2,4-Dinitrotoluene        | 0.378       | 0.418  | -10.6   | 78    | -0.11 | 6.61  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.376  | -25.3#  | 93    | -0.12 | 6.74  |
| 65 t | Diethylphthalate          | 1.350       | 1.355  | -0.4    | 81    | -0.12 | 6.85  |
| 66 t | Fluorene                  | 1.351       | 1.368  | -1.3    | 82    | -0.14 | 6.94  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.673  | -8.2    | 89    | -0.13 | 6.95  |
| 68 t | 4-Nitroaniline            | 0.316       | 0.271  | 14.2    | 63    | -0.13 | 6.98  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 81    | -0.16 | 8.07  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 24.919 | 0.3     | 80    | -0.12 | 7.02  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.527       | 0.550  | -4.4    | 81    | -0.12 | 7.08  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851       | 0.826  | 2.9     | 77    | -0.12 | 7.12  |
| 73 S | 2,4,6-Tribromophenol      | 0.107       | 0.132  | -23.4#  | 92    | -0.13 | 7.21  |
| 74 t | 4-Bromophenyl-phenylether | 0.205       | 0.232  | -13.2   | 89    | -0.14 | 7.50  |
| 75 t | Hexachlorobenzene         | 0.255       | 0.266  | -4.3    | 87    | -0.14 | 7.58  |
| 76 t | Pentachlorophenol         | 0.121       | 0.169  | -39.7#  | 105   | -0.15 | 7.84  |
| 77 t | Phenanthrene              | 1.153       | 1.094  | 5.1     | 79    | -0.17 | 8.11  |
| 78 t | Anthracene                | 1.127       | 1.133  | -0.5    | 81    | -0.16 | 8.18  |
| 79 t | Carbazole                 | 1.033       | 0.991  | 4.1     | 75    | -0.16 | 8.44  |
| 80 t | Di-n-butylphthalate       | 1.208       | 1.300  | -7.6    | 80    | -0.16 | 9.11  |
| 81 t | Fluoranthene              | 1.143       | 1.178  | -3.1    | 81    | -0.19 | 10.08 |
| 82 t | Octadecane                | 0.511       | 0.568  | -11.2   | 85    | -0.14 | 8.02  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 84    | -0.22 | 13.06 |
| 84 t | Pyrene                    | 1.327       | 1.273  | 4.1     | 79    | -0.23 | 10.49 |
| 85 S | Terphenyl-d14             | 0.908       | 0.883  | 2.8     | 80    | -0.22 | 10.93 |
| 86 t | Butylbenzylphthalate      | 0.555       | 0.580  | -4.5    | 82    | -0.20 | 12.09 |

8.9.34

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7510-CC7484  
**Lab FileID:** F176281.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.172  | -4.2    | 87    | -0.22 | 13.04 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.391       | 0.417  | -6.6    | 81    | -0.21 | 13.11 |
| 89  | t | Chrysene                  | 1.253       | 1.197  | 4.5     | 82    | -0.22 | 13.12 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.784  | -5.9    | 81    | -0.18 | 13.50 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 77    | -0.24 | 16.06 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 27.019 | -8.1    | 86    | -0.21 | 14.93 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 1.239  | -19.0   | 86    | -0.25 | 15.32 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.188  | -3.6    | 77    | -0.26 | 15.38 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 1.094  | -19.6   | 85    | -0.25 | 15.94 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 0.993  | -16.4   | 81    | -0.23 | 17.98 |
| 97  | t | Dibenz(a,h)acridine       | 0.858       | 0.946  | -10.3   | 79    | -0.22 | 17.64 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 1.051  | -5.5    | 75    | -0.22 | 18.05 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 25.000      | 29.147 | -16.6   | 92    | -0.26 | 15.34 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 0.994  | -1.1    | 74    | -0.23 | 18.41 |

(#) = Out of Range  
 F175755A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
 Tue May 08 12:35:48 2018

8.9.34

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7510-CC7485  
**Lab FileID:** F176282.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7510\F176282.D Vial: 3  
 Acq On : 7 May 2018 1:12 pm Operator: christc2  
 Sample : cc7485-25 Inst : GCMSF  
 Misc : op9377,ef7510,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 10:01:22 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a        | 1.000  | 1.000  | 0.0   | 78    | -0.09    | 4.22  |
| 102   | Benzaldehyde                   | 1.049  | 0.969  | 7.6   | 64    | -0.10    | 3.89  |
| 103 I | Phenanthrene-d10a              | 1.000  | 1.000  | 0.0   | 81    | -0.16    | 8.07  |
| 104   | Atrazine                       | 0.189  | 0.199  | -5.3  | 76    | -0.14    | 7.75  |
| 105 I | Chrysene-d12a                  | 1.000  | 1.000  | 0.0   | 87    | -0.23    | 13.06 |
|       | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 106   | Benzidine                      | 25.000 | 13.688 | 45.2# | 46    | -0.20    | 10.46 |
|       | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 107 I | Naphthalene-d8a                | 1.000  | 1.000  | 0.0   | 78    | -0.10    | 5.14  |
| 108   | Hydroquinone                   | 0.332  | 0.328  | 1.2   | 77    | -0.08    | 5.47  |
| 109 I | Acenaphthene-d10a              | 1.000  | 1.000  | 0.0   | 82    | -0.11    | 6.43  |
| 110   | 1,2,4,5-Tetrachlorobenzen      | 0.643  | 0.589  | 8.4   | 77    | -0.09    | 5.77  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175755A.D MF7484.M Tue May 08 12:35:50 2018

8.9.35

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7511-CC7484  
**Lab FileID:** F176305.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ef7511\f176305.d Vial: 2  
 Acq On : 8 May 2018 9:38 am Operator: christc2  
 Sample : cc7484-50 Inst : GCMSF  
 Misc : op9377,ef7511,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 22:49:57 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 77    | 0.00     | 4.31 |
| 2 t                            | 1,4-Dioxane               | 0.660  | 0.695  | -5.3   | 86    | -0.09    | 1.73 |
| 3 t                            | Pyridine                  | 1.542  | 1.565  | -1.5   | 76    | -0.08    | 2.08 |
| 4 t                            | N-Nitrosodimethylamine    | 0.534  | 0.740  | -38.6# | 110   | -0.09    | 2.04 |
| 5 S                            | 2-Fluorophenol            | 1.165  | 1.263  | -8.4   | 75    | -0.02    | 3.34 |
| 6 t                            | Indene                    | 2.442  | 2.318  | 5.1    | 80    | 0.00     | 4.50 |
| 7 t                            | Cumene                    | 3.580  | 3.533  | 1.3    | 83    | -0.01    | 3.71 |
| 8 S                            | Phenol-d5                 | 1.669  | 1.723  | -3.2   | 80    | 0.00     | 4.08 |
| 9 t                            | Phenol                    | 1.958  | 2.060  | -5.2   | 84    | 0.00     | 4.08 |
| 10 t                           | Aniline                   | 1.830  | 2.090  | -14.2  | 92    | 0.00     | 4.07 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.446  | 1.346  | 6.9    | 77    | 0.00     | 4.12 |
| 12 t                           | 2-Chlorophenol            | 1.461  | 1.394  | 4.6    | 76    | 0.00     | 4.16 |
| 13 t                           | Decane                    | 1.334  | 1.825  | -36.8# | 126   | 0.00     | 4.20 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.584  | 1.510  | 4.7    | 79    | 0.00     | 4.27 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.691  | 1.609  | 4.8    | 81    | 0.00     | 4.32 |
| 16 t                           | Benzyl alcohol            | 0.819  | 0.884  | -7.9   | 80    | 0.00     | 4.43 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.559  | 1.526  | 2.1    | 83    | 0.00     | 4.44 |
| 18 t                           | Acetophenone              | 2.014  | 2.119  | -5.2   | 86    | 0.01     | 4.61 |
| 19 t                           | 2-Methylphenol            | 1.371  | 1.326  | 3.3    | 78    | 0.00     | 4.52 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.433  | 0.413  | 4.6    | 79    | 0.00     | 4.52 |
| 21 t                           | 3&4-Methylphenol          | 1.446  | 1.323  | 8.5    | 70    | 0.02     | 4.63 |
| 22                             | n-Nitroso-di-n-propylamin | 1.117  | 1.233  | -10.4  | 92    | 0.01     | 4.62 |
| 23 t                           | Hexachloroethane          | 0.542  | 0.575  | -6.1   | 90    | 0.00     | 4.68 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 77    | 0.00     | 5.23 |
| 25 S                           | Nitrobenzene-d5           | 0.435  | 0.436  | -0.2   | 78    | 0.00     | 4.72 |
| 26 t                           | Nitrobenzene              | 0.421  | 0.440  | -4.5   | 85    | -0.01    | 4.73 |
| 27 t                           | Quinoline                 | 0.722  | 0.706  | 2.2    | 76    | 0.00     | 5.49 |
| 28 t                           | Isophorone                | 0.732  | 0.746  | -1.9   | 82    | 0.00     | 4.91 |
| 29 t                           | 2-Nitrophenol             | 0.179  | 0.204  | -14.0  | 82    | 0.00     | 4.97 |
| 30 t                           | 2,4-Dimethylphenol        | 0.324  | 0.377  | -16.4  | 85    | 0.00     | 5.01 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 51.372 | -2.7   | 78    | 0.00     | 5.12 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.404  | 0.378  | 6.4    | 75    | 0.00     | 5.06 |
| 33 t                           | 2,4-Dichlorophenol        | 0.283  | 0.306  | -8.1   | 81    | 0.00     | 5.15 |
| 34                             | 2,6-Dichlorophenol        | 0.284  | 0.306  | -7.7   | 86    | 0.00     | 5.30 |
| 35                             | 1,3,5-Trichlorobenzene    | 0.332  | 0.369  | -11.1  | 93    | 0.00     | 4.97 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.335  | 0.347  | -3.6   | 87    | 0.00     | 5.19 |
| 37                             | 1,2,3-Trichlorobenzene    | 0.325  | 0.344  | -5.8   | 88    | 0.00     | 5.36 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7511-CC7484  
**Lab FileID:** F176305.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.097       | 1.019   | 7.1     | 79    | 0.00  | 5.25  |
| 39 t | 4-Chloroaniline           | 0.438       | 0.449   | -2.5    | 81    | 0.00  | 5.30  |
| 40 t | 2,3-Dichloroaniline       | 0.363       | 0.383   | -5.5    | 88    | 0.01  | 5.94  |
| 41 t | Caprolactam               | 0.162       | 0.204   | -25.9#  | 92    | 0.01  | 5.55  |
| 42 t | Hexachlorobutadiene       | 0.177       | 0.205   | -15.8   | 99    | 0.00  | 5.34  |
| 43 t | 4-Chloro-3-methylphenol   | 0.316       | 0.331   | -4.7    | 78    | 0.01  | 5.65  |
| 44 t | 2-Methylnaphthalene       | 0.590       | 0.588   | 0.3     | 82    | 0.00  | 5.74  |
| 45 t | 1-Methylnaphthalene       | 0.742       | 0.729   | 1.8     | 82    | 0.00  | 5.81  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.677   | -4.2    | 86    | 0.00  | 6.20  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 77    | 0.00  | 6.54  |
| 48 t | Hexachlorocyclopentadiene | 0.282       | 0.372   | -31.9#  | 97    | 0.00  | 5.85  |
| 49 t | 2,4,6-Trichlorophenol     | 0.346       | 0.412   | -19.1   | 93    | 0.00  | 5.95  |
| 50 t | 2,4,5-Trichlorophenol     | 0.409       | 0.449   | -9.8    | 84    | 0.01  | 5.99  |
| 51 S | 2-Fluorobiphenyl          | 1.515       | 1.416   | 6.5     | 81    | 0.00  | 6.00  |
| 52 t | 2-Chloronaphthalene       | 1.241       | 1.203   | 3.1     | 83    | 0.00  | 6.09  |
| 53 t | Biphenyl                  | 1.574       | 1.586   | -0.8    | 85    | 0.00  | 6.08  |
| 54 t | 2-Nitroaniline            | 0.377       | 0.447   | -18.6   | 88    | 0.01  | 6.18  |
| 55 t | Dimethylphthalate         | 1.357       | 1.354   | 0.2     | 83    | 0.00  | 6.32  |
| 56 t | Acenaphthylene            | 1.903       | 1.883   | 1.1     | 80    | 0.00  | 6.42  |
| 57 t | 2,6-Dinitrotoluene        | 0.286       | 0.318   | -11.2   | 79    | 0.00  | 6.37  |
| 58 t | 3-Nitroaniline            | 0.316       | 0.344   | -8.9    | 76    | 0.00  | 6.51  |
| 59 t | Acenaphthene              | 1.296       | 1.223   | 5.6     | 81    | 0.00  | 6.57  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 112.865 | -12.9   | 87    | 0.00  | 6.61  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.163       | 0.219   | -34.4#  | 108   | 0.01  | 6.70  |
| 62 t | Dibenzofuran              | 1.737       | 1.713   | 1.4     | 84    | 0.00  | 6.73  |
| 63 t | 2,4-Dinitrotoluene        | 0.378       | 0.447   | -18.3   | 84    | 0.00  | 6.73  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.377   | -25.7#  | 90    | 0.00  | 6.86  |
| 65 t | Diethylphthalate          | 1.350       | 1.385   | -2.6    | 82    | 0.00  | 6.97  |
| 66 t | Fluorene                  | 1.351       | 1.376   | -1.9    | 87    | 0.00  | 7.08  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.689   | -10.8   | 94    | 0.00  | 7.08  |
| 68 t | 4-Nitroaniline            | 0.316       | 0.321   | -1.6    | 72    | 0.00  | 7.11  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 78    | 0.00  | 8.23  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 52.479  | -5.0    | 83    | 0.02  | 7.15  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.527       | 0.570   | -8.2    | 86    | 0.00  | 7.21  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851       | 0.876   | -2.9    | 84    | 0.00  | 7.25  |
| 73 S | 2,4,6-Tribromophenol      | 0.107       | 0.130   | -21.5#  | 87    | 0.00  | 7.34  |
| 74 t | 4-Bromophenyl-phenylether | 0.205       | 0.229   | -11.7   | 88    | 0.00  | 7.64  |
| 75 t | Hexachlorobenzene         | 0.255       | 0.261   | -2.4    | 87    | 0.00  | 7.72  |
| 76 t | Pentachlorophenol         | 0.121       | 0.171   | -41.3#  | 97    | 0.00  | 7.99  |
| 77 t | Phenanthrene              | 1.153       | 1.097   | 4.9     | 82    | 0.00  | 8.27  |
| 78 t | Anthracene                | 1.127       | 1.130   | -0.3    | 82    | 0.00  | 8.35  |
| 79 t | Carbazole                 | 1.033       | 1.003   | 2.9     | 76    | 0.00  | 8.61  |
| 80 t | Di-n-butylphthalate       | 1.208       | 1.326   | -9.8    | 82    | 0.00  | 9.28  |
| 81 t | Fluoranthene              | 1.143       | 1.207   | -5.6    | 83    | 0.00  | 10.28 |
| 82 t | Octadecane                | 0.511       | 0.615   | -20.4#  | 97    | 0.00  | 8.17  |
| 83 I | Chrysene-d12              | 1.000       | 1.000   | 0.0     | 85    | 0.00  | 13.29 |
| 84 t | Pyrene                    | 1.327       | 1.259   | 5.1     | 83    | -0.03 | 10.70 |
| 85 S | Terphenyl-d14             | 0.908       | 0.897   | 1.2     | 85    | -0.02 | 11.14 |
| 86 t | Butylbenzylphthalate      | 0.555       | 0.586   | -5.6    | 83    | 0.00  | 12.29 |

8.9.36

8



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7511-CC7484  
**Lab FileID:** F176305.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.197  | -6.4    | 92    | 0.00  | 13.27 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.391       | 0.458  | -17.1   | 90    | 0.00  | 13.33 |
| 89  | t | Chrysene                  | 1.253       | 1.199  | 4.3     | 88    | 0.00  | 13.35 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.794  | -7.3    | 82    | 0.02  | 13.70 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 79    | 0.00  | 16.30 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 53.447 | -6.9    | 84    | 0.00  | 15.13 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 1.289  | -23.8#  | 93    | 0.00  | 15.56 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.181  | -3.0    | 84    | -0.01 | 15.62 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 1.117  | -22.1#  | 90    | 0.00  | 16.18 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 1.058  | -24.0#  | 87    | 0.03  | 18.24 |
| 97  | t | Dibenz(a,h)acridine       | 0.858       | 0.979  | -14.1   | 86    | 0.02  | 17.88 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 1.113  | -11.7   | 85    | 0.02  | 18.30 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 50.000      | 60.355 | -20.7#  | 95    | -0.02 | 15.58 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 1.060  | -7.8    | 84    | 0.04  | 18.67 |

(#) = Out of Range  
 F175754A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
 Wed May 09 00:52:19 2018

8.9.36

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7511-CC7485  
**Lab FileID:** F176306.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ef7511\f176306.d Vial: 3  
 Acq On : 8 May 2018 10:11 am Operator: christc2  
 Sample : cc7485-50 Inst : GCMSF  
 Misc : op9377,ef7511,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 22:49:57 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a        | 1.000  | 1.000  | 0.0   | 76    | 0.00     | 4.31  |
| 102   | Benzaldehyde                   | 1.049  | 0.950  | 9.4   | 65    | 0.00     | 3.98  |
| 103 I | Phenanthrene-d10a              | 1.000  | 1.000  | 0.0   | 82    | 0.00     | 8.23  |
| 104   | Atrazine                       | 0.189  | 0.207  | -9.5  | 81    | 0.00     | 7.89  |
| 105 I | Chrysene-d12a                  | 1.000  | 1.000  | 0.0   | 93    | 0.00     | 13.28 |
|       | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 106   | Benzidine                      | 50.000 | 22.670 | 54.7# | 43    | -0.02    | 10.63 |
|       | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 107 I | Naphthalene-d8a                | 1.000  | 1.000  | 0.0   | 75    | 0.00     | 5.23  |
| 108   | Hydroquinone                   | 0.332  | 0.361  | -8.7  | 76    | 0.01     | 5.55  |
| 109 I | Acenaphthene-d10a              | 1.000  | 1.000  | 0.0   | 83    | 0.00     | 6.54  |
| 110   | 1,2,4,5-Tetrachlorobenzen      | 0.643  | 0.586  | 8.9   | 82    | 0.01     | 5.86  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175754A.D MF7484.M Tue May 08 23:06:11 2018

8.9.37  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7512-CC7484  
**Lab FileID:** F176332.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7512\F176332.D Vial: 2  
 Acq On : 8 May 2018 11:20 pm Operator: chriss2  
 Sample : cc7484-25 Inst : GCMSF  
 Misc : op9377,ef7512,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 10:01:22 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 83    | -0.01    | 4.30 |
| 2 t                            | 1,4-Dioxane               | 0.660  | 0.690  | -4.5   | 91    | -0.10    | 1.72 |
| 3 t                            | Pyridine                  | 1.542  | 1.625  | -5.4   | 79    | -0.09    | 2.07 |
| 4 t                            | N-Nitrosodimethylamine    | 0.534  | 0.776  | -45.3# | 124   | -0.10    | 2.03 |
| 5 S                            | 2-Fluorophenol            | 1.165  | 1.281  | -10.0  | 84    | -0.03    | 3.32 |
| 6 t                            | Indene                    | 2.442  | 2.369  | 3.0    | 82    | 0.00     | 4.48 |
| 7 t                            | Cumene                    | 3.580  | 3.626  | -1.3   | 86    | -0.03    | 3.69 |
| 8 S                            | Phenol-d5                 | 1.669  | 1.753  | -5.0   | 83    | 0.00     | 4.06 |
| 9 t                            | Phenol                    | 1.958  | 2.109  | -7.7   | 90    | -0.02    | 4.07 |
| 10 t                           | Aniline                   | 1.830  | 2.258  | -23.4# | 97    | -0.02    | 4.06 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.446  | 1.390  | 3.9    | 83    | -0.01    | 4.11 |
| 12 t                           | 2-Chlorophenol            | 1.461  | 1.414  | 3.2    | 79    | -0.02    | 4.15 |
| 13 t                           | Decane                    | 1.334  | 2.049  | -53.6# | 130   | -0.01    | 4.19 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.584  | 1.586  | -0.1   | 85    | -0.01    | 4.25 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.691  | 1.668  | 1.4    | 85    | -0.01    | 4.31 |
| 16 t                           | Benzyl alcohol            | 0.819  | 0.871  | -6.3   | 80    | 0.00     | 4.41 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.559  | 1.586  | -1.7   | 86    | 0.00     | 4.42 |
| 18 t                           | Acetophenone              | 2.014  | 2.158  | -7.1   | 90    | 0.00     | 4.60 |
| 19 t                           | 2-Methylphenol            | 1.371  | 1.432  | -4.4   | 86    | 0.00     | 4.51 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.433  | 0.430  | 0.7    | 83    | 0.00     | 4.51 |
| 21 t                           | 3&4-Methylphenol          | 1.446  | 1.425  | 1.5    | 77    | 0.00     | 4.62 |
| 22                             | n-Nitroso-di-n-propylamin | 1.117  | 1.290  | -15.5  | 93    | 0.00     | 4.60 |
| 23 t                           | Hexachloroethane          | 0.542  | 0.585  | -7.9   | 93    | 0.00     | 4.67 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 86    | -0.02    | 5.22 |
| 25 S                           | Nitrobenzene-d5           | 0.435  | 0.431  | 0.9    | 83    | -0.02    | 4.70 |
| 26 t                           | Nitrobenzene              | 0.421  | 0.439  | -4.3   | 91    | -0.02    | 4.72 |
| 27 t                           | Quinoline                 | 0.722  | 0.701  | 2.9    | 83    | -0.01    | 5.48 |
| 28 t                           | Isophorone                | 0.732  | 0.752  | -2.7   | 88    | -0.02    | 4.89 |
| 29 t                           | 2-Nitrophenol             | 0.179  | 0.196  | -9.5   | 85    | -0.02    | 4.95 |
| 30 t                           | 2,4-Dimethylphenol        | 0.324  | 0.372  | -14.8  | 96    | -0.01    | 4.99 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 25.000 | 26.921 | -7.7   | 101   | -0.03    | 5.09 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.404  | 0.377  | 6.7    | 80    | -0.01    | 5.05 |
| 33 t                           | 2,4-Dichlorophenol        | 0.283  | 0.290  | -2.5   | 83    | -0.01    | 5.13 |
| 34                             | 2,6-Dichlorophenol        | 0.284  | 0.302  | -6.3   | 89    | -0.01    | 5.29 |
| 35                             | 1,3,5-Trichlorobenzene    | 0.332  | 0.361  | -8.7   | 94    | -0.02    | 4.95 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.335  | 0.336  | -0.3   | 88    | -0.02    | 5.18 |
| 37                             | 1,2,3-Trichlorobenzene    | 0.325  | 0.336  | -3.4   | 91    | -0.01    | 5.34 |

8.9.38  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7512-CC7484  
**Lab FileID:** F176332.D

|    |   |                           |             |        |         |       |       |       |
|----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 38 | t | Naphthalene               | 1.097       | 1.012  | 7.7     | 82    | -0.02 | 5.23  |
| 39 | t | 4-Chloroaniline           | 0.438       | 0.446  | -1.8    | 87    | 0.00  | 5.28  |
| 40 | t | 2,3-Dichloroaniline       | 0.363       | 0.369  | -1.7    | 86    | 0.00  | 5.93  |
| 41 | t | Caprolactam               | 0.162       | 0.211  | -30.2#  | 106   | -0.01 | 5.53  |
| 42 | t | Hexachlorobutadiene       | 0.177       | 0.198  | -11.9   | 101   | 0.00  | 5.33  |
| 43 | t | 4-Chloro-3-methylphenol   | 0.316       | 0.330  | -4.4    | 86    | 0.00  | 5.64  |
| 44 | t | 2-Methylnaphthalene       | 0.590       | 0.586  | 0.7     | 86    | 0.00  | 5.72  |
| 45 | t | 1-Methylnaphthalene       | 0.742       | 0.721  | 2.8     | 86    | 0.00  | 5.79  |
| 46 | t | Dimethylnaphthalene       | 0.650       | 0.668  | -2.8    | 88    | -0.01 | 6.18  |
| 47 | I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 90    | -0.02 | 6.52  |
| 48 | t | Hexachlorocyclopentadiene | 0.282       | 0.352  | -24.8#  | 101   | 0.00  | 5.84  |
| 49 | t | 2,4,6-Trichlorophenol     | 0.346       | 0.389  | -12.4   | 94    | 0.00  | 5.94  |
| 50 | t | 2,4,5-Trichlorophenol     | 0.409       | 0.439  | -7.3    | 90    | 0.00  | 5.97  |
| 51 | S | 2-Fluorobiphenyl          | 1.515       | 1.424  | 6.0     | 86    | 0.00  | 5.99  |
| 52 | t | 2-Chloronaphthalene       | 1.241       | 1.164  | 6.2     | 85    | 0.00  | 6.08  |
| 53 | t | Biphenyl                  | 1.574       | 1.523  | 3.2     | 86    | 0.00  | 6.06  |
| 54 | t | 2-Nitroaniline            | 0.377       | 0.456  | -21.0#  | 98    | -0.01 | 6.16  |
| 55 | t | Dimethylphthalate         | 1.357       | 1.340  | 1.3     | 90    | 0.00  | 6.30  |
| 56 | t | Acenaphthylene            | 1.903       | 1.877  | 1.4     | 86    | -0.01 | 6.40  |
| 57 | t | 2,6-Dinitrotoluene        | 0.286       | 0.309  | -8.0    | 87    | -0.01 | 6.35  |
| 58 | t | 3-Nitroaniline            | 0.316       | 0.326  | -3.2    | 81    | -0.01 | 6.50  |
| 59 | t | Acenaphthene              | 1.296       | 1.212  | 6.5     | 86    | -0.02 | 6.55  |
|    |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 | t | 2,4-Dinitrophenol         | 50.000      | 52.089 | -4.2    | 97    | -0.01 | 6.59  |
|    |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 | t | 4-Nitrophenol             | 0.163       | 0.204  | -25.2#  | 106   | 0.00  | 6.67  |
| 62 | t | Dibenzofuran              | 1.737       | 1.693  | 2.5     | 87    | -0.02 | 6.71  |
| 63 | t | 2,4-Dinitrotoluene        | 0.378       | 0.435  | -15.1   | 88    | -0.01 | 6.71  |
| 64 | t | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.359  | -19.7   | 97    | -0.02 | 6.84  |
| 65 | t | Diethylphthalate          | 1.350       | 1.392  | -3.1    | 91    | -0.03 | 6.94  |
| 66 | t | Fluorene                  | 1.351       | 1.375  | -1.8    | 90    | -0.03 | 7.05  |
| 67 | t | 4-Chlorophenyl-phenylethe | 0.622       | 0.675  | -8.5    | 97    | -0.02 | 7.05  |
| 68 | t | 4-Nitroaniline            | 0.316       | 0.301  | 4.7     | 77    | -0.03 | 7.09  |
| 69 | I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 91    | -0.03 | 8.21  |
|    |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 | t | 4,6-Dinitro-2-methylpheno | 25.000      | 25.644 | -2.6    | 93    | 0.00  | 7.12  |
|    |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 | t | n-Nitrosodiphenylamine    | 0.527       | 0.548  | -4.0    | 91    | -0.01 | 7.19  |
| 72 | t | 1,2-Diphenylhydrazine     | 0.851       | 0.866  | -1.8    | 91    | -0.02 | 7.22  |
| 73 | S | 2,4,6-Tribromophenol      | 0.107       | 0.120  | -12.1   | 94    | -0.02 | 7.32  |
| 74 | t | 4-Bromophenyl-phenylether | 0.205       | 0.223  | -8.8    | 97    | -0.02 | 7.62  |
| 75 | t | Hexachlorobenzene         | 0.255       | 0.252  | 1.2     | 93    | -0.02 | 7.69  |
| 76 | t | Pentachlorophenol         | 0.121       | 0.160  | -32.2#  | 111   | -0.02 | 7.97  |
| 77 | t | Phenanthrene              | 1.153       | 1.061  | 8.0     | 86    | -0.03 | 8.24  |
| 78 | t | Anthracene                | 1.127       | 1.108  | 1.7     | 89    | -0.03 | 8.31  |
| 79 | t | Carbazole                 | 1.033       | 1.007  | 2.5     | 85    | -0.03 | 8.58  |
| 80 | t | Di-n-butylphthalate       | 1.208       | 1.287  | -6.5    | 90    | -0.02 | 9.25  |
| 81 | t | Fluoranthene              | 1.143       | 1.192  | -4.3    | 93    | -0.03 | 10.24 |
| 82 | t | Octadecane                | 0.511       | 0.633  | -23.9#  | 107   | -0.02 | 8.14  |
| 83 | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 100   | -0.04 | 13.25 |
| 84 | t | Pyrene                    | 1.327       | 1.194  | 10.0    | 89    | -0.06 | 10.67 |
| 85 | S | Terphenyl-d14             | 0.908       | 0.860  | 5.3     | 93    | -0.06 | 11.10 |
| 86 | t | Butylbenzylphthalate      | 0.555       | 0.551  | 0.7     | 94    | -0.04 | 12.26 |

8.9.38

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7512-CC7484  
**Lab FileID:** F176332.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.155  | -2.7    | 103   | -0.04 | 13.23 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.391       | 0.429  | -9.7    | 100   | -0.03 | 13.29 |
| 89  | t | Chrysene                  | 1.253       | 1.165  | 7.0     | 96    | -0.04 | 13.30 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.742  | -0.3    | 92    | -0.02 | 13.66 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 92    | -0.04 | 16.26 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 26.067 | -4.3    | 98    | -0.04 | 15.09 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 1.239  | -19.0   | 101   | -0.06 | 15.51 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.193  | -4.0    | 91    | -0.07 | 15.57 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 1.102  | -20.4#  | 102   | -0.05 | 16.14 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 1.011  | -18.5   | 97    | -0.03 | 18.19 |
| 97  | t | Dibenz(a,h)acridine       | 0.858       | 0.963  | -12.2   | 95    | -0.03 | 17.83 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 1.077  | -8.1    | 91    | -0.03 | 18.25 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 25.000      | 29.860 | -19.4   | 111   | -0.07 | 15.53 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 1.028  | -4.6    | 90    | -0.03 | 18.60 |

(#) = Out of Range  
 F175755A.D MF7484.M

SPCC's out = 0 CCC's out = 0  
 Wed May 09 13:56:09 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7512-CC7485  
**Lab FileID:** F176333.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7512\F176333.D Vial: 3  
 Acq On : 8 May 2018 11:53 pm Operator: chriss2  
 Sample : cc7485-25 Inst : GCMSF  
 Misc : op9377,ef7512,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Tue May 08 10:01:22 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                      | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4a | 1.000  | 1.000  | 0.0   | 84    | -0.01    | 4.30  |
| 102 Benzaldehyde              | 1.049  | 0.925  | 11.8  | 66    | -0.02    | 3.97  |
| 103 I Phenanthrene-d10a       | 1.000  | 1.000  | 0.0   | 99    | -0.03    | 8.21  |
| 104 Atrazine                  | 0.189  | 0.198  | -4.8  | 92    | -0.02    | 7.87  |
| 105 I Chrysene-d12a           | 1.000  | 1.000  | 0.0   | 109   | -0.04    | 13.25 |
| 106 Benzidine                 | 25.000 | 13.296 | 46.8# | 56    | -0.06    | 10.60 |
| 107 I Naphthalene-d8a         | 1.000  | 1.000  | 0.0   | 87    | -0.02    | 5.22  |
| 108 Hydroquinone              | 0.332  | 0.320  | 3.6   | 84    | 0.00     | 5.54  |
| 109 I Acenaphthene-d10a       | 1.000  | 1.000  | 0.0   | 98    | -0.02    | 6.52  |
| 110 1,2,4,5-Tetrachlorobenzen | 0.643  | 0.552  | 14.2  | 85    | 0.00     | 5.85  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 F175755A.D MF7484.M Wed May 09 13:56:11 2018

8.9.39  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7512-CC7486  
**Lab FileID:** F176334.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7512\F176334.D Vial: 4  
 Acq On : 9 May 2018 12:29 am Operator: chriss2  
 Sample : cc7486-25 Inst : GCMSF  
 Misc : op9377,ef7512,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7484AP9.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Wed May 09 01:00:41 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 101 I                          | 1,4-Dichlorobenzene-d4A   | 1.000  | 1.000  | 0.0    | 114   | 0.00     | 4.30 |
| 102 M                          | 2-Picoline                | 1.410  | 1.467  | -4.0   | 110   | -0.13    | 2.79 |
| 103                            | Pentachloroethane         | 0.527  | 0.546  | -3.6   | 115   | 0.00     | 4.08 |
| 104 M                          | Methyl methanesulfonate   | 0.773  | 0.855  | -10.6  | 121   | -0.06    | 3.16 |
| 105 M                          | N-Nitrosodiethylamine     | 0.620  | 0.636  | -2.6   | 105   | -0.04    | 3.48 |
| 106 M                          | N-Nitrosomethylethylamine | 0.578  | 0.841  | -45.5# | 169   | -0.07    | 2.90 |
| 107 M                          | Ethyl methanesulfonate    | 1.044  | 1.081  | -3.5   | 114   | -0.03    | 3.73 |
| 108 M                          | N-Nitrosopyrrolidine      | 0.420  | 0.636  | -51.4# | 156   | 0.00     | 4.58 |
| 109 M                          | N-Nitrosomorpholine       | 0.797  | 1.029  | -29.1# | 139   | 0.00     | 4.61 |
| 110 M                          | o-Toluidine               | 2.177  | 1.958  | 10.1   | 100   | 0.00     | 4.62 |
| 111 I                          | Naphthalene-d8A           | 1.000  | 1.000  | 0.0    | 116   | 0.00     | 5.22 |
| 112 M                          | O,O,O-Triethyl phosphorot | 0.161  | 0.173  | -7.5   | 119   | 0.00     | 5.03 |
| 113 M                          | N-Nitrosopiperidine       | 0.214  | 0.289  | -35.0# | 157   | 0.00     | 4.83 |
| 114 M                          | A,A-Dimethylphenethylamin | 0.854  | 0.973  | -13.9  | 121   | 0.17     | 5.36 |
| 115 M                          | Hexachloropropene         | 0.202  | 0.226  | -11.9  | 121   | 0.00     | 5.30 |
| 116 M                          | N-Nitrosodi-n-butylamine  | 0.247  | 0.257  | -4.0   | 113   | 0.01     | 5.52 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 117                            | p-Phenylenediamine        | 25.000 | 12.166 | 51.3#  | 51    | 0.06     | 5.62 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 118 M                          | Safrole                   | 0.234  | 0.239  | -2.1   | 111   | 0.00     | 5.66 |
| 119                            | Isosafrole                | 0.169  | 0.174  | -3.0   | 111   | 0.00     | 6.03 |
| 120                            | Acenaphthene-d10A         | 1.000  | 1.000  | 0.0    | 117   | 0.00     | 6.53 |
| 121 M                          | Thionazin                 | 0.176  | 0.195  | -10.8  | 129   | 0.00     | 7.02 |
| 122 M                          | Tetraethyl dithiopyrophos | 0.223  | 0.262  | -17.5  | 125   | 0.00     | 7.38 |
| 123 M                          | Phorate                   | 0.993  | 1.363  | -37.3# | 158   | 0.00     | 7.53 |
| 124 M                          | Phenacetin                | 0.654  | 0.701  | -7.2   | 121   | 0.00     | 7.58 |
| 125 M                          | 1,4-Naphthoquinone        | 0.398  | 0.423  | -6.3   | 115   | 0.00     | 6.21 |
| 126 M                          | m-Dinitrobenzene          | 0.205  | 0.213  | -3.9   | 121   | -0.01    | 6.33 |
| 127 M                          | Pentachlorobenzene        | 0.519  | 0.564  | -8.7   | 125   | 0.00     | 6.68 |
| 128 M                          | 2-Naphthylamine           | 1.133  | 0.872  | 23.0#  | 84    | 0.00     | 6.86 |
| 129 M                          | 1-Naphthylamine           | 1.007  | 0.747  | 25.8#  | 79    | -0.01    | 6.78 |
| 130 M                          | 5-Nitro-o-toluidine       | 0.345  | 0.362  | -4.9   | 109   | -0.02    | 7.07 |
| 131 I                          | Phenanthrene-d10A         | 1.000  | 1.000  | 0.0    | 123   | 0.00     | 8.21 |
| 132 M                          | Disulfoton                | 0.401  | 0.352  | 12.2   | 100   | 0.00     | 8.25 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |

8.9.40

8

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EF7512-CC7486  
 Lab FileID: F176334.D

| Sample ID                      | Compound                  | AvgRF   | CCRF    | % Dev        | Count | Offset | Std Dev |
|--------------------------------|---------------------------|---------|---------|--------------|-------|--------|---------|
| 133 M                          | Dinoseb                   | 25.000  | 26.648  | -6.6         | 137   | 0.00   | 8.26    |
| ----- AvgRF CCRF % Dev -----   |                           |         |         |              |       |        |         |
| 134 M                          | Dimethoate                | 0.304   | 0.303   | 0.3          | 109   | 0.00   | 7.75    |
| 135 M                          | 4-Aminobiphenyl           | 0.656   | 0.574   | 12.5         | 100   | 0.00   | 7.97    |
| 136 M                          | Methyl parathion          | 0.184   | 0.193   | -4.9         | 117   | 0.00   | 8.83    |
| 137 M                          | Parathion                 | 0.157   | 0.164   | -4.5         | 119   | 0.01   | 9.53    |
| 138 M                          | Diphenylamine             | 0.553   | 0.555   | -0.4         | 116   | 0.01   | 7.19    |
| 139 M                          | Isodrin                   | 0.124   | 0.130   | -4.8         | 124   | 0.00   | 9.95    |
| 140 M                          | Diallate                  | 0.064   | 0.052   | 18.8         | 101   | 0.00   | 7.64    |
| 141 M                          | Pentachloronitrobenzene   | 0.038   | 0.044#  | -15.8        | 128   | 0.00   | 7.98    |
| 142 M                          | Pronamide                 | 0.214   | 0.229   | -7.0         | 122   | 0.00   | 8.08    |
| ----- True Calc. % Drift ----- |                           |         |         |              |       |        |         |
| 143 M                          | 4-Nitroquinoline 1-oxide  | 100.000 | 87.009  | 13.0         | 109   | 0.00   | 9.52    |
| 144 M                          | Methapyriline             | 25.000  | 14.162  | 43.4#        | 66    | 0.00   | 9.73    |
| 145 M                          | sym-Trinitrobenzene       | 25.000  | 25.620  | -2.5         | 135   | 0.03   | 7.55    |
| ----- AvgRF CCRF % Dev -----   |                           |         |         |              |       |        |         |
| 146 I                          | Chrysene-d12A             | 1.000   | 1.000   | 0.0          | 128   | 0.00   | 13.25   |
| ----- True Calc. % Drift ----- |                           |         |         |              |       |        |         |
| 147                            | Aramite                   | 25.000  | 26.538  | -6.2         | 137   | -0.01  | 11.34   |
| ----- AvgRF CCRF % Dev -----   |                           |         |         |              |       |        |         |
| 148 M                          | p-(Dimethylamine)azobenze | 0.344   | 0.336   | 2.3          | 120   | -0.02  | 11.41   |
| ----- True Calc. % Drift ----- |                           |         |         |              |       |        |         |
| 149                            | Kepone                    | 150.000 | 81.027  | 46.0#        | 71    | -0.02  | 12.06   |
| 150 M                          | Famphur                   | 150.000 | 140.986 | 6.0          | 113   | 0.00   | 12.09   |
| 151 M                          | 2-Acetylaminofluorene     | 25.000  | 26.123  | -4.5         | 138   | 0.00   | 12.68   |
| ----- AvgRF CCRF % Dev -----   |                           |         |         |              |       |        |         |
| 152 M                          | Chlorobenzilate           | 0.330   | 0.366   | -10.9        | 131   | -0.02  | 11.56   |
| 153 I                          | Perylene-d12A             | 1.000   | 1.000   | 0.0          | 121   | 0.00   | 16.25   |
| 154                            | Hexachlorophene           |         |         | -----NA----- |       |        |         |
| 155                            | 3-Methylcholanthrene      | 0.191   | 0.216   | -13.1        | 132   | 0.00   | 16.86   |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 F175769A.D MF7484AP9.M              Wed May 09 15:55:25 2018

8.9.40  
8



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7515-CC7484  
**Lab FileID:** F176404.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7515\F176404.D Vial: 2  
 Acq On : 11 May 2018 1:14 am Operator: chriss2  
 Sample : cc7484-25 Inst : GCMSF  
 Misc : op9377,ef7515,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7513.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Mon May 14 10:59:41 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 75    | 0.00     | 4.27 |
| 2 t                            | 1,4-Dioxane               | 0.660  | 0.649  | 1.7    | 77    | -0.12    | 1.68 |
| 3 t                            | Pyridine                  | 1.542  | 1.613  | -4.6   | 71    | -0.11    | 2.02 |
| 4 t                            | N-Nitrosodimethylamine    | 0.534  | 0.895  | -67.6# | 129   | -0.12    | 1.98 |
| 5 S                            | 2-Fluorophenol            | 1.165  | 1.222  | -4.9   | 73    | -0.03    | 3.29 |
| 6 t                            | Indene                    | 2.442  | 2.297  | 5.9    | 71    | 0.02     | 4.46 |
| 7 t                            | Cumene                    | 3.580  | 3.598  | -0.5   | 77    | -0.02    | 3.66 |
| 8 S                            | Phenol-d5                 | 1.669  | 1.712  | -2.6   | 73    | 0.00     | 4.03 |
| 9 t                            | Phenol                    | 1.958  | 1.948  | 0.5    | 75    | 0.00     | 4.04 |
| 10 t                           | Aniline                   | 1.830  | 2.043  | -11.6  | 79    | 0.00     | 4.03 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.446  | 1.351  | 6.6    | 73    | 0.00     | 4.08 |
| 12 t                           | 2-Chlorophenol            | 1.461  | 1.385  | 5.2    | 70    | 0.00     | 4.12 |
| 13 t                           | Decane                    | 1.334  | 2.139  | -60.3# | 122   | 0.00     | 4.16 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.584  | 1.545  | 2.5    | 74    | 0.00     | 4.23 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.691  | 1.635  | 3.3    | 75    | 0.01     | 4.28 |
| 16 t                           | Benzyl alcohol            | 0.819  | 0.884  | -7.9   | 74    | 0.01     | 4.38 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.559  | 1.538  | 1.3    | 75    | 0.01     | 4.39 |
| 18 t                           | Acetophenone              | 2.014  | 2.181  | -8.3   | 82    | 0.02     | 4.57 |
| 19 t                           | 2-Methylphenol            | 1.371  | 1.298  | 5.3    | 70    | 0.02     | 4.48 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.433  | 0.422  | 2.5    | 73    | 0.02     | 4.48 |
| 21 t                           | 3&4-Methylphenol          | 1.446  | 1.306  | 9.7    | 64    | 0.03     | 4.59 |
| 22                             | n-Nitroso-di-n-propylamin | 1.117  | 1.337  | -19.7  | 87    | 0.02     | 4.58 |
| 23 t                           | Hexachloroethane          | 0.542  | 0.586  | -8.1   | 84    | 0.02     | 4.63 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 77    | 0.00     | 5.19 |
| 25 S                           | Nitrobenzene-d5           | 0.435  | 0.454  | -4.4   | 78    | 0.00     | 4.68 |
| 26 t                           | Nitrobenzene              | 0.421  | 0.466  | -10.7  | 85    | -0.01    | 4.69 |
| 27 t                           | Quinoline                 | 0.722  | 0.677  | 6.2    | 72    | 0.00     | 5.45 |
| 28 t                           | Isophorone                | 0.732  | 0.774  | -5.7   | 80    | 0.00     | 4.86 |
| 29 t                           | 2-Nitrophenol             | 0.179  | 0.197  | -10.1  | 77    | 0.00     | 4.92 |
| 30 t                           | 2,4-Dimethylphenol        | 0.324  | 0.360  | -11.1  | 82    | 0.00     | 4.96 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 25.000 | 27.521 | -10.1  | 92    | 0.00     | 5.06 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.404  | 0.378  | 6.4    | 71    | 0.00     | 5.02 |
| 33 t                           | 2,4-Dichlorophenol        | 0.283  | 0.291  | -2.8   | 74    | 0.00     | 5.10 |
| 34                             | 2,6-Dichlorophenol        | 0.284  | 0.300  | -5.6   | 79    | 0.00     | 5.26 |
| 35                             | 1,3,5-Trichlorobenzene    | 0.332  | 0.357  | -7.5   | 83    | 0.00     | 4.93 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.335  | 0.334  | 0.3    | 78    | 0.00     | 5.15 |
| 37                             | 1,2,3-Trichlorobenzene    | 0.325  | 0.333  | -2.5   | 80    | 0.00     | 5.31 |

8.9.41

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7515-CC7484  
**Lab FileID:** F176404.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.097       | 0.993  | 9.5     | 72    | 0.00  | 5.21  |
| 39 t | 4-Chloroaniline           | 0.438       | 0.429  | 2.1     | 75    | 0.01  | 5.25  |
| 40 t | 2,3-Dichloroaniline       | 0.363       | 0.363  | 0.0     | 75    | 0.02  | 5.90  |
| 41 t | Caprolactam               | 0.162       | 0.218  | -34.6#  | 97    | 0.01  | 5.50  |
| 42 t | Hexachlorobutadiene       | 0.177       | 0.207  | -16.9   | 94    | 0.00  | 5.30  |
| 43 t | 4-Chloro-3-methylphenol   | 0.316       | 0.334  | -5.7    | 77    | 0.02  | 5.61  |
| 44 t | 2-Methylnaphthalene       | 0.590       | 0.579  | 1.9     | 75    | 0.02  | 5.70  |
| 45 t | 1-Methylnaphthalene       | 0.742       | 0.715  | 3.6     | 75    | 0.02  | 5.77  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.662  | -1.8    | 77    | 0.02  | 6.15  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 80    | 0.01  | 6.49  |
| 48 t | Hexachlorocyclopentadiene | 0.282       | 0.360  | -27.7#  | 93    | 0.02  | 5.81  |
| 49 t | 2,4,6-Trichlorophenol     | 0.346       | 0.392  | -13.3   | 85    | 0.02  | 5.91  |
| 50 t | 2,4,5-Trichlorophenol     | 0.409       | 0.430  | -5.1    | 78    | 0.02  | 5.94  |
| 51 S | 2-Fluorobiphenyl          | 1.515       | 1.379  | 9.0     | 74    | 0.02  | 5.96  |
| 52 t | 2-Chloronaphthalene       | 1.241       | 1.167  | 6.0     | 76    | 0.02  | 6.04  |
| 53 t | Biphenyl                  | 1.574       | 1.521  | 3.4     | 77    | 0.02  | 6.03  |
| 54 t | 2-Nitroaniline            | 0.377       | 0.477  | -26.5#  | 92    | 0.02  | 6.13  |
| 55 t | Dimethylphthalate         | 1.357       | 1.321  | 2.7     | 79    | 0.02  | 6.27  |
| 56 t | Acenaphthylene            | 1.903       | 1.813  | 4.7     | 74    | 0.01  | 6.37  |
| 57 t | 2,6-Dinitrotoluene        | 0.286       | 0.294  | -2.8    | 73    | 0.02  | 6.32  |
| 58 t | 3-Nitroaniline            | 0.316       | 0.322  | -1.9    | 71    | 0.02  | 6.47  |
| 59 t | Acenaphthene              | 1.296       | 1.196  | 7.7     | 75    | 0.00  | 6.52  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 54.263 | -8.5    | 90    | 0.01  | 6.56  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.163       | 0.228  | -39.9#  | 106   | 0.02  | 6.64  |
| 62 t | Dibenzofuran              | 1.737       | 1.664  | 4.2     | 77    | 0.00  | 6.67  |
| 63 t | 2,4-Dinitrotoluene        | 0.378       | 0.426  | -12.7   | 77    | 0.01  | 6.67  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.350  | -16.7   | 84    | 0.00  | 6.80  |
| 65 t | Diethylphthalate          | 1.350       | 1.400  | -3.7    | 82    | 0.00  | 6.91  |
| 66 t | Fluorene                  | 1.351       | 1.353  | -0.1    | 79    | 0.00  | 7.01  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.663  | -6.6    | 85    | 0.00  | 7.02  |
| 68 t | 4-Nitroaniline            | 0.316       | 0.286  | 9.5     | 65    | 0.00  | 7.05  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 79    | 0.02  | 8.16  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 25.364 | -1.5    | 79    | 0.03  | 7.09  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.527       | 0.553  | -4.9    | 80    | 0.02  | 7.15  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851       | 0.916  | -7.6    | 83    | 0.02  | 7.19  |
| 73 S | 2,4,6-Tribromophenol      | 0.107       | 0.121  | -13.1   | 81    | 0.02  | 7.28  |
| 74 t | 4-Bromophenyl-phenylether | 0.205       | 0.220  | -7.3    | 82    | 0.02  | 7.58  |
| 75 t | Hexachlorobenzene         | 0.255       | 0.248  | 2.7     | 79    | 0.02  | 7.66  |
| 76 t | Pentachlorophenol         | 0.121       | 0.162  | -33.9#  | 97    | 0.02  | 7.92  |
| 77 t | Phenanthrene              | 1.153       | 1.070  | 7.2     | 75    | 0.01  | 8.20  |
| 78 t | Anthracene                | 1.127       | 1.112  | 1.3     | 77    | 0.00  | 8.27  |
| 79 t | Carbazole                 | 1.033       | 0.977  | 5.4     | 72    | 0.02  | 8.53  |
| 80 t | Di-n-butylphthalate       | 1.208       | 1.332  | -10.3   | 80    | 0.02  | 9.20  |
| 81 t | Fluoranthene              | 1.143       | 1.184  | -3.6    | 79    | 0.02  | 10.19 |
| 82 t | Octadecane                | 0.511       | 0.664  | -29.9#  | 97    | 0.02  | 8.10  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 84    | 0.03  | 13.19 |
| 84 t | Pyrene                    | 1.327       | 1.229  | 7.4     | 77    | -0.02 | 10.61 |
| 85 S | Terphenyl-d14             | 0.908       | 0.868  | 4.4     | 78    | 0.00  | 11.04 |
| 86 t | Butylbenzylphthalate      | 0.555       | 0.596  | -7.4    | 84    | 0.02  | 12.20 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7515-CC7484  
**Lab FileID:** F176404.D

|     |   |                           |             |        |         |       |      |       |
|-----|---|---------------------------|-------------|--------|---------|-------|------|-------|
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.153  | -2.5    | 86    | 0.02 | 13.17 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.391       | 0.423  | -8.2    | 82    | 0.03 | 13.23 |
| 89  | t | Chrysene                  | 1.253       | 1.180  | 5.8     | 80    | 0.03 | 13.25 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.788  | -6.5    | 82    | 0.06 | 13.61 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 76    | 0.02 | 16.19 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 27.416 | -9.7    | 85    | 0.02 | 15.04 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 1.246  | -19.7   | 85    | 0.00 | 15.45 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.196  | -4.3    | 76    | 0.00 | 15.51 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 1.081  | -18.1   | 83    | 0.01 | 16.08 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 1.005  | -17.8   | 80    | 0.06 | 18.13 |
| 97  | t | Dibenz(a,h)acridine       | 0.858       | 0.943  | -9.9    | 77    | 0.05 | 17.77 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 1.066  | -7.0    | 75    | 0.06 | 18.19 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 25.000      | 28.487 | -13.9   | 88    | 0.00 | 15.47 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 1.005  | -2.2    | 73    | 0.07 | 18.55 |

(#) = Out of Range  
 F176366A.D MF7513.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 11:02:02 2018

8.9.41

8

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EF7516-ECC7484  
 Lab FileID: F176431.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ef7516\f176431.d Vial: 2  
 Acq On : 11 May 2018 6:52 pm Operator: christc2  
 Sample : ecc7484-50 Inst : GCMSF  
 Misc : op9377,ef7516,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7513.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Fri May 11 03:34:06 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 66    | -0.02    | 4.26 |
| 2 t                            | 1,4-Dioxane               | 0.660  | 0.632  | 4.2    | 66    | -0.14    | 1.67 |
| 3 t                            | Pyridine                  | 1.542  | 1.591  | -3.2   | 65    | -0.15    | 2.00 |
| 4 t                            | N-Nitrosodimethylamine    | 0.534  | 0.952  | -78.3# | 120   | -0.15    | 1.97 |
| 5 S                            | 2-Fluorophenol            | 1.165  | 1.237  | -6.2   | 63    | -0.06    | 3.28 |
| 6 t                            | Indene                    | 2.442  | 2.387  | 2.3    | 69    | -0.02    | 4.45 |
| 7 t                            | Cumene                    | 3.580  | 3.772  | -5.4   | 75    | -0.04    | 3.66 |
| 8 S                            | Phenol-d5                 | 1.669  | 1.882  | -12.8  | 74    | -0.02    | 4.02 |
| 9 t                            | Phenol                    | 1.958  | 2.069  | -5.7   | 71    | -0.02    | 4.04 |
| 10 t                           | Aniline                   | 1.830  | 2.182  | -19.2  | 81    | -0.02    | 4.02 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.446  | 1.382  | 4.4    | 67    | -0.03    | 4.07 |
| 12 t                           | 2-Chlorophenol            | 1.461  | 1.435  | 1.8    | 66    | -0.03    | 4.11 |
| 13 t                           | Decane                    | 1.334  | 2.151  | -61.2# | 126   | -0.02    | 4.15 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.584  | 1.581  | 0.2    | 70    | -0.02    | 4.22 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.691  | 1.677  | 0.8    | 71    | -0.02    | 4.28 |
| 16 t                           | Benzyl alcohol            | 0.819  | 0.970  | -18.4  | 74    | -0.01    | 4.38 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.559  | 1.642  | -5.3   | 76    | -0.02    | 4.38 |
| 18 t                           | Acetophenone              | 2.014  | 2.327  | -15.5  | 80    | 0.00     | 4.56 |
| 19 t                           | 2-Methylphenol            | 1.371  | 1.370  | 0.1    | 68    | -0.01    | 4.47 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.433  | 0.431  | 0.5    | 70    | 0.00     | 4.47 |
| 21 t                           | 3&4-Methylphenol          | 1.446  | 1.374  | 5.0    | 62    | 0.00     | 4.59 |
| 22                             | n-Nitroso-di-n-propylamin | 1.117  | 1.401  | -25.4  | 89    | 0.00     | 4.57 |
| 23 t                           | Hexachloroethane          | 0.542  | 0.609  | -12.4  | 81    | -0.01    | 4.63 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 69    | -0.02    | 5.18 |
| 25 S                           | Nitrobenzene-d5           | 0.435  | 0.470  | -8.0   | 75    | -0.03    | 4.67 |
| 26 t                           | Nitrobenzene              | 0.421  | 0.467  | -10.9  | 80    | -0.04    | 4.68 |
| 27 t                           | Quinoline                 | 0.722  | 0.700  | 3.0    | 68    | -0.02    | 5.45 |
| 28 t                           | Isophorone                | 0.732  | 0.787  | -7.5   | 77    | -0.03    | 4.86 |
| 29 t                           | 2-Nitrophenol             | 0.179  | 0.205  | -14.5  | 73    | -0.03    | 4.92 |
| 30 t                           | 2,4-Dimethylphenol        | 0.324  | 0.389  | -20.1  | 78    | -0.02    | 4.96 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 50.953 | -1.9   | 69    | -0.01    | 5.08 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.404  | 0.390  | 3.5    | 69    | -0.02    | 5.02 |
| 33 t                           | 2,4-Dichlorophenol        | 0.283  | 0.306  | -8.1   | 72    | -0.02    | 5.09 |
| 34                             | 2,6-Dichlorophenol        | 0.284  | 0.318  | -12.0  | 80    | -0.02    | 5.25 |
| 35                             | 1,3,5-Trichlorobenzene    | 0.332  | 0.378  | -13.9  | 85    | -0.03    | 4.92 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.335  | 0.350  | -4.5   | 78    | -0.02    | 5.15 |
| 37                             | 1,2,3-Trichlorobenzene    | 0.325  | 0.352  | -8.3   | 80    | -0.02    | 5.30 |

8.9.42

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7516-ECC7484  
**Lab FileID:** F176431.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.097       | 1.042   | 5.0     | 72    | -0.02 | 5.20  |
| 39 t | 4-Chloroaniline           | 0.438       | 0.473   | -8.0    | 76    | -0.01 | 5.25  |
| 40 t | 2,3-Dichloroaniline       | 0.363       | 0.393   | -8.3    | 81    | 0.00  | 5.89  |
| 41 t | Caprolactam               | 0.162       | 0.226   | -39.5   | 92    | 0.00  | 5.52  |
| 42 t | Hexachlorobutadiene       | 0.177       | 0.224   | -26.6   | 96    | -0.02 | 5.29  |
| 43 t | 4-Chloro-3-methylphenol   | 0.316       | 0.346   | -9.5    | 73    | 0.00  | 5.61  |
| 44 t | 2-Methylnaphthalene       | 0.590       | 0.613   | -3.9    | 76    | -0.01 | 5.69  |
| 45 t | 1-Methylnaphthalene       | 0.742       | 0.750   | -1.1    | 76    | 0.00  | 5.76  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.712   | -9.5    | 81    | -0.02 | 6.14  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 71    | -0.03 | 6.48  |
| 48 t | Hexachlorocyclopentadiene | 0.282       | 0.393   | -39.4   | 95    | -0.01 | 5.80  |
| 49 t | 2,4,6-Trichlorophenol     | 0.346       | 0.412   | -19.1   | 86    | -0.01 | 5.90  |
| 50 t | 2,4,5-Trichlorophenol     | 0.409       | 0.438   | -7.1    | 76    | -0.01 | 5.93  |
| 51 S | 2-Fluorobiphenyl          | 1.515       | 1.449   | 4.4     | 76    | -0.01 | 5.95  |
| 52 t | 2-Chloronaphthalene       | 1.241       | 1.200   | 3.3     | 76    | -0.01 | 6.04  |
| 53 t | Biphenyl                  | 1.574       | 1.590   | -1.0    | 79    | -0.01 | 6.02  |
| 54 t | 2-Nitroaniline            | 0.377       | 0.487   | -29.2   | 89    | -0.01 | 6.12  |
| 55 t | Dimethylphthalate         | 1.357       | 1.379   | -1.6    | 78    | -0.02 | 6.26  |
| 56 t | Acenaphthylene            | 1.903       | 1.898   | 0.3     | 75    | -0.02 | 6.36  |
| 57 t | 2,6-Dinitrotoluene        | 0.286       | 0.311   | -8.7    | 72    | -0.02 | 6.31  |
| 58 t | 3-Nitroaniline            | 0.316       | 0.332   | -5.1    | 68    | -0.02 | 6.46  |
| 59 t | Acenaphthene              | 1.296       | 1.227   | 5.3     | 75    | -0.03 | 6.51  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 109.588 | -9.6    | 78    | -0.02 | 6.55  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.163       | 0.238   | -46.0   | 109   | -0.02 | 6.63  |
| 62 t | Dibenzofuran              | 1.737       | 1.750   | -0.7    | 80    | -0.03 | 6.67  |
| 63 t | 2,4-Dinitrotoluene        | 0.378       | 0.468   | -23.8   | 81    | -0.02 | 6.67  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.300       | 0.374   | -24.7   | 83    | -0.03 | 6.80  |
| 65 t | Diethylphthalate          | 1.350       | 1.456   | -7.9    | 80    | -0.03 | 6.90  |
| 66 t | Fluorene                  | 1.351       | 1.453   | -7.5    | 85    | -0.04 | 7.01  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.731   | -17.5   | 93    | -0.04 | 7.01  |
| 68 t | 4-Nitroaniline            | 0.316       | 0.322   | -1.9    | 67    | -0.03 | 7.05  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 73    | -0.04 | 8.15  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 52.149  | -4.3    | 77    | -0.01 | 7.08  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.527       | 0.568   | -7.8    | 79    | -0.02 | 7.14  |
| 72 t | 1,2-Diphenylhydrazine     | 0.851       | 0.927   | -8.9    | 82    | -0.02 | 7.18  |
| 73 S | 2,4,6-Tribromophenol      | 0.107       | 0.126   | -17.8   | 79    | -0.03 | 7.27  |
| 74 t | 4-Bromophenyl-phenylether | 0.205       | 0.232   | -13.2   | 83    | -0.03 | 7.57  |
| 75 t | Hexachlorobenzene         | 0.255       | 0.263   | -3.1    | 81    | -0.03 | 7.65  |
| 76 t | Pentachlorophenol         | 0.121       | 0.170   | -40.5   | 89    | -0.03 | 7.91  |
| 77 t | Phenanthrene              | 1.153       | 1.085   | 5.9     | 75    | -0.05 | 8.18  |
| 78 t | Anthracene                | 1.127       | 1.115   | 1.1     | 75    | -0.05 | 8.26  |
| 79 t | Carbazole                 | 1.033       | 1.001   | 3.1     | 70    | -0.04 | 8.52  |
| 80 t | Di-n-butylphthalate       | 1.208       | 1.364   | -12.9   | 78    | -0.04 | 9.19  |
| 81 t | Fluoranthene              | 1.143       | 1.219   | -6.6    | 78    | -0.04 | 10.18 |
| 82 t | Octadecane                | 0.511       | 0.665   | -30.1   | 97    | -0.03 | 8.08  |
| 83 I | Chrysene-d12              | 1.000       | 1.000   | 0.0     | 81    | -0.06 | 13.17 |
| 84 t | Pyrene                    | 1.327       | 1.228   | 7.5     | 77    | -0.08 | 10.60 |
| 85 S | Terphenyl-d14             | 0.908       | 0.872   | 4.0     | 79    | -0.08 | 11.03 |
| 86 t | Butylbenzylphthalate      | 0.555       | 0.599   | -7.9    | 80    | -0.05 | 12.19 |

8.9.42

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EF7516-ECC7484  
**Lab FileID:** F176431.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 87  | t | Benzo[a]anthracene        | 1.125       | 1.167  | -3.7    | 85    | -0.05 | 13.15 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.391       | 0.463  | -18.4   | 86    | -0.05 | 13.22 |
| 89  | t | Chrysene                  | 1.253       | 1.205  | 3.8     | 85    | -0.05 | 13.23 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.740       | 0.810  | -9.5    | 80    | -0.03 | 13.59 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 72    | -0.06 | 16.17 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 56.755 | -13.5   | 82    | -0.05 | 15.02 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.041       | 1.351  | -29.8   | 89    | -0.07 | 15.44 |
| 94  | t | Benzo[k]fluoranthene      | 1.147       | 1.190  | -3.7    | 77    | -0.07 | 15.50 |
| 95  | t | Benzo[a]pyrene            | 0.915       | 1.123  | -22.7   | 83    | -0.07 | 16.06 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.853       | 1.039  | -21.8   | 78    | -0.03 | 18.11 |
| 97  | t | Dibenz(a,h)acridine       | 0.858       | 0.988  | -15.2   | 79    | -0.04 | 17.75 |
| 98  | t | Dibenz[a,h]anthracene     | 0.996       | 1.102  | -10.6   | 77    | -0.03 | 18.18 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 50.000      | 62.339 | -24.7   | 90    | -0.08 | 15.46 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 100 | t | Benzo[g,h,i]perylene      | 0.983       | 1.037  | -5.5    | 75    | -0.02 | 18.53 |

(#) = Out of Range  
 F175754A.D MF7513.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 05:05:07 2018

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145280.D 5 =M145279.D 100 =M145274.D 50 =M145276.D  
1 =M145281.D 10 =M145278.D 80 =M145275.D 25 =M145277.D

| Compound  | 2              | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----   |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzene-d                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane  | 0.697          | 0.733 | 0.734 | 0.711 | 0.727 | 0.683 | 0.708 | 0.704 | 0.712 | 2.55  |
| 3) Pyridine   | 1.767          | 1.885 | 1.713 | 1.784 | 1.797 | 1.769 | 1.695 | 1.747 | 1.770 | 3.29  |
| 4) N-Nitrosodim                                       | 0.574          | 0.577 | 0.592 | 0.577 | 0.592 | 0.552 | 0.569 | 0.568 | 0.575 | 2.28  |
| 5) 2-Fluorophen                                       | 1.468          | 1.570 | 1.471 | 1.488 | 1.454 | 1.486 | 1.482 | 1.552 | 1.496 | 2.79  |
| 6) Indene   | 2.405          | 2.362 | 1.547 | 1.764 | 2.366 | 2.119 | 1.628 | 1.961 | 2.019 | 17.18 |
| 7) Cumene   | 3.799          | 3.925 | 2.881 | 3.183 | 3.902 | 3.514 | 2.986 | 3.454 | 3.455 | 11.81 |
| 8) Phenol-d5  | 1.856          | 1.932 | 1.682 | 1.771 | 1.635 | 1.833 | 1.710 | 1.830 | 1.781 | 5.60  |
| 9) Phenol   | 2.273          | 2.252 | 1.604 | 1.808 | 2.096 | 2.044 | 1.699 | 1.993 | 1.971 | 12.52 |
| 10) Aniline   | 2.429          | 2.364 | 1.594 | 1.733 | 2.507 | 2.207 | 1.685 | 1.983 | 2.063 | 17.58 |
| 11) bis(2-Chloro                                      | 1.539          | 1.448 | 1.065 | 1.128 | 1.494 | 1.286 | 1.073 | 1.216 | 1.281 | 14.96 |
| 12) 2-Chlorophen                                      | 1.588          | 1.612 | 1.183 | 1.272 | 1.545 | 1.511 | 1.205 | 1.395 | 1.414 | 12.34 |
| 13) Decane  | 1.144          | 1.039 |       | 0.735 | 1.110 | 0.898 | 0.683 | 0.831 | 0.920 | 19.78 |
| 14) 1,3-Dichloro                                      | 1.948          | 1.937 | 1.361 | 1.461 | 1.921 | 1.692 | 1.400 | 1.599 | 1.665 | 14.87 |
| 15) 1,4-Dichloro                                      | 1.779          | 1.760 | 1.296 | 1.391 | 1.894 | 1.593 | 1.329 | 1.493 | 1.567 | 14.39 |
| 16) Benzyl alcoh                                      | 0.893          | 0.904 | 0.822 | 0.842 | 0.851 | 0.898 | 0.823 | 0.900 | 0.867 | 4.11  |
| 17) 1,2-Dichloro                                      | 1.770          | 1.694 | 1.145 | 1.255 | 1.764 | 1.488 | 1.187 | 1.391 | 1.462 | 17.62 |
| 18) Acetophenone                                      | 2.096          | 1.973 | 1.247 | 1.397 | 1.938 | 1.728 | 1.302 | 1.599 | 1.660 | 19.60 |
| 19) 2-Methylphen                                      | 1.268          | 1.291 | 0.967 | 1.070 | 1.214 | 1.261 | 1.007 | 1.181 | 1.157 | 10.89 |
| 20) 2,2'-oxybis(                                      | 0.363          | 0.416 | 0.327 | 0.332 | 0.406 | 0.380 | 0.331 | 0.348 | 0.363 | 9.56  |
| 21) 3&4-Methylph                                      | 1.228          | 1.321 | 0.927 | 1.077 | 1.189 | 1.317 | 0.984 | 1.197 | 1.155 | 12.64 |
| 22) n-Nitroso-di                                      | 1.005          | 0.969 | 0.623 | 0.688 | 0.918 | 0.868 | 0.646 | 0.798 | 0.814 | 18.28 |
| 23) Hexachloroet                                      | 0.579          | 0.566 | 0.491 | 0.504 | 0.510 | 0.515 | 0.498 | 0.527 | 0.524 | 6.12  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 24) I Naphthalene-d8                                  | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene                                      | 0.404          | 0.435 | 0.354 | 0.371 | 0.396 | 0.408 | 0.360 | 0.398 | 0.391 | 6.93  |
| 26) Nitrobenzene                                      | 0.426          | 0.406 | 0.302 | 0.326 | 0.387 | 0.379 | 0.310 | 0.359 | 0.362 | 12.61 |
| 27) Quinoline   | 0.757          | 0.794 | 0.711 | 0.738 | 0.682 | 0.753 | 0.718 | 0.771 | 0.740 | 4.84  |
| 28) Isophorone  | 0.737          | 0.729 | 0.613 | 0.644 | 0.685 | 0.683 | 0.621 | 0.686 | 0.675 | 6.80  |
| 29) 2-Nitropheno                                      | 0.160          | 0.184 | 0.197 | 0.204 | 0.139 | 0.188 | 0.200 | 0.208 | 0.185 | 13.06 |
| 30) 2,4-Dimethyl                                      | 0.316          | 0.357 | 0.304 | 0.321 | 0.251 | 0.359 | 0.309 | 0.331 | 0.319 | 10.67 |
| 31) Benzoic acid                                      | 0.061          | 0.122 | 0.269 | 0.242 |       | 0.149 | 0.252 | 0.208 | 0.186 | 41.60 |
| ---- Quadratic regression ---- Coefficient = 0.9996   |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01239 + 0.21741 *A + 0.02228 *A^2 |                |       |       |       |       |       |       |       |       |       |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro                                      | 0.429          | 0.417 | 0.324 | 0.345 | 0.407 | 0.387 | 0.326 | 0.373 | 0.376 | 10.89 |
| 33) 2,4-Dichloro                                      | 0.241          | 0.308 | 0.285 | 0.307 | 0.215 | 0.312 | 0.295 | 0.321 | 0.285 | 13.26 |
| 34) 2,6-Dichloro                                      | 0.296          | 0.308 | 0.250 | 0.277 | 0.259 | 0.300 | 0.263 | 0.301 | 0.282 | 7.92  |
| 35) 1,3,5-Trichl                                      | 0.436          | 0.418 | 0.290 | 0.326 | 0.451 | 0.382 | 0.303 | 0.356 | 0.370 | 16.57 |
| 36) 1,2,4-Trichl                                      | 0.444          | 0.416 | 0.304 | 0.332 | 0.457 | 0.377 | 0.312 | 0.362 | 0.375 | 15.67 |
| 37) 1,2,3-Trichl                                      | 0.385          | 0.376 | 0.273 | 0.296 | 0.405 | 0.342 | 0.279 | 0.327 | 0.335 | 15.01 |
| 38) Naphthalene                                       | 1.237          | 1.164 | 0.858 | 0.939 | 1.216 | 1.074 | 0.884 | 1.032 | 1.050 | 14.11 |
| 39) 4-Chloroanil                                      | 0.485          | 0.504 | 0.382 | 0.418 | 0.470 | 0.471 | 0.398 | 0.458 | 0.448 | 9.73  |
| 40) 2,3-Dichloro                                      | 0.430          | 0.429 | 0.345 | 0.371 | 0.403 | 0.410 | 0.352 | 0.404 | 0.393 | 8.40  |
| 41) Caprolactam                                       | 0.099          | 0.126 | 0.130 | 0.128 | 0.089 | 0.130 | 0.131 | 0.137 | 0.121 | 14.40 |
| 42) Hexachlorobu                                      | 0.222          | 0.200 | 0.157 | 0.167 | 0.231 | 0.182 | 0.159 | 0.176 | 0.187 | 15.01 |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

|     |                    |  |       |       |       |       |       |       |       |       |       |
|-----|--------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 43) | 4-Chloro-3-m       | 0.309  | 0.329 | 0.307 | 0.323 | 0.283 | 0.321 | 0.313 | 0.334 | 0.315 | 5.13  |
| 44) | 2-Methylnaph       | 0.700  | 0.700 | 0.539 | 0.597 | 0.669 | 0.645 | 0.556 | 0.639 | 0.631 | 9.72  |
| 45) | 1-Methylnaph       | 0.862  | 0.858 | 0.642 | 0.695 | 0.828 | 0.772 | 0.660 | 0.768 | 0.761 | 11.41 |
| 46) | Dimethylnaph       | 0.753  | 0.743 | 0.564 | 0.619 | 0.725 | 0.680 | 0.583 | 0.680 | 0.668 | 10.85 |
| 47) | I Acenaphthene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy       | 0.278  | 0.307 | 0.301 | 0.312 | 0.250 | 0.318 | 0.308 | 0.330 | 0.300 | 8.39  |
| 49) | 2,4,6-Trichl       | 0.394  | 0.404 | 0.338 | 0.362 | 0.310 | 0.396 | 0.348 | 0.397 | 0.369 | 9.32  |
| 50) | 2,4,5-Trichl       | 0.426  | 0.424 | 0.390 | 0.407 | 0.358 | 0.433 | 0.395 | 0.427 | 0.408 | 6.30  |
| 51) | 2-Fluorobiph       | 1.850  | 1.694 | 1.249 | 1.366 | 1.882 | 1.609 | 1.292 | 1.485 | 1.553 | 15.75 |
| 52) | 2-Chloronaph       | 1.505  | 1.436 | 0.972 | 1.076 | 1.517 | 1.294 | 1.010 | 1.204 | 1.252 | 17.62 |
| 53) | Biphenyl           | 1.886  | 1.827 | 1.277 | 1.429 | 1.905 | 1.658 | 1.358 | 1.580 | 1.615 | 15.18 |
| 54) | 2-Nitroanili       | 0.230  | 0.289 | 0.304 | 0.308 | 0.204 | 0.286 | 0.300 | 0.318 | 0.280 | 14.51 |
| 55) | Dimethylphth       | 1.543  | 1.522 | 1.285 | 1.343 | 1.541 | 1.445 | 1.307 | 1.433 | 1.427 | 7.36  |
| 56) | Acenaphthyle       | 2.073  | 2.167 | 1.689 | 1.813 | 2.073 | 2.053 | 1.737 | 2.011 | 1.952 | 9.17  |
| 57) | 2,6-Dinitrot       | 0.209  | 0.244 | 0.305 | 0.306 | 0.174 | 0.272 | 0.303 | 0.305 | 0.264 | 19.32 |
| 58) | 3-Nitroanili       | 0.268  | 0.322 | 0.374 | 0.378 | 0.202 | 0.332 | 0.370 | 0.388 | 0.329 | 19.71 |
| 59) | Acenaphthene       | 1.474  | 1.334 | 1.040 | 1.109 | 1.371 | 1.227 | 1.066 | 1.202 | 1.228 | 12.64 |
| 60) | 2,4-Dinitrop       | 0.020  | 0.050 | 0.182 | 0.159 |       | 0.072 | 0.170 | 0.129 | 0.112 | 57.14 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9994    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.02314 + 0.13997 *A + 0.00934 *A^2  |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno       | 0.097  | 0.143 | 0.200 | 0.190 |       | 0.157 | 0.194 | 0.193 | 0.168 | 22.53 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00483 + 0.18802 *A + 0.00508 *A^2  |       |       |       |       |       |       |       |       |       |
| 62) | Dibenzofuran       | 2.096  | 2.025 | 1.427 | 1.571 | 2.201 | 1.807 | 1.483 | 1.746 | 1.794 | 16.23 |
| 63) | 2,4-Dinitrot       | 0.212  | 0.326 | 0.354 | 0.379 | 0.145 | 0.371 | 0.358 | 0.402 | 0.318 | 28.49 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00787 + 0.41519 *A + -0.02419 *A^2 |       |       |       |       |       |       |       |       |       |
| 64) | 2,3,4,6-Tetr       | 0.286  | 0.332 | 0.346 | 0.346 | 0.222 | 0.333 | 0.340 | 0.360 | 0.321 | 14.14 |
| 65) | Diethylphtha       | 1.485  | 1.478 | 1.280 | 1.346 | 1.392 | 1.434 | 1.293 | 1.434 | 1.393 | 5.69  |
| 66) | Fluorene           | 1.570  | 1.575 | 1.243 | 1.335 | 1.522 | 1.496 | 1.268 | 1.472 | 1.435 | 9.33  |
| 67) | 4-Chlorophen       | 0.740  | 0.771 | 0.563 | 0.606 | 0.809 | 0.689 | 0.572 | 0.654 | 0.676 | 13.70 |
| 68) | 4-Nitroanili       | 0.255  | 0.341 | 0.345 | 0.340 | 0.197 | 0.342 | 0.341 | 0.350 | 0.314 | 18.00 |
| 69) | I Phenanthrene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-       | 0.031  | 0.054 | 0.139 | 0.129 |       | 0.073 | 0.134 | 0.117 | 0.097 | 44.91 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9996    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00884 + 0.12702 *A + 0.00602 *A^2  |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip       | 0.580  | 0.588 | 0.467 | 0.494 | 0.564 | 0.551 | 0.477 | 0.535 | 0.532 | 8.88  |
| 72) | 1,2-Diphenyl       | 0.823  | 0.833 | 0.590 | 0.635 | 0.790 | 0.753 | 0.595 | 0.703 | 0.715 | 13.90 |
| 73) | 2,4,6-Tribr        | 0.097  | 0.120 | 0.120 | 0.120 | 0.076 | 0.120 | 0.120 | 0.125 | 0.112 | 15.08 |
| 74) | 4-Bromopheny       | 0.232  | 0.235 | 0.210 | 0.217 | 0.221 | 0.221 | 0.210 | 0.227 | 0.222 | 4.21  |
| 75) | Hexachlorobe       | 0.329  | 0.315 | 0.237 | 0.249 | 0.314 | 0.280 | 0.239 | 0.267 | 0.279 | 13.13 |
| 76) | Pentachlorop       | 0.107  | 0.145 | 0.160 | 0.168 |       | 0.145 | 0.160 | 0.165 | 0.150 | 14.00 |
| 77) | Phenanthrene       | 1.299  | 1.235 | 0.861 | 0.954 | 1.329 | 1.137 | 0.895 | 1.048 | 1.095 | 16.71 |
| 78) | Anthracene         | 1.232  | 1.245 | 0.929 | 1.003 | 1.171 | 1.129 | 0.954 | 1.086 | 1.094 | 11.14 |
| 79) | Carbazole          | 1.224  | 1.223 | 0.984 | 1.058 | 1.125 | 1.148 | 1.011 | 1.143 | 1.114 | 8.08  |
| 80) | Di-n-butylph       | 1.073  | 1.251 | 1.204 | 1.290 | 0.892 | 1.273 | 1.218 | 1.350 | 1.194 | 12.23 |
| 81) | Fluoranthene       | 1.193  | 1.318 | 1.128 | 1.219 | 1.163 | 1.281 | 1.158 | 1.305 | 1.221 | 5.95  |
| 82) | Octadecane         | 0.328  | 0.356 | 0.274 | 0.301 | 0.295 | 0.340 | 0.286 | 0.330 | 0.314 | 9.21  |
| 83) | I Chrysene-d12     | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene             | 1.486  | 1.556 | 1.353 | 1.377 | 1.352 | 1.443 | 1.339 | 1.439 | 1.418 | 5.41  |
| 85) | Terphenyl-d1       | 0.930  | 0.999 | 0.983 | 0.978 | 0.869 | 0.923 | 0.967 | 0.980 | 0.954 | 4.53  |
| 86) | Butylbenzylp       | 0.381  | 0.523 | 0.685 | 0.669 |       | 0.556 | 0.663 | 0.649 | 0.589 | 18.78 |
| 87) | Benzo[a]anth       | 1.114  | 1.175 | 1.244 | 1.206 | 1.099 | 1.113 | 1.213 | 1.200 | 1.170 | 4.67  |



# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

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|      |                |   |       |       |               |       |        |       |       |       |       |
|------|----------------|---|-------|-------|---------------|-------|--------|-------|-------|-------|-------|
| 88)  | 3,3'-Dichlor   | 0.262   | 0.356 | 0.465 | 0.441         | 0.215 | 0.388  | 0.455 | 0.441 | 0.378 | 24.93 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9999 |       |       |       |       |
|      |                | Response Ratio = -0.00777 + 0.43234 *A + 0.01388 *A^2 |       |       |               |       |        |       |       |       |       |
| 89)  | Chrysene       | 1.221   | 1.213 | 1.061 | 1.056         | 1.223 | 1.107  | 1.046 | 1.104 | 1.129 | 6.89  |
| 90)  | bis(2-Ethylh   | 0.428   | 0.620 | 0.871 | 0.838         | 0.276 | 0.686  | 0.843 | 0.811 | 0.672 | 32.57 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9998 |       |       |       |       |
|      |                | Response Ratio = -0.02041 + 0.81486 *A + 0.02422 *A^2 |       |       |               |       |        |       |       |       |       |
| 91)  | I Perylene-d12 | -----ISTD-----  |       |       |               |       |        |       |       |       |       |
| 92)  | Di-n-octylph   | 0.494   | 0.868 | 1.355 | 1.377         |       | 1.055  | 1.382 | 1.338 | 1.124 | 30.32 |
|      | ----           | Linear regression                                     |       | ----  | Coefficient = |       | 0.9995 |       |       |       |       |
|      |                | Response Ratio = -0.05189 + 1.39253 *A                |       |       |               |       |        |       |       |       |       |
| 93)  | Benzo[b]fluo   | 1.066   | 1.223 | 1.136 | 1.195         | 0.964 | 1.179  | 1.172 | 1.261 | 1.150 | 8.24  |
| 94)  | Benzo[k]fluo   | 1.234   | 1.278 | 0.942 | 1.029         | 0.953 | 1.170  | 0.998 | 1.090 | 1.087 | 11.81 |
| 95)  | Benzo[a]pyre   | 0.865   | 1.008 | 1.022 | 1.064         | 0.711 | 1.018  | 1.056 | 1.092 | 0.980 | 13.11 |
| 96)  | Indeno[1,2,3   | 0.797   | 0.951 | 1.009 | 1.033         | 0.591 | 0.979  | 1.020 | 1.102 | 0.935 | 17.58 |
| 97)  | Dibenz(a,h)a   | 0.724   | 0.910 | 0.960 | 1.018         | 0.561 | 0.950  | 0.996 | 1.064 | 0.898 | 18.93 |
| 98)  | Dibenz[a,h]a   | 0.905   | 1.084 | 0.986 | 1.048         | 0.771 | 1.057  | 1.018 | 1.121 | 0.999 | 11.31 |
| 99)  | 7,12-Dimethy   | 0.372   | 0.478 | 0.480 | 0.499         | 0.297 | 0.506  | 0.498 | 0.518 | 0.456 | 17.28 |
| 100) | Benzo[g,h,i]   | 0.920   | 1.014 | 0.989 | 1.009         | 0.762 | 1.033  | 1.003 | 1.107 | 0.980 | 10.38 |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6168.M

Wed Apr 18 15:31:16 2018

MSM

8.9.43  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145282.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145282.D Vial: 10  
Acq On : 17 Apr 2018 8:03 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 110   | 0.00     | 4.65  |
| 5 S  | 2-Fluorophenol         | 1.496 | 1.403 | 6.2  | 104   | 0.00     | 3.67  |
| 8 S  | Phenol-d5              | 1.781 | 1.649 | 7.4  | 102   | 0.00     | 4.38  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 25 S | Nitrobenzene-d5        | 0.391 | 0.375 | 4.1  | 107   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 104   | 0.00     | 8.10  |
| 51 S | 2-Fluorobiphenyl       | 1.553 | 1.362 | 12.3 | 104   | 0.00     | 7.11  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 10.71 |
| 73 S | 2,4,6-Tribromophenol   | 0.112 | 0.120 | -7.1 | 94    | 0.00     | 9.45  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 15.85 |
| 85 S | Terphenyl-d14          | 0.954 | 0.926 | 2.9  | 92    | 0.00     | 13.88 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:22 2018 MSM

8.9.44

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145284.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145284.D Vial: 12  
Acq On : 17 Apr 2018 9:02 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 4.66  |
| 3 t  | Pyridine               | 1.770 | 1.552 | 12.3  | 85    | 0.08     | 2.59  |
| 10 t | Aniline                | 2.063 | 2.300 | -11.5 | 129   | 0.00     | 4.41  |
| 16 t | Benzyl alcohol         | 0.867 | 0.960 | -10.7 | 111   | 0.00     | 4.76  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 107   | 0.00     | 5.78  |
| 39 t | 4-Chloroaniline        | 0.448 | 0.423 | 5.6   | 108   | 0.00     | 5.86  |
| 44 t | 2-Methylnaphthalene    | 0.631 | 0.563 | 10.8  | 101   | 0.00     | 6.61  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 104   | 0.00     | 8.11  |
| 54 t | 2-Nitroaniline         | 0.280 | 0.295 | -5.4  | 99    | 0.00     | 7.42  |
| 58 t | 3-Nitroaniline         | 0.329 | 0.341 | -3.6  | 94    | 0.00     | 8.05  |
| 62 t | Dibenzofuran           | 1.794 | 1.676 | 6.6   | 111   | 0.00     | 8.44  |
| 68 t | 4-Nitroaniline         | 0.314 | 0.344 | -9.6  | 105   | -0.01    | 9.07  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 101   | 0.00     | 10.70 |
| 79 t | Carbazole              | 1.114 | 1.087 | 2.4   | 103   | 0.00     | 11.18 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:24 2018 MSM

8.9.45

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145285.D Vial: 13  
 Acq On : 17 Apr 2018 9:31 am Operator: chriss2  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|---------------------------|--------|--------|------|-------|----------|-------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0  | 100   | 0.00     | 4.66  |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.412  | 28.3 | 71    | 0.02     | 2.48  |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.294  | -1.0 | 114   | 0.00     | 4.45  |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.569  | 5.8  | 107   | 0.00     | 4.62  |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.393  | 11.1 | 100   | 0.00     | 4.67  |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.387  | 5.1  | 110   | 0.00     | 4.79  |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.381  | -5.0 | 114   | 0.00     | 4.87  |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.819  | -0.6 | 119   | 0.00     | 4.97  |
| 23 t                           | Hexachloroethane          | 0.524  | 0.483  | 7.8  | 96    | 0.00     | 5.07  |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0  | 95    | 0.00     | 5.78  |
| 26 t                           | Nitrobenzene              | 0.362  | 0.316  | 12.7 | 92    | 0.00     | 5.12  |
| 28 t                           | Isophorone                | 0.675  | 0.615  | 8.9  | 91    | 0.00     | 5.33  |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.383  | -1.9 | 105   | 0.00     | 5.53  |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.344  | 8.3  | 98    | 0.00     | 5.73  |
| 38 t                           | Naphthalene               | 1.050  | 0.948  | 9.7  | 96    | 0.00     | 5.81  |
| 42 t                           | Hexachlorobutadiene       | 0.187  | 0.176  | 5.9  | 100   | 0.00     | 5.95  |
| 47 I                           | Acenaphthene-d10          | 1.000  | 1.000  | 0.0  | 91    | 0.00     | 8.11  |
| 48 t                           | Hexachlorocyclopentadiene | 0.300  | 0.292  | 2.7  | 79    | 0.00     | 6.83  |
| 52 t                           | 2-Chloronaphthalene       | 1.252  | 1.211  | 3.3  | 102   | 0.00     | 7.26  |
| 55 t                           | Dimethylphthalate         | 1.427  | 1.329  | 6.9  | 90    | 0.00     | 7.72  |
| 56 t                           | Acenaphthylene            | 1.952  | 1.796  | 8.0  | 90    | 0.00     | 7.88  |
| 57 t                           | 2,6-Dinitrotoluene        | 0.264  | 0.243  | 8.0  | 72    | 0.00     | 7.80  |
| 59 t                           | Acenaphthene              | 1.228  | 1.100  | 10.4 | 90    | 0.00     | 8.16  |
| ----- True Calc. % Drift ----- |                           |        |        |      |       |          |       |
| 63 t                           | 2,4-Dinitrotoluene        | 50.000 | 37.179 | 25.6 | 68    | 0.00     | 8.44  |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |      |       |          |       |
| 65 t                           | Diethylphthalate          | 1.393  | 1.305  | 6.3  | 88    | -0.01    | 8.91  |
| 66 t                           | Fluorene                  | 1.435  | 1.301  | 9.3  | 89    | 0.00     | 9.03  |
| 67 t                           | 4-Chlorophenyl-phenylethe | 0.676  | 0.574  | 15.1 | 86    | 0.00     | 9.06  |
| 69 I                           | Phenanthrene-d10          | 1.000  | 1.000  | 0.0  | 89    | 0.00     | 10.70 |
| 71 t                           | n-Nitrosodiphenylamine    | 0.532  | 0.486  | 8.6  | 88    | 0.00     | 9.27  |
| 72 t                           | 1,2-Diphenylhydrazine     | 0.715  | 0.638  | 10.8 | 90    | 0.00     | 9.34  |
| 74 t                           | 4-Bromophenyl-phenylether | 0.222  | 0.208  | 6.3  | 86    | 0.00     | 9.93  |
| 75 t                           | Hexachlorobenzene         | 0.279  | 0.240  | 14.0 | 86    | 0.00     | 10.01 |
| 77 t                           | Phenanthrene              | 1.095  | 0.999  | 8.8  | 93    | 0.00     | 10.75 |
| 78 t                           | Anthracene                | 1.094  | 0.975  | 10.9 | 87    | 0.00     | 10.84 |

8.9.46

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 80  | t | Di-n-butylphthalate       | 1.194       | 1.203  | -0.8    | 83    | 0.00  | 12.01 |
| 81  | t | Fluoranthene              | 1.221       | 1.133  | 7.2     | 83    | 0.00  | 13.03 |
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 83    | 0.00  | 15.86 |
| 84  | t | Pyrene                    | 1.418       | 1.341  | 5.4     | 81    | 0.00  | 13.45 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.643  | -9.2    | 80    | 0.00  | 14.94 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.163  | 0.6     | 80    | 0.00  | 15.84 |
| 89  | t | Chrysene                  | 1.129       | 1.017  | 9.9     | 80    | 0.00  | 15.91 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 49.012 | 2.0     | 80    | 0.00  | 16.17 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 79    | 0.00  | 18.46 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 49.824 | 0.4     | 77    | 0.00  | 17.39 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.110  | 3.5     | 74    | 0.00  | 17.82 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.074  | 1.2     | 83    | -0.01 | 17.87 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.037  | -5.8    | 77    | 0.00  | 18.36 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 1.010  | -8.0    | 77    | 0.00  | 20.15 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 0.996  | 0.3     | 75    | 0.00  | 20.21 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 1.072  | -9.4    | 84    | -0.01 | 20.59 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:26 2018 MSM

8.9.46

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145286.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145286.D Vial: 14  
Acq On : 17 Apr 2018 10:00 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 4.66  |
| 2 t  | 1,4-Dioxane               | 0.712 | 0.627 | 11.9 | 93    | 0.01     | 2.20  |
| 6 t  | Indene                    | 2.019 | 2.192 | -8.6 | 131   | 0.00     | 4.86  |
| 7 t  | Cumene                    | 3.455 | 3.173 | 8.2  | 105   | 0.00     | 4.06  |
| 13 t | Decane                    | 0.920 | 0.781 | 15.1 | 112   | 0.00     | 4.54  |
| 18 t | Acetophenone              | 1.660 | 1.650 | 0.6  | 124   | 0.00     | 4.97  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 27 t | Quinoline                 | 0.740 | 0.681 | 8.0  | 97    | -0.01    | 6.17  |
| 40 t | 2,3-Dichloroaniline       | 0.393 | 0.328 | 16.5 | 93    | 0.00     | 6.98  |
| 41 t | Caprolactam               | 0.121 | 0.103 | 14.9 | 85    | -0.03    | 6.23  |
| 45 t | 1-Methylnaphthalene       | 0.761 | 0.626 | 17.7 | 95    | 0.00     | 6.73  |
| 46 t | Dimethylnaphthalene       | 0.668 | 0.586 | 12.3 | 100   | 0.00     | 7.48  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 91    | 0.00     | 8.11  |
| 53 t | Biphenyl                  | 1.615 | 1.610 | 0.3  | 103   | 0.00     | 7.25  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 10.71 |
| 82 t | Octadecane                | 0.314 | 0.337 | -7.3 | 101   | 0.00     | 10.73 |
| 91 I | Perylene-d12              | 1.000 | 1.000 | 0.0  | 77    | 0.00     | 18.46 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.456 | 0.343 | 24.8 | 53    | -0.02    | 17.83 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:28 2018 MSM

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145287.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145287.D Vial: 15  
Acq On : 17 Apr 2018 10:30 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T.  |
|-----------------------------|--------|---------|-------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000  | 1.000   | 0.0   | 120   | 0.00     | 15.85 |
| ----- True                  | Calc.  | % Drift | ----- |       |          |       |
| 88 t 3,3'-Dichlorobenzidine | 50.000 | 40.829  | 18.3  | 98    | 0.00     | 15.87 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:30 2018 MSM

8.9.48  
8

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICC6169  
**Lab FileID:** M145291.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6169.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145295.D 5 =M145294.D 100 =M145289.D 50 =M145291.D  
1 =M145296.D 10 =M145293.D 80 =M145290.D 25 =M145292.D

| Compound  | 2     | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg    | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d  |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde   | 1.324 | 1.294 | 0.907 | 1.038 | 1.291 | 1.171 | 0.983 | 1.156 | 1.145  | 13.63 |
| 103) I Acenaphthene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 104) 1,2,4,5-Tetr   | 0.715 | 0.765 | 0.581 | 0.607 | 0.682 | 0.685 | 0.614 | 0.672 | 0.665  | 9.24  |
| 105) Atrazine   | 0.134 | 0.180 | 0.207 | 0.213 | 0.120 | 0.183 | 0.212 | 0.215 | 0.183  | 20.31 |
| ---- Linear regression ---- Coefficient = 0.9995<br>Response Ratio = -0.00230 + 0.21095 *A                    |       |       |       |       |       |       |       |       |        |       |
| 106) I Chrysene-d12a  |       |       |       |       |       |       |       |       |        |       |
| 107) Benzidine  | 0.266 | 0.505 |       | 0.585 | 0.160 | 0.590 | 0.545 | 0.698 | 0.478  | 40.36 |
| ---- Quadratic regression ---- Coefficient = 0.9982<br>Response Ratio = -0.01964 + 0.73236 *A + -0.09033 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 108) 1-chloroocta   | 0.196 | 0.231 | 0.244 | 0.253 |       | 0.237 | 0.252 | 0.271 | 0.241  | 9.70  |
| 109) I Phenanthrene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 110) o-terphenyl  | 0.548 | 0.624 | 0.515 | 0.552 | 0.506 | 0.582 | 0.529 | 0.573 | 0.554  | 7.03  |
| 111) Pentachloron   |       | 0.023 | 0.041 | 0.040 |       | 0.030 | 0.041 | 0.039 | 0.036# | 20.56 |
| ---- Linear regression ---- Coefficient = 0.9999<br>Response Ratio = -0.00254 + 0.04234 *A                    |       |       |       |       |       |       |       |       |        |       |
| 112) I Naphthalene-d8a  |       |       |       |       |       |       |       |       |        |       |
| 113) Hydroquinone   |       | 0.230 | 0.372 | 0.374 |       | 0.299 | 0.358 | 0.354 | 0.331  | 17.09 |

(#) = Out of Range ###

MM6168.M Wed Apr 18 15:32:44 2018 MSM

8.9.49  
8



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145297.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145297.D Vial: 24  
Acq On : 17 Apr 2018 3:34 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 112 I Naphthalene-d8a | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 5.79 |
| 113 Hydroquinone      | 0.331 | 0.350 | -5.7 | 91    | 0.00     | 6.23 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:32 2018 MSM

8.9.50  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145298.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145298.D Vial: 12  
Acq On : 17 Apr 2018 4:03 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----------------------------|------------|--------|---------|-------|----------|-------|
| 109 I Phenanthrene-d10a     | 1.000      | 1.000  | 0.0     | 105   | 0.00     | 10.70 |
|                             | ----- True | Calc.  | % Drift | ----- |          |       |
| 111 Pentachloronitrobenzene | 50.000     | 51.100 | -2.2    | 107   | 0.00     | 10.42 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:34 2018 MSM

8.9.51

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145299.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145299.D Vial: 13  
Acq On : 17 Apr 2018 4:32 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                        | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|---------------------------------|-------|-------|------|-------|----------|------|
| 103 I Acenaphthene-d10a         | 1.000 | 1.000 | 0.0  | 96    | 0.00     | 8.11 |
| 104 I 1,2,4,5-Tetrachlorobenzen | 0.665 | 0.655 | 1.5  | 104   | 0.00     | 6.83 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:36 2018 MSM

8.9.52  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145300.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145300.D Vial: 14  
Acq On : 17 Apr 2018 5:02 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|-------------------------|--------|--------|---------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000  | 1.000  | 0.0     | 94    | 0.00     | 4.65  |
| 102 t | Benzaldehyde            | 1.145  | 0.949  | 17.1    | 86    | 0.00     | 4.32  |
| 103 I | Acenaphthene-d10a       | 1.000  | 1.000  | 0.0     | 93    | 0.00     | 8.11  |
|       |                         | True   | Calc.  | % Drift |       |          |       |
| 105 t | Atrazine                | 50.000 | 50.874 | -1.7    | 93    | 0.00     | 10.31 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:38 2018 MSM

8.9.53

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145301.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145301.D Vial: 15  
Acq On : 17 Apr 2018 5:31 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|--------------------------------|--------|--------|-------|-------|----------|-------|
| 106 I Chrysene-d12a            | 1.000  | 1.000  | 0.0   | 117   | 0.00     | 15.85 |
| ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 107 t Benzidine                | 50.000 | 61.819 | -23.6 | 144   | 0.00     | 13.38 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:15:55 2018 MSM

8.9.54

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6170-ICV6168  
**Lab FileID:** M145303.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6170\M145303.D Vial: 2  
 Acq On : 17 Apr 2018 8:55 pm Operator: sufiyana  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6170,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 103   | 0.00     | 4.65  |
| 9 t  | Phenol                         | 1.971  | 1.806  | 8.4   | 103   | 0.00     | 4.39  |
| 12 t | 2-Chlorophenol                 | 1.414  | 1.382  | 2.3   | 112   | 0.00     | 4.49  |
| 19 t | 2-Methylphenol                 | 1.157  | 1.141  | 1.4   | 110   | 0.00     | 4.85  |
| 21 t | 3&4-Methylphenol               | 1.155  | 1.197  | -3.6  | 114   | 0.00     | 4.98  |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 92    | 0.00     | 5.78  |
| 29 t | 2-Nitrophenol                  | 0.185  | 0.222  | -20.0 | 100   | 0.00     | 5.41  |
| 30 t | 2,4-Dimethylphenol             | 0.319  | 0.345  | -8.2  | 99    | 0.00     | 5.45  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 31 t | Benzoic acid                   | 50.000 | 53.638 | -7.3  | 97    | 0.00     | 5.55  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 33 t | 2,4-Dichlorophenol             | 0.285  | 0.301  | -5.6  | 90    | 0.00     | 5.64  |
| 34 t | 2,6-Dichlorophenol             | 0.282  | 0.296  | -5.0  | 98    | 0.00     | 5.87  |
| 43 t | 4-Chloro-3-methylphenol        | 0.315  | 0.330  | -4.8  | 94    | 0.00     | 6.42  |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 85    | 0.00     | 8.10  |
| 49 t | 2,4,6-Trichlorophenol          | 0.369  | 0.429  | -16.3 | 100   | 0.00     | 6.98  |
| 50 t | 2,4,5-Trichlorophenol          | 0.408  | 0.422  | -3.4  | 88    | -0.01    | 7.03  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 59.400 | -18.8 | 106   | 0.00     | 8.22  |
| 61 t | 4-Nitrophenol                  | 50.000 | 49.997 | 0.0   | 85    | 0.00     | 8.36  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 64 t | 2,3,4,6-Tetrachlorophenol      | 0.321  | 0.332  | -3.4  | 81    | 0.00     | 8.67  |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 82    | 0.00     | 10.71 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 55.228 | -10.5 | 90    | 0.00     | 9.14  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 76 t | Pentachlorophenol              | 0.150  | 0.192  | -28.0 | 94    | 0.00     | 10.39 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Wed Apr 18 02:23:34 2018 MSM

8.9.55

8

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6192-CC6168  
 Lab FileID: M145714.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6192\M145714.D Vial: 2  
 Acq On : 3 May 2018 1:21 am Operator: chriss2  
 Sample : cc6168-50 Inst : Instrument #1  
 Misc : op10492,em6192,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 60    | 0.00     | 4.56 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.655  | 8.0    | 55    | -0.08    | 2.06 |
| 3 t                            | Pyridine                  | 1.770  | 1.524  | 13.9   | 51    | -0.06    | 2.40 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.728  | -26.6# | 76    | -0.06    | 2.36 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.411  | 5.7    | 57    | 0.00     | 3.59 |
| 6 t                            | Indene                    | 2.019  | 2.040  | -1.0   | 70    | -0.01    | 4.76 |
| 7 t                            | Cumene                    | 3.455  | 3.367  | 2.5    | 64    | -0.02    | 3.96 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.647  | 7.5    | 56    | 0.02     | 4.31 |
| 9 t                            | Phenol                    | 1.971  | 1.770  | 10.2   | 59    | 0.02     | 4.32 |
| 10 t                           | Aniline                   | 2.063  | 1.999  | 3.1    | 69    | 0.00     | 4.31 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.133  | 11.6   | 60    | 0.00     | 4.36 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.384  | 2.1    | 65    | 0.00     | 4.41 |
| 13 t                           | Decane                    | 0.920  | 0.957  | -4.0   | 78    | -0.01    | 4.44 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.542  | 7.4    | 63    | -0.01    | 4.52 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.456  | 7.1    | 63    | -0.01    | 4.57 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.857  | 1.2    | 61    | 0.00     | 4.67 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.430  | 2.2    | 69    | -0.01    | 4.69 |
| 18 t                           | Acetophenone              | 1.660  | 1.755  | -5.7   | 76    | 0.00     | 4.87 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.121  | 3.1    | 63    | 0.00     | 4.77 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.335  | 7.7    | 61    | 0.00     | 4.77 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.194  | -3.4   | 67    | 0.00     | 4.89 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.875  | -7.5   | 77    | 0.00     | 4.87 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.542  | -3.4   | 65    | -0.01    | 4.96 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 63    | -0.05    | 5.66 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.377  | 3.6    | 64    | -0.05    | 5.00 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.348  | 3.9    | 67    | -0.04    | 5.01 |
| 27 t                           | Quinoline                 | 0.740  | 0.743  | -0.4   | 63    | -0.06    | 6.04 |
| 28 t                           | Isophorone                | 0.675  | 0.661  | 2.1    | 64    | -0.05    | 5.22 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.216  | -16.8  | 66    | -0.05    | 5.30 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.354  | -11.0  | 69    | -0.04    | 5.34 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 64.058 | -28.1# | 82    | -0.02    | 5.47 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.343  | 8.8    | 62    | -0.05    | 5.42 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.312  | -9.5   | 64    | -0.04    | 5.53 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.292  | -3.5   | 66    | -0.05    | 5.75 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.352  | 4.9    | 68    | -0.05    | 5.31 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.337  | 10.1   | 64    | -0.05    | 5.60 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.327  | 2.4    | 69    | -0.06    | 5.83 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6192-CC6168  
**Lab FileID:** M145714.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.960   | 8.6     | 64    | -0.06 | 5.68  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.438   | 2.2     | 66    | -0.05 | 5.74  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.411   | -4.6    | 69    | -0.05 | 6.84  |
| 41 t | Caprolactam               | 0.121       | 0.143   | -18.2   | 70    | -0.04 | 6.13  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.188   | -0.5    | 71    | -0.06 | 5.82  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.342   | -8.6    | 66    | -0.03 | 6.32  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.617   | 2.2     | 65    | -0.06 | 6.46  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.745   | 2.1     | 67    | -0.06 | 6.59  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.681   | -1.9    | 69    | -0.06 | 7.32  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 66    | -0.07 | 7.95  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.336   | -12.0   | 71    | -0.07 | 6.68  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.385   | -4.3    | 70    | -0.05 | 6.85  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.428   | -4.9    | 70    | -0.05 | 6.91  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.331   | 14.3    | 64    | -0.07 | 6.96  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.094   | 12.6    | 67    | -0.07 | 7.11  |
| 53 t | Biphenyl                  | 1.615       | 1.468   | 9.1     | 68    | -0.07 | 7.10  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.345   | -23.2#  | 74    | -0.06 | 7.28  |
| 55 t | Dimethylphthalate         | 1.427       | 1.386   | 2.9     | 68    | -0.07 | 7.57  |
| 56 t | Acenaphthylene            | 1.952       | 1.841   | 5.7     | 67    | -0.07 | 7.72  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.325   | -23.1#  | 70    | -0.06 | 7.65  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.375   | -14.0   | 66    | -0.05 | 7.91  |
| 59 t | Acenaphthene              | 1.228       | 1.136   | 7.5     | 68    | -0.07 | 8.00  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 119.554 | -19.6   | 80    | -0.04 | 8.09  |
| 61 t | 4-Nitrophenol             | 50.000      | 56.888  | -13.8   | 76    | 0.00  | 8.26  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.652   | 7.9     | 70    | -0.07 | 8.28  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 50.000      | 55.348  | -10.7   | 73    | -0.05 | 8.30  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.362   | -12.8   | 69    | -0.05 | 8.52  |
| 65 t | Diethylphthalate          | 1.393       | 1.419   | -1.9    | 70    | -0.06 | 8.75  |
| 66 t | Fluorene                  | 1.435       | 1.373   | 4.3     | 68    | -0.06 | 8.86  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.642   | 5.0     | 70    | -0.06 | 8.89  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.348   | -10.8   | 68    | -0.04 | 8.94  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 69    | -0.08 | 10.53 |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 56.050  | -12.1   | 77    | -0.07 | 9.00  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.528   | 0.8     | 74    | -0.08 | 9.11  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.621   | 13.1    | 67    | -0.09 | 9.17  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.123   | -9.8    | 70    | -0.08 | 9.29  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.221   | 0.5     | 70    | -0.09 | 9.76  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.258   | 7.5     | 71    | -0.08 | 9.85  |
| 76 t | Pentachlorophenol         | 0.150       | 0.160   | -6.7    | 65    | -0.07 | 10.24 |
| 77 t | Phenanthrene              | 1.095       | 0.982   | 10.3    | 71    | -0.08 | 10.58 |
| 78 t | Anthracene                | 1.094       | 1.039   | 5.0     | 71    | -0.08 | 10.68 |
| 79 t | Carbazole                 | 1.114       | 1.043   | 6.4     | 68    | -0.06 | 11.03 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.323   | -10.8   | 71    | -0.07 | 11.84 |
| 81 t | Fluoranthene              | 1.221       | 1.242   | -1.7    | 70    | -0.06 | 12.86 |
| 82 t | Octadecane                | 0.314       | 0.335   | -6.7    | 77    | -0.08 | 10.56 |

8.9.56

8



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6192-CC6168  
**Lab FileID:** M145714.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 72    | -0.08 | 15.69 |
| 84  | t | Pyrene                    | 1.418       | 1.341  | 5.4     | 70    | -0.10 | 13.28 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.936  | 1.9     | 68    | -0.10 | 13.71 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.653  | -10.9   | 70    | -0.09 | 14.77 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.208  | -3.2    | 72    | -0.08 | 15.67 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 50.000      | 50.829 | -1.7    | 73    | -0.08 | 15.70 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.074  | 4.9     | 73    | -0.08 | 15.74 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 51.207 | -2.4    | 73    | -0.09 | 15.99 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 65    | -0.09 | 18.30 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 55.397 | -10.8   | 71    | -0.10 | 17.22 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.224  | -6.4    | 66    | -0.09 | 17.66 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.119  | -2.9    | 70    | -0.09 | 17.71 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.098  | -12.0   | 67    | -0.09 | 18.20 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 0.837  | 10.5    | 52    | -0.10 | 19.97 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.824  | 8.2     | 52    | -0.09 | 19.63 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 0.897  | 10.2    | 55    | -0.10 | 20.02 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.559  | -22.6#  | 72    | -0.10 | 17.68 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 0.825  | 15.8    | 53    | -0.12 | 20.39 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 10:29:35 2018 MSM

8.9.56

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6168  
**Lab FileID:** M145757.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6194\M145757.D Vial: 2  
 Acq On : 4 May 2018 12:06 am Operator: sufiyana  
 Sample : cc6168-50 Inst : Instrument #1  
 Misc : op10492,em6194,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 60    | -0.02    | 4.55 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.643  | 9.7    | 54    | -0.09    | 2.05 |
| 3 t                            | Pyridine                  | 1.770  | 1.561  | 11.8   | 53    | -0.06    | 2.39 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.718  | -24.9# | 75    | -0.07    | 2.35 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.435  | 4.1    | 58    | -0.01    | 3.57 |
| 6 t                            | Indene                    | 2.019  | 1.972  | 2.3    | 67    | -0.02    | 4.74 |
| 7 t                            | Cumene                    | 3.455  | 3.389  | 1.9    | 64    | -0.03    | 3.95 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.642  | 7.8    | 56    | 0.00     | 4.30 |
| 9 t                            | Phenol                    | 1.971  | 1.718  | 12.8   | 57    | 0.00     | 4.31 |
| 10 t                           | Aniline                   | 2.063  | 1.945  | 5.7    | 67    | -0.02    | 4.31 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.128  | 11.9   | 60    | -0.02    | 4.35 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.367  | 3.3    | 65    | 0.00     | 4.40 |
| 13 t                           | Decane                    | 0.920  | 0.946  | -2.8   | 77    | -0.02    | 4.43 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.510  | 9.3    | 62    | -0.02    | 4.50 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.450  | 7.5    | 63    | -0.02    | 4.56 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.845  | 2.5    | 60    | 0.00     | 4.66 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.378  | 5.7    | 66    | -0.02    | 4.68 |
| 18 t                           | Acetophenone              | 1.660  | 1.681  | -1.3   | 72    | -0.02    | 4.86 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.083  | 6.4    | 61    | 0.00     | 4.76 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.322  | 11.3   | 58    | -0.02    | 4.76 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.168  | -1.1   | 65    | 0.00     | 4.88 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.826  | -1.5   | 72    | -0.02    | 4.87 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.531  | -1.3   | 63    | -0.02    | 4.95 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 61    | -0.06    | 5.65 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.368  | 5.9    | 60    | -0.05    | 4.99 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.348  | 3.9    | 65    | -0.05    | 5.01 |
| 27 t                           | Quinoline                 | 0.740  | 0.751  | -1.5   | 62    | -0.07    | 6.03 |
| 28 t                           | Isophorone                | 0.675  | 0.647  | 4.1    | 61    | -0.06    | 5.21 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.213  | -15.1  | 63    | -0.06    | 5.28 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.355  | -11.3  | 67    | -0.04    | 5.34 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 63.841 | -27.7# | 78    | -0.03    | 5.45 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.342  | 9.0    | 60    | -0.06    | 5.41 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.313  | -9.8   | 62    | -0.05    | 5.52 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.295  | -4.6   | 65    | -0.06    | 5.74 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.349  | 5.7    | 65    | -0.06    | 5.29 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.345  | 8.0    | 63    | -0.06    | 5.59 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.326  | 2.7    | 67    | -0.07    | 5.82 |

8.9.57  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6168  
**Lab FileID:** M145757.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.961   | 8.5     | 62    | -0.07 | 5.67  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.440   | 1.8     | 64    | -0.06 | 5.73  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.409   | -4.1    | 67    | -0.07 | 6.82  |
| 41 t | Caprolactam               | 0.121       | 0.148   | -22.3#  | 70    | -0.06 | 6.12  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.190   | -1.6    | 69    | -0.07 | 5.81  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.346   | -9.8    | 65    | -0.05 | 6.30  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.624   | 1.1     | 63    | -0.07 | 6.45  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.750   | 1.4     | 65    | -0.07 | 6.58  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.680   | -1.8    | 66    | -0.08 | 7.30  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 64    | -0.09 | 7.93  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.332   | -10.7   | 68    | -0.08 | 6.67  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.387   | -4.9    | 68    | -0.07 | 6.84  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.430   | -5.4    | 67    | -0.07 | 6.89  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.346   | 13.3    | 63    | -0.08 | 6.94  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.090   | 12.9    | 65    | -0.08 | 7.10  |
| 53 t | Biphenyl                  | 1.615       | 1.497   | 7.3     | 67    | -0.08 | 7.08  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.342   | -22.1#  | 71    | -0.07 | 7.26  |
| 55 t | Dimethylphthalate         | 1.427       | 1.404   | 1.6     | 67    | -0.08 | 7.55  |
| 56 t | Acenaphthylene            | 1.952       | 1.840   | 5.7     | 65    | -0.09 | 7.70  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.318   | -20.5#  | 66    | -0.07 | 7.63  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.379   | -15.2   | 64    | -0.07 | 7.89  |
| 59 t | Acenaphthene              | 1.228       | 1.134   | 7.7     | 65    | -0.08 | 7.98  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 119.952 | -20.0   | 77    | -0.06 | 8.07  |
| 61 t | 4-Nitrophenol             | 50.000      | 58.366  | -16.7   | 75    | -0.02 | 8.24  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.659   | 7.5     | 67    | -0.09 | 8.26  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 50.000      | 56.465  | -12.9   | 71    | -0.07 | 8.28  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.368   | -14.6   | 68    | -0.07 | 8.50  |
| 65 t | Diethylphthalate          | 1.393       | 1.417   | -1.7    | 67    | -0.08 | 8.73  |
| 66 t | Fluorene                  | 1.435       | 1.388   | 3.3     | 66    | -0.08 | 8.84  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.656   | 3.0     | 69    | -0.08 | 8.88  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.355   | -13.1   | 67    | -0.06 | 8.92  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 69    | -0.10 | 10.52 |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 53.816  | -7.6    | 74    | -0.09 | 8.98  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.521   | 2.1     | 73    | -0.10 | 9.09  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.607   | 15.1    | 66    | -0.11 | 9.15  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.125   | -11.6   | 71    | -0.10 | 9.27  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.220   | 0.9     | 70    | -0.10 | 9.74  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.250   | 10.4    | 69    | -0.10 | 9.83  |
| 76 t | Pentachlorophenol         | 0.150       | 0.159   | -6.0    | 65    | -0.09 | 10.21 |
| 77 t | Phenanthrene              | 1.095       | 0.966   | 11.8    | 70    | -0.10 | 10.56 |
| 78 t | Anthracene                | 1.094       | 1.019   | 6.9     | 70    | -0.10 | 10.66 |
| 79 t | Carbazole                 | 1.114       | 1.041   | 6.6     | 68    | -0.09 | 11.00 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.316   | -10.2   | 70    | -0.09 | 11.83 |
| 81 t | Fluoranthene              | 1.221       | 1.266   | -3.7    | 71    | -0.08 | 12.84 |
| 82 t | Octadecane                | 0.314       | 0.322   | -2.5    | 74    | -0.10 | 10.54 |

8.9.57

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6168  
**Lab FileID:** M145757.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 74    | -0.11 | 15.67 |
| 84  | t | Pyrene                    | 1.418       | 1.300  | 8.3     | 70    | -0.12 | 13.26 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.913  | 4.3     | 69    | -0.12 | 13.69 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.645  | -9.5    | 71    | -0.11 | 14.75 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.210  | -3.4    | 74    | -0.11 | 15.65 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 50.000      | 49.935 | 0.1     | 74    | -0.10 | 15.69 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.091  | 3.4     | 76    | -0.11 | 15.71 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 49.508 | 1.0     | 72    | -0.10 | 15.98 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 70    | -0.11 | 18.27 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 51.666 | -3.3    | 71    | -0.12 | 17.20 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.223  | -6.3    | 71    | -0.11 | 17.64 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.100  | -1.2    | 75    | -0.11 | 17.69 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.112  | -13.5   | 73    | -0.11 | 18.18 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 0.974  | -4.2    | 66    | -0.13 | 19.94 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.945  | -5.2    | 65    | -0.11 | 19.61 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 1.024  | -2.5    | 68    | -0.13 | 19.99 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.548  | -20.2#  | 77    | -0.12 | 17.65 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 0.996  | -1.6    | 69    | -0.15 | 20.37 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 09:43:05 2018 MSM

8.9.57

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6169  
**Lab FileID:** M145759.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6194\M145759.D Vial: 3  
 Acq On : 4 May 2018 1:07 am Operator: sufiyana  
 Sample : cc6169-50 Inst : Instrument #1  
 Misc : op10492,em6194,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|---------------------------|--------|--------|---------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a   | 1.000  | 1.000  | 0.0     | 68    | -0.05    | 4.55  |
| 102 t | Benzaldehyde              | 1.145  | 0.906  | 20.9#   | 59    | -0.05    | 4.22  |
| 103 I | Acenaphthene-d10a         | 1.000  | 1.000  | 0.0     | 76    | -0.09    | 7.93  |
| 104 I | 1,2,4,5-Tetrachlorobenzen | 0.665  | 0.591  | 11.1    | 74    | -0.08    | 6.67  |
|       | ----- True                |        | Calc.  | % Drift | ----- |          |       |
| 105 t | Atrazine                  | 50.000 | 52.110 | -4.2    | 77    | -0.06    | 10.14 |
|       | ----- AvgRF               |        | CCRF   | % Dev   | ----- |          |       |
| 106 I | Chrysene-d12a             | 1.000  | 1.000  | 0.0     | 84    | -0.12    | 15.66 |
|       | ----- True                |        | Calc.  | % Drift | ----- |          |       |
| 107 t | Benzidine                 | 50.000 | 33.314 | 33.4#   | 60    | -0.12    | 13.19 |
|       | ----- AvgRF               |        | CCRF   | % Dev   | ----- |          |       |
| 108 s | 1-chlorooctadecane        | 0.241  | 0.235  | 2.5     | 78    | -0.13    | 12.87 |
| 109 I | Phenanthrene-d10a         | 1.000  | 1.000  | 0.0     | 77    | -0.10    | 10.52 |
| 110 s | o-terphenyl               | 0.554  | 0.549  | 0.9     | 77    | -0.11    | 11.33 |
|       | ----- True                |        | Calc.  | % Drift | ----- |          |       |
| 111   | Pentachloronitrobenzene   | 50.000 | 56.027 | -12.1   | 87    | -0.10    | 10.23 |
|       | ----- AvgRF               |        | CCRF   | % Dev   | ----- |          |       |
| 112 I | Naphthalene-d8a           | 1.000  | 1.000  | 0.0     | 68    | -0.06    | 5.65  |
| 113   | Hydroquinone              | 0.331  | 0.388  | -17.2   | 71    | -0.02    | 6.12  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Fri May 04 09:43:07 2018 MSM

8.9.58

8

# Initial Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EZ6436-ICC6436  
Lab FileID: Z130443.D

## Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 10:42:55 2018  
Response via : Initial Calibration

### Calibration Files

100 =z130441.D 80 =z130442.D 50 =z130443.D 25 =z130444.D  
10 =z130445.D 5 =z130446.D 2 =z130447.D 1 =z130448.D

| Compound                   | 100            | 80    | 50    | 25    | 10    | 5     | 2     | 1     | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.751          | 0.718 | 0.729 | 0.717 | 0.704 | 0.646 | 0.675 | 0.664 | 0.700 | 5.08  |
| 3) Pyridine                | 1.729          | 1.718 | 1.751 | 1.739 | 1.780 | 1.635 | 1.653 | 1.668 | 1.709 | 3.00  |
| 4) N-Nitrosodim            |                | 1.017 | 1.017 | 1.006 | 1.013 | 0.941 | 0.898 | 0.907 | 0.971 | 5.55  |
| 5) 2-Fluorophen            | 1.625          | 1.557 | 1.584 | 1.563 | 1.559 | 1.404 | 1.371 | 1.258 | 1.490 | 8.68  |
| 6) Indene                  | 1.722          | 1.798 | 2.009 | 2.233 | 2.474 | 2.374 | 2.445 | 2.447 | 2.188 | 13.96 |
| 7) Cumene                  | 3.217          | 3.250 | 3.522 | 3.722 | 3.873 | 3.661 | 3.620 | 3.584 | 3.556 | 6.32  |
| 8) Phenol-d5               | 1.831          | 1.798 | 1.852 | 1.895 | 1.909 | 1.776 | 1.666 | 1.580 | 1.788 | 6.36  |
| 9) Phenol                  | 1.798          | 1.779 | 1.916 | 1.944 | 2.052 | 1.940 | 1.908 | 1.847 | 1.898 | 4.66  |
| 10) Aniline                | 1.935          | 1.986 | 2.053 | 2.247 | 2.494 | 2.347 | 2.444 | 2.403 | 2.239 | 9.80  |
| 11) bis(2-Chloro           | 1.230          | 1.229 | 1.271 | 1.338 | 1.471 | 1.437 | 1.404 | 1.428 | 1.351 | 7.21  |
| 12) 2-Chlorophen           | 1.416          | 1.417 | 1.461 | 1.520 | 1.601 | 1.530 | 1.505 | 1.393 | 1.480 | 4.81  |
| 13) Decane                 | 0.822          | 0.876 | 0.997 | 1.122 | 1.246 | 1.204 | 1.244 | 1.241 | 1.094 | 15.87 |
| 14) 1,3-Dichloro           | 1.442          | 1.493 | 1.568 | 1.671 | 1.803 | 1.732 | 1.752 | 1.810 | 1.659 | 8.55  |
| 15) 1,4-Dichloro           | 1.371          | 1.398 | 1.493 | 1.575 | 1.695 | 1.664 | 1.683 | 1.684 | 1.570 | 8.52  |
| 16) Benzyl alcoh           | 0.909          | 0.879 | 0.900 | 0.918 | 0.949 | 0.861 | 0.806 | 0.772 | 0.874 | 6.79  |
| 17) 1,2-Dichloro           | 1.321          | 1.355 | 1.461 | 1.555 | 1.683 | 1.599 | 1.645 | 1.614 | 1.529 | 8.86  |
| 18) Acetophenone           | 1.428          | 1.467 | 1.602 | 1.799 | 1.990 | 1.984 | 2.071 | 1.992 | 1.792 | 14.45 |
| 19) 2-Methylphen           | 1.105          | 1.127 | 1.209 | 1.266 | 1.389 | 1.321 | 1.255 | 1.164 | 1.229 | 7.93  |
| 20) 2,2'-oxybis(           | 0.352          | 0.356 | 0.379 | 0.400 | 0.446 | 0.437 | 0.438 | 0.424 | 0.404 | 9.37  |
| 21) 3&4-Methylph           | 1.025          | 1.055 | 1.148 | 1.247 | 1.363 | 1.358 | 1.302 | 1.284 | 1.223 | 10.75 |
| 22) n-Nitroso-di           | 0.677          | 0.678 | 0.741 | 0.850 | 0.956 | 0.931 | 0.955 | 0.958 | 0.843 | 14.96 |
| 23) Hexachloroet           | 0.459          | 0.474 | 0.491 | 0.510 | 0.530 | 0.494 | 0.508 | 0.529 | 0.499 | 5.02  |
| 24) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.315          | 0.326 | 0.345 | 0.356 | 0.379 | 0.367 | 0.350 | 0.340 | 0.347 | 5.98  |
| 26) Nitrobenzene           | 0.295          | 0.307 | 0.335 | 0.353 | 0.383 | 0.385 | 0.370 | 0.342 | 0.346 | 9.62  |
| 27) Quinoline              | 0.743          | 0.747 | 0.757 | 0.786 | 0.826 | 0.777 | 0.768 | 0.754 | 0.770 | 3.54  |
| 28) Isophorone             | 0.617          | 0.624 | 0.648 | 0.673 | 0.707 | 0.682 | 0.660 | 0.625 | 0.654 | 4.88  |
| 29) 2-Nitropheno           | 0.182          | 0.191 | 0.206 | 0.205 | 0.213 | 0.192 | 0.169 | 0.159 | 0.190 | 9.91  |
| 30) 2,4-Dimethyl           | 0.294          | 0.301 | 0.305 | 0.331 | 0.369 | 0.353 | 0.344 | 0.342 | 0.330 | 8.18  |
| 31) Benzoic Acid           | 0.284          | 0.286 | 0.275 | 0.258 | 0.224 | 0.160 |       |       | 0.248 | 19.60 |
| 32) bis(2-Chloro           | 0.326          | 0.336 | 0.350 | 0.371 | 0.410 | 0.411 | 0.406 | 0.389 | 0.375 | 9.18  |
| 33) 2,4-Dichloro           | 0.265          | 0.277 | 0.292 | 0.307 | 0.324 | 0.311 | 0.290 | 0.268 | 0.292 | 7.24  |
| 34) 2,6-Dichloro           | 0.233          | 0.245 | 0.261 | 0.279 | 0.305 | 0.286 | 0.280 | 0.269 | 0.270 | 8.58  |
| 35) 1,3,5-Trichl           | 0.269          | 0.290 | 0.320 | 0.347 | 0.378 | 0.375 | 0.387 | 0.378 | 0.343 | 13.12 |
| 36) 1,2,4-Trichl           | 0.280          | 0.293 | 0.315 | 0.332 | 0.368 | 0.355 | 0.348 | 0.354 | 0.331 | 9.59  |
| 37) 1,2,3-Trichl           | 0.263          | 0.275 | 0.293 | 0.310 | 0.342 | 0.342 | 0.336 | 0.364 | 0.316 | 11.43 |
| 38) Naphthalene            | 0.829          | 0.884 | 0.946 | 1.016 | 1.110 | 1.088 | 1.119 | 1.144 | 1.017 | 11.65 |
| 39) 4-Chloroanil           | 0.374          | 0.390 | 0.416 | 0.449 | 0.482 | 0.461 | 0.446 | 0.431 | 0.431 | 8.41  |
| 40) 2,3-Dichloro           | 0.315          | 0.326 | 0.347 | 0.375 | 0.410 | 0.399 | 0.394 | 0.393 | 0.370 | 9.74  |
| 41) Caprolactam            | 0.151          | 0.148 | 0.146 | 0.149 | 0.155 | 0.141 | 0.128 | 0.115 | 0.142 | 9.41  |
| 42) Hexachlorobu           | 0.151          | 0.159 | 0.169 | 0.175 | 0.185 | 0.183 | 0.189 | 0.190 | 0.175 | 8.21  |
| 43) 4-Chloro-3-m           | 0.294          | 0.299 | 0.311 | 0.319 | 0.332 | 0.314 | 0.282 | 0.260 | 0.301 | 7.53  |
| 44) 2-Methylnaph           | 0.528          | 0.551 | 0.594 | 0.637 | 0.686 | 0.654 | 0.639 | 0.665 | 0.619 | 9.07  |
| 45) 1-Methylnaph           | 0.539          | 0.560 | 0.608 | 0.650 | 0.716 | 0.709 | 0.714 | 0.734 | 0.654 | 11.67 |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICC6436  
**Lab FileID:** Z130443.D

|  |                    |                |       |       |       |       |       |       |       |       |       |
|--|--------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 46)  | Dimethylnaph       | 0.562          | 0.585 | 0.613 | 0.655 | 0.717 | 0.696 | 0.697 | 0.672 | 0.650 | 8.75  |
| 47)  | I Acenaphthene-d10 | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 48)  | Hexachlorocy       | 0.268          | 0.289 | 0.307 | 0.312 | 0.317 | 0.289 | 0.255 | 0.226 | 0.283 | 11.07 |
| 49)  | 2,4,6-Trichl       | 0.301          | 0.321 | 0.341 | 0.370 | 0.391 | 0.370 | 0.358 | 0.306 | 0.345 | 9.52  |
| 50)  | 2,4,5-Trichl       | 0.348          | 0.361 | 0.378 | 0.393 | 0.411 | 0.404 | 0.378 | 0.366 | 0.380 | 5.77  |
| 51)  | 2-Fluorobiph       | 1.105          | 1.171 | 1.272 | 1.379 | 1.551 | 1.561 | 1.571 | 1.605 | 1.402 | 14.18 |
| 52)  | 2-Chloronaph       | 0.957          | 1.002 | 1.076 | 1.180 | 1.322 | 1.345 | 1.360 | 1.341 | 1.198 | 13.96 |
| 53)  | Biphenyl           | 1.304          | 1.354 | 1.479 | 1.601 | 1.759 | 1.768 | 1.790 | 1.831 | 1.611 | 12.94 |
| 54)  | 2-Nitroanili       | 0.308          | 0.309 | 0.325 | 0.335 | 0.345 | 0.317 | 0.263 | 0.237 | 0.305 | 12.10 |
| 55)  | Dimethylphth       | 1.244          | 1.276 | 1.326 | 1.394 | 1.473 | 1.467 | 1.453 | 1.422 | 1.382 | 6.47  |
| 56)  | Acenaphthyle       | 1.661          | 1.752 | 1.894 | 2.005 | 2.174 | 2.110 | 2.053 | 2.060 | 1.964 | 9.14  |
| 57)  | 2,6-Dinitrot       | 0.290          | 0.300 | 0.307 | 0.312 | 0.313 | 0.275 | 0.235 | 0.217 | 0.281 | 12.95 |
| 58)  | 3-Nitroanili       | 0.369          | 0.371 | 0.381 | 0.394 | 0.396 | 0.368 | 0.314 | 0.253 | 0.356 | 13.69 |
| 59)  | Acenaphthene       | 0.988          | 1.025 | 1.111 | 1.179 | 1.297 | 1.274 | 1.269 | 1.309 | 1.182 | 10.75 |
| 60)  | 2,4-Dinitrop       | 0.148          | 0.149 | 0.150 | 0.140 | 0.109 | 0.075 | 0.041 | 0.025 | 0.105 | 49.06 |
| ---- Quadratic regression ---- Coefficient = 0.9996    |                    |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01515 + 0.15628 *A + -0.00090 *A^2 |                    |                |       |       |       |       |       |       |       |       |       |
| 61)  | 4-Nitropheno       | 0.184          | 0.183 | 0.184 | 0.182 | 0.170 | 0.152 |       | 0.176 |       | 7.20  |
| 62)  | Dibenzofuran       | 1.416          | 1.485 | 1.591 | 1.722 | 1.893 | 1.864 | 1.876 | 1.858 | 1.713 | 11.21 |
| 63)  | 2,4-Dinitrot       | 0.412          | 0.420 | 0.435 | 0.436 | 0.424 | 0.379 | 0.298 | 0.242 | 0.381 | 18.96 |
| 64)  | 2,3,4,6-Tetr       | 0.331          | 0.336 | 0.346 | 0.350 | 0.351 | 0.313 | 0.272 | 0.237 | 0.317 | 13.10 |
| 65)  | Diethylphtha       | 1.255          | 1.301 | 1.367 | 1.421 | 1.498 | 1.458 | 1.386 | 1.354 | 1.380 | 5.78  |
| 66)  | Fluorene           | 1.089          | 1.133 | 1.248 | 1.341 | 1.495 | 1.448 | 1.446 | 1.444 | 1.331 | 11.75 |
| 67)  | 4-Chlorophen       | 0.550          | 0.571 | 0.602 | 0.628 | 0.677 | 0.665 | 0.638 | 0.643 | 0.622 | 7.14  |
| 68)  | 4-Nitroanili       | 0.356          | 0.350 | 0.360 | 0.383 | 0.400 | 0.369 | 0.329 | 0.272 | 0.352 | 11.01 |
| 69)  | I Phenanthrene-d10 | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 70)  | 4,6-Dinitro-       | 0.128          | 0.130 | 0.130 | 0.125 | 0.109 | 0.082 | 0.050 | 0.031 | 0.098 | 40.07 |
| ---- Quadratic regression ---- Coefficient = 0.9998    |                    |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.00511 + 0.13654 *A + -0.00252 *A^2 |                    |                |       |       |       |       |       |       |       |       |       |
| 71)  | n-Nitrosodip       | 0.499          | 0.511 | 0.548 | 0.577 | 0.636 | 0.622 | 0.602 | 0.569 | 0.570 | 8.67  |
| 72)  | 1,2-Diphenyl       | 0.591          | 0.624 | 0.676 | 0.729 | 0.804 | 0.802 | 0.781 | 0.732 | 0.717 | 11.22 |
| 73)  | 2,4,6-Tribro       | 0.131          | 0.134 | 0.134 | 0.134 | 0.132 | 0.120 | 0.106 | 0.096 | 0.123 | 11.98 |
| 74)  | 4-Bromopheny       | 0.223          | 0.230 | 0.239 | 0.245 | 0.255 | 0.240 | 0.248 | 0.229 | 0.239 | 4.56  |
| 75)  | Hexachlorobe       | 0.252          | 0.261 | 0.272 | 0.281 | 0.302 | 0.292 | 0.294 | 0.300 | 0.282 | 6.53  |
| 76)  | Pentachlorop       | 0.159          | 0.163 | 0.168 | 0.166 | 0.159 | 0.132 | 0.100 | 0.072 | 0.140 | 25.66 |
| ---- Quadratic regression ---- Coefficient = 1.0000    |                    |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.00866 + 0.17904 *A + -0.00353 *A^2 |                    |                |       |       |       |       |       |       |       |       |       |
| 77)  | Phenanthrene       | 0.904          | 0.938 | 0.999 | 1.060 | 1.168 | 1.145 | 1.158 | 1.178 | 1.069 | 10.28 |
| 78)  | Anthracene         | 0.913          | 0.947 | 1.034 | 1.103 | 1.210 | 1.164 | 1.145 | 1.136 | 1.081 | 9.84  |
| 79)  | Carbazole          | 0.978          | 1.002 | 1.080 | 1.161 | 1.238 | 1.173 | 1.135 | 1.075 | 1.105 | 7.97  |
| 80)  | Di-n-butylph       | 1.291          | 1.312 | 1.409 | 1.447 | 1.454 | 1.356 | 1.154 | 1.094 | 1.315 | 10.07 |
| 81)  | Fluoranthene       | 1.075          | 1.116 | 1.199 | 1.264 | 1.308 | 1.188 | 1.128 | 1.059 | 1.167 | 7.59  |
| 82)  | Octadecane         | 0.337          | 0.365 | 0.411 | 0.455 | 0.496 | 0.465 | 0.411 | 0.367 | 0.413 | 13.44 |
| 83)  | I Chrysene-d12     | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 84)  | Pyrene             | 1.272          | 1.354 | 1.384 | 1.399 | 1.462 | 1.410 | 1.337 | 1.286 | 1.363 | 4.71  |
| 85)  | Terphenyl-d1       | 0.945          | 0.990 | 0.991 | 0.977 | 1.000 | 0.928 | 0.899 | 0.862 | 0.949 | 5.22  |
| 86)  | Butylbenzylp       | 0.722          | 0.744 | 0.732 | 0.719 | 0.686 | 0.597 | 0.511 |       | 0.673 | 12.90 |
| 87)  | Benzo[a]lanth      | 1.140          | 1.200 | 1.226 | 1.277 | 1.345 | 1.270 | 1.282 | 1.315 | 1.257 | 5.22  |
| 88)  | 3,3'-Dichlor       | 0.519          | 0.548 | 0.548 | 0.561 | 0.545 | 0.491 | 0.432 | 0.405 | 0.506 | 11.59 |
| 89)  | Chrysene           | 1.117          | 1.151 | 1.150 | 1.164 | 1.237 | 1.181 | 1.212 | 1.239 | 1.182 | 3.74  |
| 90)  | bis(2-Ethylh       | 0.876          | 0.890 | 0.886 | 0.878 | 0.863 | 0.754 | 0.633 |       | 0.826 | 11.78 |
| 91)  | I Perylene-d12     | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 92)  | Di-n-octylph       | 1.628          | 1.565 | 1.550 | 1.489 | 1.430 | 1.212 | 0.921 | 0.762 | 1.320 | 24.49 |

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICC6436  
**Lab FileID:** Z130443.D

---- Quadratic regression ---- Coefficient = 0.9998  
Response Ratio = -0.02116 + 1.47076 \*A + 0.06299 \*A^2

|      |              |       |       |       |       |       |       |       |       |       |       |
|------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 93)  | Benzo[b]fluo | 1.196 | 1.200 | 1.243 | 1.276 | 1.388 | 1.418 | 1.509 | 1.632 | 1.358 | 11.61 |
| 94)  | Benzo[k]fluo | 1.009 | 1.047 | 1.073 | 1.168 | 1.355 | 1.350 | 1.502 | 1.589 | 1.262 | 17.34 |
| 95)  | Benzo[a]pyre | 1.051 | 1.084 | 1.116 | 1.147 | 1.237 | 1.207 | 1.263 | 1.530 | 1.204 | 12.55 |
| 96)  | Indeno[1,2,3 | 0.963 | 1.010 | 1.073 | 1.062 | 1.128 | 1.009 | 1.017 | 1.200 | 1.058 | 7.21  |
| 97)  | Dibenz(a,h)a | 0.869 | 0.950 | 0.988 | 1.011 | 1.033 | 0.996 | 0.963 | 1.111 | 0.990 | 7.03  |
| 98)  | Dibenz[a,h)a | 0.917 | 0.990 | 1.054 | 1.091 | 1.189 | 1.147 | 1.117 | 1.149 | 1.082 | 8.41  |
| 99)  | 7,12-Dimethy | 0.552 | 0.551 | 0.570 | 0.593 | 0.639 | 0.588 | 0.554 | 0.541 | 0.573 | 5.64  |
| 100) | Benzo[g,h,i] | 0.880 | 0.963 | 1.012 | 1.071 | 1.107 | 1.106 | 1.122 | 1.336 | 1.075 | 12.54 |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

MZ6436.M

Wed May 09 10:56:03 2018

8.9.59

8



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130449.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130449.D Vial: 10  
Acq On : 4 May 2018 10:51 pm Operator: georges  
Sample : icv6436-50 Inst : SVOAMSZ  
Misc : op8501,ez6436,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 10:42:55 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 130   | 0.00     | 4.89  |
| 5 S  | 2-Fluorophenol         | 1.490 | 1.427 | 4.2  | 117   | 0.00     | 3.91  |
| 8 S  | Phenol-d5              | 1.788 | 1.676 | 6.3  | 118   | 0.00     | 4.62  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 125   | 0.00     | 5.81  |
| 25 S | Nitrobenzene-d5        | 0.347 | 0.361 | -4.0 | 131   | 0.00     | 5.29  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 123   | 0.00     | 7.22  |
| 51 S | 2-Fluorobiphenyl       | 1.402 | 1.249 | 10.9 | 121   | 0.00     | 6.62  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 113   | 0.00     | 8.85  |
| 73 S | 2,4,6-Tribromophenol   | 0.123 | 0.126 | -2.4 | 106   | 0.00     | 8.02  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 124   | -0.01    | 12.67 |
| 85 S | Terphenyl-d14          | 0.949 | 0.908 | 4.3  | 114   | 0.00     | 11.09 |

(#) = Out of Range  
z130443.D MZ6436.M

SPCC's out = 0 CCC's out = 0  
Wed May 09 10:51:12 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130450.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130450.D Vial: 11  
 Acq On : 4 May 2018 11:18 pm Operator: georges  
 Sample : icv6436-50 Inst : SVOAMSZ  
 Misc : op8501,ez6436,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 Last Update : Wed May 09 10:42:55 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0   | 127   | 0.00     | 4.89 |
| 9 t  | Phenol                    | 1.898  | 1.813  | 4.5   | 121   | 0.00     | 4.63 |
| 12 t | 2-Chlorophenol            | 1.480  | 1.458  | 1.5   | 127   | 0.00     | 4.74 |
| 19 t | 2-Methylphenol            | 1.229  | 1.183  | 3.7   | 125   | 0.00     | 5.07 |
| 21 t | 3&4-Methylphenol          | 1.223  | 1.248  | -2.0  | 138   | 0.00     | 5.17 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000  | 0.0   | 115   | 0.00     | 5.81 |
| 29 t | 2-Nitrophenol             | 0.190  | 0.210  | -10.5 | 118   | 0.00     | 5.53 |
| 30 t | 2,4-Dimethylphenol        | 0.330  | 0.321  | 2.7   | 122   | 0.00     | 5.56 |
| 31   | Benzoic Acid              | 0.248  | 0.249  | -0.4  | 105   | 0.05     | 5.65 |
| 33 t | 2,4-Dichlorophenol        | 0.292  | 0.291  | 0.3   | 115   | 0.00     | 5.70 |
| 34   | 2,6-Dichlorophenol        | 0.270  | 0.285  | -5.6  | 126   | 0.00     | 5.86 |
| 43 t | 4-Chloro-3-methylphenol   | 0.301  | 0.296  | 1.7   | 110   | 0.00     | 6.20 |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000  | 0.0   | 110   | 0.00     | 7.22 |
| 49 t | 2,4,6-Trichlorophenol     | 0.345  | 0.391  | -13.3 | 126   | 0.00     | 6.55 |
| 50 t | 2,4,5-Trichlorophenol     | 0.380  | 0.381  | -0.3  | 111   | 0.00     | 6.58 |
| 60 t | 2,4-Dinitrophenol         | 50.000 | 46.726 | 6.5   | 105   | 0.00     | 7.26 |
| 61 t | 4-Nitrophenol             | 0.176  | 0.185  | -5.1  | 111   | 0.00     | 7.31 |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.317  | 0.333  | -5.0  | 106   | 0.00     | 7.53 |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000  | 0.0   | 110   | 0.00     | 8.85 |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000 | 50.324 | -0.6  | 111   | -0.01    | 7.80 |
| 76 t | Pentachlorophenol         | 50.000 | 55.070 | -10.1 | 125   | 0.00     | 8.61 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 z130443.D MZ6436.M Wed May 09 10:51:14 2018

8.9.61  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130451.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130451.D Vial: 12  
 Acq On : 4 May 2018 11:44 pm Operator: georges  
 Sample : icv6436-50 Inst : SVOAMSZ  
 Misc : op8501,eZ6436,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 Last Update : Wed May 09 10:42:55 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 126   | 0.00     | 4.89  |
| 4 t  | N-Nitrosodimethylamine    | 0.971 | 0.778 | 19.9 | 96    | 0.00     | 2.77  |
| 11 t | bis(2-Chloroethyl)ether   | 1.351 | 1.410 | -4.4 | 140   | 0.00     | 4.69  |
| 14 t | 1,3-Dichlorobenzene       | 1.659 | 1.586 | 4.4  | 127   | 0.00     | 4.85  |
| 15 t | 1,4-Dichlorobenzene       | 1.570 | 1.421 | 9.5  | 120   | 0.00     | 4.91  |
| 17 t | 1,2-Dichlorobenzene       | 1.529 | 1.438 | 6.0  | 124   | 0.00     | 5.02  |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.404 | 0.426 | -5.4 | 142   | 0.00     | 5.08  |
| 22 t | n-Nitroso-di-n-propylamin | 0.843 | 0.849 | -0.7 | 144   | 0.00     | 5.17  |
| 23 t | Hexachloroethane          | 0.499 | 0.471 | 5.6  | 121   | 0.00     | 5.27  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 118   | 0.00     | 5.81  |
| 26 t | Nitrobenzene              | 0.346 | 0.328 | 5.2  | 116   | 0.00     | 5.30  |
| 28 t | Isophorone                | 0.654 | 0.610 | 6.7  | 112   | 0.00     | 5.47  |
| 32 t | bis(2-Chloroethoxy)methan | 0.375 | 0.392 | -4.5 | 133   | 0.00     | 5.62  |
| 36 t | 1,2,4-Trichlorobenzene    | 0.331 | 0.321 | 3.0  | 121   | 0.00     | 5.77  |
| 38 t | Naphthalene               | 1.017 | 0.911 | 10.4 | 114   | 0.00     | 5.83  |
| 42 t | Hexachlorobutadiene       | 0.175 | 0.173 | 1.1  | 121   | 0.00     | 5.92  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 116   | 0.00     | 7.22  |
| 48 t | Hexachlorocyclopentadiene | 0.283 | 0.286 | -1.1 | 107   | 0.00     | 6.46  |
| 52 t | 2-Chloronaphthalene       | 1.198 | 1.169 | 2.4  | 126   | 0.00     | 6.72  |
| 55 t | Dimethylphthalate         | 1.382 | 1.310 | 5.2  | 115   | 0.00     | 6.95  |
| 56 t | Acenaphthylene            | 1.964 | 1.752 | 10.8 | 108   | 0.00     | 7.09  |
| 57 t | 2,6-Dinitrotoluene        | 0.281 | 0.273 | 2.8  | 103   | 0.00     | 7.01  |
| 59 t | Acenaphthene              | 1.182 | 1.054 | 10.8 | 110   | 0.00     | 7.25  |
| 63 t | 2,4-Dinitrotoluene        | 0.381 | 0.354 | 7.1  | 95    | 0.00     | 7.38  |
| 65 t | Diethylphthalate          | 1.380 | 1.296 | 6.1  | 110   | 0.00     | 7.62  |
| 66 t | Fluorene                  | 1.331 | 1.144 | 14.0 | 107   | 0.00     | 7.76  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622 | 0.552 | 11.3 | 107   | 0.00     | 7.75  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 118   | 0.00     | 8.85  |
| 71 t | n-Nitrosodiphenylamine    | 0.570 | 0.473 | 17.0 | 102   | 0.00     | 7.87  |
| 72 t | 1,2-Diphenylhydrazine     | 0.717 | 0.624 | 13.0 | 109   | 0.00     | 7.92  |
| 74 t | 4-Bromophenyl-phenylether | 0.239 | 0.216 | 9.6  | 107   | 0.00     | 8.29  |
| 75 t | Hexachlorobenzene         | 0.282 | 0.246 | 12.8 | 107   | 0.00     | 8.39  |
| 77 t | Phenanthrene              | 1.069 | 0.938 | 12.3 | 111   | -0.01    | 8.87  |
| 78 t | Anthracene                | 1.081 | 0.913 | 15.5 | 104   | 0.00     | 8.94  |
| 80 t | Di-n-butylphthalate       | 1.315 | 1.251 | 4.9  | 105   | 0.00     | 9.64  |
| 81 t | Fluoranthene              | 1.167 | 1.040 | 10.9 | 103   | 0.00     | 10.50 |
| 83 I | Chrysene-d12              | 1.000 | 1.000 | 0.0  | 104   | 0.00     | 12.68 |
| 84 t | Pyrene                    | 1.363 | 1.335 | 2.1  | 101   | 0.00     | 10.83 |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130451.D

|     |   |                           |             |        |         |       |      |       |
|-----|---|---------------------------|-------------|--------|---------|-------|------|-------|
| 86  | t | Butylbenzylphthalate      | 0.673       | 0.730  | -8.5    | 104   | 0.00 | 11.87 |
| 87  | t | Benzo[a]anthracene        | 1.257       | 1.159  | 7.8     | 98    | 0.00 | 12.66 |
| 89  | t | Chrysene                  | 1.182       | 1.082  | 8.5     | 98    | 0.00 | 12.72 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.826       | 0.856  | -3.6    | 101   | 0.01 | 12.81 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 107   | 0.00 | 14.76 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 48.160 | 3.7     | 102   | 0.00 | 13.78 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93  | t | Benzo[b]fluoranthene      | 1.358       | 1.122  | 17.4    | 96    | 0.02 | 14.25 |
| 94  | t | Benzo[k]fluoranthene      | 1.262       | 1.089  | 13.7    | 108   | 0.01 | 14.28 |
| 95  | t | Benzo[a]pyrene            | 1.204       | 1.041  | 13.5    | 100   | 0.01 | 14.68 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.058       | 1.013  | 4.3     | 101   | 0.02 | 16.18 |
| 98  | t | Dibenz[a,h]anthracene     | 1.082       | 0.991  | 8.4     | 101   | 0.02 | 16.21 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075       | 1.011  | 6.0     | 107   | 0.03 | 16.57 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
z130443.D    MZ6436.M                      Wed May 09 10:51:16 2018

8.9.62  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130452.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130452.D Vial: 13  
Acq On : 5 May 2018 12:11 am Operator: georges  
Sample : icv6436-50 Inst : SVOAMSZ  
Misc : op8501,ez6436,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 134   | 0.00     | 4.89 |
| 2    | 1,4-Dioxane            | 0.700 | 0.575 | 17.9 | 106   | 0.00     | 2.49 |
| 6 t  | Indene                 | 2.188 | 2.327 | -6.4 | 156   | 0.00     | 5.08 |
| 7 t  | Cumene                 | 3.556 | 3.128 | 12.0 | 119   | 0.00     | 4.31 |
| 13 t | Decane                 | 1.094 | 0.904 | 17.4 | 122   | 0.00     | 4.77 |
| 18 t | Acetophenone           | 1.792 | 1.767 | 1.4  | 148   | 0.00     | 5.18 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 150   | 0.00     | 5.81 |
| 27 t | Quinoline              | 0.770 | 0.603 | 21.7 | 119   | 0.00     | 6.06 |
| 40 t | 2,3-Dichloroaniline    | 0.370 | 0.272 | 26.5 | 117   | 0.00     | 6.55 |
| 41 t | Caprolactam            | 0.142 | 0.106 | 25.4 | 109   | -0.02    | 6.10 |
| 45 t | 1-Methyl-naphthalene   | 0.654 | 0.466 | 28.7 | 115   | 0.00     | 6.41 |
| 46 t | Dimethyl-naphthalene   | 0.650 | 0.505 | 22.3 | 123   | 0.00     | 6.84 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 118   | 0.00     | 7.22 |
| 53 t | Biphenyl               | 1.611 | 1.512 | 6.1  | 121   | 0.00     | 6.70 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 115   | 0.00     | 8.84 |
| 82 t | Octadecane             | 0.413 | 0.430 | -4.1 | 120   | 0.00     | 8.72 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 19:38:44 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130453.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130453.D Vial: 14  
Acq On : 5 May 2018 12:38 am Operator: georges  
Sample : icv6436-50 Inst : SVOAMSZ  
Misc : op8501,ez6436,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 10:42:55 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 111   | -0.01    | 12.67 |
| 88 t 3,3'-Dichlorobenzidine | 0.506 | 0.518 | -2.4 | 105   | 0.00     | 12.65 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130443.D MZ6436.M Wed May 09 10:51:18 2018

8.9.64

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6436-ICV6436  
**Lab FileID:** Z130454.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6436\z130454.D Vial: 15  
Acq On : 5 May 2018 1:05 am Operator: georges  
Sample : icv6436-50 Inst : SVOAMSZ  
Misc : op8501,ez6436,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 10:42:55 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 119   | 0.00     | 4.90 |
| 3 t  | Pyridine               | 1.709 | 1.633 | 4.4   | 111   | 0.06     | 2.87 |
| 10 t | Aniline                | 2.239 | 2.512 | -12.2 | 146   | 0.00     | 4.66 |
| 16 t | Benzyl alcohol         | 0.874 | 1.023 | -17.0 | 136   | 0.00     | 4.99 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 133   | 0.00     | 5.81 |
| 39 t | 4-Chloroaniline        | 0.431 | 0.428 | 0.7   | 137   | 0.00     | 5.86 |
| 44 t | 2-Methylnaphthalene    | 0.619 | 0.553 | 10.7  | 124   | 0.00     | 6.33 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 134   | 0.00     | 7.22 |
| 54 t | 2-Nitroaniline         | 0.305 | 0.315 | -3.3  | 130   | 0.00     | 6.80 |
| 58 t | 3-Nitroaniline         | 0.356 | 0.369 | -3.7  | 130   | 0.00     | 7.16 |
| 62 t | Dibenzofuran           | 1.713 | 1.586 | 7.4   | 134   | 0.00     | 7.41 |
| 68 t | 4-Nitroaniline         | 0.352 | 0.338 | 4.0   | 126   | 0.00     | 7.77 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 133   | 0.00     | 8.84 |
| 79 t | Carbazole              | 1.105 | 1.066 | 3.5   | 131   | 0.00     | 9.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130443.D MZ6436.M Wed May 09 10:51:20 2018

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICC6437  
**Lab FileID:** Z130460.D

## Response Factor Report SVOAMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6437.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Initial Calibration

### Calibration Files

100 =z130458.D 80 =z130459.D 50 =z130460.D 25 =z130461.D  
10 =z130462.D 5 =z130463.D 2 =z130464.D 1 =z130465.D

| Compound  | 100   | 80    | 50    | 25    | 10    | 5     | 2     | 1      | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 101) 1,4-Dichlorobenzene-d  |       |       |       |       |       |       |       |        |       |       |
| 102) Benzaldehyde   | 0.847 | 0.880 | 0.931 | 1.009 | 1.124 | 1.122 | 1.156 | 1.061  | 1.016 | 11.67 |
| 103) Phenanthrene-d10a  |       |       |       |       |       |       |       |        |       |       |
| 104) 1-chloroocta   | 0.246 | 0.262 | 0.281 | 0.295 | 0.290 | 0.267 | 0.225 | 0.174  | 0.255 | 15.68 |
| 105) o-terphenyl  | 0.507 | 0.517 | 0.551 | 0.579 | 0.591 | 0.590 | 0.576 | 0.567  | 0.560 | 5.74  |
| 106) Atrazine   | 0.101 | 0.103 | 0.107 | 0.106 | 0.103 | 0.096 | 0.089 | 0.070  | 0.097 | 12.67 |
| 107) Chrysene-d12a  |       |       |       |       |       |       |       |        |       |       |
| 108) Benzidine  | 0.452 | 0.419 | 0.425 | 0.414 | 0.517 | 0.467 | 0.295 | 0.160  | 0.394 | 28.80 |
| ---- Quadratic regression ---- Coefficient = 0.9982<br>Response Ratio = 0.00796 + 0.38082 *A + 0.02448 *A^2 |       |       |       |       |       |       |       |        |       |       |
| 109) Acenaphthene-d10a  |       |       |       |       |       |       |       |        |       |       |
| 110) 1,2,4,5-Tetr   | 0.451 | 0.463 | 0.506 | 0.534 | 0.567 | 0.572 | 0.604 | 0.565  | 0.533 | 10.30 |
| 111) I Naphthalene-d8a  |       |       |       |       |       |       |       |        |       |       |
| 112) Hydroquinone   | 0.343 | 0.343 | 0.344 | 0.322 | 0.275 | 0.224 |       | 0.308  |       | 15.96 |
| 113) Chrysene-d12b  |       |       |       |       |       |       |       |        |       |       |
| 114) 2,3,7,8-TCDD   |       |       |       |       |       |       |       | 0.000# |       | -1.00 |
| 115) Phenanthrene-d10b  |       |       |       |       |       |       |       |        |       |       |
| 116) Pentachloron   | 0.044 | 0.044 | 0.044 | 0.043 | 0.038 | 0.033 |       | 0.041# |       | 11.05 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MZ6436.M

Wed May 09 19:39:49 2018

8.9.66

8



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICV6437  
**Lab FileID:** Z130466.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130466.D Vial: 10  
Acq On : 9 May 2018 5:11 pm Operator: johnbl  
Sample : icv6437-50 Inst : SVOAMSZ  
Misc : op8501,ez6437,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 115 Phenanthrene-d10b       | 1.000 | 1.000  | 0.0  | 103   | 0.00     | 8.84 |
| 116 Pentachloronitrobenzene | 0.041 | 0.043# | -4.9 | 100   | 0.00     | 8.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 19:35:28 2018

8.9.67

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICV6437  
**Lab FileID:** Z130467.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130467.D Vial: 11  
Acq On : 9 May 2018 5:39 pm Operator: johnbl  
Sample : icv6437-50 Inst : SVOAMSZ  
Misc : op8501,ez6437,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                  | AvgRF       | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----|---------------------------|-------------|--------|---------|-------|----------|-------|
| 107 | Chrysene-d12a             | 1.000       | 1.000  | 0.0     | 81    | 0.00     | 12.68 |
|     |                           | ----- True  | Calc.  | % Drift | ----- |          |       |
| 108 | Benzidine                 | 100.000     | 98.296 | 1.7     | 84    | 0.00     | 10.71 |
|     |                           | ----- AvgRF | CCRF   | % Dev   | ----- |          |       |
| 109 | Acenaphthene-d10a         | 1.000       | 1.000  | 0.0     | 91    | 0.00     | 7.22  |
| 110 | 1,2,4,5-Tetrachlorobenzen | 0.533       | 0.470  | 11.8    | 85    | 0.00     | 6.47  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 19:35:30 2018

8.9.68

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICV6437  
**Lab FileID:** Z130468.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468.D Vial: 12  
Acq On : 9 May 2018 6:05 pm Operator: johnb1  
Sample : icv6437-50 Inst : SVOAMSZ  
Misc : op8501,ez6437,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----|-------------------------|-------|-------|-------|-------|----------|------|
| 101 | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0   | 99    | 0.00     | 4.89 |
| 102 | Benzaldehyde            | 1.016 | 1.025 | -0.9  | 109   | 0.00     | 4.57 |
| 103 | Phenanthrene-d10a       | 1.000 | 1.000 | 0.0   | 102   | 0.00     | 8.84 |
| 106 | Atrazine                | 0.097 | 0.116 | -19.6 | 111   | 0.00     | 8.49 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 19:35:32 2018

8.69  
8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICV6436  
**Lab FileID:** Z130468A.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130468a.D Vial: 12  
Acq On : 9 May 2018 6:05 pm Operator: johnbl  
Sample : icv6436-50 Inst : SVOAMSZ  
Misc : op8501,ez6437,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|-------|-------|------|-------|----------|-------|
| 91 I Perylene-d12              | 1.000 | 1.000 | 0.0  | 113   | 0.00     | 14.76 |
| 99 t 7,12-Dimethylbenz(a)anthr | 0.573 | 0.532 | 7.2  | 106   | 0.00     | 14.24 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 20:00:34 2018

8.9.70

8

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6437-ICV6437  
**Lab FileID:** Z130470.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EZ6437\z130470.D Vial: 14  
Acq On : 9 May 2018 7:00 pm Operator: johnbl  
Sample : icv6437-50 Inst : SVOAMSZ  
Misc : op8501,ez6437,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|-------|-------|----------|------|
| 111 I Naphthalene-d8a | 1.000 | 1.000 | 0.0   | 137   | 0.00     | 5.81 |
| 112 Hydroquinone      | 0.308 | 0.351 | -14.0 | 140   | 0.00     | 6.09 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
z130460a.D MZ6436.M Wed May 09 19:35:34 2018

8.9.71

8

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EZ6439-CC6436  
Lab FileID: Z130504.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6439\z130504.d Vial: 2  
Acq On : 10 May 2018 11:06 am Operator: christc2  
Sample : cc6436-25 Inst : SVOAMSZ  
Misc : op8501,ez6439,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Wed May 09 17:38:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev   | Area% | Dev(min) | R.T. |
|------|---------------------------|-------|-------|--------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0    | 117   | 0.00     | 4.89 |
| 2    | 1,4-Dioxane               | 0.700 | 0.731 | -4.4   | 119   | -0.02    | 2.48 |
| 3 t  | Pyridine                  | 1.709 | 1.791 | -4.8   | 121   | -0.02    | 2.79 |
| 4 t  | N-Nitrosodimethylamine    | 0.971 | 1.063 | -9.5   | 124   | -0.02    | 2.75 |
| 5 S  | 2-Fluorophenol            | 1.490 | 1.648 | -10.6  | 124   | -0.01    | 3.91 |
| 6 t  | Indene                    | 2.188 | 2.215 | -1.2   | 116   | 0.00     | 5.07 |
| 7 t  | Cumene                    | 3.556 | 3.724 | -4.7   | 117   | 0.00     | 4.30 |
| 8 S  | Phenol-d5                 | 1.788 | 2.024 | -13.2  | 125   | -0.01    | 4.61 |
| 9 t  | Phenol                    | 1.898 | 2.094 | -10.3  | 126   | -0.02    | 4.62 |
| 10 t | Aniline                   | 2.239 | 2.335 | -4.3   | 122   | -0.01    | 4.64 |
| 11 t | bis(2-Chloroethyl)ether   | 1.351 | 1.424 | -5.4   | 125   | -0.01    | 4.68 |
| 12 t | 2-Chlorophenol            | 1.480 | 1.571 | -6.1   | 121   | -0.01    | 4.73 |
| 13 t | Decane                    | 1.094 | 1.118 | -2.2   | 117   | -0.01    | 4.76 |
| 14 t | 1,3-Dichlorobenzene       | 1.659 | 1.681 | -1.3   | 118   | -0.01    | 4.84 |
| 15 t | 1,4-Dichlorobenzene       | 1.570 | 1.565 | 0.3    | 116   | -0.01    | 4.90 |
| 16 t | Benzyl alcohol            | 0.874 | 1.019 | -16.6  | 130   | 0.00     | 4.98 |
| 17 t | 1,2-Dichlorobenzene       | 1.529 | 1.561 | -2.1   | 118   | 0.00     | 5.01 |
| 18 t | Acetophenone              | 1.792 | 1.854 | -3.5   | 121   | 0.00     | 5.18 |
| 19 t | 2-Methylphenol            | 1.229 | 1.348 | -9.7   | 125   | 0.00     | 5.06 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.404 | 0.330 | 18.3   | 97    | 0.00     | 5.08 |
| 21 t | 3&4-Methylphenol          | 1.223 | 1.348 | -10.2  | 127   | 0.00     | 5.17 |
| 22 t | n-Nitroso-di-n-propylamin | 0.843 | 0.880 | -4.4   | 121   | -0.01    | 5.17 |
| 23 t | Hexachloroethane          | 0.499 | 0.514 | -3.0   | 118   | 0.00     | 5.26 |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0    | 120   | 0.00     | 5.81 |
| 25 S | Nitrobenzene-d5           | 0.347 | 0.384 | -10.7  | 130   | 0.00     | 5.28 |
| 26 t | Nitrobenzene              | 0.346 | 0.369 | -6.6   | 126   | 0.00     | 5.30 |
| 27 t | Quinoline                 | 0.770 | 0.852 | -10.6  | 131   | 0.00     | 6.06 |
| 28 t | Isophorone                | 0.654 | 0.731 | -11.8  | 131   | 0.00     | 5.47 |
| 29 t | 2-Nitrophenol             | 0.190 | 0.231 | -21.6# | 135   | 0.00     | 5.53 |
| 30 t | 2,4-Dimethylphenol        | 0.330 | 0.354 | -7.3   | 129   | 0.00     | 5.55 |
| 31   | Benzoic Acid              | 0.248 | 0.311 | -25.4# | 145   | 0.03     | 5.62 |
| 32 t | bis(2-Chloroethoxy)methan | 0.375 | 0.396 | -5.6   | 129   | 0.00     | 5.61 |
| 33 t | 2,4-Dichlorophenol        | 0.292 | 0.329 | -12.7  | 129   | 0.00     | 5.70 |
| 34   | 2,6-Dichlorophenol        | 0.270 | 0.296 | -9.6   | 128   | 0.00     | 5.86 |
| 35 t | 1,3,5-Trichlorobenzene    | 0.343 | 0.346 | -0.9   | 120   | 0.00     | 5.54 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.331 | 0.347 | -4.8   | 126   | 0.00     | 5.76 |
| 37 t | 1,2,3-Trichlorobenzene    | 0.316 | 0.314 | 0.6    | 122   | 0.00     | 5.92 |
| 38 t | Naphthalene               | 1.017 | 1.032 | -1.5   | 122   | 0.00     | 5.82 |
| 39 t | 4-Chloroaniline           | 0.431 | 0.477 | -10.7  | 128   | 0.00     | 5.85 |
| 40 t | 2,3-Dichloroaniline       | 0.370 | 0.399 | -7.8   | 128   | 0.00     | 6.55 |
| 41 t | Caprolactam               | 0.142 | 0.169 | -19.0  | 137   | -0.01    | 6.10 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6439-CC6436  
**Lab FileID:** Z130504.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.175       | 0.179  | -2.3    | 123   | 0.00  | 5.91  |
| 43 t | 4-Chloro-3-methylphenol   | 0.301       | 0.355  | -17.9   | 134   | 0.00  | 6.20  |
| 44 t | 2-Methylnaphthalene       | 0.619       | 0.670  | -8.2    | 127   | 0.00  | 6.33  |
| 45 t | 1-Methylnaphthalene       | 0.654       | 0.690  | -5.5    | 128   | 0.00  | 6.40  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.711  | -9.4    | 131   | 0.00  | 6.83  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 127   | 0.00  | 7.21  |
| 48 t | Hexachlorocyclopentadiene | 0.283       | 0.319  | -12.7   | 130   | 0.00  | 6.45  |
| 49 t | 2,4,6-Trichlorophenol     | 0.345       | 0.378  | -9.6    | 130   | 0.00  | 6.55  |
| 50 t | 2,4,5-Trichlorophenol     | 0.380       | 0.409  | -7.6    | 132   | -0.01 | 6.57  |
| 51 S | 2-Fluorobiphenyl          | 1.402       | 1.394  | 0.6     | 128   | 0.00  | 6.61  |
| 52 t | 2-Chloronaphthalene       | 1.198       | 1.172  | 2.2     | 126   | 0.00  | 6.72  |
| 53 t | Biphenyl                  | 1.611       | 1.615  | -0.2    | 128   | 0.00  | 6.69  |
| 54 t | 2-Nitroaniline            | 0.305       | 0.362  | -18.7   | 137   | 0.00  | 6.79  |
| 55 t | Dimethylphthalate         | 1.382       | 1.456  | -5.4    | 132   | 0.00  | 6.94  |
| 56 t | Acenaphthylene            | 1.964       | 2.040  | -3.9    | 129   | -0.01 | 7.08  |
| 57 t | 2,6-Dinitrotoluene        | 0.281       | 0.341  | -21.4#  | 139   | -0.01 | 7.00  |
| 58 t | 3-Nitroaniline            | 0.356       | 0.414  | -16.3   | 134   | 0.00  | 7.16  |
| 59 t | Acenaphthene              | 1.182       | 1.185  | -0.3    | 128   | -0.01 | 7.24  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 55.811 | -11.6   | 146   | 0.00  | 7.25  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.176       | 0.206  | -17.0   | 143   | 0.00  | 7.30  |
| 62 t | Dibenzofuran              | 1.713       | 1.750  | -2.2    | 129   | 0.00  | 7.40  |
| 63 t | 2,4-Dinitrotoluene        | 0.381       | 0.479  | -25.7#  | 140   | 0.00  | 7.38  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.317       | 0.376  | -18.6   | 136   | 0.00  | 7.52  |
| 65 t | Diethylphthalate          | 1.380       | 1.507  | -9.2    | 135   | 0.00  | 7.61  |
| 66 t | Fluorene                  | 1.331       | 1.366  | -2.6    | 129   | -0.01 | 7.75  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.658  | -5.8    | 133   | 0.00  | 7.74  |
| 68 t | 4-Nitroaniline            | 0.352       | 0.390  | -10.8   | 129   | -0.01 | 7.76  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 130   | -0.01 | 8.83  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 27.734 | -10.9   | 147   | -0.02 | 7.79  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.570       | 0.591  | -3.7    | 133   | -0.02 | 7.86  |
| 72 t | 1,2-Diphenylhydrazine     | 0.717       | 0.739  | -3.1    | 132   | -0.02 | 7.91  |
| 73 S | 2,4,6-Tribromophenol      | 0.123       | 0.141  | -14.6   | 137   | -0.01 | 8.01  |
| 74 t | 4-Bromophenyl-phenylether | 0.239       | 0.255  | -6.7    | 136   | -0.01 | 8.28  |
| 75 t | Hexachlorobenzene         | 0.282       | 0.289  | -2.5    | 134   | -0.01 | 8.38  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 76 t | Pentachlorophenol         | 50.000      | 53.156 | -6.3    | 140   | -0.01 | 8.60  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 77 t | Phenanthrene              | 1.069       | 1.058  | 1.0     | 130   | -0.02 | 8.87  |
| 78 t | Anthracene                | 1.081       | 1.129  | -4.4    | 133   | 0.00  | 8.93  |
| 79 t | Carbazole                 | 1.105       | 1.181  | -6.9    | 132   | -0.01 | 9.13  |
| 80 t | Di-n-butylphthalate       | 1.315       | 1.568  | -19.2   | 141   | 0.00  | 9.63  |
| 81 t | Fluoranthene              | 1.167       | 1.355  | -16.1   | 139   | 0.00  | 10.49 |
| 82 t | Octadecane                | 0.413       | 0.467  | -13.1   | 134   | -0.01 | 8.71  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 134   | -0.02 | 12.66 |
| 84 t | Pyrene                    | 1.363       | 1.445  | -6.0    | 138   | -0.02 | 10.82 |
| 85 S | Terphenyl-d14             | 0.949       | 1.014  | -6.8    | 139   | -0.02 | 11.08 |
| 86 t | Butylbenzylphthalate      | 0.673       | 0.774  | -15.0   | 144   | 0.00  | 11.86 |

8.9.72  
8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6439-CC6436  
**Lab FileID:** Z130504.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 87  | t | Benzo[a]anthracene        | 1.257       | 1.305  | -3.8    | 137   | -0.02 | 12.65 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.506       | 0.557  | -10.1   | 133   | -0.01 | 12.64 |
| 89  | t | Chrysene                  | 1.182       | 1.210  | -2.4    | 139   | -0.02 | 12.70 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.826       | 0.950  | -15.0   | 145   | 0.00  | 12.79 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 122   | 0.00  | 14.75 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 30.690 | -22.8#  | 149   | 0.00  | 13.77 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.358       | 1.378  | -1.5    | 131   | 0.00  | 14.23 |
| 94  | t | Benzo[k]fluoranthene      | 1.262       | 1.270  | -0.6    | 132   | 0.00  | 14.27 |
| 95  | t | Benzo[a]pyrene            | 1.204       | 1.199  | 0.4     | 127   | 0.00  | 14.67 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.058       | 1.051  | 0.7     | 120   | 0.00  | 16.16 |
| 97  | t | Dibenz(a,h)acridine       | 0.990       | 0.948  | 4.2     | 114   | 0.00  | 15.84 |
| 98  | t | Dibenz[a,h]anthracene     | 1.082       | 1.013  | 6.4     | 113   | 0.00  | 16.19 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.573       | 0.652  | -13.8   | 134   | 0.00  | 14.24 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075       | 0.967  | 10.0    | 110   | 0.00  | 16.54 |

(#) = Out of Range  
z130461a.D MZ6436.M

SPCC's out = 0 CCC's out = 0  
Thu May 10 21:55:49 2018

8.9.72  
8



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6439-CC6437  
**Lab FileID:** Z130505.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6439\z130505.d Vial: 3  
 Acq On : 10 May 2018 11:33 am Operator: christc2  
 Sample : cc6437-25 Inst : SVOAMSZ  
 Misc : op8501,ez6439,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 Last Update : Wed May 09 17:38:39 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                       | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T.  |
|-------|--------------------------------|--------|--------|--------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a        | 1.000  | 1.000  | 0.0    | 98    | 0.00     | 4.89  |
| 102   | Benzaldehyde                   | 1.016  | 1.036  | -2.0   | 101   | 0.00     | 4.56  |
| 103   | Phenanthrene-d10a              | 1.000  | 1.000  | 0.0    | 112   | -0.01    | 8.83  |
| 104 s | 1-chlorooctadecane             | 0.255  | 0.326  | -27.8# | 123   | -0.01    | 10.38 |
| 105 s | o-terphenyl                    | 0.560  | 0.606  | -8.2   | 117   | -0.01    | 9.34  |
| 106   | Atrazine                       | 0.097  | 0.119  | -22.7# | 126   | -0.01    | 8.48  |
| 107   | Chrysene-d12a                  | 1.000  | 1.000  | 0.0    | 120   | 0.00     | 12.66 |
|       | ----- True Calc. % Drift ----- |        |        |        |       |          |       |
| 108   | Benzidine                      | 25.000 | 27.414 | -9.7   | 130   | -0.01    | 10.70 |
|       | ----- AvgRF CCRF % Dev -----   |        |        |        |       |          |       |
| 109   | Acenaphthene-d10a              | 1.000  | 1.000  | 0.0    | 107   | 0.00     | 7.21  |
| 110   | 1,2,4,5-Tetrachlorobenzen      | 0.533  | 0.542  | -1.7   | 108   | -0.01    | 6.46  |
| 111 I | Naphthalene-d8a                | 1.000  | 1.000  | 0.0    | 102   | 0.00     | 5.81  |
| 112   | Hydroquinone                   | 0.308  | 0.431  | -39.9# | 136   | -0.01    | 6.07  |
| 113   | Phenanthrene-d10b              | 1.000  | 1.000  | 0.0    | 112   | -0.01    | 8.83  |
| 114   | Pentachloronitrobenzene        | 0.041  | 0.051  | -24.4# | 132   | 0.00     | 8.63  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 z130461a.D MZ6436.M Thu May 10 21:28:38 2018

8.9.73  
8

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EZ6441-CC6436  
Lab FileID: Z130562.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6441\z130562.d Vial: 2  
Acq On : 11 May 2018 4:14 pm Operator: christc2  
Sample : cc6436-25 Inst : SVOAMSZ  
Misc : op8501,ez6441,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
Last Update : Sun May 13 21:35:59 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev   | Area% | Dev(min) | R.T. |
|------|---------------------------|-------|-------|--------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0    | 107   | 0.00     | 4.86 |
| 2    | 1,4-Dioxane               | 0.700 | 0.748 | -6.9   | 112   | -0.04    | 2.44 |
| 3 t  | Pyridine                  | 1.709 | 1.871 | -9.5   | 115   | -0.03    | 2.76 |
| 4 t  | N-Nitrosodimethylamine    | 0.971 | 1.114 | -14.7  | 119   | -0.04    | 2.72 |
| 5 S  | 2-Fluorophenol            | 1.490 | 1.633 | -9.6   | 112   | -0.01    | 3.88 |
| 6 t  | Indene                    | 2.188 | 2.277 | -4.1   | 109   | 0.00     | 5.05 |
| 7 t  | Cumene                    | 3.556 | 3.809 | -7.1   | 110   | 0.00     | 4.27 |
| 8 S  | Phenol-d5                 | 1.788 | 2.042 | -14.2  | 115   | 0.00     | 4.59 |
| 9 t  | Phenol                    | 1.898 | 2.262 | -19.2  | 125   | 0.00     | 4.60 |
| 10 t | Aniline                   | 2.239 | 2.093 | 6.5    | 100   | 0.00     | 4.61 |
| 11 t | bis(2-Chloroethyl)ether   | 1.351 | 1.449 | -7.3   | 116   | 0.00     | 4.66 |
| 12 t | 2-Chlorophenol            | 1.480 | 1.602 | -8.2   | 113   | 0.00     | 4.70 |
| 13 t | Decane                    | 1.094 | 1.210 | -10.6  | 116   | 0.00     | 4.74 |
| 14 t | 1,3-Dichlorobenzene       | 1.659 | 1.696 | -2.2   | 109   | 0.00     | 4.82 |
| 15 t | 1,4-Dichlorobenzene       | 1.570 | 1.583 | -0.8   | 108   | 0.00     | 4.87 |
| 16 t | Benzyl alcohol            | 0.874 | 1.001 | -14.5  | 117   | 0.00     | 4.96 |
| 17 t | 1,2-Dichlorobenzene       | 1.529 | 1.547 | -1.2   | 107   | 0.00     | 4.98 |
| 18 t | Acetophenone              | 1.792 | 1.921 | -7.2   | 114   | 0.00     | 5.15 |
| 19 t | 2-Methylphenol            | 1.229 | 1.354 | -10.2  | 115   | 0.00     | 5.04 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.404 | 0.332 | 17.8   | 89    | 0.00     | 5.05 |
| 21 t | 3&4-Methylphenol          | 1.223 | 1.344 | -9.9   | 115   | 0.00     | 5.14 |
| 22 t | n-Nitroso-di-n-propylamin | 0.843 | 0.920 | -9.1   | 116   | 0.00     | 5.15 |
| 23 t | Hexachloroethane          | 0.499 | 0.496 | 0.6    | 104   | 0.00     | 5.23 |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0    | 111   | 0.00     | 5.78 |
| 25 S | Nitrobenzene-d5           | 0.347 | 0.381 | -9.8   | 119   | 0.00     | 5.26 |
| 26 t | Nitrobenzene              | 0.346 | 0.375 | -8.4   | 118   | 0.00     | 5.27 |
| 27 t | Quinoline                 | 0.770 | 0.822 | -6.8   | 116   | 0.00     | 6.04 |
| 28 t | Isophorone                | 0.654 | 0.729 | -11.5  | 121   | 0.00     | 5.44 |
| 29 t | 2-Nitrophenol             | 0.190 | 0.223 | -17.4  | 121   | 0.00     | 5.50 |
| 30 t | 2,4-Dimethylphenol        | 0.330 | 0.320 | 3.0    | 108   | 0.00     | 5.53 |
| 31   | Benzoic Acid              | 0.248 | 0.305 | -23.0# | 131   | 0.04     | 5.60 |
| 32 t | bis(2-Chloroethoxy)methan | 0.375 | 0.402 | -7.2   | 121   | 0.00     | 5.59 |
| 33 t | 2,4-Dichlorophenol        | 0.292 | 0.321 | -9.9   | 117   | 0.00     | 5.68 |
| 34   | 2,6-Dichlorophenol        | 0.270 | 0.287 | -6.3   | 114   | 0.00     | 5.84 |
| 35 t | 1,3,5-Trichlorobenzene    | 0.343 | 0.338 | 1.5    | 109   | 0.00     | 5.51 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.331 | 0.324 | 2.1    | 109   | 0.00     | 5.74 |
| 37 t | 1,2,3-Trichlorobenzene    | 0.316 | 0.303 | 4.1    | 109   | 0.00     | 5.90 |
| 38 t | Naphthalene               | 1.017 | 1.021 | -0.4   | 112   | 0.00     | 5.79 |
| 39 t | 4-Chloroaniline           | 0.431 | 0.446 | -3.5   | 111   | 0.00     | 5.83 |
| 40 t | 2,3-Dichloroaniline       | 0.370 | 0.383 | -3.5   | 114   | 0.00     | 6.52 |
| 41 t | Caprolactam               | 0.142 | 0.174 | -22.5# | 130   | 0.00     | 6.08 |

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6441-CC6436  
**Lab FileID:** Z130562.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.175       | 0.168  | 4.0     | 107   | 0.00  | 5.88  |
| 43 t | 4-Chloro-3-methylphenol   | 0.301       | 0.347  | -15.3   | 121   | 0.00  | 6.17  |
| 44 t | 2-Methylnaphthalene       | 0.619       | 0.653  | -5.5    | 114   | 0.00  | 6.30  |
| 45 t | 1-Methylnaphthalene       | 0.654       | 0.664  | -1.5    | 114   | 0.00  | 6.38  |
| 46 t | Dimethylnaphthalene       | 0.650       | 0.671  | -3.2    | 114   | 0.00  | 6.80  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 112   | 0.00  | 7.18  |
| 48 t | Hexachlorocyclopentadiene | 0.283       | 0.295  | -4.2    | 106   | 0.00  | 6.43  |
| 49 t | 2,4,6-Trichlorophenol     | 0.345       | 0.366  | -6.1    | 111   | 0.00  | 6.52  |
| 50 t | 2,4,5-Trichlorophenol     | 0.380       | 0.390  | -2.6    | 111   | 0.00  | 6.55  |
| 51 S | 2-Fluorobiphenyl          | 1.402       | 1.385  | 1.2     | 113   | 0.00  | 6.58  |
| 52 t | 2-Chloronaphthalene       | 1.198       | 1.174  | 2.0     | 112   | 0.00  | 6.69  |
| 53 t | Biphenyl                  | 1.611       | 1.630  | -1.2    | 114   | 0.00  | 6.67  |
| 54 t | 2-Nitroaniline            | 0.305       | 0.369  | -21.0#  | 123   | 0.00  | 6.77  |
| 55 t | Dimethylphthalate         | 1.382       | 1.439  | -4.1    | 116   | 0.00  | 6.91  |
| 56 t | Acenaphthylene            | 1.964       | 2.041  | -3.9    | 114   | 0.00  | 7.04  |
| 57 t | 2,6-Dinitrotoluene        | 0.281       | 0.325  | -15.7   | 117   | 0.00  | 6.97  |
| 58 t | 3-Nitroaniline            | 0.356       | 0.420  | -18.0   | 120   | 0.00  | 7.12  |
| 59 t | Acenaphthene              | 1.182       | 1.207  | -2.1    | 115   | 0.00  | 7.21  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 45.279 | 9.4     | 103   | 0.00  | 7.22  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.176       | 0.194  | -10.2   | 119   | 0.00  | 7.27  |
| 62 t | Dibenzofuran              | 1.713       | 1.735  | -1.3    | 113   | 0.00  | 7.37  |
| 63 t | 2,4-Dinitrotoluene        | 0.381       | 0.460  | -20.7#  | 119   | 0.00  | 7.34  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.317       | 0.344  | -8.5    | 110   | 0.00  | 7.49  |
| 65 t | Diethylphthalate          | 1.380       | 1.508  | -9.3    | 119   | 0.00  | 7.58  |
| 66 t | Fluorene                  | 1.331       | 1.372  | -3.1    | 115   | 0.00  | 7.72  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.622       | 0.628  | -1.0    | 112   | 0.00  | 7.71  |
| 68 t | 4-Nitroaniline            | 0.352       | 0.393  | -11.6   | 115   | 0.00  | 7.73  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 112   | 0.00  | 8.80  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 23.762 | 5.0     | 108   | 0.00  | 7.76  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.570       | 0.593  | -4.0    | 115   | 0.00  | 7.83  |
| 72 t | 1,2-Diphenylhydrazine     | 0.717       | 0.788  | -9.9    | 121   | 0.00  | 7.88  |
| 73 S | 2,4,6-Tribromophenol      | 0.123       | 0.133  | -8.1    | 112   | 0.00  | 7.97  |
| 74 t | 4-Bromophenyl-phenylether | 0.239       | 0.243  | -1.7    | 111   | 0.00  | 8.25  |
| 75 t | Hexachlorobenzene         | 0.282       | 0.269  | 4.6     | 107   | 0.00  | 8.34  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 76 t | Pentachlorophenol         | 50.000      | 46.504 | 7.0     | 106   | 0.00  | 8.57  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 77 t | Phenanthrene              | 1.069       | 1.081  | -1.1    | 114   | 0.00  | 8.83  |
| 78 t | Anthracene                | 1.081       | 1.113  | -3.0    | 113   | 0.00  | 8.89  |
| 79 t | Carbazole                 | 1.105       | 1.170  | -5.9    | 113   | 0.00  | 9.10  |
| 80 t | Di-n-butylphthalate       | 1.315       | 1.593  | -21.1#  | 123   | 0.00  | 9.59  |
| 81 t | Fluoranthene              | 1.167       | 1.328  | -13.8   | 118   | 0.01  | 10.45 |
| 82 t | Octadecane                | 0.413       | 0.516  | -24.9#  | 127   | 0.00  | 8.67  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 112   | 0.00  | 12.63 |
| 84 t | Pyrene                    | 1.363       | 1.464  | -7.4    | 117   | -0.01 | 10.78 |
| 85 S | Terphenyl-d14             | 0.949       | 0.996  | -5.0    | 115   | 0.00  | 11.04 |
| 86 t | Butylbenzylphthalate      | 0.673       | 0.792  | -17.7   | 124   | 0.00  | 11.83 |

8.9.74

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6441-CC6436  
**Lab FileID:** Z130562.D

|     |   |                           |             |        |         |       |      |       |
|-----|---|---------------------------|-------------|--------|---------|-------|------|-------|
| 87  | t | Benzo[a]anthracene        | 1.257       | 1.288  | -2.5    | 113   | 0.00 | 12.61 |
| 88  | t | 3,3'-Dichlorobenzidine    | 0.506       | 0.513  | -1.4    | 103   | 0.00 | 12.60 |
| 89  | t | Chrysene                  | 1.182       | 1.166  | 1.4     | 112   | 0.00 | 12.66 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.826       | 0.987  | -19.5   | 126   | 0.02 | 12.76 |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 99    | 0.00 | 14.71 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92  | t | Di-n-octylphthalate       | 25.000      | 32.391 | -29.6#  | 128   | 0.00 | 13.73 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93  | t | Benzo[b]fluoranthene      | 1.358       | 1.380  | -1.6    | 107   | 0.00 | 14.19 |
| 94  | t | Benzo[k]fluoranthene      | 1.262       | 1.217  | 3.6     | 103   | 0.00 | 14.24 |
| 95  | t | Benzo[a]pyrene            | 1.204       | 1.176  | 2.3     | 101   | 0.00 | 14.63 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.058       | 1.096  | -3.6    | 102   | 0.00 | 16.12 |
| 97  | t | Dibenz(a,h)acridine       | 0.990       | 0.964  | 2.6     | 94    | 0.00 | 15.80 |
| 98  | t | Dibenz[a,h]anthracene     | 1.082       | 1.048  | 3.1     | 95    | 0.00 | 16.14 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.573       | 0.597  | -4.2    | 99    | 0.00 | 14.20 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075       | 1.021  | 5.0     | 94    | 0.00 | 16.50 |

(#) = Out of Range  
 z130461a.D MZ6436.M

SPCC's out = 0 CCC's out = 0  
 Sun May 13 21:48:37 2018

8.9.74

8

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EZ6441-CC6437  
**Lab FileID:** Z130563.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ez6441\z130563.d Vial: 3  
 Acq On : 11 May 2018 4:41 pm Operator: christc2  
 Sample : cc6437-25 Inst : SVOAMSZ  
 Misc : op8501,ez6441,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MZ6436.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 Last Update : Sun May 13 21:35:59 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a        | 1.000  | 1.000  | 0.0   | 95    | 0.00     | 4.86  |
| 102   | Benzaldehyde                   | 1.016  | 0.854  | 15.9  | 80    | 0.00     | 4.53  |
| 103   | Phenanthrene-d10a              | 1.000  | 1.000  | 0.0   | 105   | 0.00     | 8.80  |
| 104 s | 1-chlorooctadecane             | 0.255  | 0.275  | -7.8  | 98    | 0.00     | 10.34 |
| 105 s | o-terphenyl                    | 0.560  | 0.465  | 17.0  | 85    | 0.00     | 9.30  |
| 106   | Atrazine                       | 0.097  | 0.088  | 9.3   | 88    | 0.00     | 8.44  |
| 107   | Chrysene-d12a                  | 1.000  | 1.000  | 0.0   | 110   | 0.00     | 12.62 |
|       | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 108   | Benzidine                      | 25.000 | 19.980 | 20.1# | 87    | 0.00     | 10.67 |
|       | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 109   | Acenaphthene-d10a              | 1.000  | 1.000  | 0.0   | 102   | 0.00     | 7.18  |
| 110   | 1,2,4,5-Tetrachlorobenzen      | 0.533  | 0.413  | 22.5# | 79    | 0.00     | 6.43  |
| 111 I | Naphthalene-d8a                | 1.000  | 1.000  | 0.0   | 97    | 0.00     | 5.78  |
| 112   | Hydroquinone                   | 0.308  | 0.338  | -9.7  | 102   | 0.00     | 6.05  |
| 113   | Phenanthrene-d10b              | 1.000  | 1.000  | 0.0   | 105   | 0.00     | 8.80  |
| 114   | Pentachloronitrobenzene        | 0.041  | 0.037# | 9.8   | 90    | 0.00     | 8.59  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 z130461a.D MZ6436.M Sun May 13 21:48:40 2018

8.9.75

8

MS Semi-volatiles

Raw Data

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176297.D  
 Acq On : 7 May 2018 9:52 pm  
 Operator : christc2  
 Sample : jc65058-1  
 Misc : op11647,ef7510,30.1,,,1,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 08 16:23:02 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|--------|--------|----------|--------|
| Internal Standards           |        |      |          |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 79698    | 40.00  | ppm    | -0.01    |        |
| 24) Naphthalene-d8           | 5.141  | 136  | 307720   | 40.00  | ppm    | 0.00     |        |
| 47) Acenaphthene-d10         | 6.429  | 164  | 147447   | 40.00  | ppm    | -0.01    |        |
| 69) Phenanthrene-d10         | 8.079  | 188  | 262328   | 40.00  | ppm    | -0.01    |        |
| 83) Chrysene-d12             | 13.074 | 240  | 237675   | 40.00  | ppm    | -0.01    |        |
| 91) Perylene-d12             | 16.071 | 264  | 255012   | 40.00  | ppm    | 0.00     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 79698    | 40.00  | ppm    | -0.01    |        |
| 103) Phenanthrene-d10a       | 8.079  | 188  | 262328   | 40.00  | ppm    | -0.01    |        |
| 105) Chrysene-d12a           | 13.074 | 240  | 237675   | 40.00  | ppm    | -0.01    |        |
| 107) Naphthalene-d8a         | 5.141  | 136  | 307720   | 40.00  | ppm    | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 147447   | 40.00  | ppm    | -0.01    |        |
| System Monitoring Compounds  |        |      |          |        |        |          |        |
| 5) 2-Fluorophenol            | 3.239  | 112  | 101687   | 43.80  | ppm    | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 87.60% |          |        |
| 8) Phenol-d5                 | 3.987  | 99   | 131585   | 39.57  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 79.14% |          |        |
| 25) Nitrobenzene-d5          | 4.628  | 82   | 124356   | 37.18  | ppm    | -0.02    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 74.36% |          |        |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 213492   | 38.23  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 76.46% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 34915    | 49.89  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 99.78% |          |        |
| 85) Terphenyl-d14            | 10.938 | 244  | 207548   | 38.47  | ppm    | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 76.94% |          |        |
| Target Compounds             |        |      |          |        |        |          |        |
|                              |        |      |          |        |        |          | Qvalue |
| 38) Naphthalene              | 5.152  | 128  | 15441    | 1.83   | ppm    |          | 95     |
| 44) 2-Methylnaphthalene      | 5.649  | 141  | 6419     | 1.41   | ppm    |          | 97     |
| 53) Biphenyl                 | 5.980  | 154  | 3486     | 0.60   | ppm    |          | 97     |
| 56) Acenaphthylene           | 6.311  | 152  | 17995    | 2.56   | ppm    |          | 96     |
| 59) Acenaphthene             | 6.455  | 153  | 39008    | 8.16   | ppm    |          | 99     |
| 62) Dibenzofuran             | 6.610  | 168  | 25958    | 4.05   | ppm    |          | 97     |
| 66) Fluorene                 | 6.942  | 166  | 45276    | 9.09   | ppm    |          | 100    |
| 77) Phenanthrene             | 8.112  | 178  | 658719   | 87.08  | ppm    |          | 100    |
| 78) Anthracene               | 8.181  | 178  | 185150   | 25.05  | ppm    |          | 99     |
| 79) Carbazole                | 8.443  | 167  | 50309    | 7.43   | ppm    |          | 99     |
| 81) Fluoranthene             | 10.099 | 202  | 1043259  | 139.13 | ppm    |          | 91     |
| 84) Pyrene                   | 10.510 | 202  | 885519m  | 112.28 | ppm    |          |        |
| 87) Benzo[a]anthracene       | 13.058 | 228  | 466158   | 69.73  | ppm    |          | 98     |
| 89) Chrysene                 | 13.128 | 228  | 424618   | 57.02  | ppm    |          | 98     |
| 93) Benzo[b]fluoranthene     | 15.340 | 252  | 517316   | 77.96  | ppm    |          | 97     |
| 94) Benzo[k]fluoranthene     | 15.382 | 252  | 197480   | 27.00  | ppm    |          | 98     |
| 95) Benzo[a]pyrene           | 15.959 | 252  | 394676   | 67.63  | ppm    |          | 95     |
| 96) Indeno[1,2,3-cd]pyrene   | 18.000 | 276  | 225827   | 41.54  | ppm    |          | 91     |
| 98) Dibenz[a,h]anthracene    | 18.059 | 278  | 49879    | 7.86   | ppm    |          | 90     |
| 100) Benzo[g,h,i]perylene    | 18.422 | 276  | 218268m  | 34.81  | ppm    |          |        |

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176297.D  
Acq On : 7 May 2018 9:52 pm  
Operator : christc2  
Sample : jc65058-1  
Misc : op11647,ef7510,30.1,,,1,1  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 08 16:23:02 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

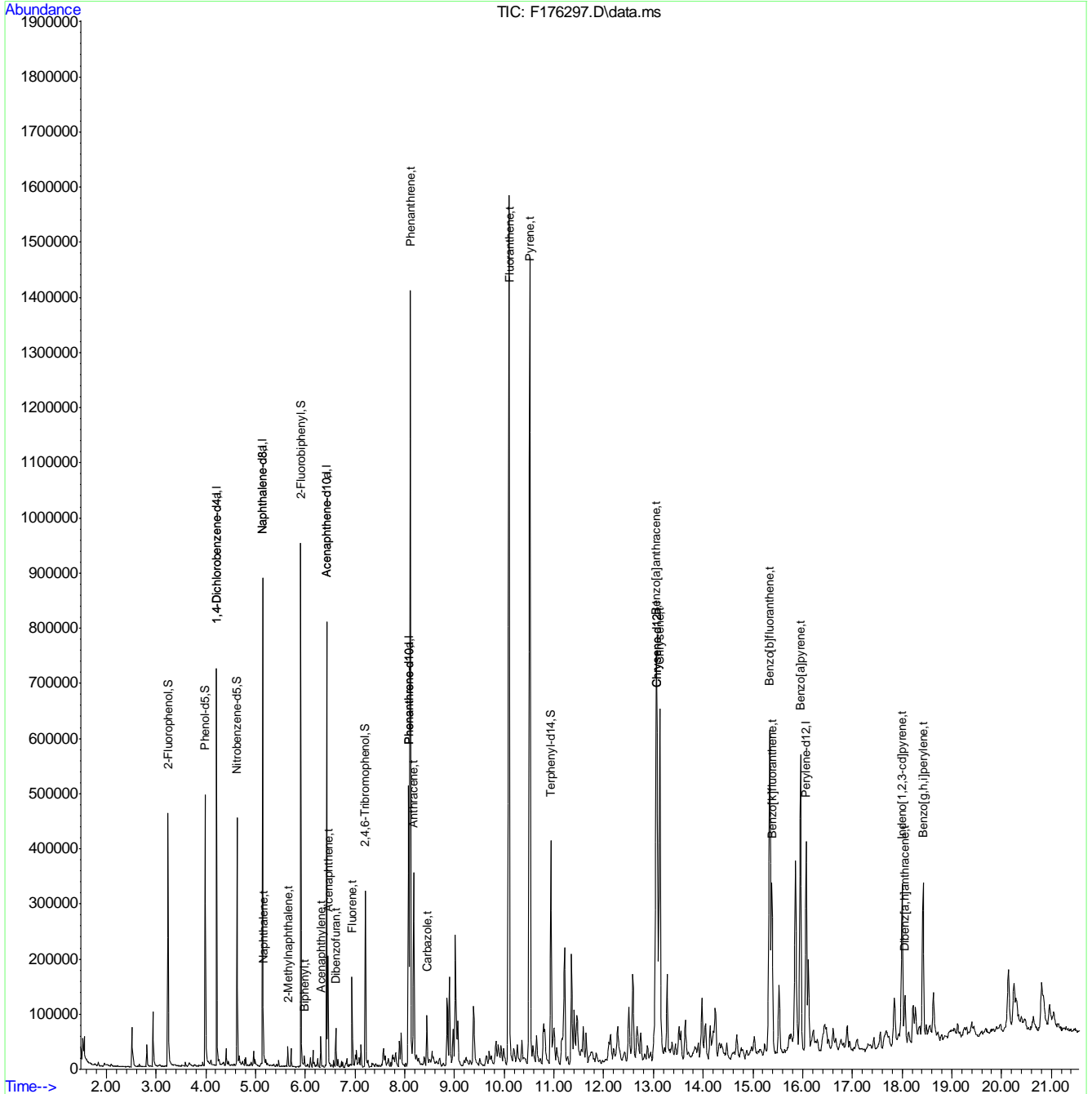
| Compound   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--|------|------|----------|------|-------|----------|
| -----  |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |



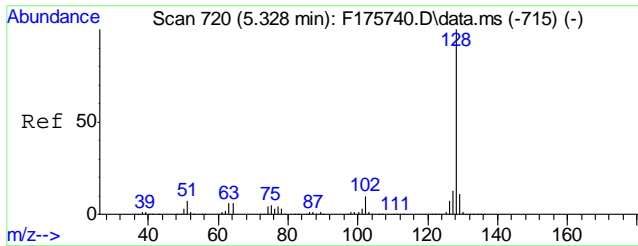
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176297.D  
Acq On : 7 May 2018 9:52 pm  
Operator : christc2  
Sample : jc65058-1  
Misc : op11647,ef7510,30.1,,,1,1  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 08 16:23:02 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

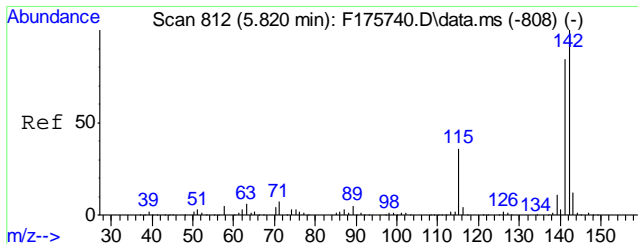
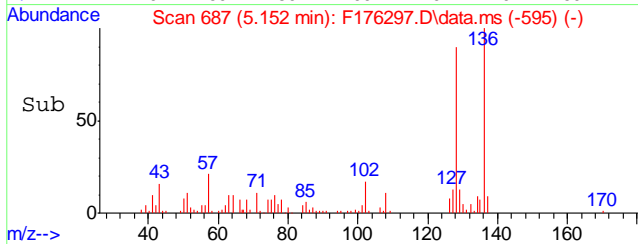
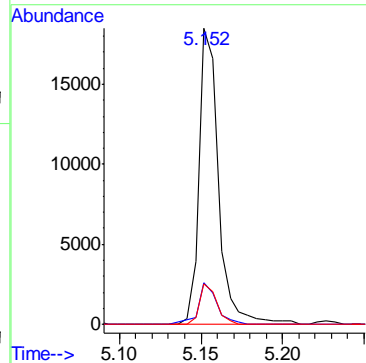
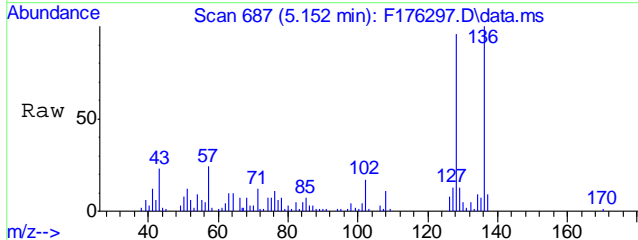


9.1.1  
9



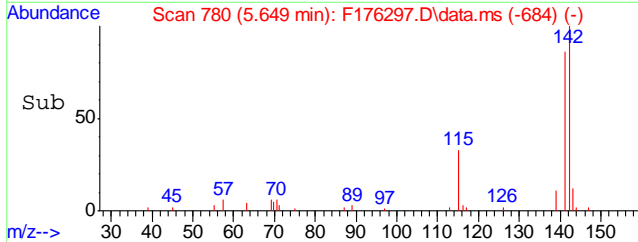
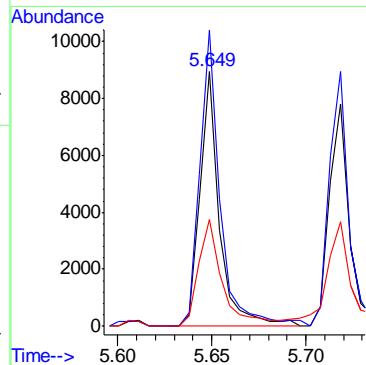
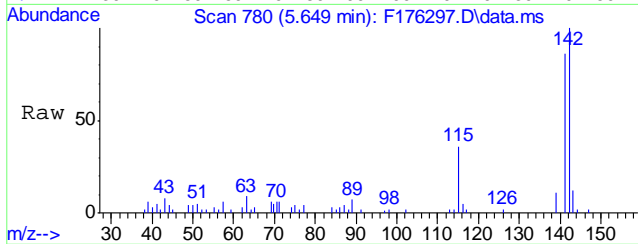
#38  
 Naphthalene  
 Concen: 1.83 ppm  
 RT: 5.152 min Scan# 687  
 Delta R.T. -0.010 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 13.9  | 0.0   | 41.0  |
| 127     | 13.7  | 0.0   | 42.8  |

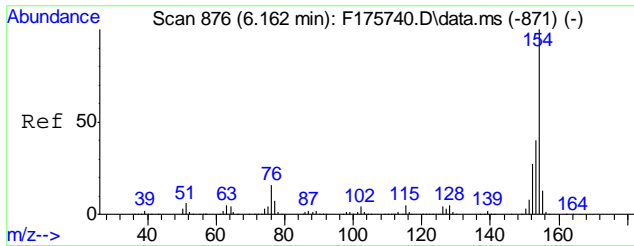


#44  
 2-Methylnaphthalene  
 Concen: 1.41 ppm  
 RT: 5.649 min Scan# 780  
 Delta R.T. 0.010 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 115.2 | 88.6  | 148.6 |
| 115     | 40.5  | 12.3  | 72.3  |

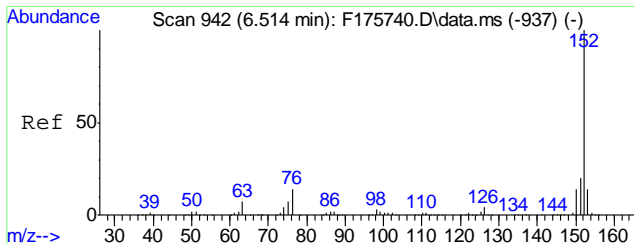
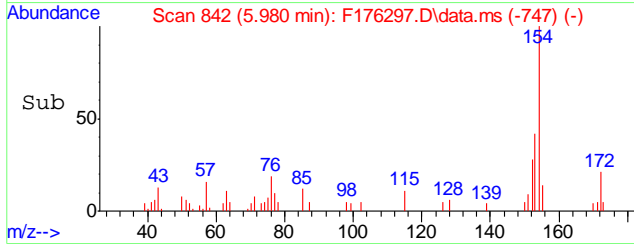
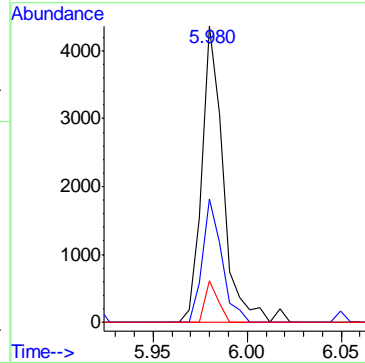
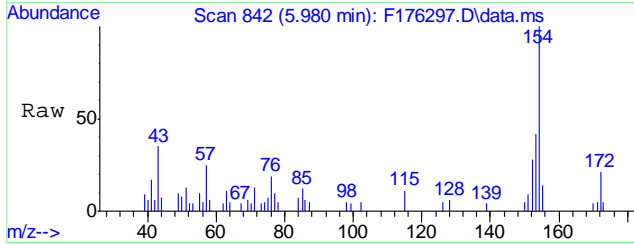


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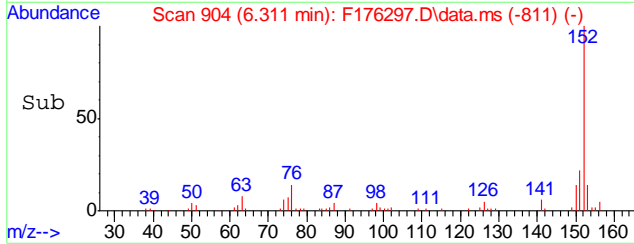
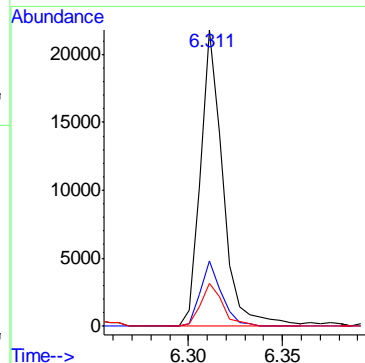
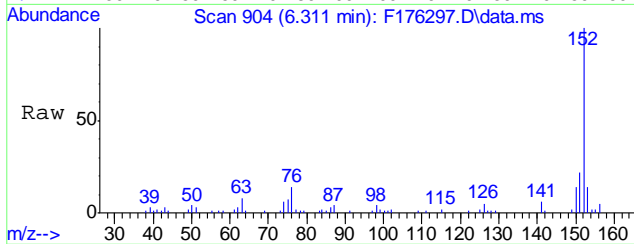
#53  
 Biphenyl  
 Concen: 0.60 ppm  
 RT: 5.980 min Scan# 842  
 Delta R.T. 0.007 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 3486 | 100   |       |
| 153     | 41.5 | 9.8   | 69.8  |
| 155     | 14.0 | 0.0   | 43.0  |

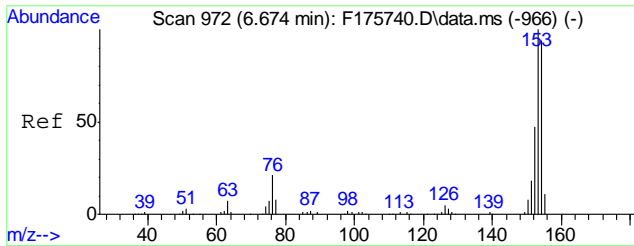


#56  
 Acenaphthylene  
 Concen: 2.56 ppm  
 RT: 6.311 min Scan# 904  
 Delta R.T. -0.004 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 17995 | 100   |       |
| 151     | 22.1  | 0.0   | 49.6  |
| 153     | 14.4  | 0.0   | 43.6  |

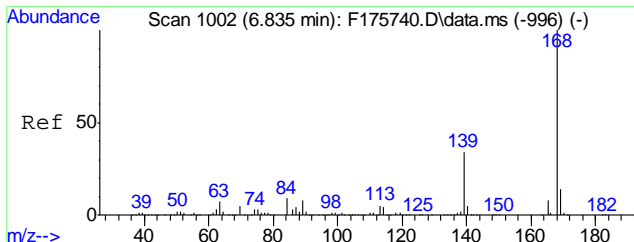
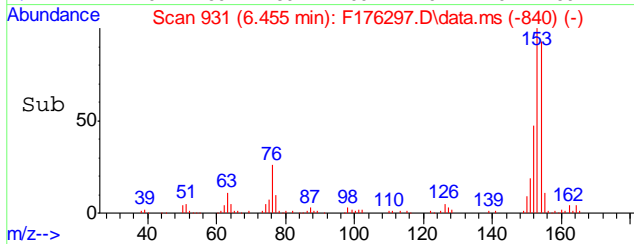
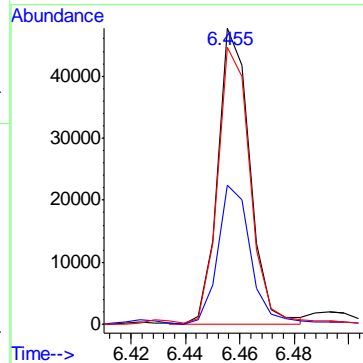
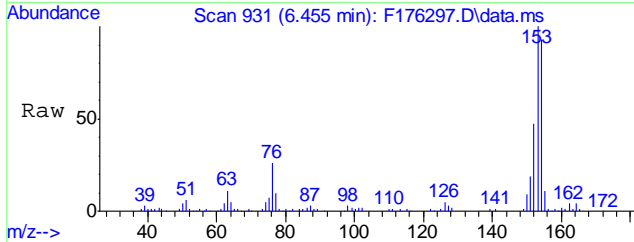


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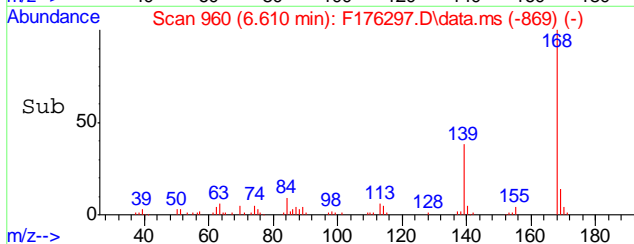
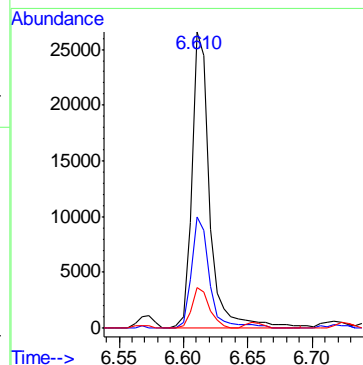
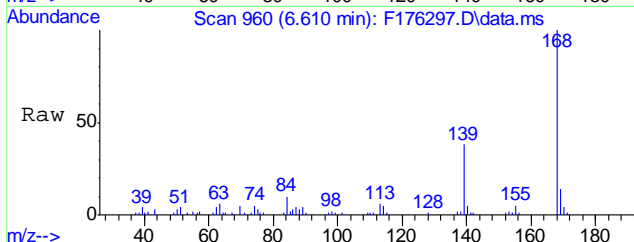
#59  
 Acenaphthene  
 Concen: 8.16 ppm  
 RT: 6.455 min Scan# 931  
 Delta R.T. -0.015 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

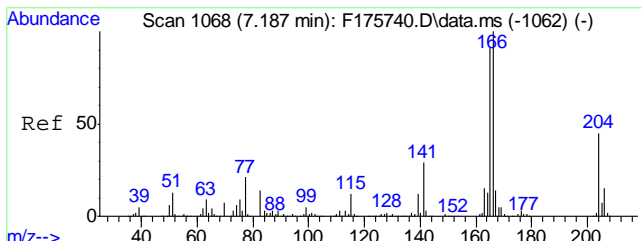
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 39008 | 100   |       |
| 152     | 46.9  | 16.7  | 76.7  |
| 154     | 93.2  | 64.1  | 124.1 |



#62  
 Dibenzofuran  
 Concen: 4.05 ppm  
 RT: 6.610 min Scan# 960  
 Delta R.T. -0.016 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

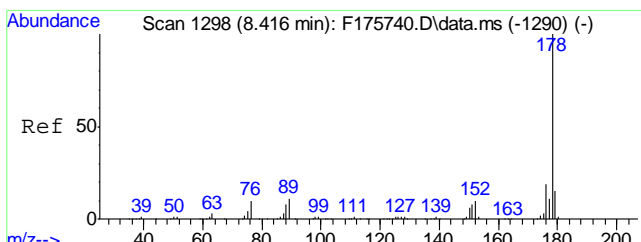
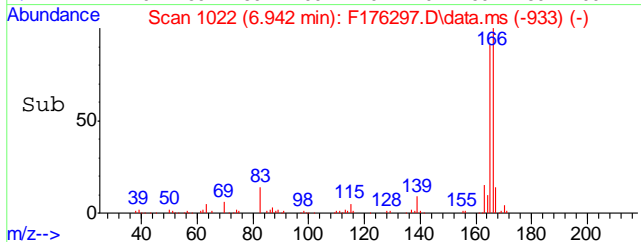
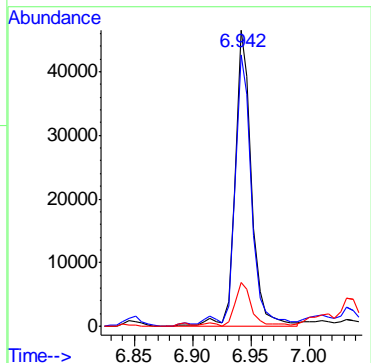
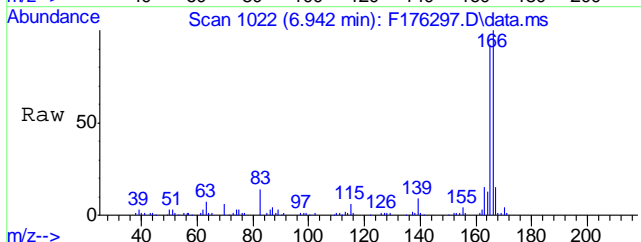
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 25958 | 100   |       |
| 139     | 37.7  | 5.7   | 65.7  |
| 169     | 13.8  | 0.0   | 43.7  |





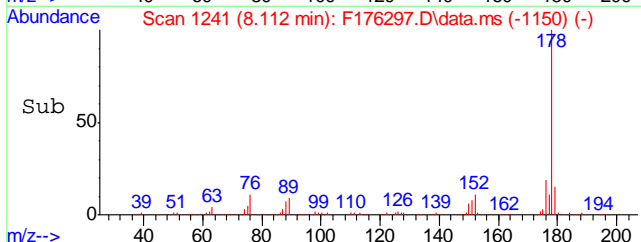
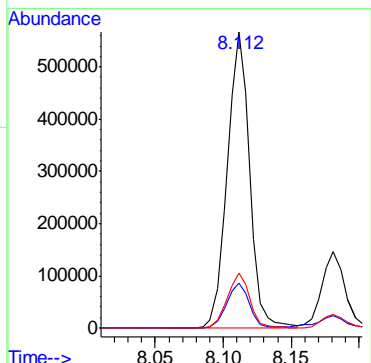
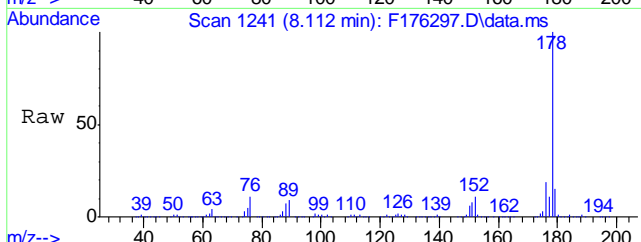
#66  
 Fluorene  
 Concen: 9.09 ppm  
 RT: 6.942 min Scan# 1022  
 Delta R.T. -0.026 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 45276 | 100   |       |
| 165     | 91.3  | 61.4  | 121.4 |
| 167     | 14.3  | 0.0   | 43.6  |

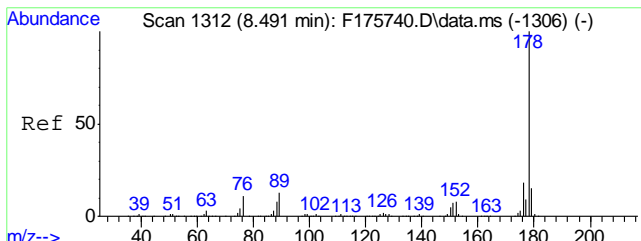


#77  
 Phenanthrene  
 Concen: 87.08 ppm  
 RT: 8.112 min Scan# 1241  
 Delta R.T. -0.015 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 658719 | 100   |       |
| 179     | 15.0   | 0.0   | 45.3  |
| 176     | 18.7   | 0.0   | 48.6  |

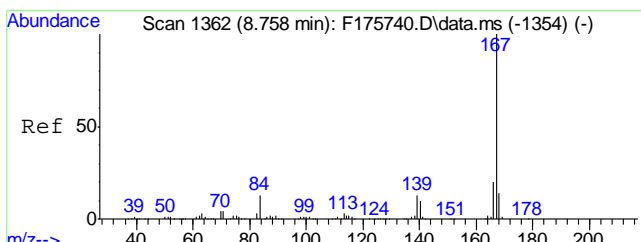
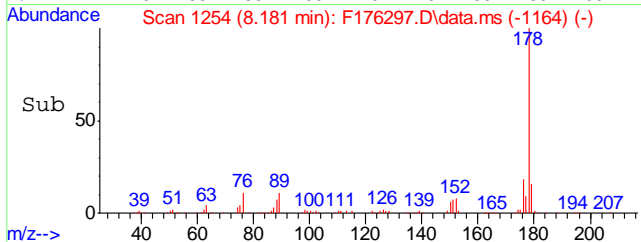
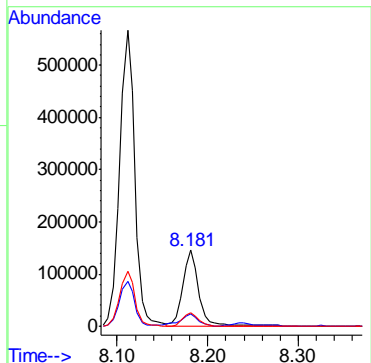
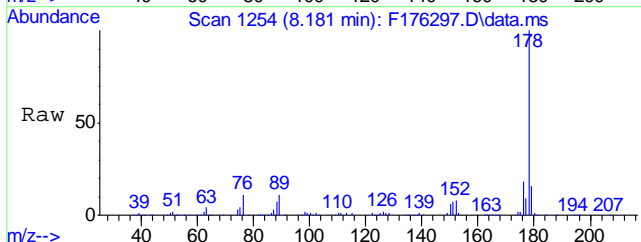


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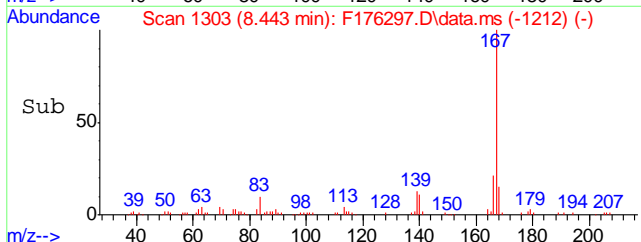
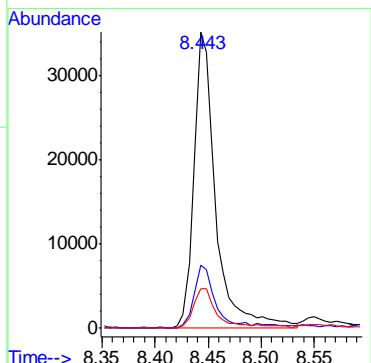
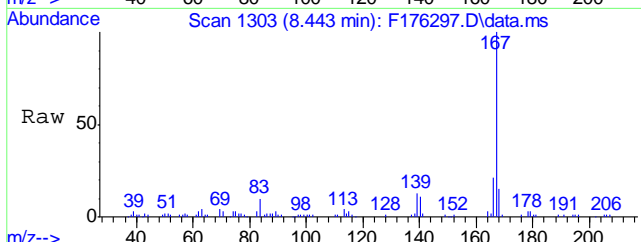
#78  
 Anthracene  
 Concen: 25.05 ppm  
 RT: 8.181 min Scan# 1254  
 Delta R.T. -0.018 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

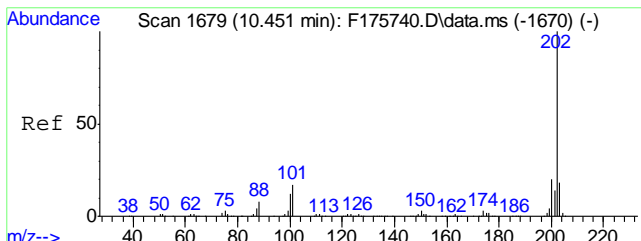
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.4  | 0.0   | 45.2  |
| 176     | 18.2  | 0.0   | 47.9  |



#79  
 Carbazole  
 Concen: 7.43 ppm  
 RT: 8.443 min Scan# 1303  
 Delta R.T. -0.014 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

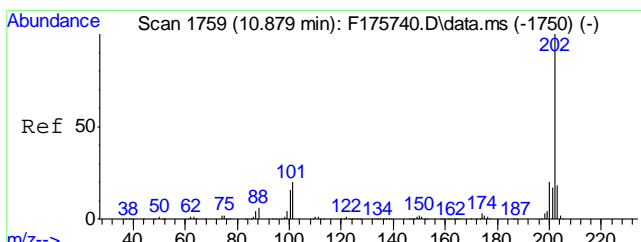
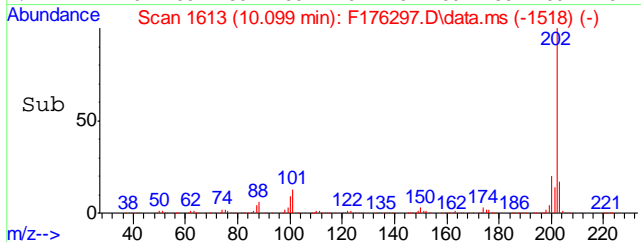
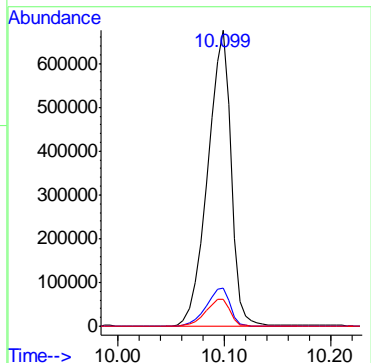
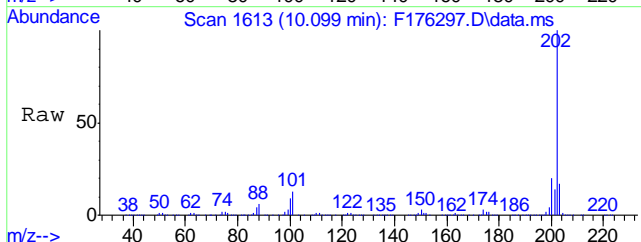
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 21.1  | 0.0   | 50.3  |
| 139     | 13.1  | 0.0   | 42.9  |





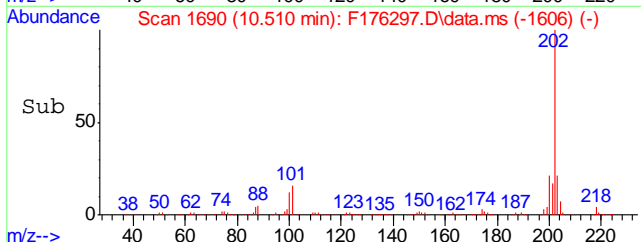
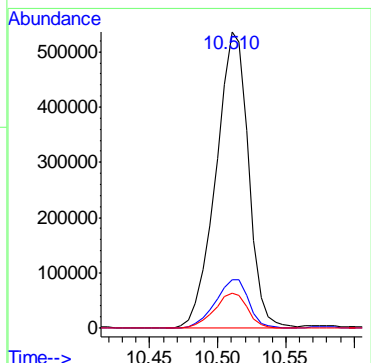
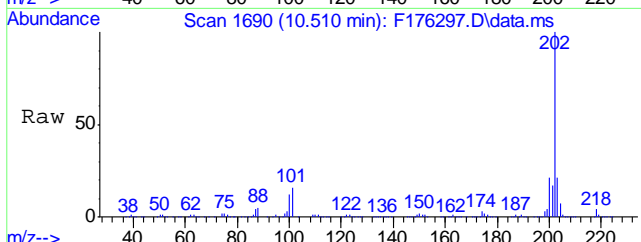
#81  
 Fluoranthene  
 Concen: 139.13 ppm  
 RT: 10.099 min Scan# 1613  
 Delta R.T. 0.007 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

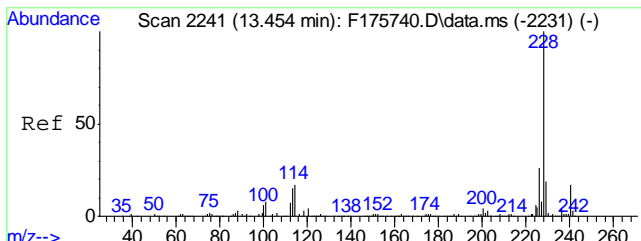
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1043259 |       |       |
| 101     | 12.8    | 0.0   | 47.3  |
| 100     | 9.2     | 0.0   | 42.4  |



#84  
 Pyrene  
 Concen: 112.28 ppm m  
 RT: 10.510 min Scan# 1690  
 Delta R.T. -0.054 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

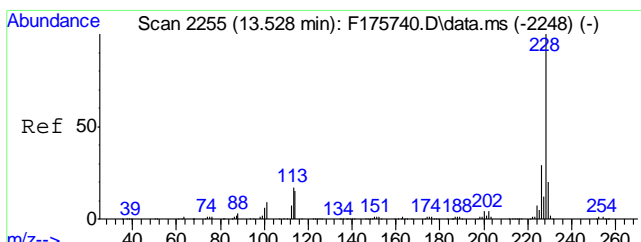
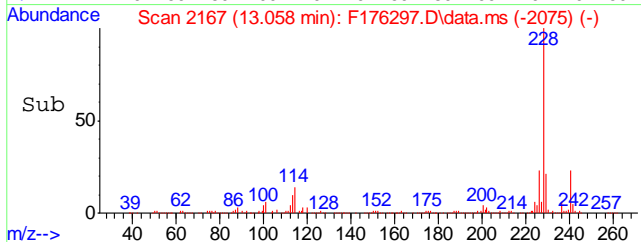
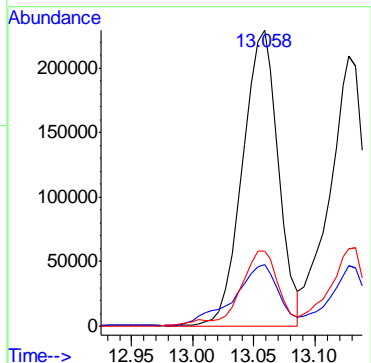
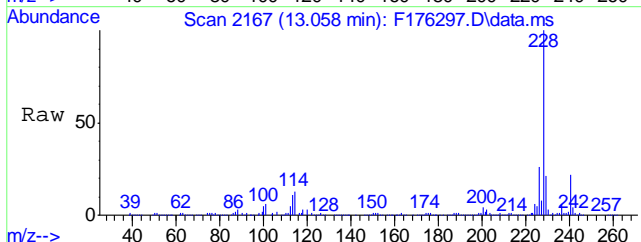
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 885519 |       |       |
| 101     | 16.2   | 0.0   | 50.0  |
| 100     | 11.9   | 0.0   | 45.6  |





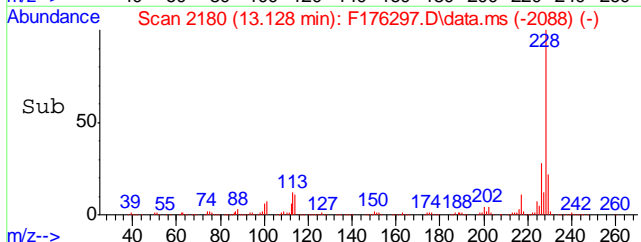
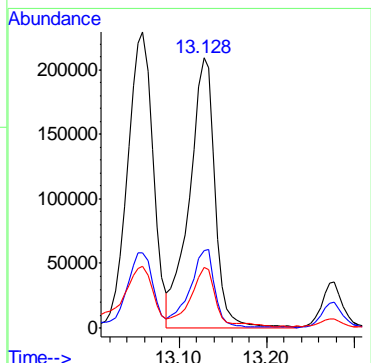
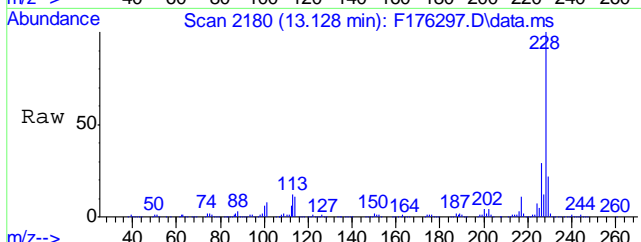
#87  
 Benzo[a]anthracene  
 Concen: 69.73 ppm  
 RT: 13.058 min Scan# 2167  
 Delta R.T. -0.006 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.3  | 0.0   | 48.8  |
| 226     | 25.4  | 0.0   | 55.4  |



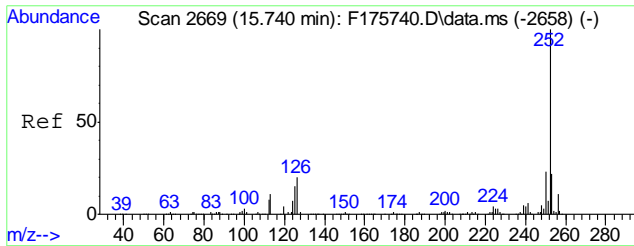
#89  
 Chrysene  
 Concen: 57.02 ppm  
 RT: 13.128 min Scan# 2180  
 Delta R.T. -0.009 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.7  | 0.0   | 59.2  |
| 229     | 21.7  | 0.0   | 49.9  |



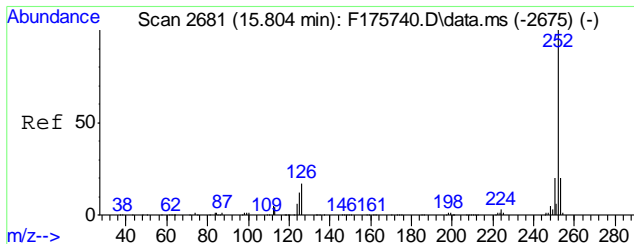
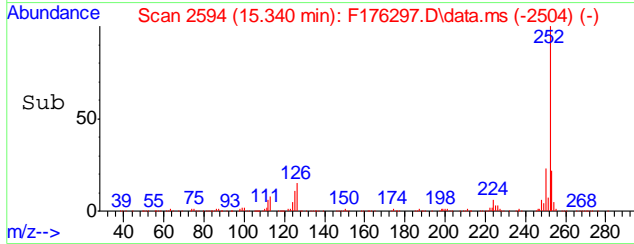
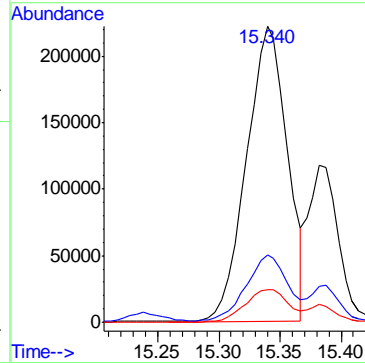
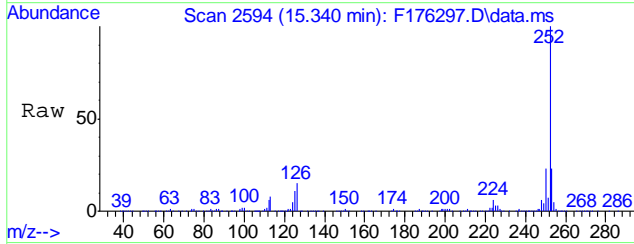
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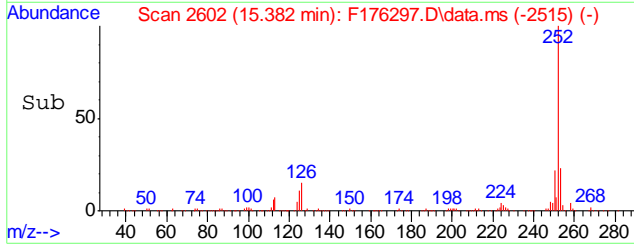
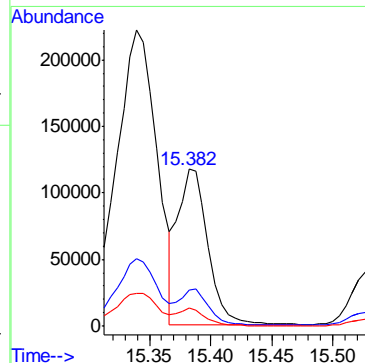
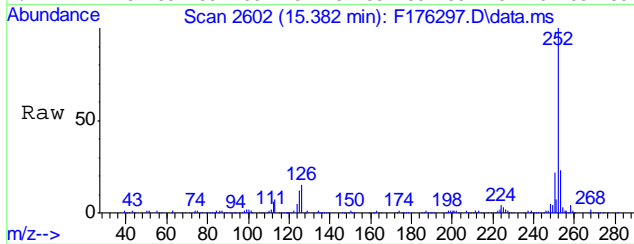
#93  
 Benzo[b]fluoranthene  
 Concen: 77.96 ppm  
 RT: 15.340 min Scan# 2594  
 Delta R.T. -0.018 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.6 | 0.0   | 51.4  |
| 125     | 10.9 | 0.0   | 43.6  |

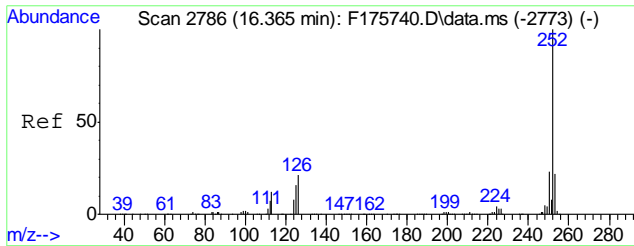


#94  
 Benzo[k]fluoranthene  
 Concen: 27.00 ppm  
 RT: 15.382 min Scan# 2602  
 Delta R.T. -0.038 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.8 | 0.0   | 51.4  |
| 125     | 11.6 | 0.0   | 43.3  |

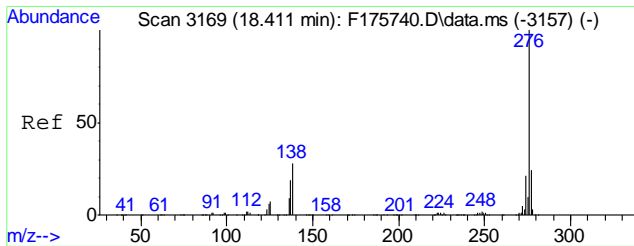
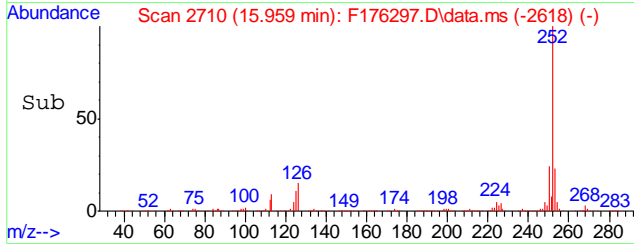
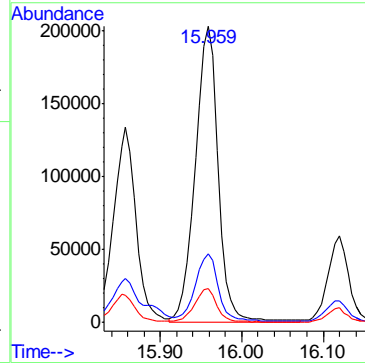
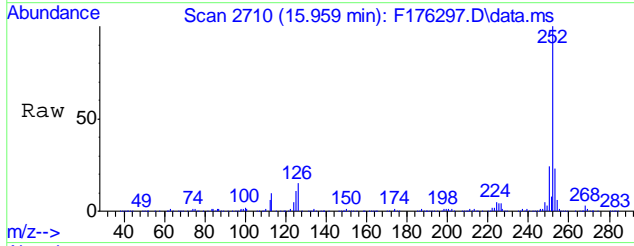


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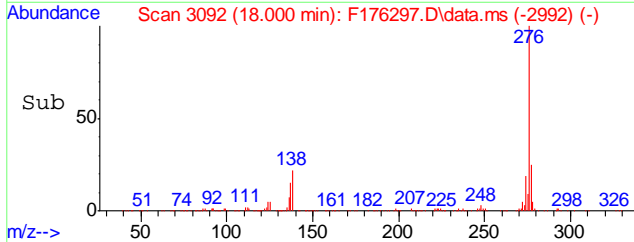
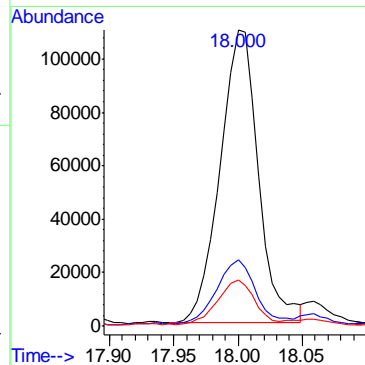
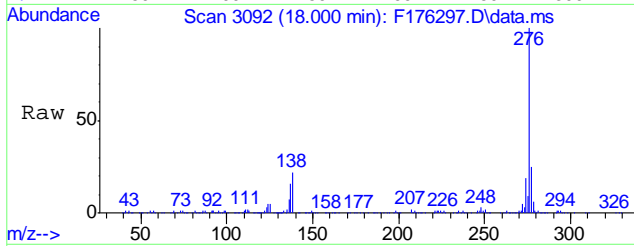
#95  
 Benzo[a]pyrene  
 Concen: 67.63 ppm  
 RT: 15.959 min Scan# 2710  
 Delta R.T. -0.008 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.2  | 0.0   | 51.9  |
| 125     | 11.2  | 0.0   | 45.6  |

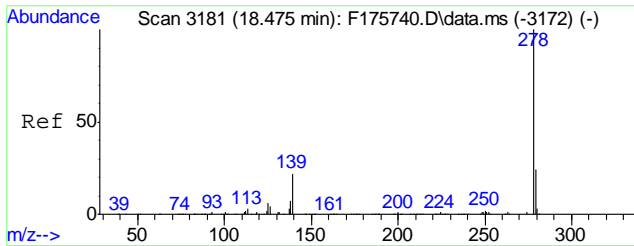


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 41.54 ppm  
 RT: 18.000 min Scan# 3092  
 Delta R.T. 0.036 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 21.1  | 0.0   | 56.5  |
| 137     | 14.9  | 0.0   | 48.3  |

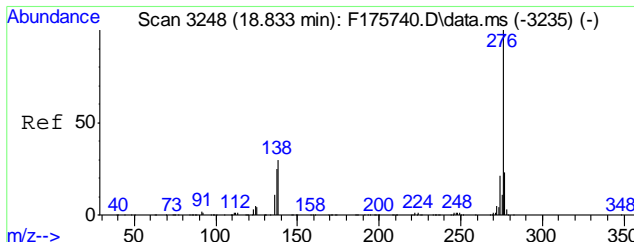
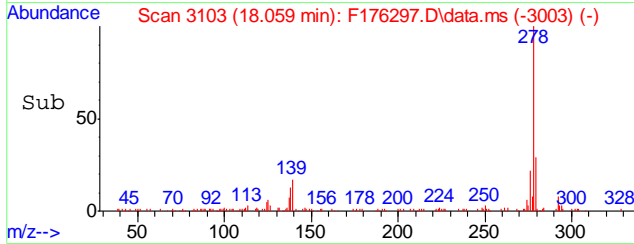
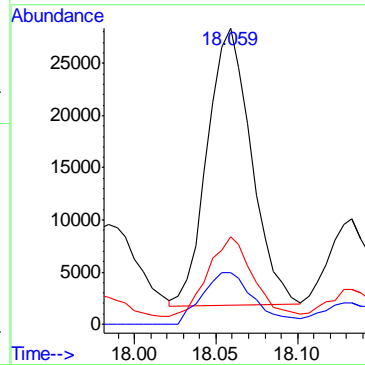
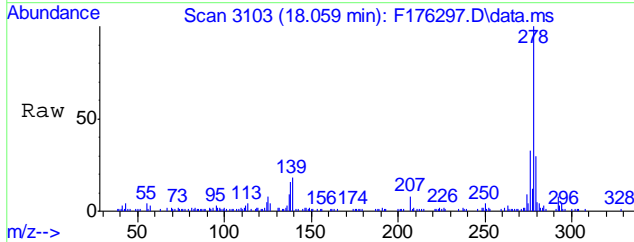


9.1.1  
 9



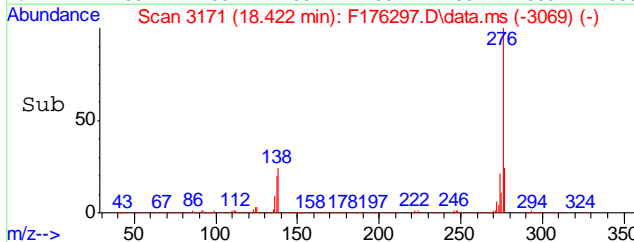
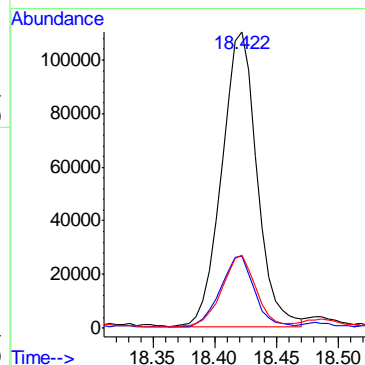
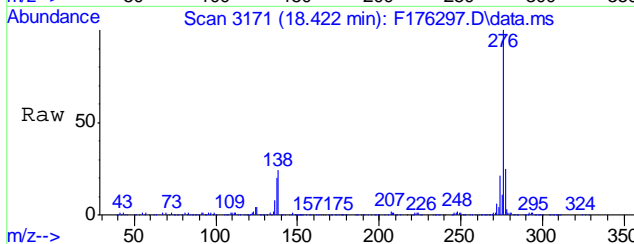
#98  
 Dibenz[a,h]anthracene  
 Concen: 7.86 ppm  
 RT: 18.059 min Scan# 3103  
 Delta R.T. 0.032 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 49879 | 100   |       |
| 139     | 17.9  | 0.0   | 52.2  |
| 279     | 28.8  | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 34.81 ppm  
 RT: 18.422 min Scan# 3171  
 Delta R.T. 0.046 min  
 Lab File: F176297.D  
 Acq: 7 May 2018 9:52 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 218268 | 100   |       |
| 138     | 24.2   | 0.0   | 59.8  |
| 277     | 24.7   | 0.0   | 52.8  |



9.11  
9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\  
 Data File : f176322.d  
 Acq On : 8 May 2018 7:40 pm  
 Operator : christc2  
 Sample : jc65058-1 Inst : GCMSF  
 Misc : op11647,ef7511,30.1,,,1,2  
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Results File: MF7484.RES  
 Quant Time: May 09 05:51:21 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 04:55:45 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |     |
|------------------------------|--------|------|----------|-------|--------|----------|-----|
| Internal Standards           |        |      |          |       |        |          |     |
| 1) 1,4-Dichlorobenzene-d4    | 4.308  | 152  | 69326    | 40.00 | ppm    | 0.00     |     |
| 24) Naphthalene-d8           | 5.232  | 136  | 275569   | 40.00 | ppm    | 0.00     |     |
| 47) Acenaphthene-d10         | 6.541  | 164  | 137714   | 40.00 | ppm    | 0.00     |     |
| 69) Phenanthrene-d10         | 8.229  | 188  | 252907   | 40.00 | ppm    | 0.00     |     |
| 83) Chrysene-d12             | 13.283 | 240  | 254413   | 40.00 | ppm    | 0.00     |     |
| 91) Perylene-d12             | 16.296 | 264  | 264979   | 40.00 | ppm    | 0.00     |     |
| 101) 1,4-Dichlorobenzene-d4a | 4.308  | 152  | 69326    | 40.00 | ppm    | 0.00     |     |
| 103) Phenanthrene-d10a       | 8.229  | 188  | 252907   | 40.00 | ppm    | 0.00     |     |
| 105) Chrysene-d12a           | 13.283 | 240  | 254413   | 40.00 | ppm    | 0.00     |     |
| 107) Naphthalene-d8a         | 5.232  | 136  | 275569   | 40.00 | ppm    | 0.00     |     |
| 109) Acenaphthene-d10a       | 6.541  | 164  | 137714   | 40.00 | ppm    | 0.00     |     |
| System Monitoring Compounds  |        |      |          |       |        |          |     |
| 5) 2-Fluorophenol            | 3.336  | 112  | 41715    | 20.66 | ppm    | -0.02    |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 41.32% |          |     |
| 8) Phenol-d5                 | 4.078  | 99   | 53230    | 18.40 | ppm    | 0.00     |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 36.80% |          |     |
| 25) Nitrobenzene-d5          | 4.719  | 82   | 52591    | 17.56 | ppm    | 0.00     |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 35.12% |          |     |
| 51) 2-Fluorobiphenyl         | 6.001  | 172  | 94772    | 18.17 | ppm    | 0.00     |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 36.34% |          |     |
| 73) 2,4,6-Tribromophenol     | 7.337  | 330  | 15966    | 23.66 | ppm    | 0.00     |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 47.32% |          |     |
| 85) Terphenyl-d14            | 11.130 | 244  | 104062   | 18.02 | ppm    | -0.02    |     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 36.04% |          |     |
| Target Compounds             |        |      |          |       |        |          |     |
| 38) Naphthalene              | 5.243  | 128  | 6520     | 0.86  | ppm    |          | 97  |
| 44) 2-Methylnaphthalene      | 5.739  | 141  | 3177     | 0.78  | ppm    |          | 93  |
| 53) Biphenyl                 | 6.076  | 154  | 1341     | 0.25  | ppm    |          | 97  |
| 56) Acenaphthylene           | 6.418  | 152  | 9194     | 1.40  | ppm    |          | 98  |
| 59) Acenaphthene             | 6.568  | 153  | 17314    | 3.88  | ppm    |          | 99  |
| 62) Dibenzofuran             | 6.728  | 168  | 11395    | 1.91  | ppm    |          | 96  |
| 66) Fluorene                 | 7.070  | 166  | 20448    | 4.40  | ppm    |          | 98  |
| 71) n-Nitrosodiphenylamine   | 7.123  | 169  | 306      | 0.09  | ppm    |          | 88  |
| 77) Phenanthrene             | 8.266  | 178  | 309209   | 42.40 | ppm    |          | 98  |
| 78) Anthracene               | 8.336  | 178  | 88343    | 12.40 | ppm    |          | 100 |
| 79) Carbazole                | 8.608  | 167  | 23289    | 3.57  | ppm    |          | 98  |
| 81) Fluoranthene             | 10.280 | 202  | 523457   | 72.41 | ppm    |          | 92  |
| 84) Pyrene                   | 10.702 | 202  | 448264   | 53.10 | ppm    |          | 91  |
| 87) Benzo[a]anthracene       | 13.267 | 228  | 242107   | 33.83 | ppm    |          | 98  |
| 89) Chrysene                 | 13.342 | 228  | 214898   | 26.96 | ppm    |          | 97  |
| 93) Benzo[b]fluoranthene     | 15.559 | 252  | 268478   | 38.94 | ppm    |          | 97  |
| 94) Benzo[k]fluoranthene     | 15.601 | 252  | 94719    | 12.46 | ppm    |          | 95  |
| 95) Benzo[a]pyrene           | 16.173 | 252  | 192948   | 31.82 | ppm    |          | 95  |
| 96) Indeno[1,2,3-cd]pyrene   | 18.224 | 276  | 110393   | 19.54 | ppm    |          | 87  |
| 98) Dibenz[a,h]anthracene    | 18.278 | 278  | 27504    | 4.17  | ppm    |          | 94  |
| 100) Benzo[g,h,i]perylene    | 18.646 | 276  | 108096   | 16.59 | ppm    |          | 96  |

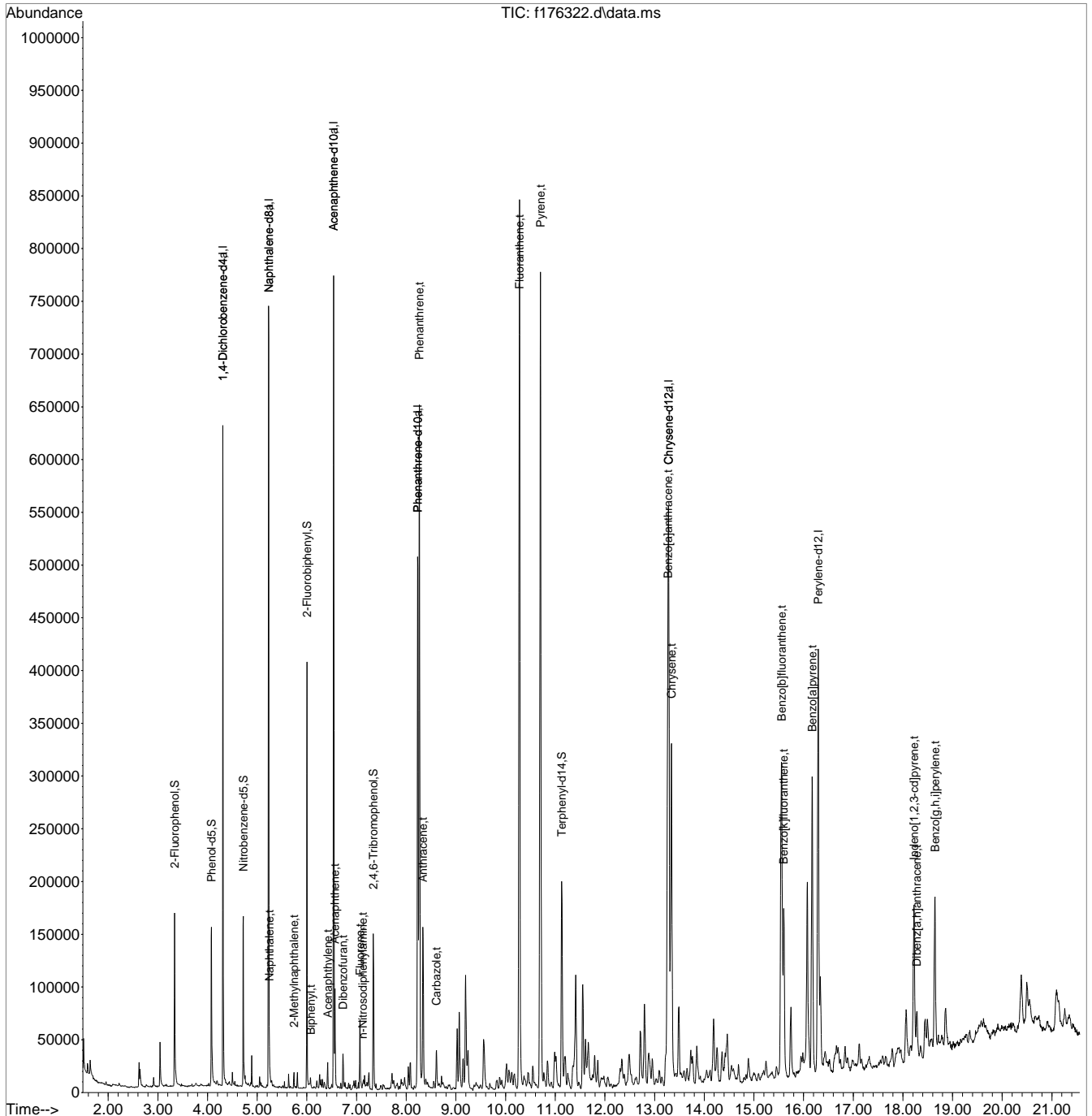
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\
Data File : f176322.d
Acq On : 8 May 2018 7:40 pm
Operator : christc2
Sample : jc65058-1
Misc : op11647,ef7511,30.1,,,1,2
ALS Vial : 19 Sample Multiplier: 1

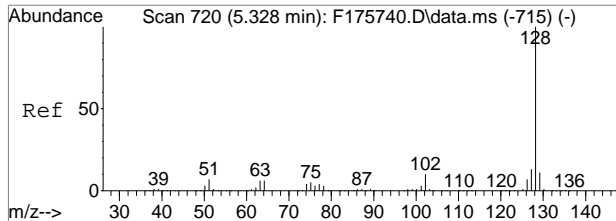
Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M
Quant Results File: MF7484.RES
Quant Time: May 09 05:51:21 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed May 09 04:55:45 2018
Response via : Initial Calibration

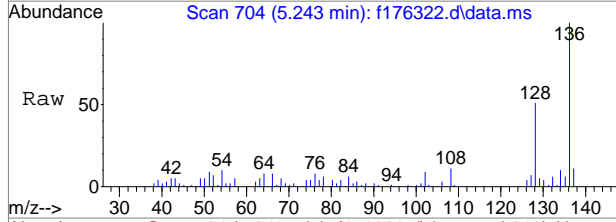


9.1.2
9



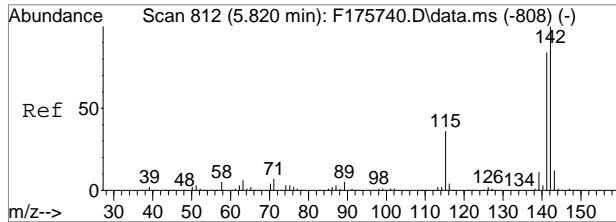
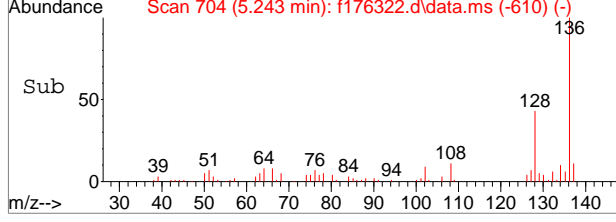
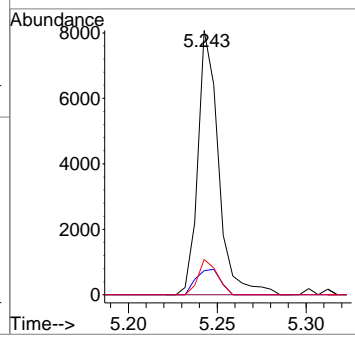


#38  
 Naphthalene  
 Concen: 0.86 ppm  
 RT: 5.243 min Scan# 704  
 Delta R.T. 0.000 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

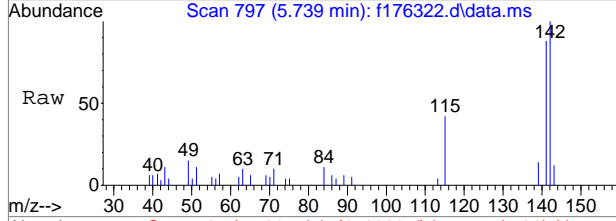


Tgt Ion:128 Resp: 6520

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 129 | 9.1   | 0.0   | 41.0  |
| 127 | 13.4  | 0.0   | 42.8  |

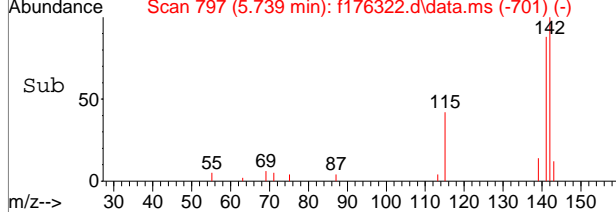
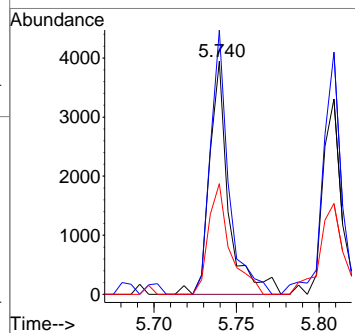


#44  
 2-Methylnaphthalene  
 Concen: 0.78 ppm  
 RT: 5.739 min Scan# 797  
 Delta R.T. 0.014 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

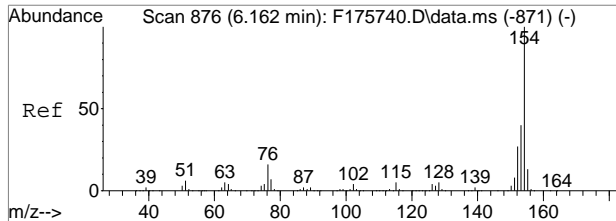


Tgt Ion:141 Resp: 3177

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 141 | 100   |       |       |
| 142 | 111.4 | 88.6  | 148.6 |
| 115 | 47.6  | 12.3  | 72.3  |

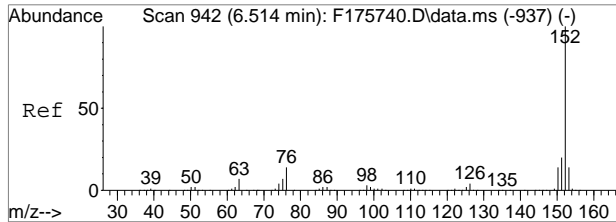
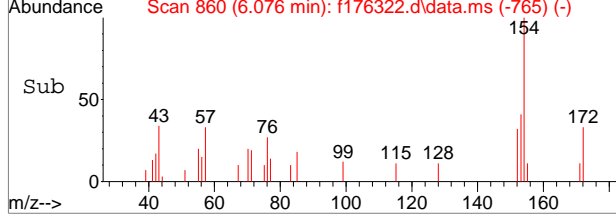
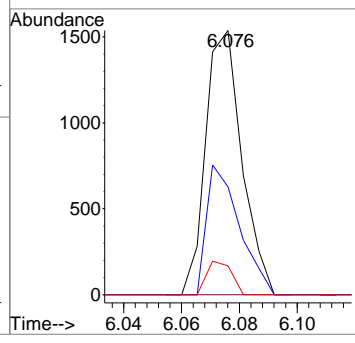
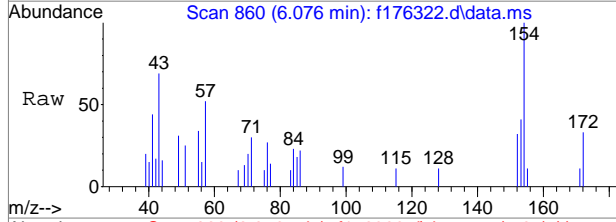


9.1.2  
 9



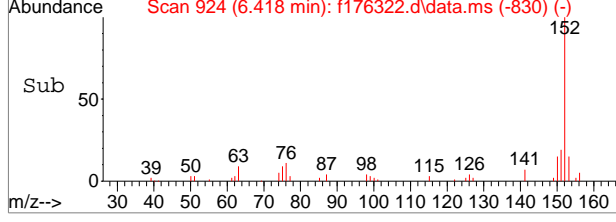
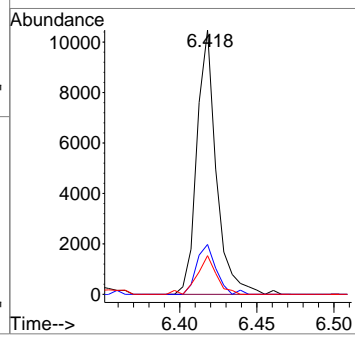
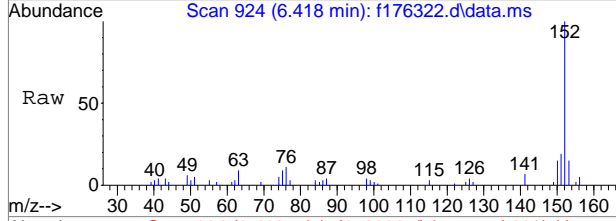
#53  
 Biphenyl  
 Concen: 0.25 ppm  
 RT: 6.076 min Scan# 860  
 Delta R.T. 0.009 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.8  | 9.8   | 69.8  |
| 155     | 11.0  | 0.0   | 43.0  |

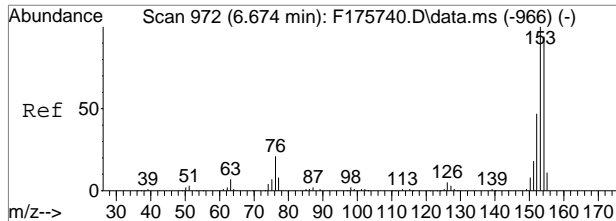


#56  
 Acenaphthylene  
 Concen: 1.40 ppm  
 RT: 6.418 min Scan# 924  
 Delta R.T. 0.003 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 18.8  | 0.0   | 49.6  |
| 153     | 14.6  | 0.0   | 43.6  |

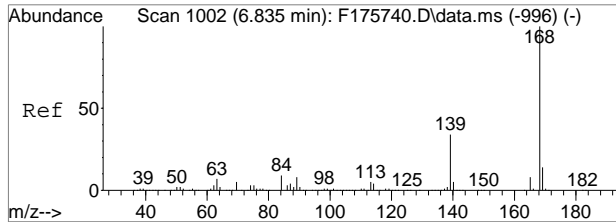
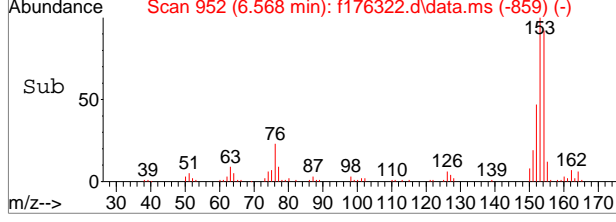
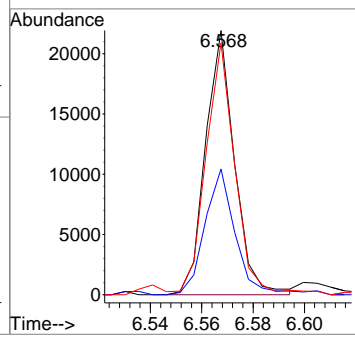
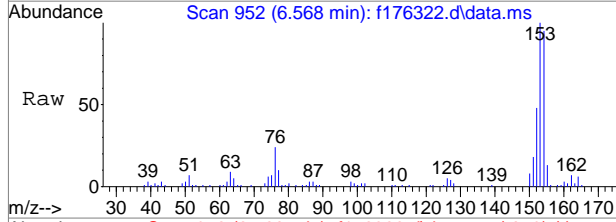


9.12  
 9



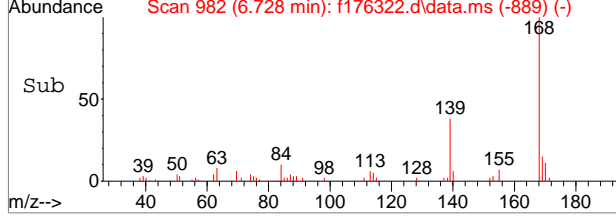
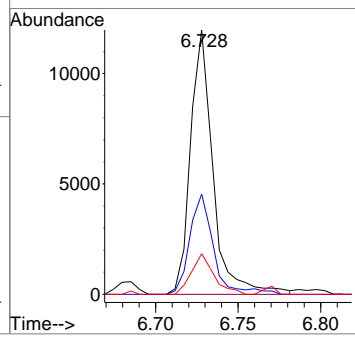
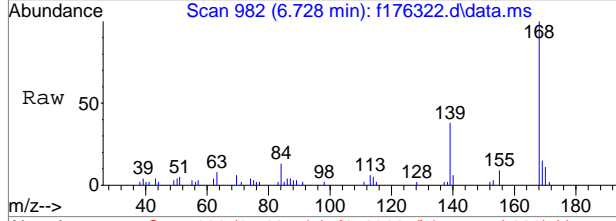
#59  
 Acenaphthene  
 Concen: 3.88 ppm  
 RT: 6.568 min Scan# 952  
 Delta R.T. -0.005 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 17314 |       |       |
| 152     | 47.3  | 16.7  | 76.7  |
| 154     | 94.8  | 64.1  | 124.1 |



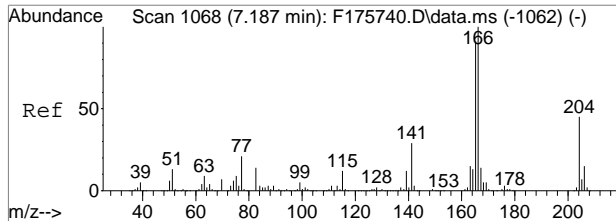
#62  
 Dibenzofuran  
 Concen: 1.91 ppm  
 RT: 6.728 min Scan# 982  
 Delta R.T. -0.002 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 11395 |       |       |
| 139     | 38.2  | 5.7   | 65.7  |
| 169     | 15.5  | 0.0   | 43.7  |

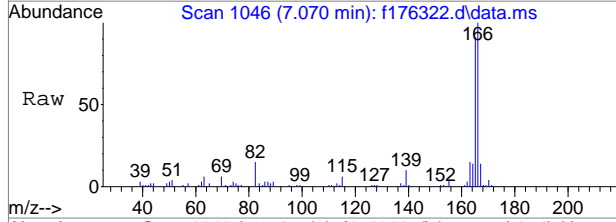


9.12  
 9



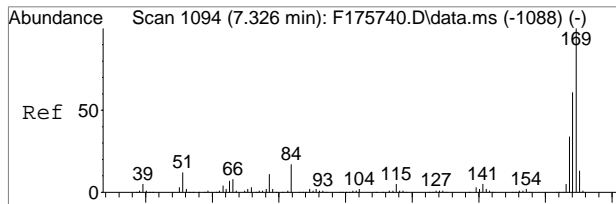
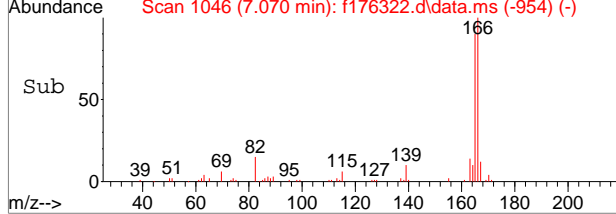
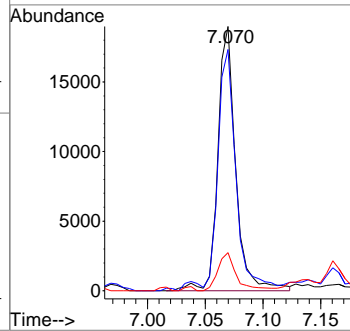


#66  
 Fluorene  
 Concen: 4.40 ppm  
 RT: 7.070 min Scan# 1046  
 Delta R.T. -0.008 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

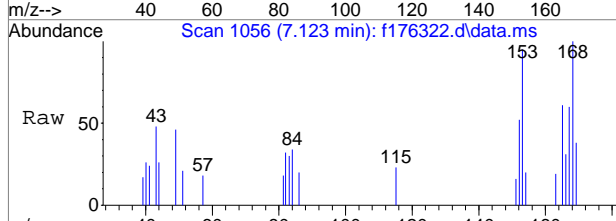


Tgt Ion:166 Resp: 20448

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 166 | 100   |       |       |
| 165 | 89.9  | 61.4  | 121.4 |
| 167 | 12.2  | 0.0   | 43.6  |

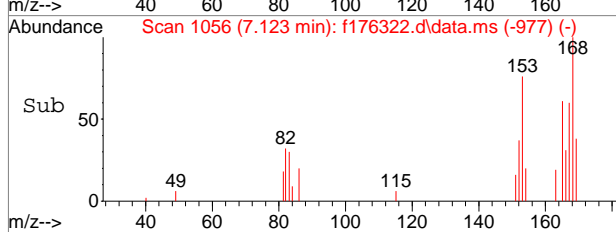
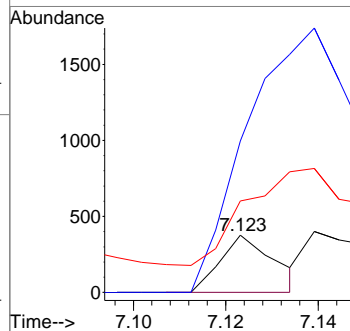


#71  
 n-Nitrosodiphenylamine  
 Concen: 0.09 ppm  
 RT: 7.123 min Scan# 1056  
 Delta R.T. -0.077 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

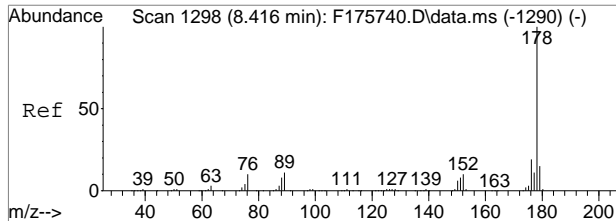


Tgt Ion:169 Resp: 306

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 169 | 100   |       |       |
| 168 | 72.5  | 31.5  | 91.5  |
| 167 | 38.5  | 3.7   | 63.7  |

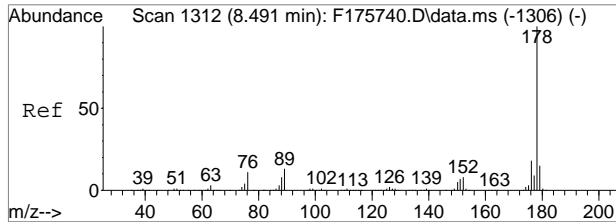
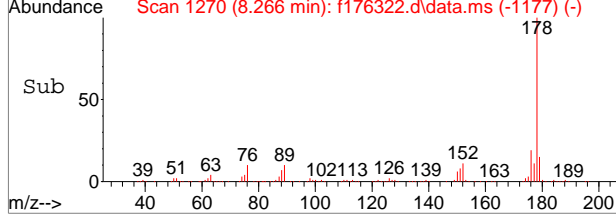
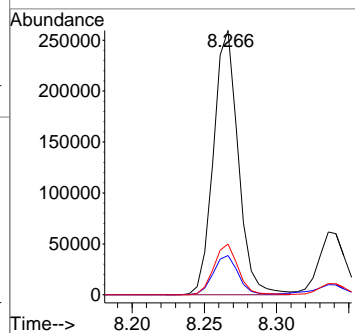
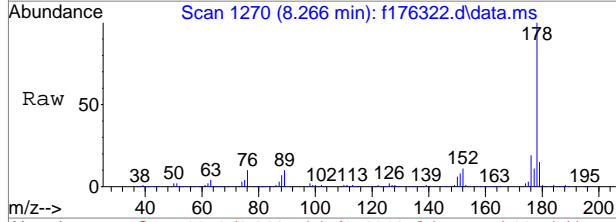


9.12  
 9



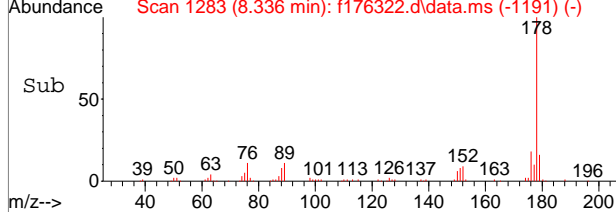
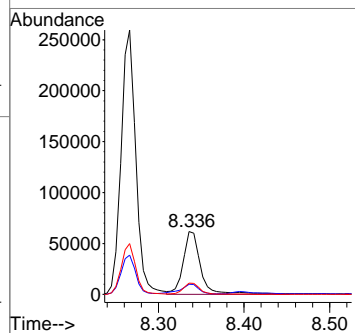
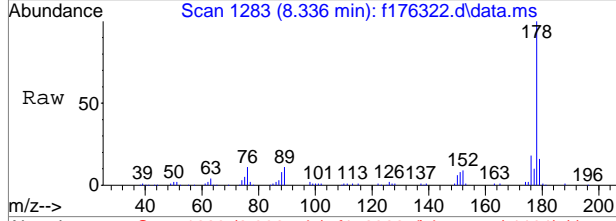
#77  
 Phenanthrene  
 Concen: 42.40 ppm  
 RT: 8.266 min Scan# 1270  
 Delta R.T. -0.005 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.6  | 0.0   | 45.3  |
| 176     | 19.2  | 0.0   | 48.6  |

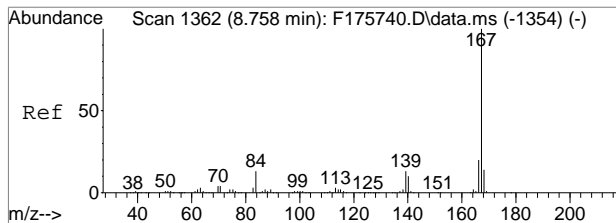


#78  
 Anthracene  
 Concen: 12.40 ppm  
 RT: 8.336 min Scan# 1283  
 Delta R.T. -0.011 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.9  | 0.0   | 45.0  |
| 176     | 18.3  | 0.0   | 48.2  |

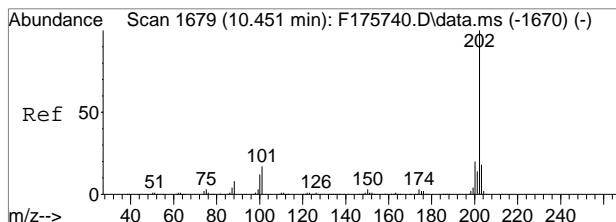
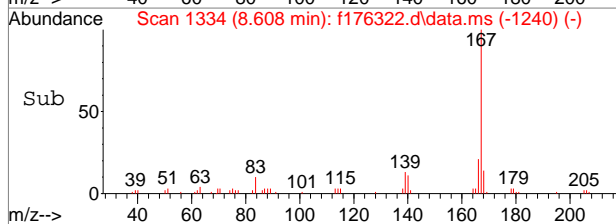
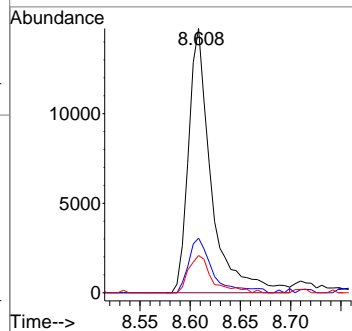
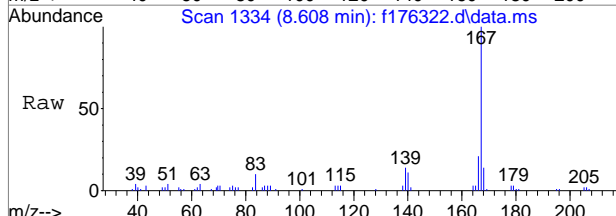


9.1.2  
**9**



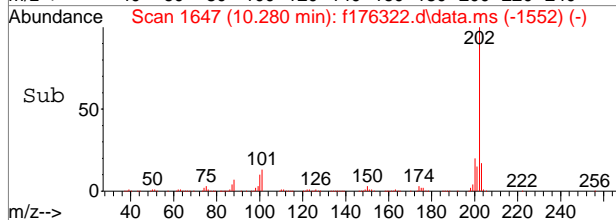
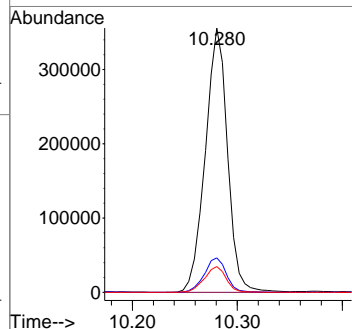
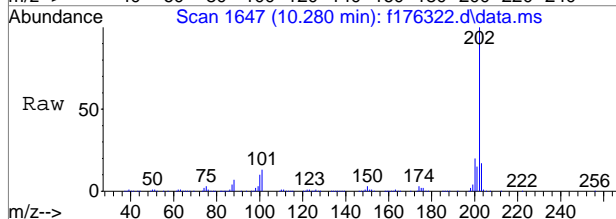
#79  
 Carbazole  
 Concen: 3.57 ppm  
 RT: 8.608 min Scan# 1334  
 Delta R.T. 0.001 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

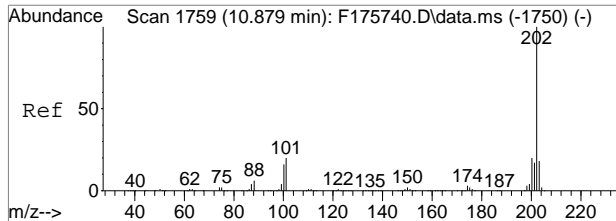
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 23289 |       |       |
| 166     | 20.1  | 0.0   | 50.3  |
| 139     | 14.2  | 0.0   | 42.9  |



#81  
 Fluoranthene  
 Concen: 72.41 ppm  
 RT: 10.280 min Scan# 1647  
 Delta R.T. 0.009 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

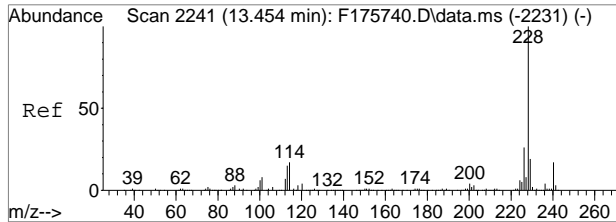
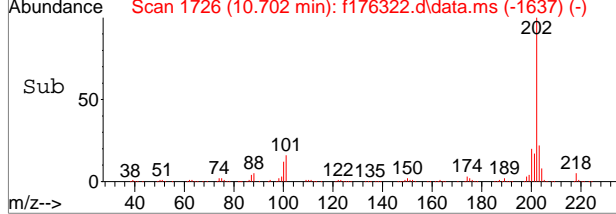
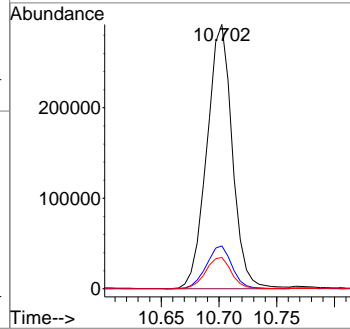
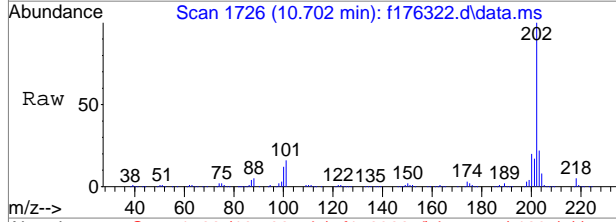
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 523457 |       |       |
| 101     | 13.1   | 0.0   | 47.3  |
| 100     | 9.8    | 0.0   | 42.4  |





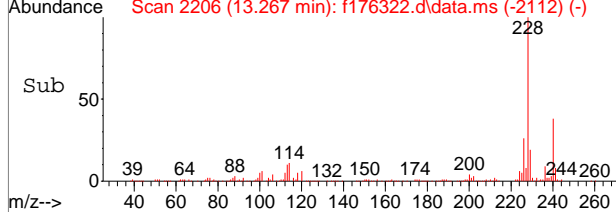
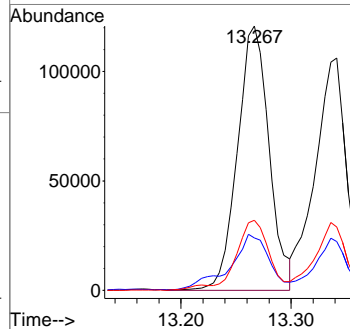
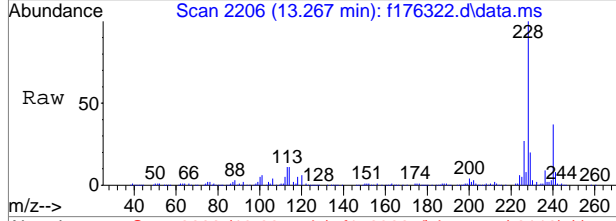
#84  
 Pyrene  
 Concen: 53.10 ppm  
 RT: 10.702 min Scan# 1726  
 Delta R.T. -0.025 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

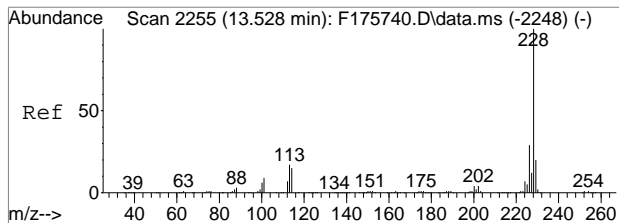
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 16.2  | 0.0   | 50.0  |
| 100     | 11.9  | 0.0   | 45.6  |



#87  
 Benzo[a]anthracene  
 Concen: 33.83 ppm  
 RT: 13.267 min Scan# 2206  
 Delta R.T. -0.000 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

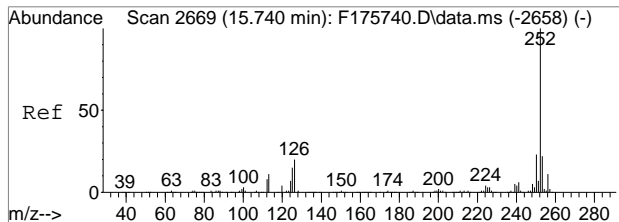
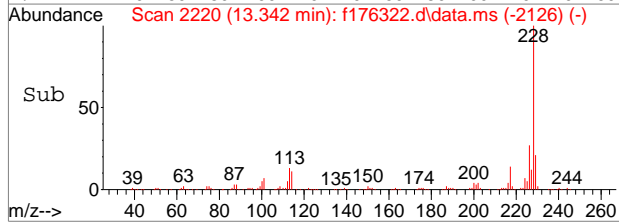
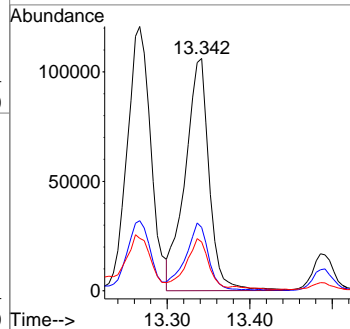
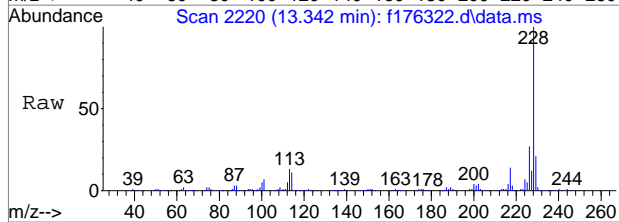
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.3  | 0.0   | 48.8  |
| 226     | 26.4  | 0.0   | 55.4  |





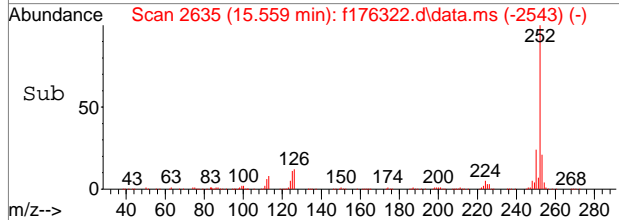
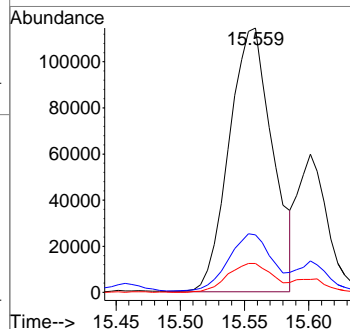
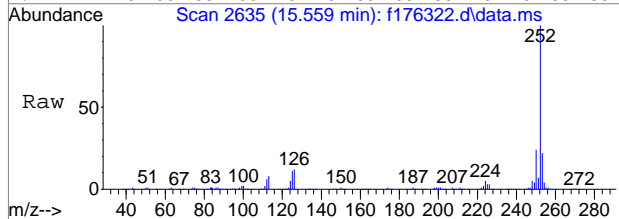
#89  
 Chrysene  
 Concen: 26.96 ppm  
 RT: 13.342 min Scan# 2220  
 Delta R.T. 0.001 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.2  | 0.0   | 59.2  |
| 229     | 20.4  | 0.0   | 49.9  |

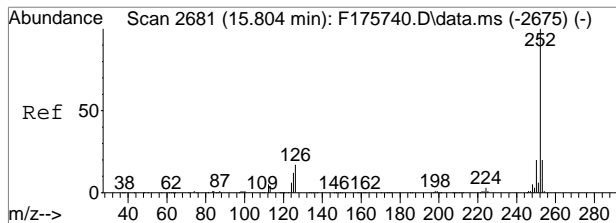


#93  
 Benzo[b]fluoranthene  
 Concen: 38.94 ppm  
 RT: 15.559 min Scan# 2635  
 Delta R.T. -0.008 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.0  | 0.0   | 51.4  |
| 125     | 10.6  | 0.0   | 43.6  |

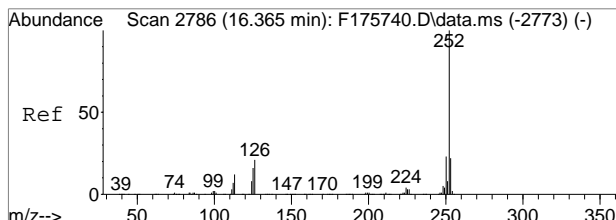
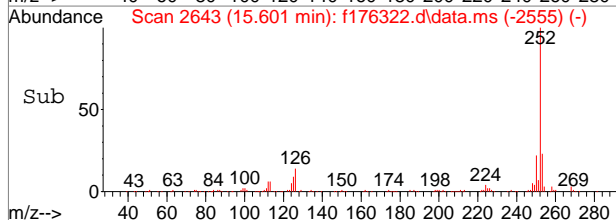
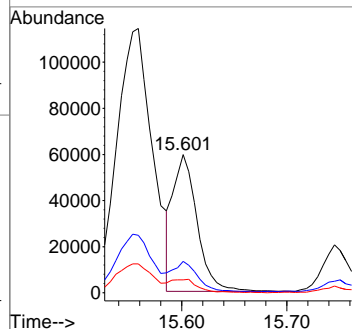
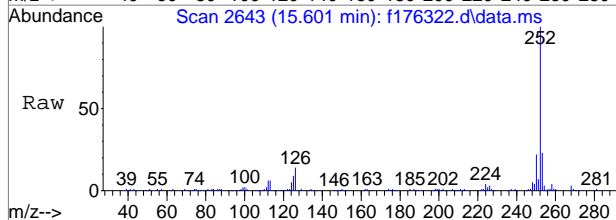


9.12  
 9



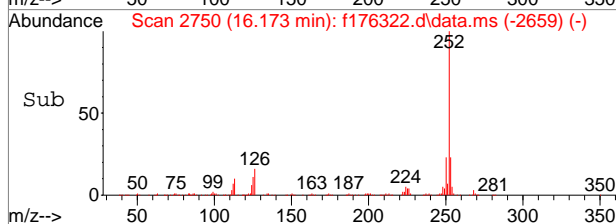
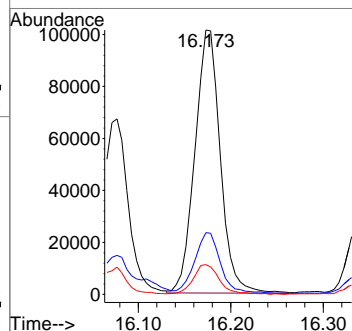
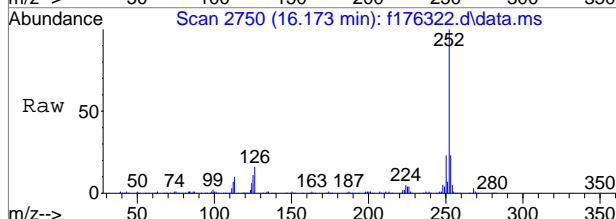
#94  
 Benzo[k]fluoranthene  
 Concen: 12.46 ppm  
 RT: 15.601 min Scan# 2643  
 Delta R.T. -0.029 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.3  | 0.0   | 51.4  |
| 125     | 8.1   | 0.0   | 43.3  |

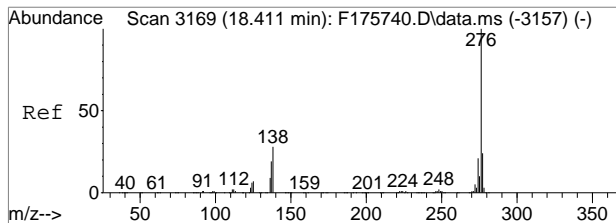


#95  
 Benzo[a]pyrene  
 Concen: 31.82 ppm  
 RT: 16.173 min Scan# 2750  
 Delta R.T. -0.012 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.4  | 0.0   | 51.9  |
| 125     | 11.1  | 0.0   | 45.6  |

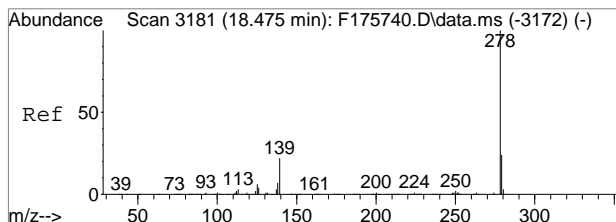
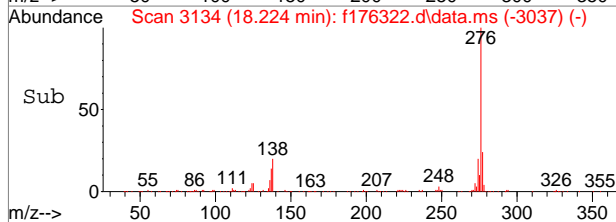
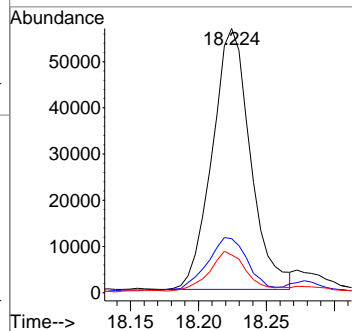
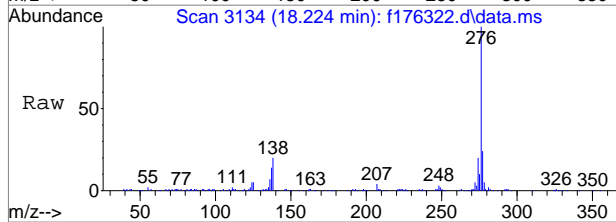


9.12  
 9



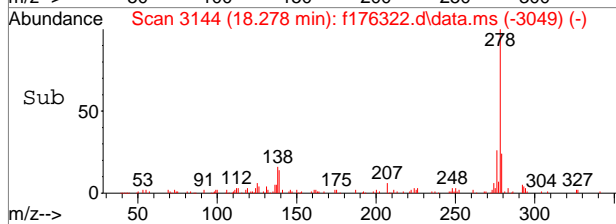
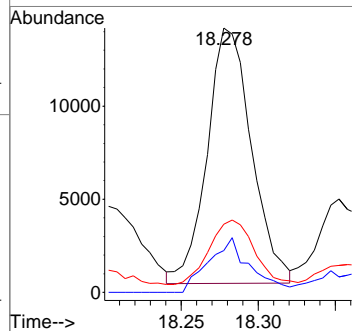
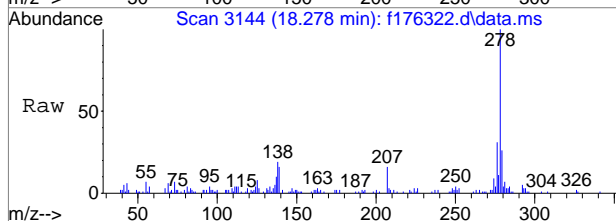
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 19.54 ppm  
 RT: 18.224 min Scan# 3134  
 Delta R.T. 0.016 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 19.1  | 0.0   | 56.5  |
| 137     | 13.7  | 0.0   | 48.3  |

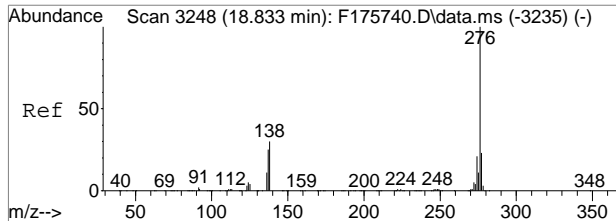


#98  
 Dibenz[a,h]anthracene  
 Concen: 4.17 ppm  
 RT: 18.278 min Scan# 3144  
 Delta R.T. 0.006 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 16.0  | 0.0   | 52.2  |
| 279     | 24.1  | 0.0   | 53.9  |

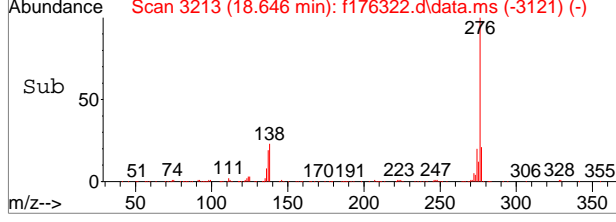
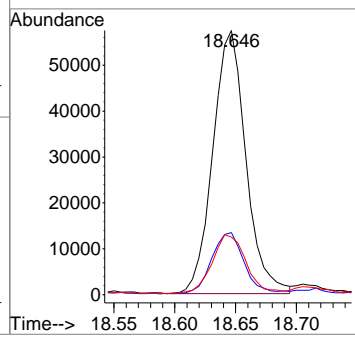
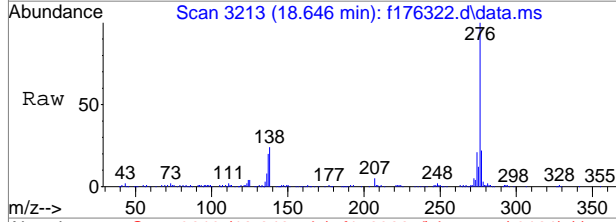


9.12  
**9**



#100  
 Benzo[g,h,i]perylene  
 Concen: 16.59 ppm  
 RT: 18.646 min Scan# 3213  
 Delta R.T. -0.011 min  
 Lab File: f176322.d  
 Acq: 8 May 2018 7:40 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.0  | 0.0   | 54.5  |
| 277     | 21.2  | 0.0   | 54.2  |



9.12  
 9





## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176300.D  
 Acq On : 7 May 2018 11:30 pm  
 Operator : christc2  
 Sample : jc65058-2  
 Misc : op11647,ef7510,30.3,,,1,1  
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 08 16:29:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|--------|--------|----------|--------|
| Internal Standards           |        |      |          |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 89151    | 40.00  | ppm    | -0.01    |        |
| 24) Naphthalene-d8           | 5.141  | 136  | 343996   | 40.00  | ppm    | 0.00     |        |
| 47) Acenaphthene-d10         | 6.429  | 164  | 166299   | 40.00  | ppm    | -0.01    |        |
| 69) Phenanthrene-d10         | 8.080  | 188  | 286225   | 40.00  | ppm    | -0.01    |        |
| 83) Chrysene-d12             | 13.096 | 240  | 261953   | 40.00  | ppm    | 0.01     |        |
| 91) Perylene-d12             | 16.093 | 264  | 279786   | 40.00  | ppm    | 0.02     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 89151    | 40.00  | ppm    | -0.01    |        |
| 103) Phenanthrene-d10a       | 8.080  | 188  | 286225   | 40.00  | ppm    | -0.01    |        |
| 105) Chrysene-d12a           | 13.096 | 240  | 261953   | 40.00  | ppm    | 0.01     |        |
| 107) Naphthalene-d8a         | 5.141  | 136  | 343996   | 40.00  | ppm    | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 166299   | 40.00  | ppm    | -0.01    |        |
| System Monitoring Compounds  |        |      |          |        |        |          |        |
| 5) 2-Fluorophenol            | 3.240  | 112  | 107349   | 41.33  | ppm    | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 82.66% |          |        |
| 8) Phenol-d5                 | 3.987  | 99   | 140162   | 37.68  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 75.36% |          |        |
| 25) Nitrobenzene-d5          | 4.623  | 82   | 130269   | 34.84  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 69.68% |          |        |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 231034   | 36.68  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 73.36% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 37943    | 49.69  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 99.38% |          |        |
| 85) Terphenyl-d14            | 10.943 | 244  | 222136   | 37.36  | ppm    | -0.04    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 74.72% |          |        |
| Target Compounds             |        |      |          |        |        |          |        |
|                              |        |      |          |        |        |          | Qvalue |
| 38) Naphthalene              | 5.152  | 128  | 238031   | 25.24  | ppm    |          | 98     |
| 44) 2-Methylnaphthalene      | 5.649  | 141  | 39350    | 7.75   | ppm    |          | 100    |
| 53) Biphenyl                 | 5.980  | 154  | 17468    | 2.67   | ppm    |          | 99     |
| 56) Acenaphthylene           | 6.311  | 152  | 8149     | 1.03   | ppm    |          | 92     |
| 59) Acenaphthene             | 6.461  | 153  | 243591   | 45.19  | ppm    |          | 99     |
| 62) Dibenzofuran             | 6.611  | 168  | 143314   | 19.84  | ppm    |          | 96     |
| 66) Fluorene                 | 6.947  | 166  | 237962   | 42.37  | ppm    |          | 100    |
| 77) Phenanthrene             | 8.128  | 178  | 2599387  | 314.93 | ppm    |          | 99     |
| 78) Anthracene               | 8.192  | 178  | 738037   | 91.50  | ppm    |          | 98     |
| 79) Carbazole                | 8.448  | 167  | 341605   | 46.22  | ppm    |          | 99     |
| 81) Fluoranthene             | 10.126 | 202  | 3382579  | 413.45 | ppm    |          | 91     |
| 84) Pyrene                   | 10.537 | 202  | 2750955m | 316.48 | ppm    |          |        |
| 87) Benzo[a]anthracene       | 13.075 | 228  | 1454577  | 197.43 | ppm    |          | 98     |
| 89) Chrysene                 | 13.155 | 228  | 1301275  | 158.54 | ppm    |          | 98     |
| 93) Benzo[b]fluoranthene     | 15.372 | 252  | 1558896  | 214.14 | ppm    |          | 97     |
| 94) Benzo[k]fluoranthene     | 15.415 | 252  | 563318   | 70.20  | ppm    |          | 95     |
| 95) Benzo[a]pyrene           | 15.992 | 252  | 1163746  | 181.75 | ppm    |          | 95     |
| 96) Indeno[1,2,3-cd]pyrene   | 18.032 | 276  | 705214   | 118.23 | ppm    |          | 91     |
| 98) Dibenz[a,h]anthracene    | 18.070 | 278  | 153661m  | 22.06  | ppm    |          |        |
| 100) Benzo[g,h,i]perylene    | 18.449 | 276  | 624614   | 90.81  | ppm    |          | 94     |

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176300.D  
Acq On : 7 May 2018 11:30 pm  
Operator : christc2  
Sample : jc65058-2  
Misc : op11647,ef7510,30.3,,,1,1  
ALS Vial : 21 Sample Multiplier: 1

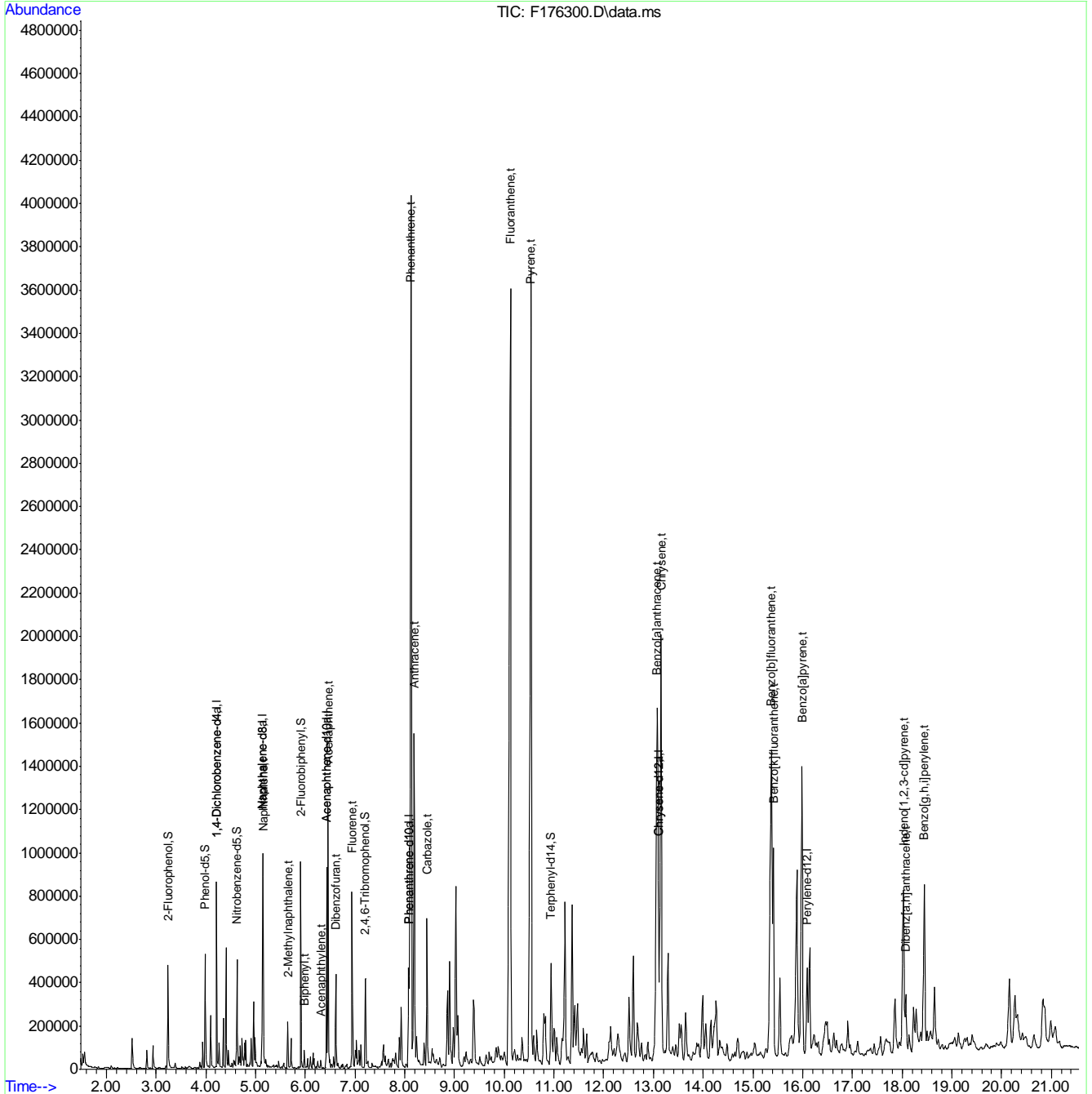
Quant Time: May 08 16:29:21 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

| Compound   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--|------|------|----------|------|-------|----------|
| -----  |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

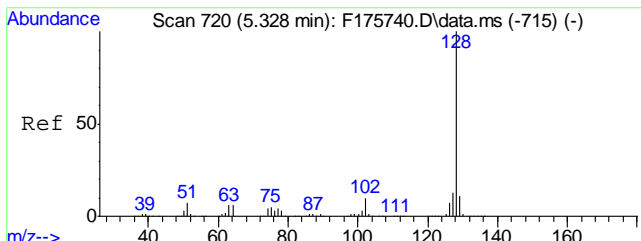
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176300.D  
Acq On : 7 May 2018 11:30 pm  
Operator : christc2  
Sample : jc65058-2  
Misc : op11647,ef7510,30.3,,,1,1  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 08 16:29:21 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

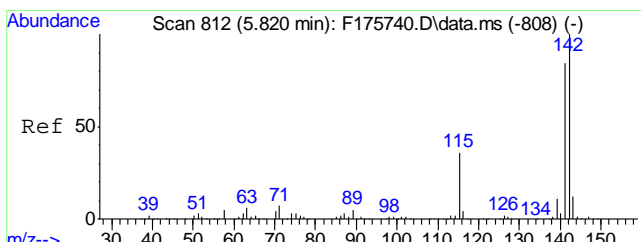
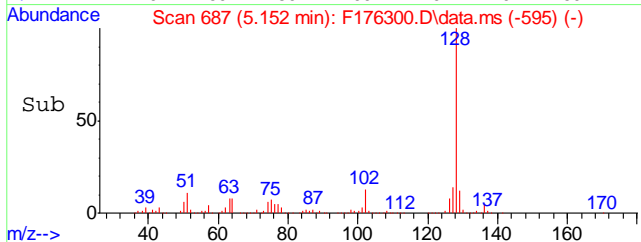
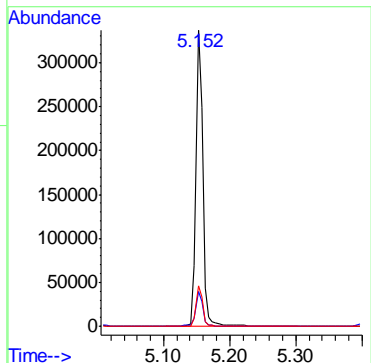
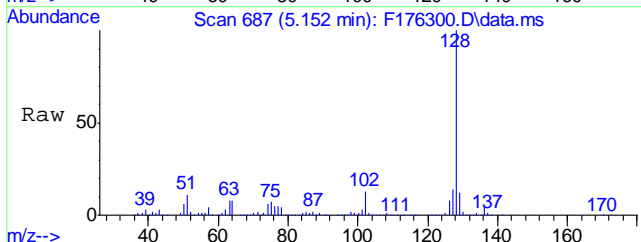


9.1.3  
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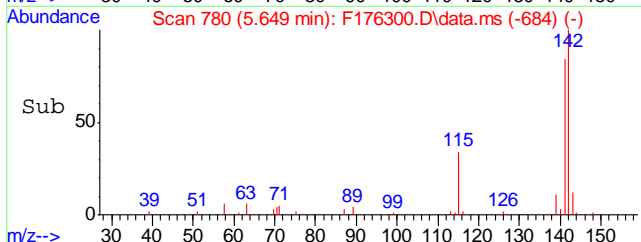
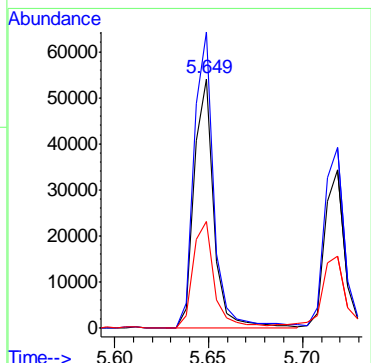
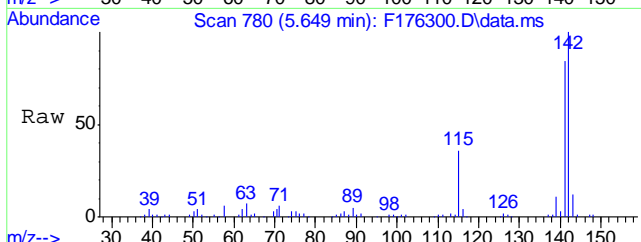
#38  
 Naphthalene  
 Concen: 25.24 ppm  
 RT: 5.152 min Scan# 687  
 Delta R.T. -0.010 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

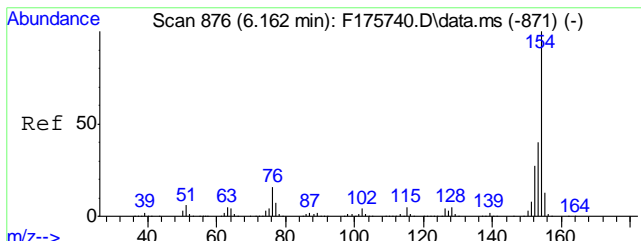
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 238031 |       |       |
| 129     | 11.7   | 0.0   | 41.0  |
| 127     | 13.7   | 0.0   | 42.8  |



#44  
 2-Methylnaphthalene  
 Concen: 7.75 ppm  
 RT: 5.649 min Scan# 780  
 Delta R.T. 0.011 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

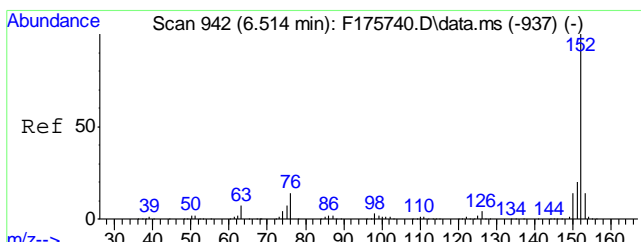
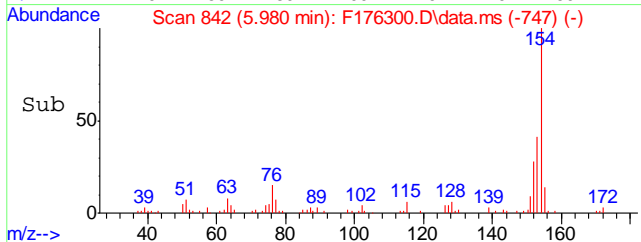
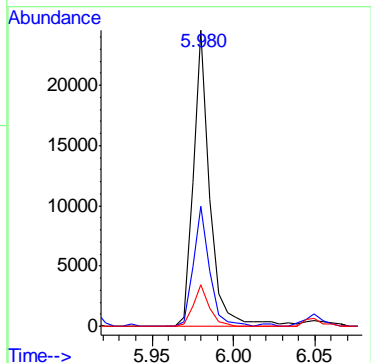
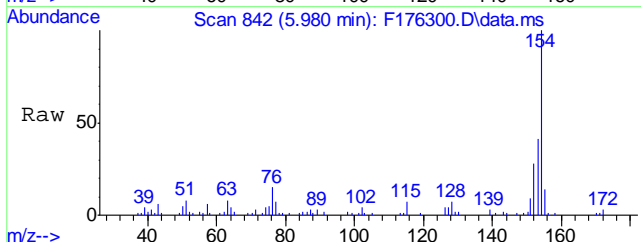
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 39350 |       |       |
| 142     | 118.7 | 88.6  | 148.6 |
| 115     | 42.1  | 12.3  | 72.3  |





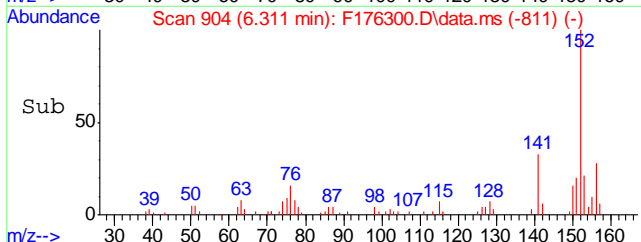
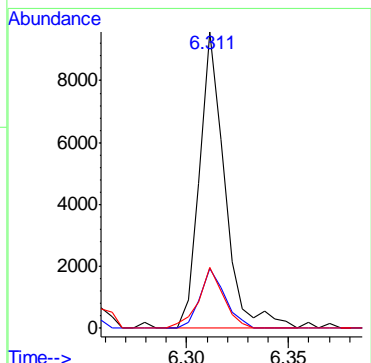
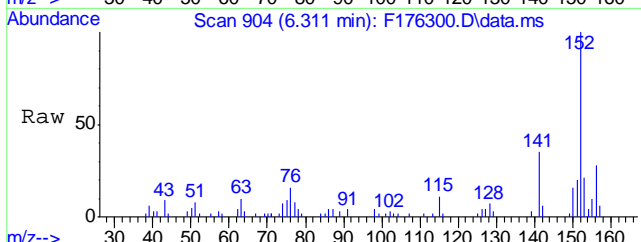
#53  
 Biphenyl  
 Concen: 2.67 ppm  
 RT: 5.980 min Scan# 842  
 Delta R.T. 0.007 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 17468 | 100   |       |
| 153     | 40.2  | 9.8   | 69.8  |
| 155     | 14.1  | 0.0   | 43.0  |

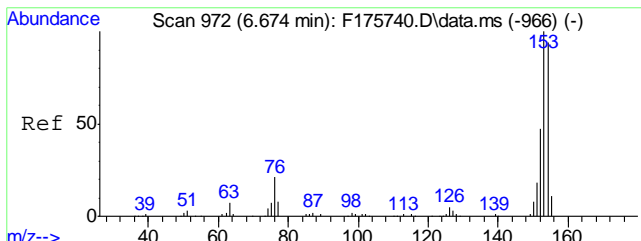


#56  
 Acenaphthylene  
 Concen: 1.03 ppm  
 RT: 6.311 min Scan# 904  
 Delta R.T. -0.004 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 8149 | 100   |       |
| 151     | 20.1 | 0.0   | 49.6  |
| 153     | 20.5 | 0.0   | 43.6  |

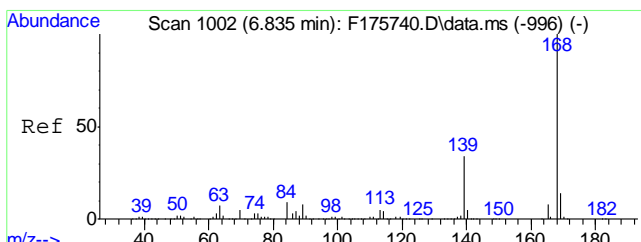
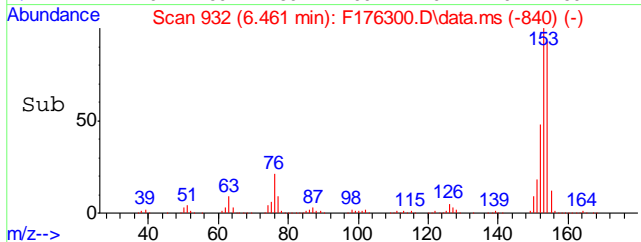
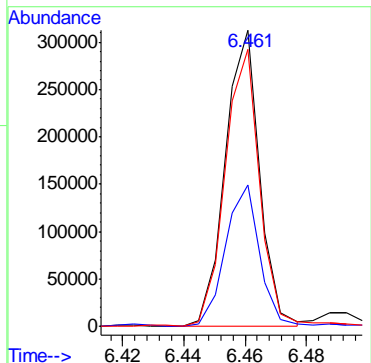
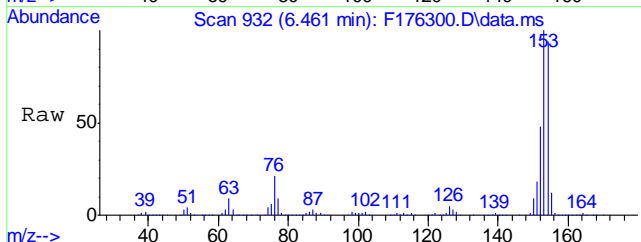


9.1.3  
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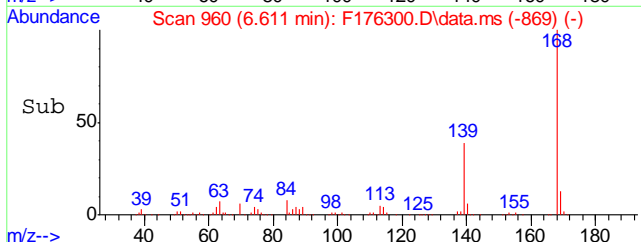
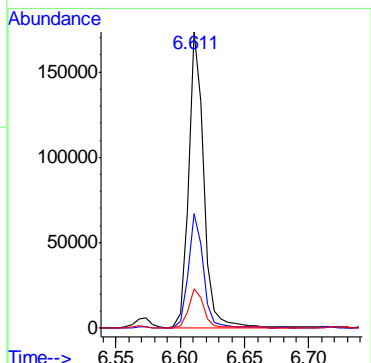
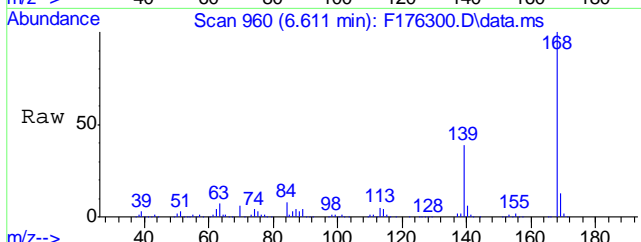
#59  
 Acenaphthene  
 Concen: 45.19 ppm  
 RT: 6.461 min Scan# 932  
 Delta R.T. -0.010 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

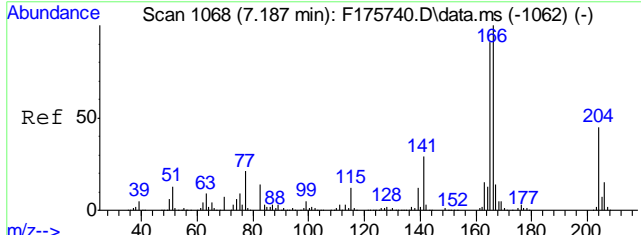
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 243591 |       |       |
| 152     | 47.8   | 16.7  | 76.7  |
| 154     | 93.5   | 64.1  | 124.1 |



#62  
 Dibenzofuran  
 Concen: 19.84 ppm  
 RT: 6.611 min Scan# 960  
 Delta R.T. -0.015 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

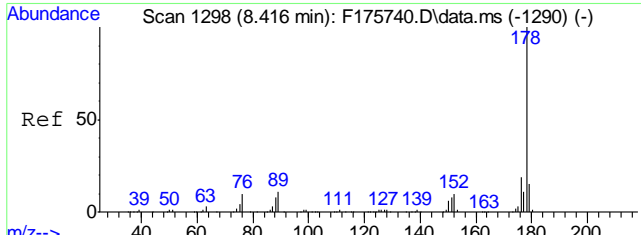
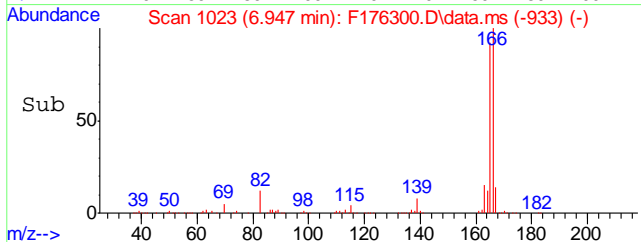
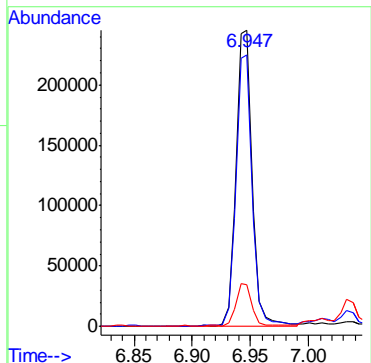
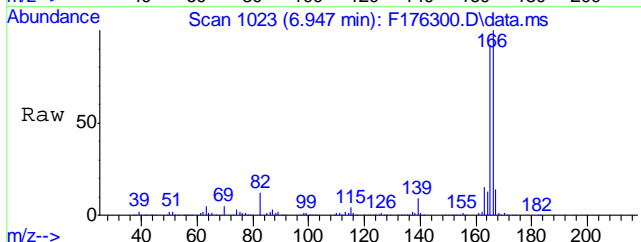
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 143314 |       |       |
| 139     | 38.7   | 5.7   | 65.7  |
| 169     | 13.3   | 0.0   | 43.7  |





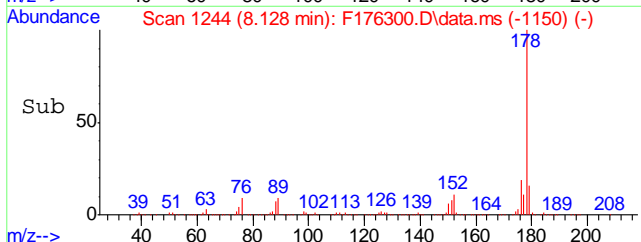
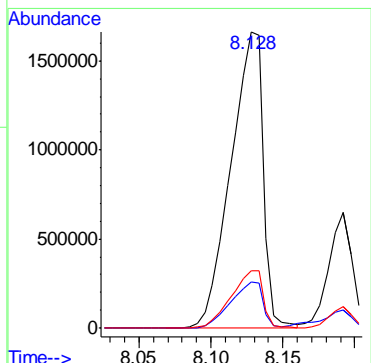
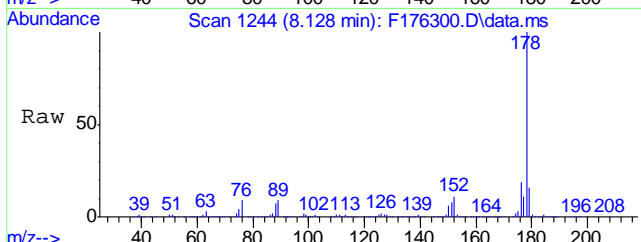
#66  
 Fluorene  
 Concen: 42.37 ppm  
 RT: 6.947 min Scan# 1023  
 Delta R.T. -0.021 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 91.7 | 61.4  | 121.4 |
| 167     | 13.7 | 0.0   | 43.6  |

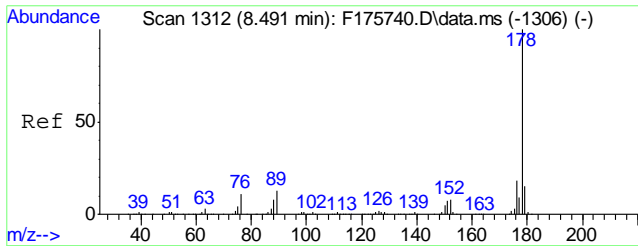


#77  
 Phenanthrene  
 Concen: 314.93 ppm  
 RT: 8.128 min Scan# 1244  
 Delta R.T. 0.001 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.0 | 0.0   | 45.3  |
| 176     | 19.3 | 0.0   | 48.6  |

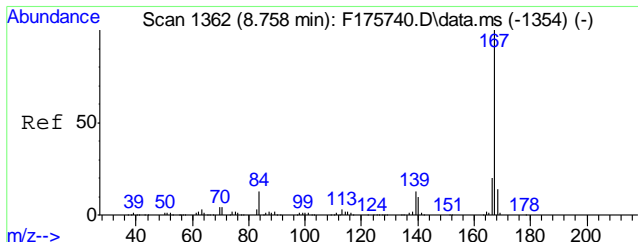
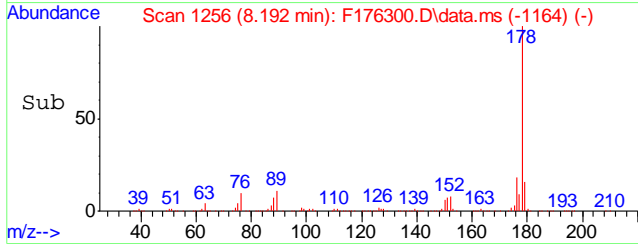
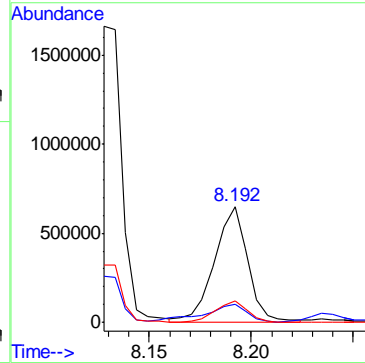
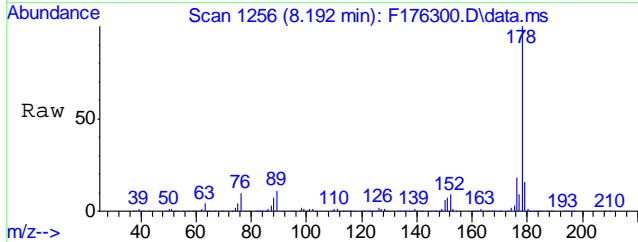


9.1.3  
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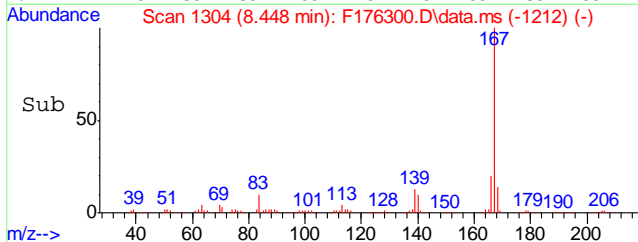
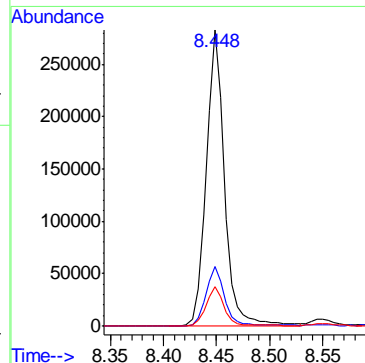
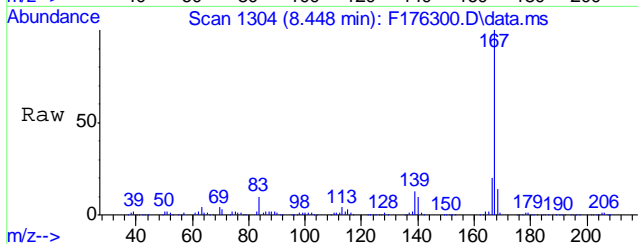
#78  
 Anthracene  
 Concen: 91.50 ppm  
 RT: 8.192 min Scan# 1256  
 Delta R.T. -0.007 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 738037 | 100   |       |
| 179     | 13.4   | 0.0   | 45.2  |
| 176     | 18.3   | 0.0   | 47.9  |



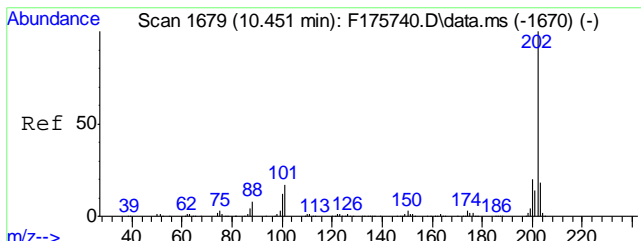
#79  
 Carbazole  
 Concen: 46.22 ppm  
 RT: 8.448 min Scan# 1304  
 Delta R.T. -0.008 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 167     | 341605 | 100   |       |
| 166     | 19.9   | 0.0   | 50.3  |
| 139     | 13.1   | 0.0   | 42.9  |



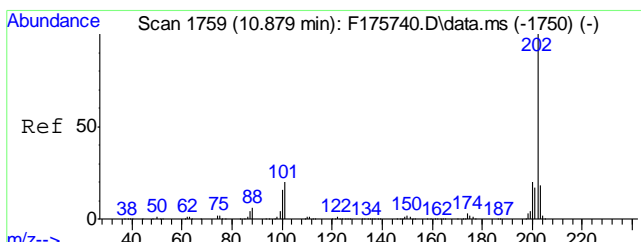
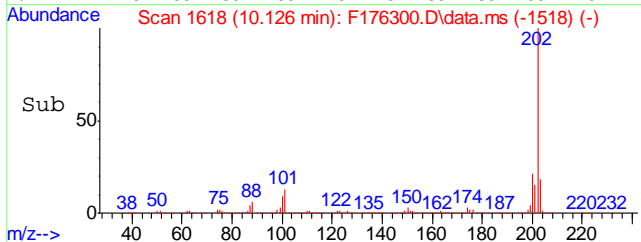
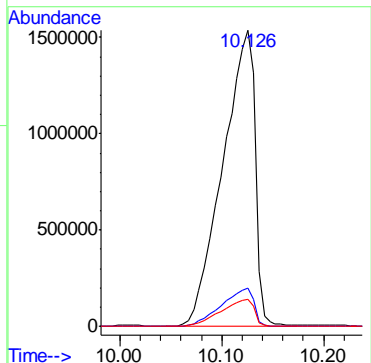
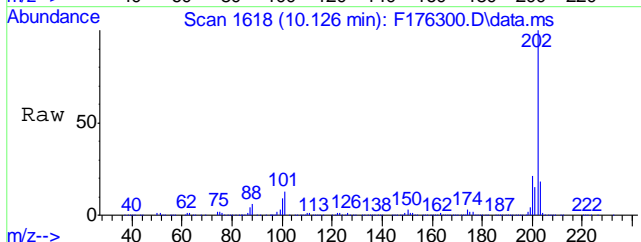
9.13  
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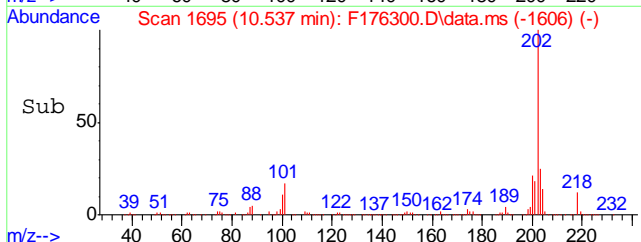
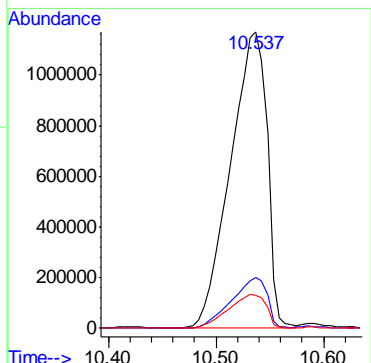
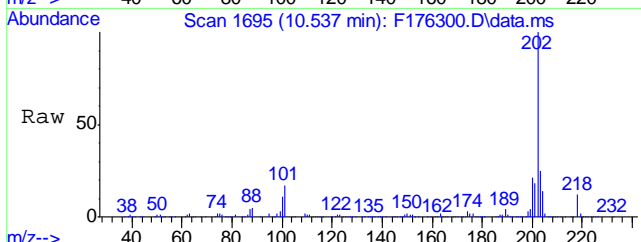
#81  
 Fluoranthene  
 Concen: 413.45 ppm  
 RT: 10.126 min Scan# 1618  
 Delta R.T. 0.034 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

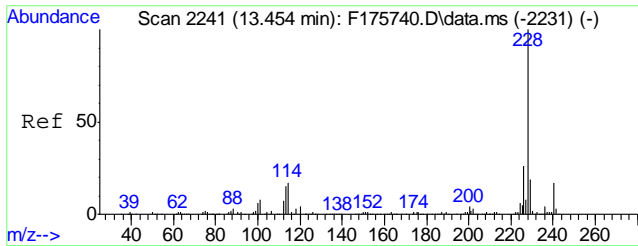
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 12.9 | 0.0   | 47.3  |
| 100     | 9.0  | 0.0   | 42.4  |



#84  
 Pyrene  
 Concen: 316.48 ppm m  
 RT: 10.537 min Scan# 1695  
 Delta R.T. -0.027 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

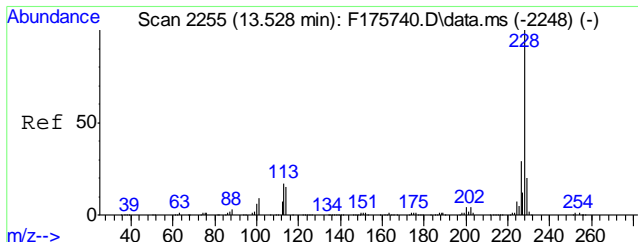
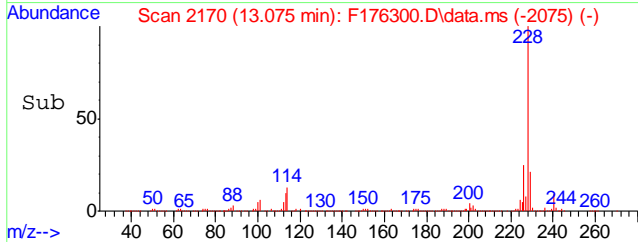
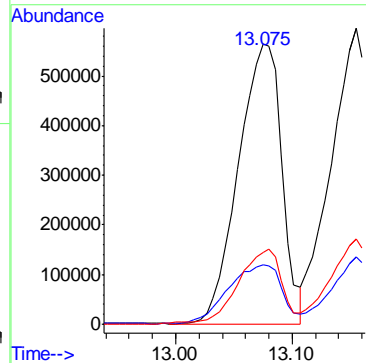
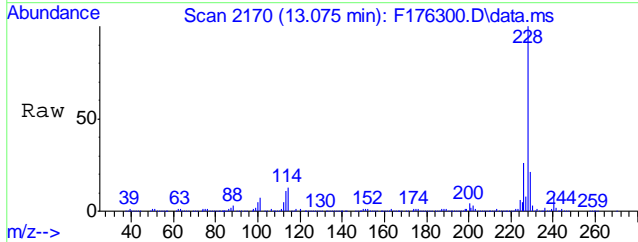
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 16.9 | 0.0   | 50.0  |
| 100     | 11.2 | 0.0   | 45.6  |





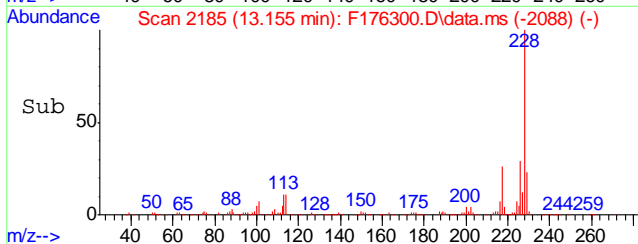
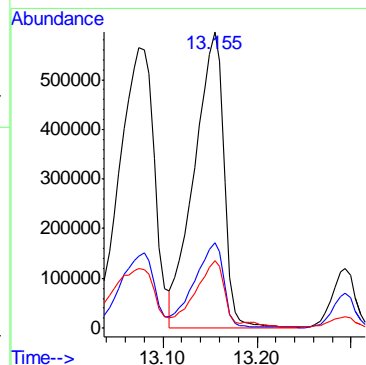
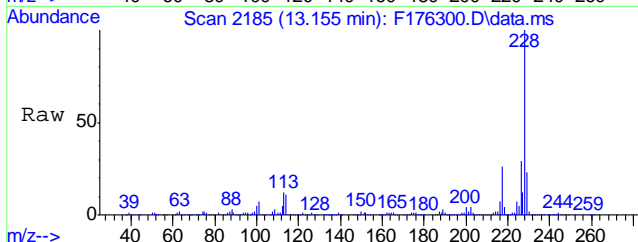
#87  
 Benzo[a]anthracene  
 Concen: 197.43 ppm  
 RT: 13.075 min Scan# 2170  
 Delta R.T. 0.010 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1454577 |       |       |
| 229     | 20.8    | 0.0   | 48.8  |
| 226     | 25.4    | 0.0   | 55.4  |

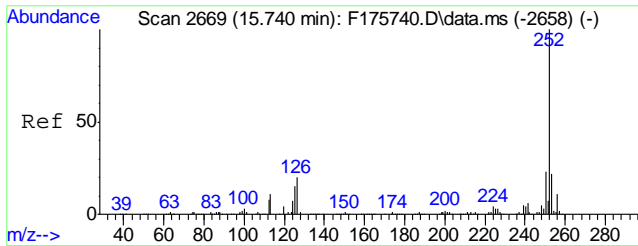


#89  
 Chrysene  
 Concen: 158.54 ppm  
 RT: 13.155 min Scan# 2185  
 Delta R.T. 0.018 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1301275 |       |       |
| 226     | 28.9    | 0.0   | 59.2  |
| 229     | 22.1    | 0.0   | 49.9  |

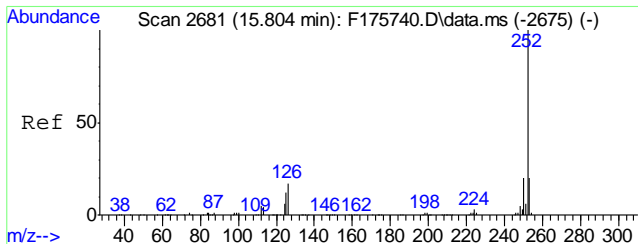
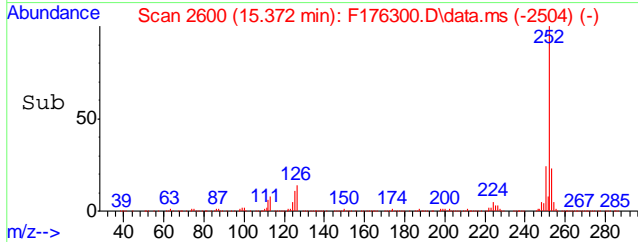
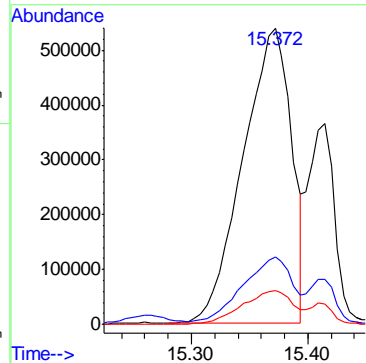
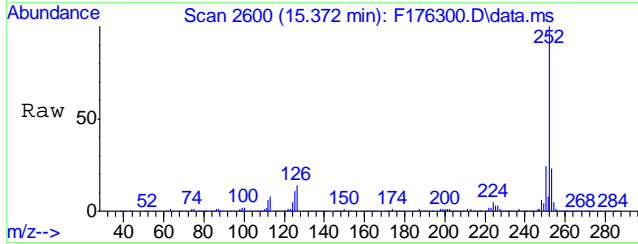


9.1.3  
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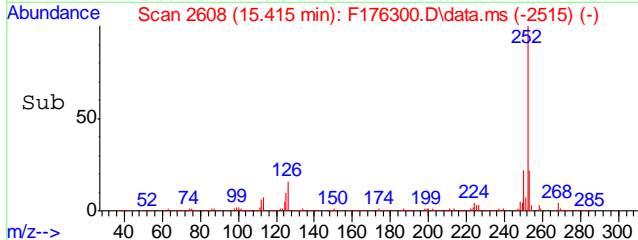
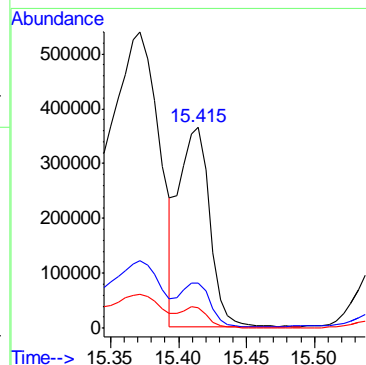
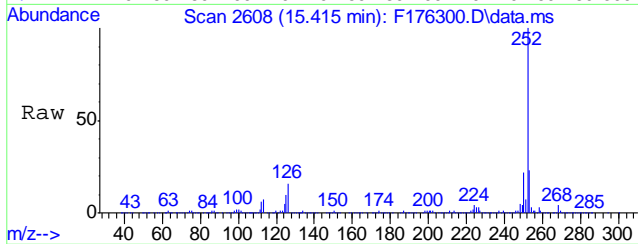
#93  
 Benzo[b]fluoranthene  
 Concen: 214.14 ppm  
 RT: 15.372 min Scan# 2600  
 Delta R.T. 0.014 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.0 | 0.0   | 51.4  |
| 125     | 11.4 | 0.0   | 43.6  |

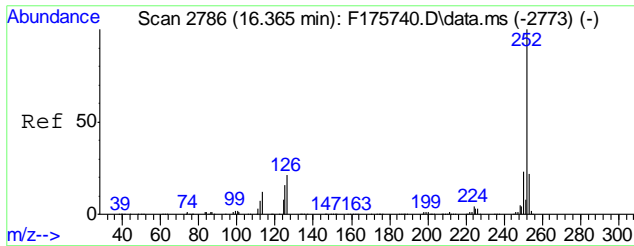


#94  
 Benzo[k]fluoranthene  
 Concen: 70.20 ppm  
 RT: 15.415 min Scan# 2608  
 Delta R.T. -0.006 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.1 | 0.0   | 51.4  |
| 125     | 9.4  | 0.0   | 43.3  |

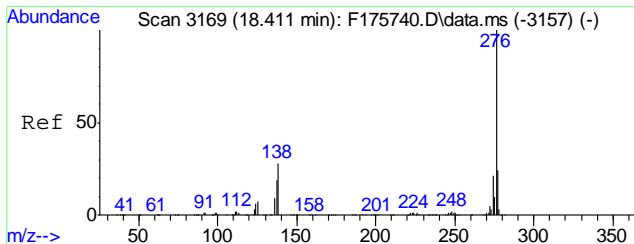
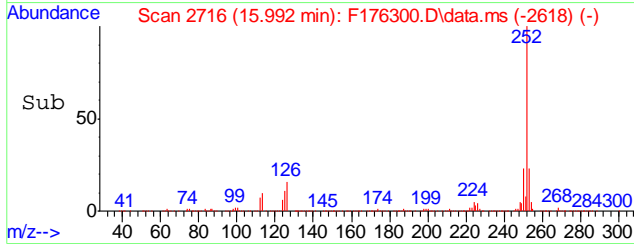
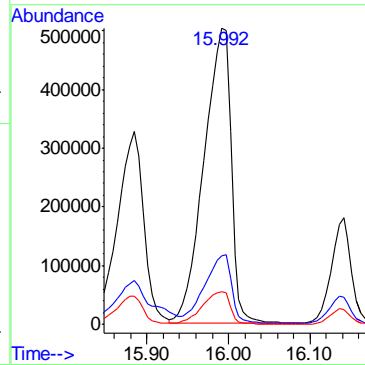
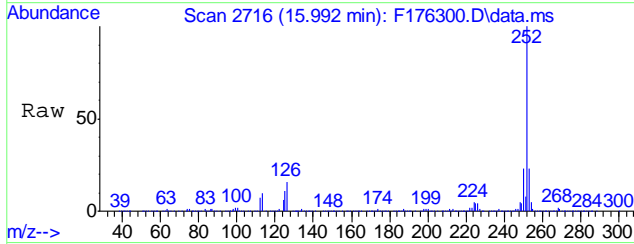


9.13  
 9



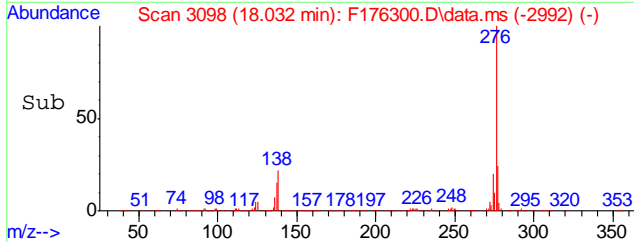
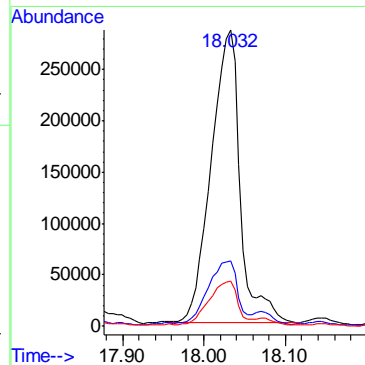
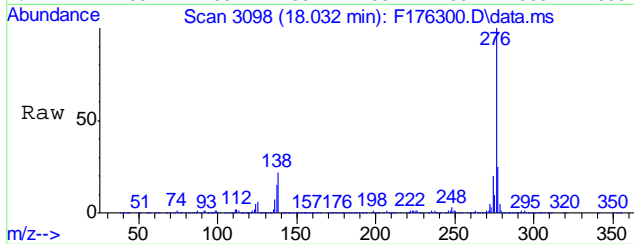
#95  
 Benzo[a]pyrene  
 Concen: 181.75 ppm  
 RT: 15.992 min Scan# 2716  
 Delta R.T. 0.024 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1163746 |       |       |
| 253     | 21.3    | 0.0   | 51.9  |
| 125     | 11.0    | 0.0   | 45.6  |

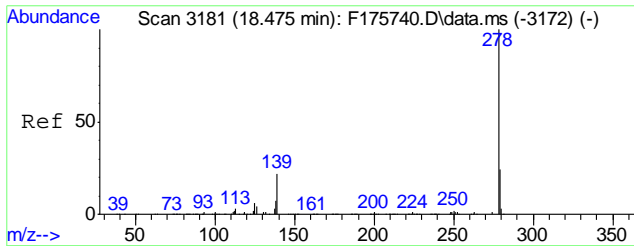


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 118.23 ppm  
 RT: 18.032 min Scan# 3098  
 Delta R.T. 0.069 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 705214 |       |       |
| 138     | 21.2   | 0.0   | 56.5  |
| 137     | 14.7   | 0.0   | 48.3  |

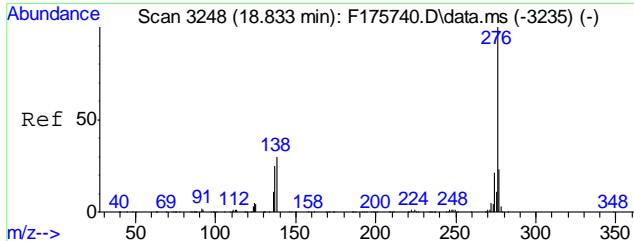
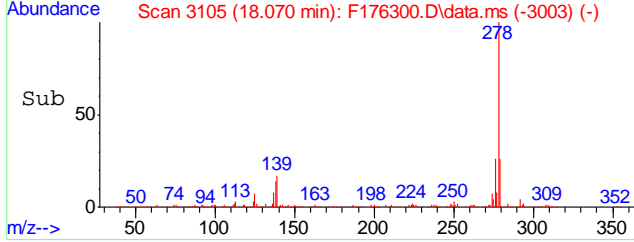
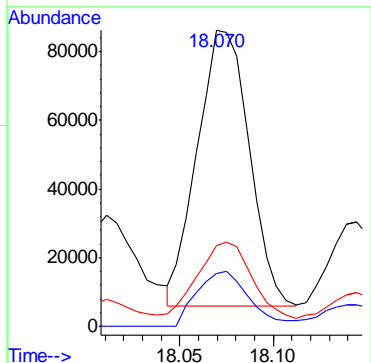
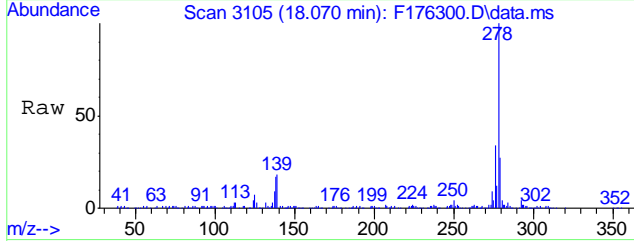


9.1.3  
 9



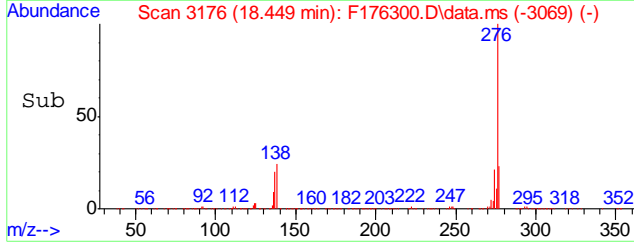
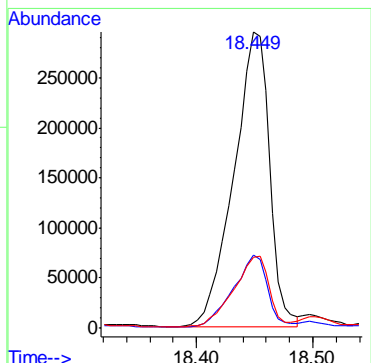
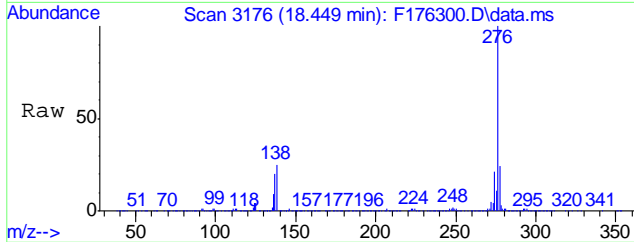
#98  
 Dibenz[a,h]anthracene  
 Concen: 22.06 ppm  
 RT: 18.070 min Scan# 3105  
 Delta R.T. 0.043 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 153661 | 100   |       |
| 139     | 18.0   | 0.0   | 52.2  |
| 279     | 27.4   | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 90.81 ppm  
 RT: 18.449 min Scan# 3176  
 Delta R.T. 0.073 min  
 Lab File: F176300.D  
 Acq: 7 May 2018 11:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 624614 | 100   |       |
| 138     | 24.4   | 0.0   | 59.8  |
| 277     | 22.9   | 0.0   | 52.8  |



9.1.3  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\  
 Data File : f176320.d  
 Acq On : 8 May 2018 6:30 pm  
 Operator : christc2  
 Sample : jc65058-2 Inst : GCMSF  
 Misc : op11647,ef7511,30.3,,,1,10  
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Results File: MF7484.RES  
 Quant Time: May 09 05:30:45 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 04:55:45 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|-------|----------|--------|
| Internal Standards           |        |      |          |       |       |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.308  | 152  | 65369    | 40.00 | ppm   | 0.00     |        |
| 24) Naphthalene-d8           | 5.232  | 136  | 270091   | 40.00 | ppm   | 0.00     |        |
| 47) Acenaphthene-d10         | 6.541  | 164  | 142839   | 40.00 | ppm   | 0.00     |        |
| 69) Phenanthrene-d10         | 8.234  | 188  | 270636   | 40.00 | ppm   | 0.00     |        |
| 83) Chrysene-d12             | 13.283 | 240  | 270300   | 40.00 | ppm   | 0.00     |        |
| 91) Perylene-d12             | 16.290 | 264  | 269098   | 40.00 | ppm   | 0.00     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.308  | 152  | 65369    | 40.00 | ppm   | 0.00     |        |
| 103) Phenanthrene-d10a       | 8.234  | 188  | 270636   | 40.00 | ppm   | 0.00     |        |
| 105) Chrysene-d12a           | 13.283 | 240  | 270300   | 40.00 | ppm   | 0.00     |        |
| 107) Naphthalene-d8a         | 5.232  | 136  | 270091   | 40.00 | ppm   | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.541  | 164  | 142839   | 40.00 | ppm   | 0.00     |        |
| System Monitoring Compounds  |        |      |          |       |       |          |        |
| 5) 2-Fluorophenol            | 3.341  | 112  | 7184     | 3.77  | ppm   | -0.01    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 7.54% |          |        |
| 8) Phenol-d5                 | 4.078  | 99   | 10256    | 3.76  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 7.52% |          |        |
| 25) Nitrobenzene-d5          | 4.719  | 82   | 9697     | 3.30  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.60% |          |        |
| 51) 2-Fluorobiphenyl         | 6.001  | 172  | 20100    | 3.72  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 7.44% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.342  | 330  | 3263     | 4.52  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 9.04% |          |        |
| 85) Terphenyl-d14            | 11.130 | 244  | 23820    | 3.88  | ppm   | -0.02    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 7.76% |          |        |
| Target Compounds             |        |      |          |       |       |          |        |
| 38) Naphthalene              | 5.243  | 128  | 20580    | 2.78  | ppm   | 96       | Qvalue |
| 44) 2-Methylnaphthalene      | 5.739  | 141  | 3770     | 0.95  | ppm   | 92       |        |
| 53) Biphenyl                 | 6.076  | 154  | 1437     | 0.26  | ppm   | 92       |        |
| 59) Acenaphthene             | 6.567  | 153  | 22407    | 4.84  | ppm   | 98       |        |
| 62) Dibenzofuran             | 6.728  | 168  | 13447    | 2.17  | ppm   | 98       |        |
| 66) Fluorene                 | 7.070  | 166  | 21989    | 4.56  | ppm   | 99       |        |
| 77) Phenanthrene             | 8.266  | 178  | 282555   | 36.20 | ppm   | 99       |        |
| 78) Anthracene               | 8.341  | 178  | 72390    | 9.49  | ppm   | 97       |        |
| 79) Carbazole                | 8.608  | 167  | 32518    | 4.65  | ppm   | 95       |        |
| 81) Fluoranthene             | 10.280 | 202  | 386940   | 50.02 | ppm   | 90       |        |
| 84) Pyrene                   | 10.697 | 202  | 312923   | 34.89 | ppm   | 92       |        |
| 87) Benzo[a]anthracene       | 13.267 | 228  | 155078   | 20.40 | ppm   | 97       |        |
| 89) Chrysene                 | 13.336 | 228  | 147153   | 17.38 | ppm   | 97       |        |
| 93) Benzo[b]fluoranthene     | 15.548 | 252  | 157208   | 22.45 | ppm   | 96       |        |
| 94) Benzo[k]fluoranthene     | 15.601 | 252  | 60178    | 7.80  | ppm   | 95       |        |
| 95) Benzo[a]pyrene           | 16.173 | 252  | 115495   | 18.75 | ppm   | 93       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 18.219 | 276  | 61315    | 10.69 | ppm   | 88       |        |
| 98) Dibenz[a,h]anthracene    | 18.278 | 278  | 15222    | 2.27  | ppm   | 91       |        |
| 100) Benzo[g,h,i]perylene    | 18.636 | 276  | 59512    | 9.00  | ppm   | 96       |        |

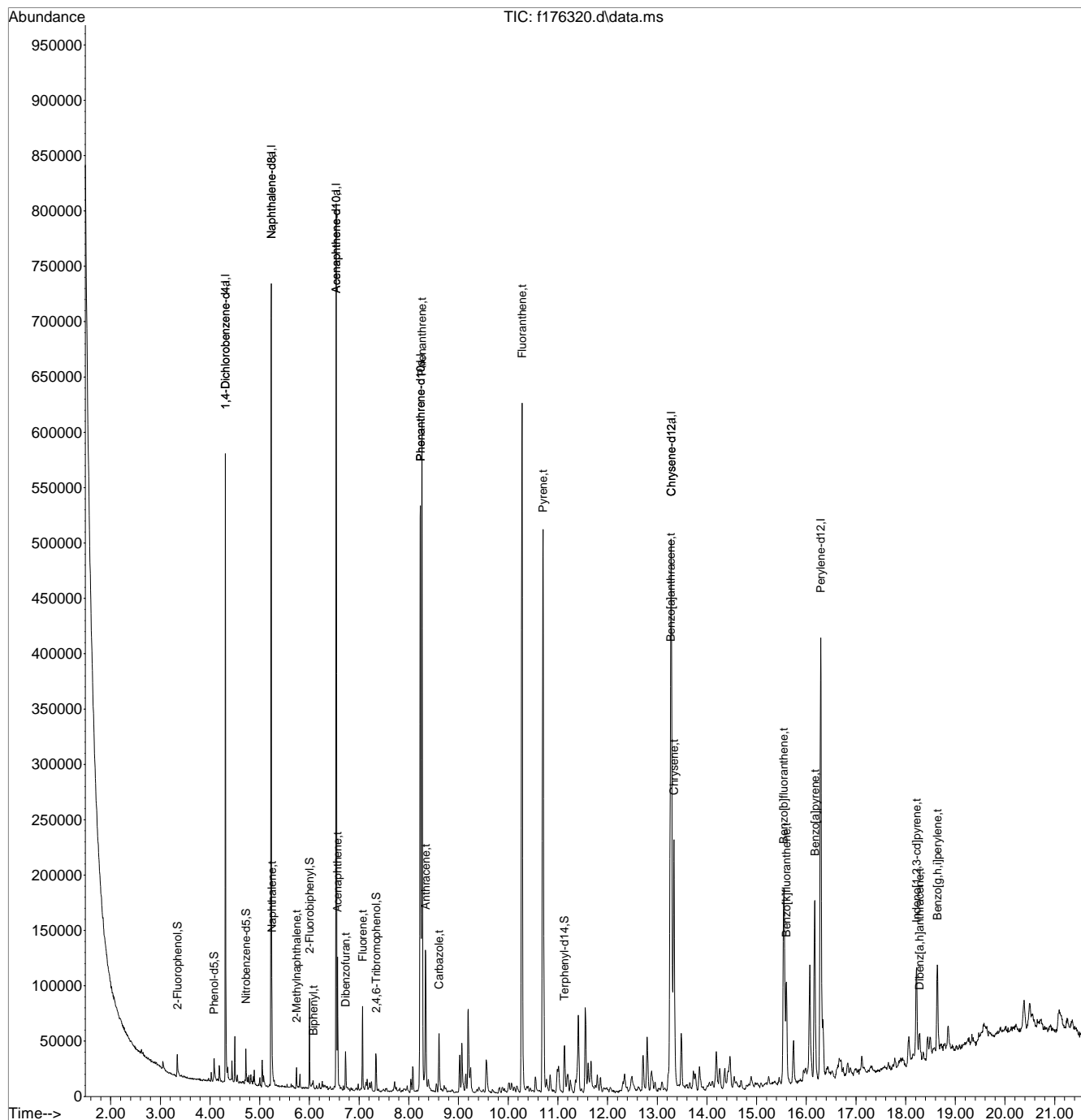
(#) = qualifier out of range (m) = manual integration (+) = signals summed

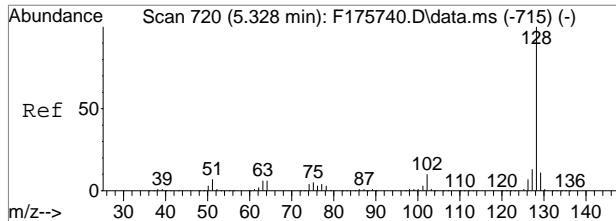
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\  
 Data File : f176320.d  
 Acq On : 8 May 2018 6:30 pm  
 Operator : christc2  
 Sample : jc65058-2  
 Misc : op11647,ef7511,30.3,,,1,10  
 ALS Vial : 17 Sample Multiplier: 1

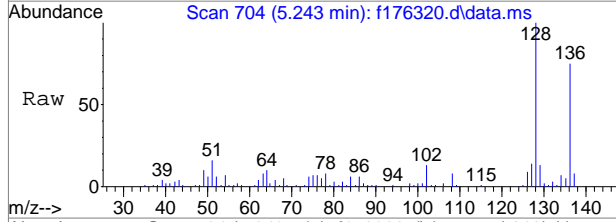
Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Results File: MF7484.RES  
 Quant Time: May 09 05:30:45 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 04:55:45 2018  
 Response via : Initial Calibration



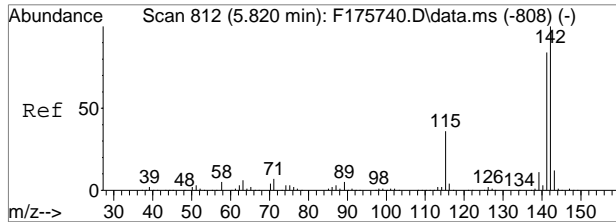
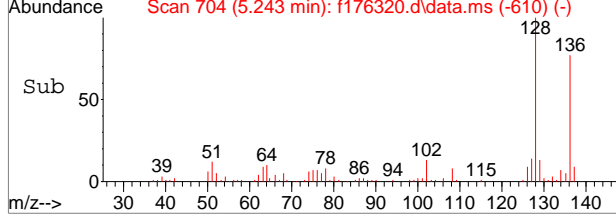
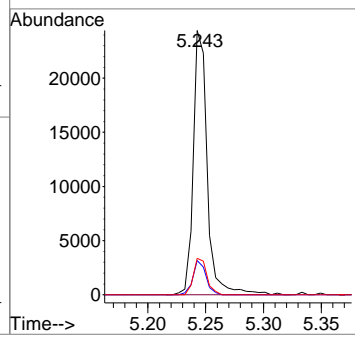


#38  
 Naphthalene  
 Concen: 2.78 ppm  
 RT: 5.243 min Scan# 704  
 Delta R.T. 0.000 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

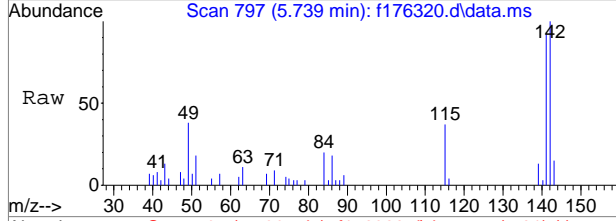


Tgt Ion:128 Resp: 20580

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 129 | 13.0  | 0.0   | 41.0  |
| 127 | 13.7  | 0.0   | 42.8  |

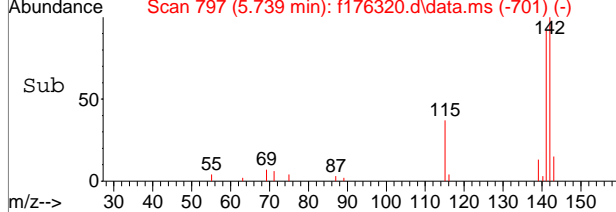
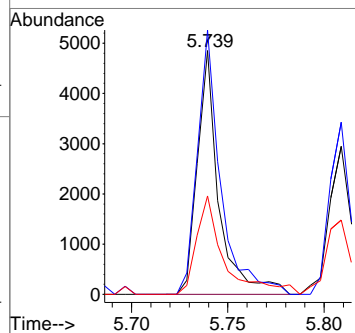


#44  
 2-Methylnaphthalene  
 Concen: 0.95 ppm  
 RT: 5.739 min Scan# 797  
 Delta R.T. 0.013 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

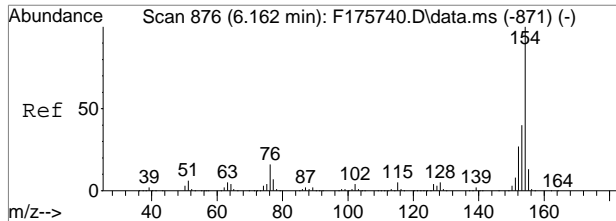


Tgt Ion:141 Resp: 3770

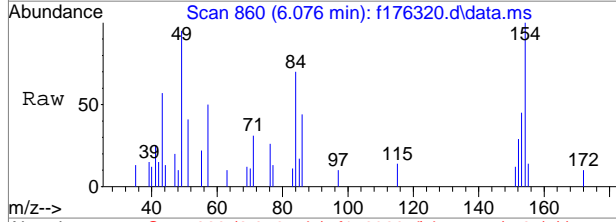
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 141 | 100   |       |       |
| 142 | 108.5 | 88.6  | 148.6 |
| 115 | 38.3  | 12.3  | 72.3  |



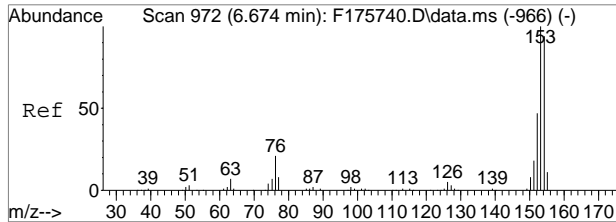
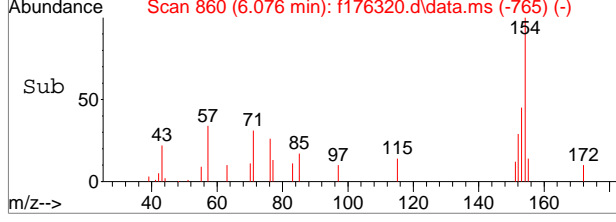
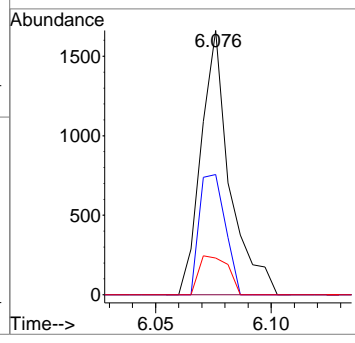




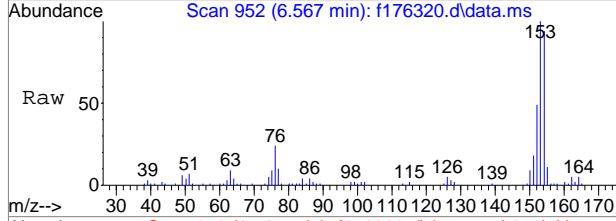
#53  
 Biphenyl  
 Concen: 0.26 ppm  
 RT: 6.076 min Scan# 860  
 Delta R.T. 0.009 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm



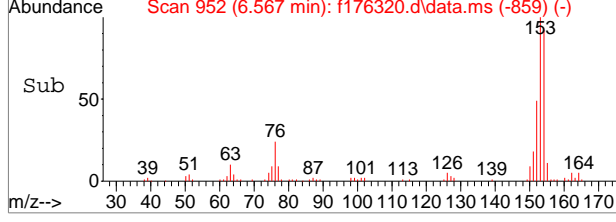
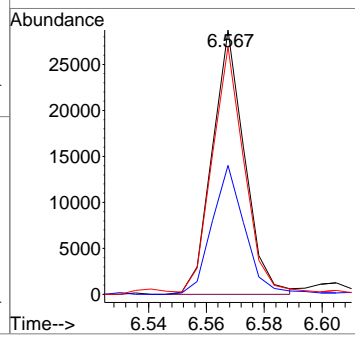
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 45.5  | 9.8   | 69.8  |
| 155     | 14.0  | 0.0   | 43.0  |

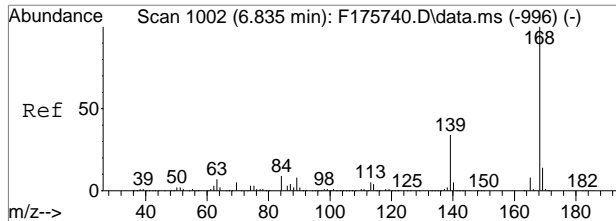


#59  
 Acenaphthene  
 Concen: 4.84 ppm  
 RT: 6.567 min Scan# 952  
 Delta R.T. -0.005 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

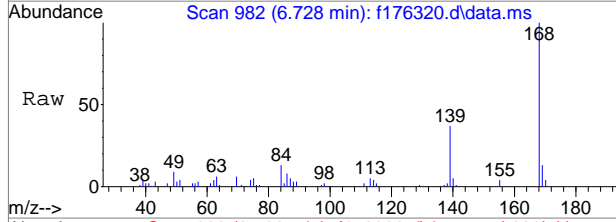


| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 48.7  | 16.7  | 76.7  |
| 154     | 93.1  | 64.1  | 124.1 |



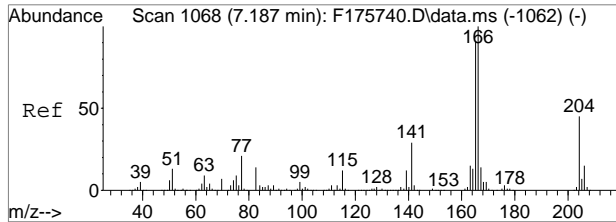
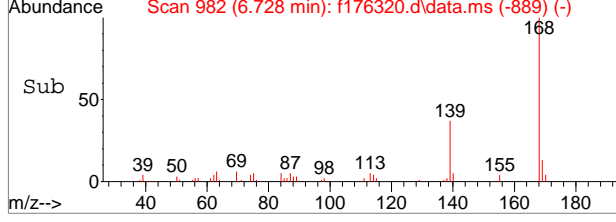
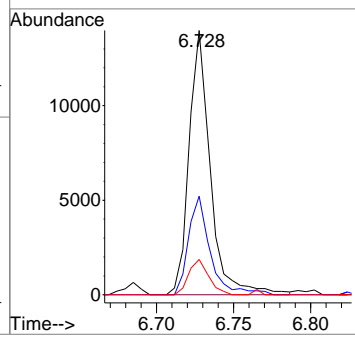


#62  
 Dibenzofuran  
 Concen: 2.17 ppm  
 RT: 6.728 min Scan# 982  
 Delta R.T. -0.002 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

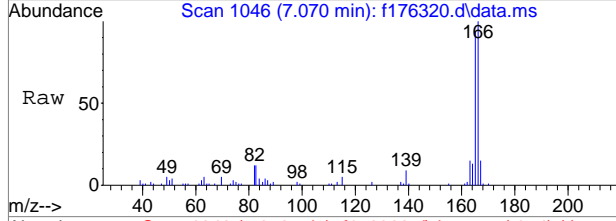


Tgt Ion:168 Resp: 13447

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 168 | 100   |       |       |
| 139 | 37.6  | 5.7   | 65.7  |
| 169 | 13.4  | 0.0   | 43.7  |

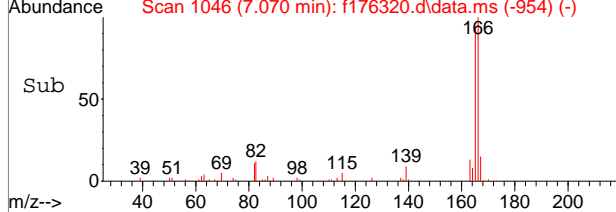
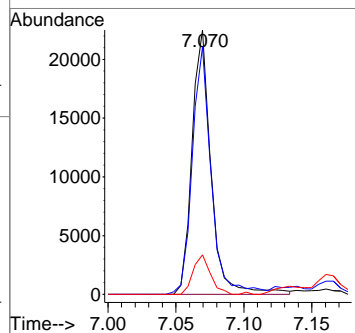


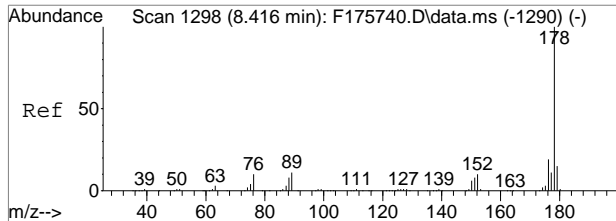
#66  
 Fluorene  
 Concen: 4.56 ppm  
 RT: 7.070 min Scan# 1046  
 Delta R.T. -0.008 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm



Tgt Ion:166 Resp: 21989

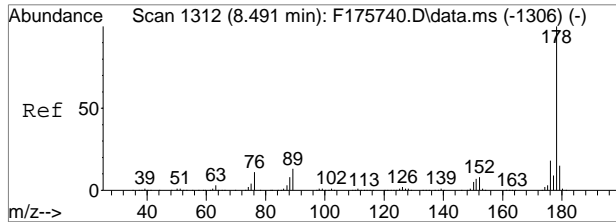
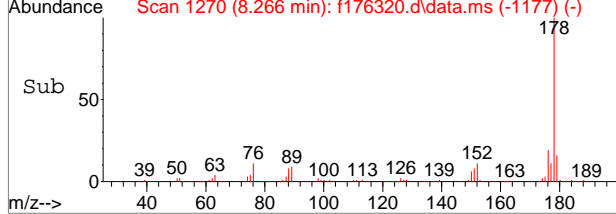
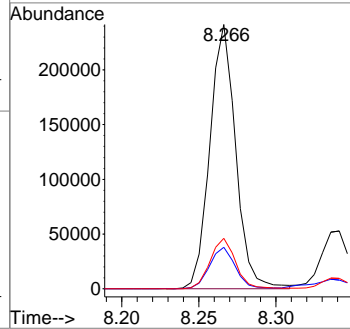
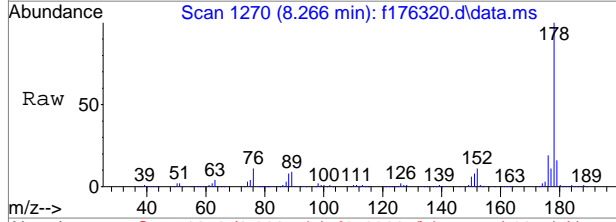
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 166 | 100   |       |       |
| 165 | 92.8  | 61.4  | 121.4 |
| 167 | 13.5  | 0.0   | 43.6  |





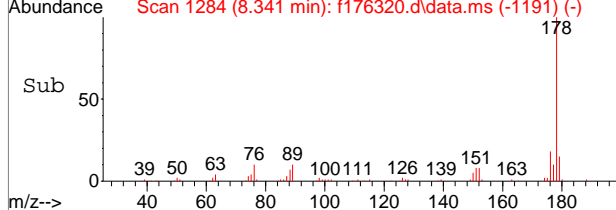
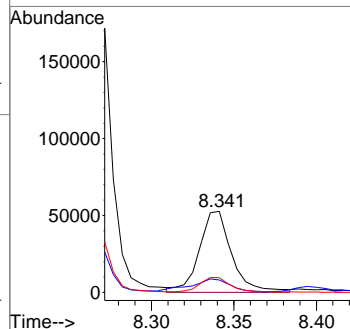
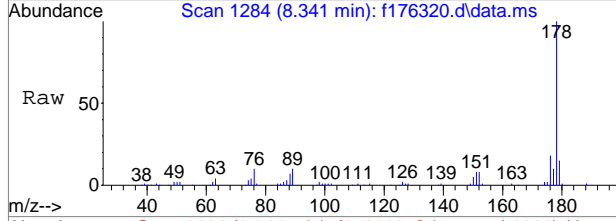
#77  
 Phenanthrene  
 Concen: 36.20 ppm  
 RT: 8.266 min Scan# 1270  
 Delta R.T. -0.005 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.3  | 0.0   | 45.3  |
| 176     | 19.1  | 0.0   | 48.6  |



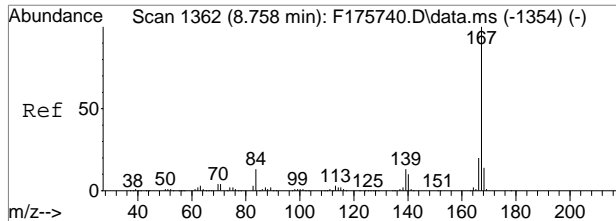
#78  
 Anthracene  
 Concen: 9.49 ppm  
 RT: 8.341 min Scan# 1284  
 Delta R.T. -0.005 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 12.1  | 0.0   | 45.0  |
| 176     | 18.0  | 0.0   | 48.2  |



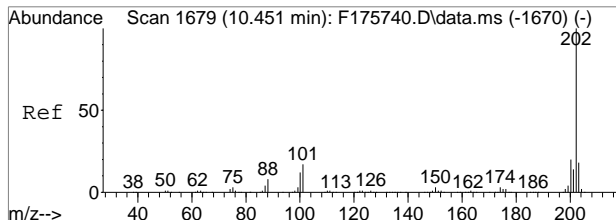
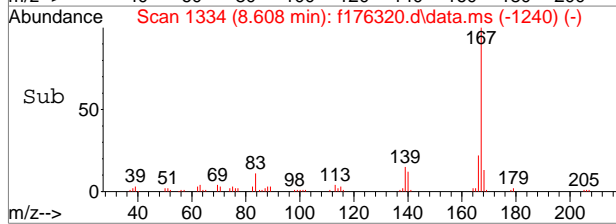
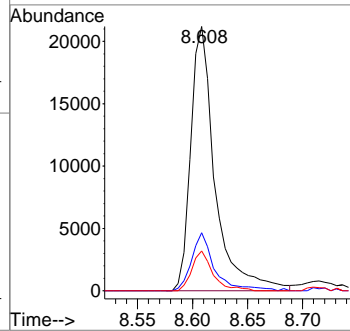
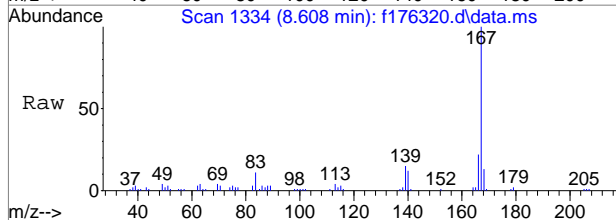
9.14  
 9





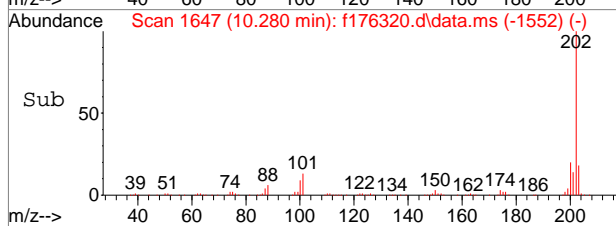
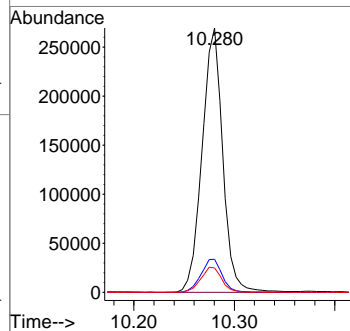
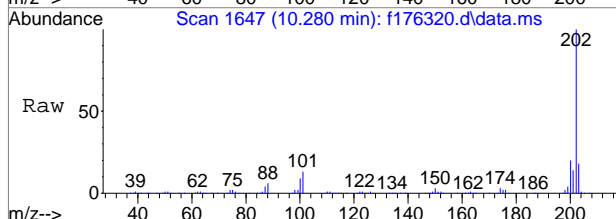
#79  
 Carbazole  
 Concen: 4.65 ppm  
 RT: 8.608 min Scan# 1334  
 Delta R.T. 0.001 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 32518 |       |       |
| 166     | 22.2  | 0.0   | 50.3  |
| 139     | 15.2  | 0.0   | 42.9  |

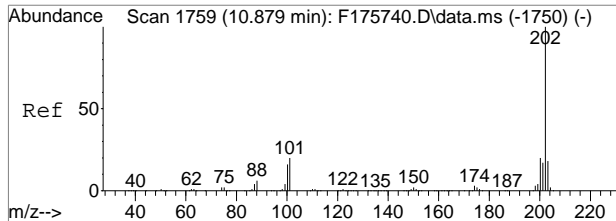


#81  
 Fluoranthene  
 Concen: 50.02 ppm  
 RT: 10.280 min Scan# 1647  
 Delta R.T. 0.009 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 386940 |       |       |
| 202     | 100    |       |       |
| 101     | 12.5   | 0.0   | 47.3  |
| 100     | 9.2    | 0.0   | 42.4  |

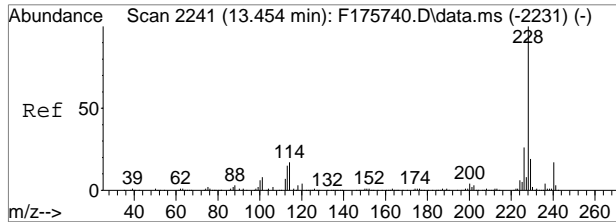
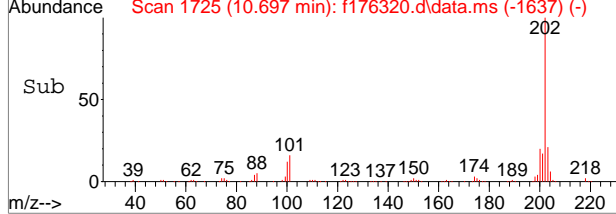
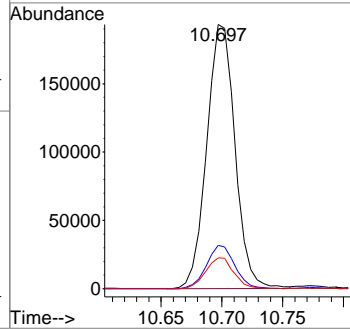
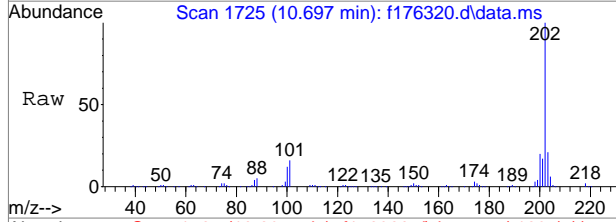


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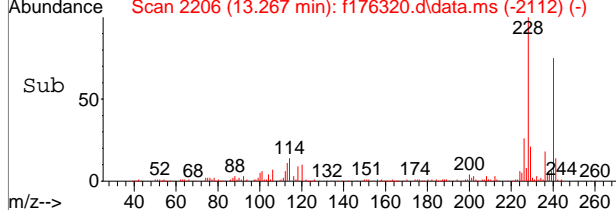
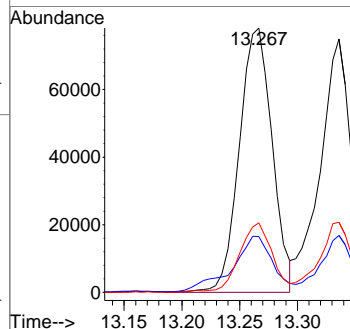
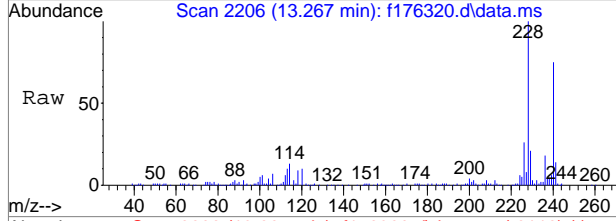
#84  
 Pyrene  
 Concen: 34.89 ppm  
 RT: 10.697 min Scan# 1725  
 Delta R.T. -0.031 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 312923 |       |       |
| 101     | 16.5   | 0.0   | 50.0  |
| 100     | 11.6   | 0.0   | 45.6  |



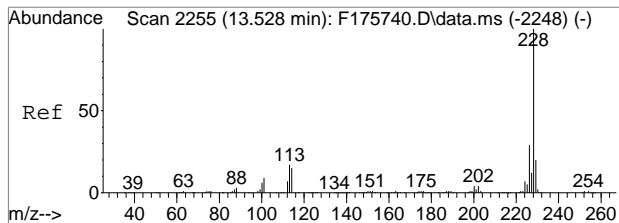
#87  
 Benzo[a]anthracene  
 Concen: 20.40 ppm  
 RT: 13.267 min Scan# 2206  
 Delta R.T. -0.000 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 155078 |       |       |
| 229     | 20.5   | 0.0   | 48.8  |
| 226     | 26.2   | 0.0   | 55.4  |



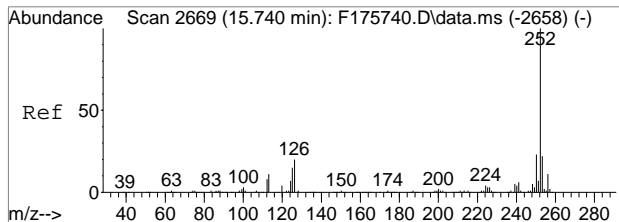
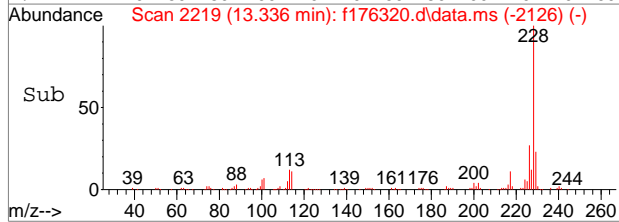
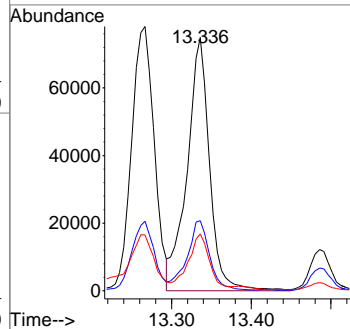
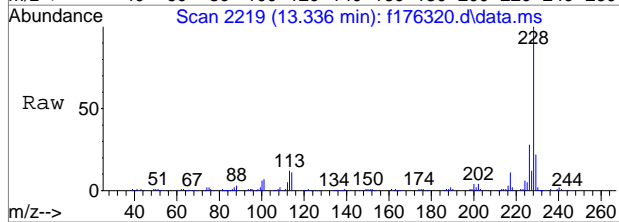
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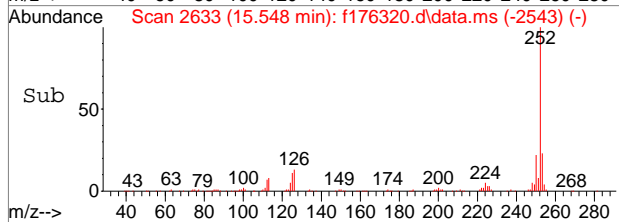
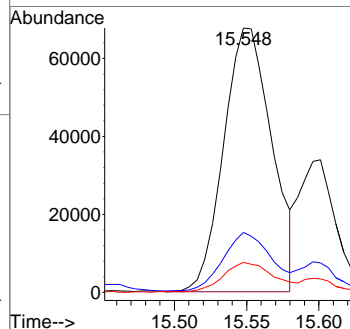
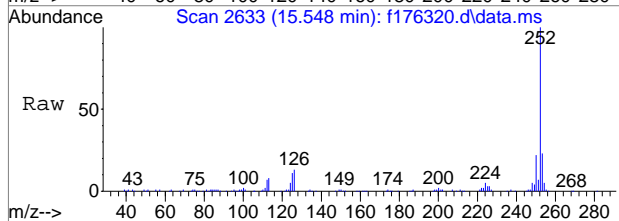
#89  
 Chrysene  
 Concen: 17.38 ppm  
 RT: 13.336 min Scan# 2219  
 Delta R.T. -0.005 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

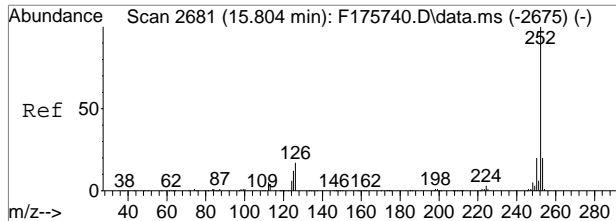
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.8  | 0.0   | 59.2  |
| 229     | 21.9  | 0.0   | 49.9  |



#93  
 Benzo[b]fluoranthene  
 Concen: 22.45 ppm  
 RT: 15.548 min Scan# 2633  
 Delta R.T. -0.019 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

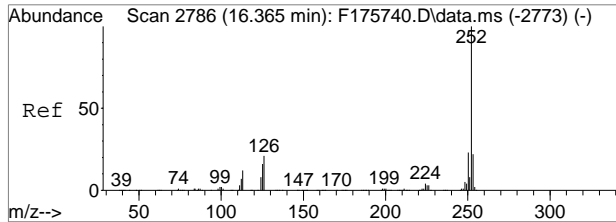
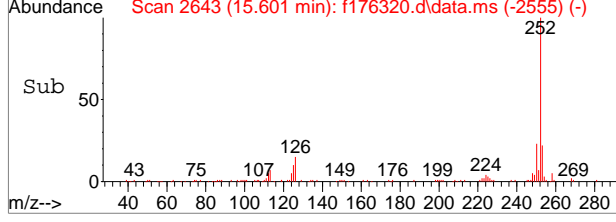
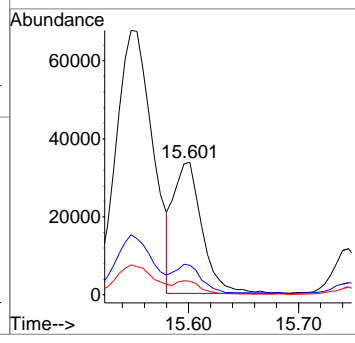
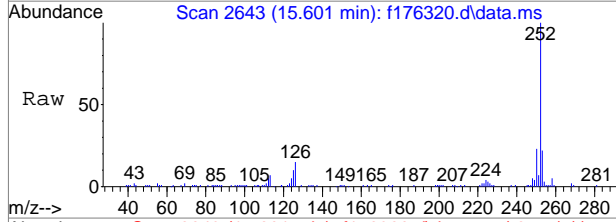
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.2  | 0.0   | 51.4  |
| 125     | 11.0  | 0.0   | 43.6  |





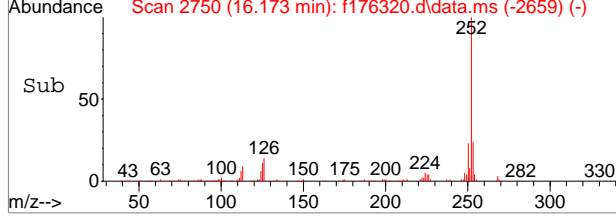
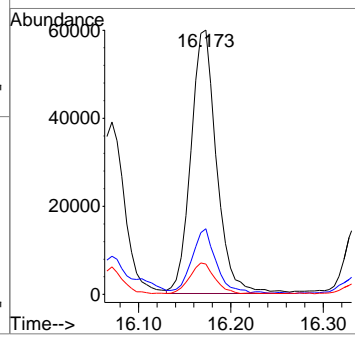
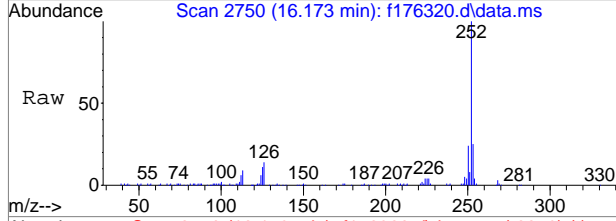
#94  
 Benzo[k]fluoranthene  
 Concen: 7.80 ppm  
 RT: 15.601 min Scan# 2643  
 Delta R.T. -0.029 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

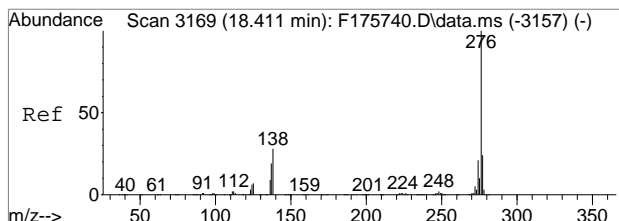
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 20.7  | 0.0   | 51.4  |
| 125     | 9.2   | 0.0   | 43.3  |



#95  
 Benzo[a]pyrene  
 Concen: 18.75 ppm  
 RT: 16.173 min Scan# 2750  
 Delta R.T. -0.012 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

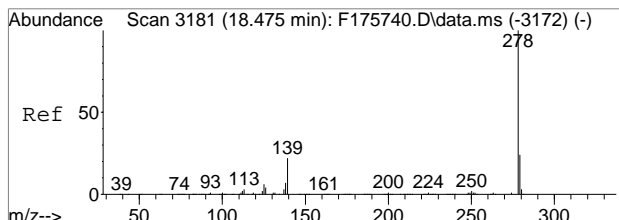
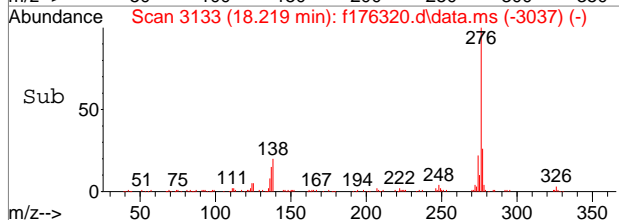
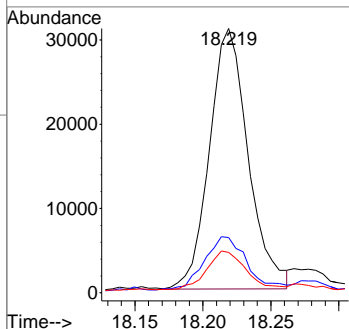
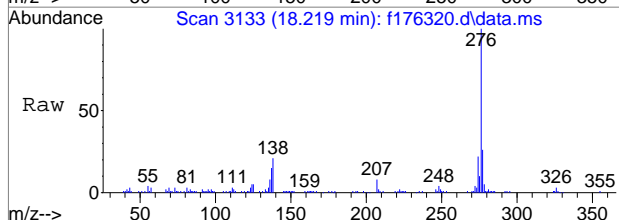
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.1  | 0.0   | 51.9  |
| 125     | 11.2  | 0.0   | 45.6  |





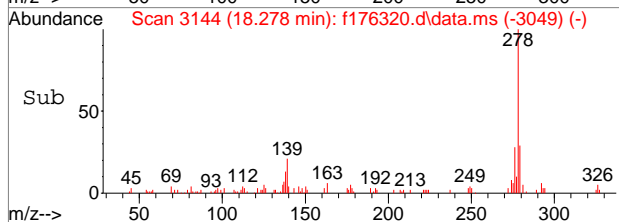
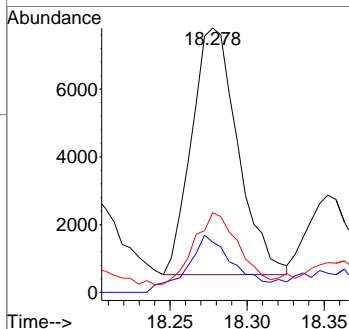
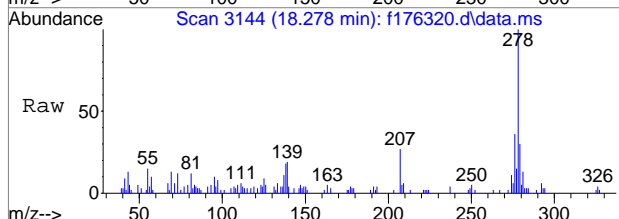
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 10.69 ppm  
 RT: 18.219 min Scan# 3133  
 Delta R.T. 0.011 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 19.7  | 0.0   | 56.5  |
| 137     | 14.2  | 0.0   | 48.3  |

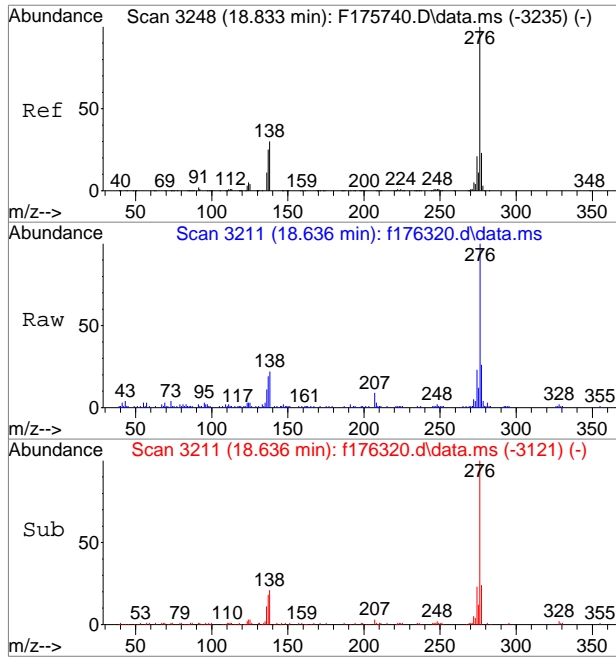


#98  
 Dibenz[a,h]anthracene  
 Concen: 2.27 ppm  
 RT: 18.278 min Scan# 3144  
 Delta R.T. 0.006 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 16.5  | 0.0   | 52.2  |
| 279     | 27.4  | 0.0   | 53.9  |

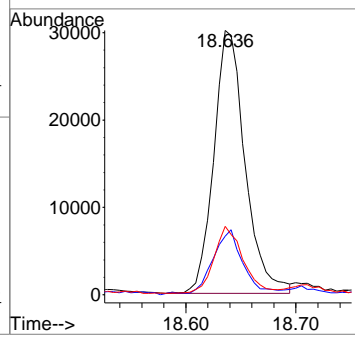






#100  
 Benzo[g,h,i]perylene  
 Concen: 9.00 ppm  
 RT: 18.636 min Scan# 3211  
 Delta R.T. -0.022 min  
 Lab File: f176320.d  
 Acq: 8 May 2018 6:30 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 21.3  | 0.0   | 54.5  |
| 277     | 24.9  | 0.0   | 54.2  |



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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176295.D  
 Acq On : 7 May 2018 8:45 pm  
 Operator : christc2  
 Sample : jc65058-3  
 Misc : op11647,ef7510,30.1,,,1,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 08 16:18:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |
|------------------------------|--------|------|----------|-------|---------|----------|
| Internal Standards           |        |      |          |       |         |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 77258    | 40.00 | ppm     | -0.01    |
| 24) Naphthalene-d8           | 5.141  | 136  | 295795   | 40.00 | ppm     | 0.00     |
| 47) Acenaphthene-d10         | 6.429  | 164  | 145319   | 40.00 | ppm     | -0.01    |
| 69) Phenanthrene-d10         | 8.074  | 188  | 255584   | 40.00 | ppm     | -0.02    |
| 83) Chrysene-d12             | 13.064 | 240  | 231076   | 40.00 | ppm     | -0.02    |
| 91) Perylene-d12             | 16.061 | 264  | 242619   | 40.00 | ppm     | -0.02    |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 77258    | 40.00 | ppm     | -0.01    |
| 103) Phenanthrene-d10a       | 8.074  | 188  | 255584   | 40.00 | ppm     | -0.02    |
| 105) Chrysene-d12a           | 13.064 | 240  | 231076   | 40.00 | ppm     | -0.02    |
| 107) Naphthalene-d8a         | 5.141  | 136  | 295795   | 40.00 | ppm     | 0.00     |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 145319   | 40.00 | ppm     | -0.01    |
| System Monitoring Compounds  |        |      |          |       |         |          |
| 5) 2-Fluorophenol            | 3.240  | 112  | 106399   | 47.27 | ppm     | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 94.54%  |          |
| 8) Phenol-d5                 | 3.987  | 99   | 137949   | 42.80 | ppm     | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 85.60%  |          |
| 25) Nitrobenzene-d5          | 4.629  | 82   | 127071   | 39.53 | ppm     | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.06%  |          |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 225881   | 41.04 | ppm     | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 82.08%  |          |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 36401    | 53.39 | ppm     | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 106.78% |          |
| 85) Terphenyl-d14            | 10.938 | 244  | 218405   | 41.64 | ppm     | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.28%  |          |
| Target Compounds             |        |      |          |       |         |          |
| 77) Phenanthrene             | 8.106  | 178  | 11265    | 1.53  | ppm     | 99       |
| 81) Fluoranthene             | 10.083 | 202  | 25998    | 3.56  | ppm     | 90       |
| 84) Pyrene                   | 10.494 | 202  | 30799    | 4.02  | ppm     | 91       |
| 87) Benzo[a]anthracene       | 13.048 | 228  | 11163    | 1.72  | ppm     | 85       |
| 89) Chrysene                 | 13.117 | 228  | 12799    | 1.77  | ppm     | 95       |
| 93) Benzo[b]fluoranthene     | 15.324 | 252  | 16762    | 2.66  | ppm     | 91       |
| 94) Benzo[k]fluoranthene     | 15.372 | 252  | 5478m    | 0.79  | ppm     |          |
| 95) Benzo[a]pyrene           | 15.938 | 252  | 14569    | 2.62  | ppm     | 96       |
| 96) Indeno[1,2,3-cd]pyrene   | 17.984 | 276  | 10297    | 1.99  | ppm     | 84       |
| 100) Benzo[g,h,i]perylene    | 18.401 | 276  | 12111m   | 2.03  | ppm     |          |

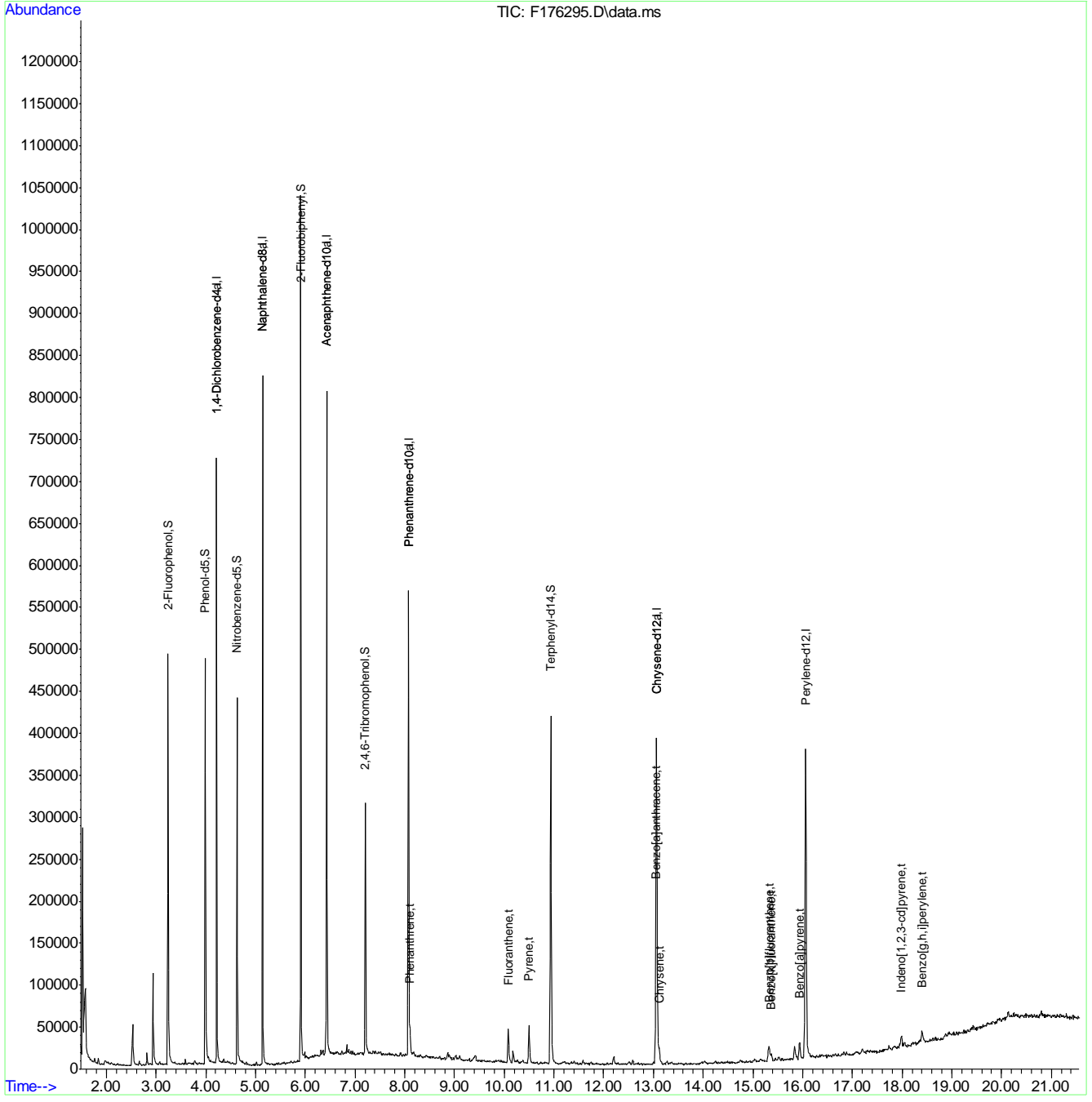
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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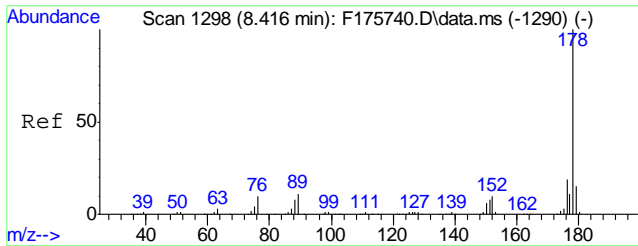
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176295.D  
Acq On : 7 May 2018 8:45 pm  
Operator : christc2  
Sample : jc65058-3  
Misc : op11647,ef7510,30.1,,,1,1  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 08 16:18:55 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

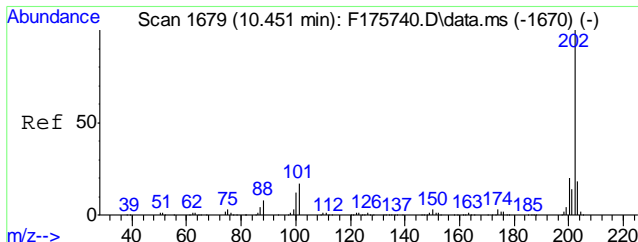
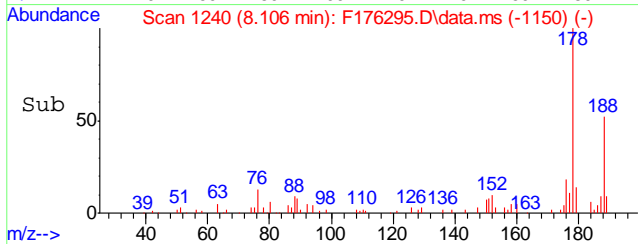
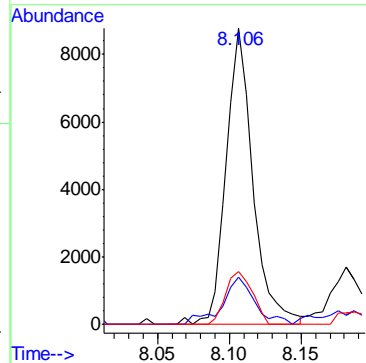
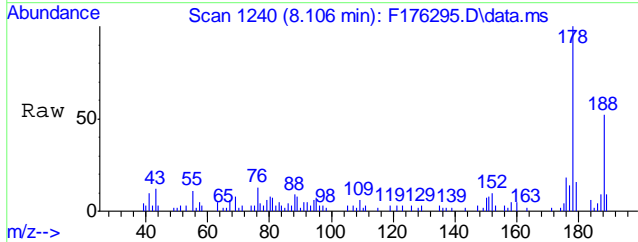


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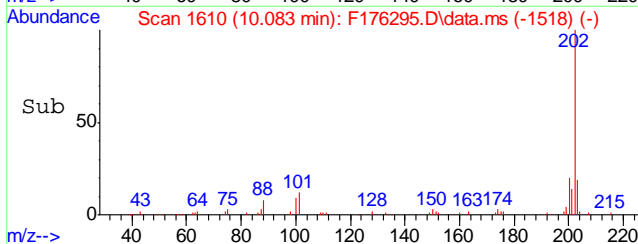
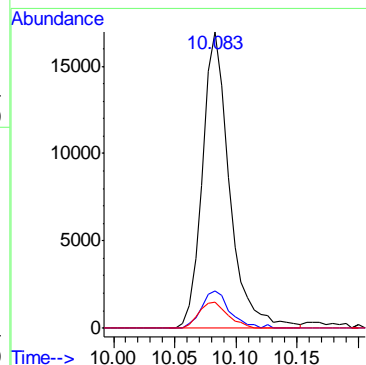
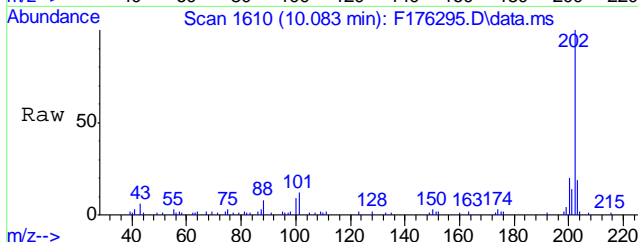
#77  
 Phenanthrene  
 Concen: 1.53 ppm  
 RT: 8.106 min Scan# 1240  
 Delta R.T. -0.020 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 11265 |       |       |
| 179     | 15.0  | 0.0   | 45.3  |
| 176     | 18.0  | 0.0   | 48.6  |

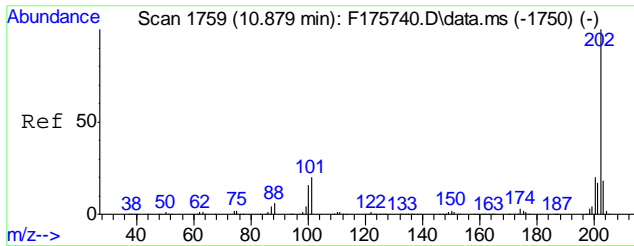


#81  
 Fluoranthene  
 Concen: 3.56 ppm  
 RT: 10.083 min Scan# 1610  
 Delta R.T. -0.009 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 25998 |       |       |
| 101     | 12.5  | 0.0   | 47.3  |
| 100     | 8.8   | 0.0   | 42.4  |

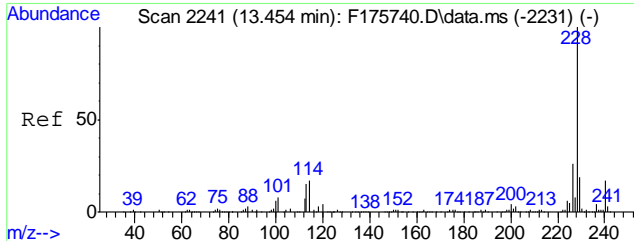
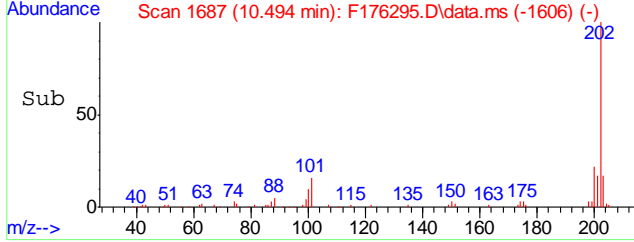
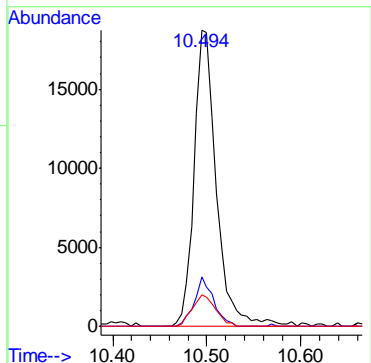
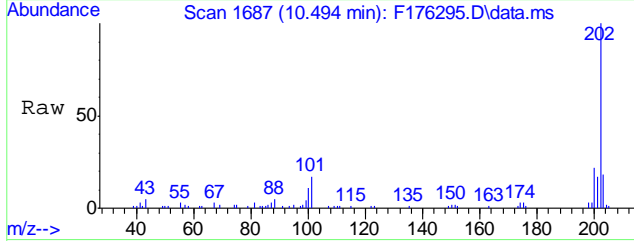


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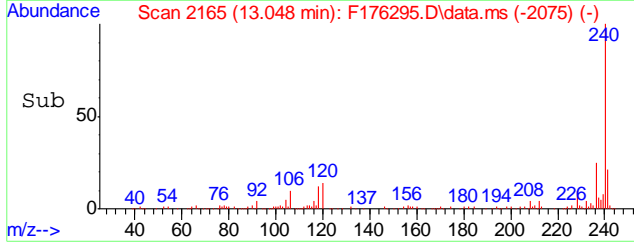
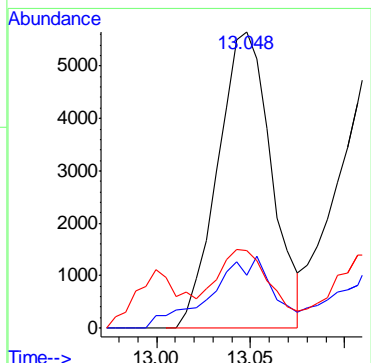
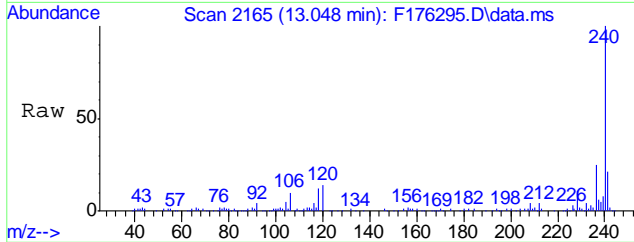
#84  
 Pyrene  
 Concen: 4.02 ppm  
 RT: 10.494 min Scan# 1687  
 Delta R.T. -0.070 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 30799 | 100   |       |
| 101     | 16.8  | 0.0   | 50.0  |
| 100     | 10.5  | 0.0   | 45.6  |

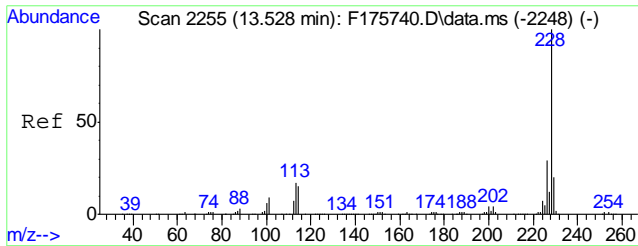


#87  
 Benzo[a]anthracene  
 Concen: 1.72 ppm  
 RT: 13.048 min Scan# 2165  
 Delta R.T. -0.017 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 11163 | 100   |       |
| 229     | 14.1  | 0.0   | 48.8  |
| 226     | 16.3  | 0.0   | 55.4  |

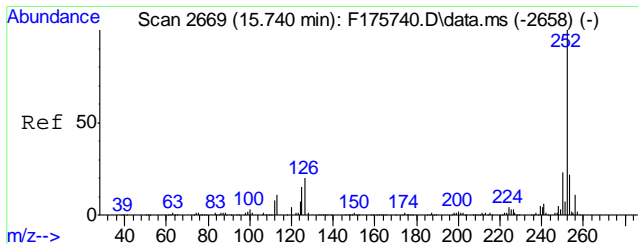
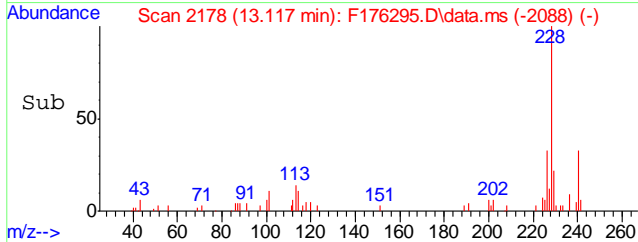
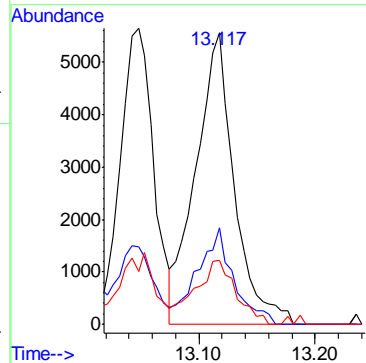
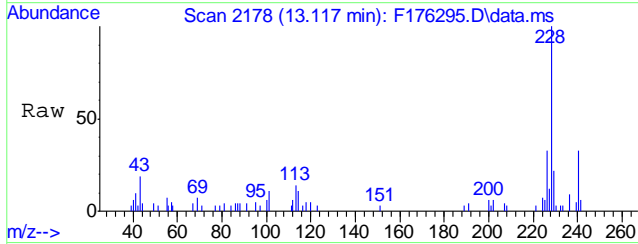


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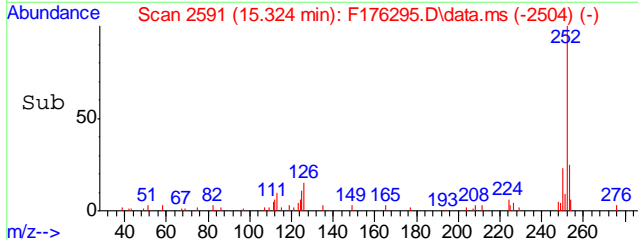
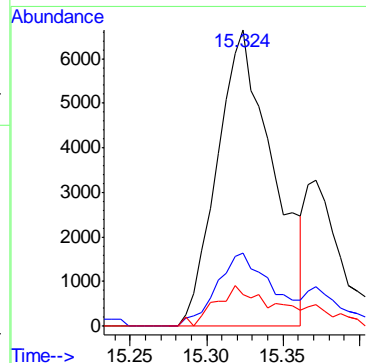
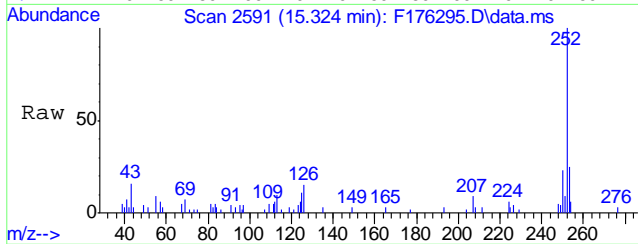
#89  
 Chrysene  
 Concen: 1.77 ppm  
 RT: 13.117 min Scan# 2178  
 Delta R.T. -0.020 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 33.5  | 0.0   | 59.2  |
| 229     | 19.5  | 0.0   | 49.9  |

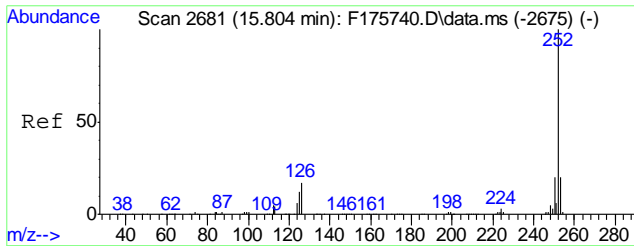


#93  
 Benzo[b]fluoranthene  
 Concen: 2.66 ppm  
 RT: 15.324 min Scan# 2591  
 Delta R.T. -0.034 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.2  | 0.0   | 51.4  |
| 125     | 9.7   | 0.0   | 43.6  |

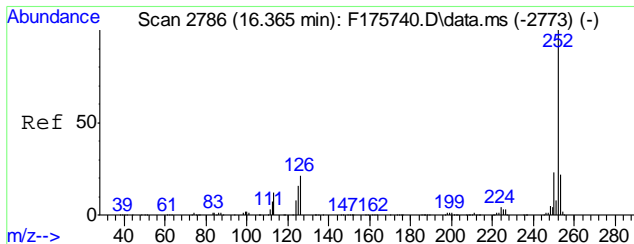
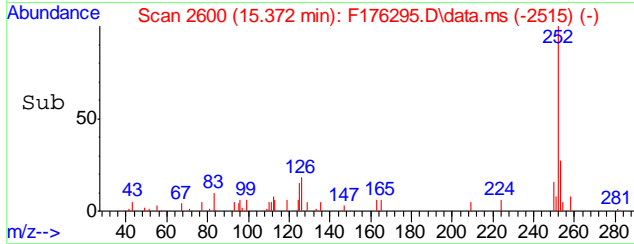
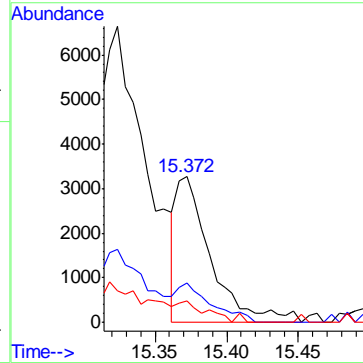
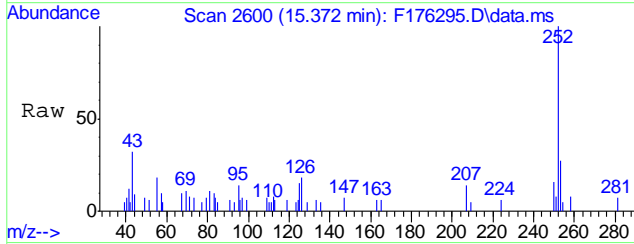


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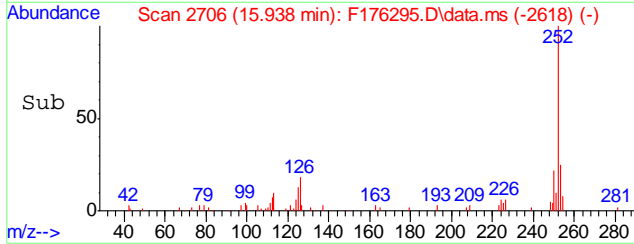
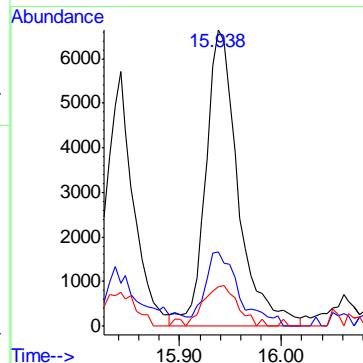
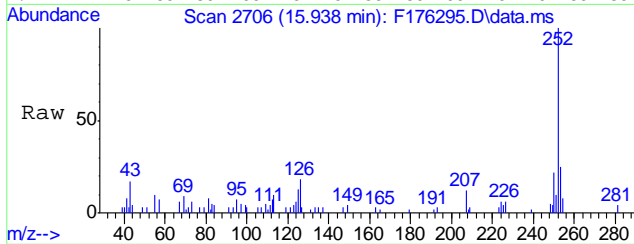
#94  
 Benzo[k]fluoranthene  
 Concen: 0.79 ppm  
 RT: 15.372 min Scan# 2600  
 Delta R.T. -0.048 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 26.8 | 0.0   | 51.4  |
| 125     | 14.6 | 0.0   | 43.3  |

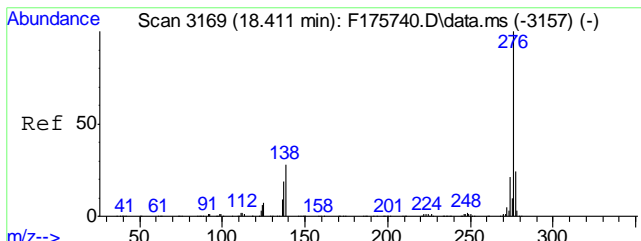


#95  
 Benzo[a]pyrene  
 Concen: 2.62 ppm  
 RT: 15.938 min Scan# 2706  
 Delta R.T. -0.029 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.1 | 0.0   | 51.9  |
| 125     | 13.8 | 0.0   | 45.6  |

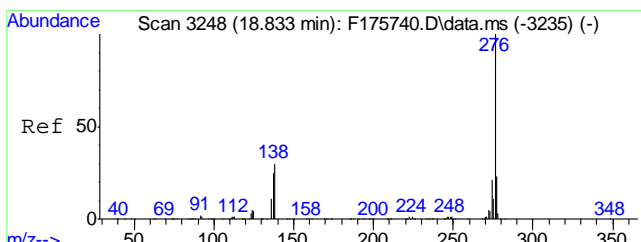
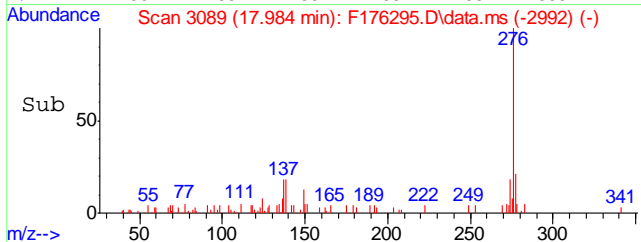
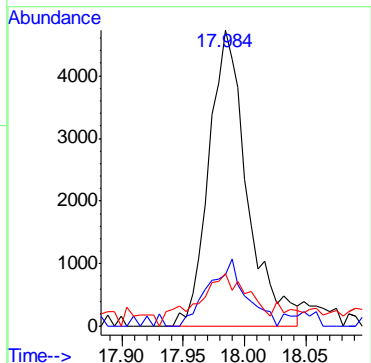
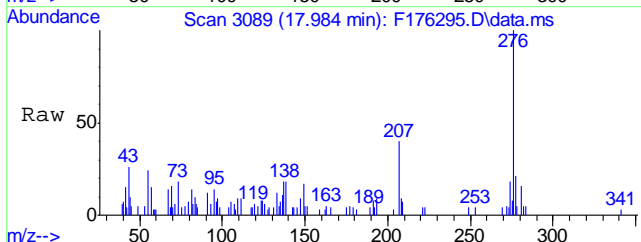


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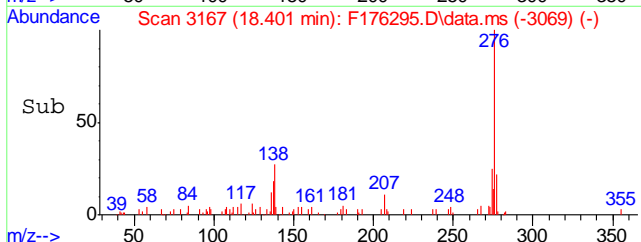
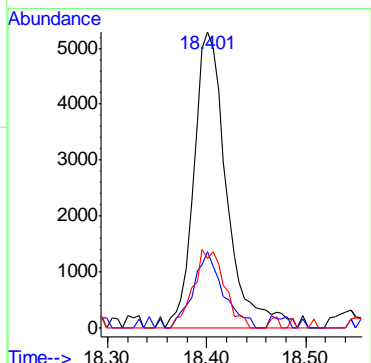
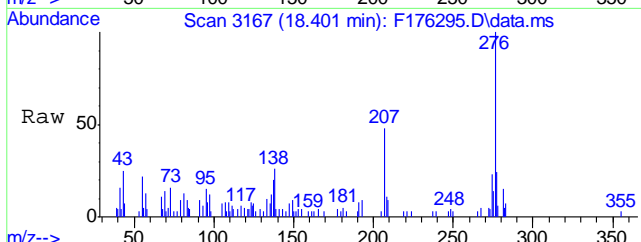
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 1.99 ppm  
 RT: 17.984 min Scan# 3089  
 Delta R.T. 0.021 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 10297 |       |       |
| 276     | 100   |       |       |
| 138     | 16.5  | 0.0   | 56.5  |
| 137     | 13.0  | 0.0   | 48.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 2.03 ppm m  
 RT: 18.401 min Scan# 3167  
 Delta R.T. 0.025 min  
 Lab File: F176295.D  
 Acq: 7 May 2018 8:45 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 12111 |       |       |
| 276     | 100   |       |       |
| 138     | 25.9  | 0.0   | 59.8  |
| 277     | 23.6  | 0.0   | 52.8  |



9.15  
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## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176296.D  
 Acq On : 7 May 2018 9:18 pm  
 Operator : christc2  
 Sample : jc65058-4  
 Misc : op11647,ef7510,30.1,,,1,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 08 16:20:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

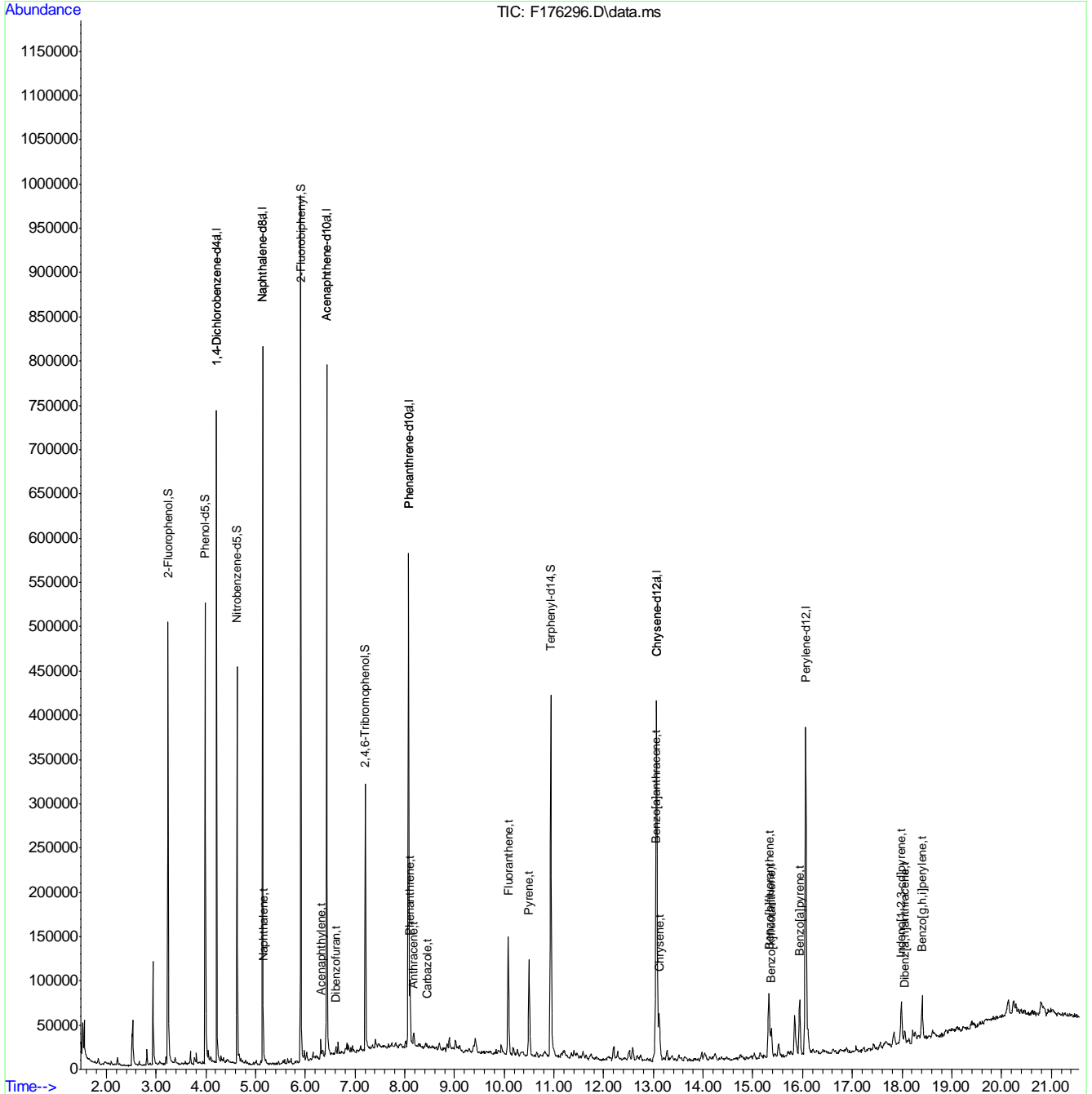
| Compound                     | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|---------|----------|--------|
| Internal Standards           |        |      |          |       |         |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 77063    | 40.00 | ppm     | -0.01    |        |
| 24) Naphthalene-d8           | 5.142  | 136  | 300326   | 40.00 | ppm     | 0.00     |        |
| 47) Acenaphthene-d10         | 6.429  | 164  | 143909   | 40.00 | ppm     | -0.01    |        |
| 69) Phenanthrene-d10         | 8.074  | 188  | 252992   | 40.00 | ppm     | -0.02    |        |
| 83) Chrysene-d12             | 13.064 | 240  | 226844   | 40.00 | ppm     | -0.02    |        |
| 91) Perylene-d12             | 16.061 | 264  | 248393   | 40.00 | ppm     | -0.02    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 77063    | 40.00 | ppm     | -0.01    |        |
| 103) Phenanthrene-d10a       | 8.074  | 188  | 252992   | 40.00 | ppm     | -0.02    |        |
| 105) Chrysene-d12a           | 13.064 | 240  | 226844   | 40.00 | ppm     | -0.02    |        |
| 107) Naphthalene-d8a         | 5.142  | 136  | 300326   | 40.00 | ppm     | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 143909   | 40.00 | ppm     | -0.01    |        |
| System Monitoring Compounds  |        |      |          |       |         |          |        |
| 5) 2-Fluorophenol            | 3.240  | 112  | 110091   | 49.04 | ppm     | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 98.08%  |          |        |
| 8) Phenol-d5                 | 3.988  | 99   | 141059   | 43.87 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.74%  |          |        |
| 25) Nitrobenzene-d5          | 4.629  | 82   | 132931   | 40.73 | ppm     | -0.02    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.46%  |          |        |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 231250   | 42.43 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 84.86%  |          |        |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 37072    | 54.93 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 109.86% |          |        |
| 85) Terphenyl-d14            | 10.938 | 244  | 215307   | 41.82 | ppm     | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.64%  |          |        |
| Target Compounds             |        |      |          |       |         |          |        |
| 38) Naphthalene              | 5.152  | 128  | 9662     | 1.17  | ppm     | 98       | Qvalue |
| 56) Acenaphthylene           | 6.312  | 152  | 6554     | 0.96  | ppm     | 97       |        |
| 62) Dibenzofuran             | 6.611  | 168  | 2718     | 0.43  | ppm     | 88       |        |
| 77) Phenanthrene             | 8.107  | 178  | 31566    | 4.33  | ppm     | 95       |        |
| 78) Anthracene               | 8.181  | 178  | 9700     | 1.36  | ppm     | 96       |        |
| 79) Carbazole                | 8.448  | 167  | 3242     | 0.50  | ppm     | 71       |        |
| 81) Fluoranthene             | 10.083 | 202  | 73185    | 10.12 | ppm     | 90       |        |
| 84) Pyrene                   | 10.500 | 202  | 71331m   | 9.48  | ppm     |          |        |
| 87) Benzo[a]anthracene       | 13.048 | 228  | 36195    | 5.67  | ppm     | 96       |        |
| 89) Chrysene                 | 13.118 | 228  | 37875    | 5.33  | ppm     | 96       |        |
| 93) Benzo[b]fluoranthene     | 15.324 | 252  | 60600    | 9.38  | ppm     | 96       |        |
| 94) Benzo[k]fluoranthene     | 15.372 | 252  | 21448    | 3.01  | ppm     | 92       |        |
| 95) Benzo[a]pyrene           | 15.944 | 252  | 41424    | 7.29  | ppm     | 90       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 17.984 | 276  | 36768    | 6.94  | ppm     | 93       |        |
| 98) Dibenz[a,h]anthracene    | 18.054 | 278  | 6398m    | 1.03  | ppm     |          |        |
| 100) Benzo[g,h,i]perylene    | 18.401 | 276  | 37184m   | 6.09  | ppm     |          |        |

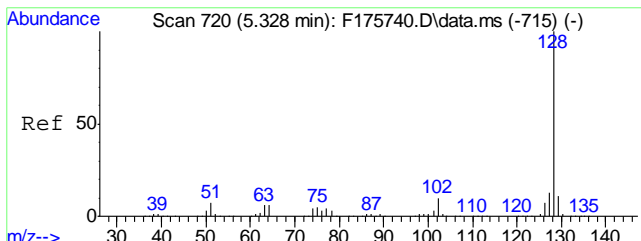
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176296.D  
Acq On : 7 May 2018 9:18 pm  
Operator : christc2  
Sample : jc65058-4  
Misc : op11647,ef7510,30.1,,,1,1  
ALS Vial : 17 Sample Multiplier: 1

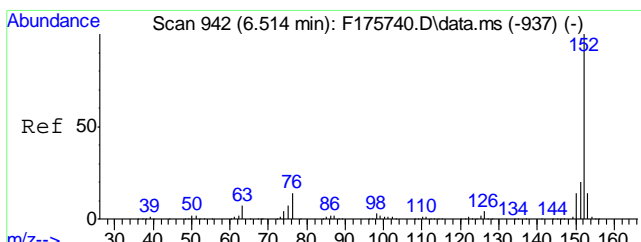
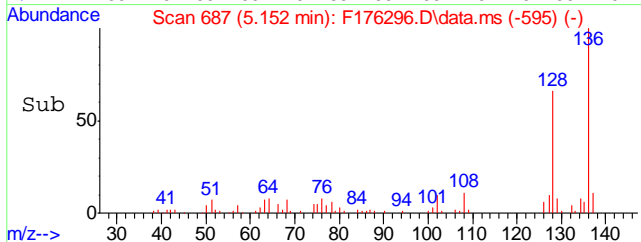
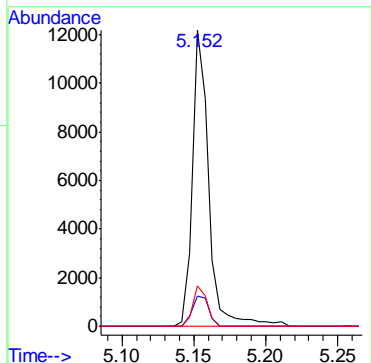
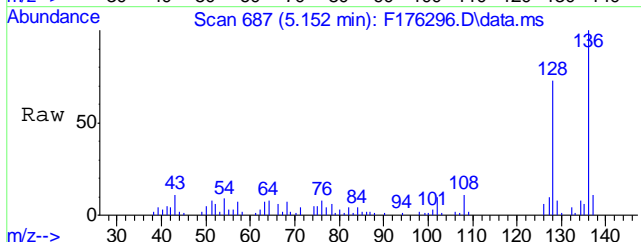
Quant Time: May 08 16:20:53 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration





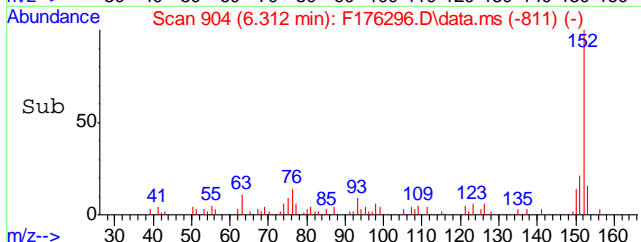
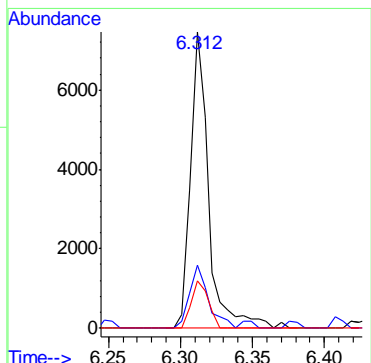
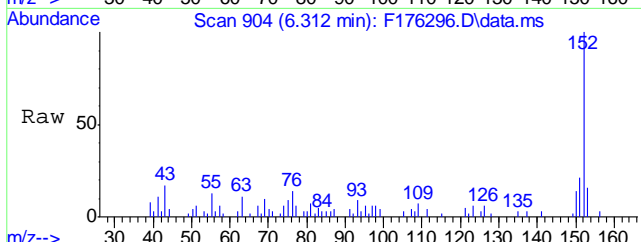
#38  
 Naphthalene  
 Concen: 1.17 ppm  
 RT: 5.152 min Scan# 687  
 Delta R.T. -0.010 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.4  | 0.0   | 41.0  |
| 127     | 13.6  | 0.0   | 42.8  |

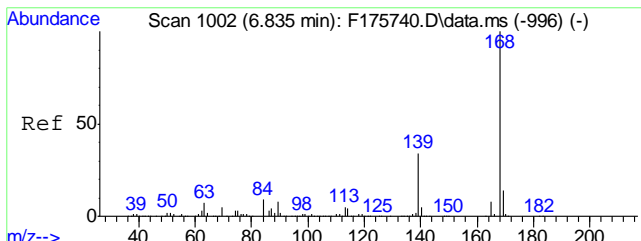


#56  
 Acenaphthylene  
 Concen: 0.96 ppm  
 RT: 6.312 min Scan# 904  
 Delta R.T. -0.004 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 20.3  | 0.0   | 49.6  |
| 153     | 16.1  | 0.0   | 43.6  |

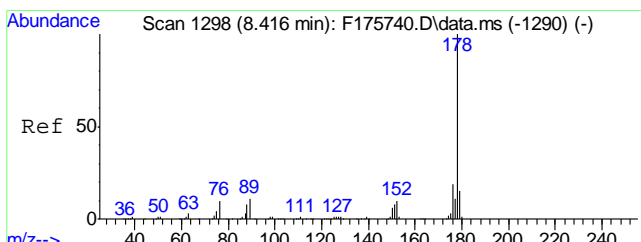
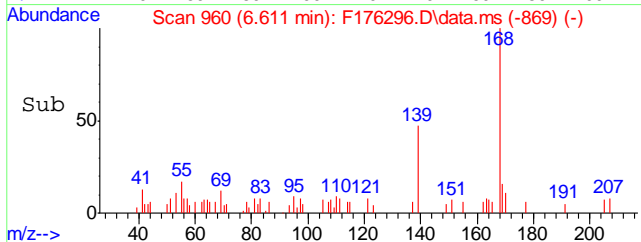
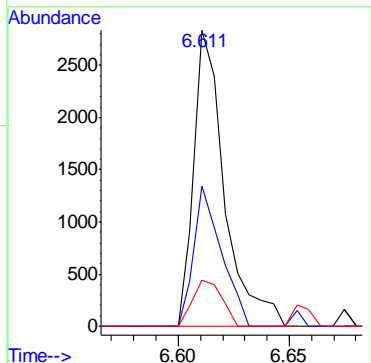
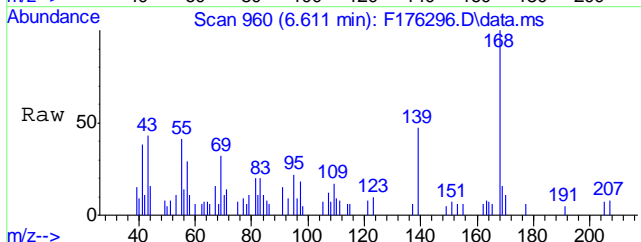


9.1.6  
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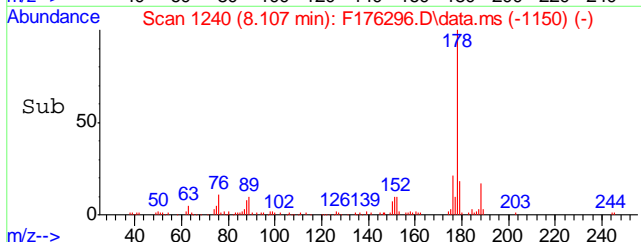
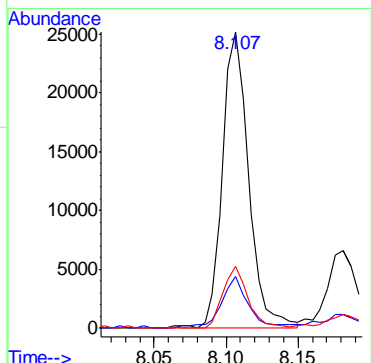
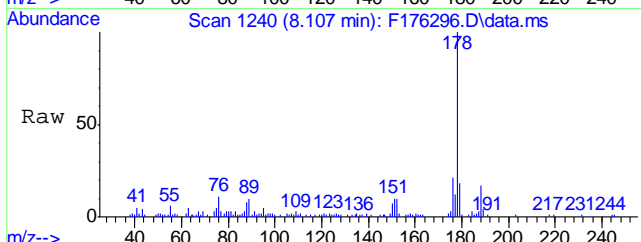
#62  
 Dibenzofuran  
 Concen: 0.43 ppm  
 RT: 6.611 min Scan# 960  
 Delta R.T. -0.015 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 2718 |       |       |
| 168     | 100  |       |       |
| 139     | 44.6 | 5.7   | 65.7  |
| 169     | 12.0 | 0.0   | 43.7  |

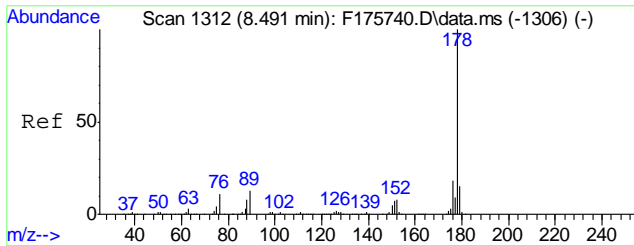


#77  
 Phenanthrene  
 Concen: 4.33 ppm  
 RT: 8.107 min Scan# 1240  
 Delta R.T. -0.020 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 31566 |       |       |
| 178     | 100   |       |       |
| 179     | 17.3  | 0.0   | 45.3  |
| 176     | 20.6  | 0.0   | 48.6  |

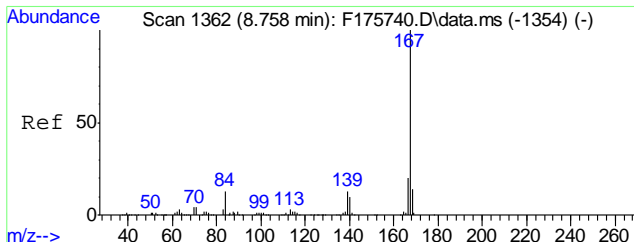
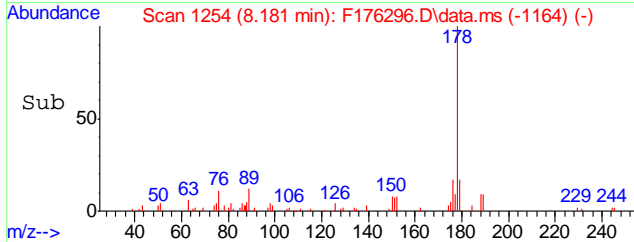
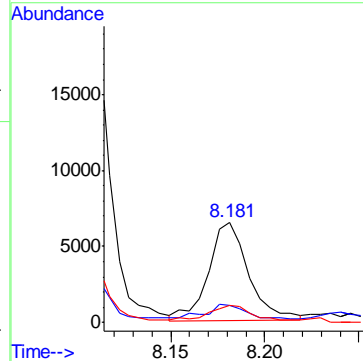
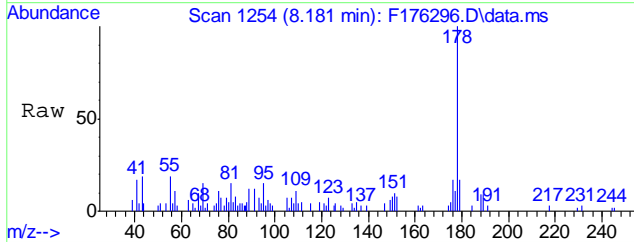


9.1.6  
 9



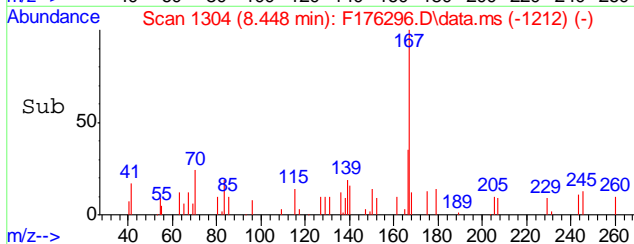
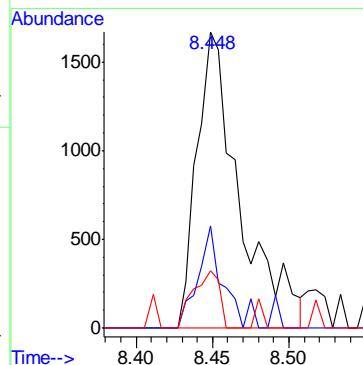
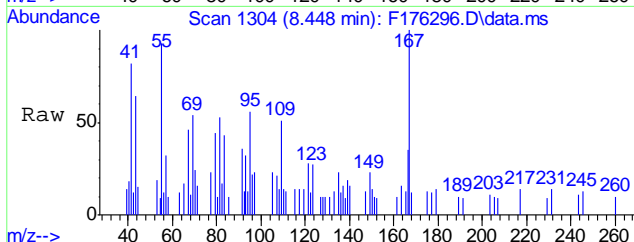
#78  
 Anthracene  
 Concen: 1.36 ppm  
 RT: 8.181 min Scan# 1254  
 Delta R.T. -0.017 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 14.1 | 0.0   | 45.2  |
| 176     | 15.3 | 0.0   | 47.9  |

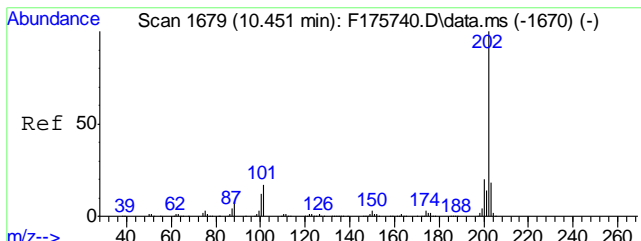


#79  
 Carbazole  
 Concen: 0.50 ppm  
 RT: 8.448 min Scan# 1304  
 Delta R.T. -0.008 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 100  |       |       |
| 166     | 36.6 | 0.0   | 50.3  |
| 139     | 20.4 | 0.0   | 42.9  |

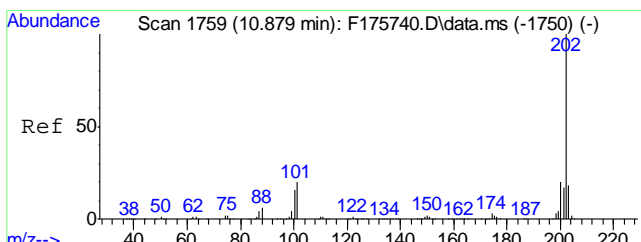
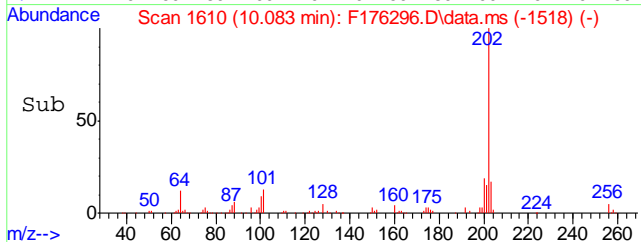
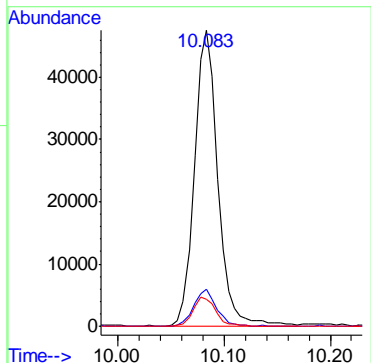
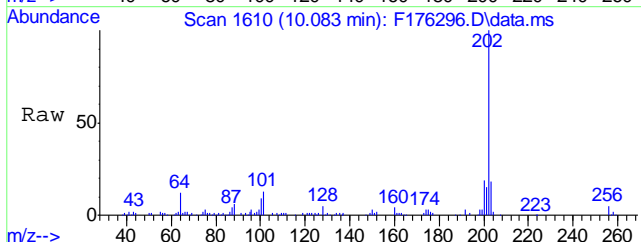


9.1.6  
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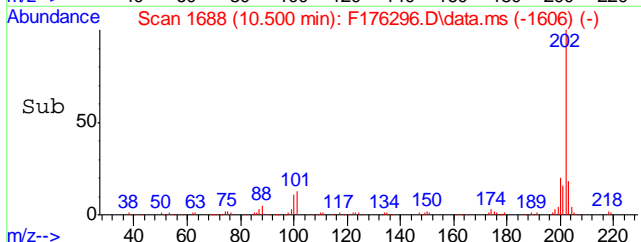
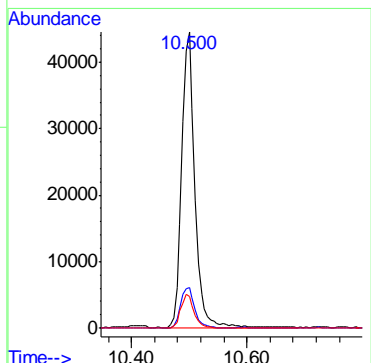
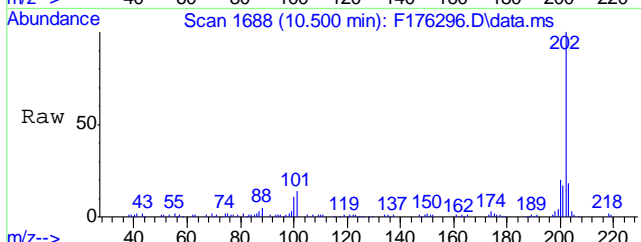
#81  
 Fluoranthene  
 Concen: 10.12 ppm  
 RT: 10.083 min Scan# 1610  
 Delta R.T. -0.009 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 73185 | 100   |       |
| 101     | 12.6  | 0.0   | 47.3  |
| 100     | 9.3   | 0.0   | 42.4  |

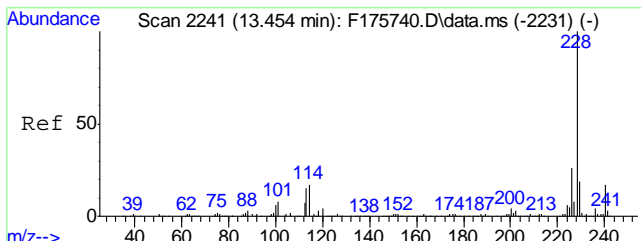


#84  
 Pyrene  
 Concen: 9.48 ppm m  
 RT: 10.500 min Scan# 1688  
 Delta R.T. -0.064 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 71331 | 100   |       |
| 101     | 13.7  | 0.0   | 50.0  |
| 100     | 10.7  | 0.0   | 45.6  |

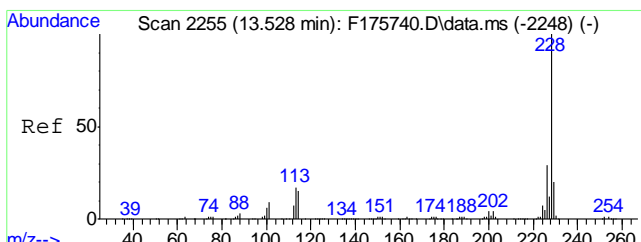
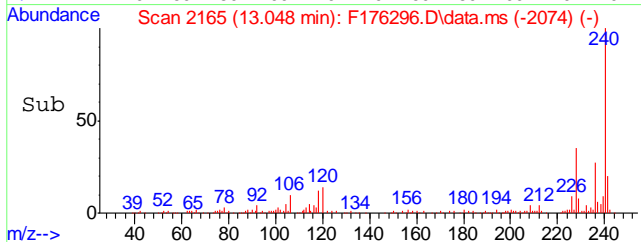
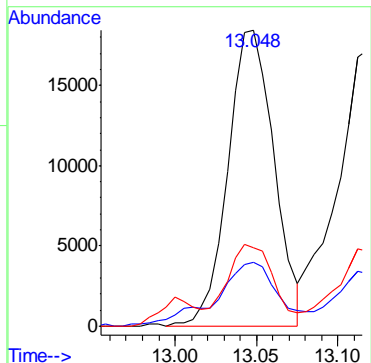
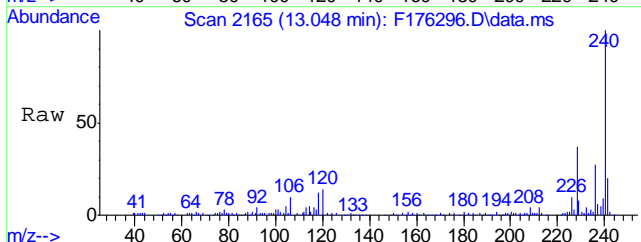


9.1.6  
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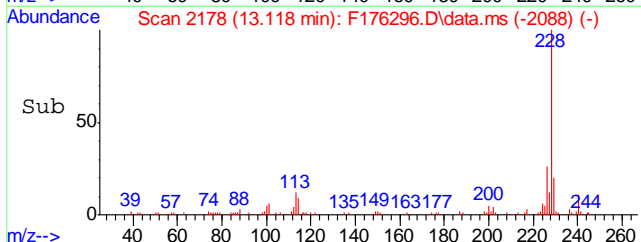
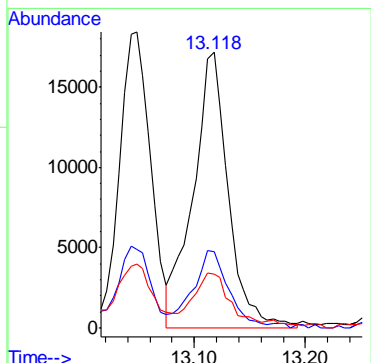
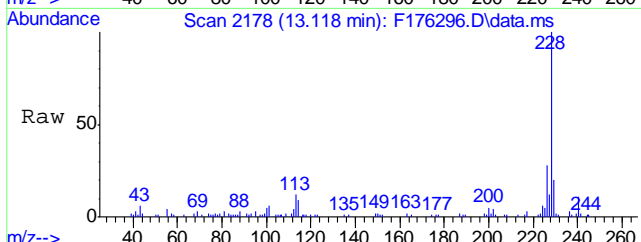
#87  
 Benzo[a]anthracene  
 Concen: 5.67 ppm  
 RT: 13.048 min Scan# 2165  
 Delta R.T. -0.016 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 36195 |       |       |
| 229     | 19.3  | 0.0   | 48.8  |
| 226     | 22.4  | 0.0   | 55.4  |

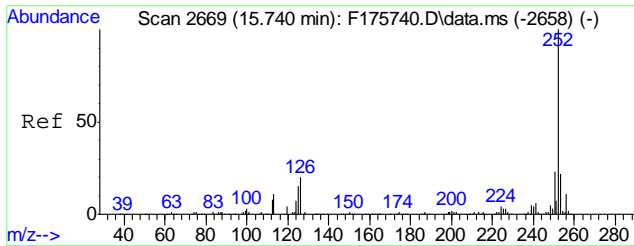


#89  
 Chrysene  
 Concen: 5.33 ppm  
 RT: 13.118 min Scan# 2178  
 Delta R.T. -0.020 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 37875 |       |       |
| 226     | 26.9  | 0.0   | 59.2  |
| 229     | 17.8  | 0.0   | 49.9  |

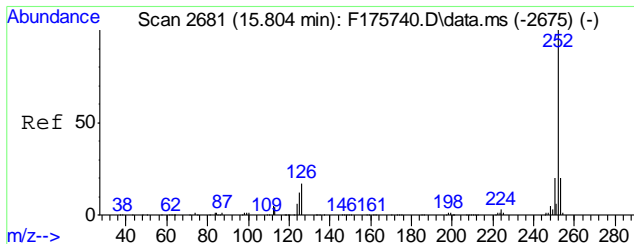
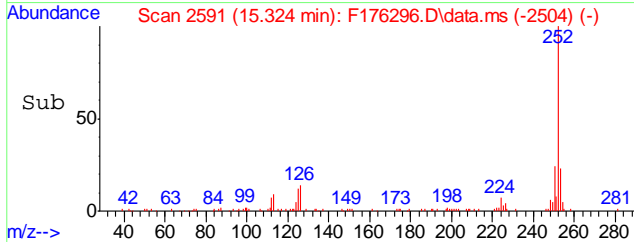
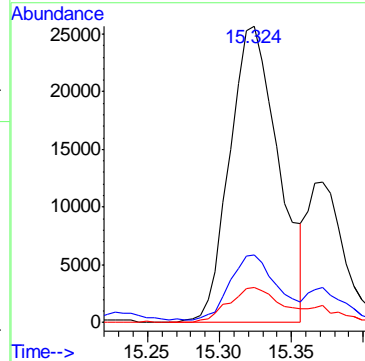
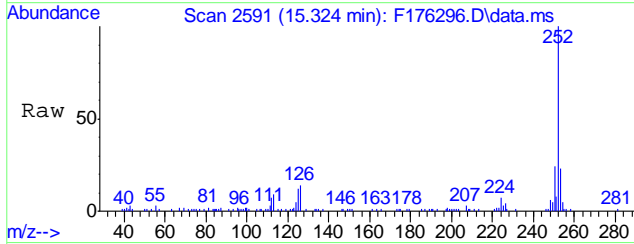


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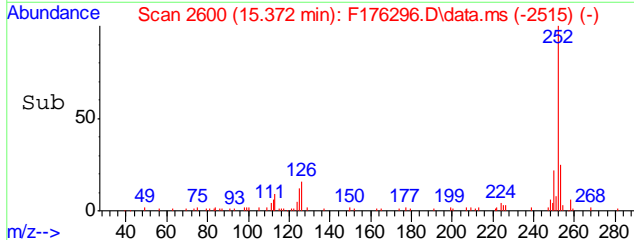
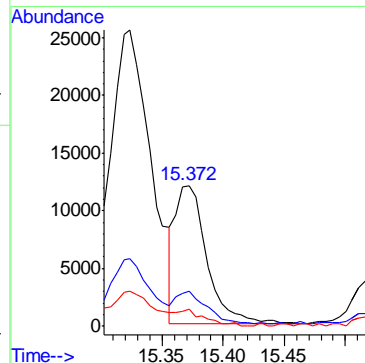
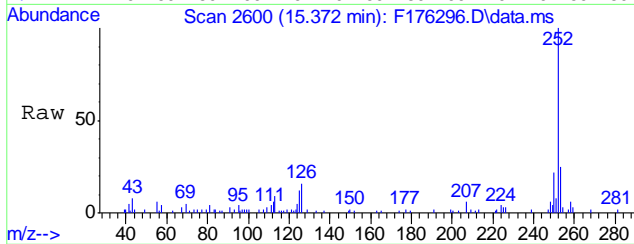
#93  
 Benzo[b]fluoranthene  
 Concen: 9.38 ppm  
 RT: 15.324 min Scan# 2591  
 Delta R.T. -0.034 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 60600 |       |       |
| 253     | 22.7  | 0.0   | 51.4  |
| 125     | 11.4  | 0.0   | 43.6  |



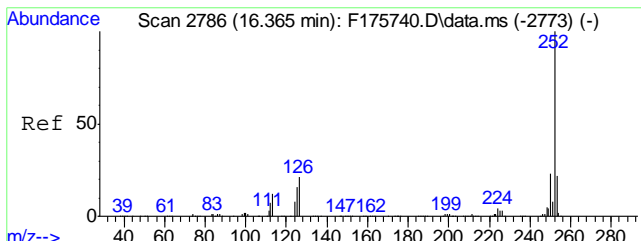
#94  
 Benzo[k]fluoranthene  
 Concen: 3.01 ppm  
 RT: 15.372 min Scan# 2600  
 Delta R.T. -0.048 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 21448 |       |       |
| 253     | 25.5  | 0.0   | 51.4  |
| 125     | 10.4  | 0.0   | 43.3  |



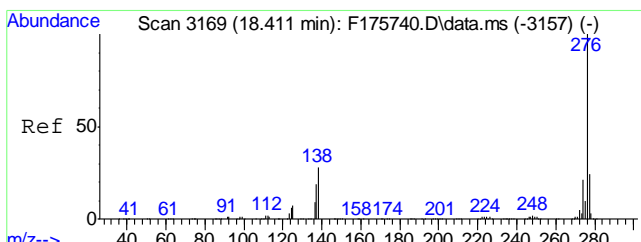
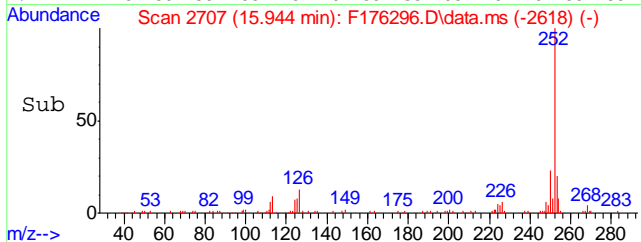
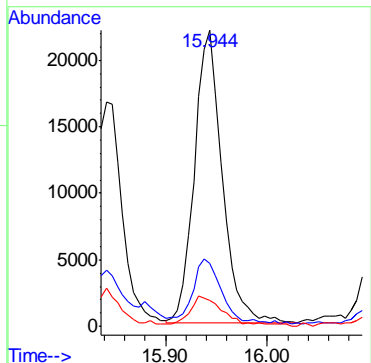
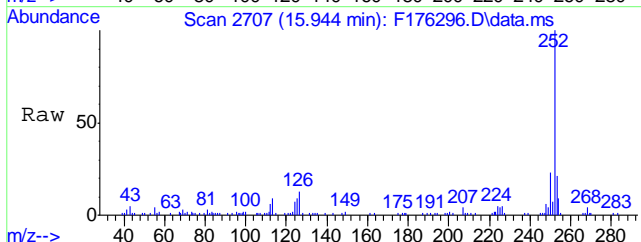
9.16  
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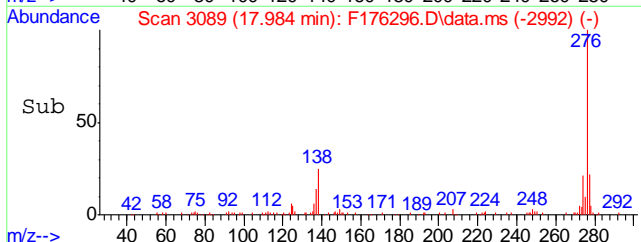
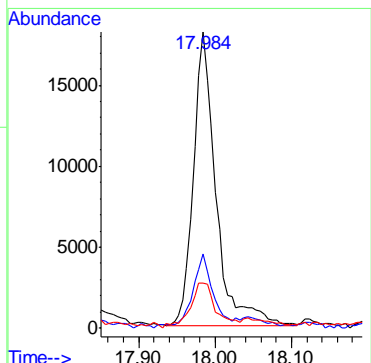
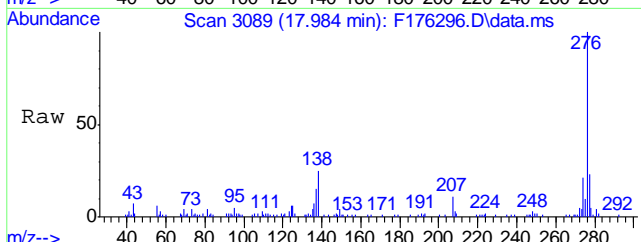
#95  
 Benzo[a]pyrene  
 Concen: 7.29 ppm  
 RT: 15.944 min Scan# 2707  
 Delta R.T. -0.024 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 41424 | 100   |       |
| 253     | 19.6  | 0.0   | 51.9  |
| 125     | 8.4   | 0.0   | 45.6  |

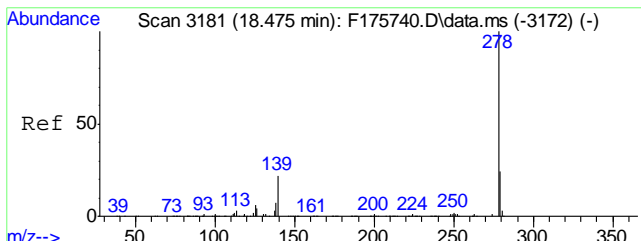


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 6.94 ppm  
 RT: 17.984 min Scan# 3089  
 Delta R.T. 0.021 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 36768 | 100   |       |
| 138     | 24.1  | 0.0   | 56.5  |
| 137     | 14.1  | 0.0   | 48.3  |

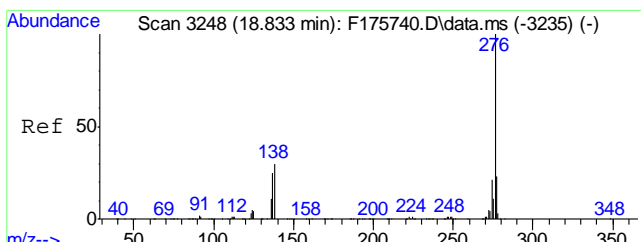
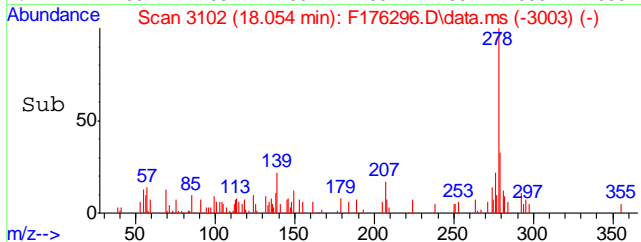
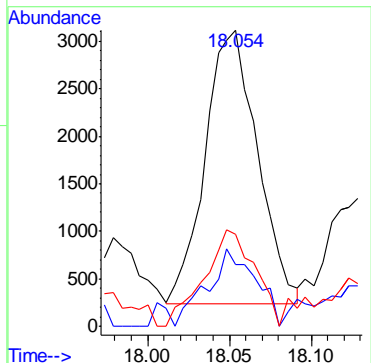
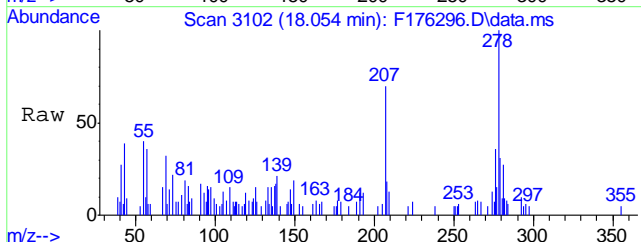


9.1.6  
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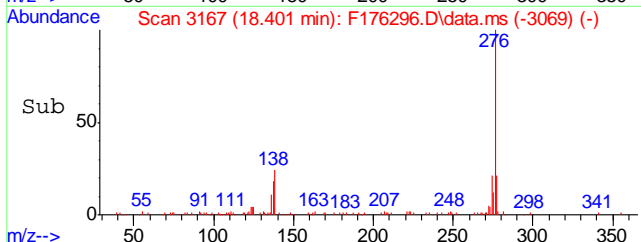
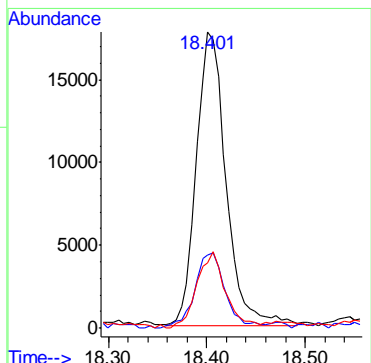
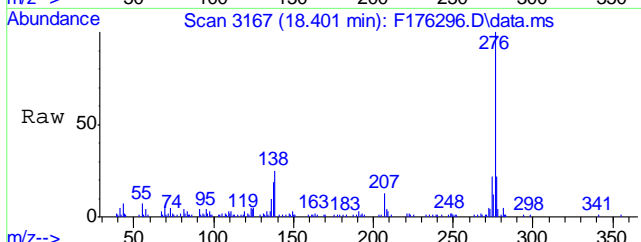
#98  
 Dibenz[a,h]anthracene  
 Concen: 1.03 ppm m  
 RT: 18.054 min Scan# 3102  
 Delta R.T. 0.027 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 278     | 6398 | 100   |       |
| 139     | 20.8 | 0.0   | 52.2  |
| 279     | 31.2 | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 6.09 ppm m  
 RT: 18.401 min Scan# 3167  
 Delta R.T. 0.025 min  
 Lab File: F176296.D  
 Acq: 7 May 2018 9:18 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 37184 | 100   |       |
| 138     | 24.7  | 0.0   | 59.8  |
| 277     | 21.9  | 0.0   | 52.8  |



9.1.6  
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## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176293.D  
 Acq On : 7 May 2018 7:36 pm  
 Operator : christc2  
 Sample : jc65058-5  
 Misc : op11647,ef7510,30.2,,,1,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 08 16:14:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

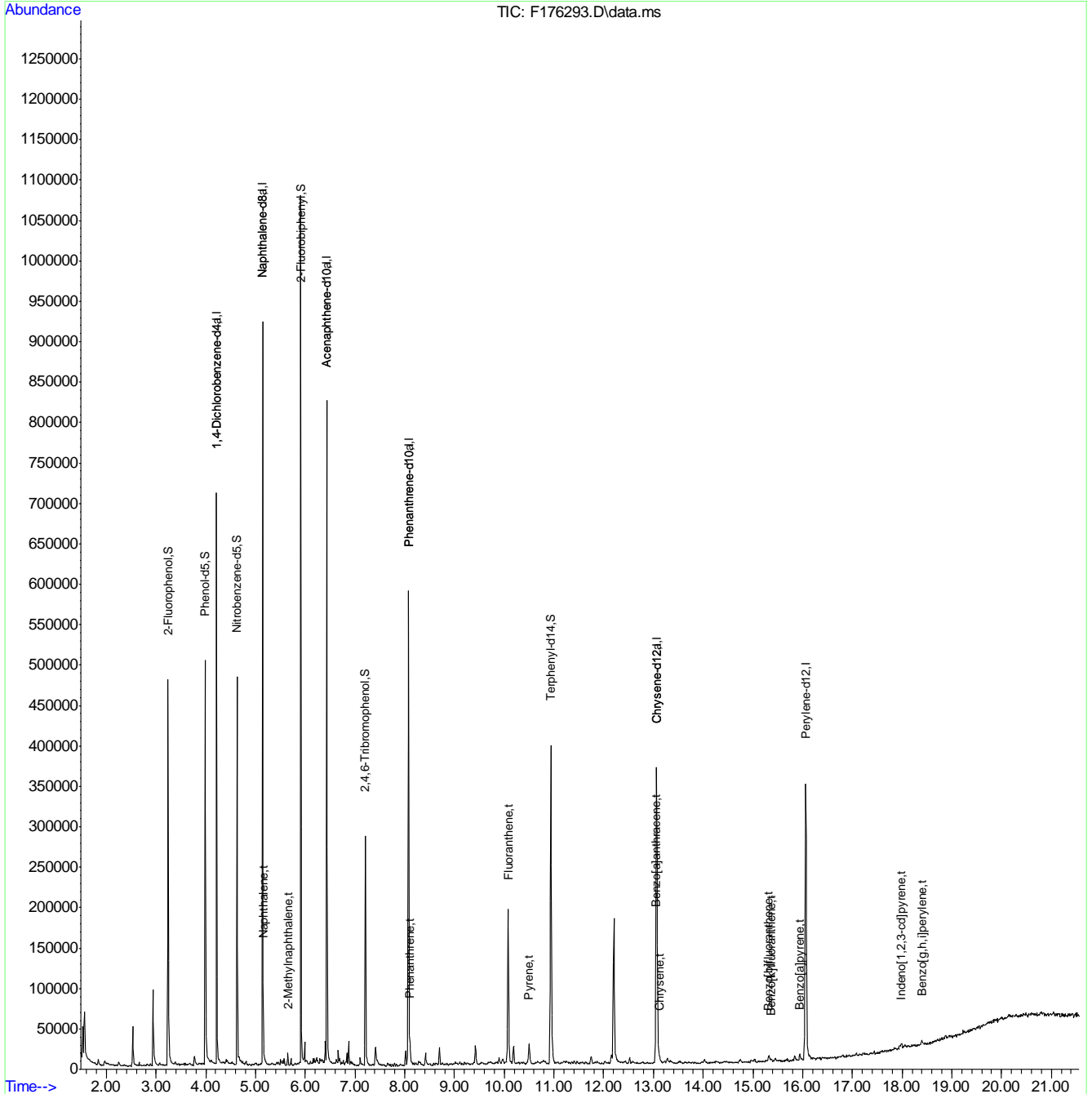
| Compound                     | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|---------|----------|--------|
| Internal Standards           |        |      |          |       |         |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 77938    | 40.00 | ppm     | -0.01    |        |
| 24) Naphthalene-d8           | 5.141  | 136  | 299557   | 40.00 | ppm     | 0.00     |        |
| 47) Acenaphthene-d10         | 6.429  | 164  | 147820   | 40.00 | ppm     | -0.01    |        |
| 69) Phenanthrene-d10         | 8.074  | 188  | 265389   | 40.00 | ppm     | -0.02    |        |
| 83) Chrysene-d12             | 13.064 | 240  | 232569   | 40.00 | ppm     | -0.02    |        |
| 91) Perylene-d12             | 16.066 | 264  | 237382   | 40.00 | ppm     | -0.01    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 77938    | 40.00 | ppm     | -0.01    |        |
| 103) Phenanthrene-d10a       | 8.074  | 188  | 265389   | 40.00 | ppm     | -0.02    |        |
| 105) Chrysene-d12a           | 13.064 | 240  | 232569   | 40.00 | ppm     | -0.02    |        |
| 107) Naphthalene-d8a         | 5.141  | 136  | 299557   | 40.00 | ppm     | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 147820   | 40.00 | ppm     | -0.01    |        |
| System Monitoring Compounds  |        |      |          |       |         |          |        |
| 5) 2-Fluorophenol            | 3.239  | 112  | 108859   | 47.95 | ppm     | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 95.90%  |          |        |
| 8) Phenol-d5                 | 3.987  | 99   | 136537   | 41.99 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.98%  |          |        |
| 25) Nitrobenzene-d5          | 4.628  | 82   | 133048   | 40.87 | ppm     | -0.02    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.74%  |          |        |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 231494   | 41.35 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 82.70%  |          |        |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 36249    | 51.20 | ppm     | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 102.40% |          |        |
| 85) Terphenyl-d14            | 10.938 | 244  | 215276   | 40.78 | ppm     | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.56%  |          |        |
| Target Compounds             |        |      |          |       |         |          |        |
|                              |        |      |          |       |         |          | Qvalue |
| 38) Naphthalene              | 5.152  | 128  | 20383    | 2.48  | ppm     |          | 98     |
| 44) 2-Methylnaphthalene      | 5.649  | 141  | 2454     | 0.56  | ppm     |          | 92     |
| 77) Phenanthrene             | 8.106  | 178  | 7081     | 0.93  | ppm     |          | 92     |
| 81) Fluoranthene             | 10.083 | 202  | 16671    | 2.20  | ppm     |          | 90     |
| 84) Pyrene                   | 10.500 | 202  | 16526    | 2.14  | ppm     |          | 87     |
| 87) Benzo[a]anthracene       | 13.048 | 228  | 5347     | 0.82  | ppm     |          | 90     |
| 89) Chrysene                 | 13.117 | 228  | 6008     | 0.82  | ppm     |          | 95     |
| 93) Benzo[b]fluoranthene     | 15.318 | 252  | 7144m    | 1.16  | ppm     |          |        |
| 94) Benzo[k]fluoranthene     | 15.372 | 252  | 2866     | 0.42  | ppm     |          | 92     |
| 95) Benzo[a]pyrene           | 15.943 | 252  | 5253     | 0.97  | ppm     |          | 88     |
| 96) Indeno[1,2,3-cd]pyrene   | 17.984 | 276  | 4292     | 0.85  | ppm     |          | 90     |
| 100) Benzo[g,h,i]perylene    | 18.406 | 276  | 4425     | 0.76  | ppm     |          | 85     |

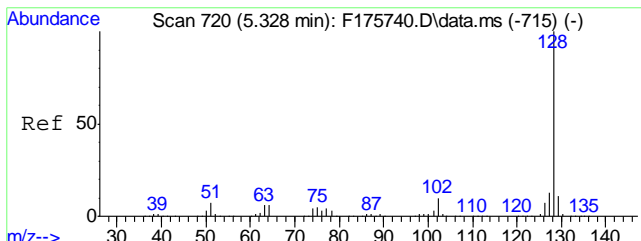
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176293.D  
Acq On : 7 May 2018 7:36 pm  
Operator : christc2  
Sample : jc65058-5  
Misc : op11647,ef7510,30.2,,,1,1  
ALS Vial : 14 Sample Multiplier: 1

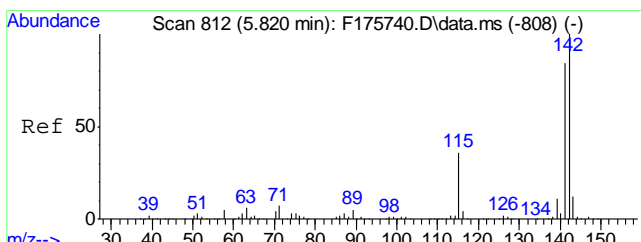
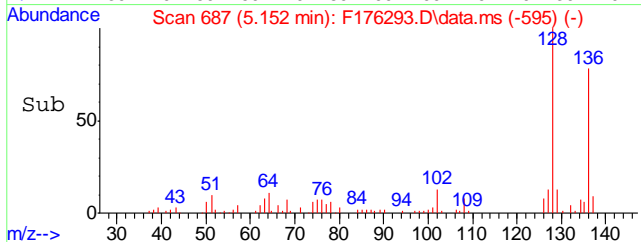
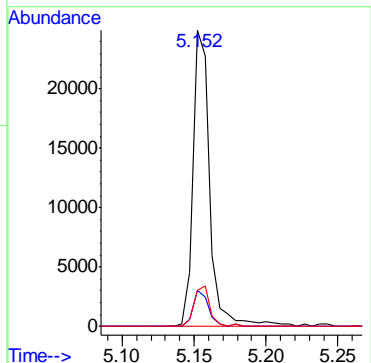
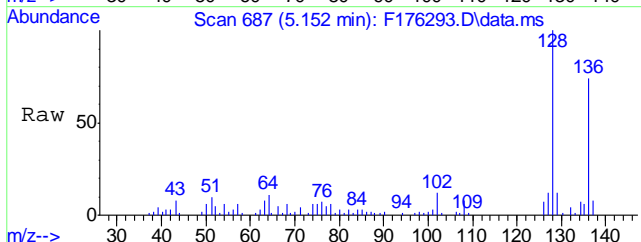
Quant Time: May 08 16:14:01 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration





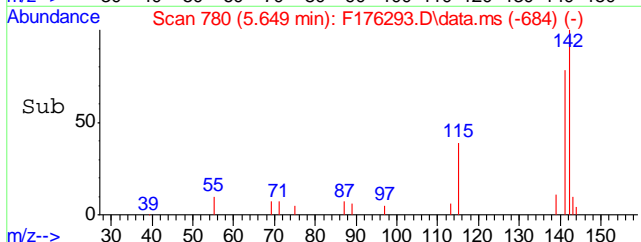
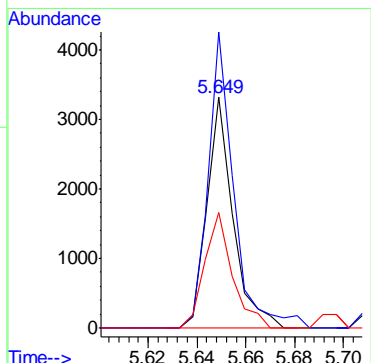
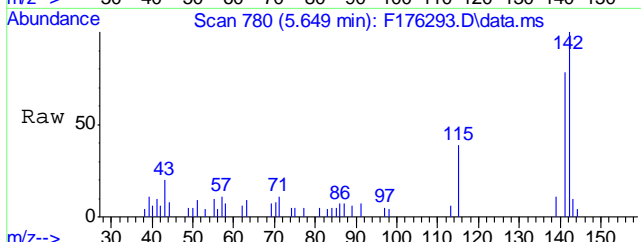
#38  
Naphthalene  
Concen: 2.48 ppm  
RT: 5.152 min Scan# 687  
Delta R.T. -0.010 min  
Lab File: F176293.D  
Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 12.0  | 0.0   | 41.0  |
| 127     | 12.3  | 0.0   | 42.8  |

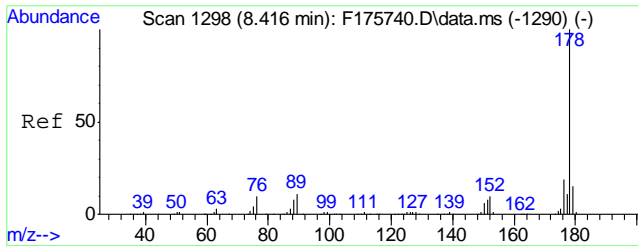


#44  
2-Methylnaphthalene  
Concen: 0.56 ppm  
RT: 5.649 min Scan# 780  
Delta R.T. 0.010 min  
Lab File: F176293.D  
Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 125.6 | 88.6  | 148.6 |
| 115     | 50.1  | 12.3  | 72.3  |

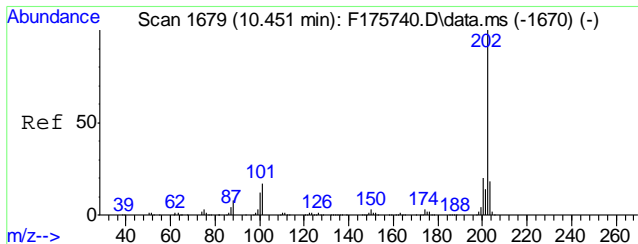
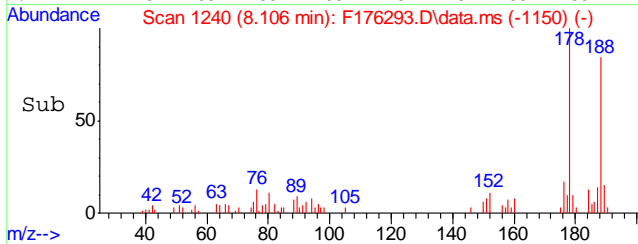
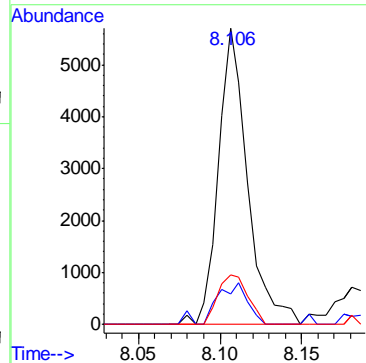
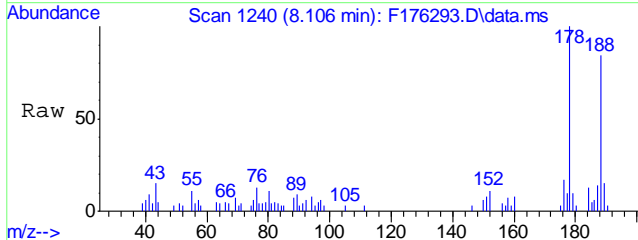


9.1.7  
9



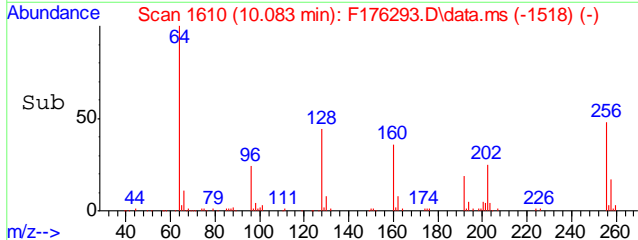
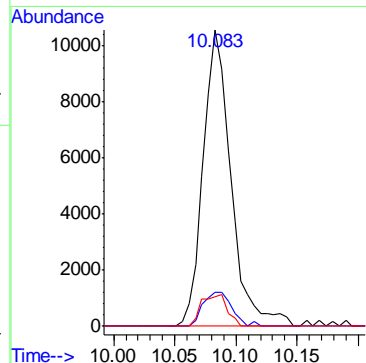
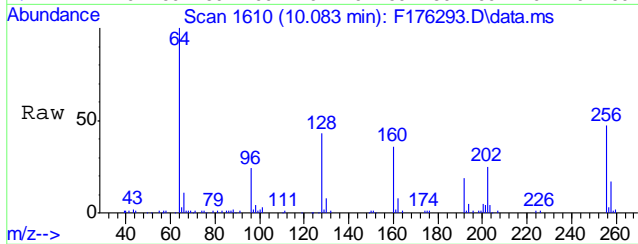
#77  
 Phenanthrene  
 Concen: 0.93 ppm  
 RT: 8.106 min Scan# 1240  
 Delta R.T. -0.020 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

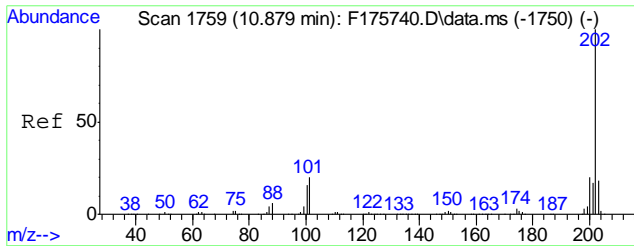
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 10.2 | 0.0   | 45.3  |
| 176     | 16.8 | 0.0   | 48.6  |



#81  
 Fluoranthene  
 Concen: 2.20 ppm  
 RT: 10.083 min Scan# 1610  
 Delta R.T. -0.009 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

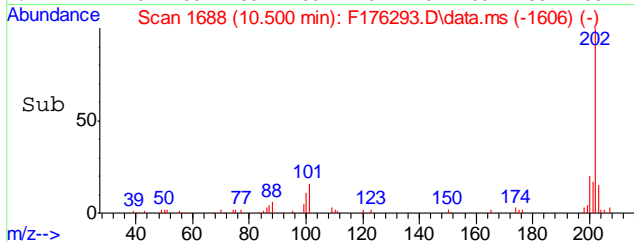
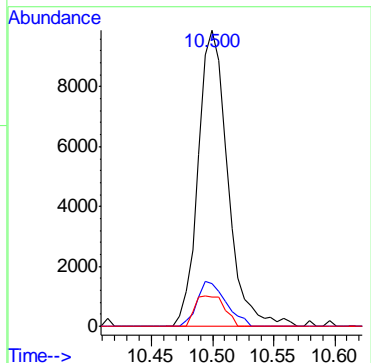
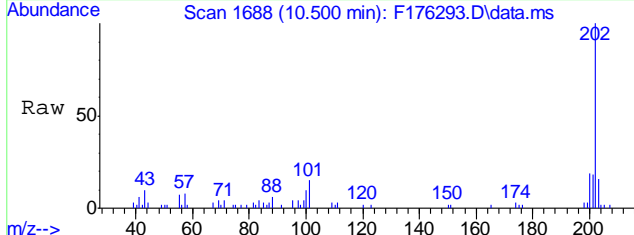
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 11.5 | 0.0   | 47.3  |
| 100     | 10.0 | 0.0   | 42.4  |





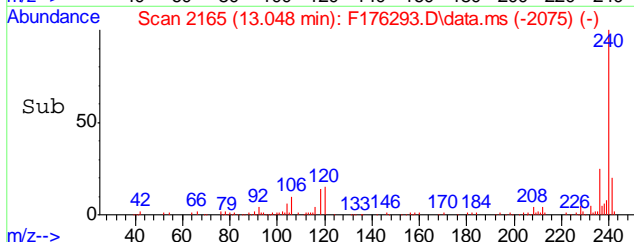
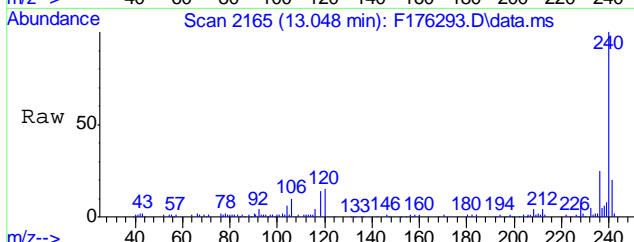
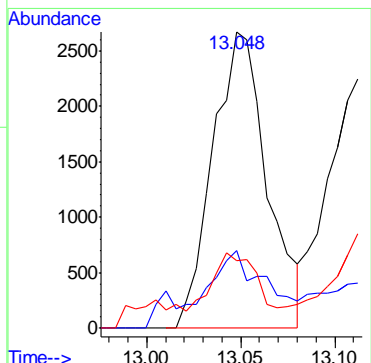
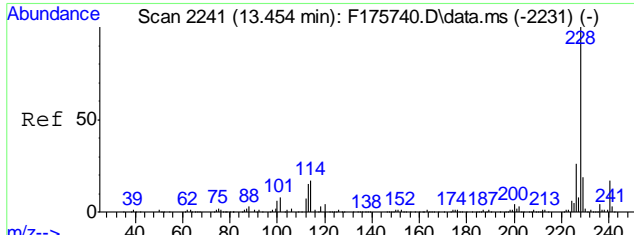
#84  
 Pyrene  
 Concen: 2.14 ppm  
 RT: 10.500 min Scan# 1688  
 Delta R.T. -0.064 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 16526 |       |       |
| 101     | 14.6  | 0.0   | 50.0  |
| 100     | 9.8   | 0.0   | 45.6  |

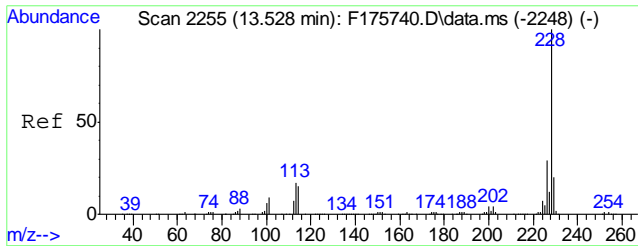


#87  
 Benzo[a]anthracene  
 Concen: 0.82 ppm  
 RT: 13.048 min Scan# 2165  
 Delta R.T. -0.017 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 228     | 5347 |       |       |
| 229     | 17.3 | 0.0   | 48.8  |
| 226     | 17.8 | 0.0   | 55.4  |

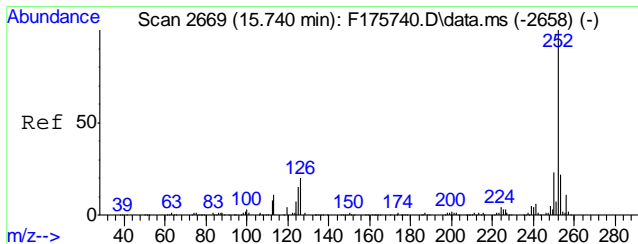
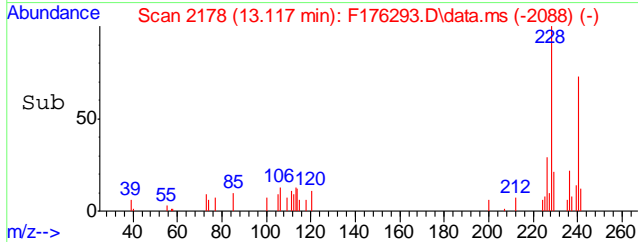
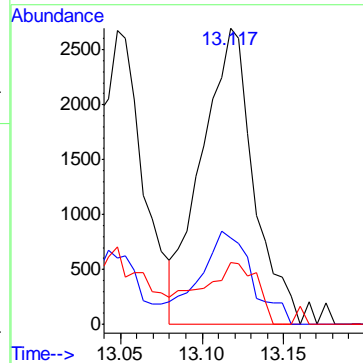
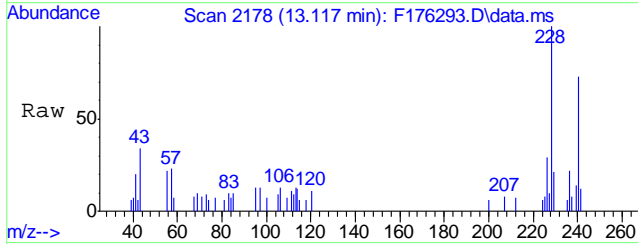


9.17  
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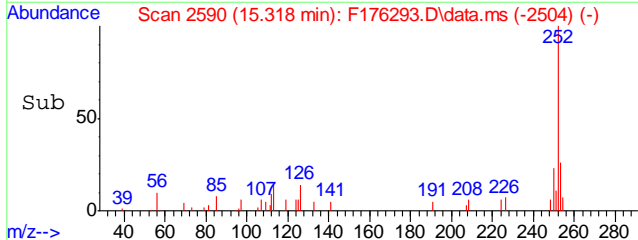
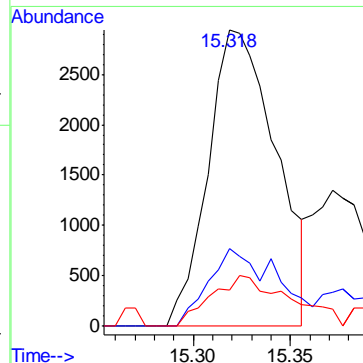
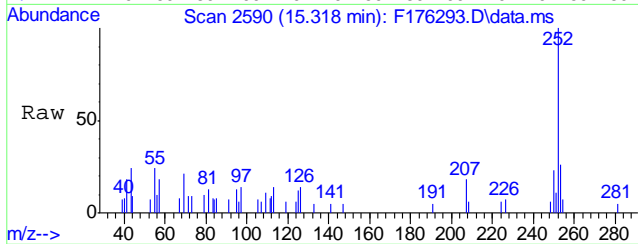
#89  
 Chrysene  
 Concen: 0.82 ppm  
 RT: 13.117 min Scan# 2178  
 Delta R.T. -0.020 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.2  | 0.0   | 59.2  |
| 229     | 14.9  | 0.0   | 49.9  |



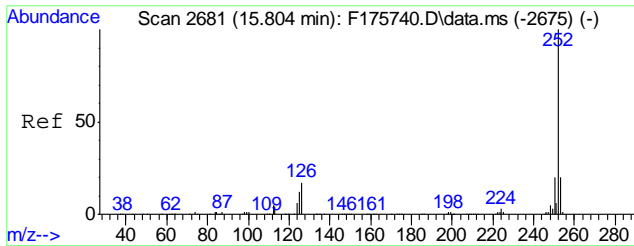
#93  
 Benzo[b]fluoranthene  
 Concen: 1.16 ppm m  
 RT: 15.318 min Scan# 2590  
 Delta R.T. -0.039 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 26.4  | 0.0   | 51.4  |
| 125     | 12.1  | 0.0   | 43.6  |



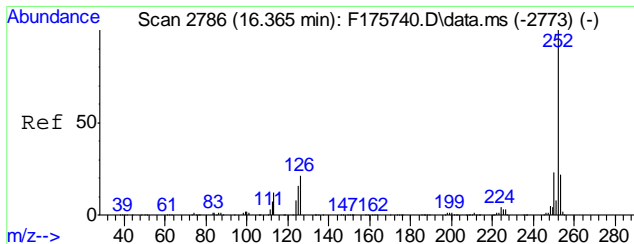
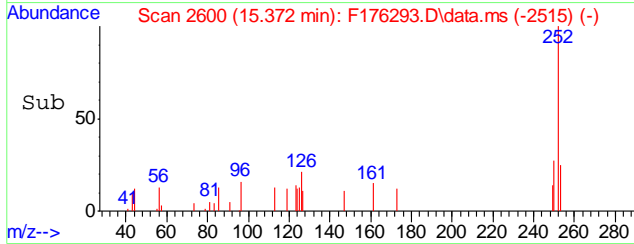
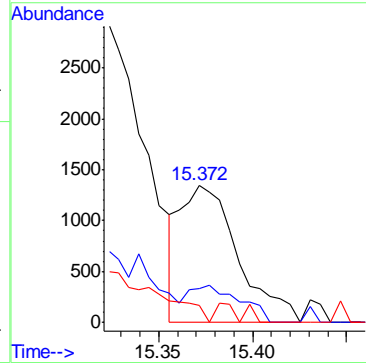
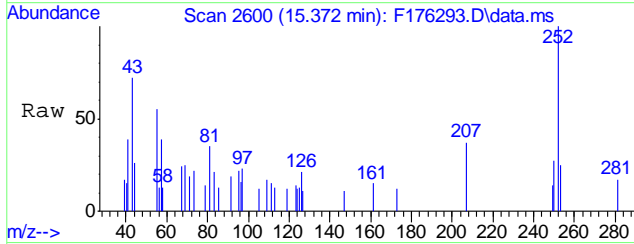
9.17  
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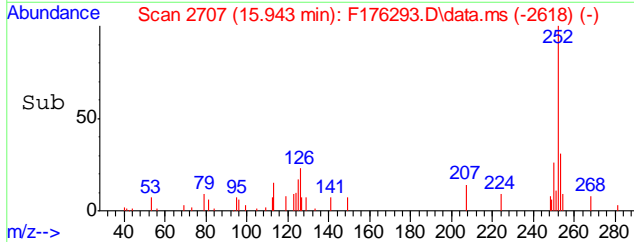
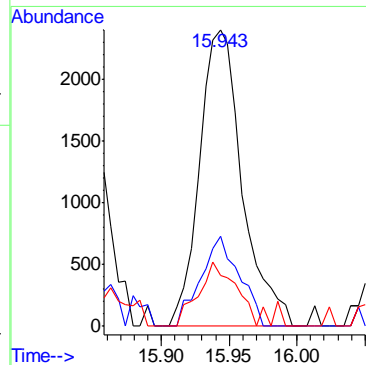
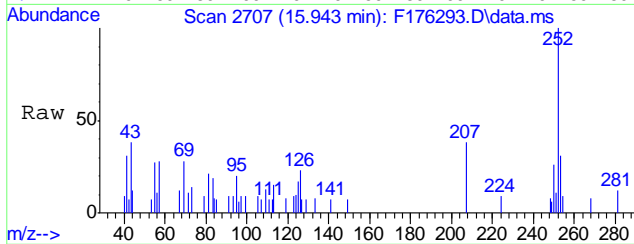
#94  
 Benzo[k]fluoranthene  
 Concen: 0.42 ppm  
 RT: 15.372 min Scan# 2600  
 Delta R.T. -0.048 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.1 | 0.0   | 51.4  |
| 125     | 7.8  | 0.0   | 43.3  |

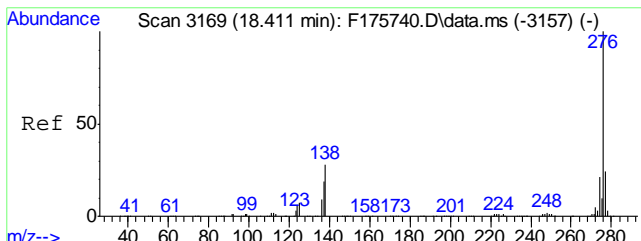


#95  
 Benzo[a]pyrene  
 Concen: 0.97 ppm  
 RT: 15.943 min Scan# 2707  
 Delta R.T. -0.024 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 30.5 | 0.0   | 51.9  |
| 125     | 17.2 | 0.0   | 45.6  |

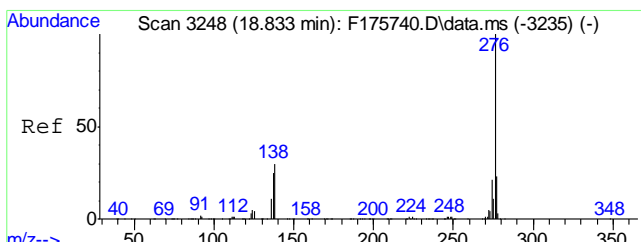
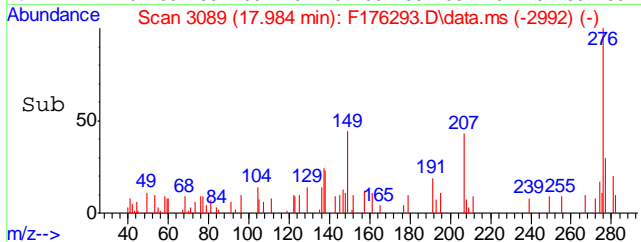
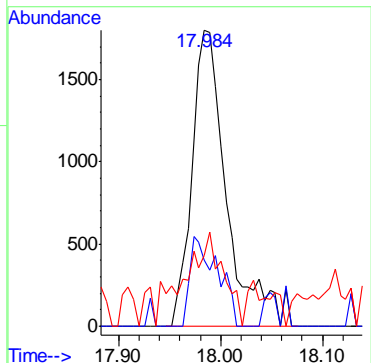
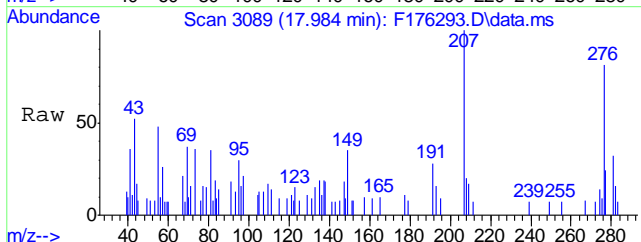


9.17  
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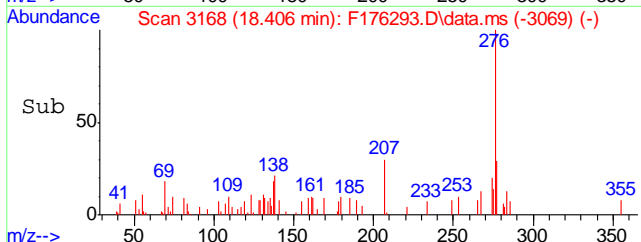
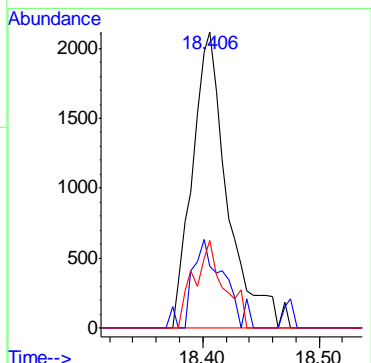
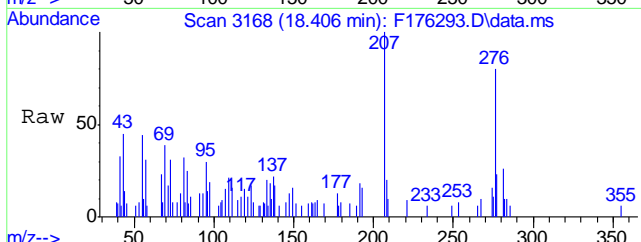
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 0.85 ppm  
 RT: 17.984 min Scan# 3089  
 Delta R.T. 0.021 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.6  | 0.0   | 56.5  |
| 137     | 12.8  | 0.0   | 48.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 0.76 ppm  
 RT: 18.406 min Scan# 3168  
 Delta R.T. 0.030 min  
 Lab File: F176293.D  
 Acq: 7 May 2018 7:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 21.0  | 0.0   | 59.8  |
| 277     | 29.5  | 0.0   | 52.8  |



9.17  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7512\  
 Data File : F176340.D  
 Acq On : 9 May 2018 3:44 am  
 Operator : chriss2  
 Sample : jc65058-6  
 Misc : op11647,ef7512,31.4,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 09 16:55:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 16:49:16 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|------------------------------|--------|------|----------|--------|--------|----------|
| Internal Standards           |        |      |          |        |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.297  | 152  | 71097    | 40.00  | ppm    | -0.01    |
| 24) Naphthalene-d8           | 5.216  | 136  | 277723   | 40.00  | ppm    | -0.02    |
| 47) Acenaphthene-d10         | 6.525  | 164  | 136006   | 40.00  | ppm    | -0.02    |
| 69) Phenanthrene-d10         | 8.208  | 188  | 254615   | 40.00  | ppm    | -0.03    |
| 83) Chrysene-d12             | 13.304 | 240  | 281418   | 40.00  | ppm    | 0.02     |
| 91) Perylene-d12             | 16.328 | 264  | 296676   | 40.00  | ppm    | 0.03     |
| 101) 1,4-Dichlorobenzene-d4a | 4.297  | 152  | 71097    | 40.00  | ppm    | -0.01    |
| 103) Phenanthrene-d10a       | 8.208  | 188  | 254615   | 40.00  | ppm    | -0.03    |
| 105) Chrysene-d12a           | 13.304 | 240  | 281418   | 40.00  | ppm    | 0.02     |
| 107) Naphthalene-d8a         | 5.216  | 136  | 277723   | 40.00  | ppm    | -0.02    |
| 109) Acenaphthene-d10a       | 6.525  | 164  | 136006   | 40.00  | ppm    | -0.02    |
| System Monitoring Compounds  |        |      |          |        |        |          |
| 5) 2-Fluorophenol            | 3.320  | 112  | 85590    | 41.32  | ppm    | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 82.64% |          |
| 8) Phenol-d5                 | 4.062  | 99   | 112624   | 37.97  | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =      | 75.94% |          |
| 25) Nitrobenzene-d5          | 4.703  | 82   | 109333   | 36.22  | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 72.44% |          |
| 51) 2-Fluorobiphenyl         | 5.986  | 172  | 186171   | 36.14  | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =      | 72.28% |          |
| 73) 2,4,6-Tribromophenol     | 7.316  | 330  | 30278    | 44.57  | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 89.14% |          |
| 85) Terphenyl-d14            | 11.114 | 244  | 199533   | 31.24  | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 62.48% |          |
| Target Compounds             |        |      |          |        |        |          |
| 18) Acetophenone             | 4.602  | 105  | 3812     | 1.07   | ppm    | 82       |
| 19) 2-Methylphenol           | 4.511  | 108  | 2365     | 0.97   | ppm    | 96       |
| 21) 3&4-Methylphenol         | 4.629  | 108  | 9174     | 3.57   | ppm    | 82       |
| 30) 2,4-Dimethylphenol       | 4.997  | 107  | 3673     | 1.63   | ppm    | 86       |
| 38) Naphthalene              | 5.232  | 128  | 148369   | 19.48  | ppm    | 100      |
| 44) 2-Methylnaphthalene      | 5.724  | 141  | 16738    | 4.08   | ppm    | 96       |
| 53) Biphenyl                 | 6.060  | 154  | 8149     | 1.52   | ppm    | 96       |
| 56) Acenaphthylene           | 6.402  | 152  | 254940   | 39.40  | ppm    | 99       |
| 59) Acenaphthene             | 6.552  | 153  | 15075    | 3.42   | ppm    | 99       |
| 62) Dibenzofuran             | 6.707  | 168  | 49840    | 8.44   | ppm    | 93       |
| 66) Fluorene                 | 7.049  | 166  | 55591    | 12.10  | ppm    | 95       |
| 77) Phenanthrene             | 8.251  | 178  | 1448716  | 197.31 | ppm    | 99       |
| 78) Anthracene               | 8.320  | 178  | 627879   | 87.51  | ppm    | 99       |
| 79) Carbazole                | 8.582  | 167  | 72491    | 11.03  | ppm    | 99       |
| 81) Fluoranthene             | 10.302 | 202  | 5300498  | 728.31 | ppm    | 90       |
| 84) Pyrene                   | 10.719 | 202  | 5056158  | 541.45 | ppm    | 89       |
| 87) Benzo[a]anthracene       | 13.294 | 228  | 3265593  | 412.57 | ppm    | 98       |
| 89) Chrysene                 | 13.374 | 228  | 2872057  | 325.72 | ppm    | 97       |
| 93) Benzo[b]fluoranthene     | 15.623 | 252  | 5228399  | 677.30 | ppm    | 97       |
| 94) Benzo[k]fluoranthene     | 15.671 | 252  | 1130561  | 132.87 | ppm    | 89       |
| 95) Benzo[a]pyrene           | 16.253 | 252  | 3453531  | 508.64 | ppm    | 93       |
| 96) Indeno[1,2,3-cd]pyrene   | 18.299 | 276  | 2796219  | 442.12 | ppm    | 92       |

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7512\  
 Data File : F176340.D  
 Acq On : 9 May 2018 3:44 am  
 Operator : chriss2  
 Sample : jc65058-6  
 Misc : op11647,ef7512,31.4,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 09 16:55:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 16:49:16 2018  
 Response via : Initial Calibration

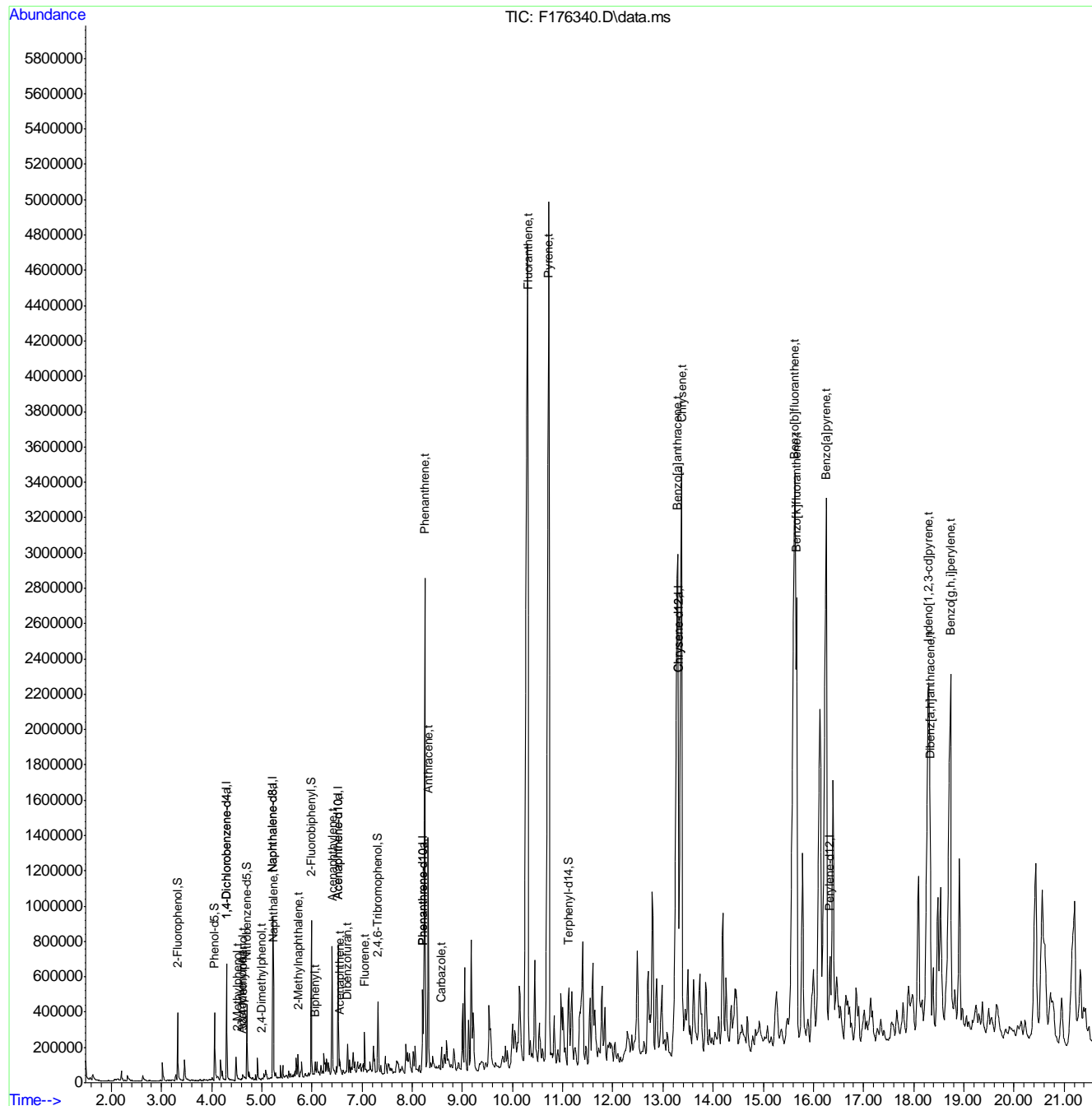
| Compound                  | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------|--------|------|----------|--------|-------|----------|
| 98) Dibenz[a,h]anthracene | 18.326 | 278  | 514647m  | 69.67  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 18.732 | 276  | 2406124  | 329.89 | ppm   | 93       |

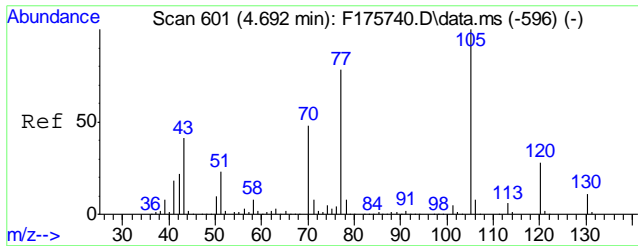
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7512\  
 Data File : F176340.D  
 Acq On : 9 May 2018 3:44 am  
 Operator : chriss2  
 Sample : jc65058-6  
 Misc : op11647,ef7512,31.4,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

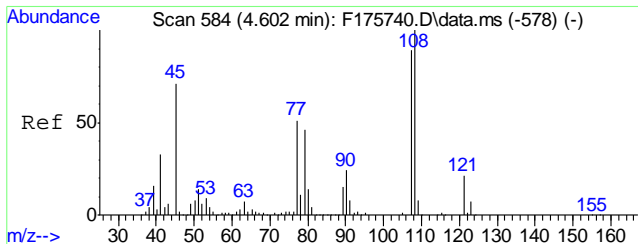
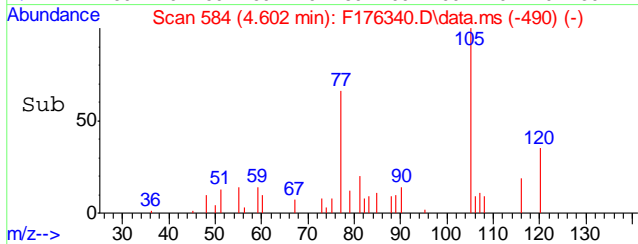
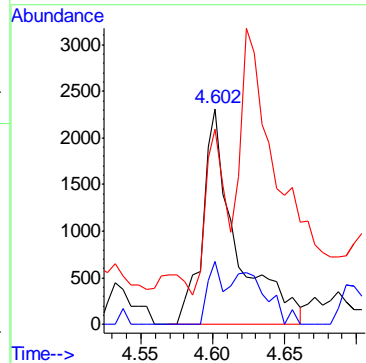
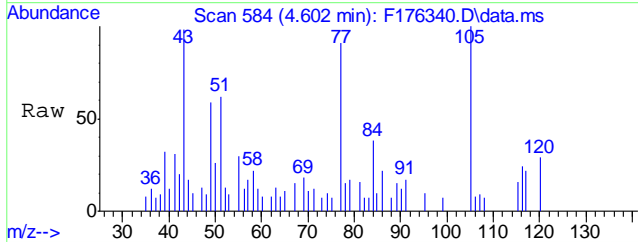
Quant Time: May 09 16:55:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 16:49:16 2018  
 Response via : Initial Calibration





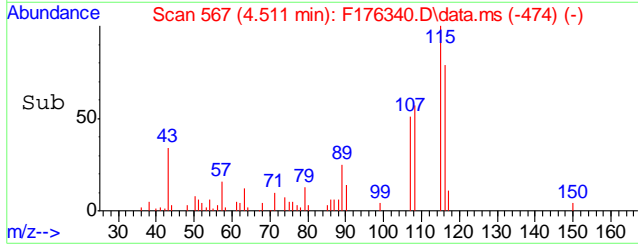
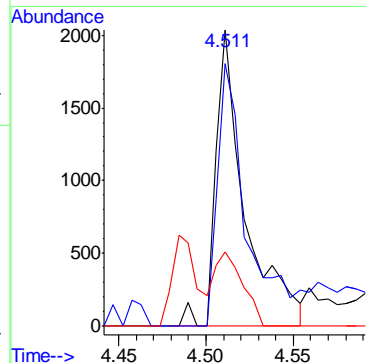
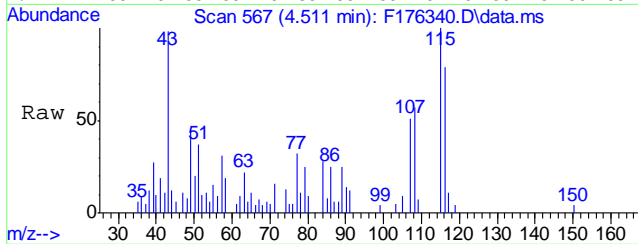
#18  
 Acetophenone  
 Concen: 1.07 ppm  
 RT: 4.602 min Scan# 584  
 Delta R.T. 0.001 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 105     | 3812 | 100   |       |
| 120     | 30.3 | 0.0   | 57.8  |
| 77      | 57.8 | 47.5  | 107.5 |

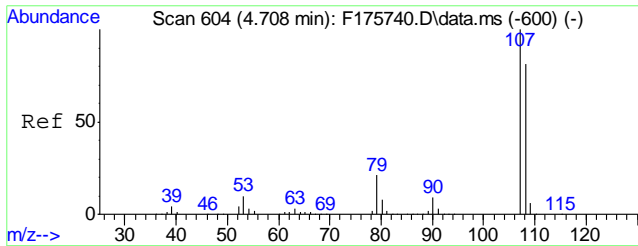


#19  
 2-Methylphenol  
 Concen: 0.97 ppm  
 RT: 4.511 min Scan# 567  
 Delta R.T. -0.001 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 108     | 2365 | 100   |       |
| 107     | 85.7 | 58.2  | 118.2 |
| 90      | 20.1 | 0.0   | 54.1  |

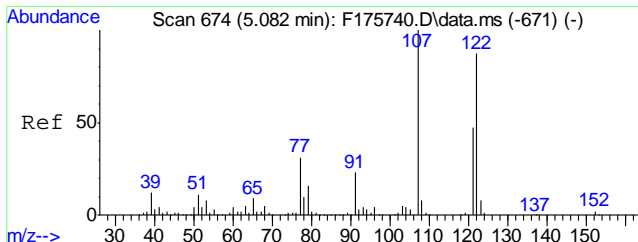
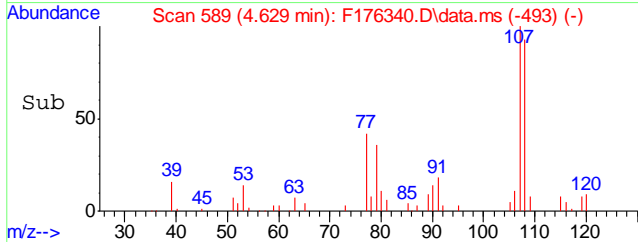
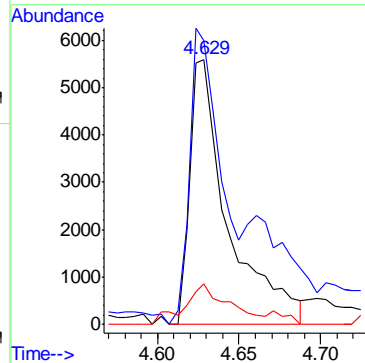
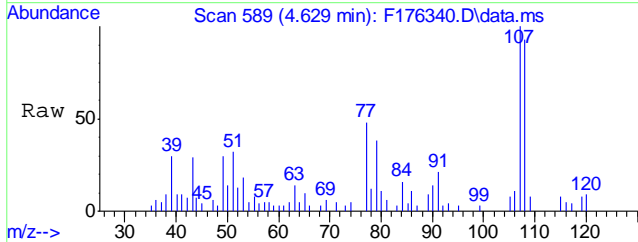


9.18  
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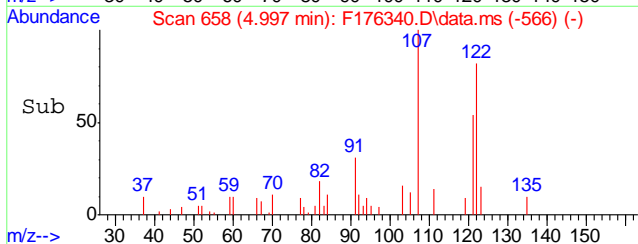
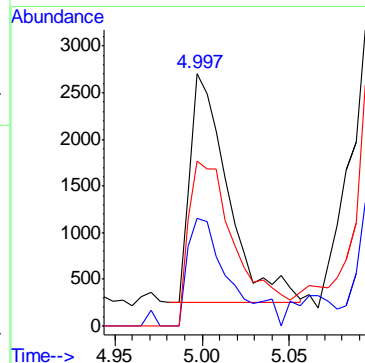
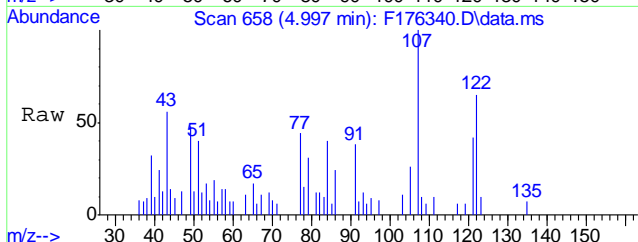
#21  
 3&4-Methylphenol  
 Concen: 3.57 ppm  
 RT: 4.629 min Scan# 589  
 Delta R.T. 0.012 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 9174  |       |       |
| 107     | 101.2 | 92.9  | 152.9 |
| 90      | 13.4  | 0.0   | 40.5  |

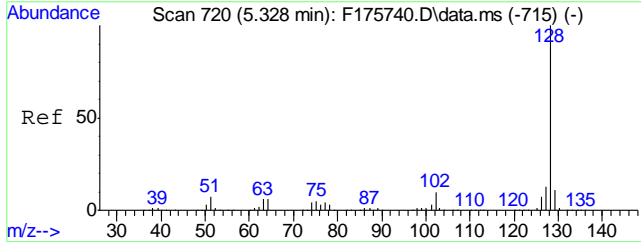


#30  
 2,4-Dimethylphenol  
 Concen: 1.63 ppm  
 RT: 4.997 min Scan# 658  
 Delta R.T. -0.009 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 107     | 3673 |       |       |
| 107     | 100  |       |       |
| 121     | 42.9 | 17.2  | 77.2  |
| 122     | 65.2 | 51.7  | 111.7 |

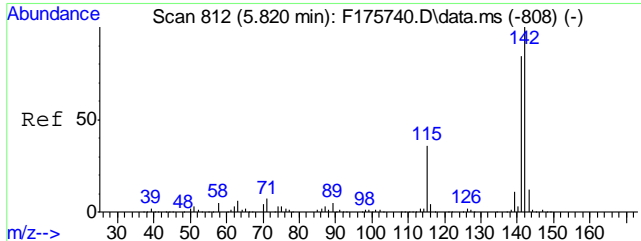
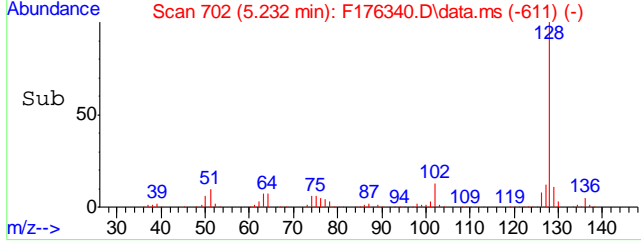
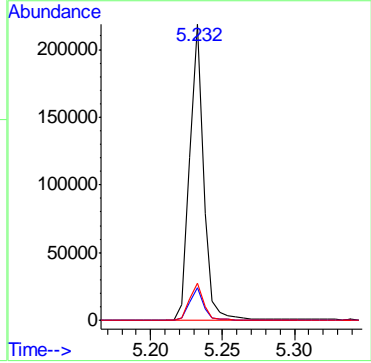
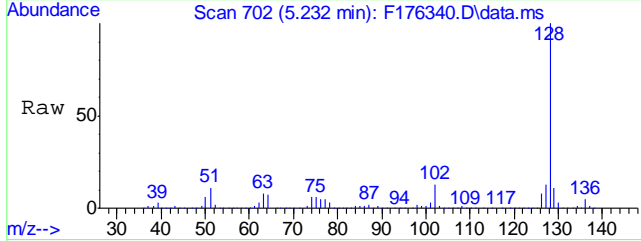


9.18  
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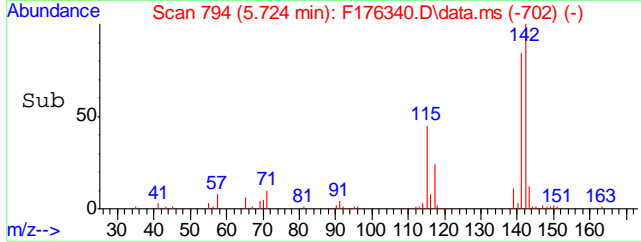
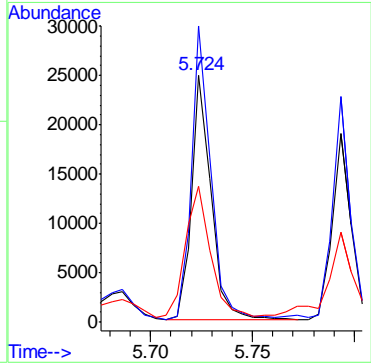
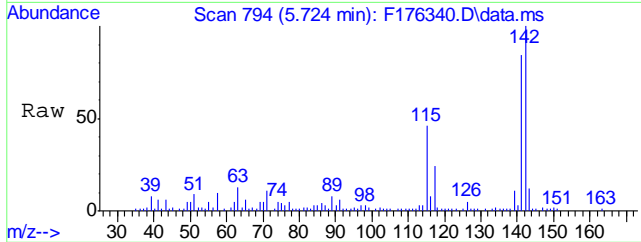
#38  
Naphthalene  
Concen: 19.48 ppm  
RT: 5.232 min Scan# 702  
Delta R.T. -0.016 min  
Lab File: F176340.D  
Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 148369 |       |       |
| 129     | 11.0   | 0.0   | 41.0  |
| 127     | 12.5   | 0.0   | 42.8  |

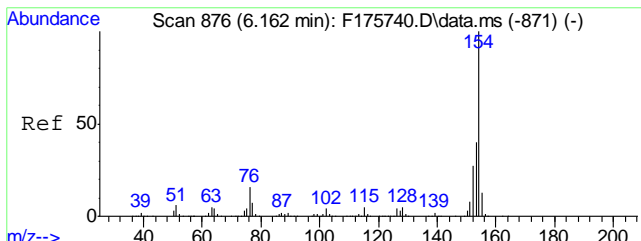


#44  
2-Methylnaphthalene  
Concen: 4.08 ppm  
RT: 5.724 min Scan# 794  
Delta R.T. -0.008 min  
Lab File: F176340.D  
Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 16738 |       |       |
| 142     | 119.1 | 88.6  | 148.6 |
| 115     | 50.8  | 12.3  | 72.3  |

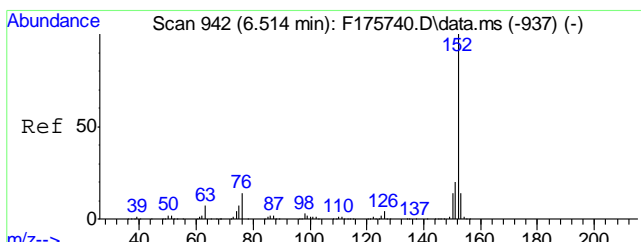
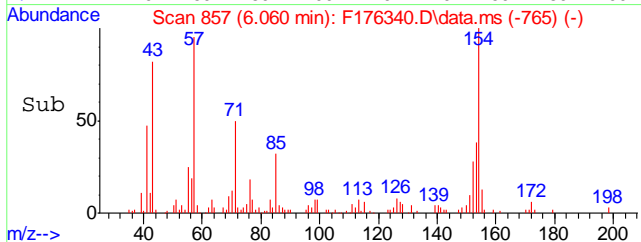
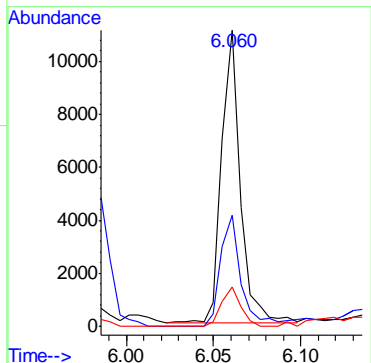
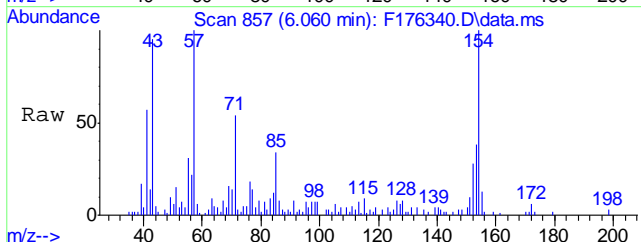






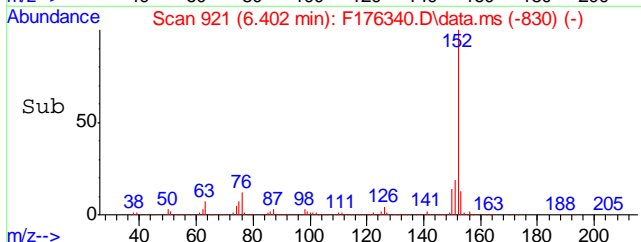
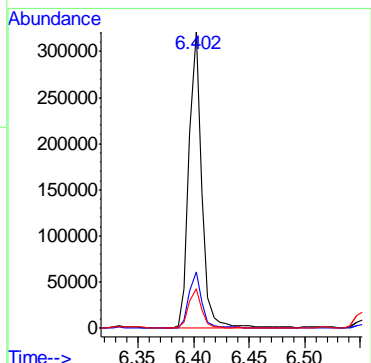
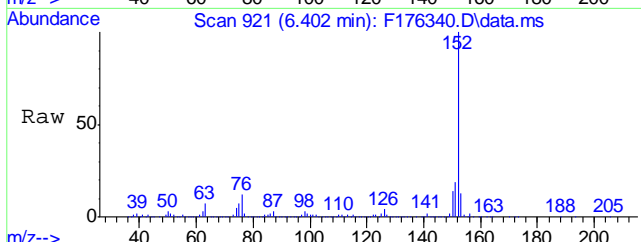
#53  
 Biphenyl  
 Concen: 1.52 ppm  
 RT: 6.060 min Scan# 857  
 Delta R.T. -0.007 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 36.8 | 9.8   | 69.8  |
| 155     | 13.6 | 0.0   | 43.0  |

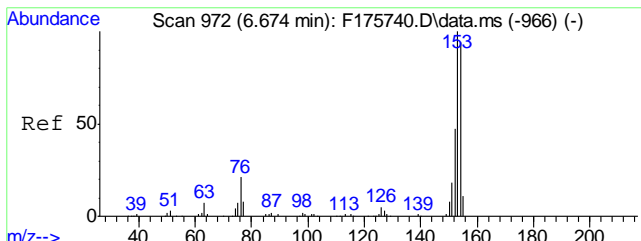


#56  
 Acenaphthylene  
 Concen: 39.40 ppm  
 RT: 6.402 min Scan# 921  
 Delta R.T. -0.013 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 19.0 | 0.0   | 49.6  |
| 153     | 13.3 | 0.0   | 43.6  |

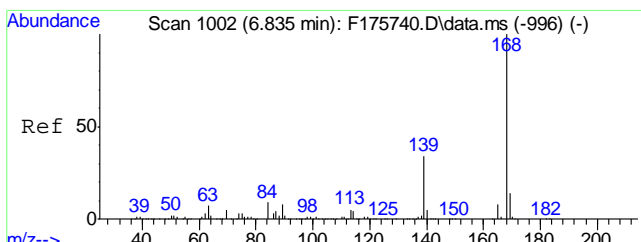
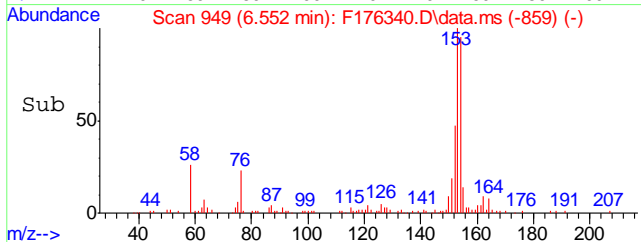
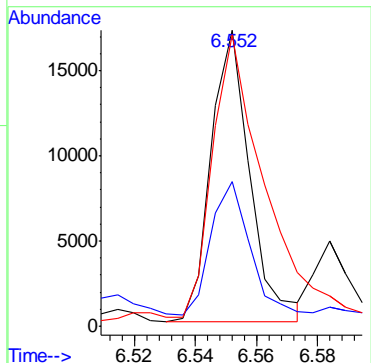
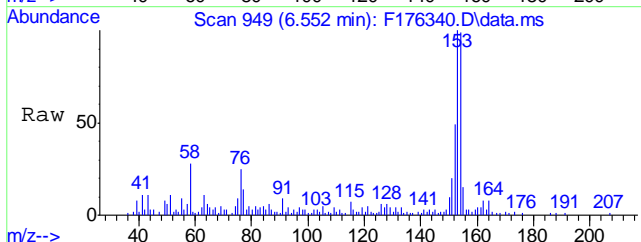


9.1.8  
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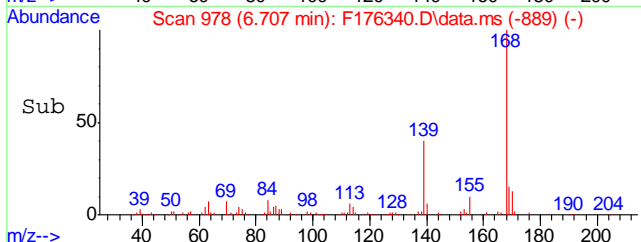
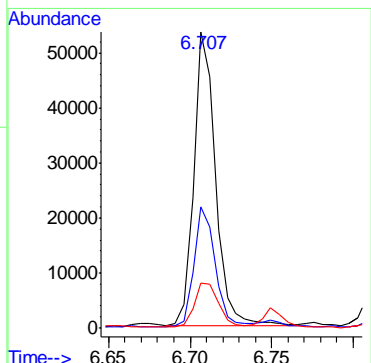
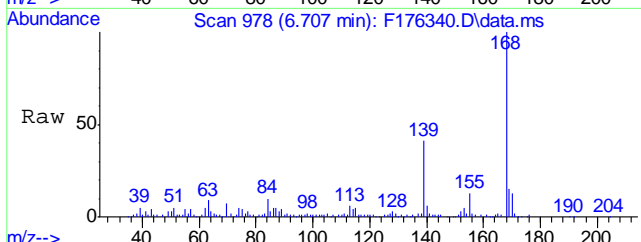
#59  
 Acenaphthene  
 Concen: 3.42 ppm  
 RT: 6.552 min Scan# 949  
 Delta R.T. -0.021 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

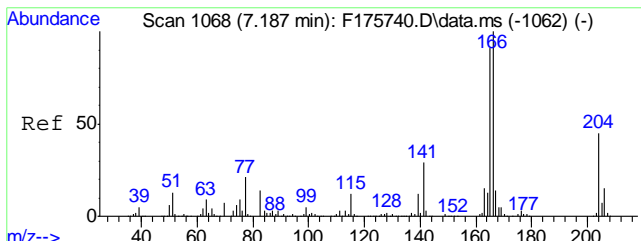
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 15075 | 100   |       |
| 152     | 46.6  | 16.7  | 76.7  |
| 154     | 92.4  | 64.1  | 124.1 |



#62  
 Dibenzofuran  
 Concen: 8.44 ppm  
 RT: 6.707 min Scan# 978  
 Delta R.T. -0.024 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 49840 | 100   |       |
| 139     | 40.7  | 5.7   | 65.7  |
| 169     | 15.0  | 0.0   | 43.7  |

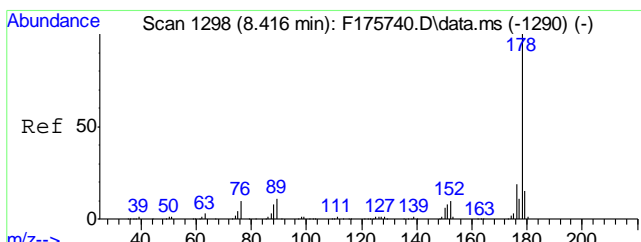
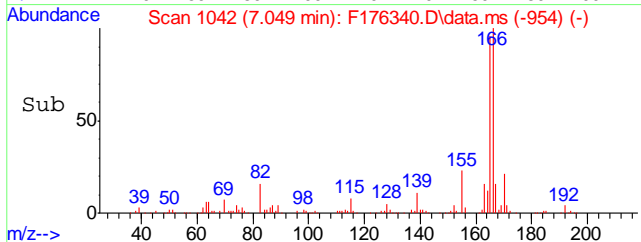
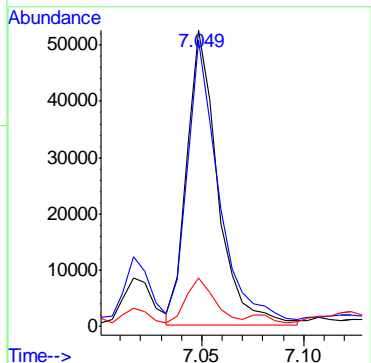
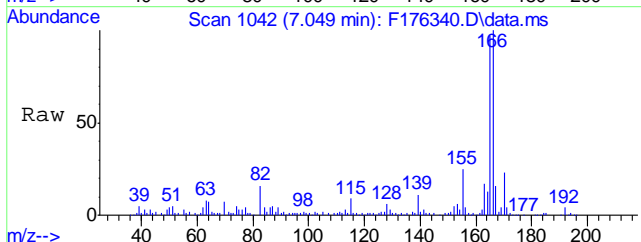




#66  
 Fluorene  
 Concen: 12.10 ppm  
 RT: 7.049 min Scan# 1042  
 Delta R.T. -0.029 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

Tgt Ion: 166 Resp: 55591

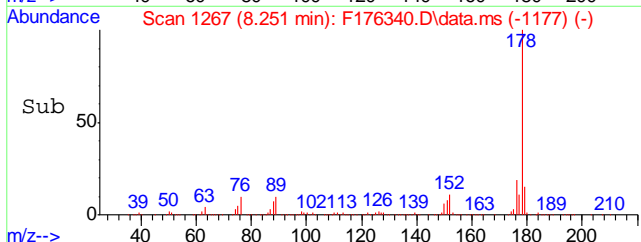
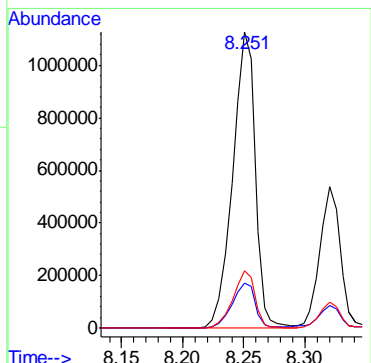
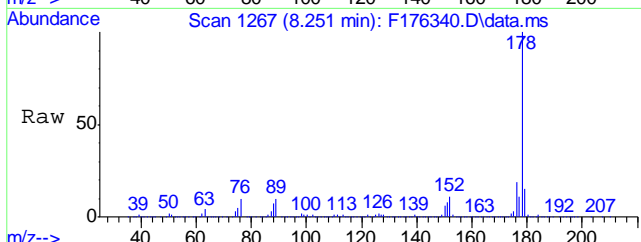
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 166 | 100   |       |       |
| 165 | 96.2  | 61.4  | 121.4 |
| 167 | 15.4  | 0.0   | 43.6  |

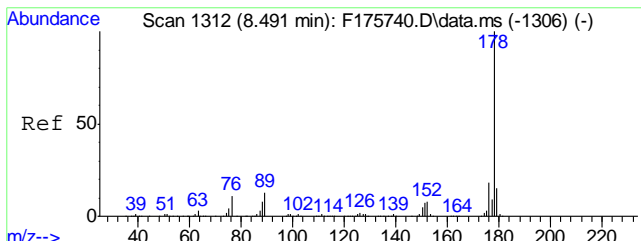


#77  
 Phenanthrene  
 Concen: 197.31 ppm  
 RT: 8.251 min Scan# 1267  
 Delta R.T. -0.021 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

Tgt Ion: 178 Resp: 1448716

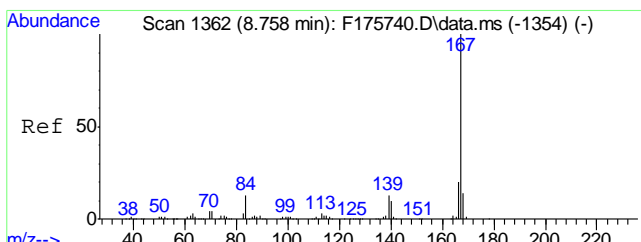
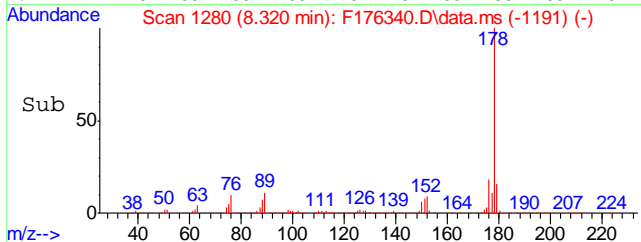
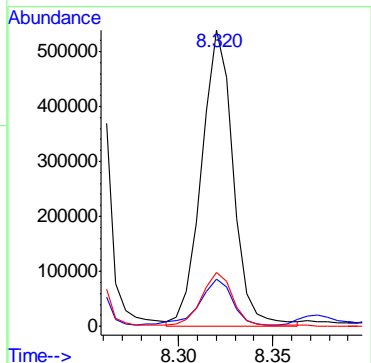
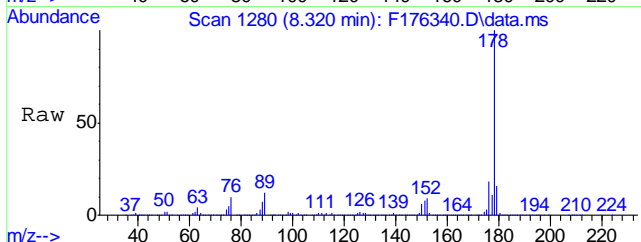
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 178 | 100   |       |       |
| 179 | 14.9  | 0.0   | 45.3  |
| 176 | 19.2  | 0.0   | 48.6  |





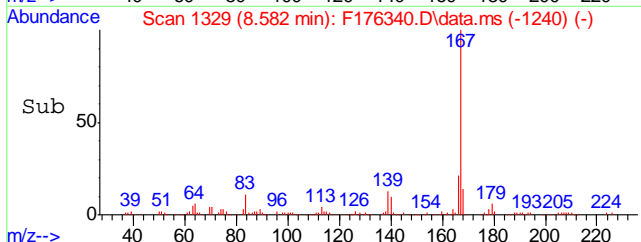
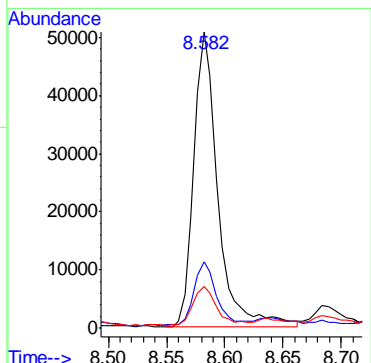
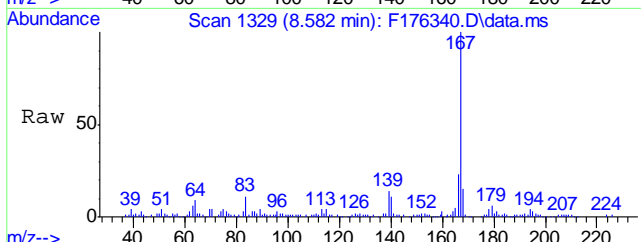
#78  
 Anthracene  
 Concen: 87.51 ppm  
 RT: 8.320 min Scan# 1280  
 Delta R.T. -0.025 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 627879 |       |       |
| 179     | 14.3   | 0.0   | 45.2  |
| 176     | 18.3   | 0.0   | 47.9  |

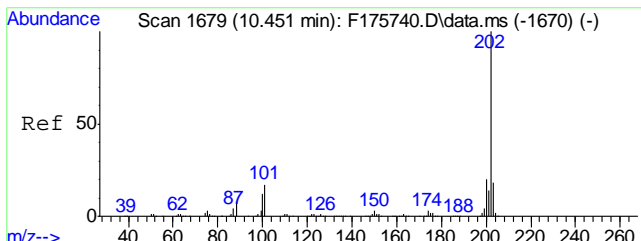


#79  
 Carbazole  
 Concen: 11.03 ppm  
 RT: 8.582 min Scan# 1329  
 Delta R.T. -0.025 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 72491 |       |       |
| 166     | 21.1  | 0.0   | 50.3  |
| 139     | 12.6  | 0.0   | 42.9  |

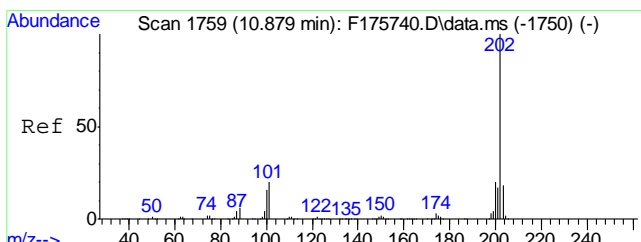
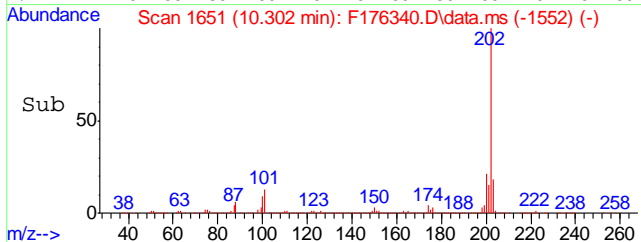
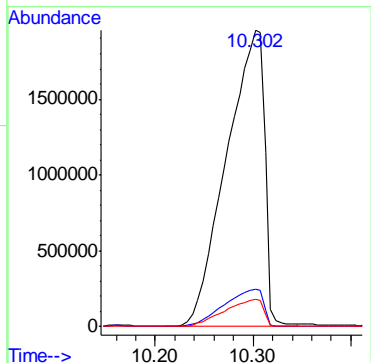
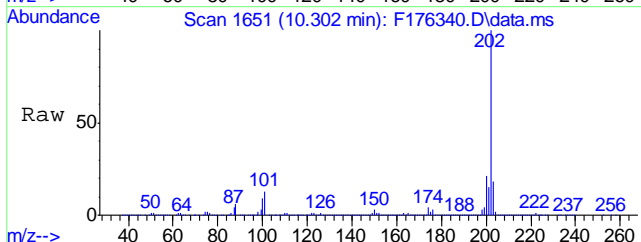


9.1.8  
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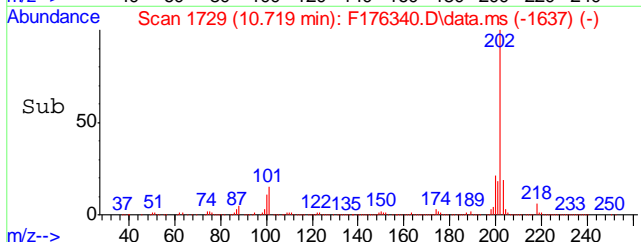
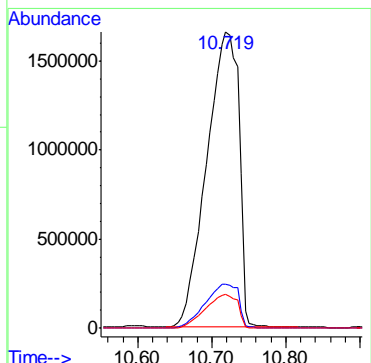
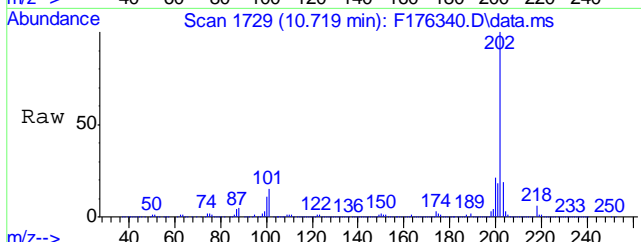
#81  
 Fluoranthene  
 Concen: 728.31 ppm  
 RT: 10.302 min Scan# 1651  
 Delta R.T. 0.030 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 5300498 |       |       |
| 101     | 12.6    | 0.0   | 47.3  |
| 100     | 9.0     | 0.0   | 42.4  |

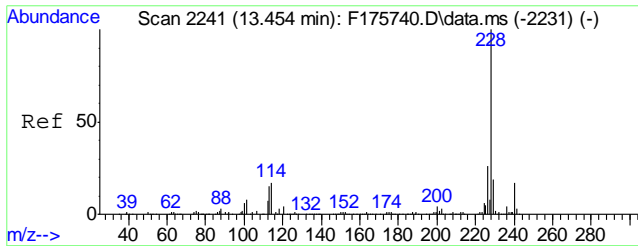


#84  
 Pyrene  
 Concen: 541.45 ppm  
 RT: 10.719 min Scan# 1729  
 Delta R.T. -0.009 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 5056158 |       |       |
| 101     | 14.8    | 0.0   | 50.0  |
| 100     | 11.2    | 0.0   | 45.6  |

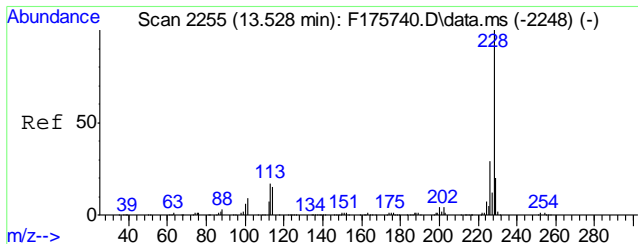
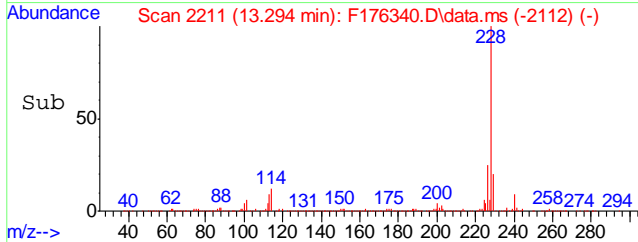
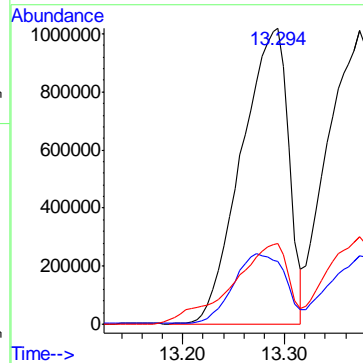
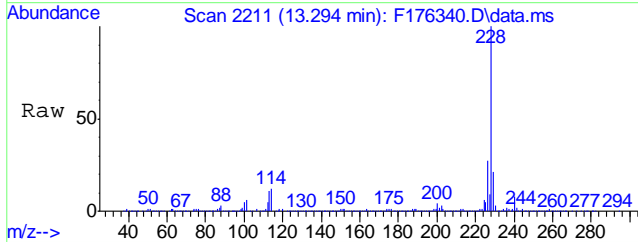


9.1.8  
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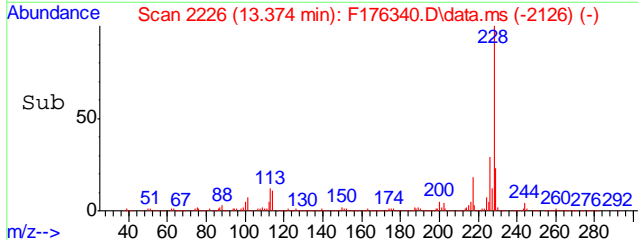
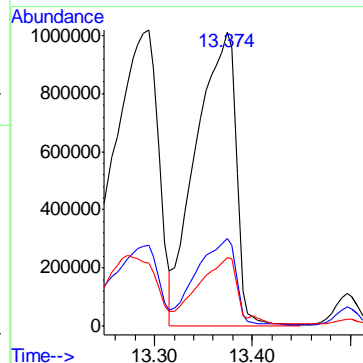
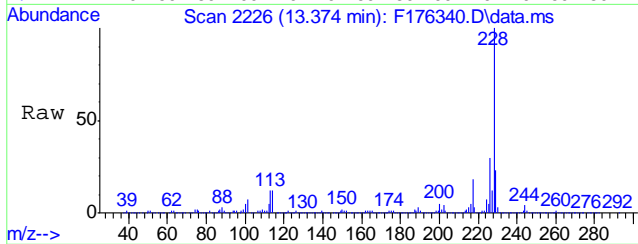
#87  
 Benzo[a]anthracene  
 Concen: 412.57 ppm  
 RT: 13.294 min Scan# 2211  
 Delta R.T. 0.027 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 3265593 |       |       |
| 229     | 20.3    | 0.0   | 48.8  |
| 226     | 26.3    | 0.0   | 55.4  |

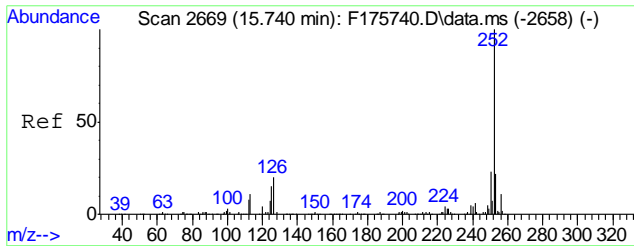


#89  
 Chrysene  
 Concen: 325.72 ppm  
 RT: 13.374 min Scan# 2226  
 Delta R.T. 0.033 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 2872057 |       |       |
| 226     | 29.9    | 0.0   | 59.2  |
| 229     | 22.5    | 0.0   | 49.9  |

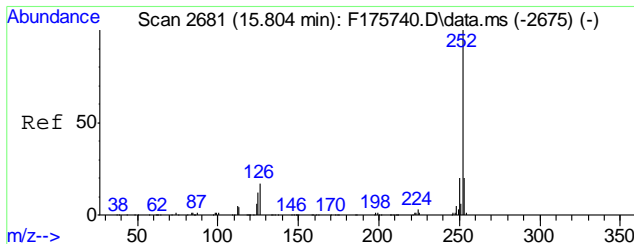
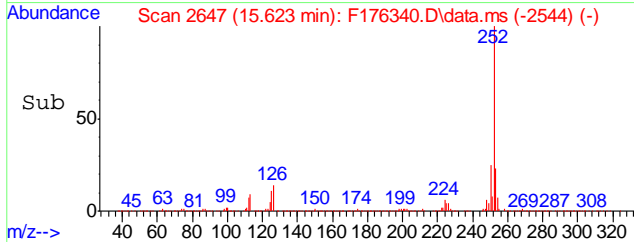
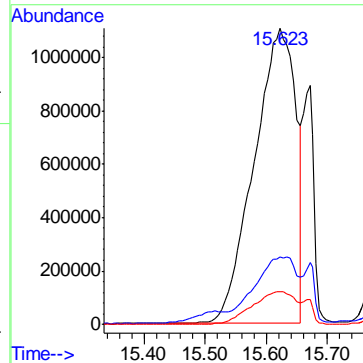
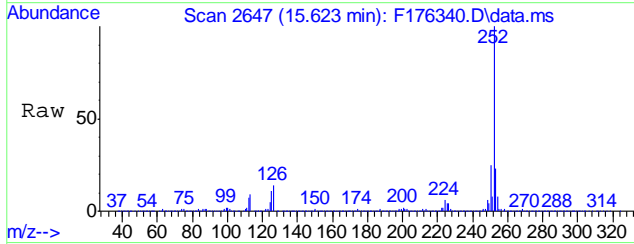


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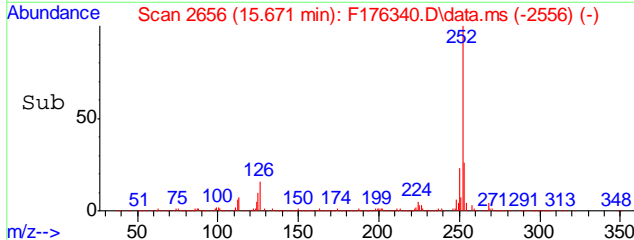
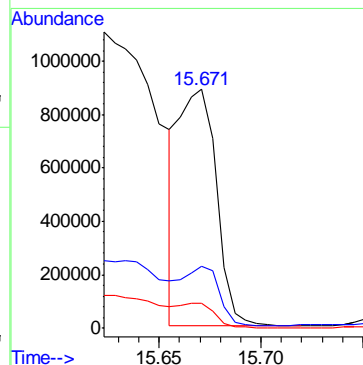
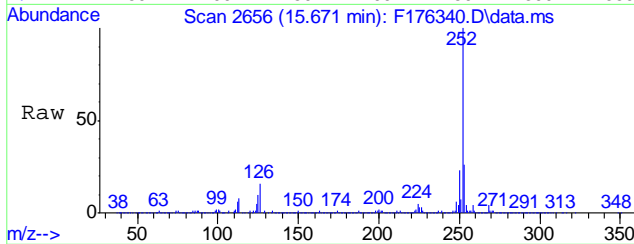
#93  
 Benzo[b]fluoranthene  
 Concen: 677.30 ppm  
 RT: 15.623 min Scan# 2647  
 Delta R.T. 0.051 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.9 | 0.0   | 51.4  |
| 125     | 10.9 | 0.0   | 43.6  |

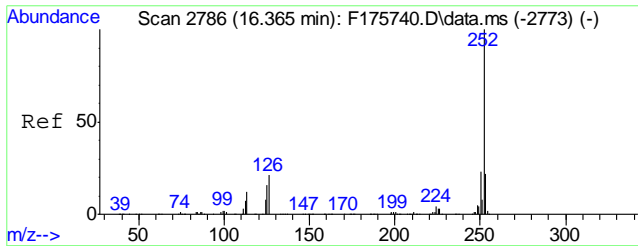


#94  
 Benzo[k]fluoranthene  
 Concen: 132.87 ppm  
 RT: 15.671 min Scan# 2656  
 Delta R.T. 0.036 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 27.0 | 0.0   | 51.4  |
| 125     | 9.6  | 0.0   | 43.3  |

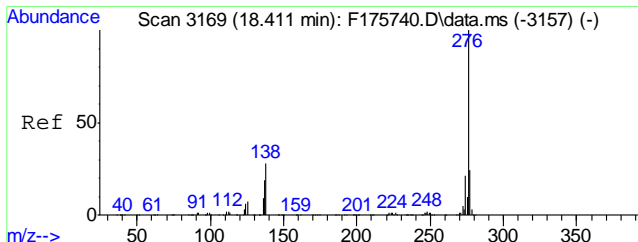
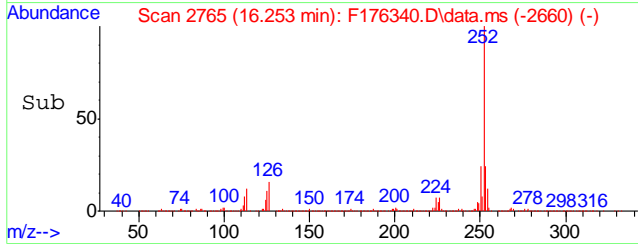
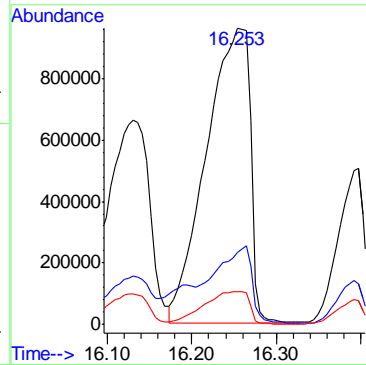
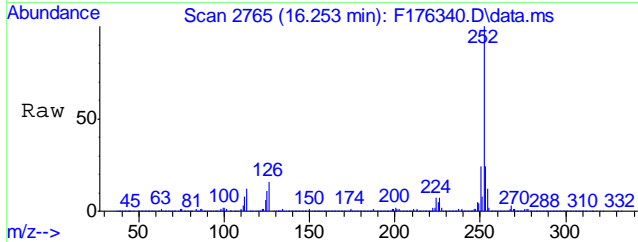


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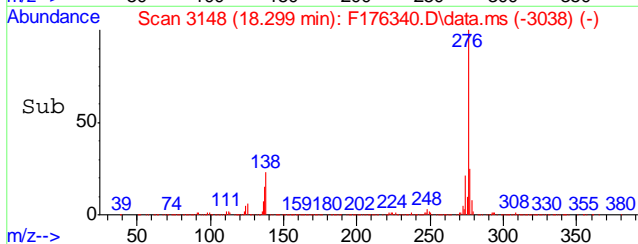
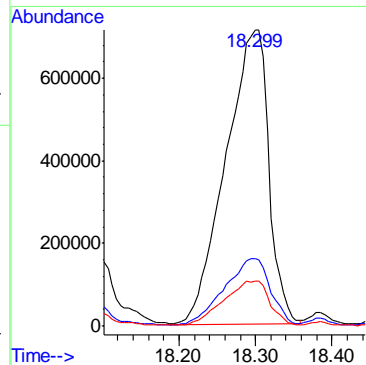
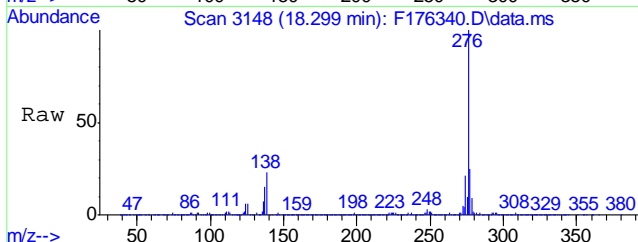
#95  
 Benzo[a]pyrene  
 Concen: 508.64 ppm  
 RT: 16.253 min Scan# 2765  
 Delta R.T. 0.063 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 19.6 | 0.0   | 51.9  |
| 125     | 11.1 | 0.0   | 45.6  |



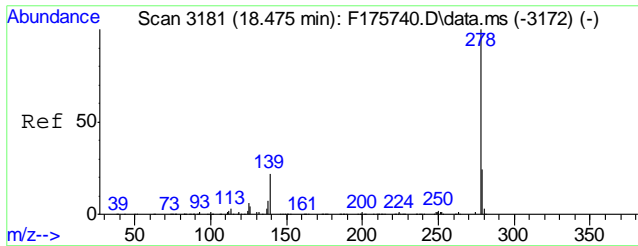
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 442.12 ppm  
 RT: 18.299 min Scan# 3148  
 Delta R.T. 0.085 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 22.4 | 0.0   | 56.5  |
| 137     | 14.9 | 0.0   | 48.3  |



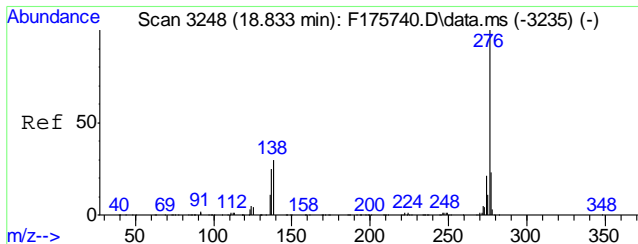
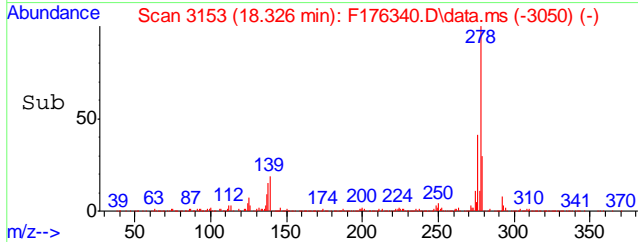
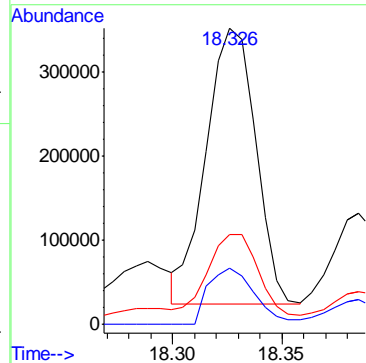
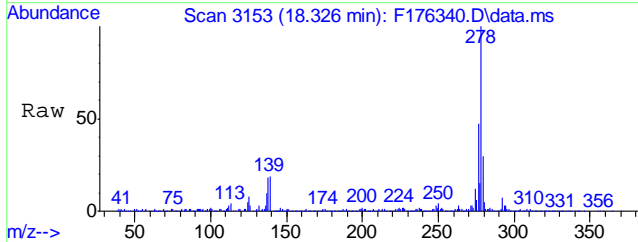
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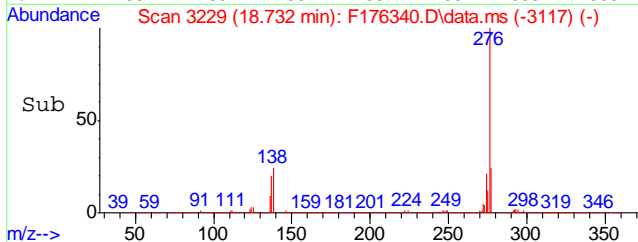
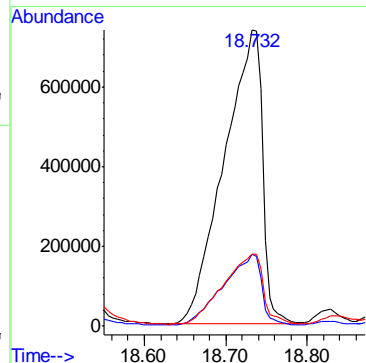
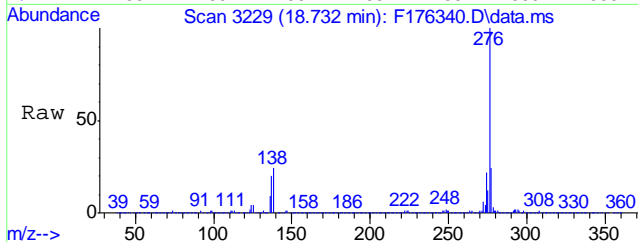
#98  
 Dibenz[a,h]anthracene  
 Concen: 69.67 ppm m  
 RT: 18.326 min Scan# 3153  
 Delta R.T. 0.048 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 514647 | 100   |       |
| 139     | 18.8   | 0.0   | 52.2  |
| 279     | 30.3   | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 329.89 ppm  
 RT: 18.732 min Scan# 3229  
 Delta R.T. 0.100 min  
 Lab File: F176340.D  
 Acq: 9 May 2018 3:44 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 276     | 2406124 | 100   |       |
| 138     | 24.0    | 0.0   | 59.8  |
| 277     | 23.9    | 0.0   | 52.8  |



9.1.8  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7515\  
 Data File : F176410.D  
 Acq On : 11 May 2018 4:33 am  
 Operator : chriss2  
 Sample : jc65058-6  
 Misc : op11647,ef7515,31.4,,,1,10  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 14 11:19:02 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7513.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 10 21:34:44 2018  
 Response via : Initial Calibration

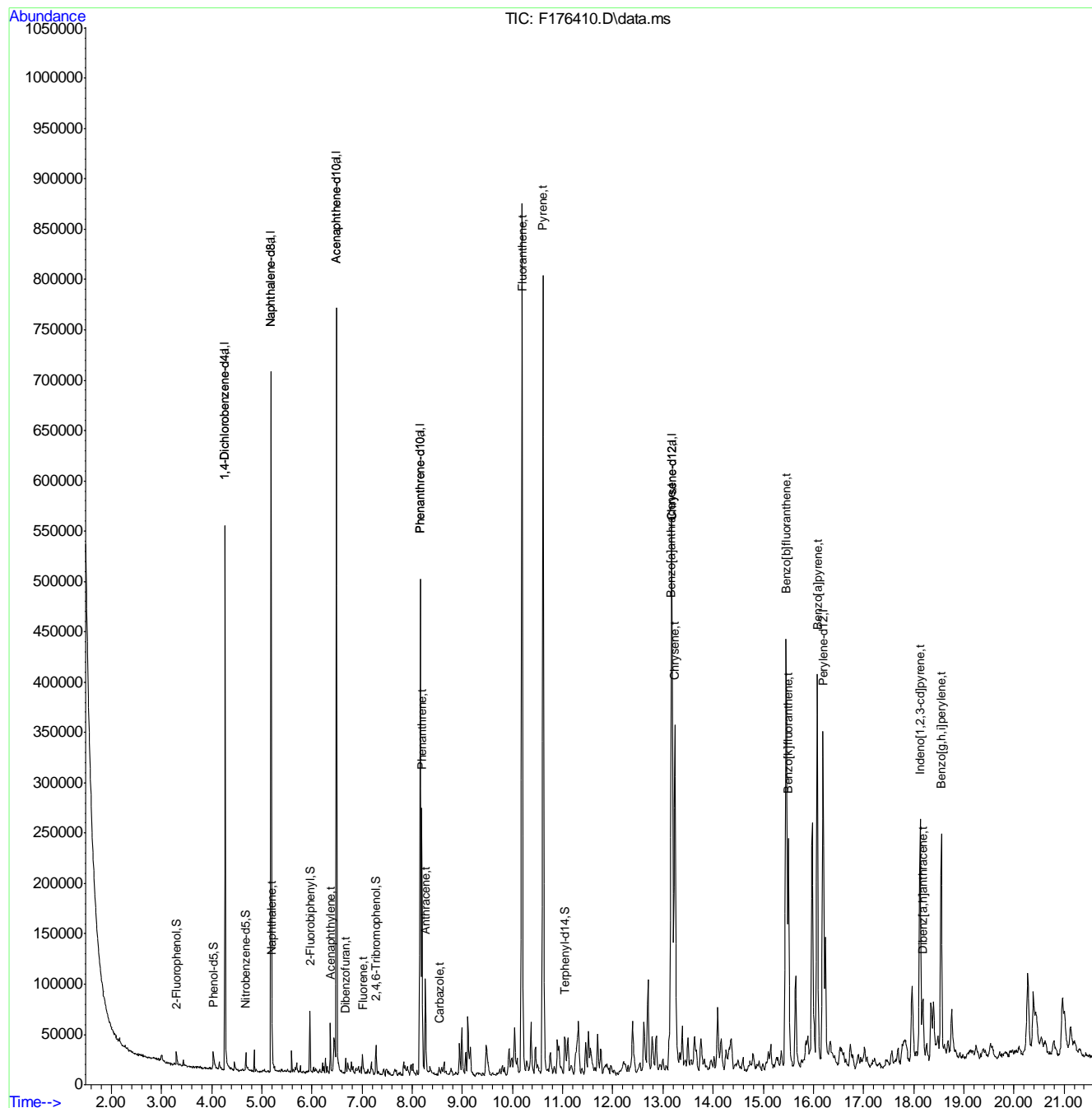
| Compound                     | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|-------|----------|--------|
| Internal Standards           |        |      |          |       |       |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.265  | 152  | 58132    | 40.00 | ppm   | -0.04    |        |
| 24) Naphthalene-d8           | 5.184  | 136  | 241763   | 40.00 | ppm   | -0.05    |        |
| 47) Acenaphthene-d10         | 6.488  | 164  | 126477   | 40.00 | ppm   | -0.05    |        |
| 69) Phenanthrene-d10         | 8.160  | 188  | 237197   | 40.00 | ppm   | -0.07    |        |
| 83) Chrysene-d12             | 13.187 | 240  | 230997   | 40.00 | ppm   | -0.10    |        |
| 91) Perylene-d12             | 16.195 | 264  | 229217   | 40.00 | ppm   | -0.11    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.265  | 152  | 58132    | 40.00 | ppm   | -0.02    |        |
| 103) Phenanthrene-d10a       | 8.160  | 188  | 237197   | 40.00 | ppm   | -0.03    |        |
| 105) Chrysene-d12a           | 13.187 | 240  | 230997   | 40.00 | ppm   | -0.04    |        |
| 107) Naphthalene-d8a         | 5.184  | 136  | 241763   | 40.00 | ppm   | -0.02    |        |
| 109) Acenaphthene-d10a       | 6.488  | 164  | 126477   | 40.00 | ppm   | -0.02    |        |
| System Monitoring Compounds  |        |      |          |       |       |          |        |
| 5) 2-Fluorophenol            | 3.298  | 112  | 5808     | 3.43  | ppm   | -0.06    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.86% |          |        |
| 8) Phenol-d5                 | 4.036  | 99   | 7764     | 3.20  | ppm   | -0.04    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.40% |          |        |
| 25) Nitrobenzene-d5          | 4.682  | 82   | 8575     | 3.26  | ppm   | -0.04    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.52% |          |        |
| 51) 2-Fluorobiphenyl         | 5.959  | 172  | 15911    | 3.32  | ppm   | -0.04    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.64% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.278  | 330  | 2403     | 3.80  | ppm   | -0.06    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 7.60% |          |        |
| 85) Terphenyl-d14            | 11.039 | 244  | 16823    | 3.21  | ppm   | -0.12    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 6.42% |          |        |
| Target Compounds             |        |      |          |       |       |          |        |
|                              |        |      |          |       |       |          | Qvalue |
| 38) Naphthalene              | 5.200  | 128  | 12408    | 1.87  | ppm   |          | 98     |
| 56) Acenaphthylene           | 6.370  | 152  | 18446    | 3.07  | ppm   |          | 99     |
| 62) Dibenzofuran             | 6.675  | 168  | 4427     | 0.81  | ppm   |          | 94     |
| 66) Fluorene                 | 7.011  | 166  | 4969     | 1.16  | ppm   |          | 94     |
| 77) Phenanthrene             | 8.192  | 178  | 125014   | 18.28 | ppm   |          | 100    |
| 78) Anthracene               | 8.261  | 178  | 51570    | 7.72  | ppm   |          | 96     |
| 79) Carbazole                | 8.534  | 167  | 5829     | 0.95  | ppm   |          | 93     |
| 81) Fluoranthene             | 10.195 | 202  | 515446   | 76.03 | ppm   |          | 89     |
| 84) Pyrene                   | 10.612 | 202  | 484814   | 63.25 | ppm   |          | 88     |
| 87) Benzo[a]anthracene       | 13.165 | 228  | 263386   | 40.54 | ppm   |          | 98     |
| 89) Chrysene                 | 13.240 | 228  | 240394   | 33.21 | ppm   |          | 98     |
| 93) Benzo[b]fluoranthene     | 15.457 | 252  | 365650   | 61.31 | ppm   |          | 96     |
| 94) Benzo[k]fluoranthene     | 15.505 | 252  | 127299   | 19.36 | ppm   |          | 97     |
| 95) Benzo[a]pyrene           | 16.077 | 252  | 258301   | 49.24 | ppm   |          | 94     |
| 96) Indeno[1,2,3-cd]pyrene   | 18.128 | 276  | 193692   | 39.64 | ppm   |          | 90     |
| 98) Dibenz[a,h]anthracene    | 18.182 | 278  | 32432m   | 5.68  | ppm   |          |        |
| 100) Benzo[g,h,i]perylene    | 18.550 | 276  | 169624   | 30.10 | ppm   |          | 90     |

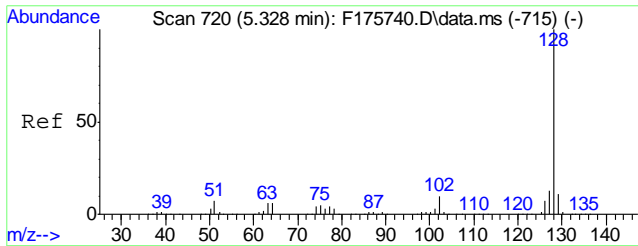
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EF7515\  
 Data File : F176410.D  
 Acq On : 11 May 2018 4:33 am  
 Operator : chriss2  
 Sample : jc65058-6  
 Misc : op11647,ef7515,31.4,,,1,10  
 ALS Vial : 8 Sample Multiplier: 1

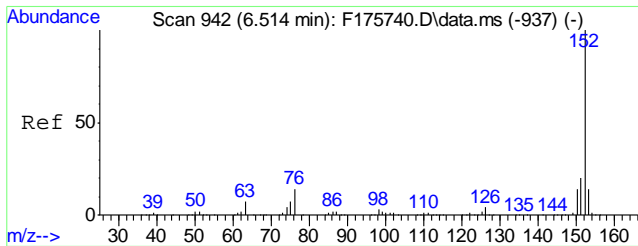
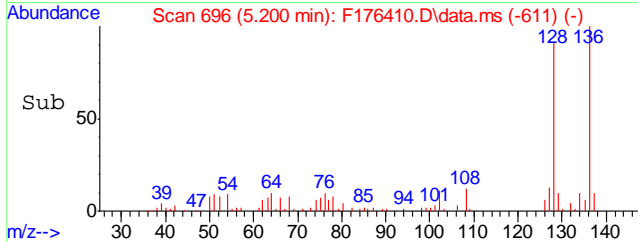
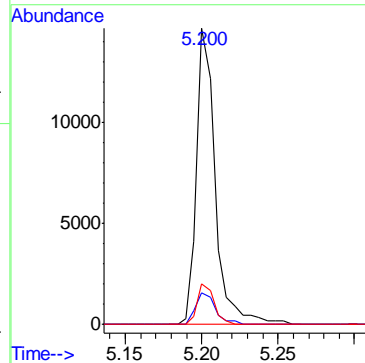
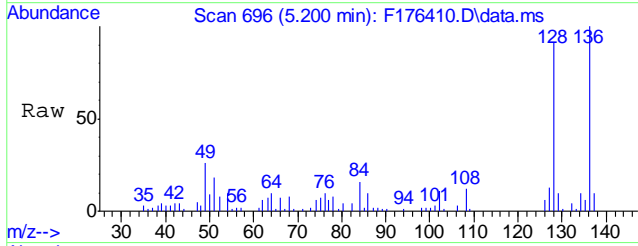
Quant Time: May 14 11:19:02 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7513.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Thu May 10 21:34:44 2018  
 Response via : Initial Calibration





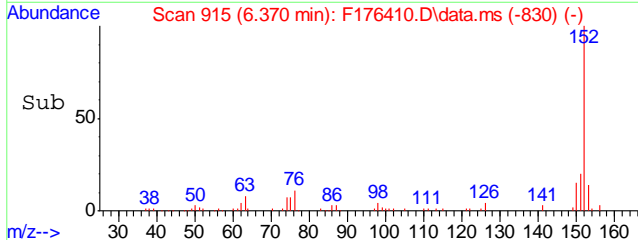
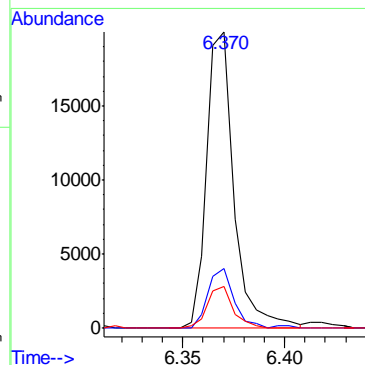
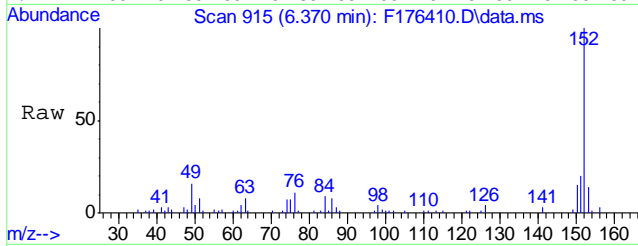
#38  
 Naphthalene  
 Concen: 1.87 ppm  
 RT: 5.200 min Scan# 696  
 Delta R.T. -0.048 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 12408 | 100   |       |
| 129     | 10.6  | 0.0   | 41.0  |
| 127     | 13.8  | 0.0   | 42.8  |

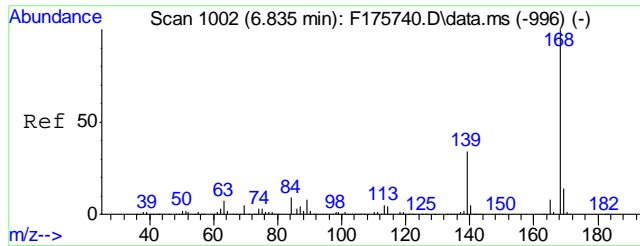


#56  
 Acenaphthylene  
 Concen: 3.07 ppm  
 RT: 6.370 min Scan# 915  
 Delta R.T. -0.045 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 18446 | 100   |       |
| 151     | 20.3  | 0.0   | 49.6  |
| 153     | 14.0  | 0.0   | 43.6  |

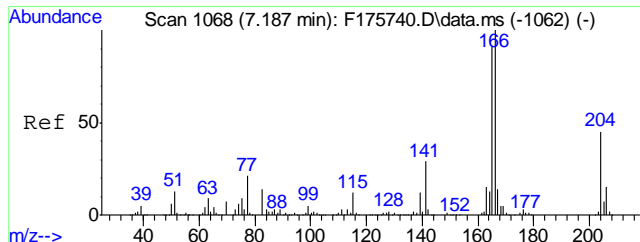
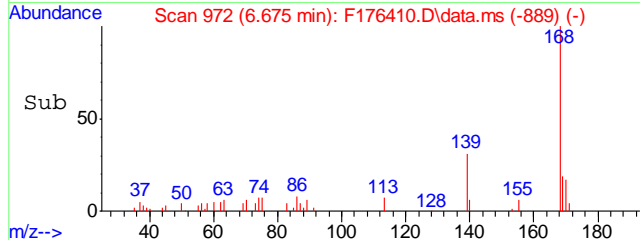
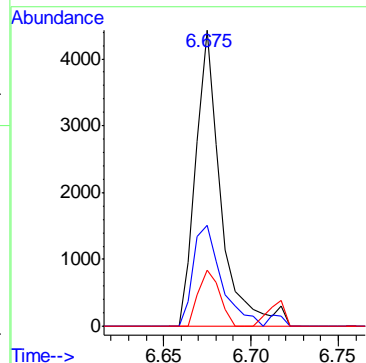
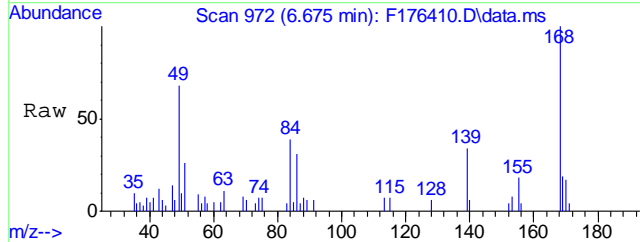


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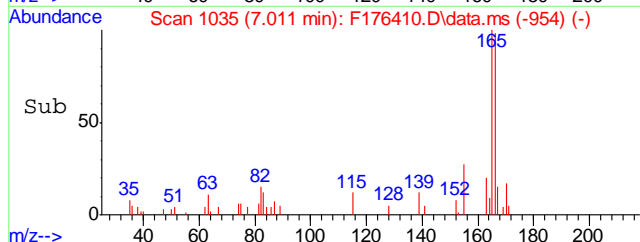
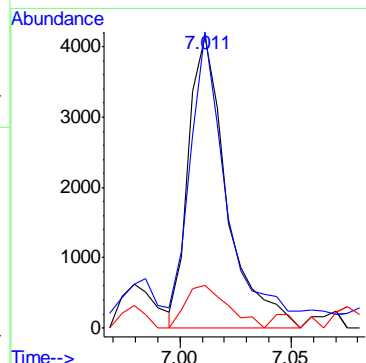
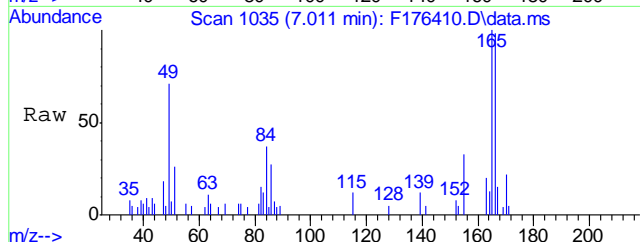
#62  
 Dibenzofuran  
 Concen: 0.81 ppm  
 RT: 6.675 min Scan# 972  
 Delta R.T. -0.056 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 4427 | 100   |       |
| 139     | 34.2 | 5.7   | 65.7  |
| 169     | 19.1 | 0.0   | 43.7  |

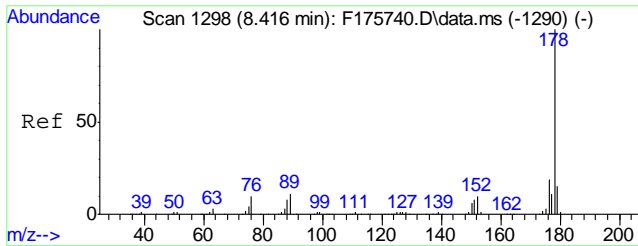


#66  
 Fluorene  
 Concen: 1.16 ppm  
 RT: 7.011 min Scan# 1035  
 Delta R.T. -0.066 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 4969 | 100   |       |
| 165     | 97.9 | 61.4  | 121.4 |
| 167     | 15.2 | 0.0   | 43.6  |

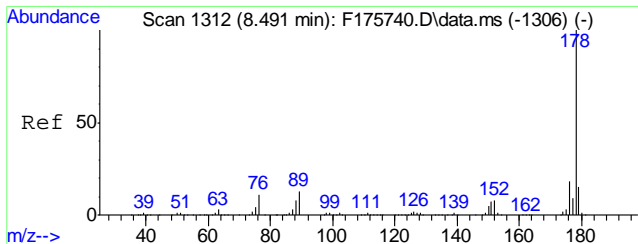
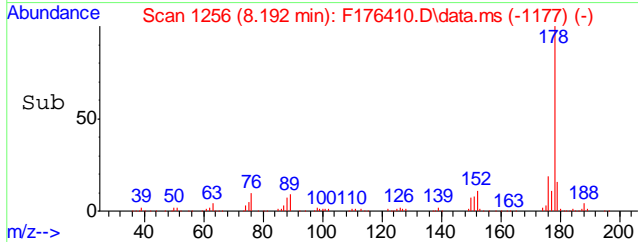
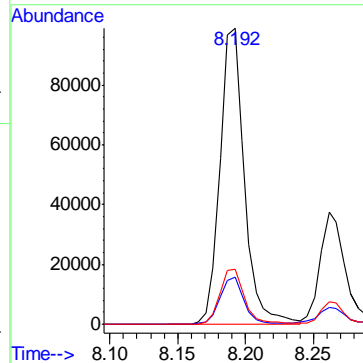
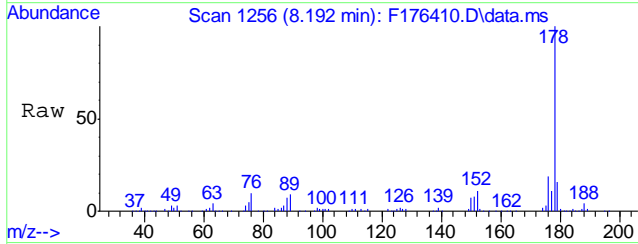


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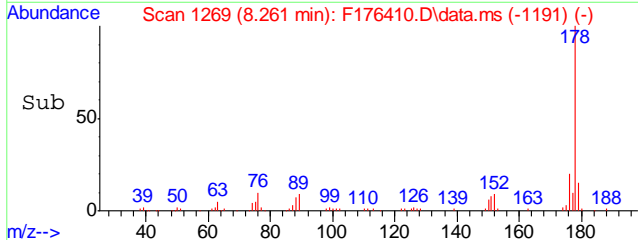
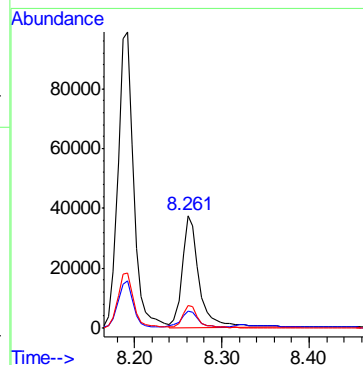
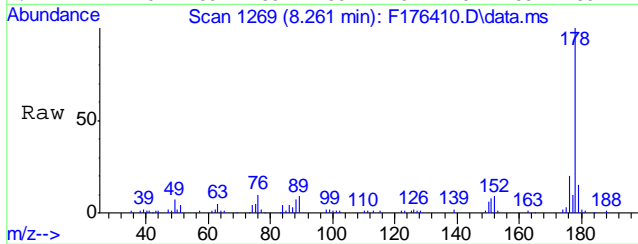
#77  
 Phenanthrene  
 Concen: 18.28 ppm  
 RT: 8.192 min Scan# 1256  
 Delta R.T. -0.079 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 125014 |       |       |
| 179     | 15.6   | 0.0   | 45.3  |
| 176     | 18.6   | 0.0   | 48.6  |

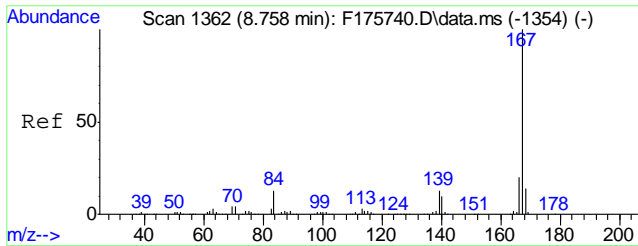


#78  
 Anthracene  
 Concen: 7.72 ppm  
 RT: 8.261 min Scan# 1269  
 Delta R.T. -0.083 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 51570 |       |       |
| 179     | 13.7  | 0.0   | 45.2  |
| 176     | 19.6  | 0.0   | 47.9  |

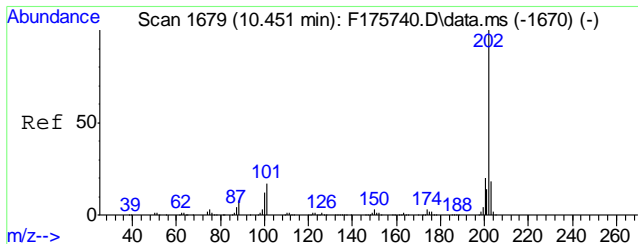
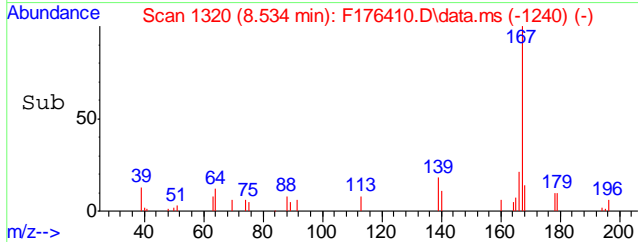
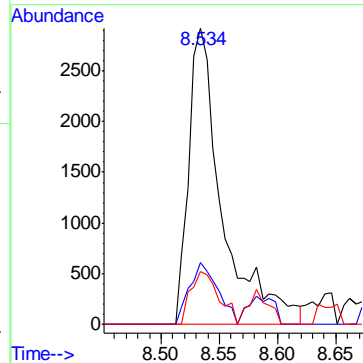
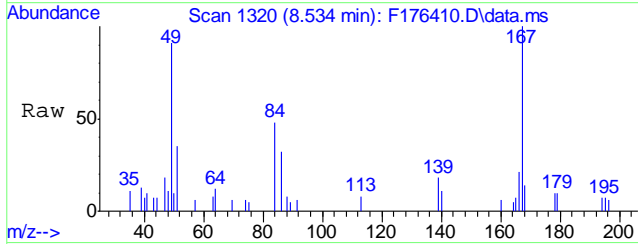


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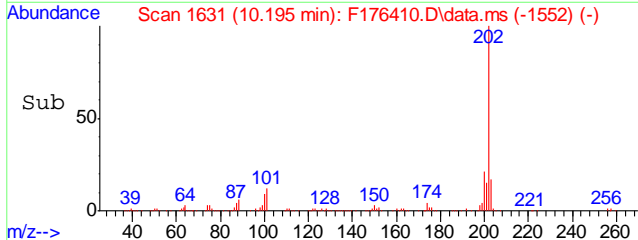
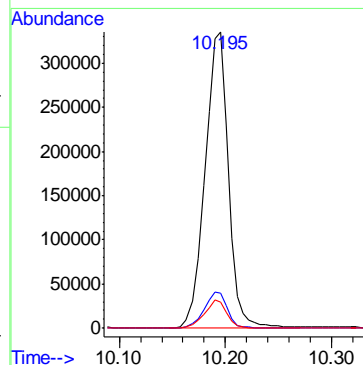
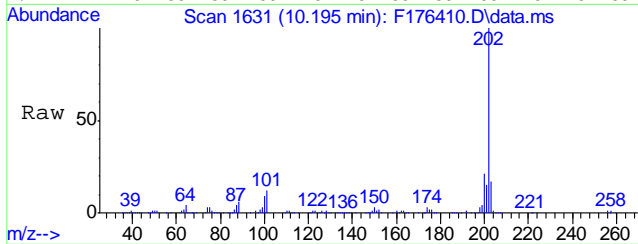
#79  
 Carbazole  
 Concen: 0.95 ppm  
 RT: 8.534 min Scan# 1320  
 Delta R.T. -0.073 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 5829 | 100   |       |
| 166     | 21.3 | 0.0   | 50.3  |
| 139     | 18.5 | 0.0   | 42.9  |

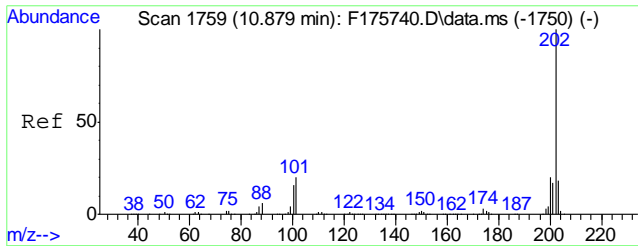


#81  
 Fluoranthene  
 Concen: 76.03 ppm  
 RT: 10.195 min Scan# 1631  
 Delta R.T. -0.076 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 515446 | 100   |       |
| 101     | 11.6   | 0.0   | 47.3  |
| 100     | 8.9    | 0.0   | 42.4  |

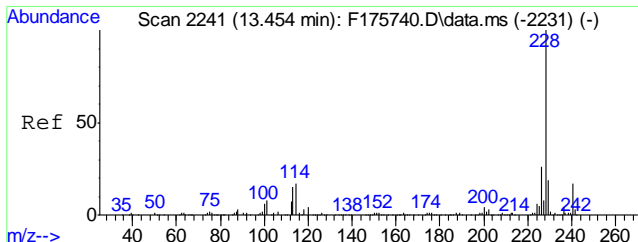
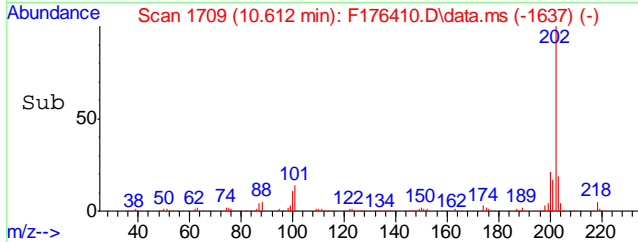
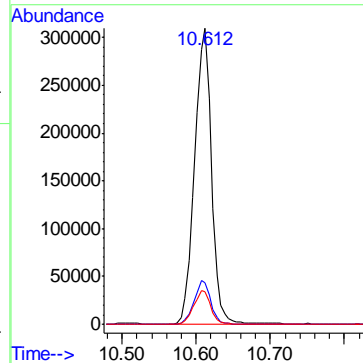
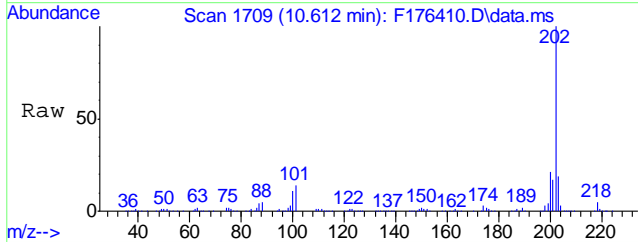


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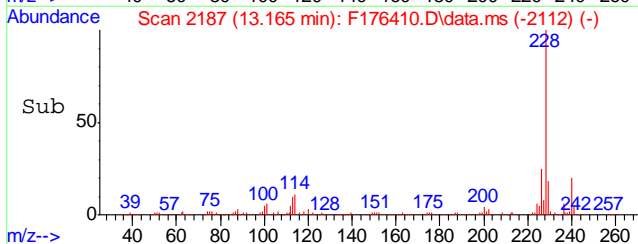
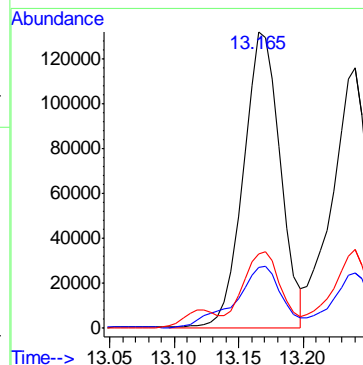
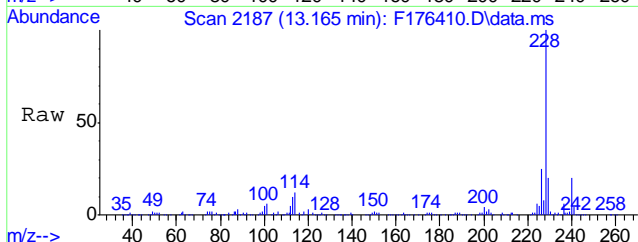
#84  
 Pyrene  
 Concen: 63.25 ppm  
 RT: 10.612 min Scan# 1709  
 Delta R.T. -0.116 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 484814 |       |       |
| 101     | 14.2   | 0.0   | 50.0  |
| 100     | 11.1   | 0.0   | 45.6  |



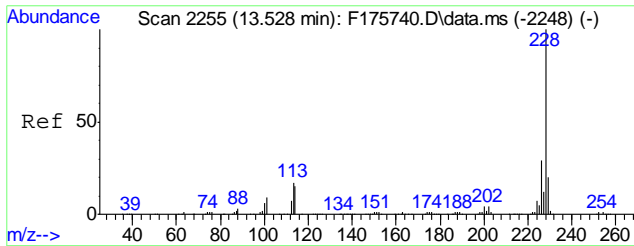
#87  
 Benzo[a]anthracene  
 Concen: 40.54 ppm  
 RT: 13.165 min Scan# 2187  
 Delta R.T. -0.102 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 263386 |       |       |
| 229     | 19.8   | 0.0   | 48.8  |
| 226     | 24.6   | 0.0   | 55.4  |



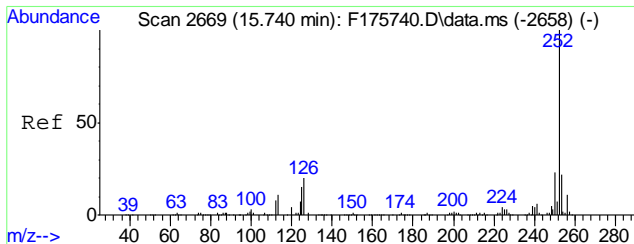
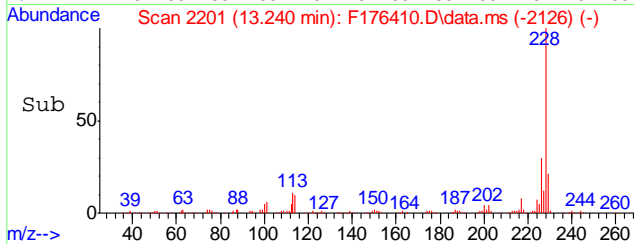
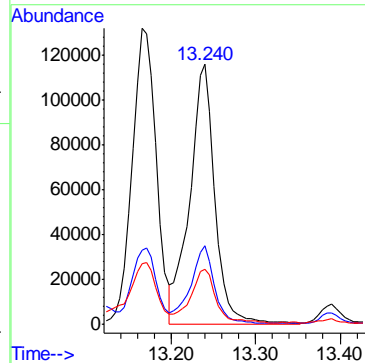
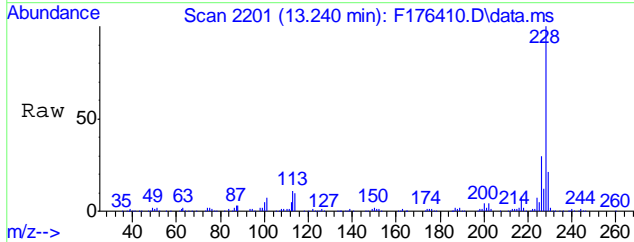
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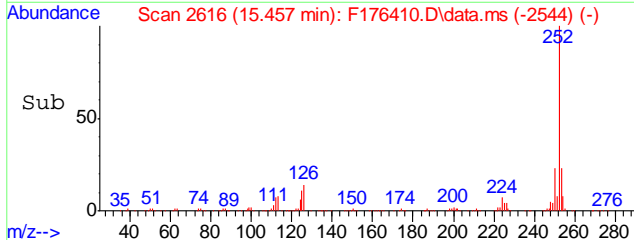
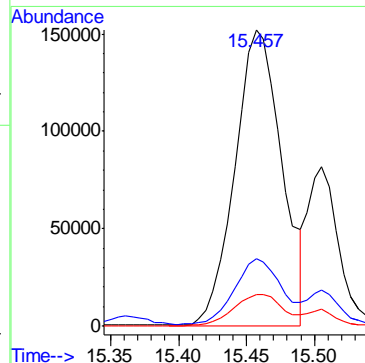
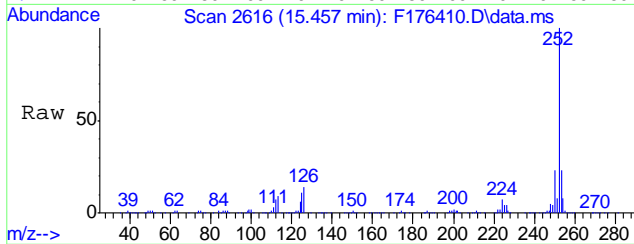
#89  
 Chrysene  
 Concen: 33.21 ppm  
 RT: 13.240 min Scan# 2201  
 Delta R.T. -0.101 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 240394 |       |       |
| 226     | 30.2   | 0.0   | 59.2  |
| 229     | 20.3   | 0.0   | 49.9  |

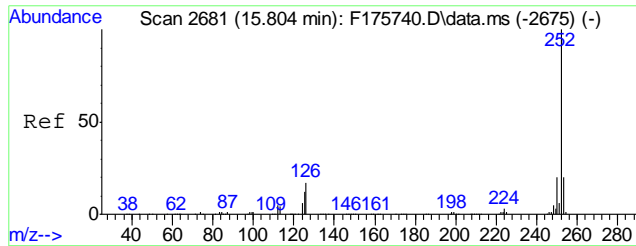


#93  
 Benzo[b]fluoranthene  
 Concen: 61.31 ppm  
 RT: 15.457 min Scan# 2616  
 Delta R.T. -0.115 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 365650 |       |       |
| 253     | 22.0   | 0.0   | 51.4  |
| 125     | 10.4   | 0.0   | 43.6  |

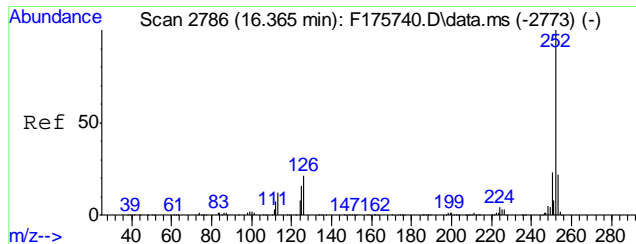
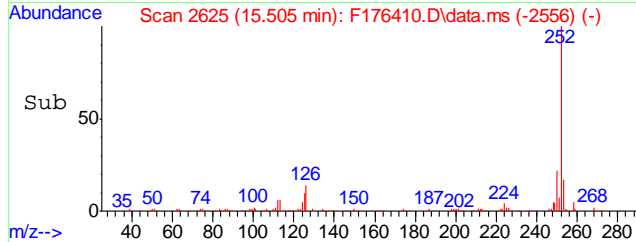
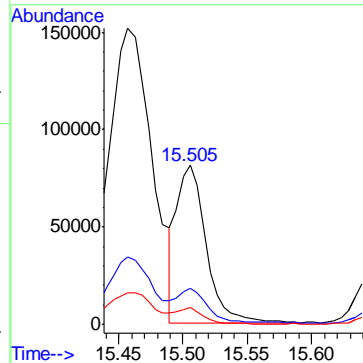
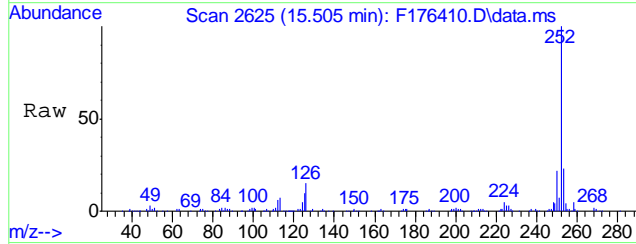


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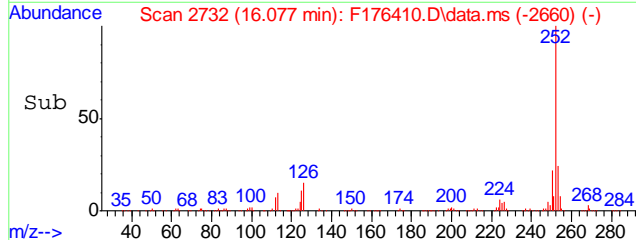
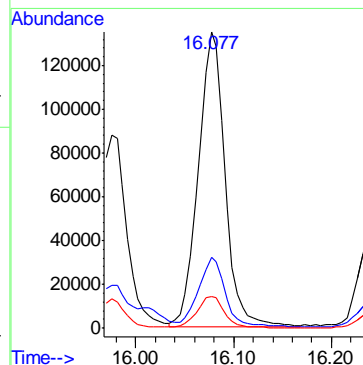
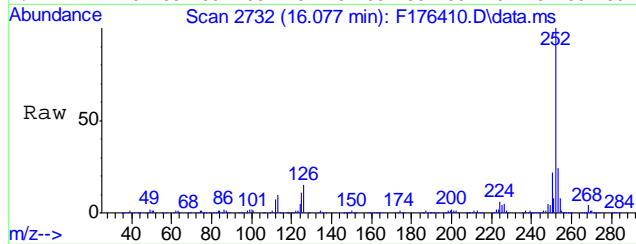
#94  
 Benzo[k]fluoranthene  
 Concen: 19.36 ppm  
 RT: 15.505 min Scan# 2625  
 Delta R.T. -0.130 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

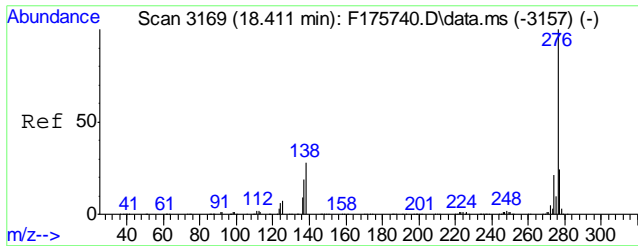
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 127299 |       |       |
| 253     | 21.4   | 0.0   | 51.4  |
| 125     | 9.7    | 0.0   | 43.3  |



#95  
 Benzo[a]pyrene  
 Concen: 49.24 ppm  
 RT: 16.077 min Scan# 2732  
 Delta R.T. -0.113 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

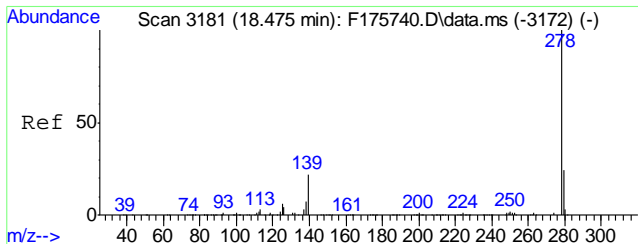
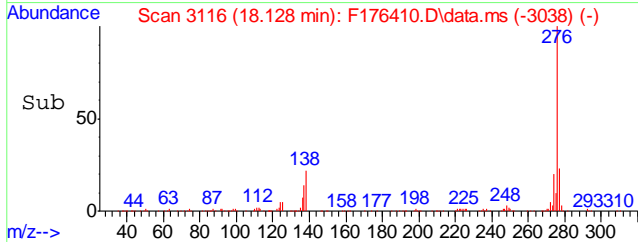
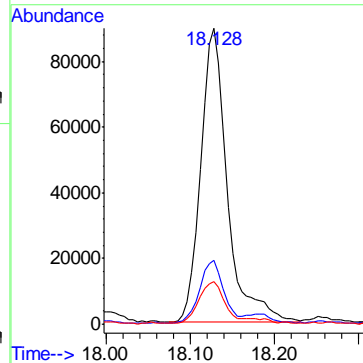
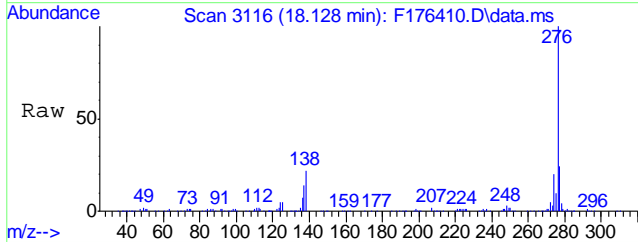
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 258301 |       |       |
| 253     | 22.8   | 0.0   | 51.9  |
| 125     | 10.7   | 0.0   | 45.6  |





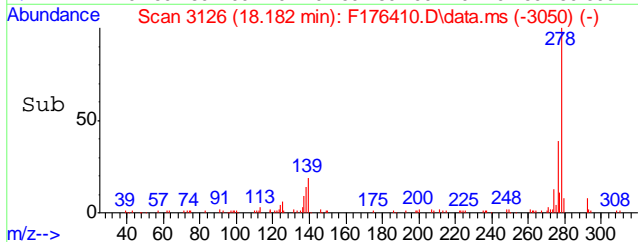
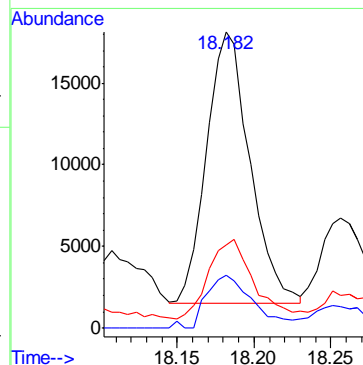
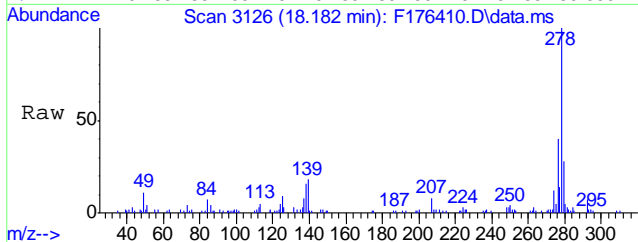
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 39.64 ppm  
 RT: 18.128 min Scan# 3116  
 Delta R.T. -0.086 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

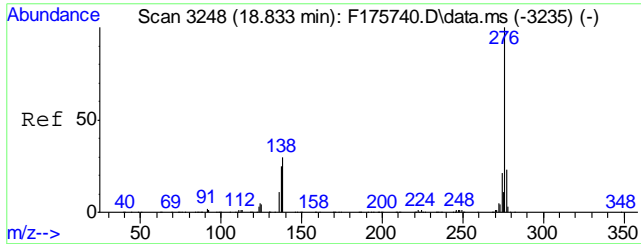
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 21.3  | 0.0   | 56.5  |
| 137     | 14.1  | 0.0   | 48.3  |



#98  
 Dibenz[a,h]anthracene  
 Concen: 5.68 ppm m  
 RT: 18.182 min Scan# 3126  
 Delta R.T. -0.096 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

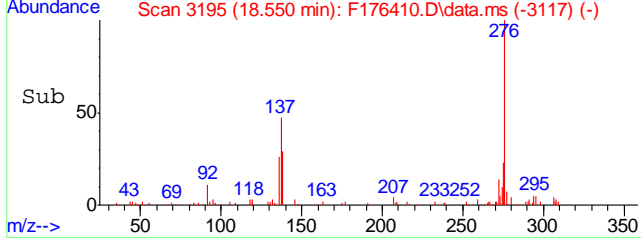
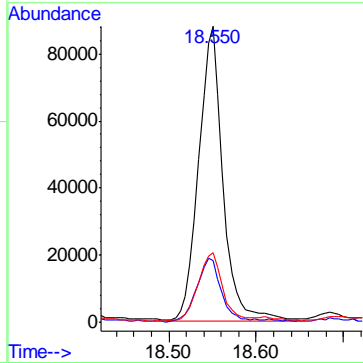
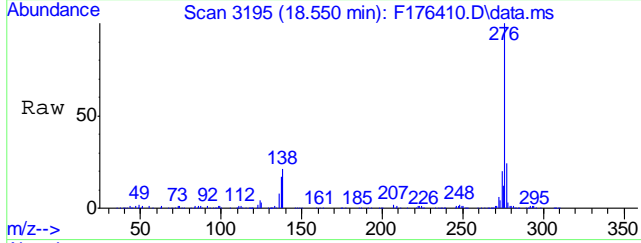
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 17.8  | 0.0   | 52.2  |
| 279     | 28.2  | 0.0   | 53.9  |





#100  
 Benzo[g,h,i]perylene  
 Concen: 30.10 ppm  
 RT: 18.550 min Scan# 3195  
 Delta R.T. -0.082 min  
 Lab File: F176410.D  
 Acq: 11 May 2018 4:33 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 20.6  | 0.0   | 59.8  |
| 277     | 23.1  | 0.0   | 52.8  |



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## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7512\  
 Data File : F176339.D  
 Acq On : 9 May 2018 3:11 am  
 Operator : chriss2  
 Sample : jc65058-7  
 Misc : op11647,ef7512,30.1,,,1,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 09 16:46:25 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Tue May 08 10:01:22 2018  
 Response via : Initial Calibration

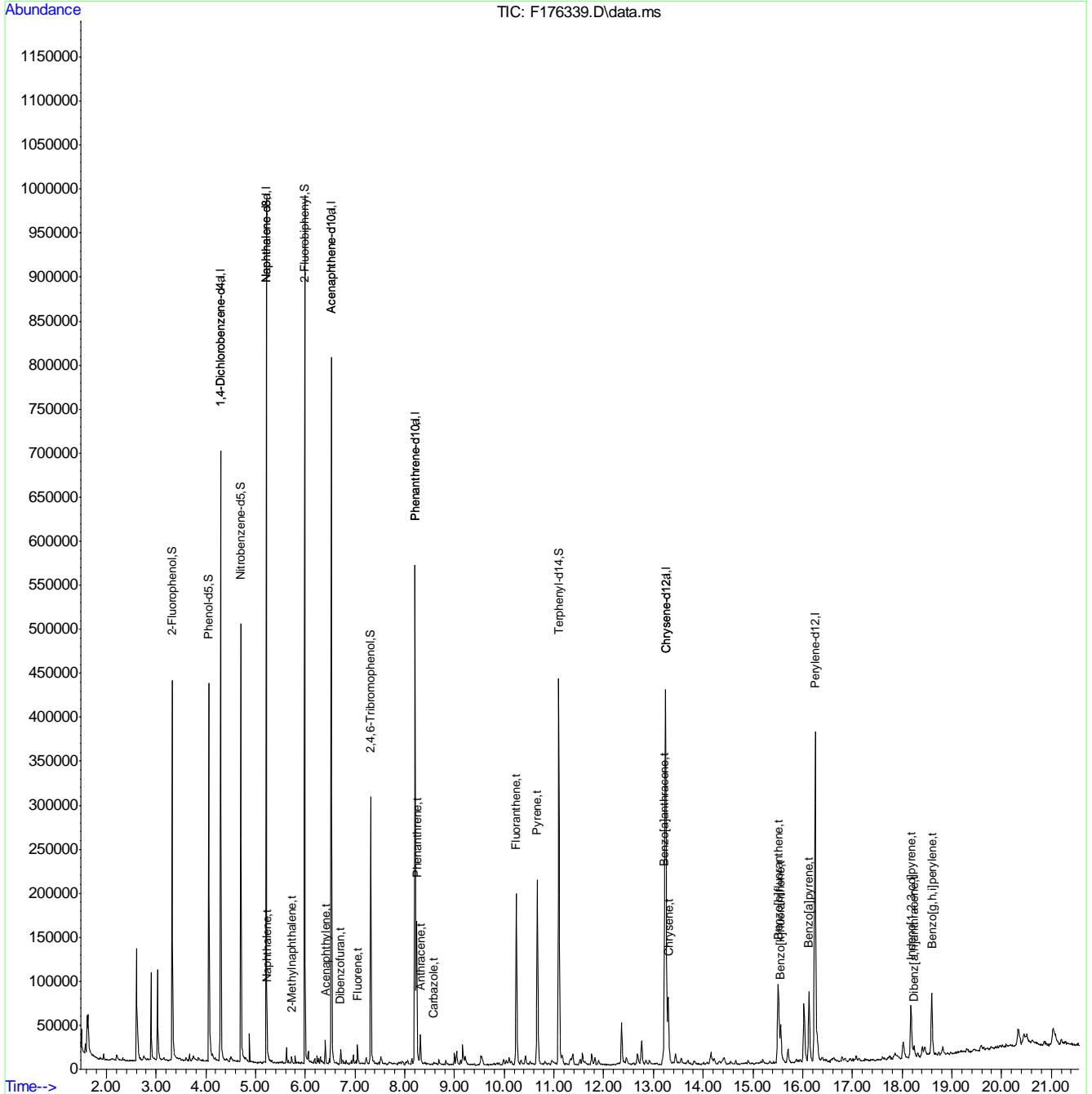
| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.297  | 152  | 73540    | 40.00 | ppm    | -0.01    |
| 24) Naphthalene-d8           | 5.216  | 136  | 294876   | 40.00 | ppm    | -0.02    |
| 47) Acenaphthene-d10         | 6.525  | 164  | 150403   | 40.00 | ppm    | -0.02    |
| 69) Phenanthrene-d10         | 8.208  | 188  | 270038   | 40.00 | ppm    | -0.03    |
| 83) Chrysene-d12             | 13.245 | 240  | 249348   | 40.00 | ppm    | -0.04    |
| 91) Perylene-d12             | 16.248 | 264  | 258101   | 40.00 | ppm    | -0.05    |
| 101) 1,4-Dichlorobenzene-d4a | 4.297  | 152  | 73540    | 40.00 | ppm    | -0.01    |
| 103) Phenanthrene-d10a       | 8.208  | 188  | 270038   | 40.00 | ppm    | -0.03    |
| 105) Chrysene-d12a           | 13.245 | 240  | 249348   | 40.00 | ppm    | -0.04    |
| 107) Naphthalene-d8a         | 5.216  | 136  | 294876   | 40.00 | ppm    | -0.02    |
| 109) Acenaphthene-d10a       | 6.525  | 164  | 150403   | 40.00 | ppm    | -0.02    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.319  | 112  | 103412   | 48.27 | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 96.54% |          |
| 8) Phenol-d5                 | 4.062  | 99   | 132778   | 43.27 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 86.54% |          |
| 25) Nitrobenzene-d5          | 4.703  | 82   | 128609   | 40.13 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 80.26% |          |
| 51) 2-Fluorobiphenyl         | 5.985  | 172  | 225857   | 39.65 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.30% |          |
| 73) 2,4,6-Tribromophenol     | 7.315  | 330  | 35187    | 48.84 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 97.68% |          |
| 85) Terphenyl-d14            | 11.098 | 244  | 230244   | 40.68 | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.36% |          |
| Target Compounds             |        |      |          |       |        |          |
| 38) Naphthalene              | 5.232  | 128  | 4432     | 0.55  | ppm    | 98       |
| 44) 2-Methylnaphthalene      | 5.729  | 141  | 2067     | 0.48  | ppm    | 95       |
| 56) Acenaphthylene           | 6.402  | 152  | 10440    | 1.46  | ppm    | 98       |
| 62) Dibenzofuran             | 6.712  | 168  | 6619     | 1.01  | ppm    | 97       |
| 66) Fluorene                 | 7.048  | 166  | 6417     | 1.26  | ppm    | 99       |
| 77) Phenanthrene             | 8.240  | 178  | 77094    | 9.90  | ppm    | 98       |
| 78) Anthracene               | 8.314  | 178  | 20433    | 2.69  | ppm    | 94       |
| 79) Carbazole                | 8.587  | 167  | 2839     | 0.41  | ppm    | 94       |
| 81) Fluoranthene             | 10.243 | 202  | 121945   | 15.80 | ppm    | 93       |
| 84) Pyrene                   | 10.665 | 202  | 138302   | 16.72 | ppm    | 90       |
| 87) Benzo[a]anthracene       | 13.224 | 228  | 62825    | 8.96  | ppm    | 99       |
| 89) Chrysene                 | 13.299 | 228  | 62322    | 7.98  | ppm    | 98       |
| 93) Benzo[b]fluoranthene     | 15.510 | 252  | 82379    | 12.27 | ppm    | 96       |
| 94) Benzo[k]fluoranthene     | 15.558 | 252  | 30785    | 4.16  | ppm    | 98       |
| 95) Benzo[a]pyrene           | 16.130 | 252  | 57880    | 9.80  | ppm    | 95       |
| 96) Indeno[1,2,3-cd]pyrene   | 18.176 | 276  | 50545    | 9.19  | ppm    | 96       |
| 98) Dibenz[a,h]anthracene    | 18.240 | 278  | 8213m    | 1.28  | ppm    |          |
| 100) Benzo[g,h,i]perylene    | 18.598 | 276  | 57369    | 9.04  | ppm    | 90       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

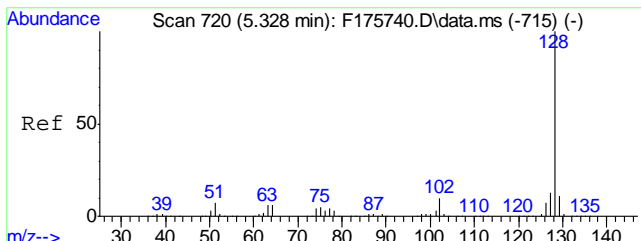
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7512\  
Data File : F176339.D  
Acq On : 9 May 2018 3:11 am  
Operator : chriss2  
Sample : jc65058-7  
Misc : op11647,ef7512,30.1,,,1,1  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 09 16:46:25 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Tue May 08 10:01:22 2018  
Response via : Initial Calibration

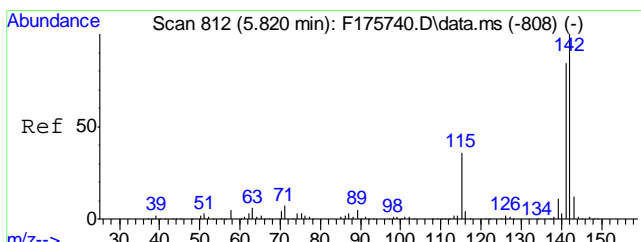
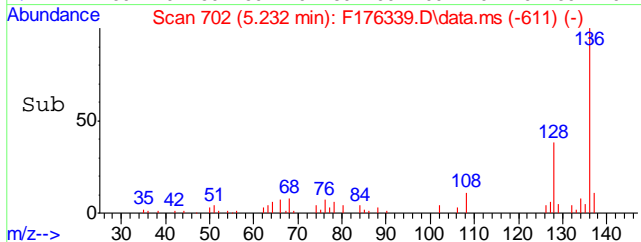
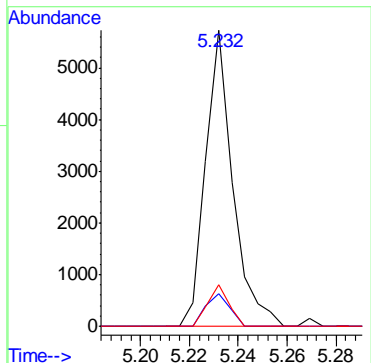
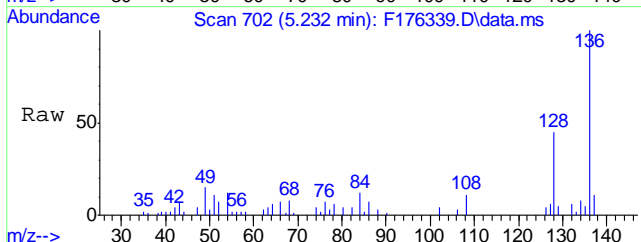


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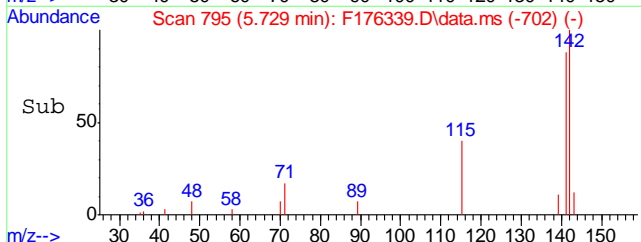
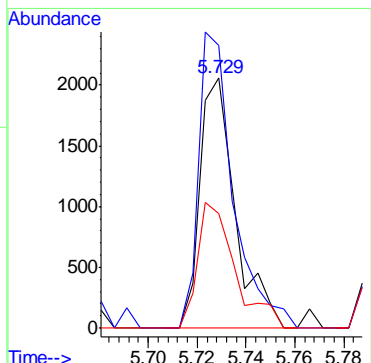
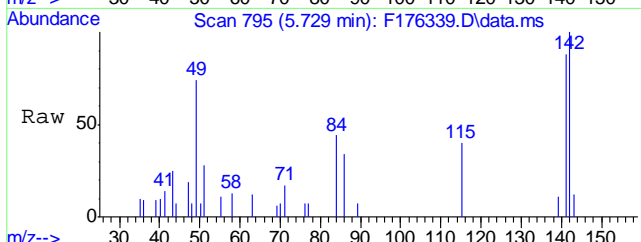
#38  
 Naphthalene  
 Concen: 0.55 ppm  
 RT: 5.232 min Scan# 702  
 Delta R.T. -0.016 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 128     | 4432 | 100   |       |
| 129     | 11.0 | 0.0   | 41.0  |
| 127     | 14.2 | 0.0   | 42.8  |

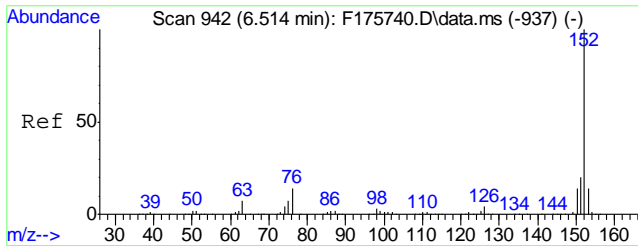


#44  
 2-Methylnaphthalene  
 Concen: 0.48 ppm  
 RT: 5.729 min Scan# 795  
 Delta R.T. -0.003 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 2067  | 100   |       |
| 142     | 113.1 | 88.6  | 148.6 |
| 115     | 45.7  | 12.3  | 72.3  |

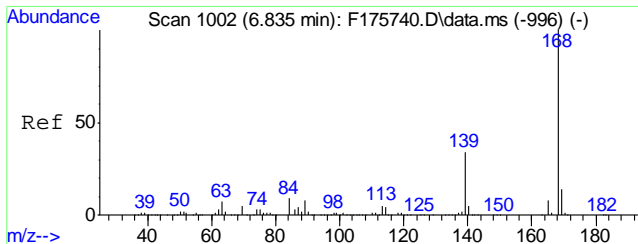
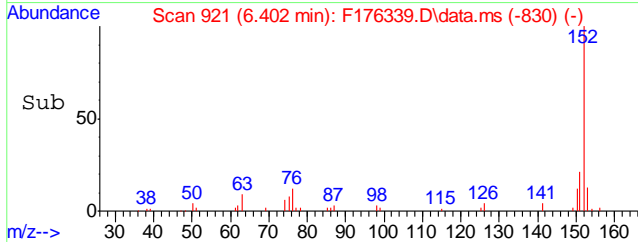
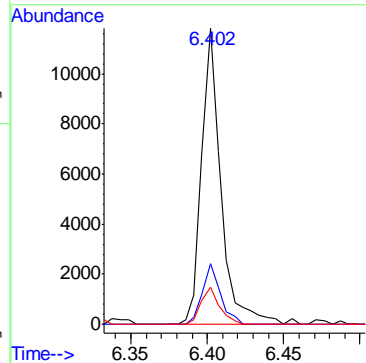
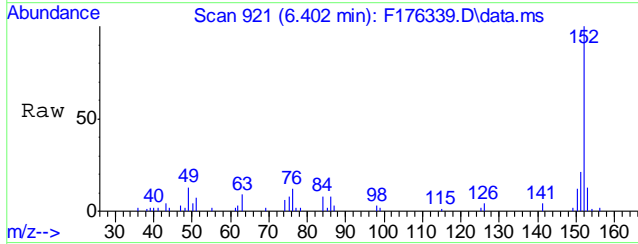


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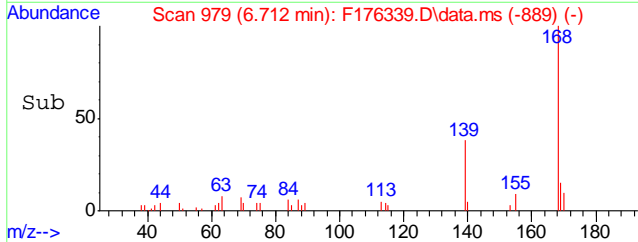
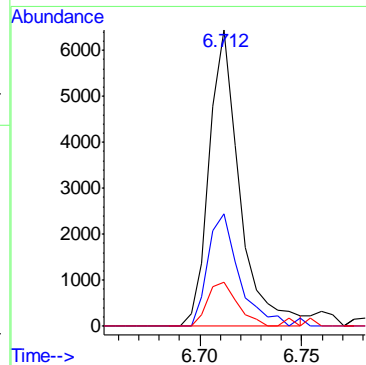
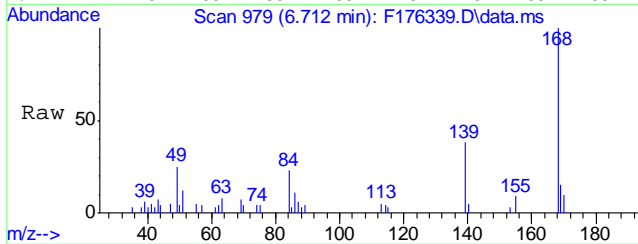
#56  
 Acenaphthylene  
 Concen: 1.46 ppm  
 RT: 6.402 min Scan# 921  
 Delta R.T. -0.013 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 10440 |       |       |
| 151     | 20.6  | 0.0   | 49.6  |
| 153     | 12.5  | 0.0   | 43.6  |



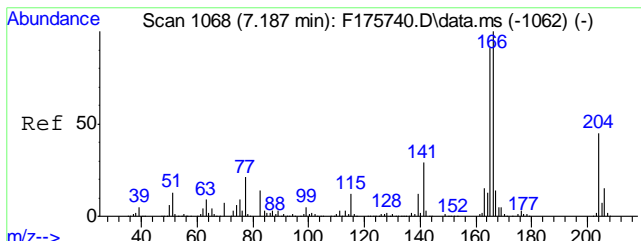
#62  
 Dibenzofuran  
 Concen: 1.01 ppm  
 RT: 6.712 min Scan# 979  
 Delta R.T. -0.019 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 6619 |       |       |
| 168     | 100  |       |       |
| 139     | 37.0 | 5.7   | 65.7  |
| 169     | 15.1 | 0.0   | 43.7  |



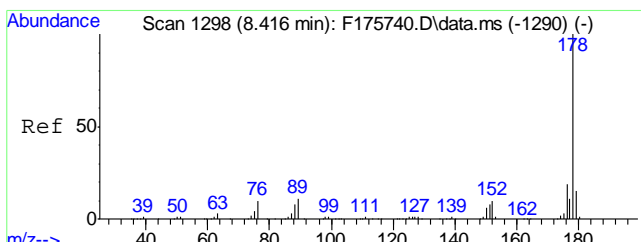
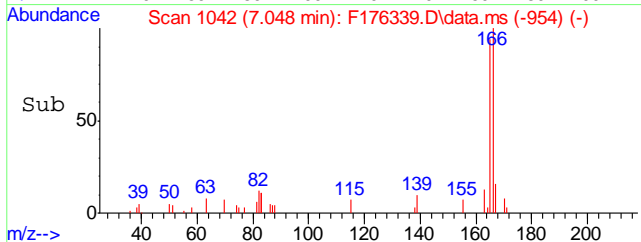
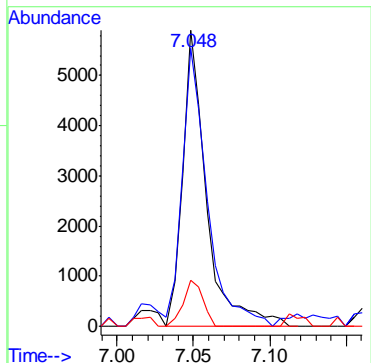
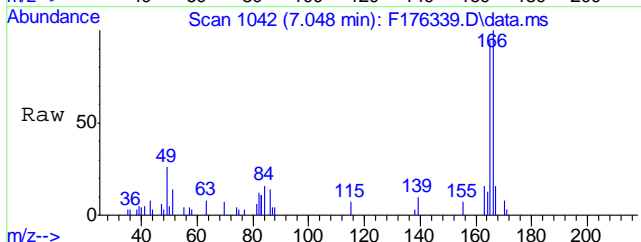
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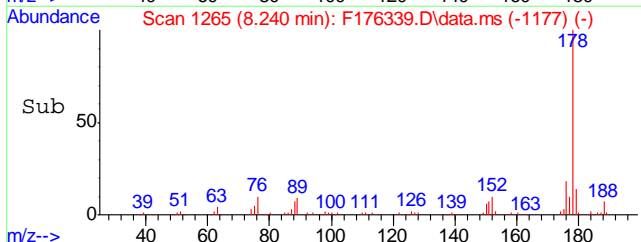
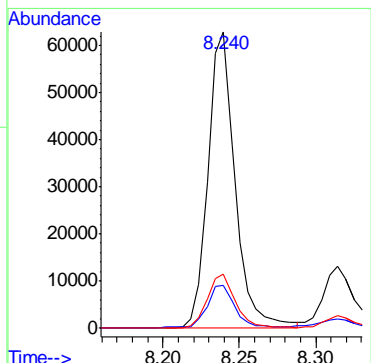
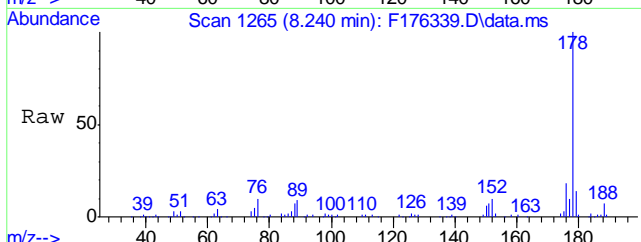
#66  
 Fluorene  
 Concen: 1.26 ppm  
 RT: 7.048 min Scan# 1042  
 Delta R.T. -0.029 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 6417 | 100   |       |
| 165     | 90.3 | 61.4  | 121.4 |
| 167     | 14.2 | 0.0   | 43.6  |

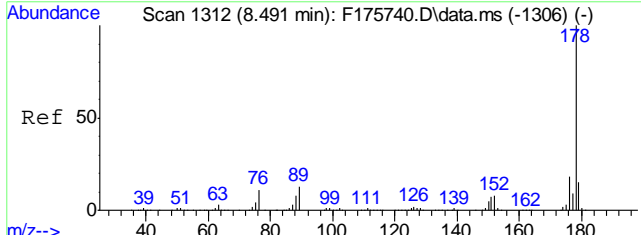


#77  
 Phenanthrene  
 Concen: 9.90 ppm  
 RT: 8.240 min Scan# 1265  
 Delta R.T. -0.032 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 77094 | 100   |       |
| 179     | 14.0  | 0.0   | 45.3  |
| 176     | 18.2  | 0.0   | 48.6  |

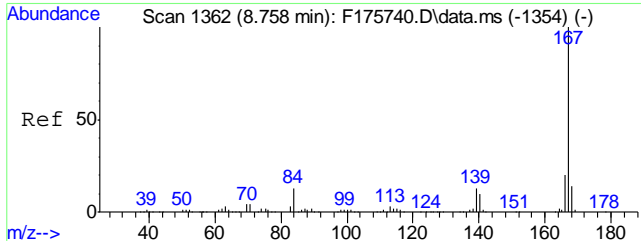
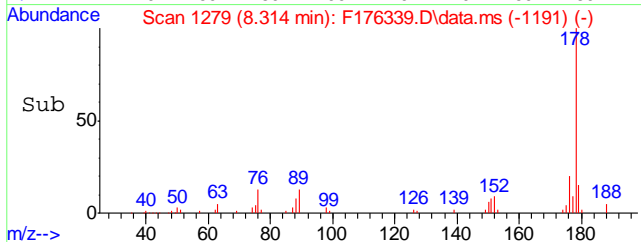
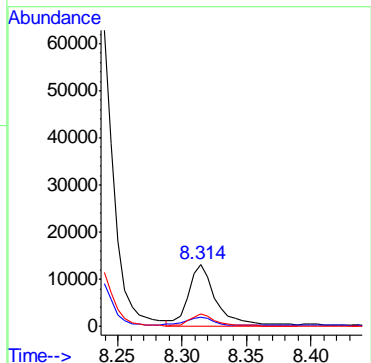
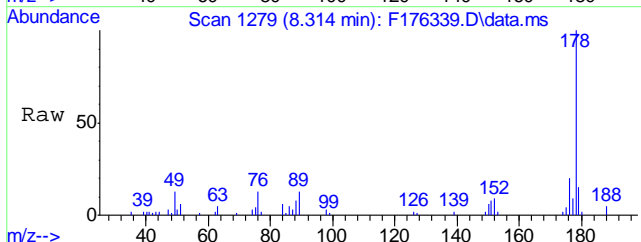


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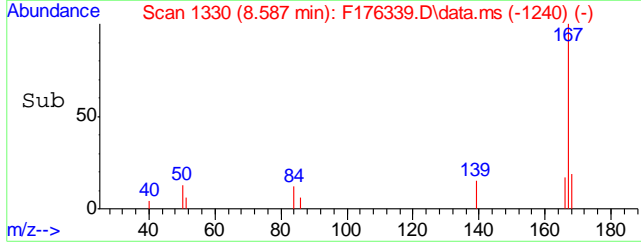
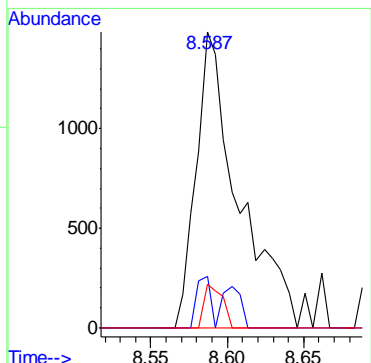
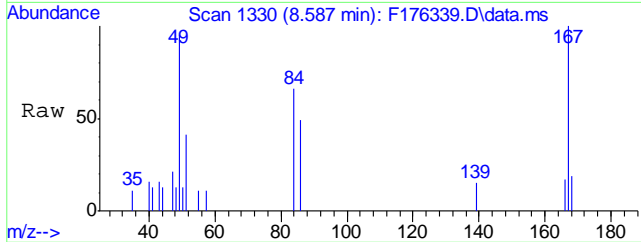
#78  
 Anthracene  
 Concen: 2.69 ppm  
 RT: 8.314 min Scan# 1279  
 Delta R.T. -0.030 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 20433 |       |       |
| 179     | 13.2  | 0.0   | 45.2  |
| 176     | 21.0  | 0.0   | 47.9  |

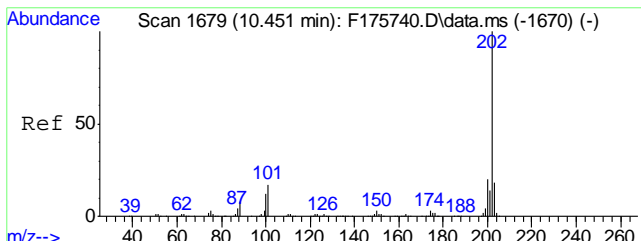


#79  
 Carbazole  
 Concen: 0.41 ppm  
 RT: 8.587 min Scan# 1330  
 Delta R.T. -0.020 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 2839 |       |       |
| 166     | 17.4 | 0.0   | 50.3  |
| 139     | 14.9 | 0.0   | 42.9  |

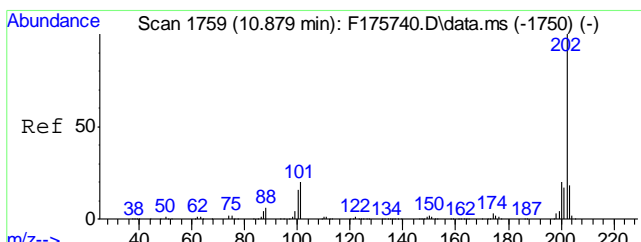
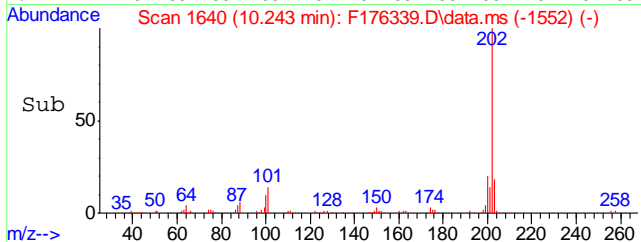
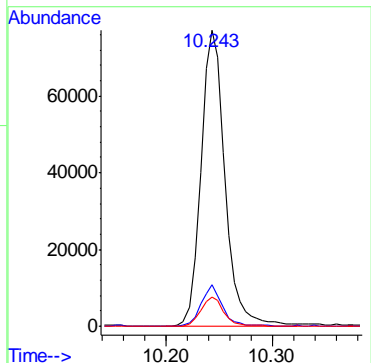
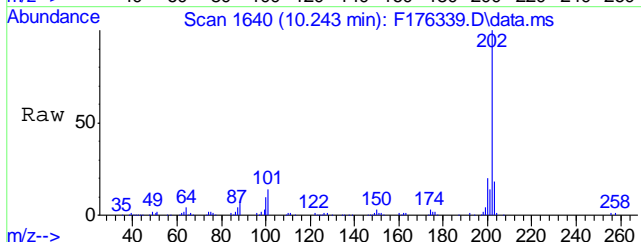


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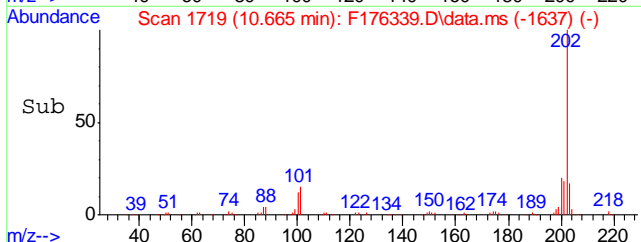
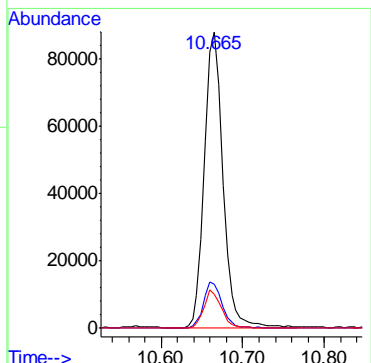
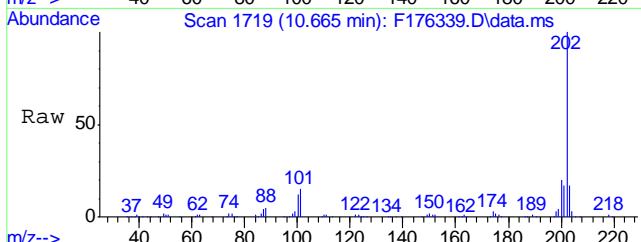
#81  
 Fluoranthene  
 Concen: 15.80 ppm  
 RT: 10.243 min Scan# 1640  
 Delta R.T. -0.029 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 13.8  | 0.0   | 47.3  |
| 100     | 9.8   | 0.0   | 42.4  |

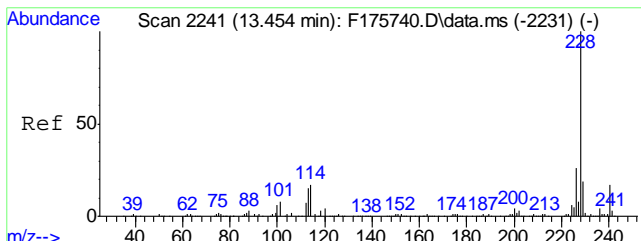


#84  
 Pyrene  
 Concen: 16.72 ppm  
 RT: 10.665 min Scan# 1719  
 Delta R.T. -0.063 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 15.0  | 0.0   | 50.0  |
| 100     | 11.6  | 0.0   | 45.6  |

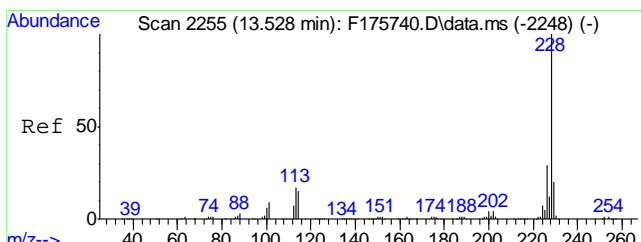
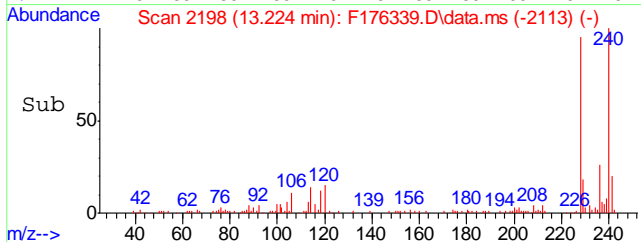
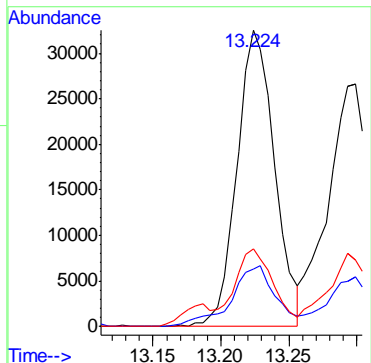
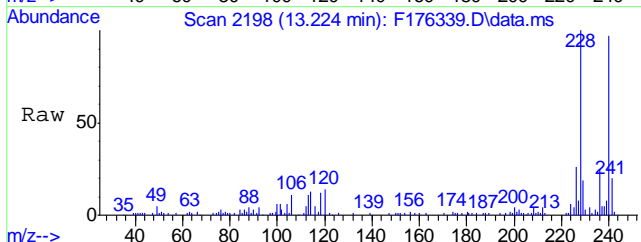


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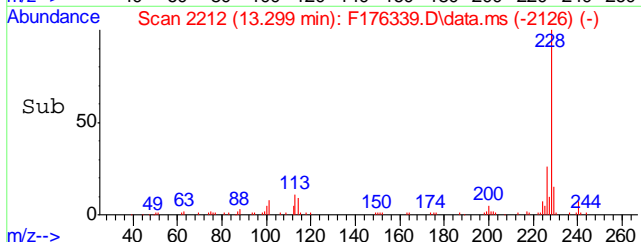
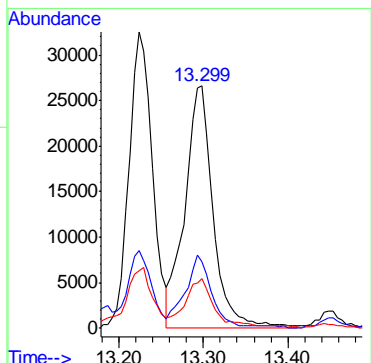
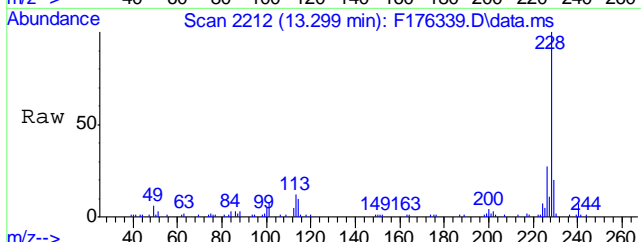
#87  
 Benzo[a]anthracene  
 Concen: 8.96 ppm  
 RT: 13.224 min Scan# 2198  
 Delta R.T. -0.043 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 62825 |       |       |
| 229     | 19.1  | 0.0   | 48.8  |
| 226     | 25.8  | 0.0   | 55.4  |

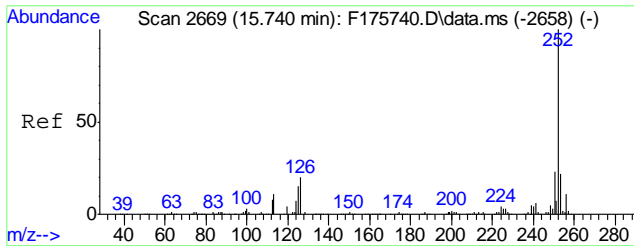


#89  
 Chrysene  
 Concen: 7.98 ppm  
 RT: 13.299 min Scan# 2212  
 Delta R.T. -0.042 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 62322 |       |       |
| 226     | 27.8  | 0.0   | 59.2  |
| 229     | 19.9  | 0.0   | 49.9  |

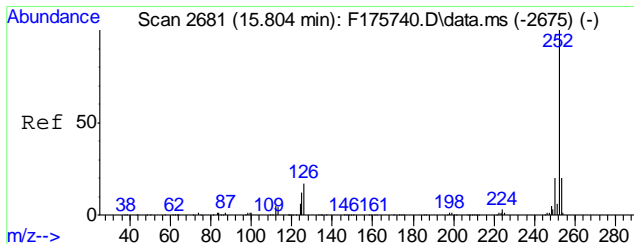
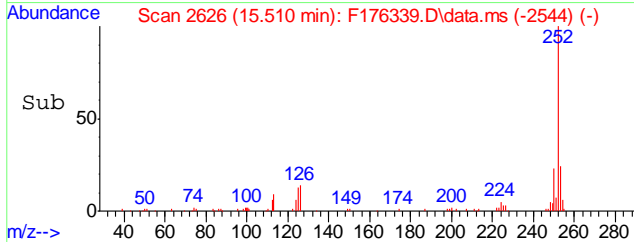
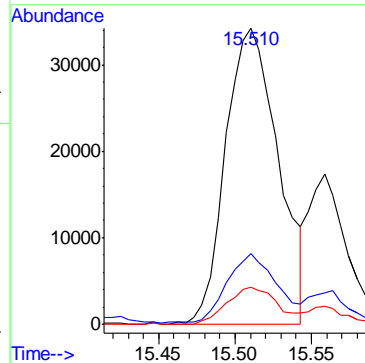
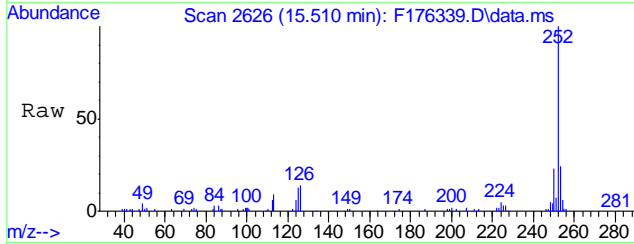


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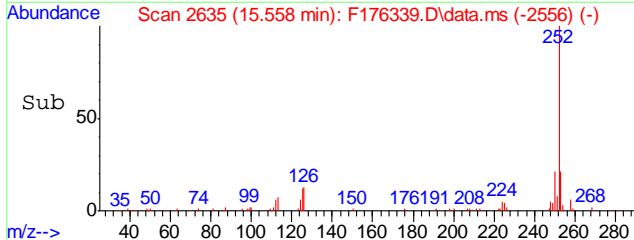
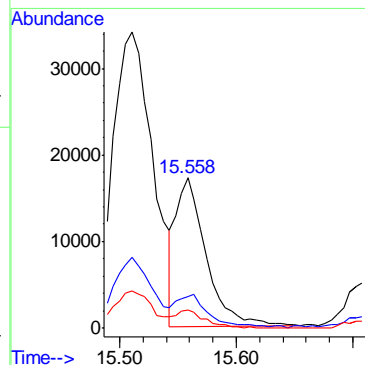
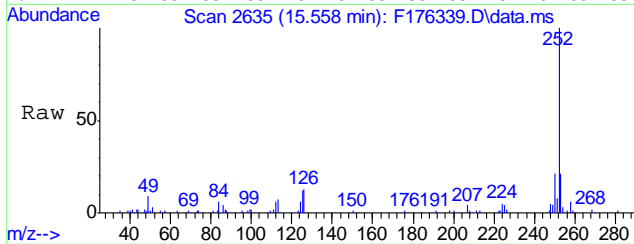
#93  
 Benzo[b]fluoranthene  
 Concen: 12.27 ppm  
 RT: 15.510 min Scan# 2626  
 Delta R.T. -0.062 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

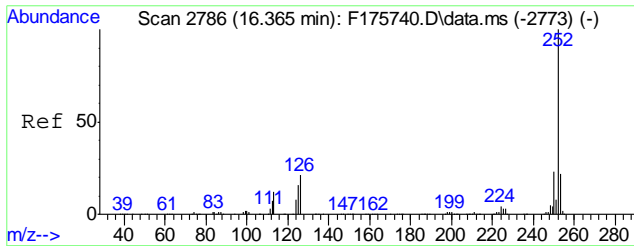
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.1 | 0.0   | 51.4  |
| 125     | 12.8 | 0.0   | 43.6  |



#94  
 Benzo[k]fluoranthene  
 Concen: 4.16 ppm  
 RT: 15.558 min Scan# 2635  
 Delta R.T. -0.077 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

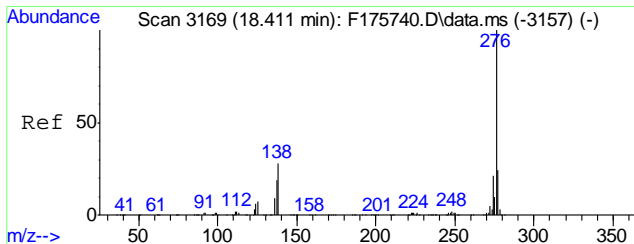
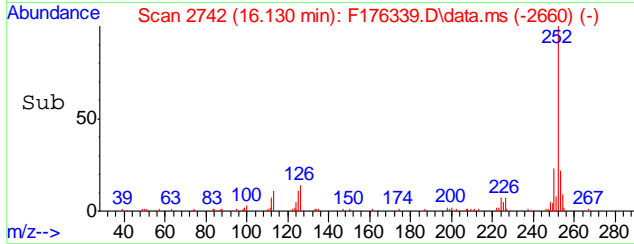
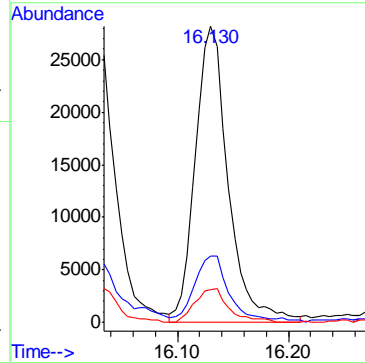
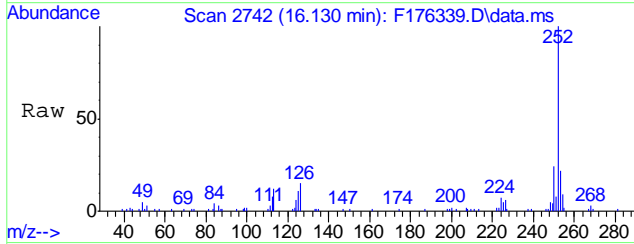
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 20.3 | 0.0   | 51.4  |
| 125     | 12.6 | 0.0   | 43.3  |





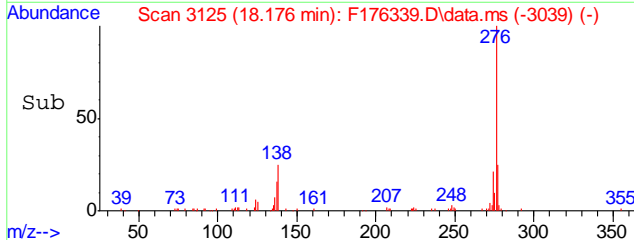
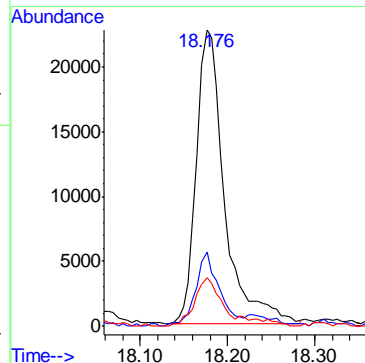
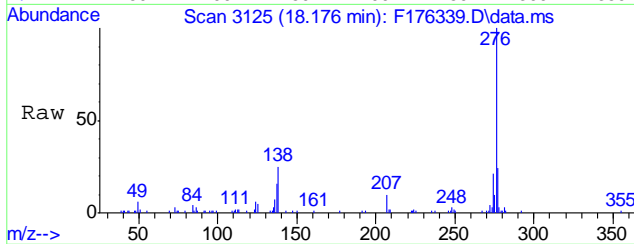
#95  
 Benzo[a]pyrene  
 Concen: 9.80 ppm  
 RT: 16.130 min Scan# 2742  
 Delta R.T. -0.060 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 57880 | 100   |       |
| 253     | 21.6  | 0.0   | 51.9  |
| 125     | 11.3  | 0.0   | 45.6  |

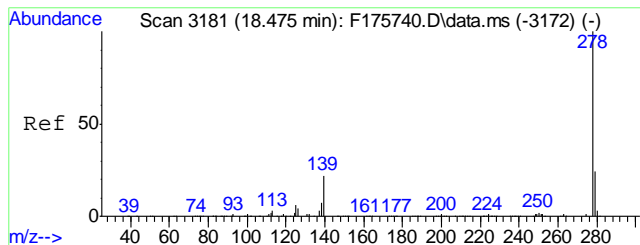


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 9.19 ppm  
 RT: 18.176 min Scan# 3125  
 Delta R.T. -0.038 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 50545 | 100   |       |
| 138     | 24.5  | 0.0   | 56.5  |
| 137     | 16.5  | 0.0   | 48.3  |

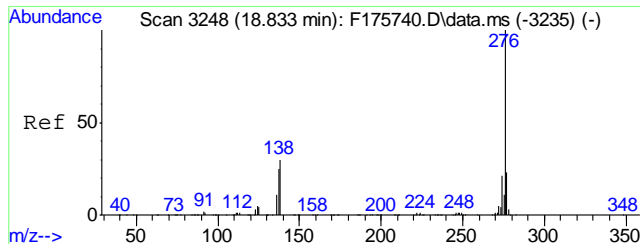
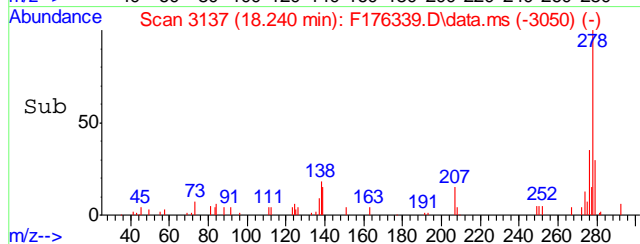
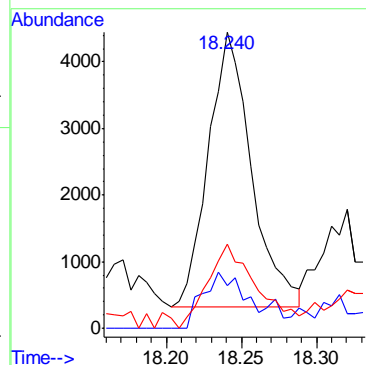
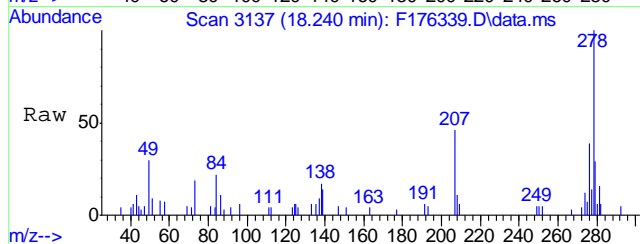


9.1.10  
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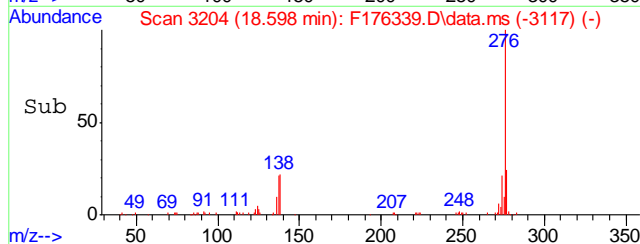
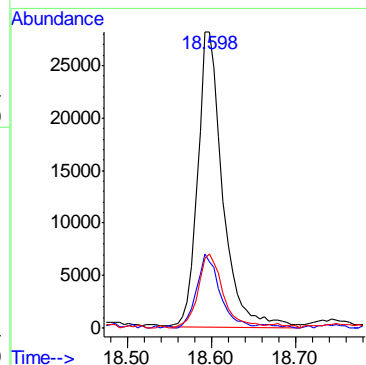
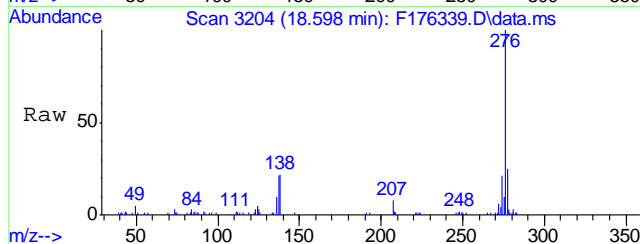
#98  
 Dibenz[a,h]anthracene  
 Concen: 1.28 ppm  
 RT: 18.240 min Scan# 3137  
 Delta R.T. -0.038 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 278     | 8213 | 100   |       |
| 139     | 14.4 | 0.0   | 52.2  |
| 279     | 28.5 | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 9.04 ppm  
 RT: 18.598 min Scan# 3204  
 Delta R.T. -0.034 min  
 Lab File: F176339.D  
 Acq: 9 May 2018 3:11 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 57369 | 100   |       |
| 138     | 22.1  | 0.0   | 59.8  |
| 277     | 25.4  | 0.0   | 52.8  |



9.1.10  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176298.D  
 Acq On : 7 May 2018 10:24 pm  
 Operator : christc2  
 Sample : jc65058-8  
 Misc : op11647,ef7510,30.8,,,1,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 08 16:24:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|--------|--------|----------|--------|
| Internal Standards           |        |      |          |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.217  | 152  | 83783    | 40.00  | ppm    | -0.01    |        |
| 24) Naphthalene-d8           | 5.141  | 136  | 325723   | 40.00  | ppm    | 0.00     |        |
| 47) Acenaphthene-d10         | 6.429  | 164  | 157987   | 40.00  | ppm    | -0.01    |        |
| 69) Phenanthrene-d10         | 8.074  | 188  | 283356   | 40.00  | ppm    | -0.02    |        |
| 83) Chrysene-d12             | 13.075 | 240  | 249900   | 40.00  | ppm    | -0.01    |        |
| 91) Perylene-d12             | 16.072 | 264  | 261778   | 40.00  | ppm    | 0.00     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.217  | 152  | 83783    | 40.00  | ppm    | -0.01    |        |
| 103) Phenanthrene-d10a       | 8.074  | 188  | 283356   | 40.00  | ppm    | -0.02    |        |
| 105) Chrysene-d12a           | 13.075 | 240  | 249900   | 40.00  | ppm    | -0.01    |        |
| 107) Naphthalene-d8a         | 5.141  | 136  | 325723   | 40.00  | ppm    | 0.00     |        |
| 109) Acenaphthene-d10a       | 6.429  | 164  | 157987   | 40.00  | ppm    | -0.01    |        |
| System Monitoring Compounds  |        |      |          |        |        |          |        |
| 5) 2-Fluorophenol            | 3.240  | 112  | 108128   | 44.30  | ppm    | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 88.60% |          |        |
| 8) Phenol-d5                 | 3.988  | 99   | 133617   | 38.22  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 76.44% |          |        |
| 25) Nitrobenzene-d5          | 4.623  | 82   | 129524   | 36.59  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 73.18% |          |        |
| 51) 2-Fluorobiphenyl         | 5.911  | 172  | 227817   | 38.08  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 76.16% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.209  | 330  | 36202    | 47.89  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 95.78% |          |        |
| 85) Terphenyl-d14            | 10.938 | 244  | 214474   | 37.81  | ppm    | -0.05    |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 75.62% |          |        |
| Target Compounds             |        |      |          |        |        |          |        |
|                              |        |      |          |        |        |          | Qvalue |
| 38) Naphthalene              | 5.152  | 128  | 31669    | 3.55   | ppm    |          | 97     |
| 44) 2-Methylnaphthalene      | 5.649  | 141  | 10706    | 2.23   | ppm    |          | 97     |
| 53) Biphenyl                 | 5.980  | 154  | 5553     | 0.89   | ppm    |          | 93     |
| 56) Acenaphthylene           | 6.311  | 152  | 6331     | 0.84   | ppm    |          | 94     |
| 59) Acenaphthene             | 6.456  | 153  | 64058    | 12.51  | ppm    |          | 99     |
| 62) Dibenzofuran             | 6.611  | 168  | 36206    | 5.28   | ppm    |          | 95     |
| 66) Fluorene                 | 6.942  | 166  | 59418    | 11.14  | ppm    |          | 97     |
| 77) Phenanthrene             | 8.112  | 178  | 787745   | 96.41  | ppm    |          | 99     |
| 78) Anthracene               | 8.181  | 178  | 211550   | 26.49  | ppm    |          | 99     |
| 79) Carbazole                | 8.443  | 167  | 93908    | 12.83  | ppm    |          | 98     |
| 81) Fluoranthene             | 10.099 | 202  | 1113344  | 137.46 | ppm    |          | 92     |
| 84) Pyrene                   | 10.510 | 202  | 914734   | 110.31 | ppm    |          | 93     |
| 87) Benzo[a]anthracene       | 13.059 | 228  | 464048   | 66.02  | ppm    |          | 98     |
| 89) Chrysene                 | 13.128 | 228  | 449043   | 57.35  | ppm    |          | 98     |
| 93) Benzo[b]fluoranthene     | 15.340 | 252  | 516804   | 75.87  | ppm    |          | 96     |
| 94) Benzo[k]fluoranthene     | 15.383 | 252  | 188441   | 25.10  | ppm    |          | 95     |
| 95) Benzo[a]pyrene           | 15.959 | 252  | 388705   | 64.88  | ppm    |          | 95     |
| 96) Indeno[1,2,3-cd]pyrene   | 18.000 | 276  | 230680   | 41.34  | ppm    |          | 92     |
| 98) Dibenz[a,h]anthracene    | 18.054 | 278  | 52378    | 8.04   | ppm    |          | 89     |
| 100) Benzo[g,h,i]perylene    | 18.422 | 276  | 227445   | 35.34  | ppm    |          | 91     |



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
Data File : F176298.D  
Acq On : 7 May 2018 10:24 pm  
Operator : christc2  
Sample : jc65058-8  
Misc : op11647,ef7510,30.8,,,1,1  
ALS Vial : 19 Sample Multiplier: 1

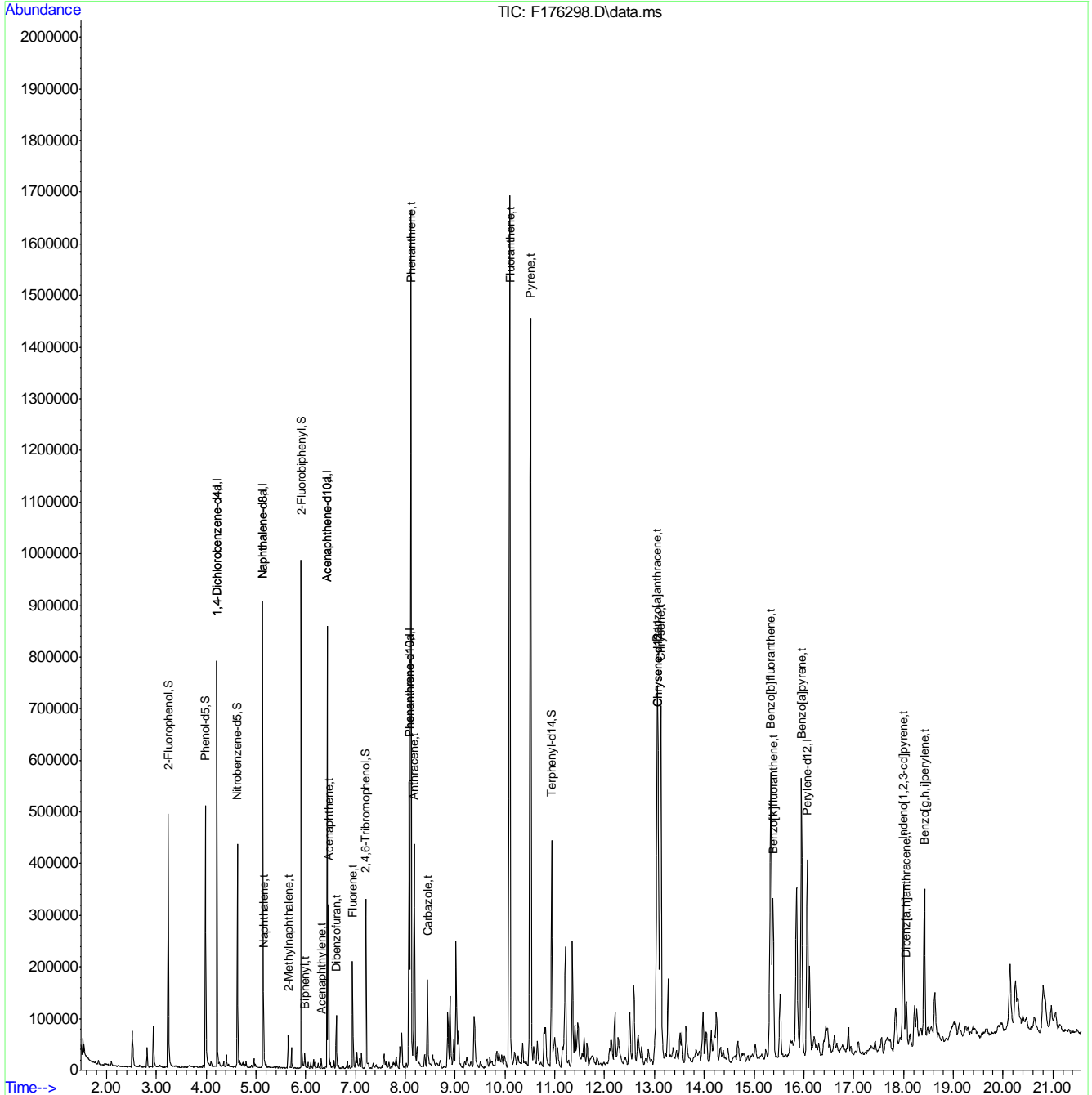
Quant Time: May 08 16:24:55 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Sat May 05 19:45:27 2018  
Response via : Initial Calibration

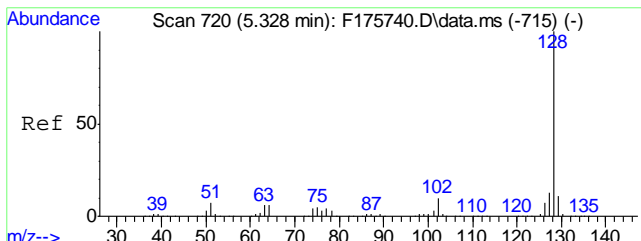
| Compound   | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--|------|------|----------|------|-------|----------|
| -----  |      |      |          |      |       |          |
| (#) = qualifier out of range (m) = manual integration (+) = signals summed |      |      |          |      |       |          |

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7510\  
 Data File : F176298.D  
 Acq On : 7 May 2018 10:24 pm  
 Operator : christc2  
 Sample : jc65058-8  
 Misc : op11647,ef7510,30.8,,,1,1  
 ALS Vial : 19 Sample Multiplier: 1

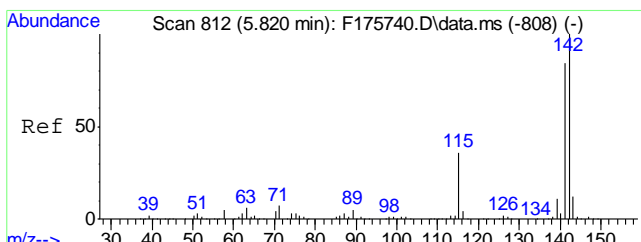
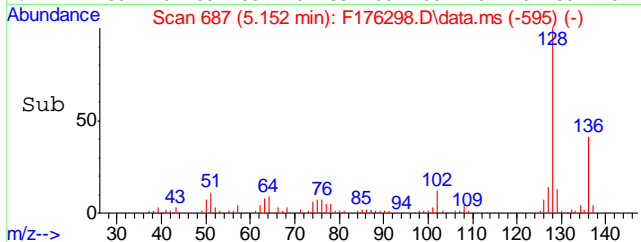
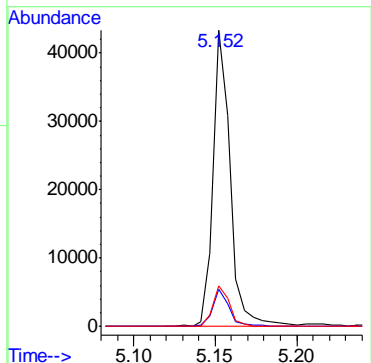
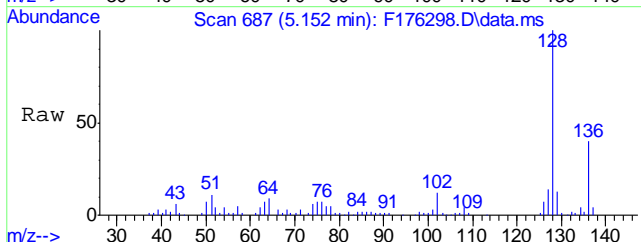
Quant Time: May 08 16:24:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Sat May 05 19:45:27 2018  
 Response via : Initial Calibration





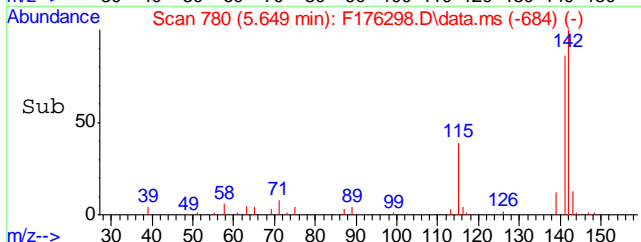
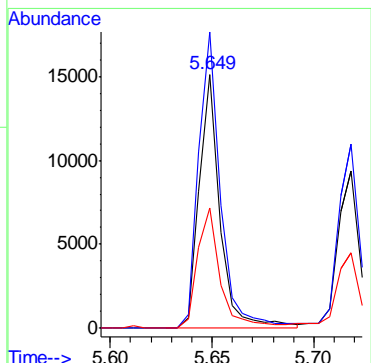
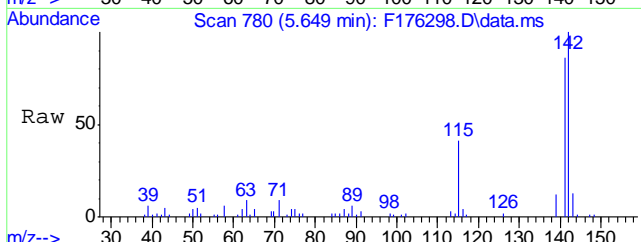
#38  
Naphthalene  
Concen: 3.55 ppm  
RT: 5.152 min Scan# 687  
Delta R.T. -0.010 min  
Lab File: F176298.D  
Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 31669 | 100   |       |
| 129     | 12.7  | 0.0   | 41.0  |
| 127     | 13.8  | 0.0   | 42.8  |

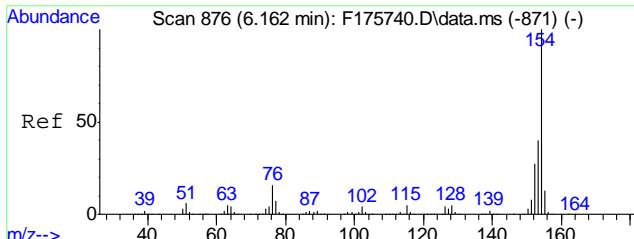


#44  
2-Methylnaphthalene  
Concen: 2.23 ppm  
RT: 5.649 min Scan# 780  
Delta R.T. 0.011 min  
Lab File: F176298.D  
Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 10706 |       |       |
| 142     | 116.6 | 88.6  | 148.6 |
| 115     | 46.7  | 12.3  | 72.3  |

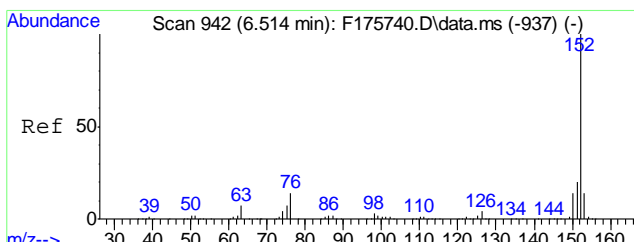
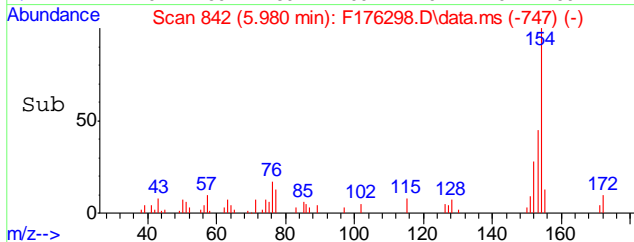
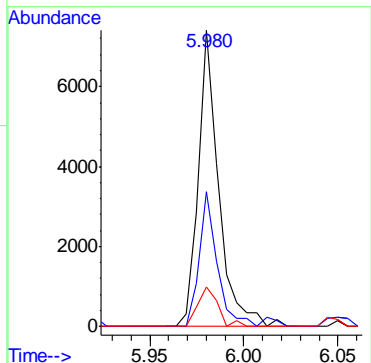
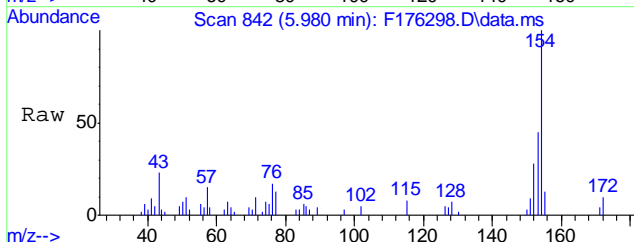


9.1.11  
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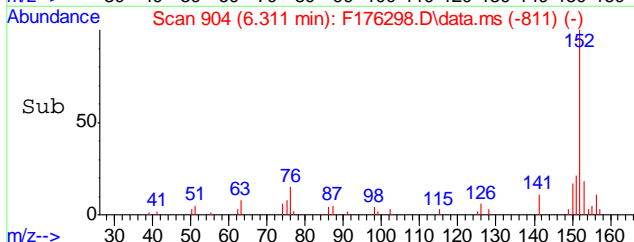
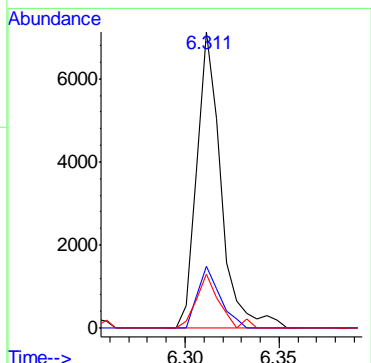
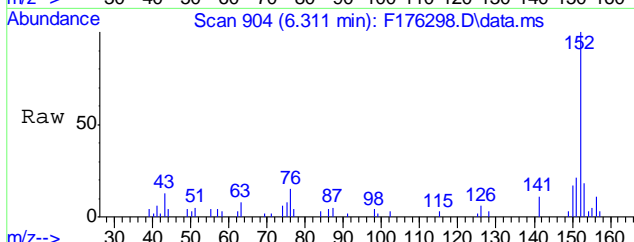
#53  
 Biphenyl  
 Concen: 0.89 ppm  
 RT: 5.980 min Scan# 842  
 Delta R.T. 0.007 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 45.4 | 9.8   | 69.8  |
| 155     | 13.1 | 0.0   | 43.0  |

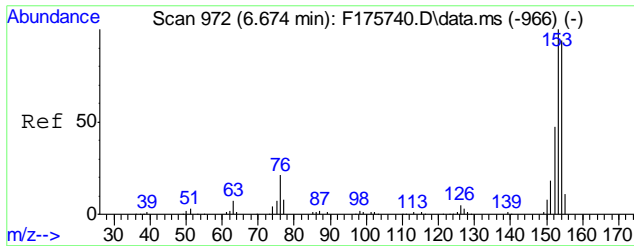


#56  
 Acenaphthylene  
 Concen: 0.84 ppm  
 RT: 6.311 min Scan# 904  
 Delta R.T. -0.004 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 20.8 | 0.0   | 49.6  |
| 153     | 18.2 | 0.0   | 43.6  |

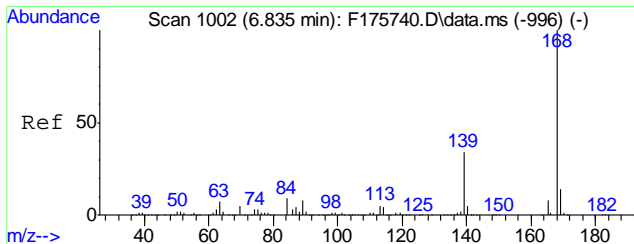
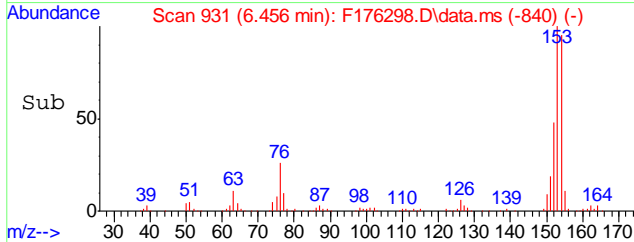
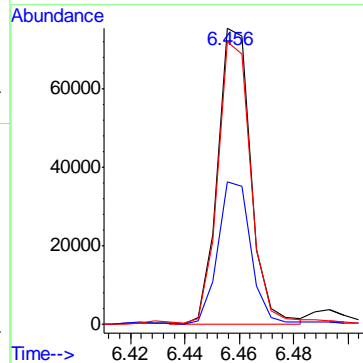
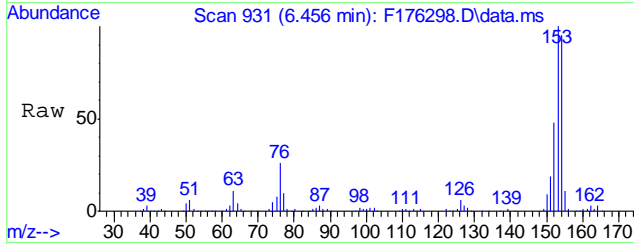


9.1.11  
9



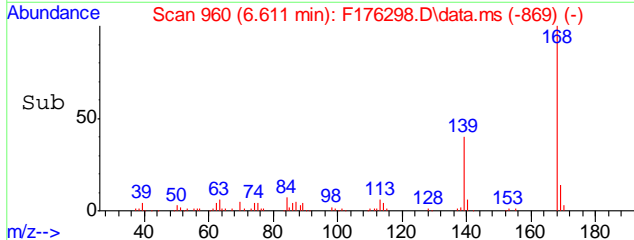
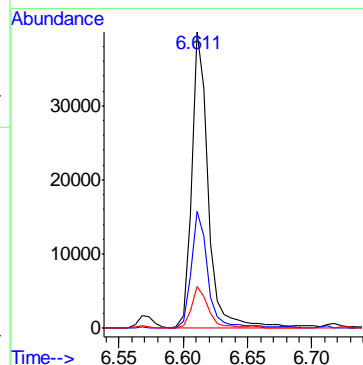
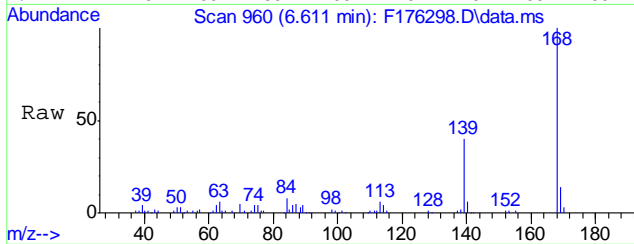
#59  
 Acenaphthene  
 Concen: 12.51 ppm  
 RT: 6.456 min Scan# 931  
 Delta R.T. -0.015 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 64058 | 100   |       |
| 152     | 47.9  | 16.7  | 76.7  |
| 154     | 95.2  | 64.1  | 124.1 |

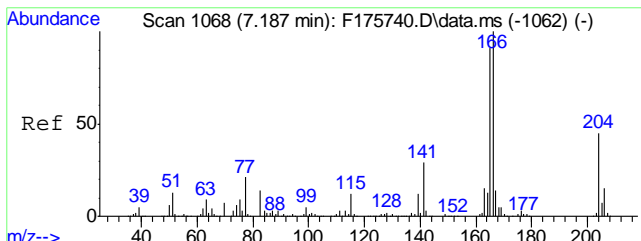


#62  
 Dibenzofuran  
 Concen: 5.28 ppm  
 RT: 6.611 min Scan# 960  
 Delta R.T. -0.015 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 36206 | 100   |       |
| 139     | 39.7  | 5.7   | 65.7  |
| 169     | 14.0  | 0.0   | 43.7  |

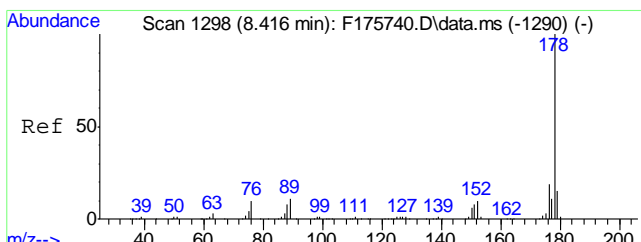
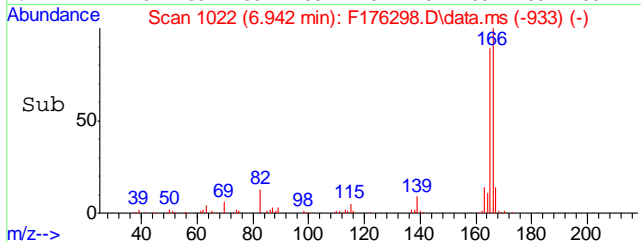
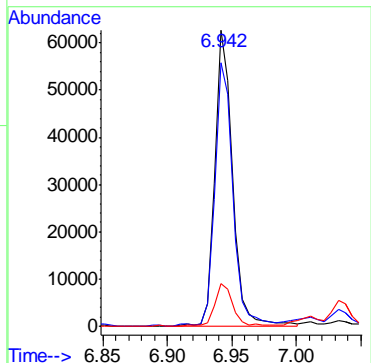
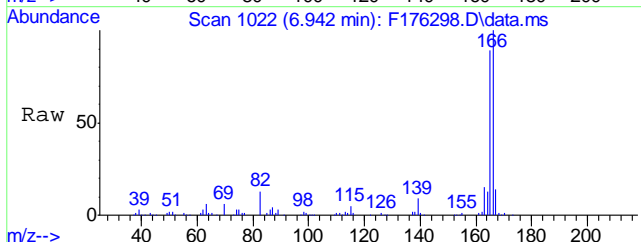


9.1.11  
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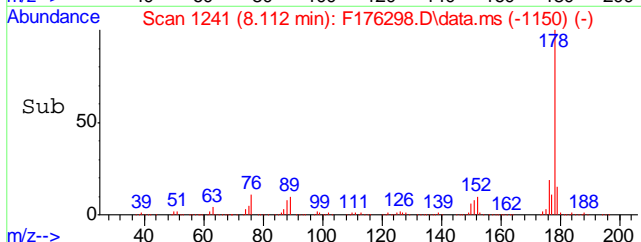
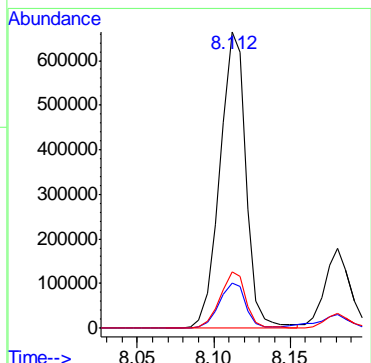
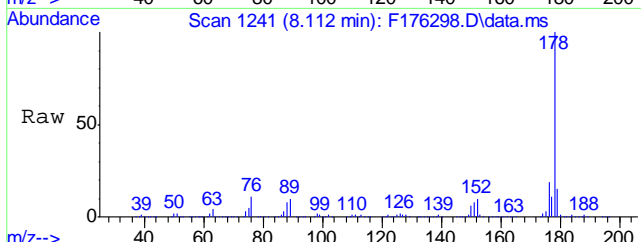
#66  
 Fluorene  
 Concen: 11.14 ppm  
 RT: 6.942 min Scan# 1022  
 Delta R.T. -0.026 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 59418 |       |       |
| 165     | 88.4  | 61.4  | 121.4 |
| 167     | 13.3  | 0.0   | 43.6  |

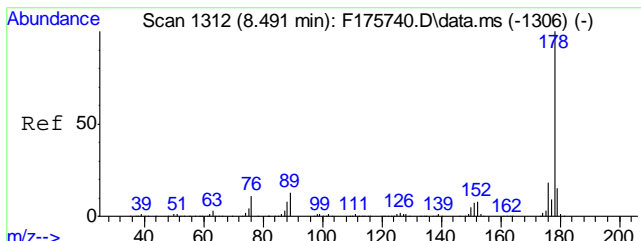


#77  
 Phenanthrene  
 Concen: 96.41 ppm  
 RT: 8.112 min Scan# 1241  
 Delta R.T. -0.015 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 787745 |       |       |
| 179     | 14.8   | 0.0   | 45.3  |
| 176     | 19.0   | 0.0   | 48.6  |

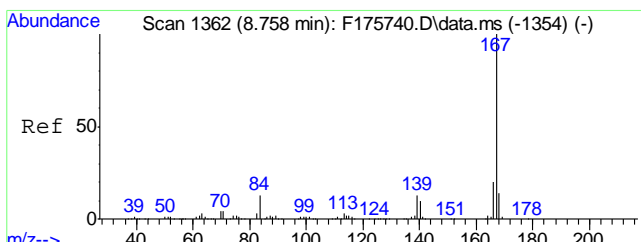
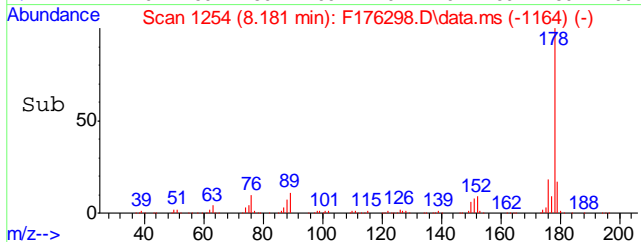
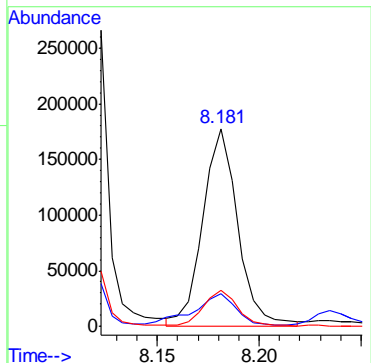
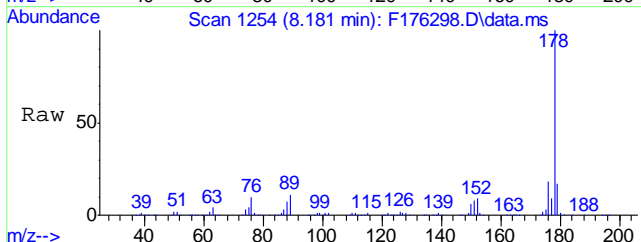


9.1.11  
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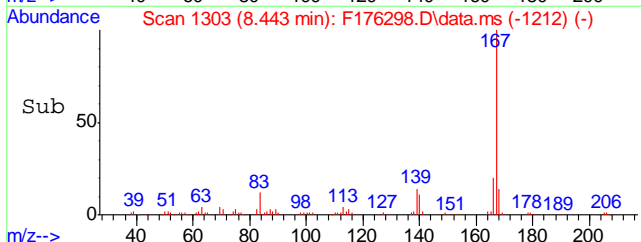
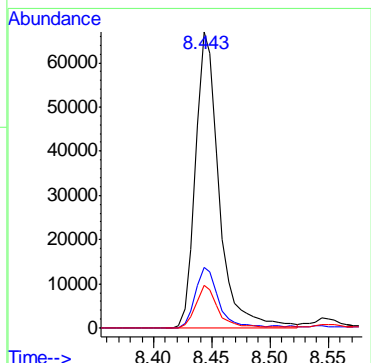
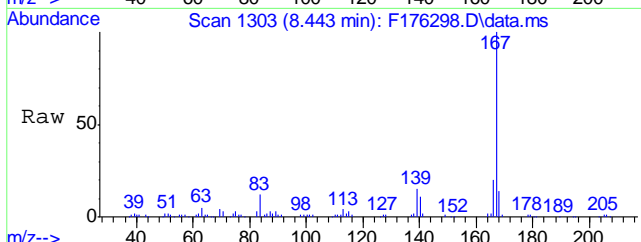
#78  
 Anthracene  
 Concen: 26.49 ppm  
 RT: 8.181 min Scan# 1254  
 Delta R.T. -0.017 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 211550 |       |       |
| 179     | 14.4   | 0.0   | 45.2  |
| 176     | 18.1   | 0.0   | 47.9  |

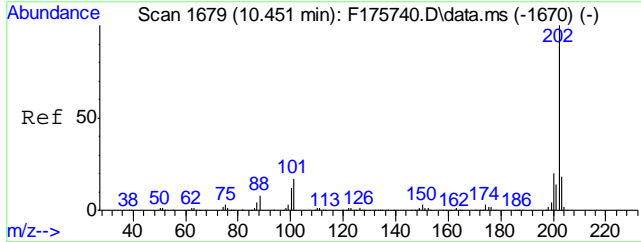


#79  
 Carbazole  
 Concen: 12.83 ppm  
 RT: 8.443 min Scan# 1303  
 Delta R.T. -0.014 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 93908 |       |       |
| 166     | 20.4  | 0.0   | 50.3  |
| 139     | 14.4  | 0.0   | 42.9  |

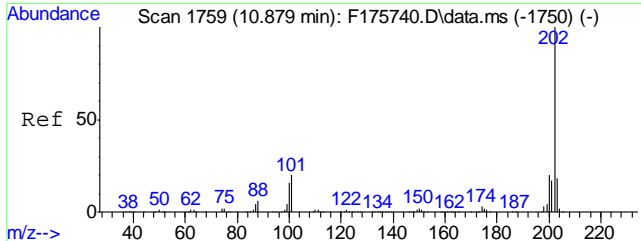
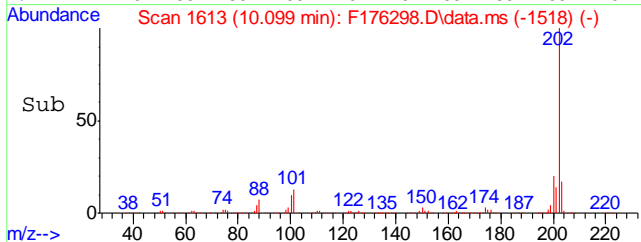
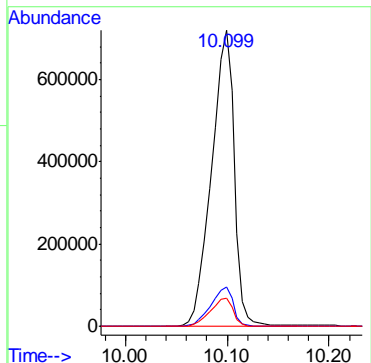
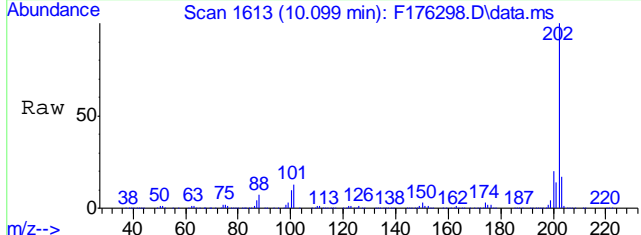


9.1.11  
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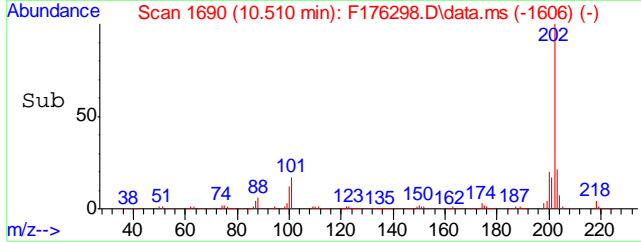
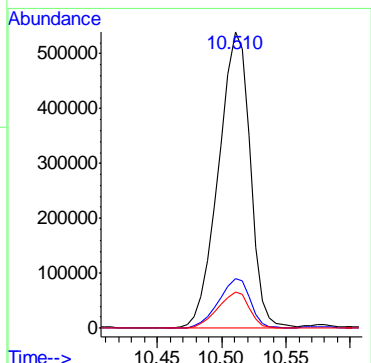
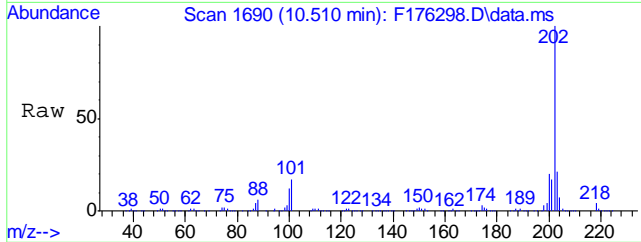
#81  
 Fluoranthene  
 Concen: 137.46 ppm  
 RT: 10.099 min Scan# 1613  
 Delta R.T. 0.007 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1113344 | 100   |       |
| 101     | 13.3    | 0.0   | 47.3  |
| 100     | 9.6     | 0.0   | 42.4  |

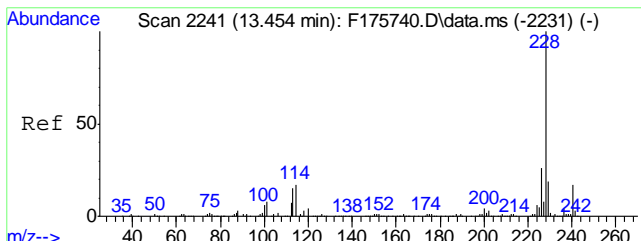


#84  
 Pyrene  
 Concen: 110.31 ppm  
 RT: 10.510 min Scan# 1690  
 Delta R.T. -0.054 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 914734 | 100   |       |
| 101     | 16.8   | 0.0   | 50.0  |
| 100     | 12.3   | 0.0   | 45.6  |

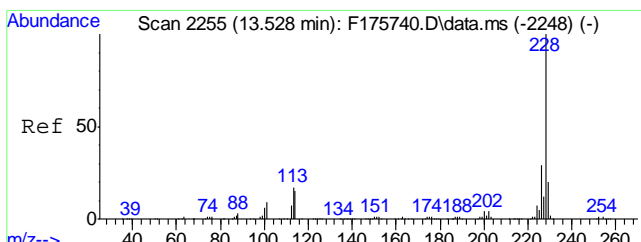
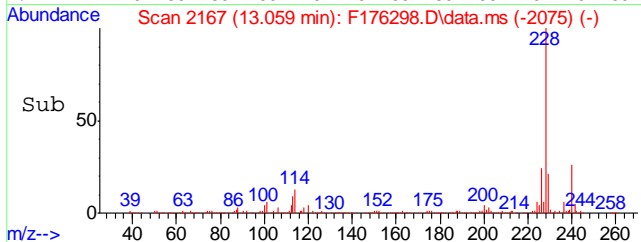
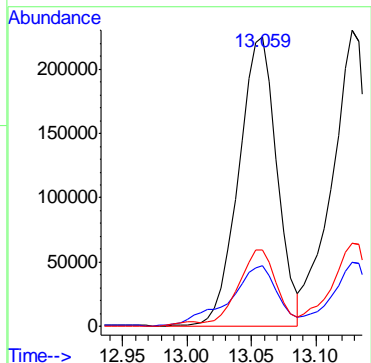
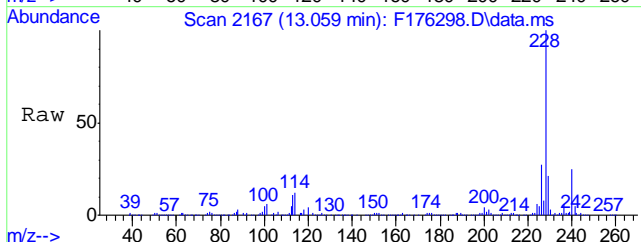






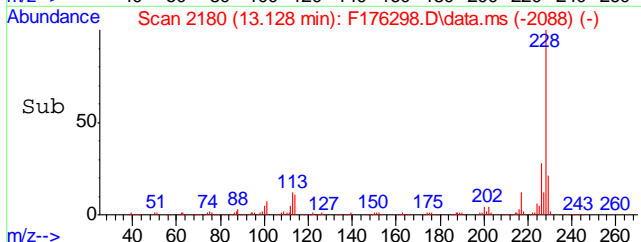
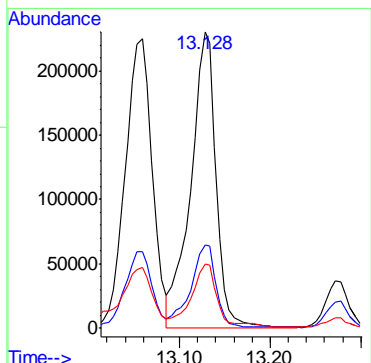
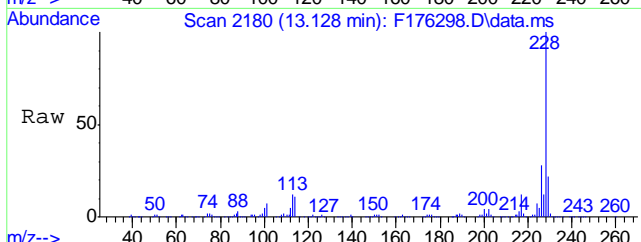
#87  
 Benzo[a]anthracene  
 Concen: 66.02 ppm  
 RT: 13.059 min Scan# 2167  
 Delta R.T. -0.006 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.2  | 0.0   | 48.8  |
| 226     | 26.2  | 0.0   | 55.4  |

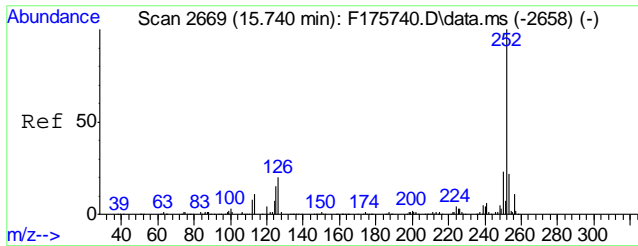


#89  
 Chrysene  
 Concen: 57.35 ppm  
 RT: 13.128 min Scan# 2180  
 Delta R.T. -0.009 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.0  | 0.0   | 59.2  |
| 229     | 21.1  | 0.0   | 49.9  |

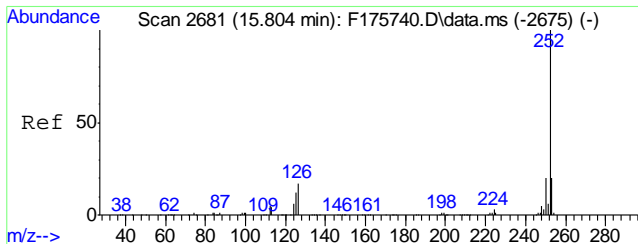
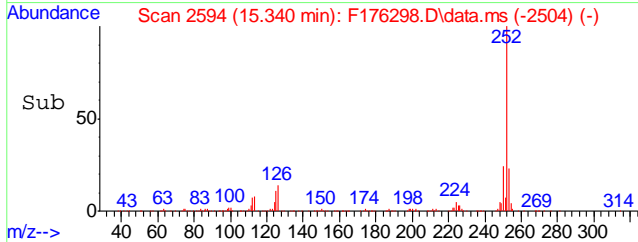
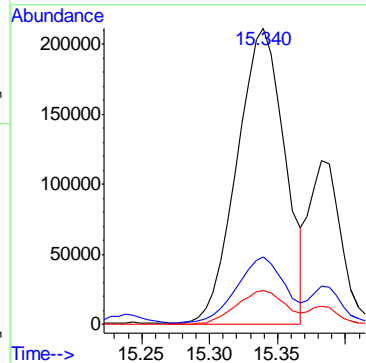
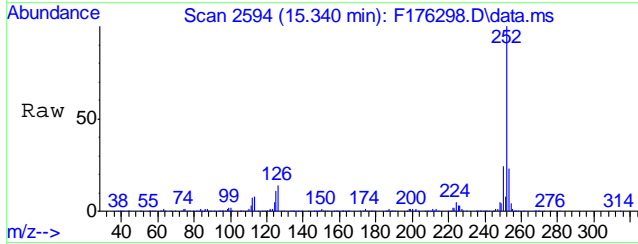


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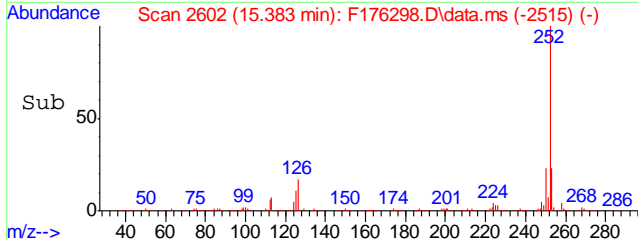
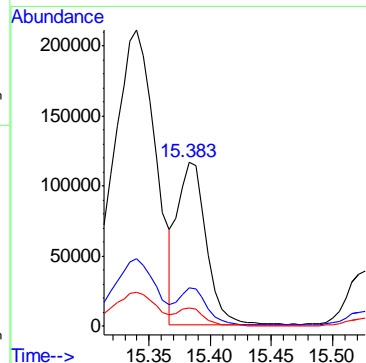
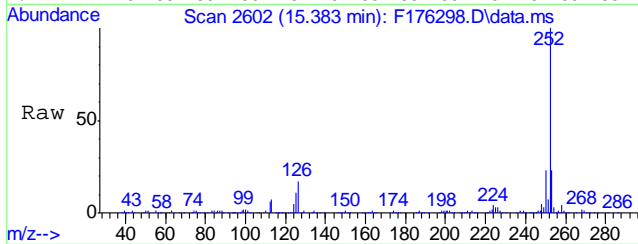
#93  
 Benzo[b]fluoranthene  
 Concen: 75.87 ppm  
 RT: 15.340 min Scan# 2594  
 Delta R.T. -0.018 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.7 | 0.0   | 51.4  |
| 125     | 11.2 | 0.0   | 43.6  |

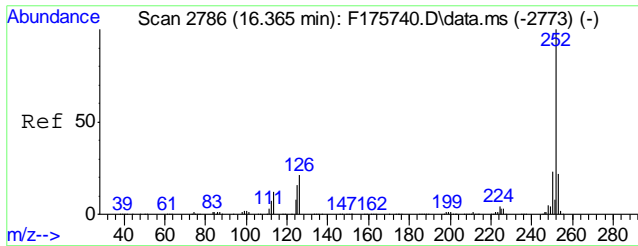


#94  
 Benzo[k]fluoranthene  
 Concen: 25.10 ppm  
 RT: 15.383 min Scan# 2602  
 Delta R.T. -0.038 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.3 | 0.0   | 51.4  |
| 125     | 10.3 | 0.0   | 43.3  |

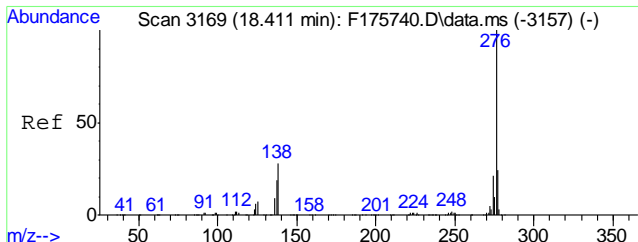
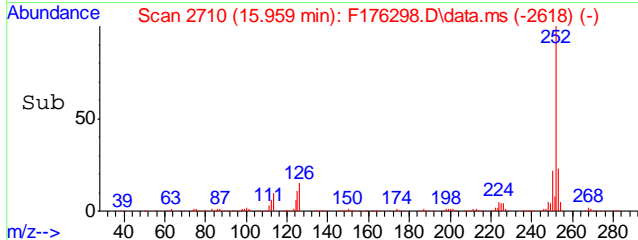
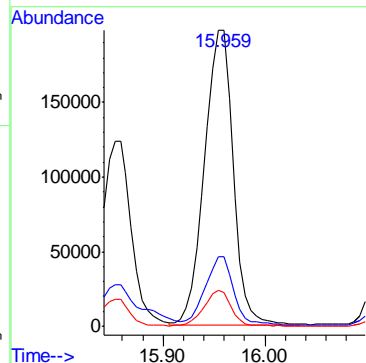
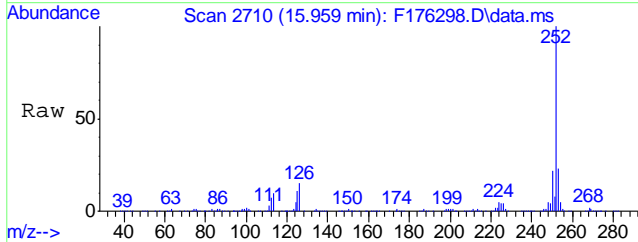


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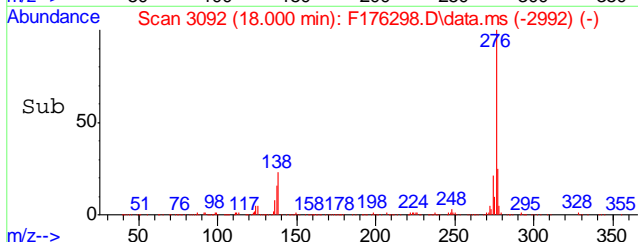
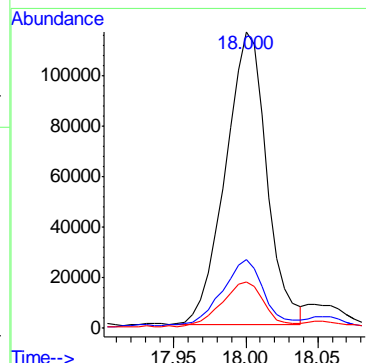
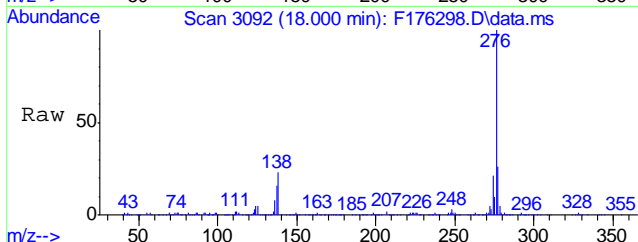
#95  
 Benzo[a]pyrene  
 Concen: 64.88 ppm  
 RT: 15.959 min Scan# 2710  
 Delta R.T. -0.008 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.1 | 0.0   | 51.9  |
| 125     | 11.2 | 0.0   | 45.6  |

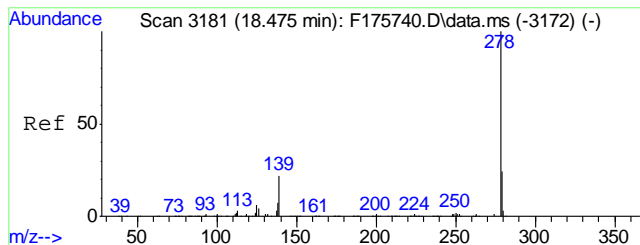


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 41.34 ppm  
 RT: 18.000 min Scan# 3092  
 Delta R.T. 0.037 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 22.2 | 0.0   | 56.5  |
| 137     | 15.3 | 0.0   | 48.3  |

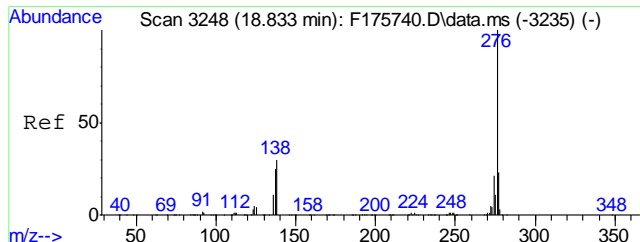
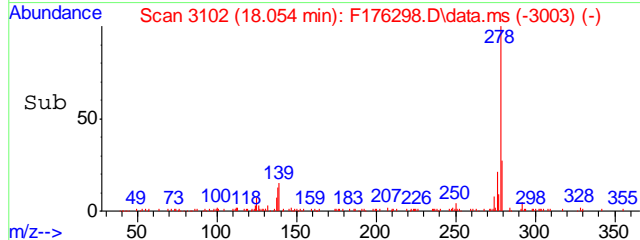
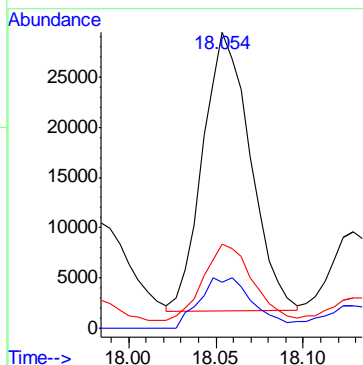
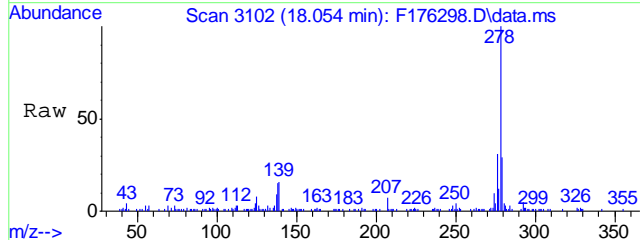


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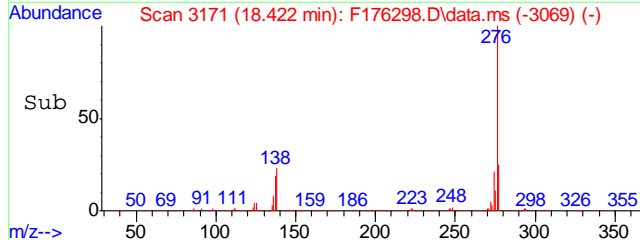
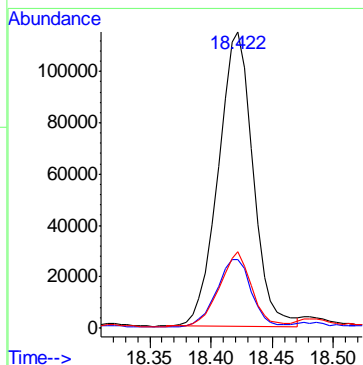
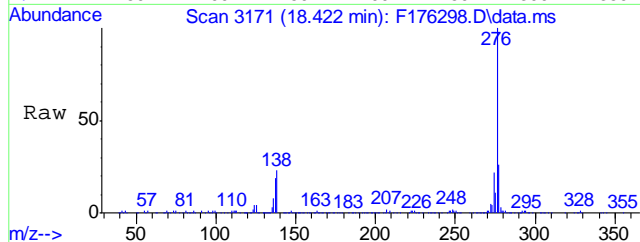
#98  
 Dibenz[a,h]anthracene  
 Concen: 8.04 ppm  
 RT: 18.054 min Scan# 3102  
 Delta R.T. 0.027 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 52378 | 100   |       |
| 139     | 15.6  | 0.0   | 52.2  |
| 279     | 27.7  | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 35.34 ppm  
 RT: 18.422 min Scan# 3171  
 Delta R.T. 0.047 min  
 Lab File: F176298.D  
 Acq: 7 May 2018 10:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 227445 | 100   |       |
| 138     | 22.6   | 0.0   | 59.8  |
| 277     | 24.9   | 0.0   | 52.8  |



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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\  
 Data File : f176323.d  
 Acq On : 8 May 2018 8:14 pm  
 Operator : christc2  
 Sample : jc65058-8 Inst : GCMSF  
 Misc : op11647,ef7511,30.8,,,1,2  
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Results File: MF7484.RES  
 Quant Time: May 09 05:54:52 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 04:55:45 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |    |
|------------------------------|--------|------|----------|-------|--------|----------|----|
| Internal Standards           |        |      |          |       |        |          |    |
| 1) 1,4-Dichlorobenzene-d4    | 4.308  | 152  | 69315    | 40.00 | ppm    | 0.00     |    |
| 24) Naphthalene-d8           | 5.227  | 136  | 273153   | 40.00 | ppm    | 0.00     |    |
| 47) Acenaphthene-d10         | 6.541  | 164  | 136864   | 40.00 | ppm    | 0.00     |    |
| 69) Phenanthrene-d10         | 8.229  | 188  | 256657   | 40.00 | ppm    | 0.00     |    |
| 83) Chrysene-d12             | 13.283 | 240  | 249898   | 40.00 | ppm    | 0.00     |    |
| 91) Perylene-d12             | 16.296 | 264  | 260283   | 40.00 | ppm    | 0.00     |    |
| 101) 1,4-Dichlorobenzene-d4a | 4.308  | 152  | 69315    | 40.00 | ppm    | 0.00     |    |
| 103) Phenanthrene-d10a       | 8.229  | 188  | 256657   | 40.00 | ppm    | 0.00     |    |
| 105) Chrysene-d12a           | 13.283 | 240  | 249898   | 40.00 | ppm    | 0.00     |    |
| 107) Naphthalene-d8a         | 5.227  | 136  | 273153   | 40.00 | ppm    | 0.00     |    |
| 109) Acenaphthene-d10a       | 6.541  | 164  | 136864   | 40.00 | ppm    | 0.00     |    |
| System Monitoring Compounds  |        |      |          |       |        |          |    |
| 5) 2-Fluorophenol            | 3.335  | 112  | 42702    | 21.15 | ppm    | -0.02    |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 42.30% |          |    |
| 8) Phenol-d5                 | 4.073  | 99   | 56408    | 19.50 | ppm    | 0.00     |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 39.00% |          |    |
| 25) Nitrobenzene-d5          | 4.714  | 82   | 51763    | 17.44 | ppm    | 0.00     |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 34.88% |          |    |
| 51) 2-Fluorobiphenyl         | 6.001  | 172  | 97624    | 18.83 | ppm    | 0.00     |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 37.66% |          |    |
| 73) 2,4,6-Tribromophenol     | 7.337  | 330  | 15547    | 22.71 | ppm    | 0.00     |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 45.42% |          |    |
| 85) Terphenyl-d14            | 11.130 | 244  | 102376   | 18.05 | ppm    | -0.02    |    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 36.10% |          |    |
| Target Compounds             |        |      |          |       |        |          |    |
| 38) Naphthalene              | 5.243  | 128  | 13646    | 1.82  | ppm    |          | 99 |
| 44) 2-Methylnaphthalene      | 5.739  | 141  | 5096     | 1.26  | ppm    |          | 92 |
| 53) Biphenyl                 | 6.076  | 154  | 2386     | 0.44  | ppm    |          | 97 |
| 56) Acenaphthylene           | 6.418  | 152  | 2855     | 0.44  | ppm    |          | 95 |
| 59) Acenaphthene             | 6.568  | 153  | 27429    | 6.18  | ppm    |          | 97 |
| 62) Dibenzofuran             | 6.728  | 168  | 15905    | 2.68  | ppm    |          | 93 |
| 66) Fluorene                 | 7.070  | 166  | 25377    | 5.49  | ppm    |          | 98 |
| 77) Phenanthrene             | 8.266  | 178  | 357018   | 48.24 | ppm    |          | 99 |
| 78) Anthracene               | 8.336  | 178  | 95047    | 13.14 | ppm    |          | 98 |
| 79) Carbazole                | 8.603  | 167  | 43395    | 6.55  | ppm    |          | 97 |
| 81) Fluoranthene             | 10.280 | 202  | 529879   | 72.23 | ppm    |          | 93 |
| 84) Pyrene                   | 10.702 | 202  | 441321   | 53.22 | ppm    |          | 92 |
| 87) Benzo[a]anthracene       | 13.267 | 228  | 231246   | 32.90 | ppm    |          | 99 |
| 89) Chrysene                 | 13.336 | 228  | 220206   | 28.12 | ppm    |          | 97 |
| 93) Benzo[b]fluoranthene     | 15.553 | 252  | 262012   | 38.69 | ppm    |          | 98 |
| 94) Benzo[k]fluoranthene     | 15.601 | 252  | 91521    | 12.26 | ppm    |          | 96 |
| 95) Benzo[a]pyrene           | 16.173 | 252  | 193341   | 32.46 | ppm    |          | 95 |
| 96) Indeno[1,2,3-cd]pyrene   | 18.224 | 276  | 113526   | 20.46 | ppm    |          | 91 |
| 98) Dibenz[a,h]anthracene    | 18.278 | 278  | 27737    | 4.28  | ppm    |          | 92 |
| 100) Benzo[g,h,i]perylene    | 18.641 | 276  | 111430   | 17.41 | ppm    |          | 96 |

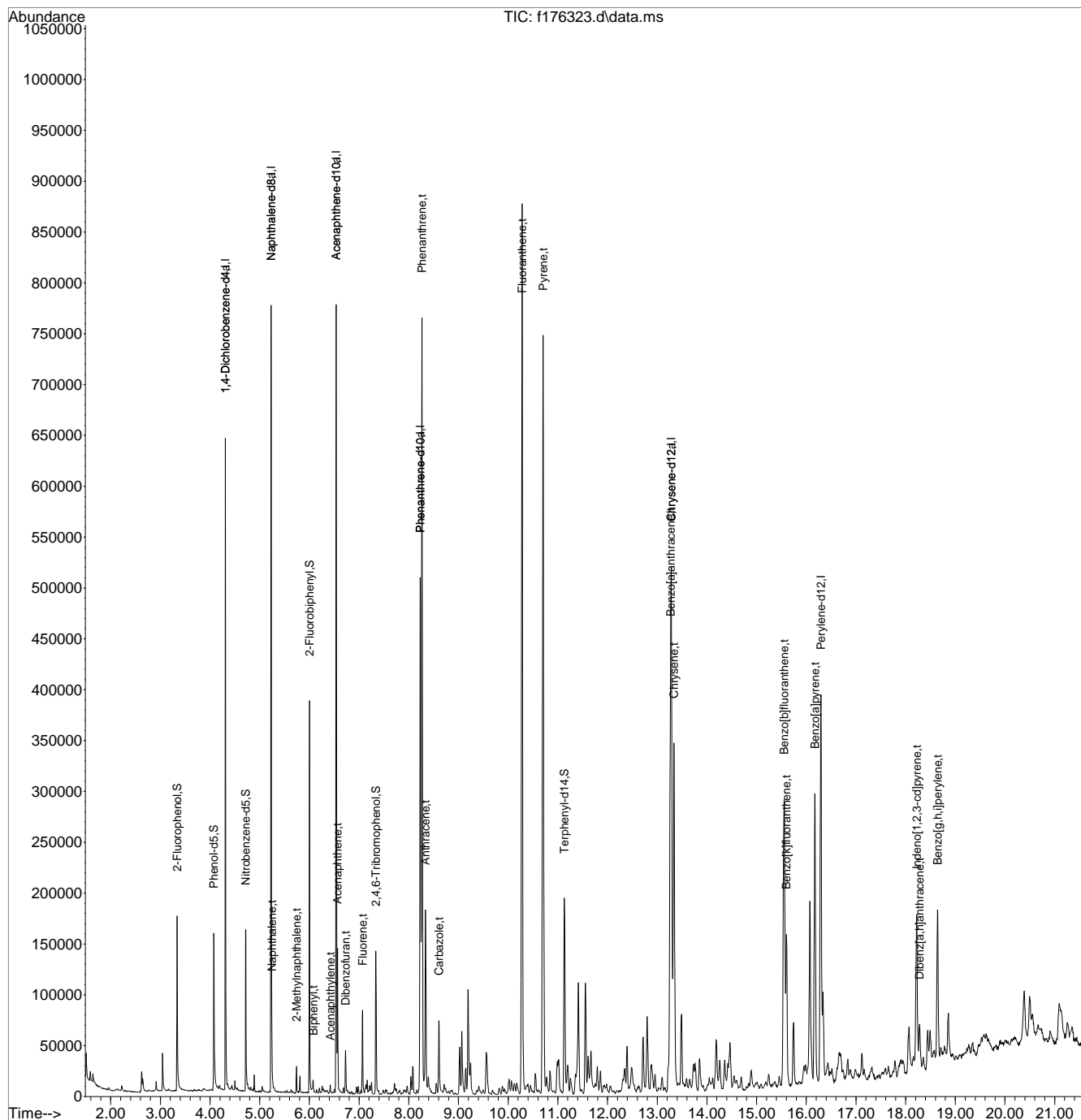
(#) = qualifier out of range (m) = manual integration (+) = signals summed

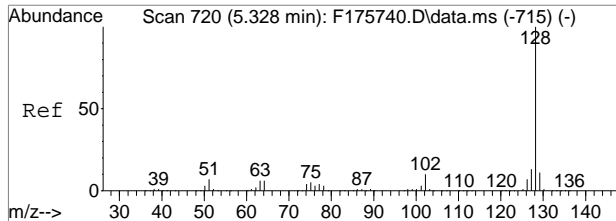
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ef7511\  
 Data File : f176323.d  
 Acq On : 8 May 2018 8:14 pm  
 Operator : christc2  
 Sample : jc65058-8  
 Misc : op11647,ef7511,30.8,,,1,2  
 ALS Vial : 20 Sample Multiplier: 1

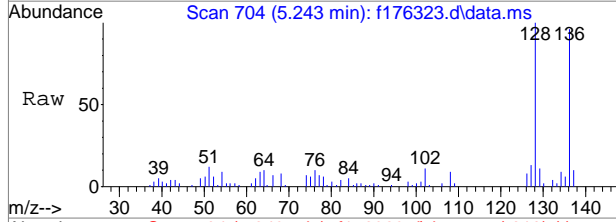
Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Results File: MF7484.RES  
 Quant Time: May 09 05:54:52 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 09 04:55:45 2018  
 Response via : Initial Calibration



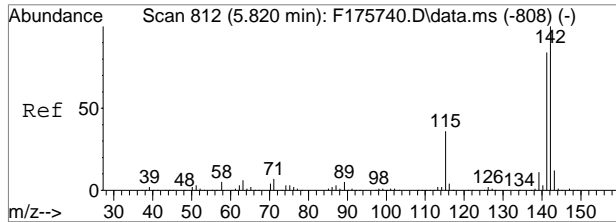
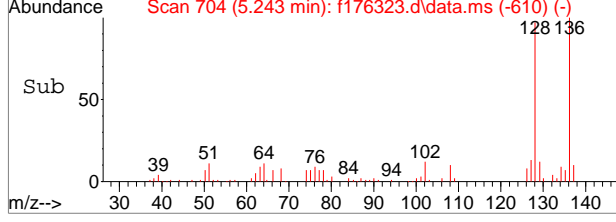
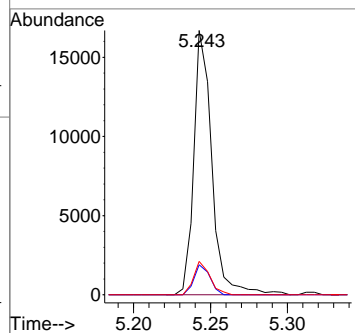


#38  
 Naphthalene  
 Concen: 1.82 ppm  
 RT: 5.243 min Scan# 704  
 Delta R.T. 0.000 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

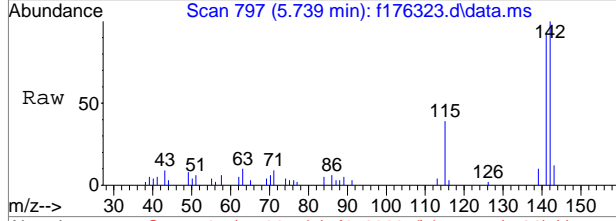


Tgt Ion:128 Resp: 13646

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 129 | 11.4  | 0.0   | 41.0  |
| 127 | 12.6  | 0.0   | 42.8  |

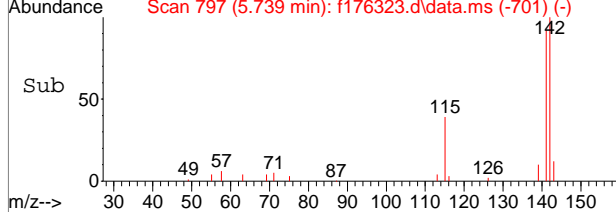
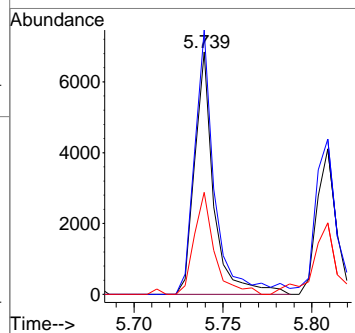


#44  
 2-Methylnaphthalene  
 Concen: 1.26 ppm  
 RT: 5.739 min Scan# 797  
 Delta R.T. 0.014 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

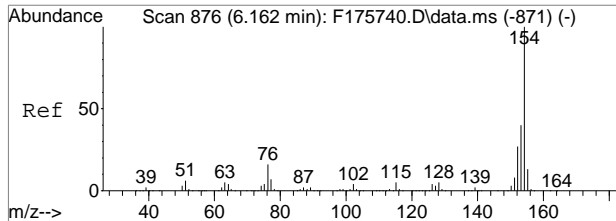


Tgt Ion:141 Resp: 5096

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 141 | 100   |       |       |
| 142 | 107.9 | 88.6  | 148.6 |
| 115 | 39.9  | 12.3  | 72.3  |

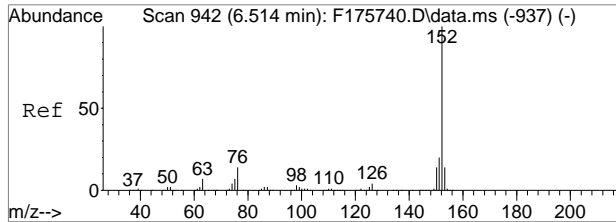
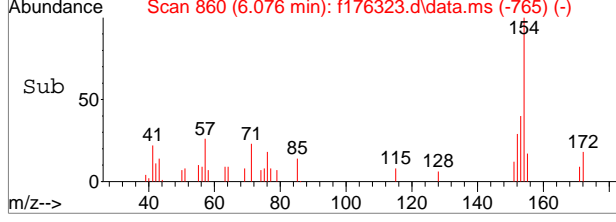
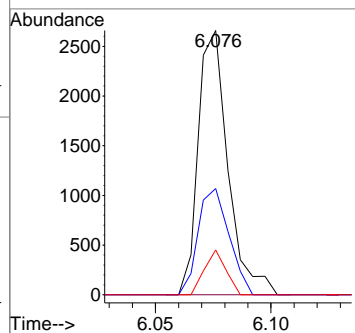
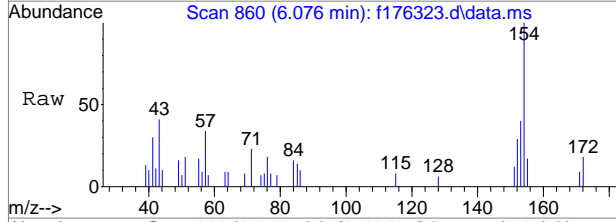


9.1.12  
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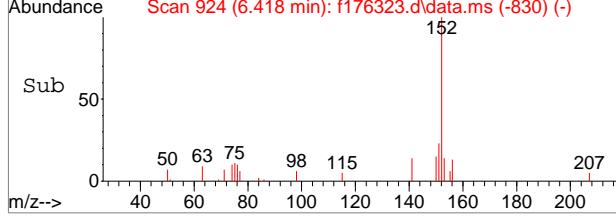
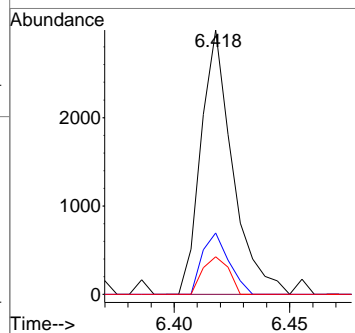
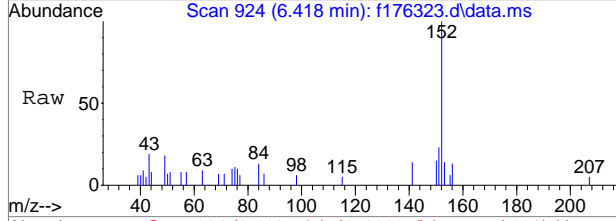
#53  
 Biphenyl  
 Concen: 0.44 ppm  
 RT: 6.076 min Scan# 860  
 Delta R.T. 0.009 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.1  | 9.8   | 69.8  |
| 155     | 16.9  | 0.0   | 43.0  |

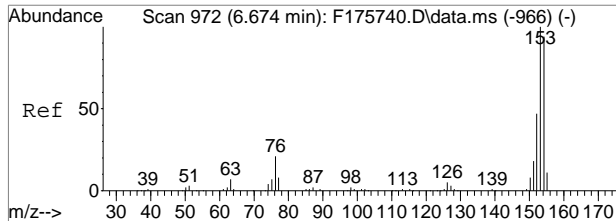


#56  
 Acenaphthylene  
 Concen: 0.44 ppm  
 RT: 6.418 min Scan# 924  
 Delta R.T. 0.003 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 23.2  | 0.0   | 49.6  |
| 153     | 14.2  | 0.0   | 43.6  |

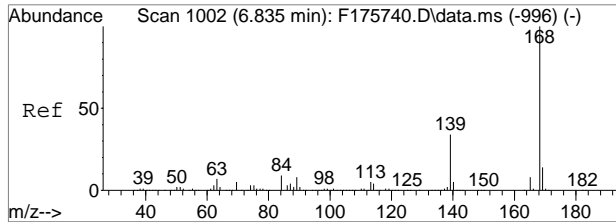
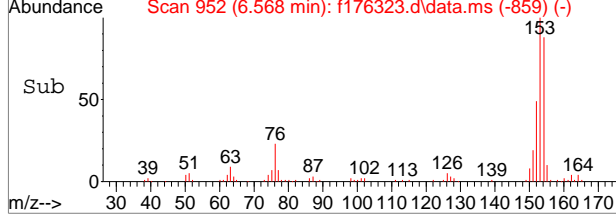
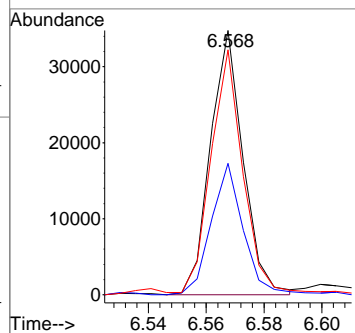
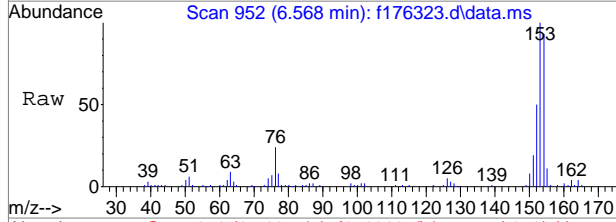






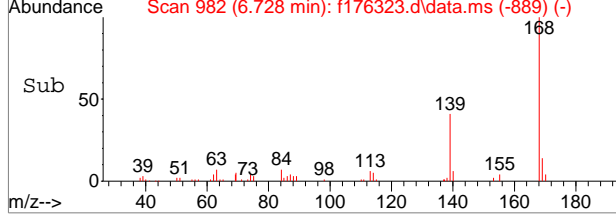
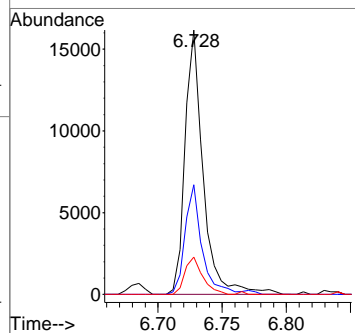
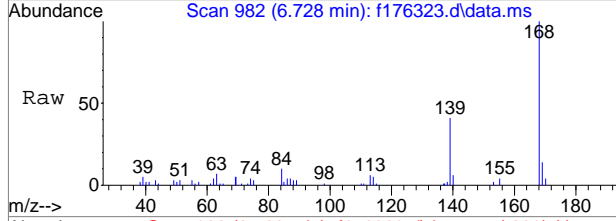
#59  
 Acenaphthene  
 Concen: 6.18 ppm  
 RT: 6.568 min Scan# 952  
 Delta R.T. -0.005 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 27429 |       |       |
| 153     | 100   |       |       |
| 152     | 49.6  | 16.7  | 76.7  |
| 154     | 92.3  | 64.1  | 124.1 |

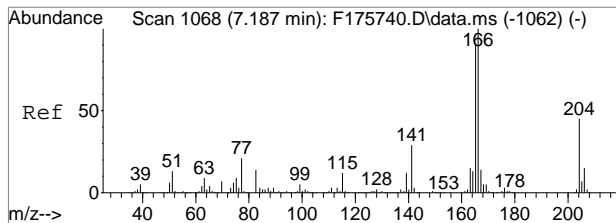


#62  
 Dibenzofuran  
 Concen: 2.68 ppm  
 RT: 6.728 min Scan# 982  
 Delta R.T. -0.002 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 15905 |       |       |
| 168     | 100   |       |       |
| 139     | 41.4  | 5.7   | 65.7  |
| 169     | 14.1  | 0.0   | 43.7  |

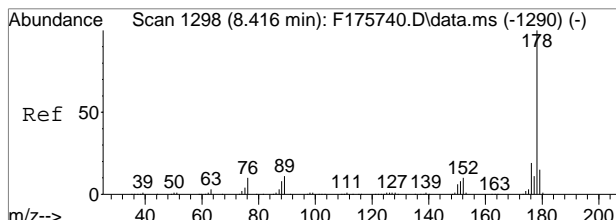
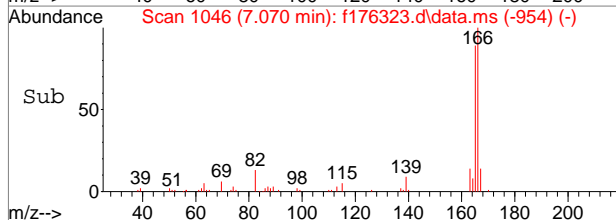
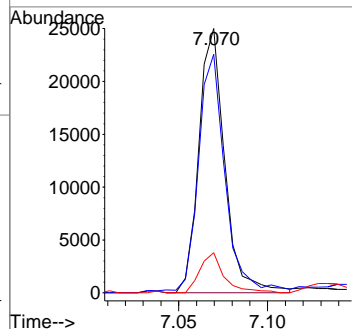
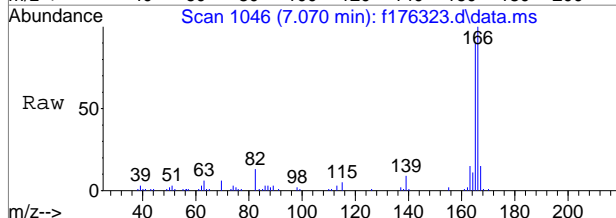


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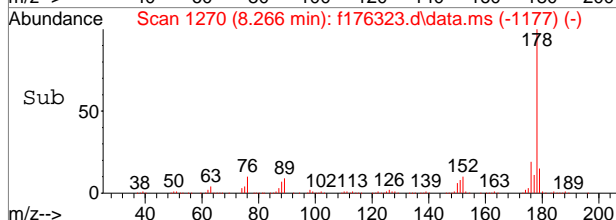
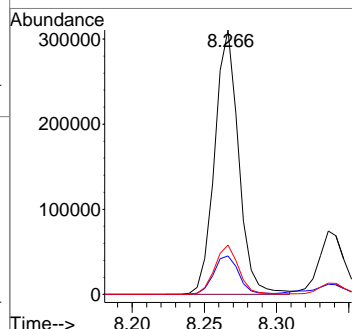
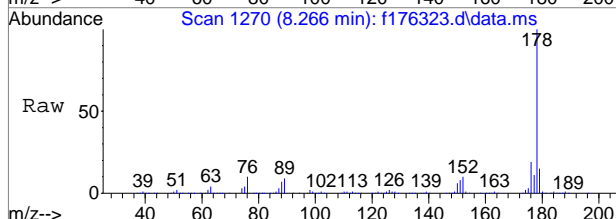
#66  
 Fluorene  
 Concen: 5.49 ppm  
 RT: 7.070 min Scan# 1046  
 Delta R.T. -0.008 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

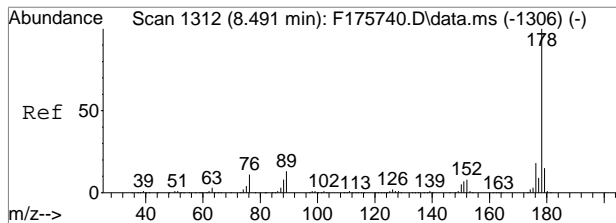
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 89.6  | 61.4  | 121.4 |
| 167     | 15.3  | 0.0   | 43.6  |



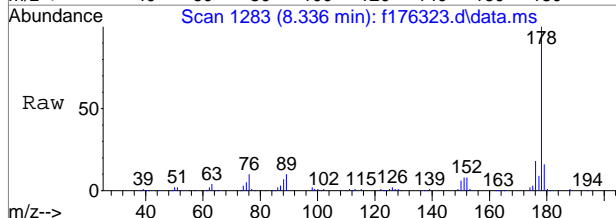
#77  
 Phenanthrene  
 Concen: 48.24 ppm  
 RT: 8.266 min Scan# 1270  
 Delta R.T. -0.005 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.2  | 0.0   | 45.3  |
| 176     | 18.7  | 0.0   | 48.6  |



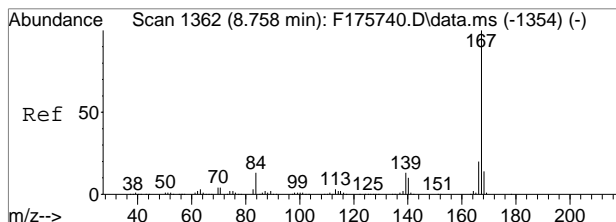
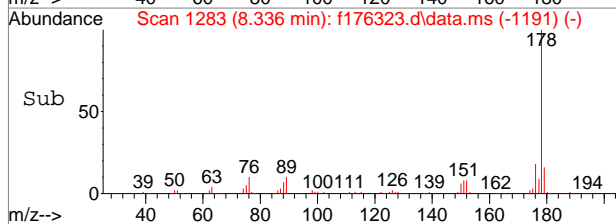
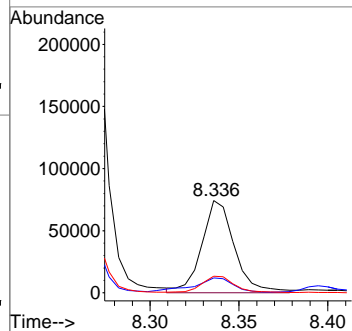


#78  
 Anthracene  
 Concen: 13.14 ppm  
 RT: 8.336 min Scan# 1283  
 Delta R.T. -0.011 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

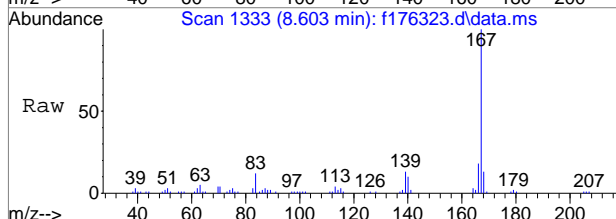


Tgt Ion: 178 Resp: 95047

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 178 | 100   |       |       |
| 179 | 13.9  | 0.0   | 45.0  |
| 176 | 17.9  | 0.0   | 48.2  |

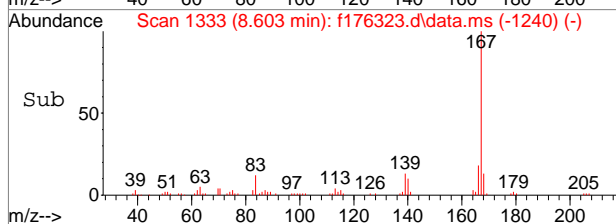
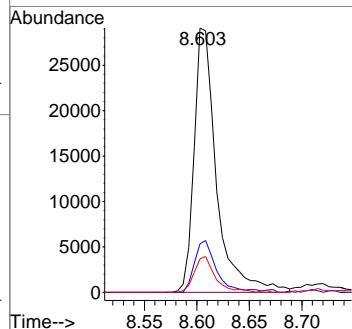


#79  
 Carbazole  
 Concen: 6.55 ppm  
 RT: 8.603 min Scan# 1333  
 Delta R.T. -0.004 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm



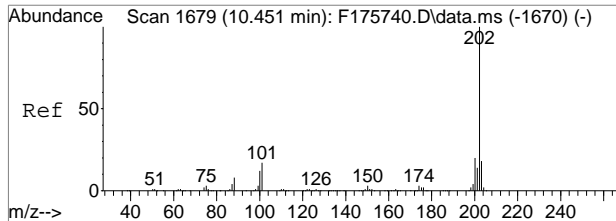
Tgt Ion: 167 Resp: 43395

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 167 | 100   |       |       |
| 166 | 18.2  | 0.0   | 50.3  |
| 139 | 12.8  | 0.0   | 42.9  |



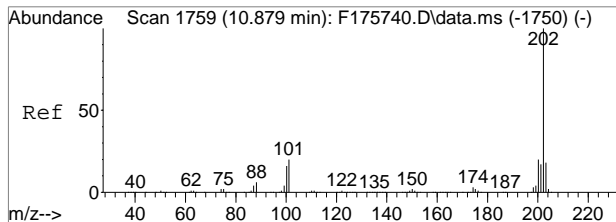
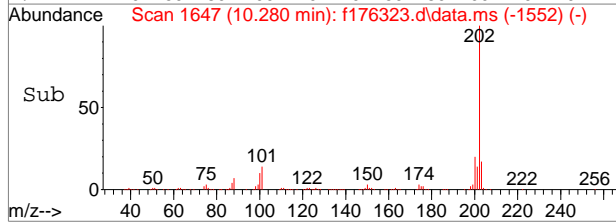
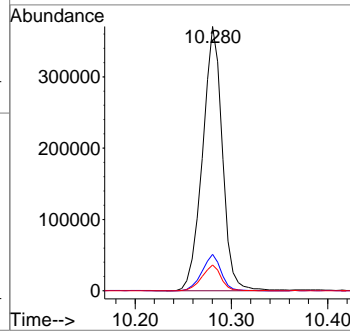
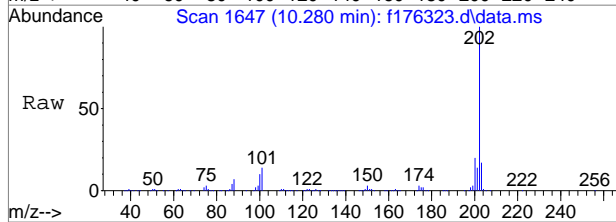
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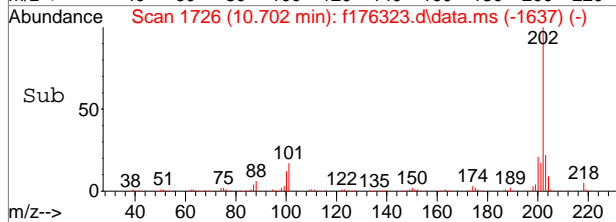
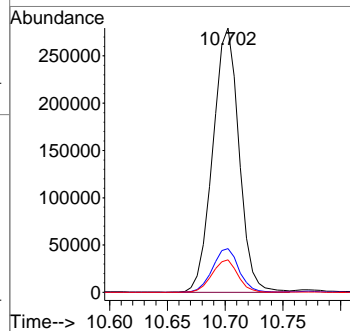
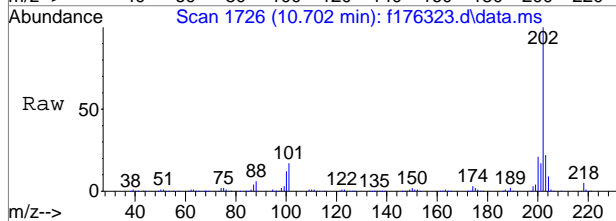
#81  
 Fluoranthene  
 Concen: 72.23 ppm  
 RT: 10.280 min Scan# 1647  
 Delta R.T. 0.009 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 13.8  | 0.0   | 47.3  |
| 100     | 9.8   | 0.0   | 42.4  |

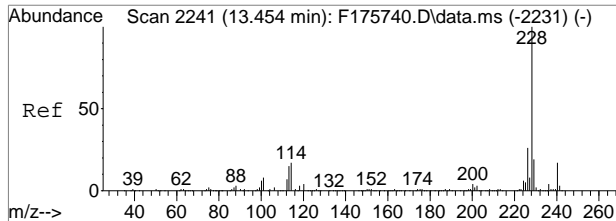


#84  
 Pyrene  
 Concen: 53.22 ppm  
 RT: 10.702 min Scan# 1726  
 Delta R.T. -0.025 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 16.5  | 0.0   | 50.0  |
| 100     | 12.3  | 0.0   | 45.6  |

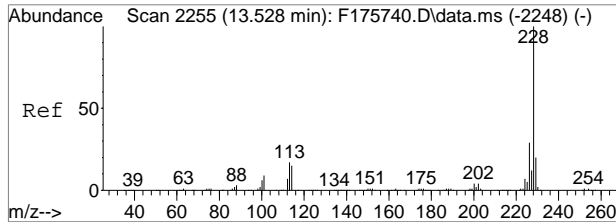
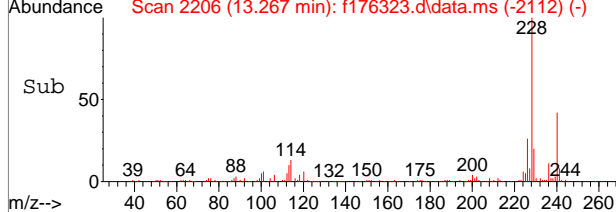
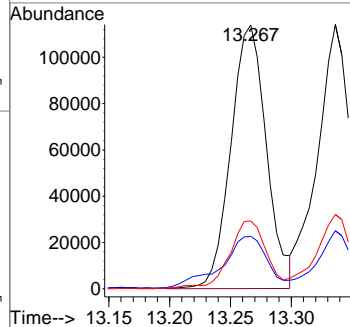
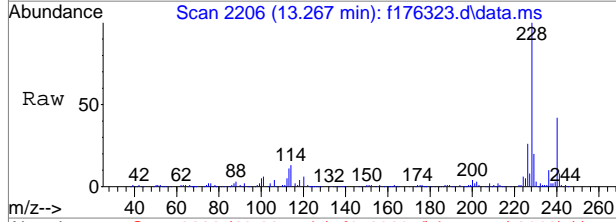


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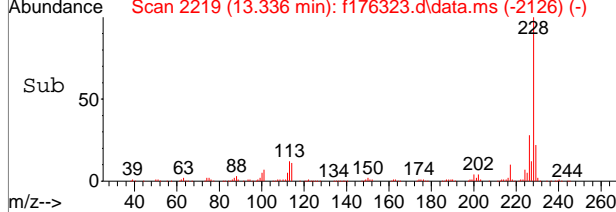
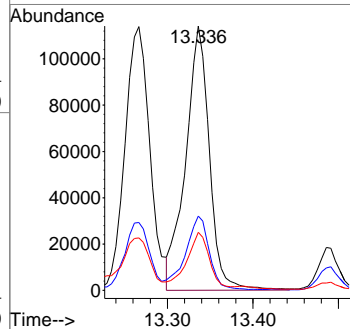
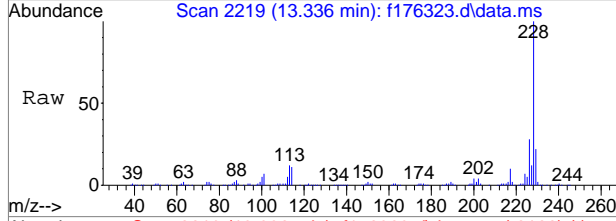
#87  
 Benzo[a]anthracene  
 Concen: 32.90 ppm  
 RT: 13.267 min Scan# 2206  
 Delta R.T. -0.000 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

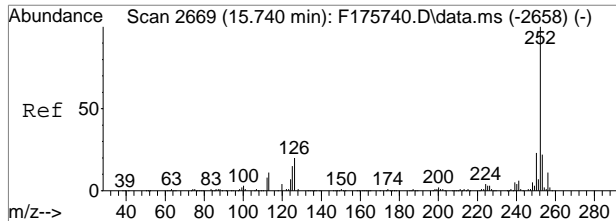
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.2  | 0.0   | 48.8  |
| 226     | 25.3  | 0.0   | 55.4  |



#89  
 Chrysene  
 Concen: 28.12 ppm  
 RT: 13.336 min Scan# 2219  
 Delta R.T. -0.005 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

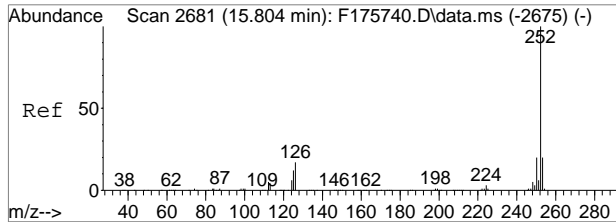
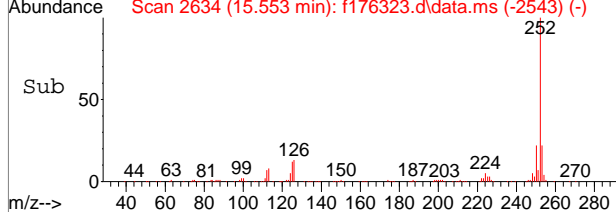
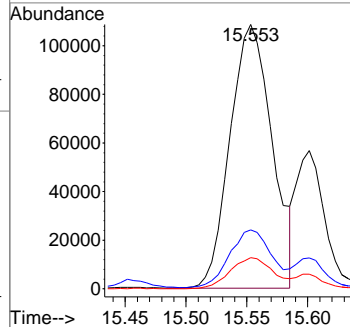
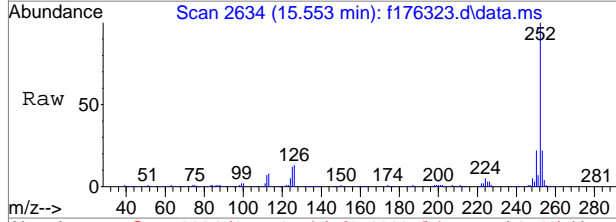
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.9  | 0.0   | 59.2  |
| 229     | 21.5  | 0.0   | 49.9  |





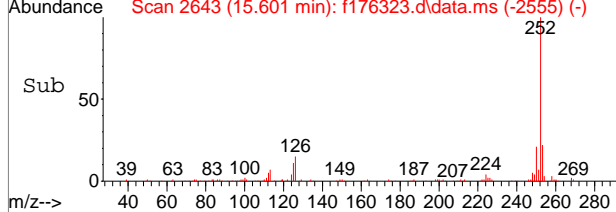
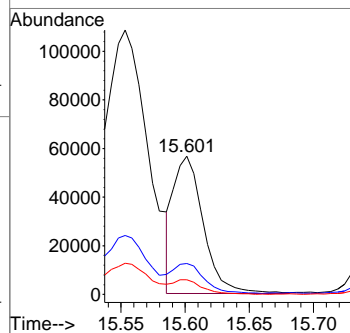
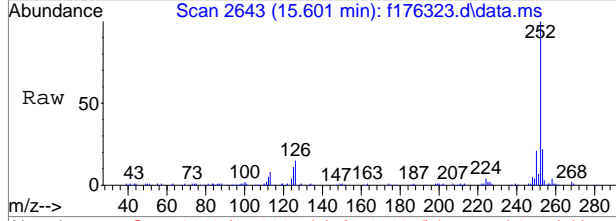
#93  
 Benzo[b]fluoranthene  
 Concen: 38.69 ppm  
 RT: 15.553 min Scan# 2634  
 Delta R.T. -0.013 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

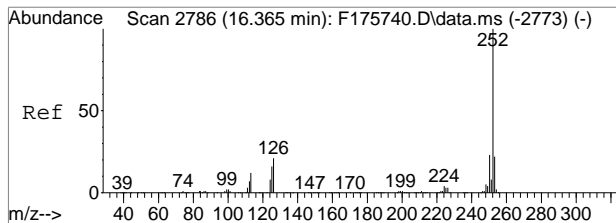
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.6  | 0.0   | 51.4  |
| 125     | 11.8  | 0.0   | 43.6  |



#94  
 Benzo[k]fluoranthene  
 Concen: 12.26 ppm  
 RT: 15.601 min Scan# 2643  
 Delta R.T. -0.029 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

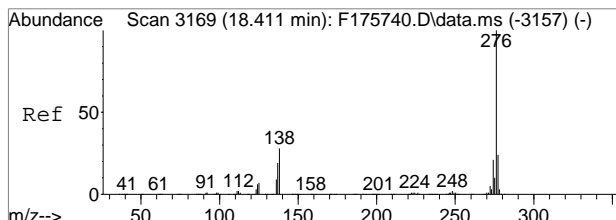
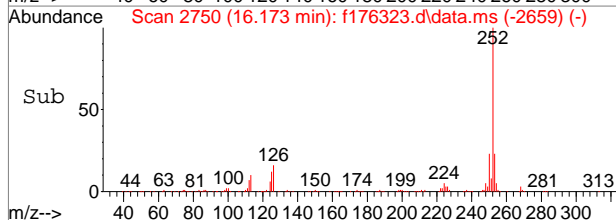
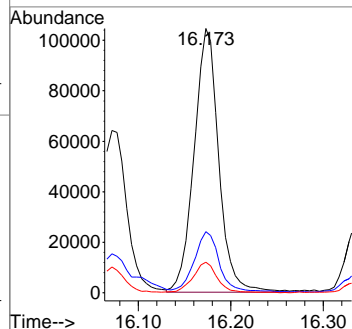
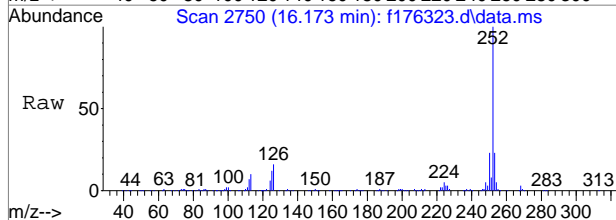
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 20.9  | 0.0   | 51.4  |
| 125     | 9.7   | 0.0   | 43.3  |





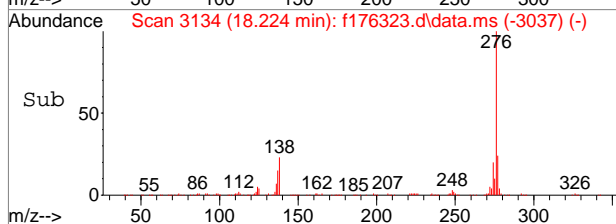
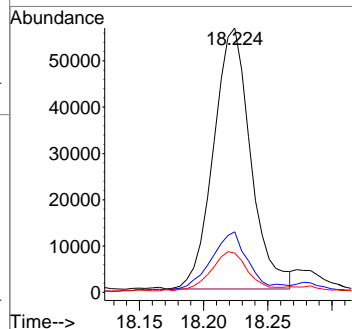
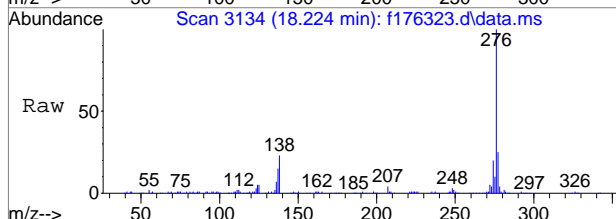
#95  
 Benzo[a]pyrene  
 Concen: 32.46 ppm  
 RT: 16.173 min Scan# 2750  
 Delta R.T. -0.012 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 193341 |       |       |
| 253     | 22.5   | 0.0   | 51.9  |
| 125     | 11.5   | 0.0   | 45.6  |

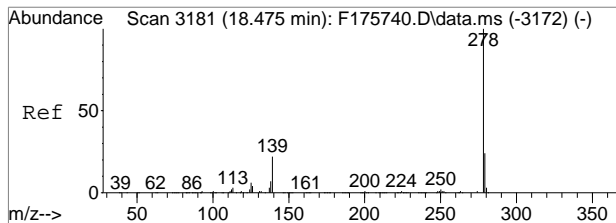


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 20.46 ppm  
 RT: 18.224 min Scan# 3134  
 Delta R.T. 0.016 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm

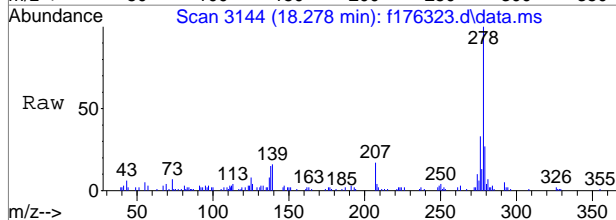
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 113526 |       |       |
| 138     | 22.1   | 0.0   | 56.5  |
| 137     | 13.9   | 0.0   | 48.3  |



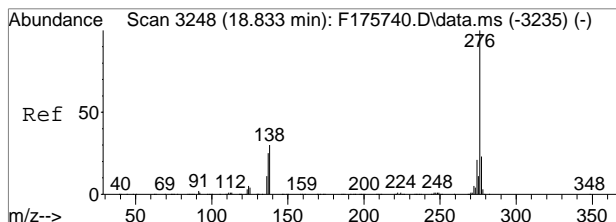
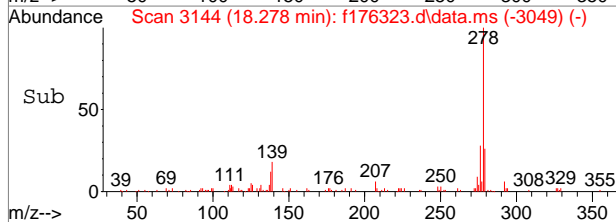
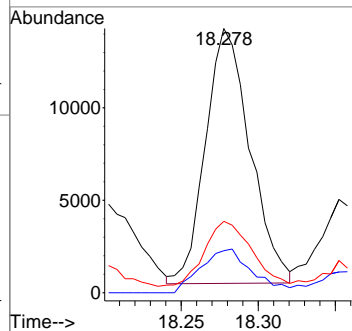
9.1.12  
**9**



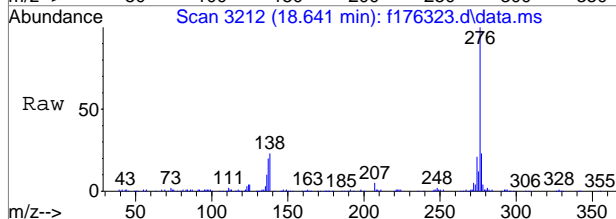
#98  
 Dibenz[a,h]anthracene  
 Concen: 4.28 ppm  
 RT: 18.278 min Scan# 3144  
 Delta R.T. 0.006 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm



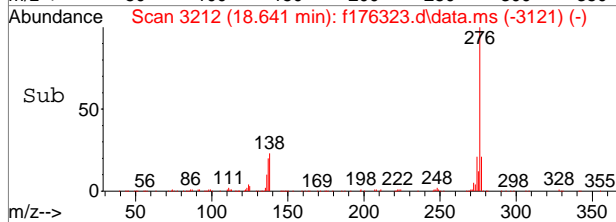
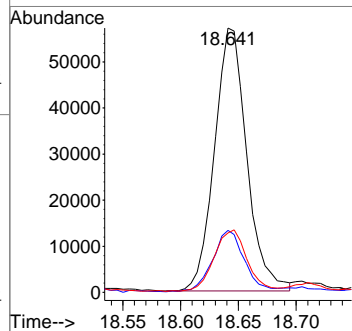
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 16.1  | 0.0   | 52.2  |
| 279     | 25.7  | 0.0   | 53.9  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 17.41 ppm  
 RT: 18.641 min Scan# 3212  
 Delta R.T. -0.016 min  
 Lab File: f176323.d  
 Acq: 8 May 2018 8:14 pm



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.9  | 0.0   | 54.5  |
| 277     | 21.8  | 0.0   | 54.2  |



9.1.12  
**9**



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130529.d  
 Acq On : 10 May 2018 10:50 pm  
 Operator : christc2  
 Sample : jc65058-10 Inst : SVOAMSZ  
 Misc : op11648,ez6439,30.0,,,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:50:52 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIion | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|-------|--------|----------|
| Internal Standards           |        |       |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.886  | 152   | 246509   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.805  | 136   | 939563   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 7.205  | 164   | 463455   | 40.00 | ppm    | -0.01    |
| 69) Phenanthrene-d10         | 8.834  | 188   | 823581   | 40.00 | ppm    | -0.01    |
| 83) Chrysene-d12             | 12.659 | 240   | 683103   | 40.00 | ppm    | -0.02    |
| 91) Perylene-d12             | 14.748 | 264   | 714821   | 40.00 | ppm    | -0.01    |
| 101) 1,4-Dichlorobenzene-d4a | 4.886  | 152   | 246509   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10a       | 8.834  | 188   | 823581   | 40.00 | ppm    | -0.01    |
| 107) Chrysene-d12a           | 12.659 | 240   | 683103   | 40.00 | ppm    | -0.01    |
| 109) Acenaphthene-d10a       | 7.205  | 164   | 463455   | 40.00 | ppm    | -0.01    |
| 111) Naphthalene-d8a         | 5.805  | 136   | 939563   | 40.00 | ppm    | 0.00     |
| 113) Phenanthrene-d10b       | 8.834  | 188   | 823581   | 40.00 | ppm    | -0.01    |
| System Monitoring Compounds  |        |       |          |       |        |          |
| 5) 2-Fluorophenol            | 3.909  | 112   | 356179   | 38.79 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |       | Recovery | =     | 77.58% |          |
| 8) Phenol-d5                 | 4.609  | 99    | 429333   | 38.95 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |       | Recovery | =     | 77.90% |          |
| 25) Nitrobenzene-d5          | 5.282  | 82    | 326725   | 40.06 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |       | Recovery | =     | 80.12% |          |
| 51) 2-Fluorobiphenyl         | 6.607  | 172   | 656274   | 40.41 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |       | Recovery | =     | 80.82% |          |
| 73) 2,4,6-Tribromophenol     | 8.006  | 330   | 119015   | 46.83 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |       | Recovery | =     | 93.66% |          |
| 85) Terphenyl-d14            | 11.078 | 244   | 640584   | 39.53 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |       | Recovery | =     | 79.06% |          |
| 104) 1-chlorooctadecane      | 0.000  | 57    | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |       | Recovery | =     | 0.00%  |          |
| 105) o-terphenyl             | 0.000  | 230   | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |       | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |       |          |       |        |          |
| 38) Naphthalene              | 5.816  | 128   | 8484     | 0.36  | ppm    | 98       |
| 44) 2-Methylnaphthalene      | 6.324  | 141   | 3485     | 0.24  | ppm    | 88       |
| 53) Biphenyl                 | 6.692  | 154   | 2986     | 0.16  | ppm    | 94       |
| 62) Dibenzofuran             | 7.397  | 168   | 9189     | 0.46  | ppm    | 92       |
| 77) Phenanthrene             | 8.861  | 178   | 82782    | 3.76  | ppm    | 98       |
| 78) Anthracene               | 8.925  | 178   | 19404    | 0.87  | ppm    | 98       |
| 79) Carbazole                | 9.128  | 167   | 10164    | 0.45  | ppm    | 97       |
| 81) Fluoranthene             | 10.485 | 202   | 173810   | 7.23  | ppm    | 96       |
| 84) Pyrene                   | 10.811 | 202   | 161331   | 6.93  | ppm    | 100      |
| 87) Benzo[a]anthracene       | 12.643 | 228   | 67913    | 3.16  | ppm    | 95       |
| 89) Chrysene                 | 12.697 | 228   | 68981    | 3.42  | ppm    | 98       |
| 93) Benzo[b]fluoranthene     | 14.230 | 252   | 104138   | 4.29  | ppm    | 95       |
| 94) Benzo[k]fluoranthene     | 14.262 | 252   | 35550    | 1.58  | ppm    | 97       |
| 95) Benzo[a]pyrene           | 14.668 | 252   | 70678    | 3.28  | ppm    | 96       |
| 96) Indeno[1,2,3-cd]pyrene   | 16.148 | 276   | 59863    | 3.17  | ppm    | 91       |
| 98) Dibenz[a,h]anthracene    | 16.180 | 278   | 13527    | 0.70  | ppm    | 92       |
| 100) Benzo[g,h,i]perylene    | 16.533 | 276   | 56596    | 2.95  | ppm    | 90       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

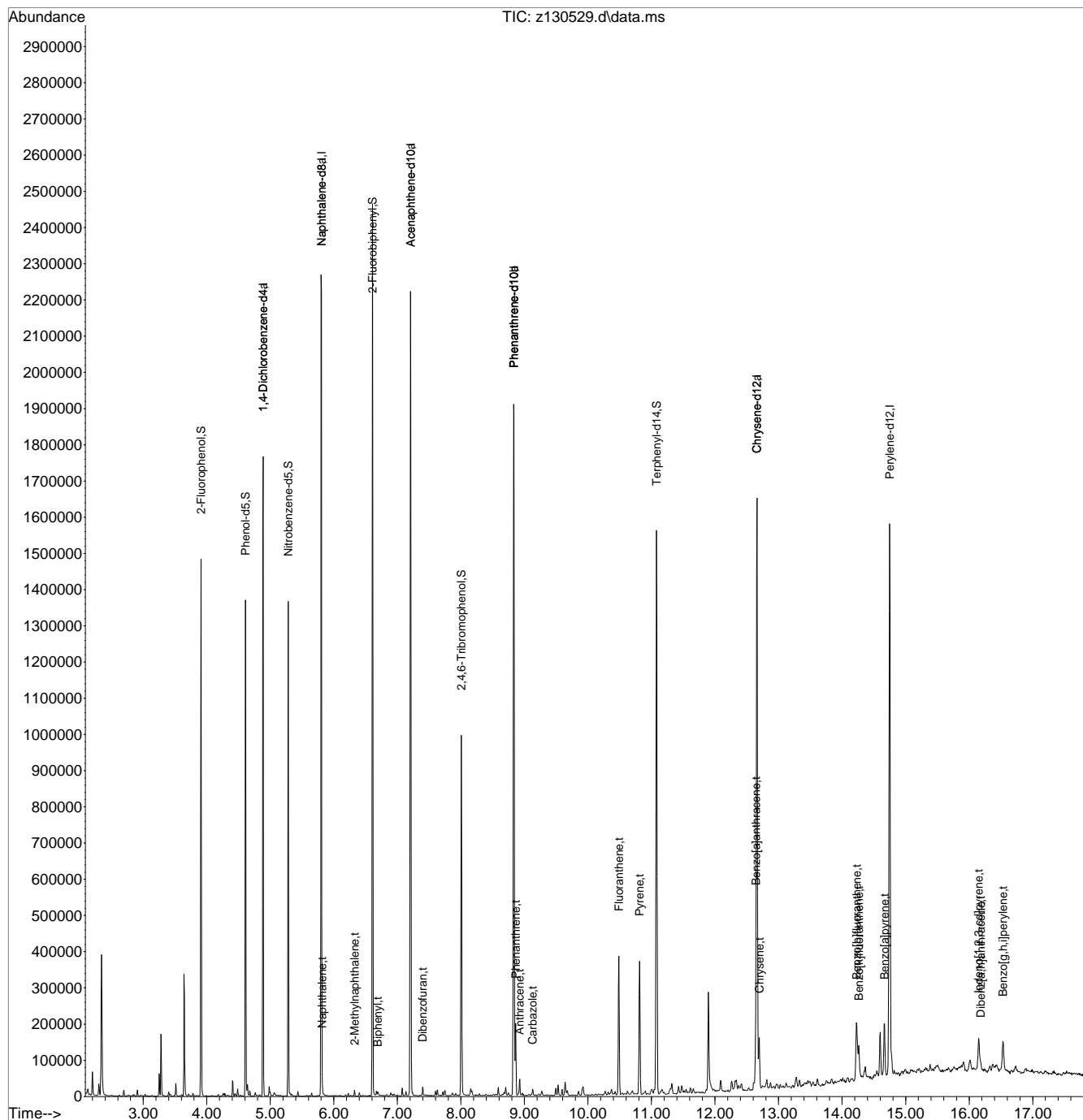
9.1.13  
9

Quantitation Report (QT Reviewed)

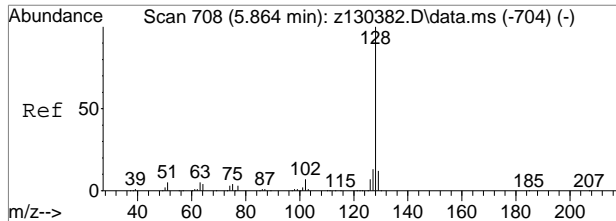
Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130529.d  
 Acq On : 10 May 2018 10:50 pm  
 Operator : christc2  
 Sample : jc65058-10  
 Misc : op11648,ez6439,30.0,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Inst : SVOAMSZ

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:50:52 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

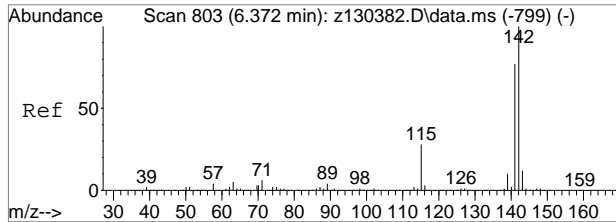
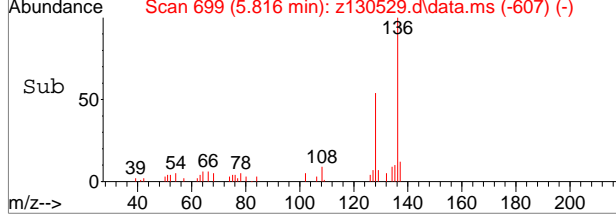
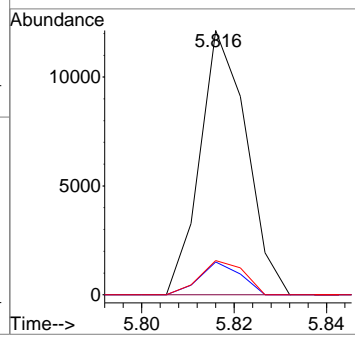
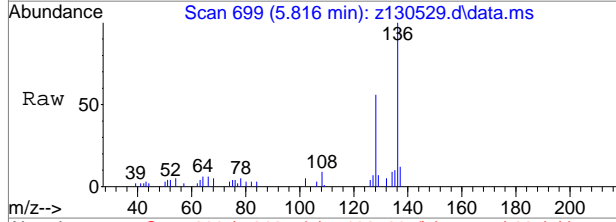


9.1.13  
9



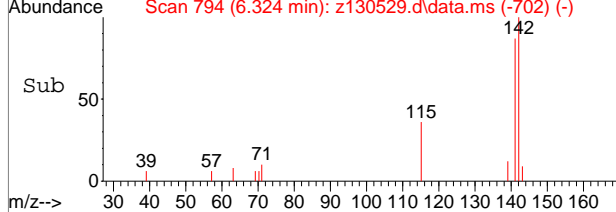
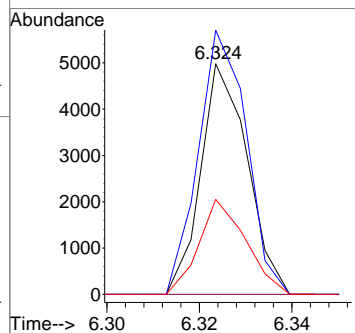
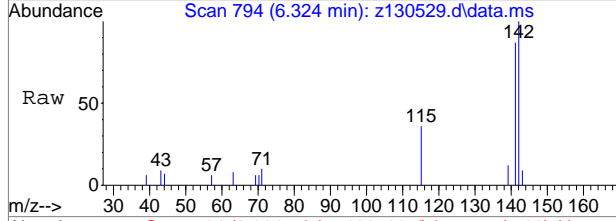
#38  
 Naphthalene  
 Concen: 0.36 ppm  
 RT: 5.816 min Scan# 699  
 Delta R.T. -0.010 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 12.4  | 0.0   | 42.1  |
| 127     | 12.9  | 0.0   | 41.9  |

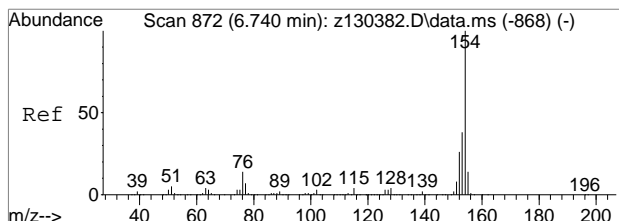


#44  
 2-Methylnaphthalene  
 Concen: 0.24 ppm  
 RT: 6.324 min Scan# 794  
 Delta R.T. -0.007 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 114.7 | 99.8  | 159.8 |
| 115     | 41.3  | 6.1   | 66.1  |

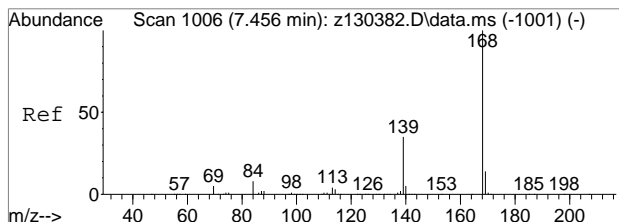
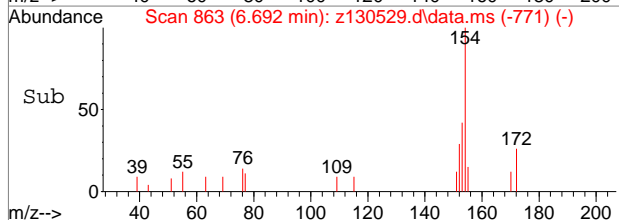
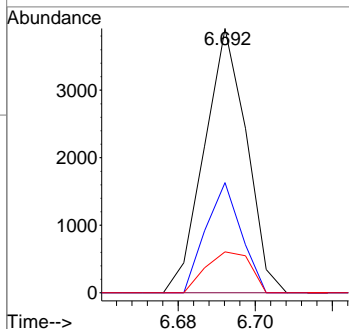
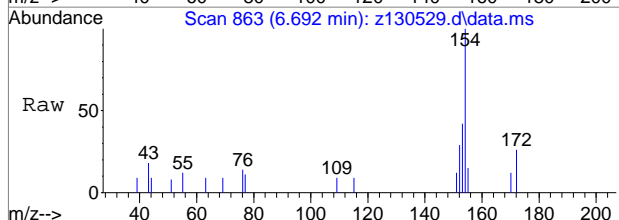


9.1.13  
9



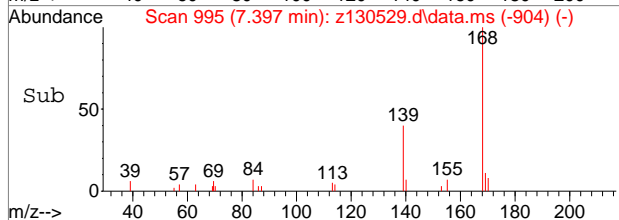
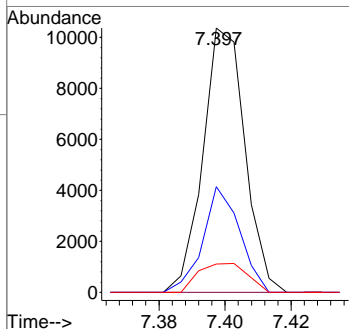
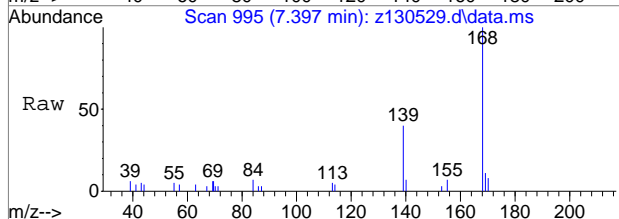
#53  
 Biphenyl  
 Concen: 0.16 ppm  
 RT: 6.692 min Scan# 863  
 Delta R.T. -0.008 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 2986 |       |       |
| 153     | 41.7 | 7.7   | 67.7  |
| 155     | 15.5 | 0.0   | 44.2  |

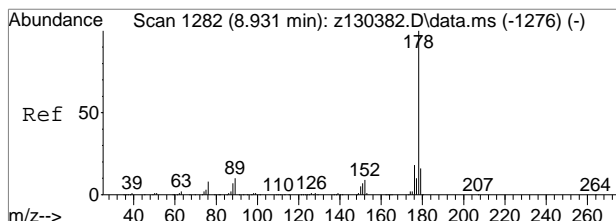


#62  
 Dibenzofuran  
 Concen: 0.46 ppm  
 RT: 7.397 min Scan# 995  
 Delta R.T. -0.015 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 9189 |       |       |
| 139     | 39.9 | 5.5   | 65.5  |
| 169     | 10.7 | 0.0   | 44.4  |

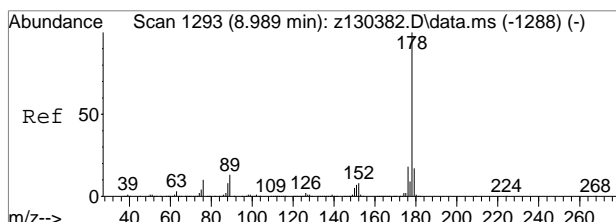
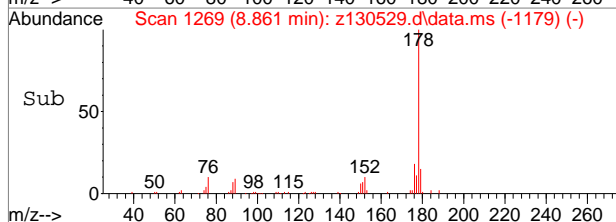
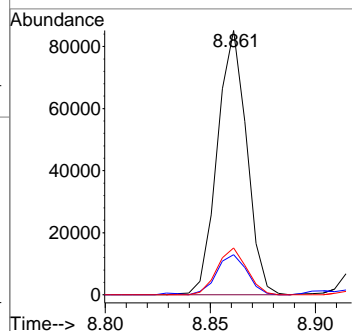
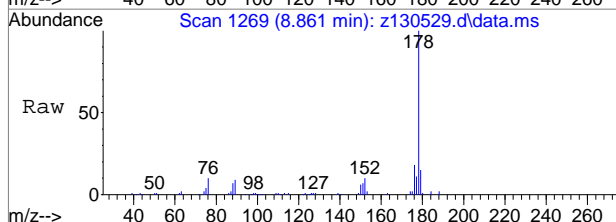


9.1.13  
9



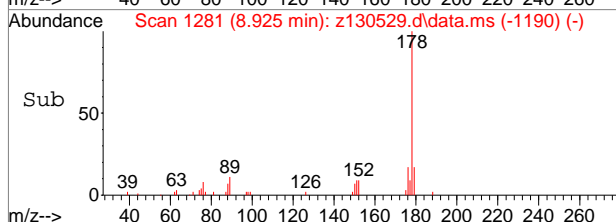
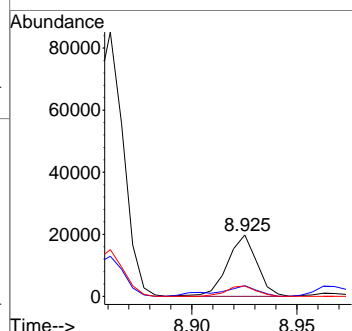
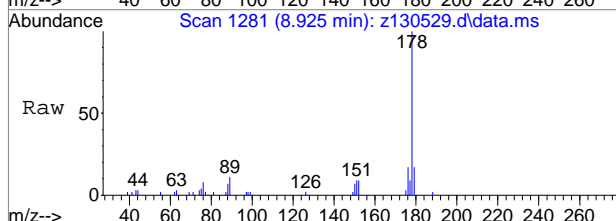
#77  
 Phenanthrene  
 Concen: 3.76 ppm  
 RT: 8.861 min Scan# 1269  
 Delta R.T. -0.021 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.9  | 0.0   | 46.3  |
| 176     | 17.7  | 0.0   | 48.1  |

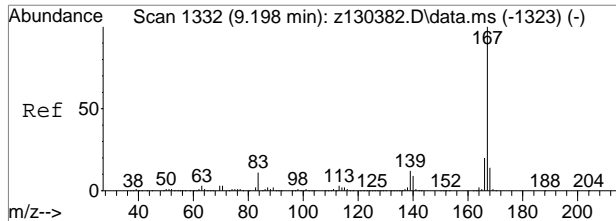


#78  
 Anthracene  
 Concen: 0.87 ppm  
 RT: 8.925 min Scan# 1281  
 Delta R.T. -0.015 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 17.5  | 0.0   | 46.9  |
| 176     | 16.9  | 0.0   | 48.0  |

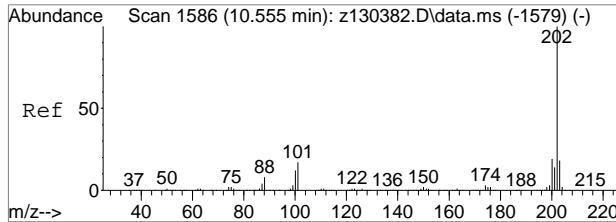
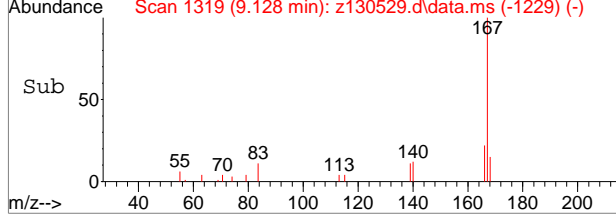
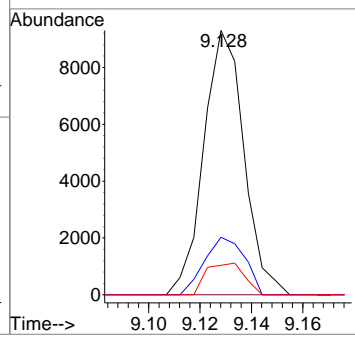
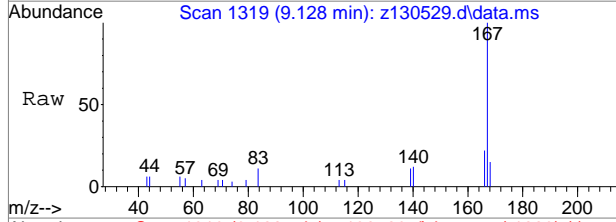


9.1.13  
**9**



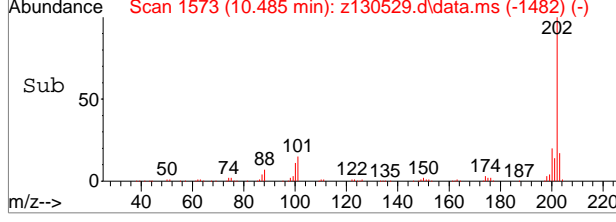
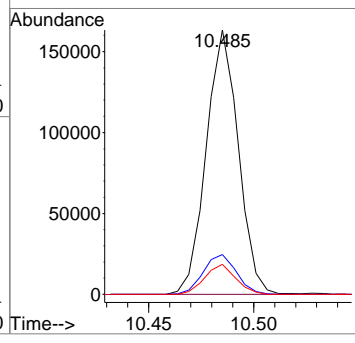
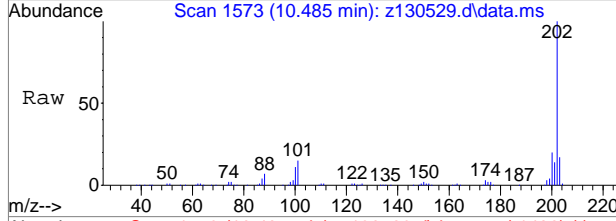
#79  
 Carbazole  
 Concen: 0.45 ppm  
 RT: 9.128 min Scan# 1319  
 Delta R.T. -0.020 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 10164 |       |       |
| 166     | 21.7  | 0.0   | 49.8  |
| 139     | 11.2  | 0.0   | 42.1  |



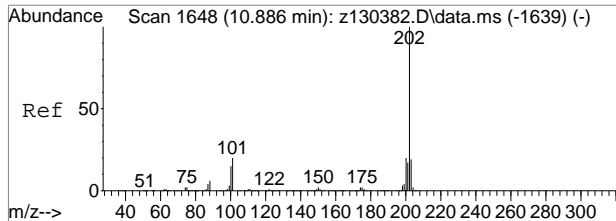
#81  
 Fluoranthene  
 Concen: 7.23 ppm  
 RT: 10.485 min Scan# 1573  
 Delta R.T. -0.012 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 173810 |       |       |
| 101     | 15.1   | 0.0   | 47.2  |
| 100     | 11.4   | 0.0   | 42.3  |

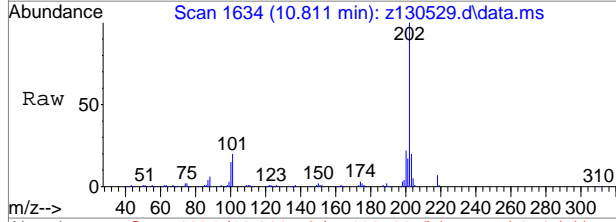


9.1.13  
9



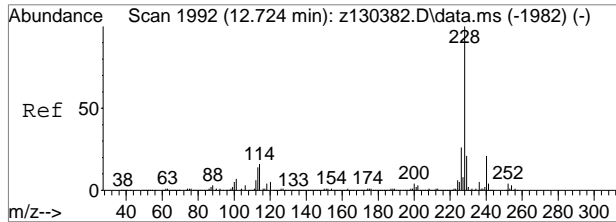
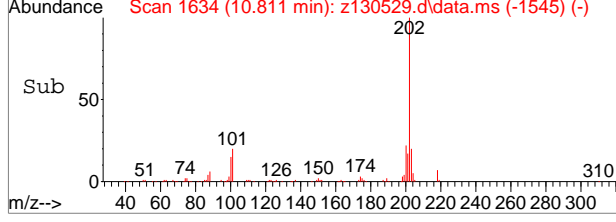
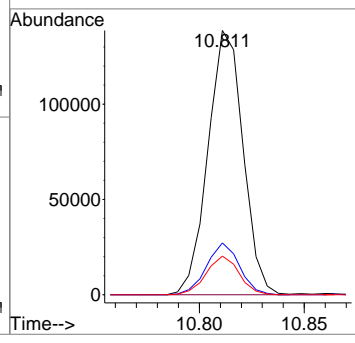


#84  
 Pyrene  
 Concen: 6.93 ppm  
 RT: 10.811 min Scan# 1634  
 Delta R.T. -0.024 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

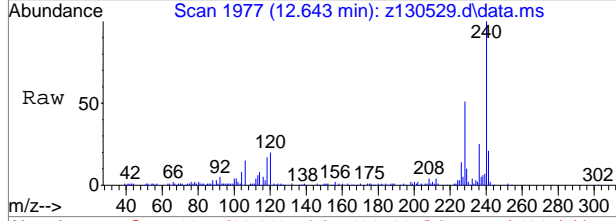


Tgt Ion: 202 Resp: 161331

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 202 | 100   |       |       |
| 101 | 19.7  | 0.0   | 49.8  |
| 100 | 14.7  | 0.0   | 44.6  |

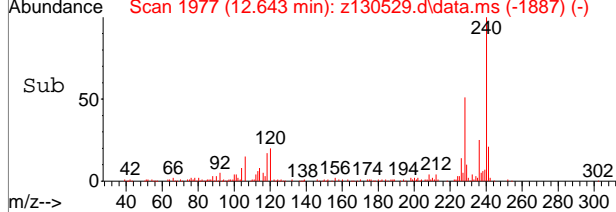
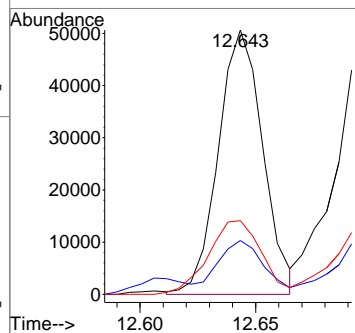


#87  
 Benzo[a]anthracene  
 Concen: 3.16 ppm  
 RT: 12.643 min Scan# 1977  
 Delta R.T. -0.021 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

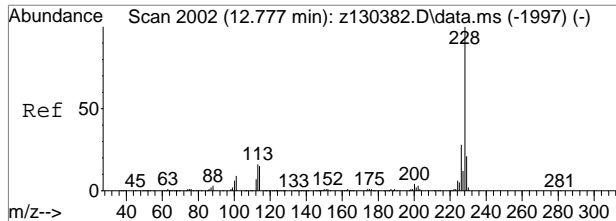


Tgt Ion: 228 Resp: 67913

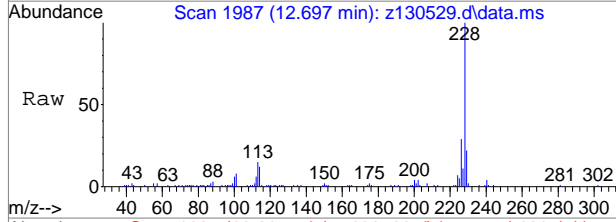
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 228 | 100   |       |       |
| 229 | 17.1  | 0.0   | 50.7  |
| 226 | 27.7  | 0.0   | 56.2  |



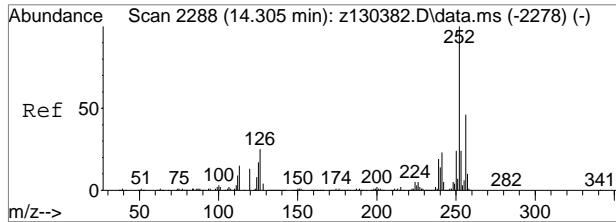
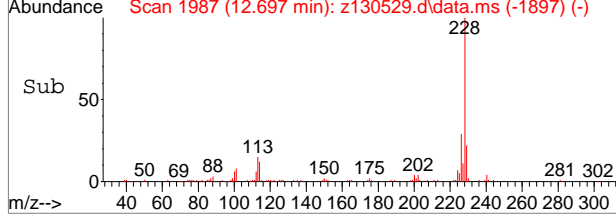
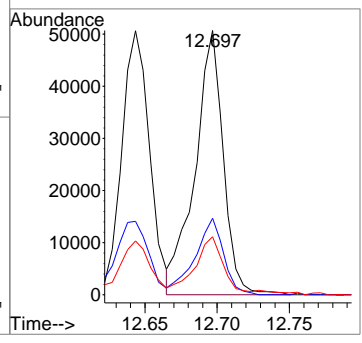
9.1.13  
9



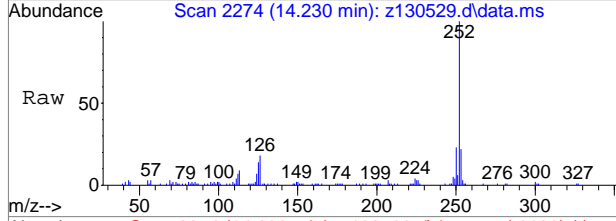
#89  
 Chrysene  
 Concen: 3.42 ppm  
 RT: 12.697 min Scan# 1987  
 Delta R.T. -0.021 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm



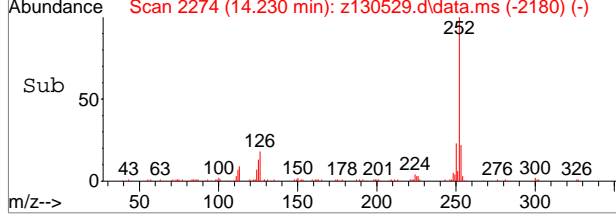
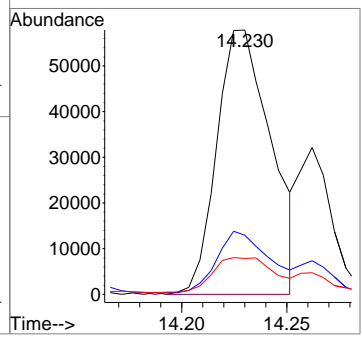
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.1  | 0.0   | 58.0  |
| 229     | 21.4  | 0.0   | 50.8  |



#93  
 Benzo[b]fluoranthene  
 Concen: 4.29 ppm  
 RT: 14.230 min Scan# 2274  
 Delta R.T. -0.000 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

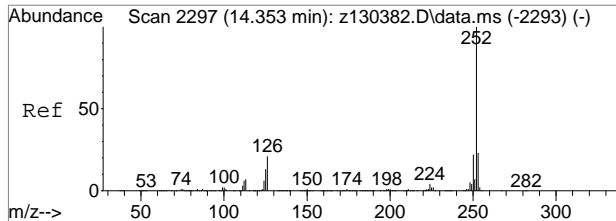


| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.5  | 0.0   | 52.0  |
| 125     | 12.6  | 0.0   | 47.1  |



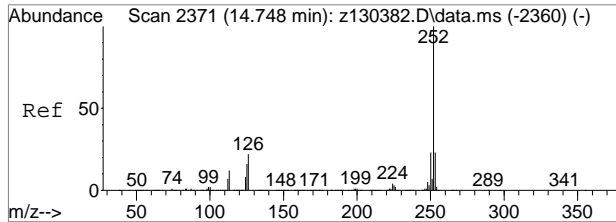
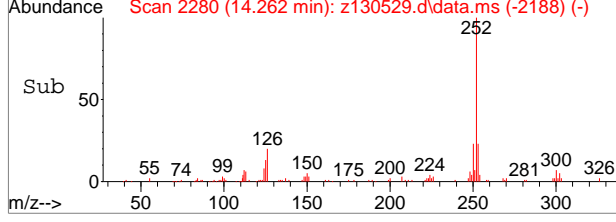
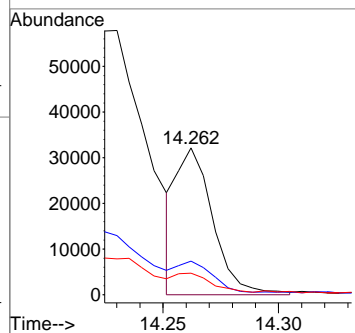
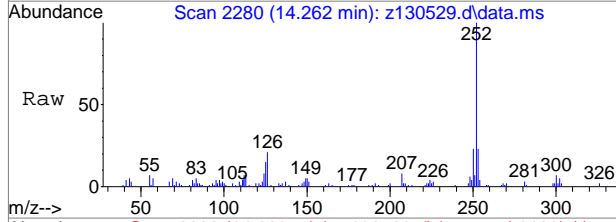
9.1.13  
 9





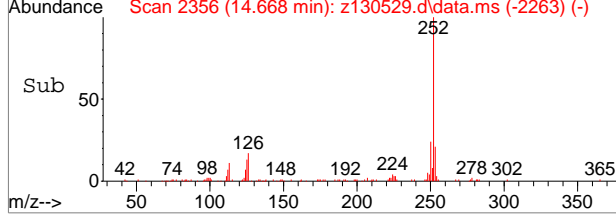
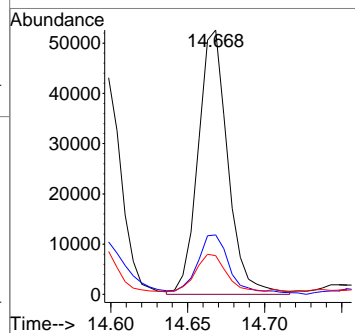
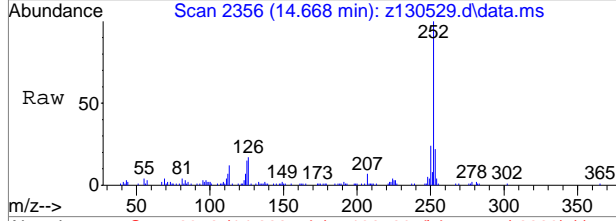
#94  
 Benzo[k]fluoranthene  
 Concen: 1.58 ppm  
 RT: 14.262 min Scan# 2280  
 Delta R.T. -0.011 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

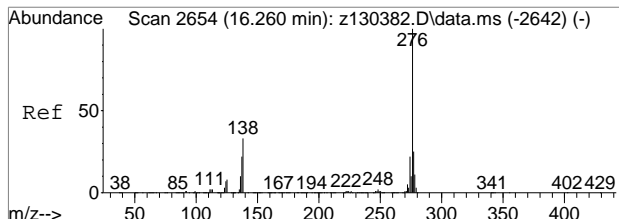
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.3  | 0.0   | 52.1  |
| 125     | 12.6  | 0.0   | 44.9  |



#95  
 Benzo[a]pyrene  
 Concen: 3.28 ppm  
 RT: 14.668 min Scan# 2356  
 Delta R.T. -0.005 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

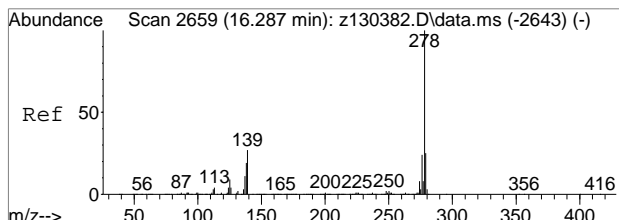
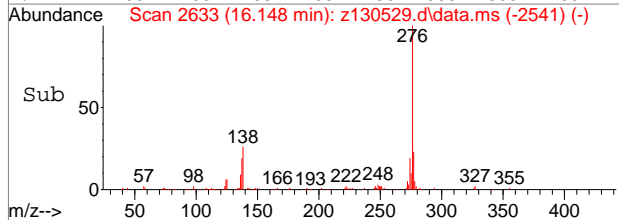
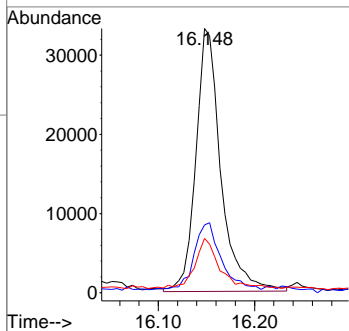
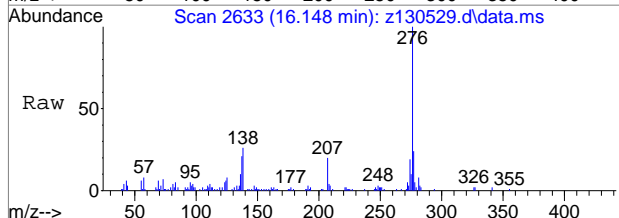
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.7  | 0.0   | 51.1  |
| 125     | 13.9  | 0.0   | 47.3  |





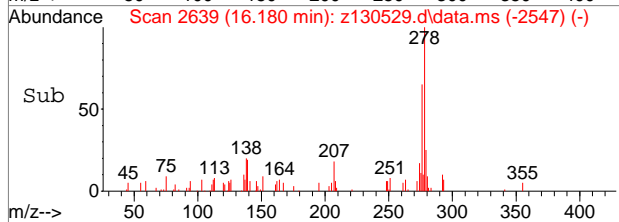
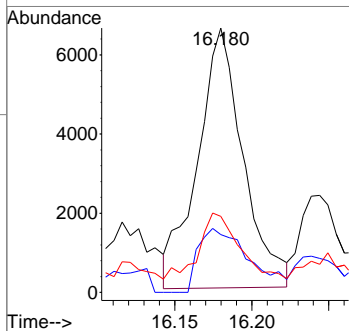
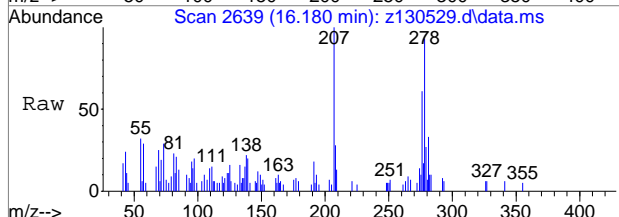
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 3.17 ppm  
 RT: 16.148 min Scan# 2633  
 Delta R.T. -0.011 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 24.1  | 1.5   | 61.5  |
| 137     | 19.0  | 0.0   | 50.0  |

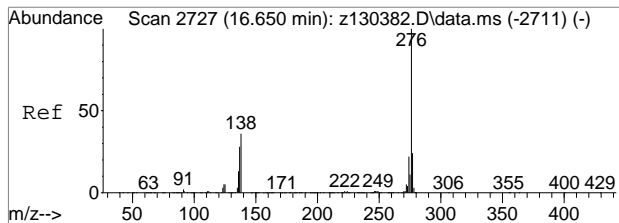


#98  
 Dibenz[a,h]anthracene  
 Concen: 0.70 ppm  
 RT: 16.180 min Scan# 2639  
 Delta R.T. -0.011 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 22.2  | 0.0   | 55.8  |
| 279     | 27.1  | 0.0   | 53.0  |

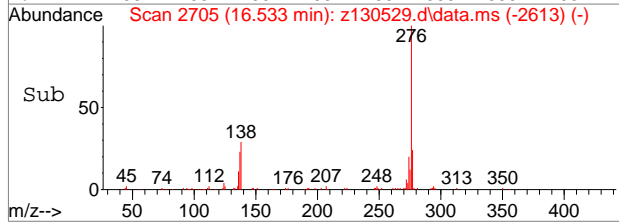
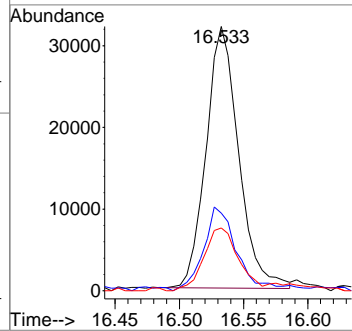
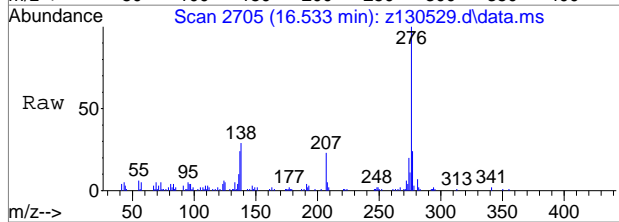


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9



#100  
 Benzo[g,h,i]perylene  
 Concen: 2.95 ppm  
 RT: 16.533 min Scan# 2705  
 Delta R.T. -0.011 min  
 Lab File: z130529.d  
 Acq: 10 May 2018 10:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 28.5  | 7.0   | 67.0  |
| 277     | 23.0  | 0.0   | 54.2  |



9.1.13  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130525.d  
 Acq On : 10 May 2018 9:02 pm  
 Operator : christc2  
 Sample : jc65058-11 Inst : SVOAMSZ  
 Misc : op11648,ez6439,30.7,,,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:34:43 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.886  | 152  | 237893   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.805  | 136  | 929887   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 7.205  | 164  | 452285   | 40.00 | ppm    | -0.01    |
| 69) Phenanthrene-d10         | 8.829  | 188  | 816035   | 40.00 | ppm    | -0.02    |
| 83) Chrysene-d12             | 12.659 | 240  | 697596   | 40.00 | ppm    | -0.02    |
| 91) Perylene-d12             | 14.748 | 264  | 709613   | 40.00 | ppm    | -0.01    |
| 101) 1,4-Dichlorobenzene-d4a | 4.886  | 152  | 237893   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10a       | 8.829  | 188  | 816035   | 40.00 | ppm    | -0.02    |
| 107) Chrysene-d12a           | 12.659 | 240  | 697596   | 40.00 | ppm    | -0.01    |
| 109) Acenaphthene-d10a       | 7.205  | 164  | 452285   | 40.00 | ppm    | -0.01    |
| 111) Naphthalene-d8a         | 5.805  | 136  | 929887   | 40.00 | ppm    | 0.00     |
| 113) Phenanthrene-d10b       | 8.829  | 188  | 816035   | 40.00 | ppm    | -0.02    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.909  | 112  | 303406   | 34.24 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 68.48% |          |
| 8) Phenol-d5                 | 4.609  | 99   | 368921   | 34.68 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 69.36% |          |
| 25) Nitrobenzene-d5          | 5.282  | 82   | 282606   | 35.01 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 70.02% |          |
| 51) 2-Fluorobiphenyl         | 6.607  | 172  | 568948   | 35.90 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.80% |          |
| 73) 2,4,6-Tribromophenol     | 8.006  | 330  | 93896    | 37.29 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 74.58% |          |
| 85) Terphenyl-d14            | 11.078 | 244  | 547971   | 33.11 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 66.22% |          |
| 104) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 105) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 38) Naphthalene              | 5.816  | 128  | 22639    | 0.96  | ppm    | 98       |
| 44) 2-Methylnaphthalene      | 6.323  | 141  | 3554     | 0.25  | ppm    | 89       |
| 53) Biphenyl                 | 6.692  | 154  | 3363     | 0.18  | ppm    | 97       |
| 56) Acenaphthylene           | 7.077  | 152  | 15050    | 0.68  | ppm    | 100      |
| 77) Phenanthrene             | 8.861  | 178  | 75914    | 3.48  | ppm    | 99       |
| 78) Anthracene               | 8.925  | 178  | 19968    | 0.91  | ppm    | 97       |
| 79) Carbazole                | 9.128  | 167  | 7969     | 0.35  | ppm    | 91       |
| 81) Fluoranthene             | 10.485 | 202  | 192965   | 8.10  | ppm    | 96       |
| 84) Pyrene                   | 10.811 | 202  | 182975   | 7.70  | ppm    | 97       |
| 87) Benzo[a]anthracene       | 12.643 | 228  | 88821    | 4.05  | ppm    | 97       |
| 89) Chrysene                 | 12.697 | 228  | 79917    | 3.88  | ppm    | 99       |
| 93) Benzo[b]fluoranthene     | 14.225 | 252  | 129621   | 5.38  | ppm    | 95       |
| 94) Benzo[k]fluoranthene     | 14.262 | 252  | 56437    | 2.52  | ppm    | 95       |
| 95) Benzo[a]pyrene           | 14.663 | 252  | 95377    | 4.46  | ppm    | 94       |
| 96) Indeno[1,2,3-cd]pyrene   | 16.148 | 276  | 84565    | 4.51  | ppm    | 93       |
| 98) Dibenz[a,h]anthracene    | 16.175 | 278  | 17374    | 0.91  | ppm    | 98       |
| 100) Benzo[g,h,i]perylene    | 16.532 | 276  | 83418    | 4.38  | ppm    | 89       |

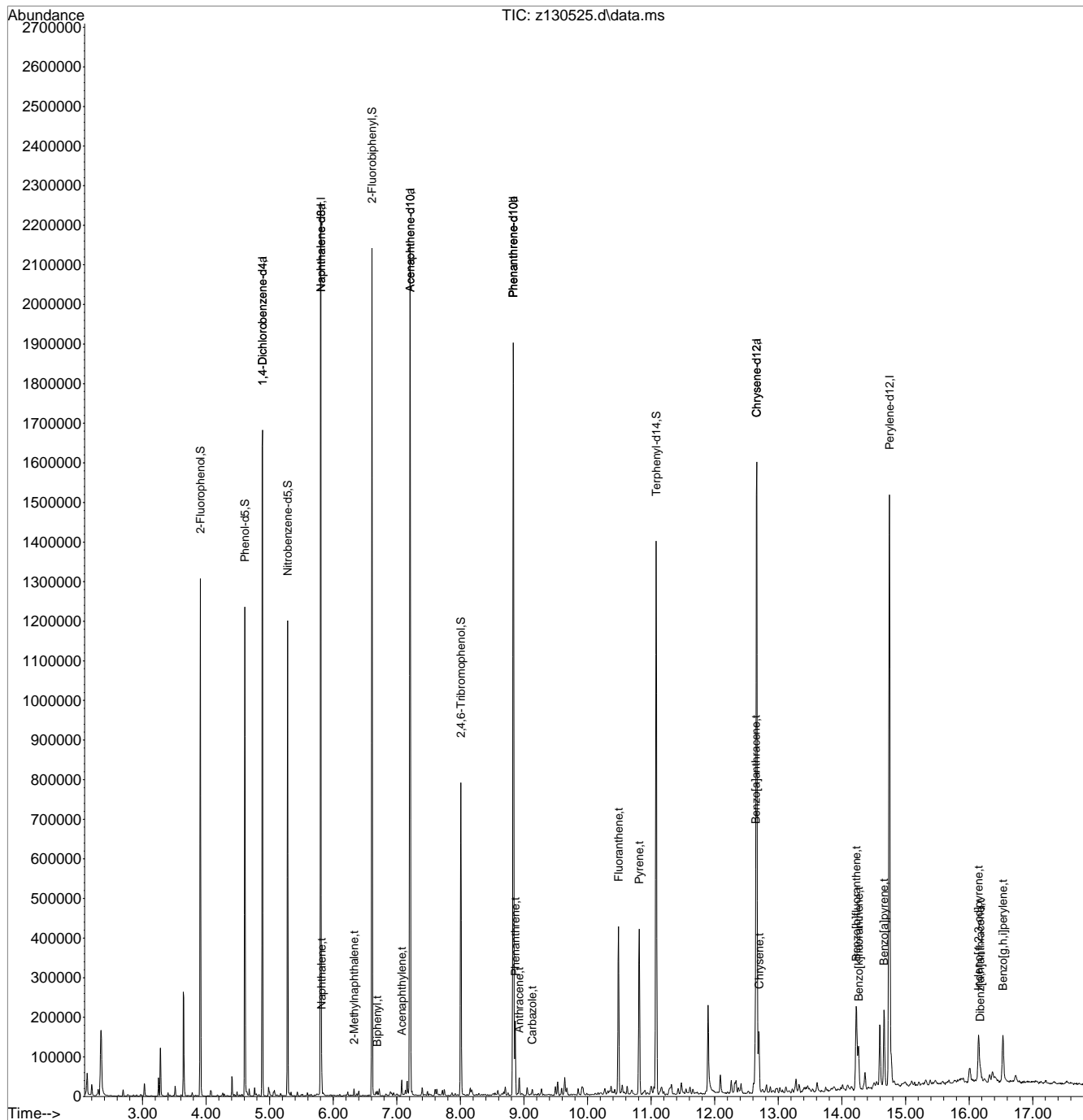
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130525.d  
 Acq On : 10 May 2018 9:02 pm  
 Operator : christc2  
 Sample : jc65058-11  
 Misc : op11648,ez6439,30.7,,,1,1  
 ALS Vial : 23 Sample Multiplier: 1

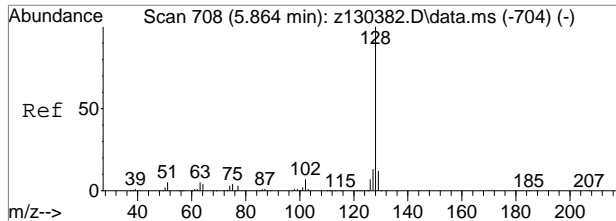
Inst : SVOAMSZ

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:34:43 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

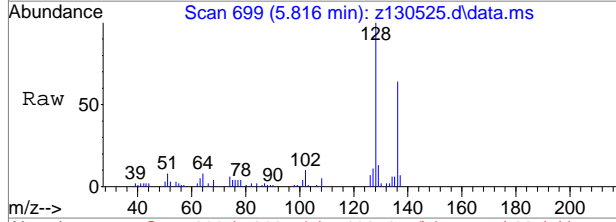


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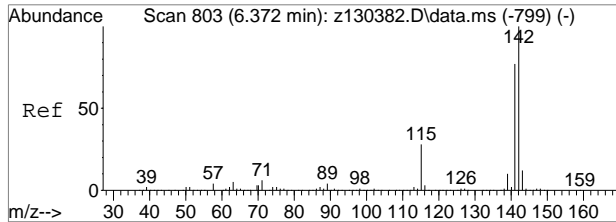
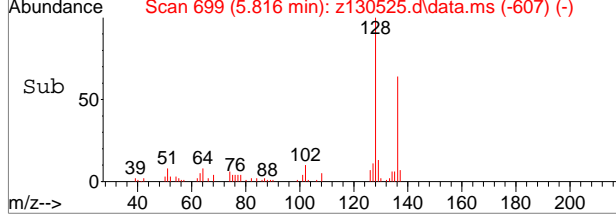
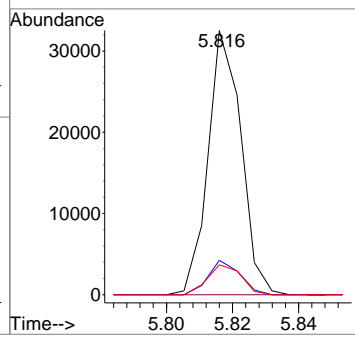




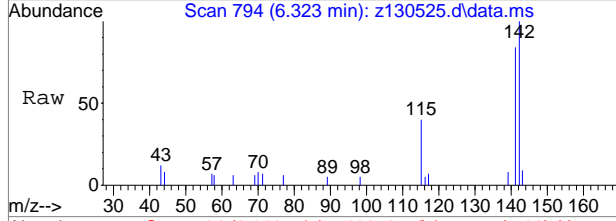
#38  
 Naphthalene  
 Concen: 0.96 ppm  
 RT: 5.816 min Scan# 699  
 Delta R.T. -0.010 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm



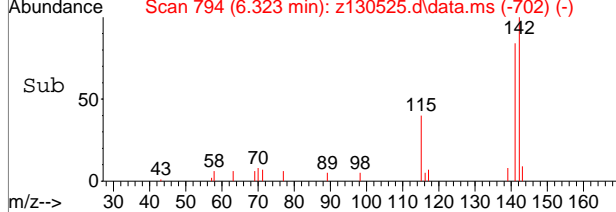
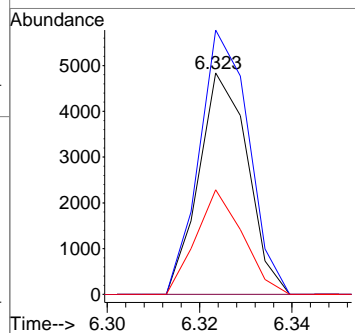
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 13.1  | 0.0   | 42.1  |
| 127     | 11.3  | 0.0   | 41.9  |



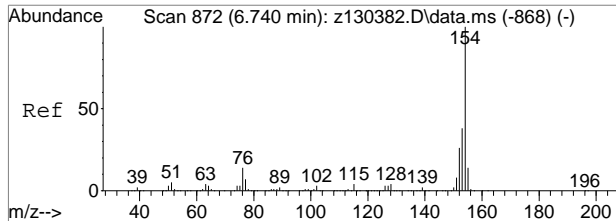
#44  
 2-Methylnaphthalene  
 Concen: 0.25 ppm  
 RT: 6.323 min Scan# 794  
 Delta R.T. -0.007 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 119.4 | 99.8  | 159.8 |
| 115     | 47.2  | 6.1   | 66.1  |

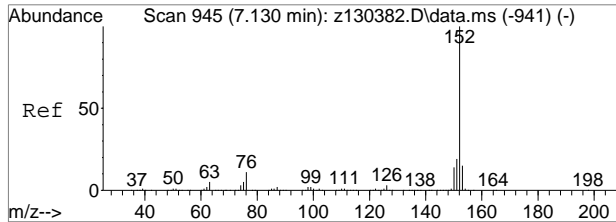
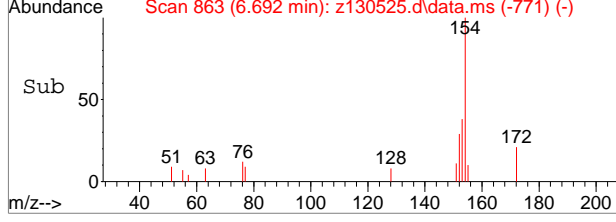
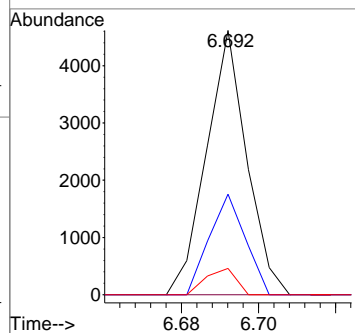
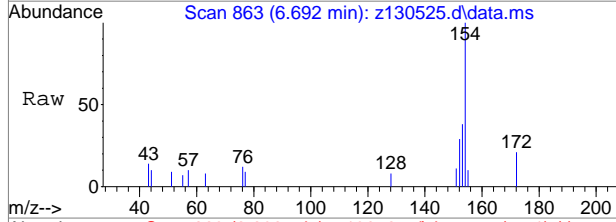


9.1.14  
9



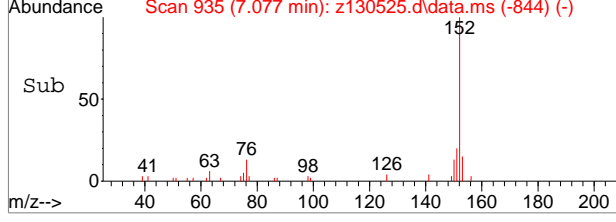
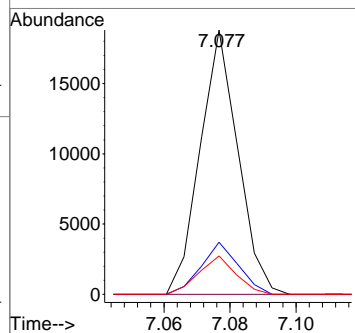
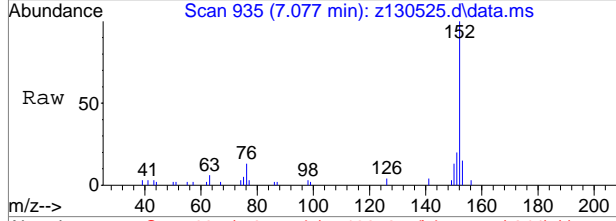
#53  
 Biphenyl  
 Concen: 0.18 ppm  
 RT: 6.692 min Scan# 863  
 Delta R.T. -0.008 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 38.0  | 7.7   | 67.7  |
| 155     | 10.0  | 0.0   | 44.2  |



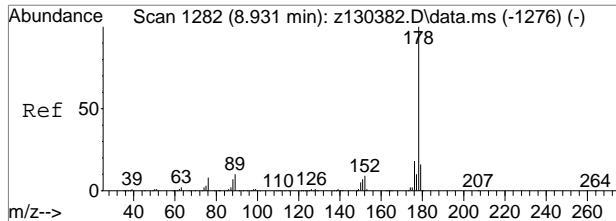
#56  
 Acenaphthylene  
 Concen: 0.68 ppm  
 RT: 7.077 min Scan# 935  
 Delta R.T. -0.011 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.7  | 0.0   | 49.4  |
| 153     | 14.6  | 0.0   | 44.5  |



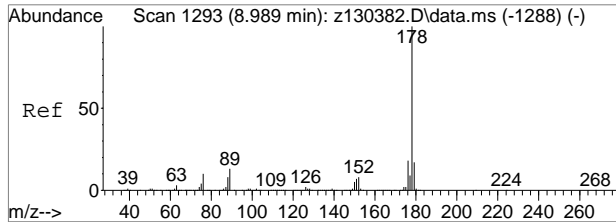
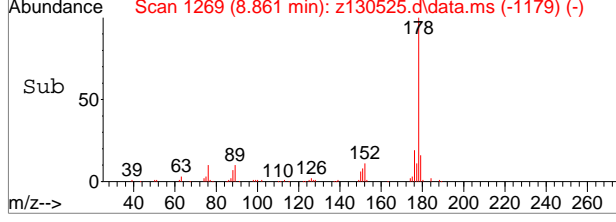
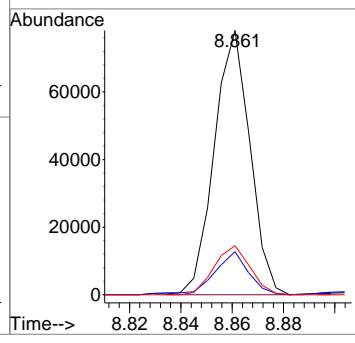
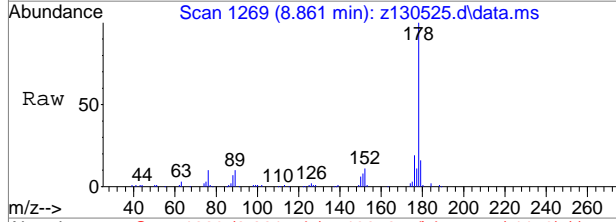
9.1.14  
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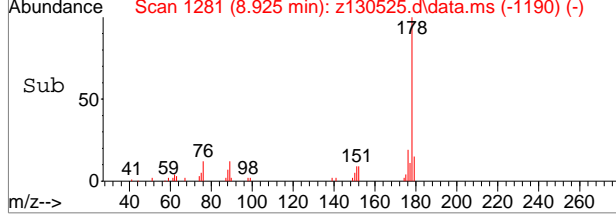
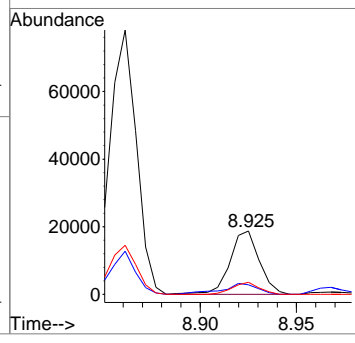
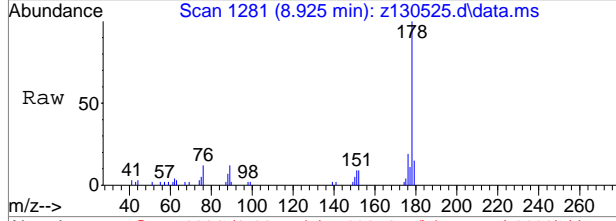
#77  
 Phenanthrene  
 Concen: 3.48 ppm  
 RT: 8.861 min Scan# 1269  
 Delta R.T. -0.021 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 16.0  | 0.0   | 46.3  |
| 176     | 18.6  | 0.0   | 48.1  |



#78  
 Anthracene  
 Concen: 0.91 ppm  
 RT: 8.925 min Scan# 1281  
 Delta R.T. -0.015 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

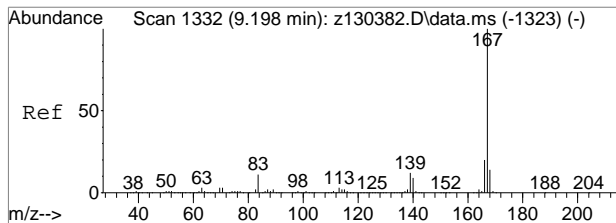
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.2  | 0.0   | 46.9  |
| 176     | 19.0  | 0.0   | 48.0  |



9.1.14  
9

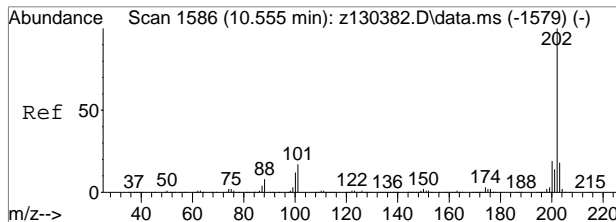
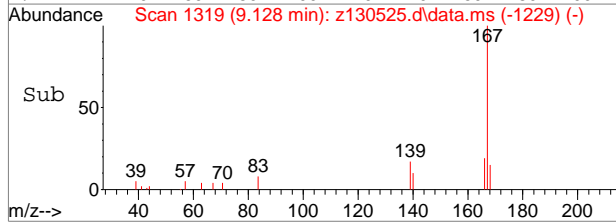
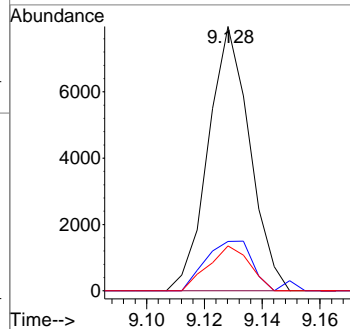
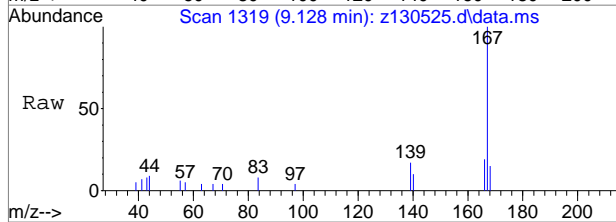






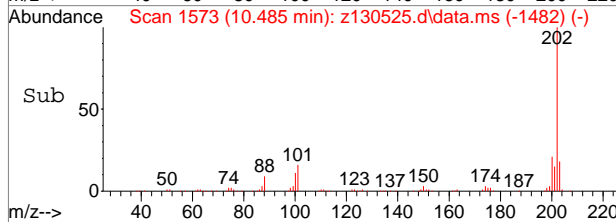
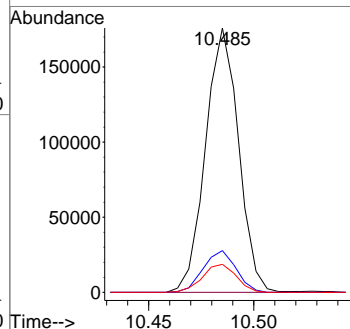
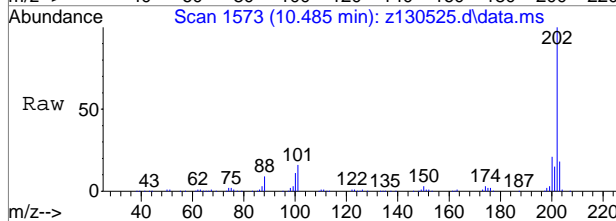
#79  
 Carbazole  
 Concen: 0.35 ppm  
 RT: 9.128 min Scan# 1319  
 Delta R.T. -0.020 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 7969 |       |       |
| 166     | 16.7 | 0.0   | 49.8  |
| 139     | 17.0 | 0.0   | 42.1  |

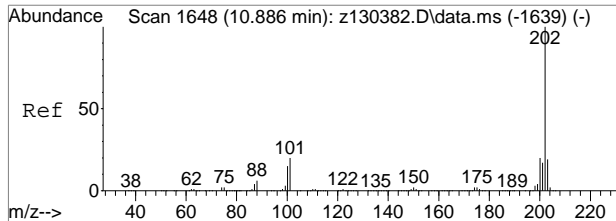


#81  
 Fluoranthene  
 Concen: 8.10 ppm  
 RT: 10.485 min Scan# 1573  
 Delta R.T. -0.012 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 192965 |       |       |
| 101     | 15.8   | 0.0   | 47.2  |
| 100     | 10.6   | 0.0   | 42.3  |

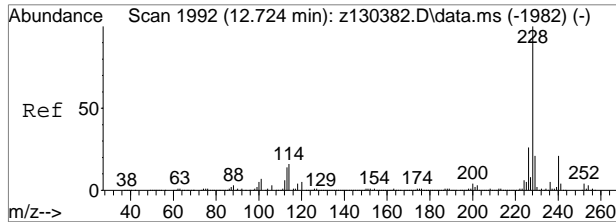
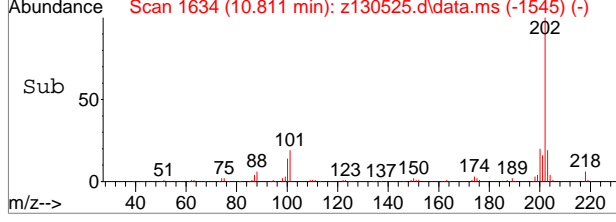
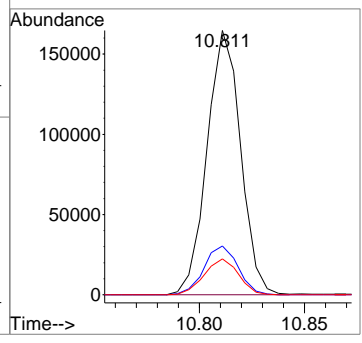
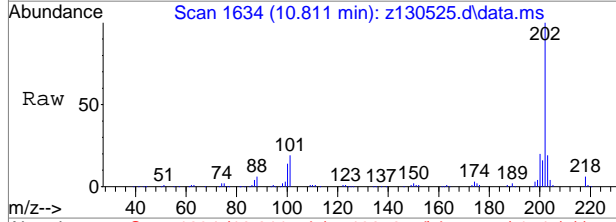


9.1.14  
**9**



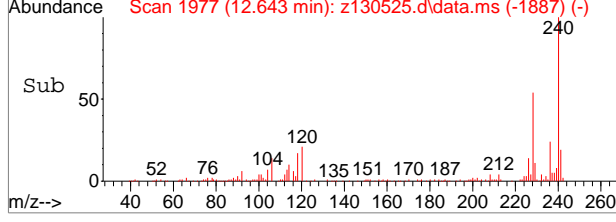
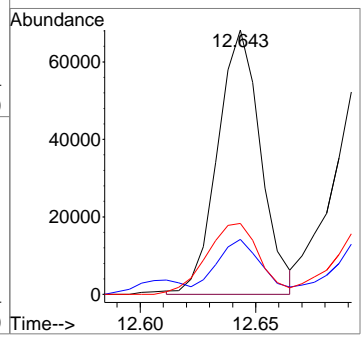
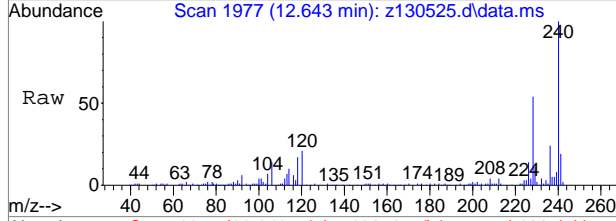
#84  
 Pyrene  
 Concen: 7.70 ppm  
 RT: 10.811 min Scan# 1634  
 Delta R.T. -0.024 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 182975 | 0.0   | 49.8  |
| 101     | 18.5   | 0.0   | 44.6  |
| 100     | 13.6   | 0.0   | 44.6  |

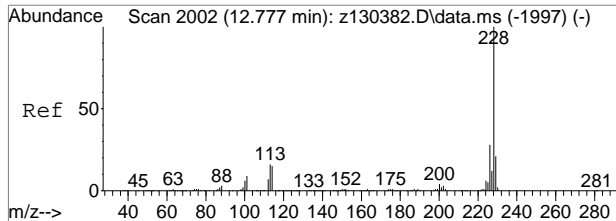


#87  
 Benzo[a]anthracene  
 Concen: 4.05 ppm  
 RT: 12.643 min Scan# 1977  
 Delta R.T. -0.021 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 88821 | 0.0   | 50.7  |
| 229     | 17.5  | 0.0   | 56.2  |
| 226     | 26.5  | 0.0   | 56.2  |

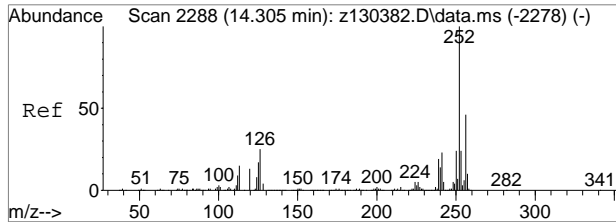
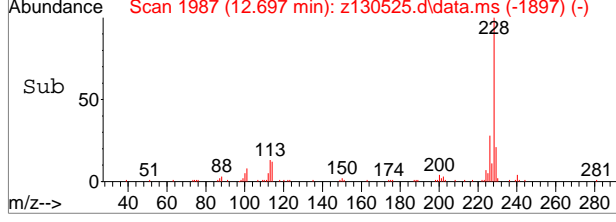
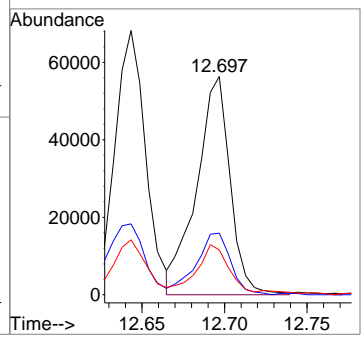
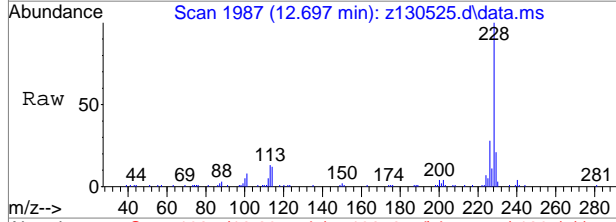


9.1.14  
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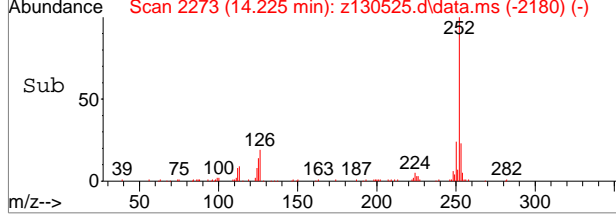
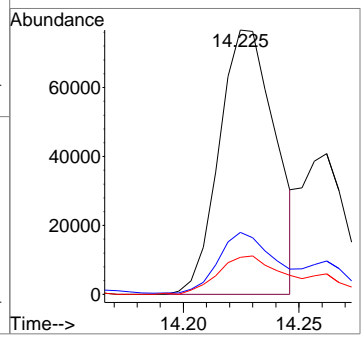
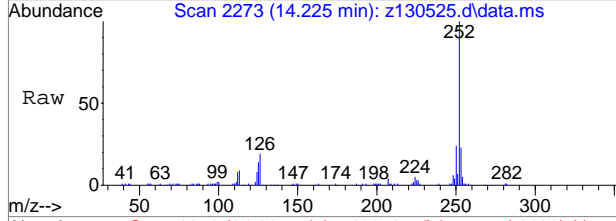
#89  
 Chrysene  
 Concen: 3.88 ppm  
 RT: 12.697 min Scan# 1987  
 Delta R.T. -0.021 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.2  | 0.0   | 58.0  |
| 229     | 19.5  | 0.0   | 50.8  |

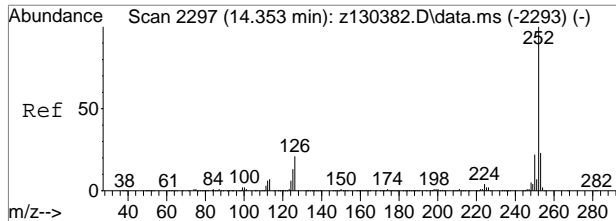


#93  
 Benzo[b]fluoranthene  
 Concen: 5.38 ppm  
 RT: 14.225 min Scan# 2273  
 Delta R.T. -0.005 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.9  | 0.0   | 52.0  |
| 125     | 12.7  | 0.0   | 47.1  |

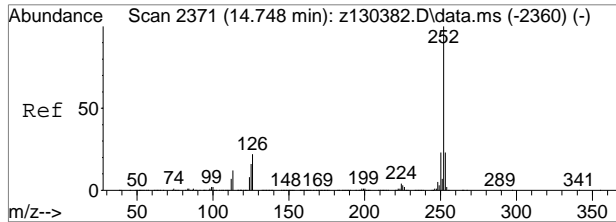
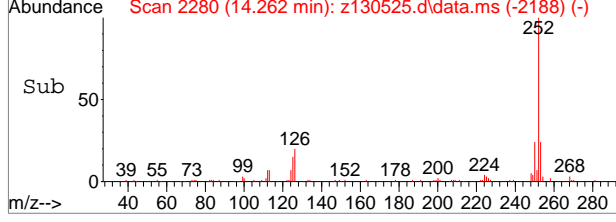
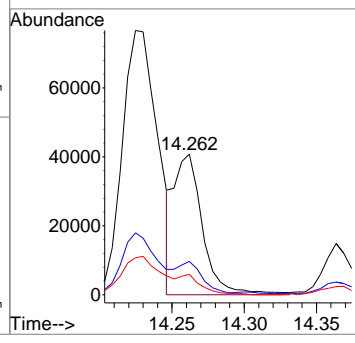
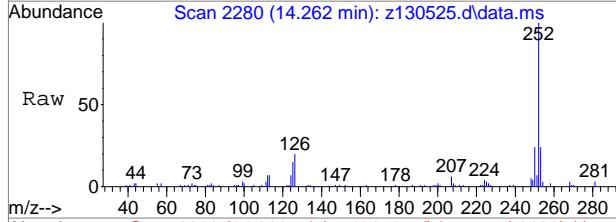


9.1.14  
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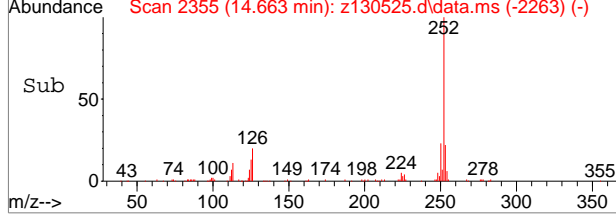
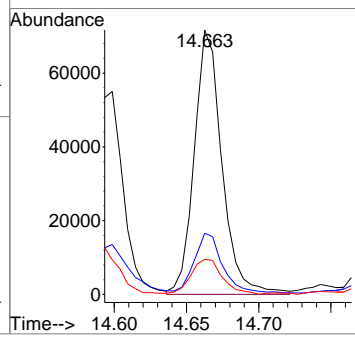
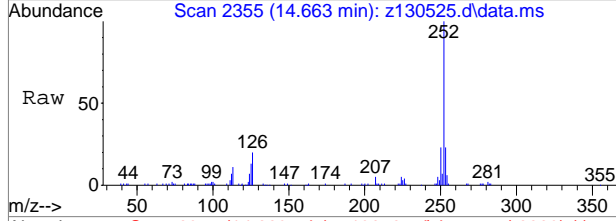
#94  
 Benzo[k]fluoranthene  
 Concen: 2.52 ppm  
 RT: 14.262 min Scan# 2280  
 Delta R.T. -0.011 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

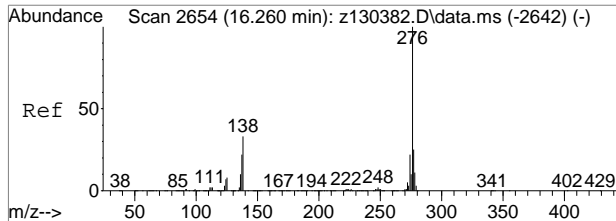
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.3  | 0.0   | 52.1  |
| 125     | 11.6  | 0.0   | 44.9  |



#95  
 Benzo[a]pyrene  
 Concen: 4.46 ppm  
 RT: 14.663 min Scan# 2355  
 Delta R.T. -0.011 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

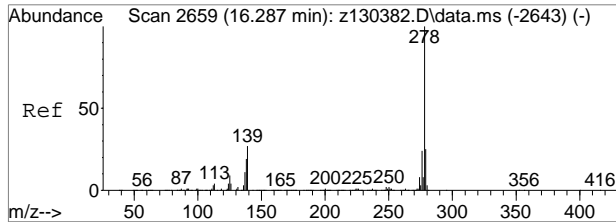
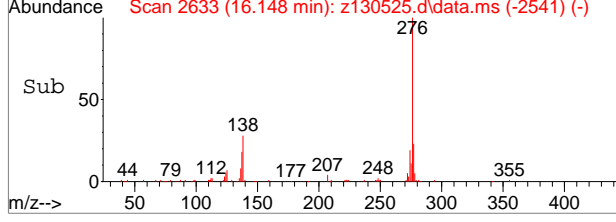
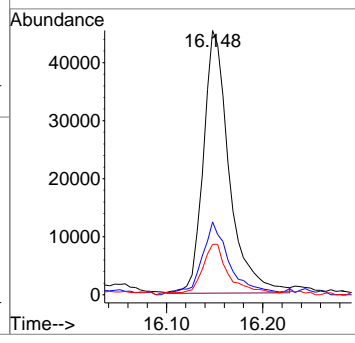
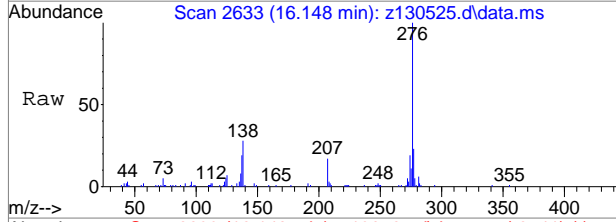
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.4  | 0.0   | 51.1  |
| 125     | 12.9  | 0.0   | 47.3  |





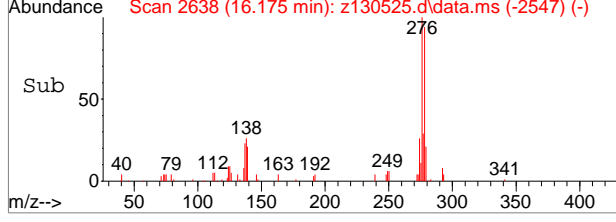
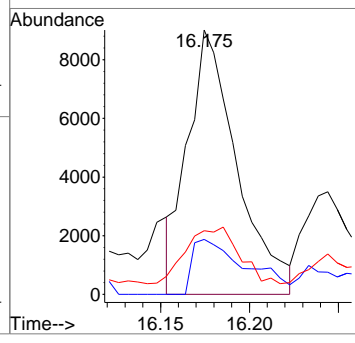
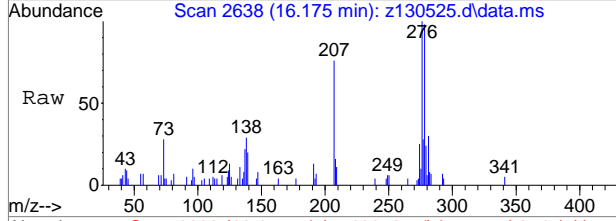
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 4.51 ppm  
 RT: 16.148 min Scan# 2633  
 Delta R.T. -0.011 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 26.4  | 1.5   | 61.5  |
| 137     | 18.3  | 0.0   | 50.0  |



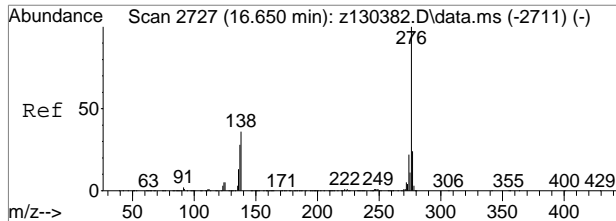
#98  
 Dibenz[a,h]anthracene  
 Concen: 0.91 ppm  
 RT: 16.175 min Scan# 2638  
 Delta R.T. -0.016 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 23.7  | 0.0   | 55.8  |
| 279     | 23.1  | 0.0   | 53.0  |



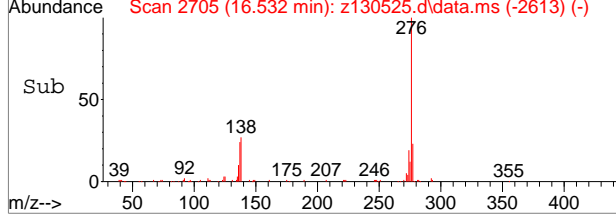
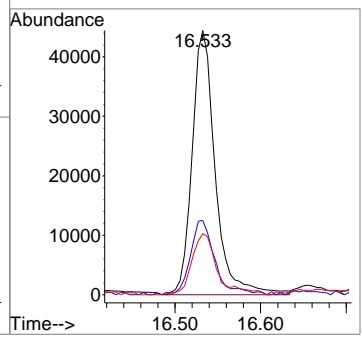
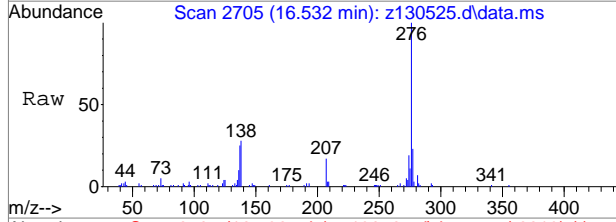
9.1.14  
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#100  
 Benzo[g,h,i]perylene  
 Concen: 4.38 ppm  
 RT: 16.532 min Scan# 2705  
 Delta R.T. -0.011 min  
 Lab File: z130525.d  
 Acq: 10 May 2018 9:02 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.5  | 7.0   | 67.0  |
| 277     | 22.4  | 0.0   | 54.2  |



9.1.14  
 9

## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
 Data File : z130569.d  
 Acq On : 11 May 2018 7:24 pm  
 Operator : christc2  
 Sample : jc65058-12  
 Misc : op11648,ez6441,30.4,,,1,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 14 18:22:26 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Sun May 13 21:35:59 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.860  | 152  | 248919   | 40.00 | ppm    | 0.00     |        |
| 24) Naphthalene-d8           | 5.779  | 136  | 964711   | 40.00 | ppm    | 0.00     |        |
| 47) Acenaphthene-d10         | 7.178  | 164  | 454923   | 40.00 | ppm    | 0.00     |        |
| 69) Phenanthrene-d10         | 8.797  | 188  | 806598   | 40.00 | ppm    | 0.00     |        |
| 83) Chrysene-d12             | 12.627 | 240  | 573102   | 40.00 | ppm    | 0.00     |        |
| 91) Perylene-d12             | 14.716 | 264  | 638309   | 40.00 | ppm    | 0.00     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.860  | 152  | 248919   | 40.00 | ppm    | 0.00     |        |
| 103) Phenanthrene-d10a       | 8.797  | 188  | 806598   | 40.00 | ppm    | 0.00     |        |
| 107) Chrysene-d12a           | 12.627 | 240  | 573102   | 40.00 | ppm    | 0.00     |        |
| 109) Acenaphthene-d10a       | 7.178  | 164  | 454923   | 40.00 | ppm    | 0.00     |        |
| 111) Naphthalene-d8a         | 5.779  | 136  | 964711   | 40.00 | ppm    | 0.00     |        |
| 113) Phenanthrene-d10b       | 8.797  | 188  | 806598   | 40.00 | ppm    | 0.00     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.882  | 112  | 375824   | 40.53 | ppm    | -0.01    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.06% |          |        |
| 8) Phenol-d5                 | 4.587  | 99   | 463554   | 41.65 | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.30% |          |        |
| 25) Nitrobenzene-d5          | 5.255  | 82   | 349002   | 41.67 | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 83.34% |          |        |
| 51) 2-Fluorobiphenyl         | 6.580  | 172  | 694013   | 43.53 | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.06% |          |        |
| 73) 2,4,6-Tribromophenol     | 7.974  | 330  | 110335   | 44.33 | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 88.66% |          |        |
| 85) Terphenyl-d14            | 11.046 | 244  | 597897   | 43.97 | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.94% |          |        |
| 104) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |        |
| 105) o-terphenyl             | 0.000  | 230  | 0d       | 0.00  | ppm    |          |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
|                              |        |      |          |       |        |          | Qvalue |
| 18) Acetophenone             | 5.143  | 105  | 13527    | 1.21  | ppm    |          | 90     |
| 38) Naphthalene              | 5.789  | 128  | 323959   | 13.21 | ppm    |          | 98     |
| 44) 2-Methylnaphthalene      | 6.297  | 141  | 37731    | 2.53  | ppm    |          | 90     |
| 53) Biphenyl                 | 6.665  | 154  | 9096     | 0.50  | ppm    |          | 91     |
| 56) Acenaphthylene           | 7.045  | 152  | 138842   | 6.22  | ppm    |          | 99     |
| 59) Acenaphthene             | 7.205  | 153  | 11802    | 0.88  | ppm    |          | 95     |
| 62) Dibenzofuran             | 7.370  | 168  | 50350    | 2.58  | ppm    |          | 99     |
| 66) Fluorene                 | 7.712  | 166  | 59162    | 3.91  | ppm    |          | 99     |
| 77) Phenanthrene             | 8.829  | 178  | 855657   | 39.70 | ppm    |          | 98     |
| 78) Anthracene               | 8.888  | 178  | 284802   | 13.06 | ppm    |          | 98     |
| 79) Carbazole                | 9.096  | 167  | 50451    | 2.26  | ppm    |          | 98     |
| 81) Fluoranthene             | 10.458 | 202  | 2039446  | 86.66 | ppm    |          | 93     |
| 84) Pyrene                   | 10.784 | 202  | 1810484  | 92.72 | ppm    |          | 93     |
| 86) Butylbenzylphthalate     | 11.821 | 149  | 3807     | 0.39  | ppm    |          | 90     |
| 87) Benzo[a]anthracene       | 12.617 | 228  | 986176   | 54.76 | ppm    |          | 98     |
| 89) Chrysene                 | 12.670 | 228  | 756288   | 44.68 | ppm    |          | 97     |
| 93) Benzo[b]fluoranthene     | 14.209 | 252  | 1287732  | 59.44 | ppm    |          | 95     |

## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
 Data File : z130569.d  
 Acq On : 11 May 2018 7:24 pm  
 Operator : christc2  
 Sample : jc65058-12  
 Misc : op11648,ez6441,30.4,,,1,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 14 18:22:26 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Sun May 13 21:35:59 2018  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| 94) Benzo[k]fluoranthene   | 14.235 | 252  | 440780   | 21.89 | ppm   | 93       |
| 95) Benzo[a]pyrene         | 14.641 | 252  | 949629   | 49.41 | ppm   | 94       |
| 96) Indeno[1,2,3-cd]pyrene | 16.126 | 276  | 792259   | 46.94 | ppm   | 88       |
| 98) Dibenz[a,h]anthracene  | 16.142 | 278  | 173370   | 10.04 | ppm   | 91       |
| 100) Benzo[g,h,i]perylene  | 16.506 | 276  | 673878   | 39.30 | ppm   | 89       |
| 102) Benzaldehyde          | 4.539  | 105  | 2902     | 0.46  | ppm # | 50       |

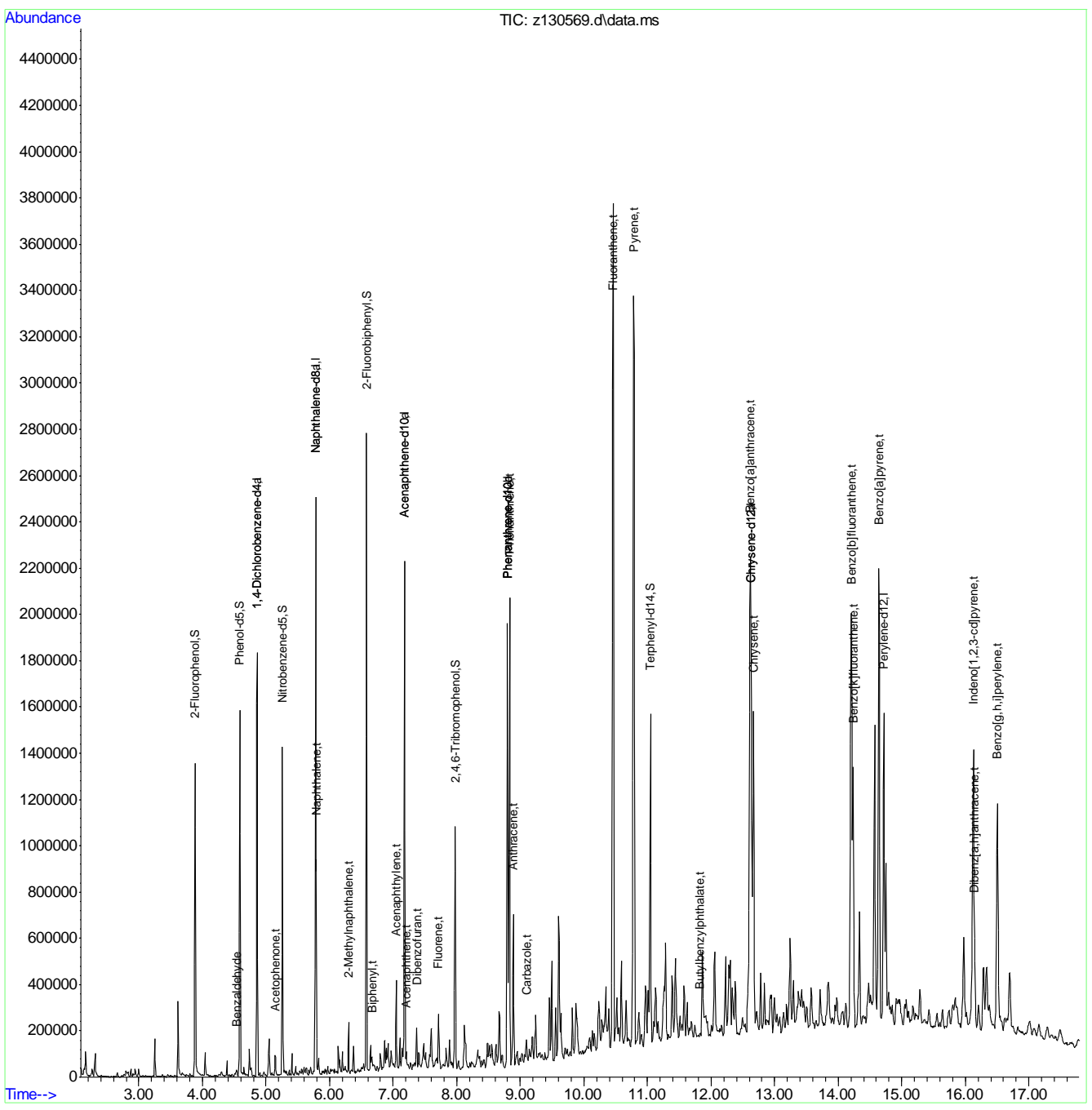
(#) = qualifier out of range (m) = manual integration (+) = signals summed



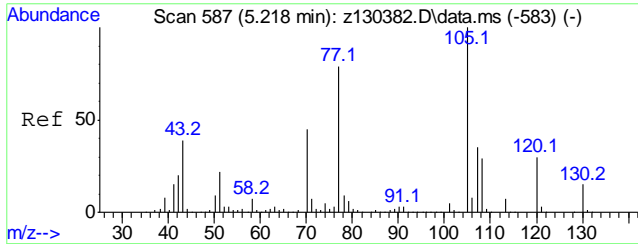
Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
Data File : z130569.d  
Acq On : 11 May 2018 7:24 pm  
Operator : christc2  
Sample : jc65058-12  
Misc : op11648,ez6441,30.4,,,1,1  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 14 18:22:26 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
QLast Update : Sun May 13 21:35:59 2018  
Response via : Initial Calibration

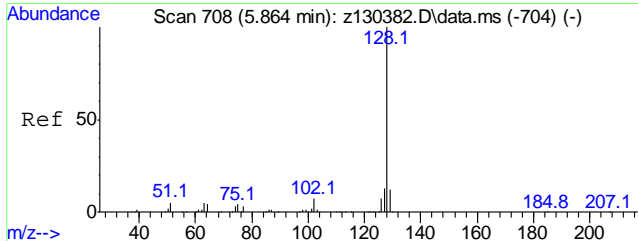
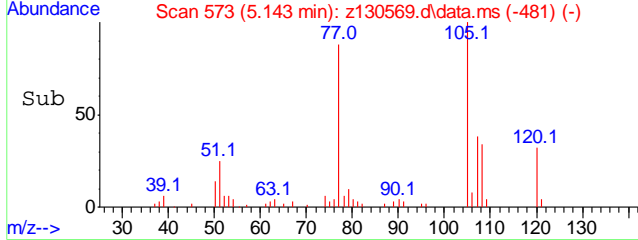
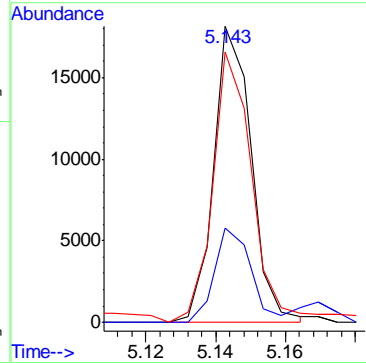
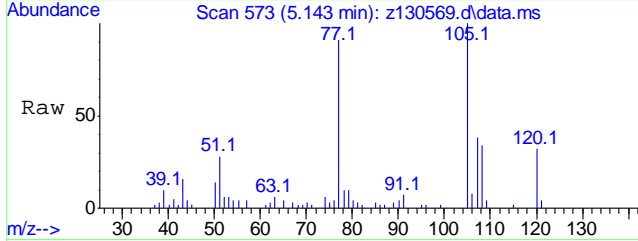


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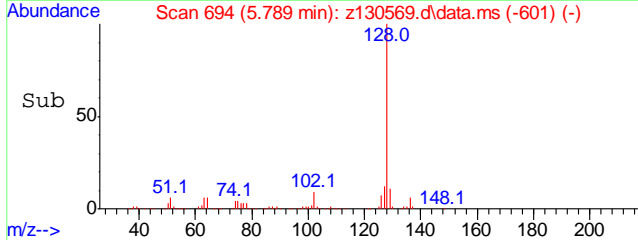
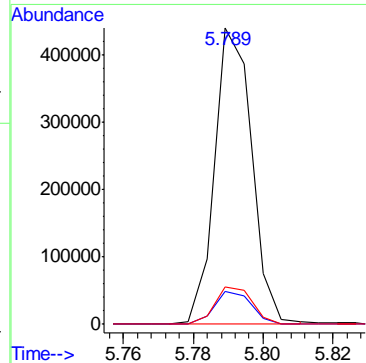
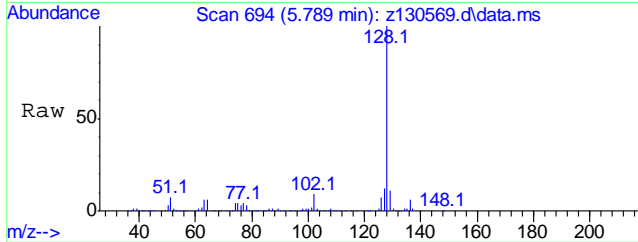
#18  
 Acetophenone  
 Concen: 1.21 ppm  
 RT: 5.143 min Scan# 573  
 Delta R.T. -0.007 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

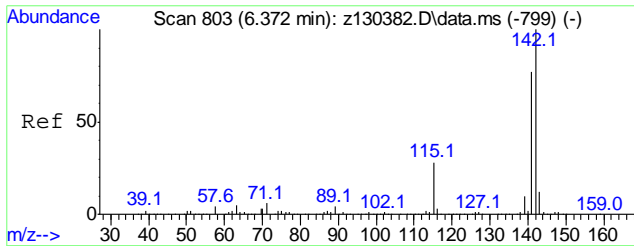
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 13527 |       |       |
| 105     | 100   |       |       |
| 120     | 29.7  | 0.3   | 60.3  |
| 77      | 90.6  | 49.3  | 109.3 |



#38  
 Naphthalene  
 Concen: 13.21 ppm  
 RT: 5.789 min Scan# 694  
 Delta R.T. -0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

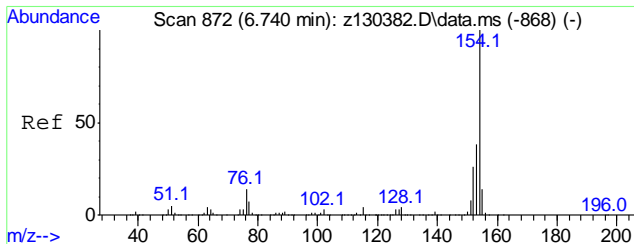
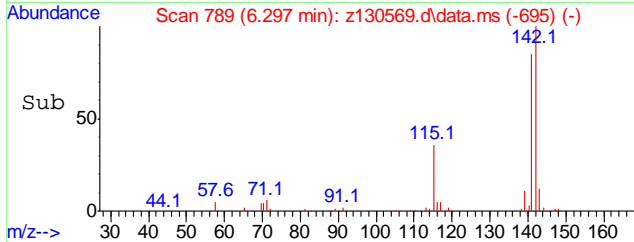
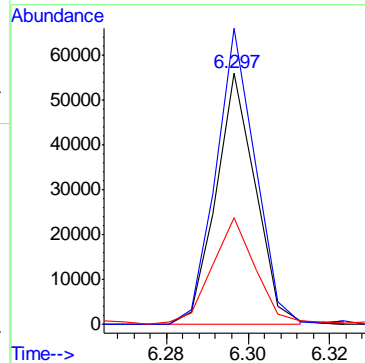
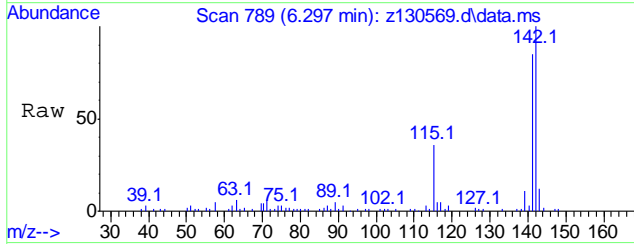
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 323959 |       |       |
| 128     | 100    |       |       |
| 129     | 11.0   | 0.0   | 42.1  |
| 127     | 12.4   | 0.0   | 41.9  |





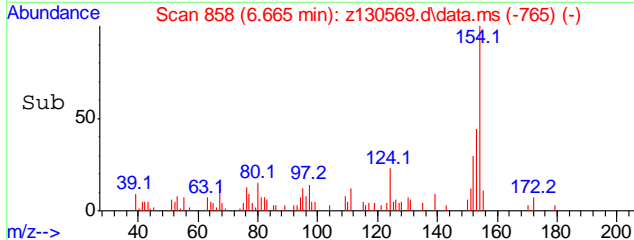
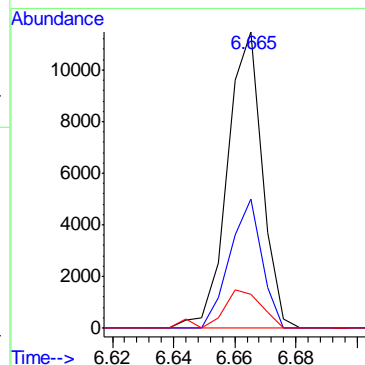
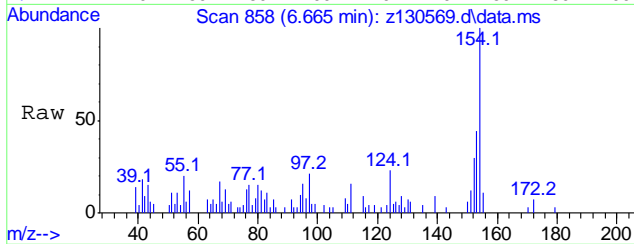
#44  
 2-Methylnaphthalene  
 Concen: 2.53 ppm  
 RT: 6.297 min Scan# 789  
 Delta R.T. 0.001 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

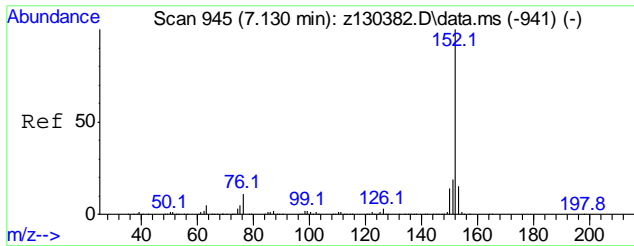
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 141   | Resp: | 37731 |
| Ion Ratio | 100   | Lower | Upper |
| 141       | 100   |       |       |
| 142       | 118.0 | 99.8  | 159.8 |
| 115       | 41.6  | 6.1   | 66.1  |



#53  
 Biphenyl  
 Concen: 0.50 ppm  
 RT: 6.665 min Scan# 858  
 Delta R.T. -0.001 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

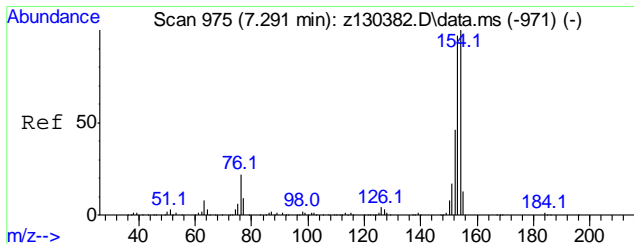
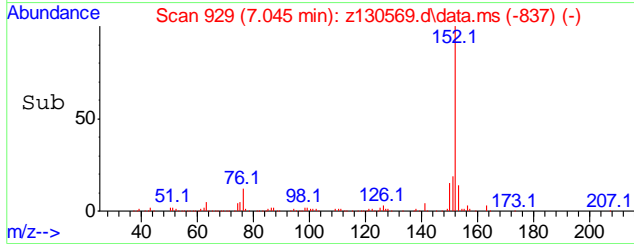
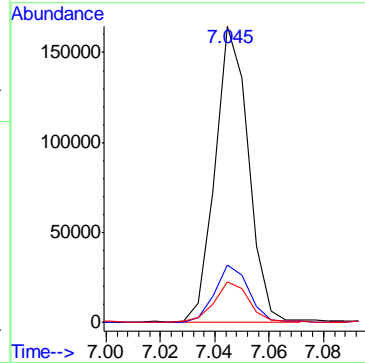
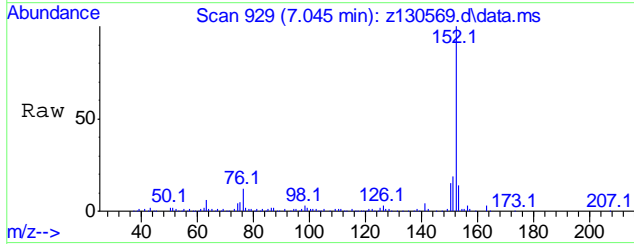
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 154  | Resp: | 9096  |
| Ion Ratio | 100  | Lower | Upper |
| 154       | 100  |       |       |
| 153       | 43.6 | 7.7   | 67.7  |
| 155       | 11.3 | 0.0   | 44.2  |





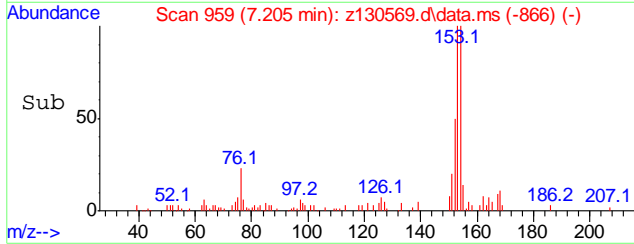
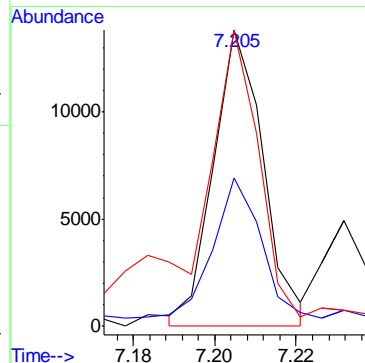
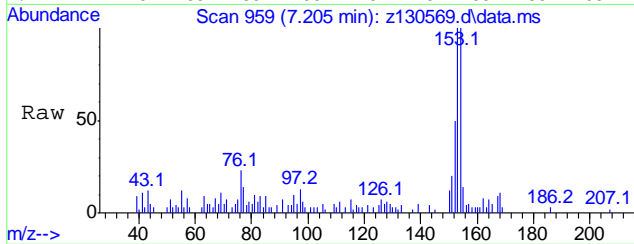
#56  
 Acenaphthylene  
 Concen: 6.22 ppm  
 RT: 7.045 min Scan# 929  
 Delta R.T. -0.007 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 138842 |       |       |
| 151     | 19.4   | 0.0   | 49.4  |
| 153     | 13.3   | 0.0   | 44.5  |

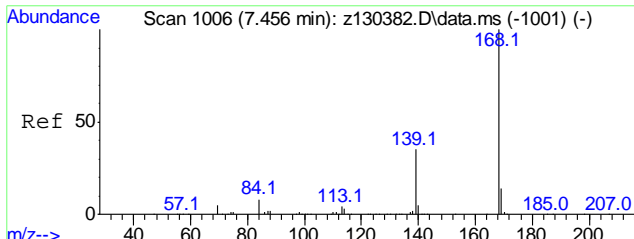


#59  
 Acenaphthene  
 Concen: 0.88 ppm  
 RT: 7.205 min Scan# 959  
 Delta R.T. -0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 11802 |       |       |
| 152     | 48.4  | 16.8  | 76.8  |
| 154     | 92.8  | 69.7  | 129.7 |

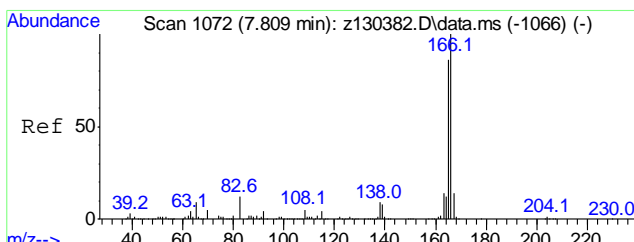
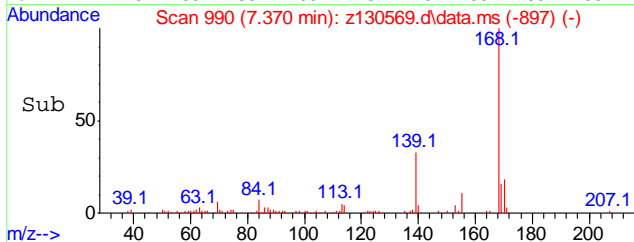
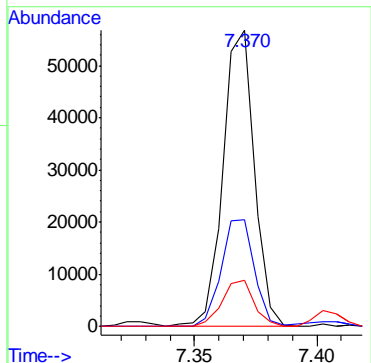
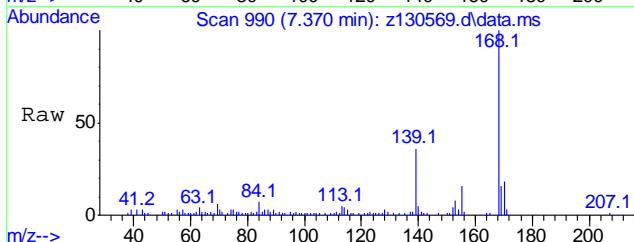


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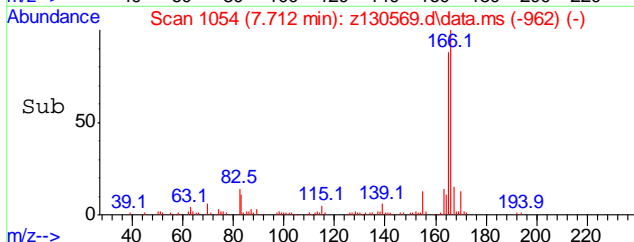
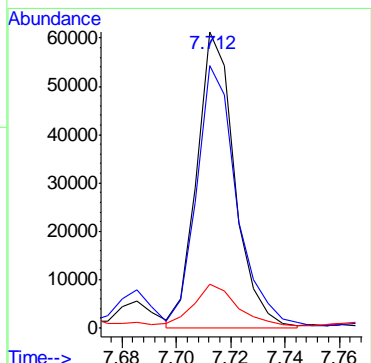
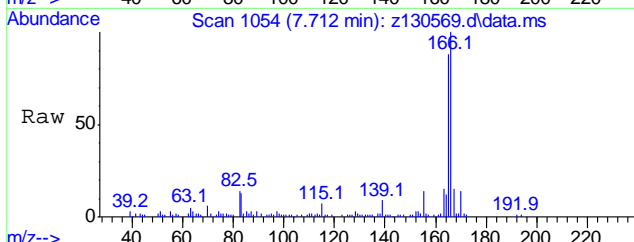
#62  
 Dibenzofuran  
 Concen: 2.58 ppm  
 RT: 7.370 min Scan# 990  
 Delta R.T. -0.003 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 35.7  | 5.5   | 65.5  |
| 169     | 15.6  | 0.0   | 44.4  |

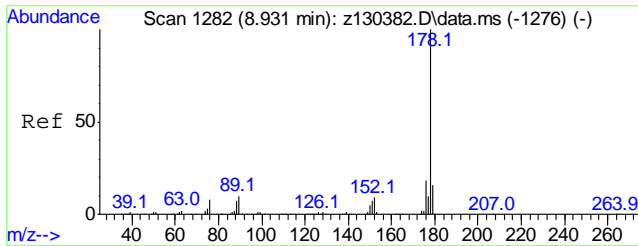


#66  
 Fluorene  
 Concen: 3.91 ppm  
 RT: 7.712 min Scan# 1054  
 Delta R.T. -0.010 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 87.9  | 56.3  | 116.3 |
| 167     | 14.1  | 0.0   | 44.1  |

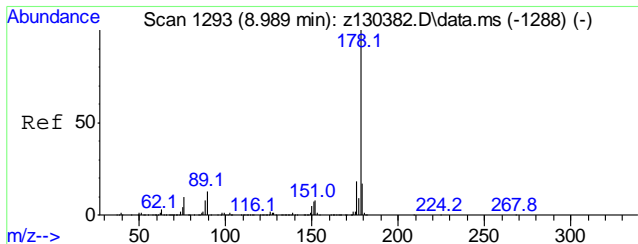
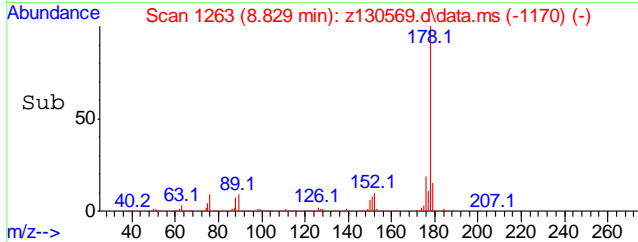
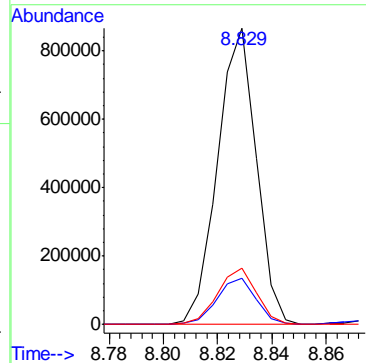
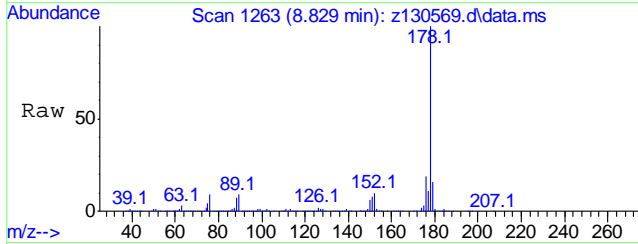


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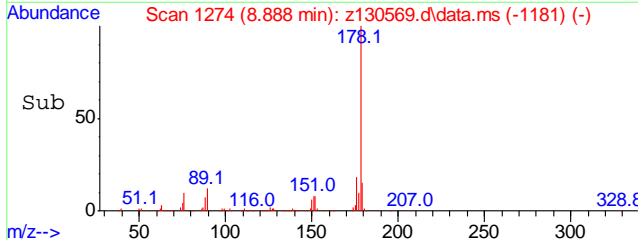
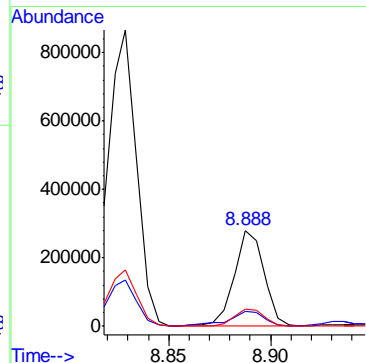
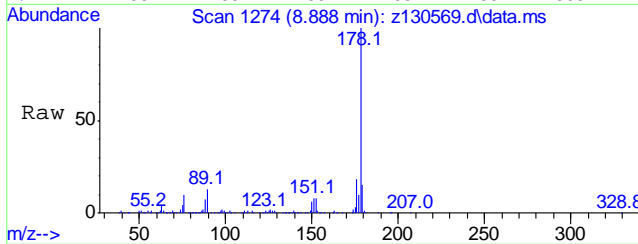
#77  
 Phenanthrene  
 Concen: 39.70 ppm  
 RT: 8.829 min Scan# 1263  
 Delta R.T. -0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.6 | 0.0   | 46.3  |
| 176     | 18.8 | 0.0   | 48.1  |

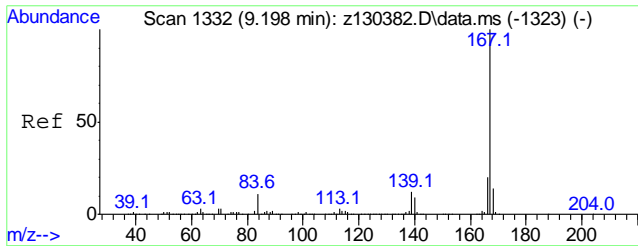


#78  
 Anthracene  
 Concen: 13.06 ppm  
 RT: 8.888 min Scan# 1274  
 Delta R.T. -0.004 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.2 | 0.0   | 46.9  |
| 176     | 18.3 | 0.0   | 48.0  |

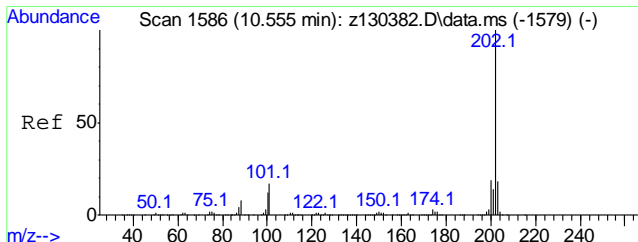
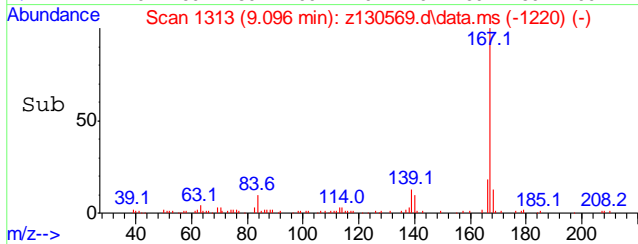
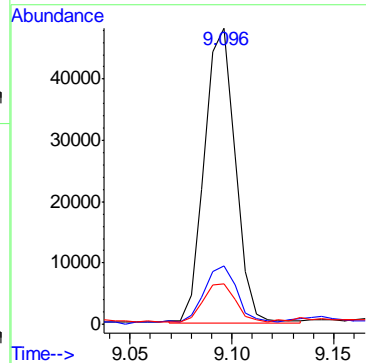
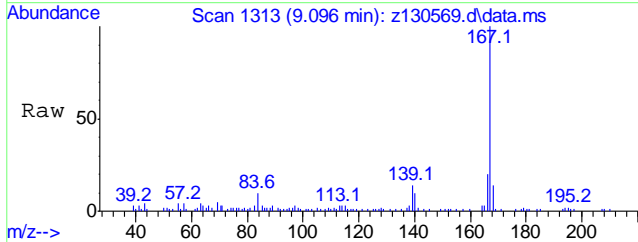


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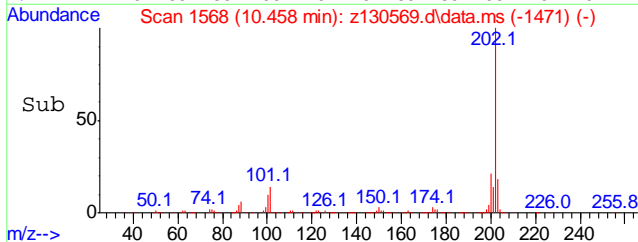
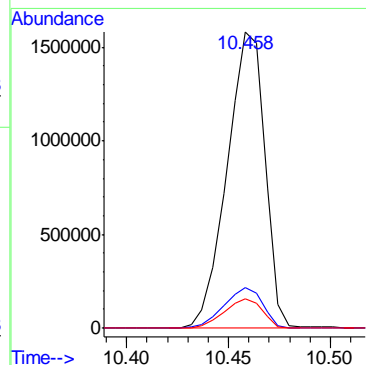
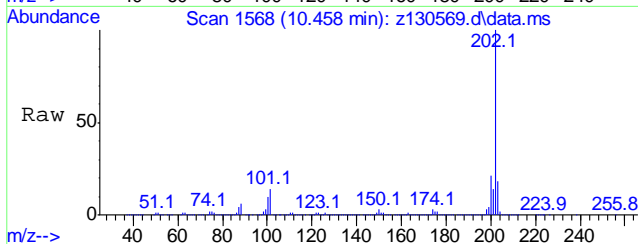
#79  
 Carbazole  
 Concen: 2.26 ppm  
 RT: 9.096 min Scan# 1313  
 Delta R.T. -0.002 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

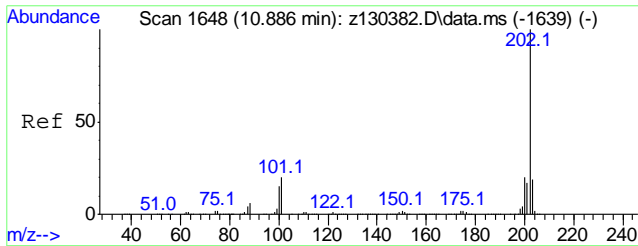
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 50451 | 100   |       |
| 166     | 18.3  | 0.0   | 49.8  |
| 139     | 12.3  | 0.0   | 42.1  |



#81  
 Fluoranthene  
 Concen: 86.66 ppm  
 RT: 10.458 min Scan# 1568  
 Delta R.T. 0.018 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

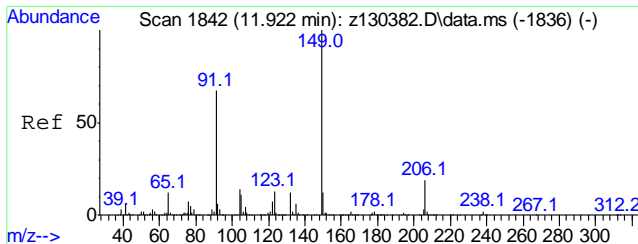
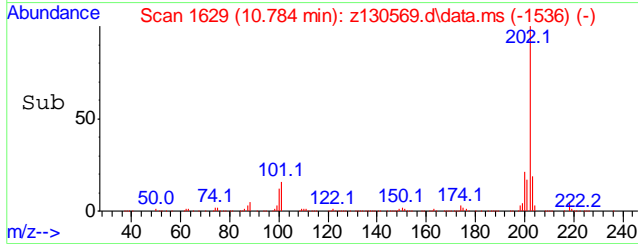
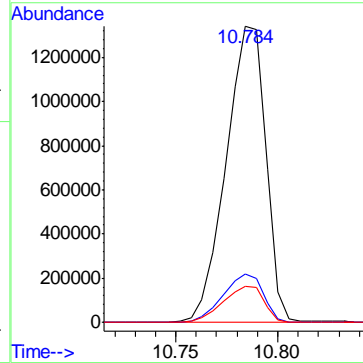
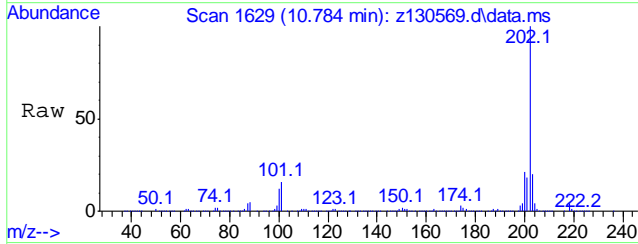
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 2039446 | 100   |       |
| 101     | 13.5    | 0.0   | 47.2  |
| 100     | 10.0    | 0.0   | 42.3  |





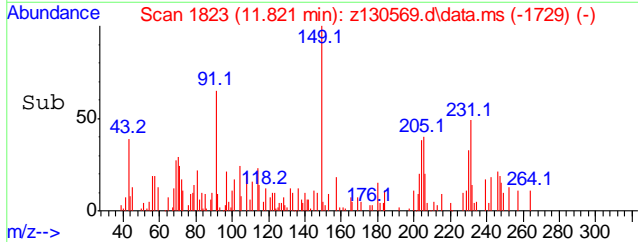
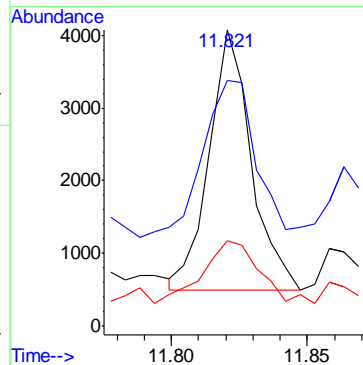
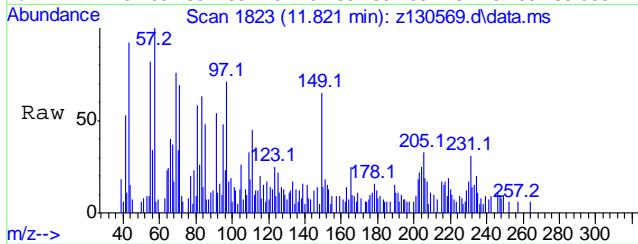
#84  
 Pyrene  
 Concen: 92.72 ppm  
 RT: 10.784 min Scan# 1629  
 Delta R.T. -0.006 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1810484 |       |       |
| 101     | 16.3    | 0.0   | 49.8  |
| 100     | 12.0    | 0.0   | 44.6  |



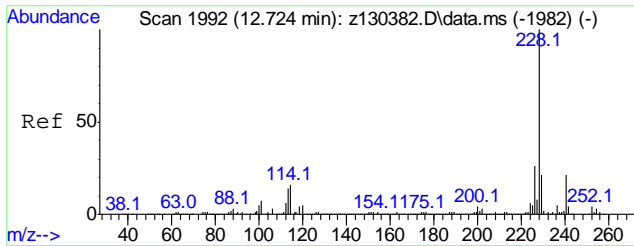
#86  
 Butylbenzylphthalate  
 Concen: 0.39 ppm  
 RT: 11.821 min Scan# 1823  
 Delta R.T. 0.003 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 149     | 3807 |       |       |
| 91      | 58.0 | 37.1  | 97.1  |
| 206     | 21.1 | 0.0   | 48.7  |



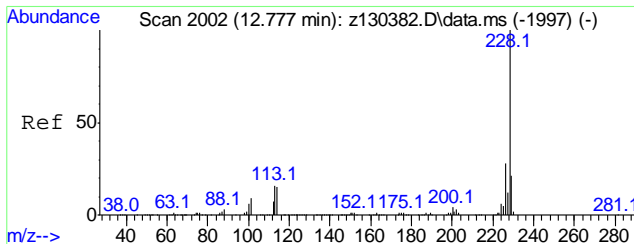
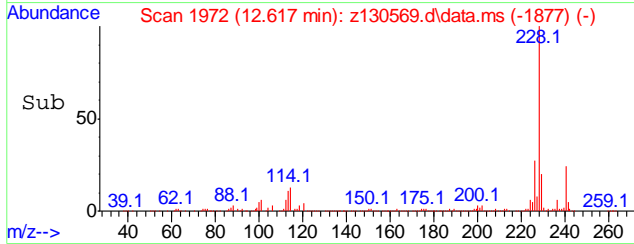
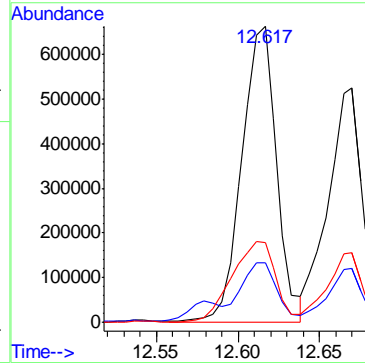
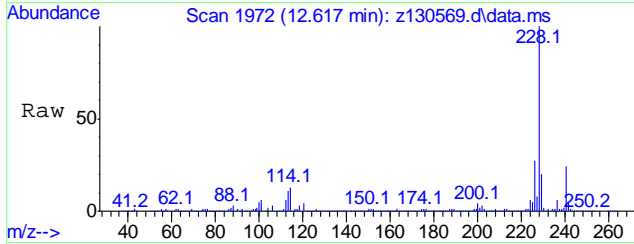
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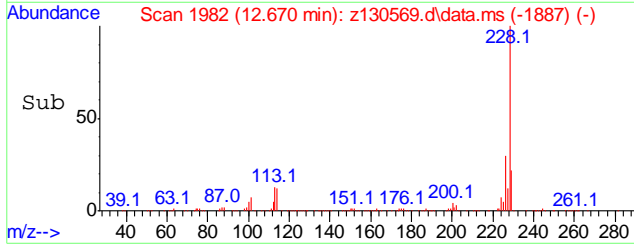
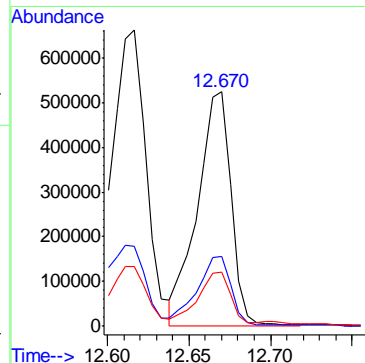
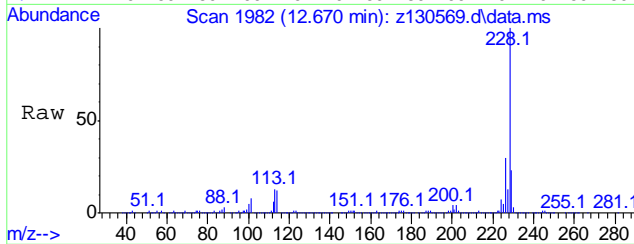
#87  
 Benzo[a]anthracene  
 Concen: 54.76 ppm  
 RT: 12.617 min Scan# 1972  
 Delta R.T. 0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

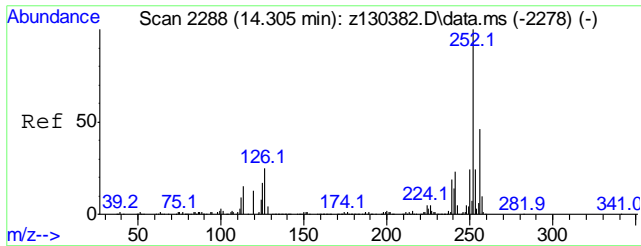
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.6  | 0.0   | 50.7  |
| 226     | 26.7  | 0.0   | 56.2  |



#89  
 Chrysene  
 Concen: 44.68 ppm  
 RT: 12.670 min Scan# 1982  
 Delta R.T. 0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

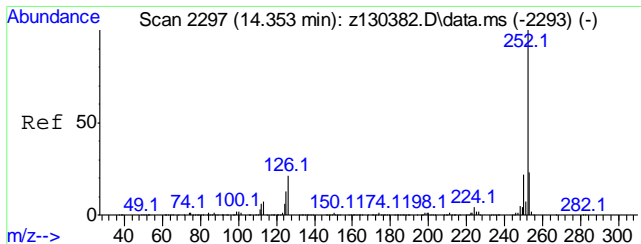
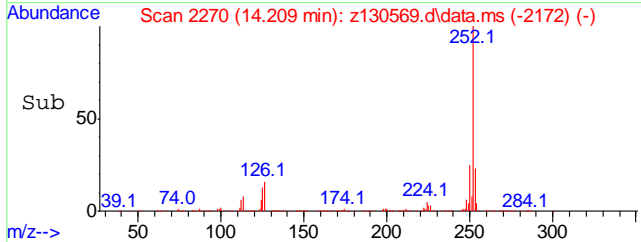
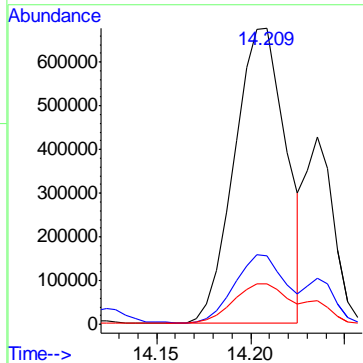
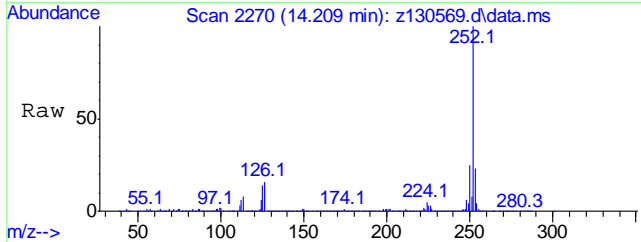
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.6  | 0.0   | 58.0  |
| 229     | 22.2  | 0.0   | 50.8  |





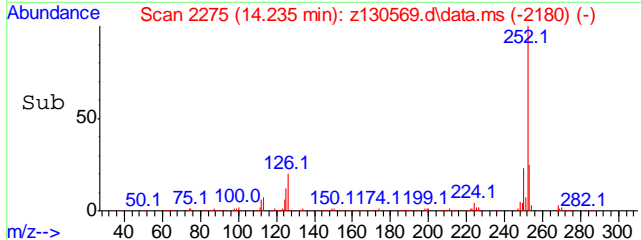
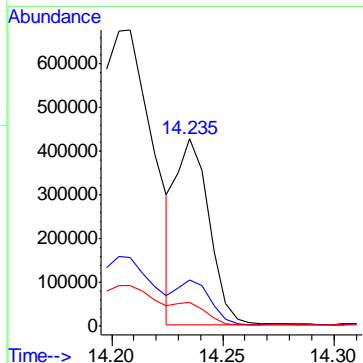
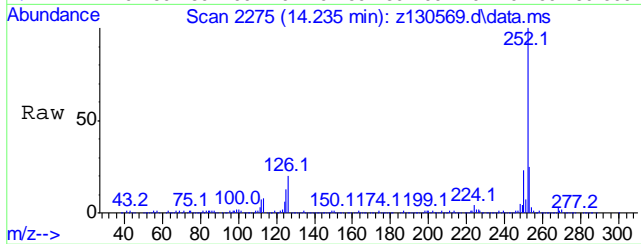
#93  
 Benzo[b]fluoranthene  
 Concen: 59.44 ppm  
 RT: 14.209 min Scan# 2270  
 Delta R.T. 0.025 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

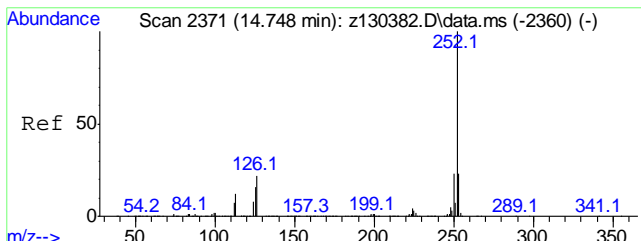
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.6 | 0.0   | 52.0  |
| 125     | 13.2 | 0.0   | 47.1  |



#94  
 Benzo[k]fluoranthene  
 Concen: 21.89 ppm  
 RT: 14.235 min Scan# 2275  
 Delta R.T. 0.009 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

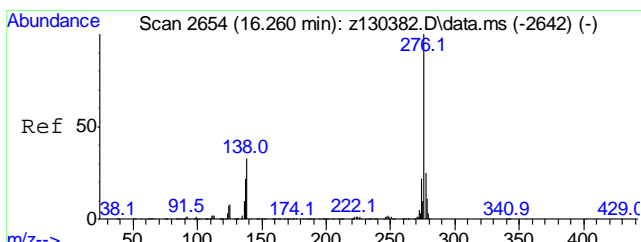
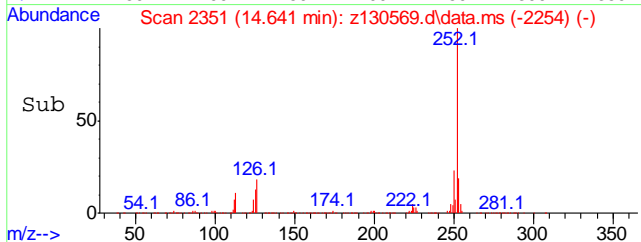
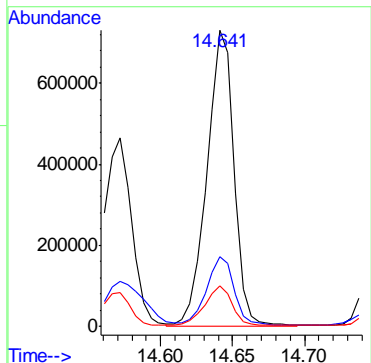
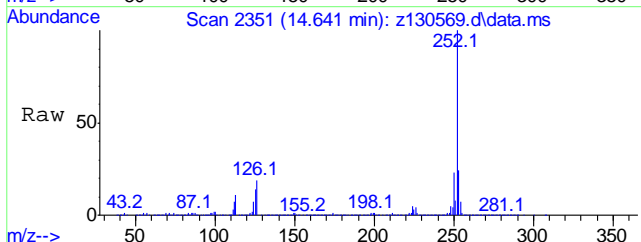
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.0 | 0.0   | 52.1  |
| 125     | 11.5 | 0.0   | 44.9  |





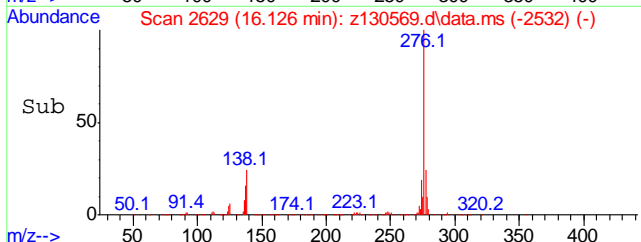
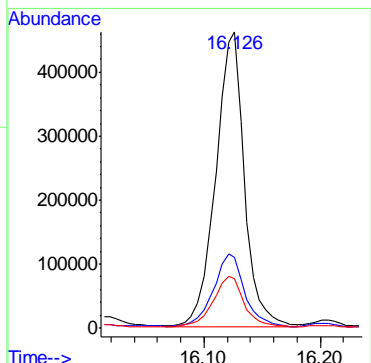
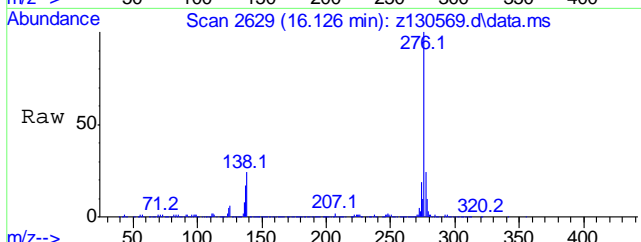
#95  
 Benzo[a]pyrene  
 Concen: 49.41 ppm  
 RT: 14.641 min Scan# 2351  
 Delta R.T. 0.016 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 949629 | 100   |       |
| 253     | 22.7   | 0.0   | 51.1  |
| 125     | 13.4   | 0.0   | 47.3  |

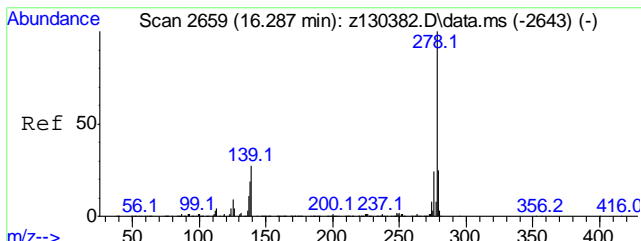


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 46.94 ppm  
 RT: 16.126 min Scan# 2629  
 Delta R.T. 0.020 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 792259 | 100   |       |
| 138     | 23.4   | 1.5   | 61.5  |
| 137     | 16.2   | 0.0   | 50.0  |

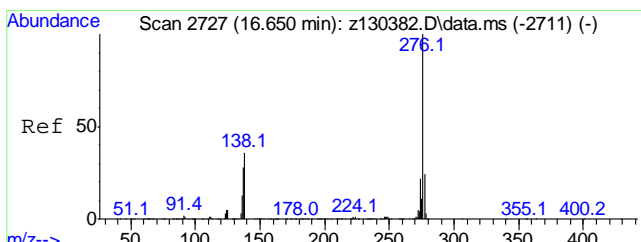
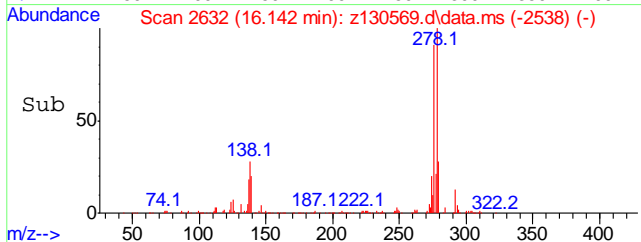
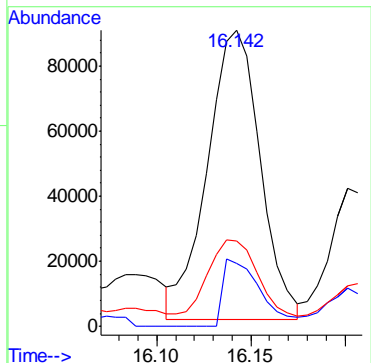
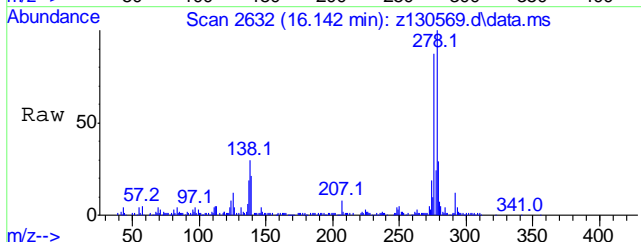


9.1.15  
 9



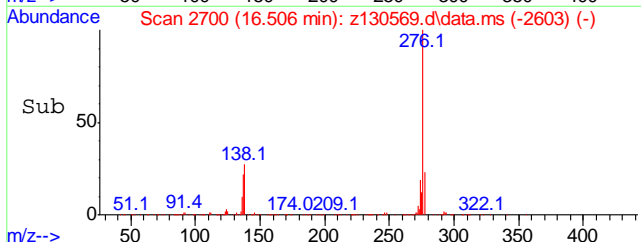
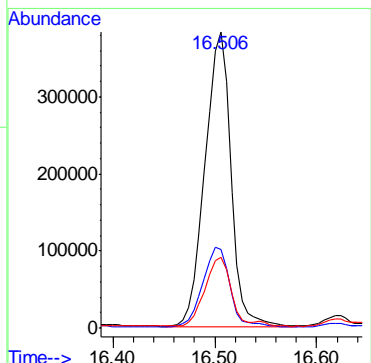
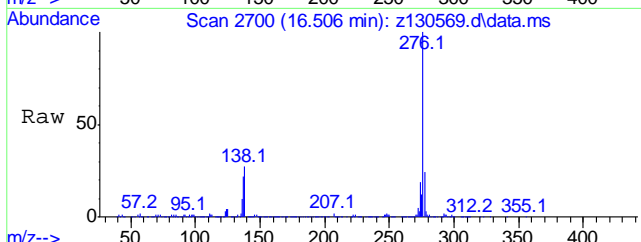
#98  
 Dibenz[a,h]anthracene  
 Concen: 10.04 ppm  
 RT: 16.142 min Scan# 2632  
 Delta R.T. 0.005 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 173370 | 100   |       |
| 139     | 21.8   | 0.0   | 55.8  |
| 279     | 27.9   | 0.0   | 53.0  |

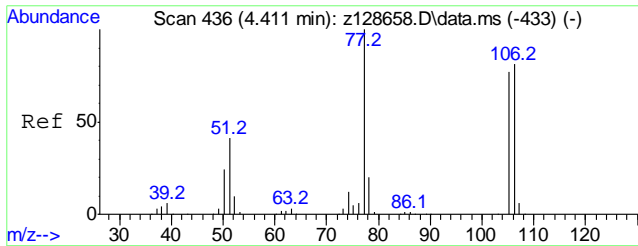


#100  
 Benzo[g,h,i]perylene  
 Concen: 39.30 ppm  
 RT: 16.506 min Scan# 2700  
 Delta R.T. 0.016 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 673878 | 100   |       |
| 138     | 26.4   | 7.0   | 67.0  |
| 277     | 23.4   | 0.0   | 54.2  |

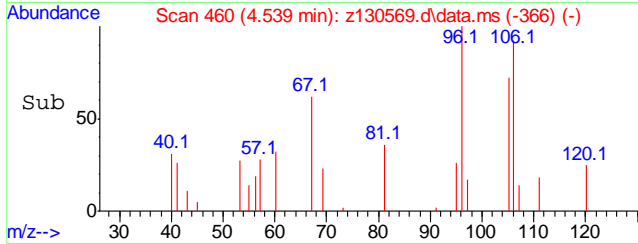
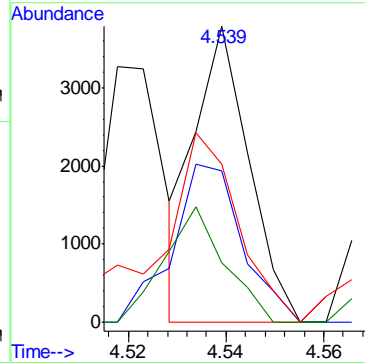
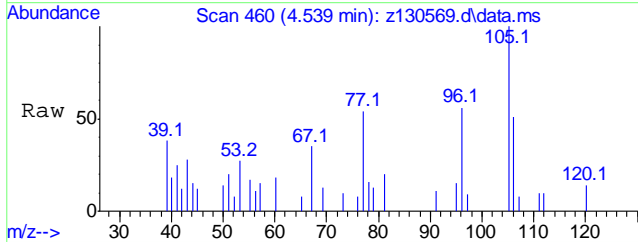


9.1.15  
 9



#102  
 Benzaldehyde  
 Concen: 0.46 ppm  
 RT: 4.539 min Scan# 460  
 Delta R.T. 0.003 min  
 Lab File: z130569.d  
 Acq: 11 May 2018 7:24 pm

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 105     | 100   |       |        |
| 106     | 52.9  | 75.3  | 135.3# |
| 77      | 51.7  | 70.6  | 130.6# |
| 51      | 10.5  | 11.2  | 71.2#  |



9.1.15  
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130526.d  
 Acq On : 10 May 2018 9:29 pm  
 Operator : christc2  
 Sample : jc65058-13 Inst : SVOAMSZ  
 Misc : op11648,ez6439,30.0,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:40:36 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.886  | 152  | 235764   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.800  | 136  | 936577   | 40.00 | ppm    | -0.01    |
| 47) Acenaphthene-d10         | 7.205  | 164  | 477792   | 40.00 | ppm    | -0.01    |
| 69) Phenanthrene-d10         | 8.834  | 188  | 907710   | 40.00 | ppm    | -0.01    |
| 83) Chrysene-d12             | 12.659 | 240  | 802726   | 40.00 | ppm    | -0.02    |
| 91) Perylene-d12             | 14.748 | 264  | 761032   | 40.00 | ppm    | -0.01    |
| 101) 1,4-Dichlorobenzene-d4a | 4.886  | 152  | 235764   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10a       | 8.834  | 188  | 907710   | 40.00 | ppm    | -0.01    |
| 107) Chrysene-d12a           | 12.659 | 240  | 802726   | 40.00 | ppm    | -0.01    |
| 109) Acenaphthene-d10a       | 7.205  | 164  | 477792   | 40.00 | ppm    | -0.01    |
| 111) Naphthalene-d8a         | 5.800  | 136  | 936577   | 40.00 | ppm    | -0.01    |
| 113) Phenanthrene-d10b       | 8.834  | 188  | 907710   | 40.00 | ppm    | -0.01    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.909  | 112  | 345679   | 39.36 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.72% |          |
| 8) Phenol-d5                 | 4.609  | 99   | 430451   | 40.83 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.66% |          |
| 25) Nitrobenzene-d5          | 5.282  | 82   | 320837   | 39.46 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.92% |          |
| 51) 2-Fluorobiphenyl         | 6.607  | 172  | 677529   | 40.46 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 80.92% |          |
| 73) 2,4,6-Tribromophenol     | 8.006  | 330  | 123225   | 43.99 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.98% |          |
| 85) Terphenyl-d14            | 11.078 | 244  | 742268   | 38.97 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.94% |          |
| 104) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 105) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 77) Phenanthrene             | 8.861  | 178  | 67533    | 2.78  | ppm    | 97       |
| 78) Anthracene               | 8.925  | 178  | 15717    | 0.64  | ppm    | 92       |
| 79) Carbazole                | 9.128  | 167  | 13936    | 0.56  | ppm    | 97       |
| 81) Fluoranthene             | 10.485 | 202  | 183508   | 6.93  | ppm    | 98       |
| 84) Pyrene                   | 10.811 | 202  | 183546   | 6.71  | ppm    | 99       |
| 87) Benzo[a]anthracene       | 12.643 | 228  | 89347    | 3.54  | ppm    | 96       |
| 89) Chrysene                 | 12.697 | 228  | 86678    | 3.66  | ppm    | 99       |
| 93) Benzo[b]fluoranthene     | 14.230 | 252  | 138191   | 5.35  | ppm    | 95       |
| 94) Benzo[k]fluoranthene     | 14.262 | 252  | 48024    | 2.00  | ppm    | 96       |
| 95) Benzo[a]pyrene           | 14.668 | 252  | 93041    | 4.06  | ppm    | 96       |
| 96) Indeno[1,2,3-cd]pyrene   | 16.153 | 276  | 73284    | 3.64  | ppm    | 93       |
| 98) Dibenz[a,h]anthracene    | 16.180 | 278  | 18049    | 0.88  | ppm    | 88       |
| 100) Benzo[g,h,i]perylene    | 16.532 | 276  | 78739    | 3.85  | ppm    | 91       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

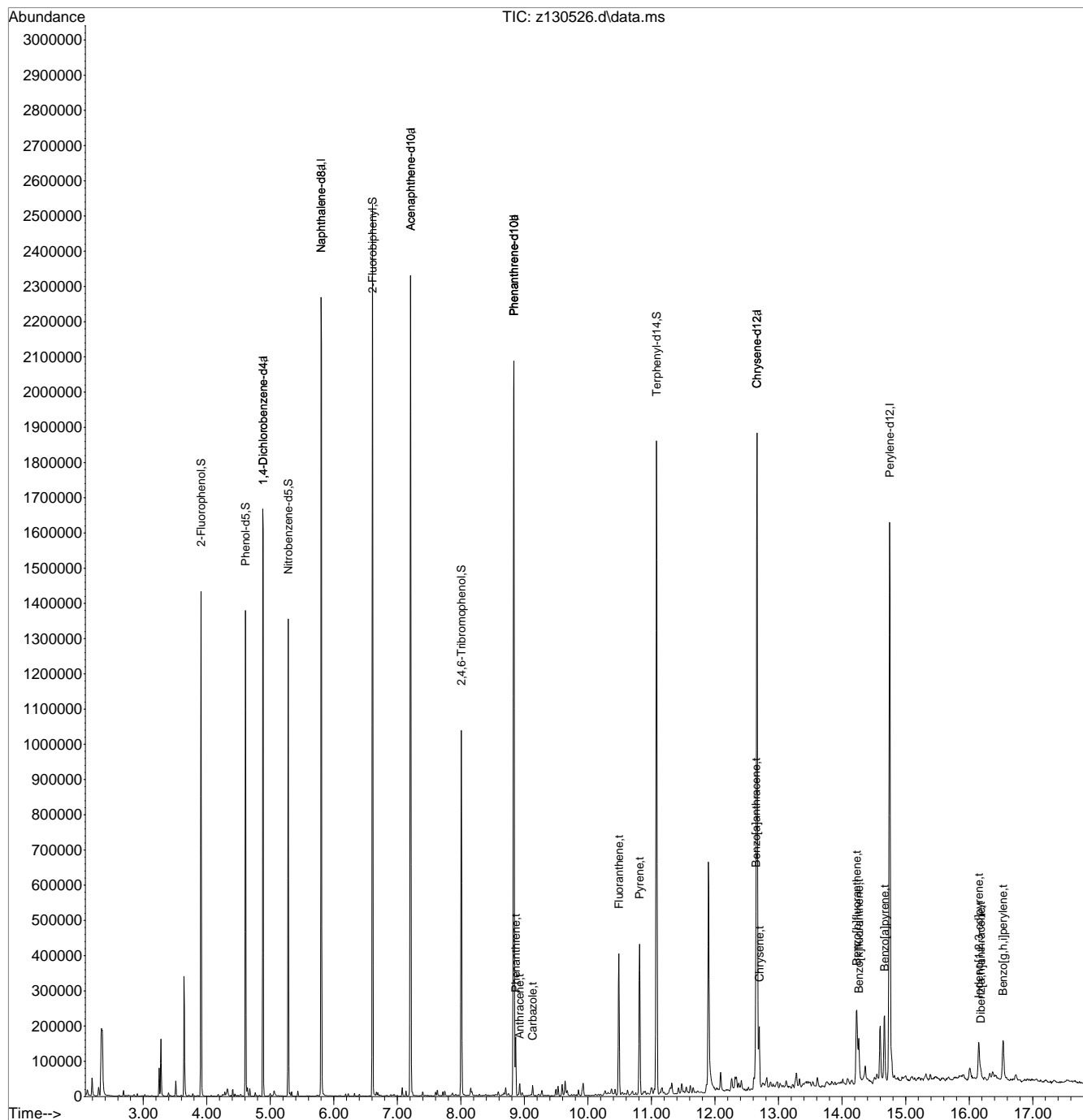
9.1.16  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130526.d  
 Acq On : 10 May 2018 9:29 pm  
 Operator : christc2  
 Sample : jc65058-13  
 Misc : op11648,ez6439,30.0,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

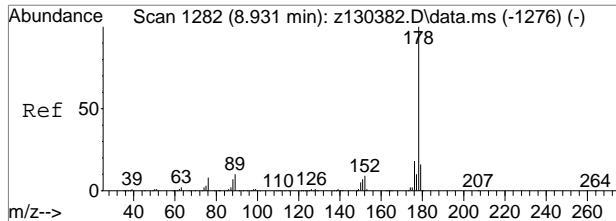
Inst : SVOAMSZ

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 11 00:40:36 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration



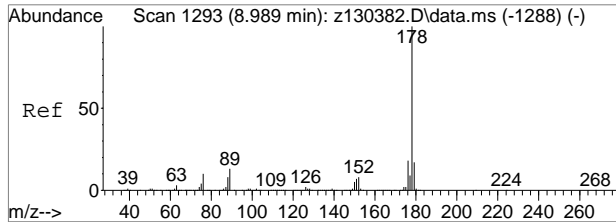
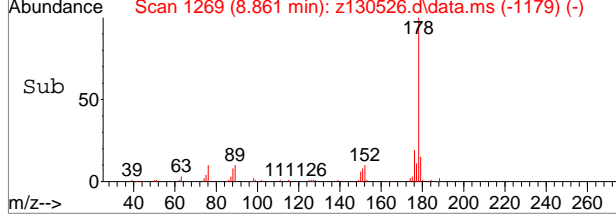
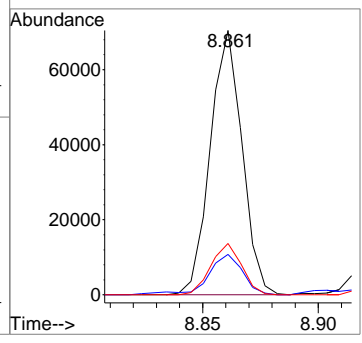
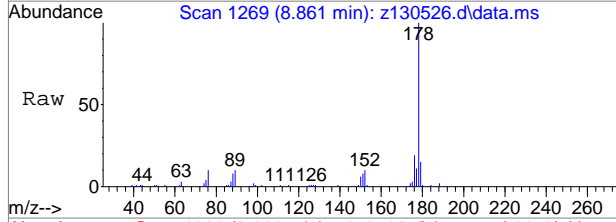
9.1.16  
9





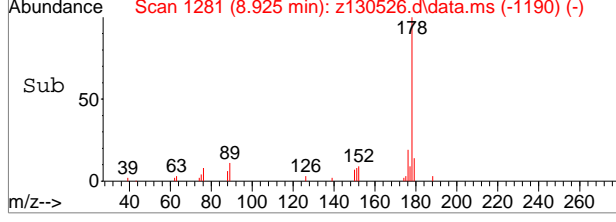
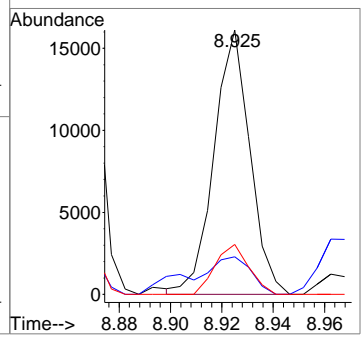
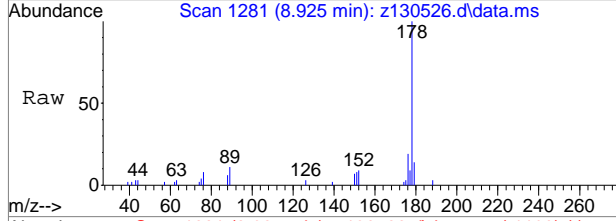
#77  
 Phenanthrene  
 Concen: 2.78 ppm  
 RT: 8.861 min Scan# 1269  
 Delta R.T. -0.021 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.7  | 0.0   | 46.3  |
| 176     | 19.4  | 0.0   | 48.1  |



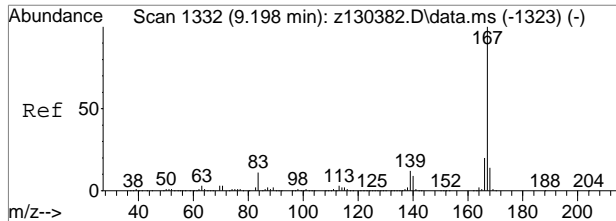
#78  
 Anthracene  
 Concen: 0.64 ppm  
 RT: 8.925 min Scan# 1281  
 Delta R.T. -0.015 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 10.9  | 0.0   | 46.9  |
| 176     | 19.1  | 0.0   | 48.0  |



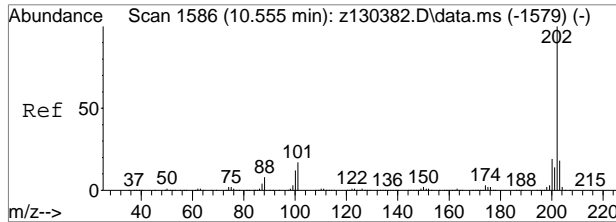
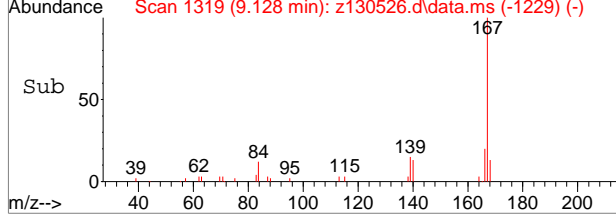
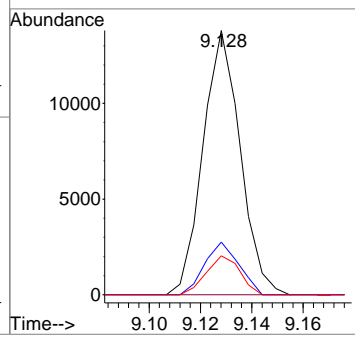
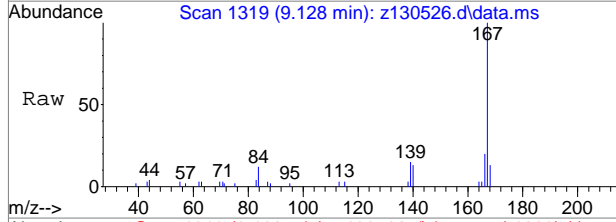
9.1.16  
9





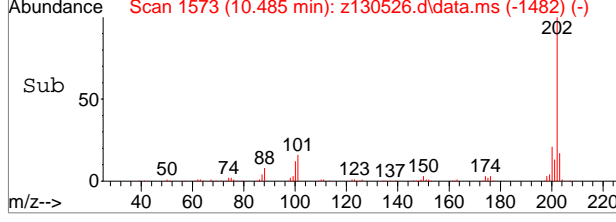
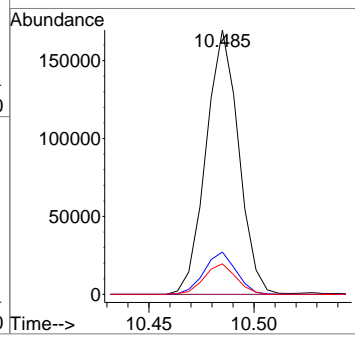
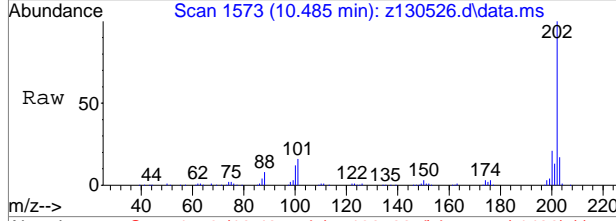
#79  
 Carbazole  
 Concen: 0.56 ppm  
 RT: 9.128 min Scan# 1319  
 Delta R.T. -0.020 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 13936 |       |       |
| 166     | 20.0  | 0.0   | 49.8  |
| 139     | 14.7  | 0.0   | 42.1  |

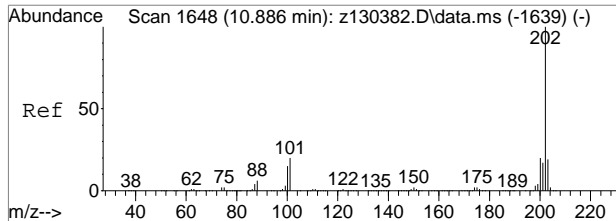


#81  
 Fluoranthene  
 Concen: 6.93 ppm  
 RT: 10.485 min Scan# 1573  
 Delta R.T. -0.012 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 202     | 183508 |       |       |
| 101     | 16.1   | 0.0   | 47.2  |
| 100     | 11.6   | 0.0   | 42.3  |

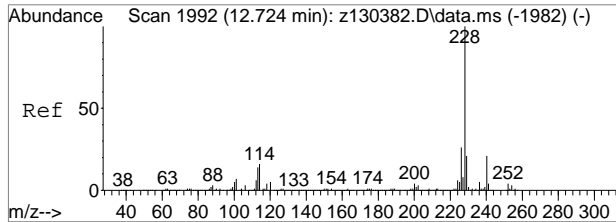
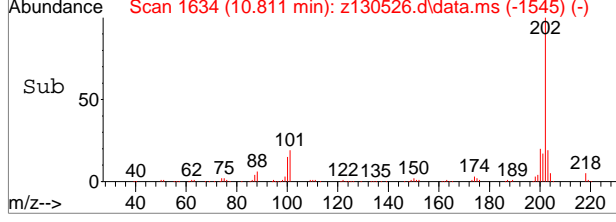
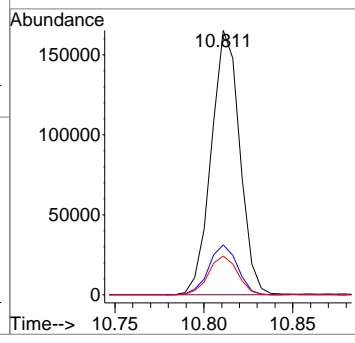
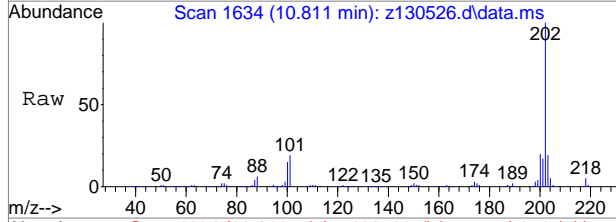


9.1.16  
 9



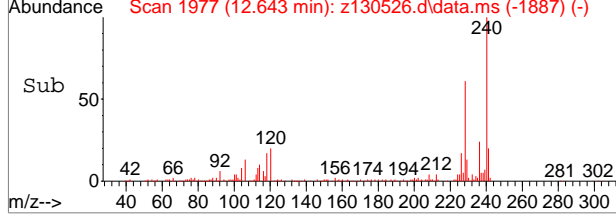
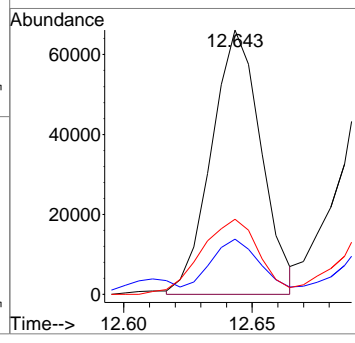
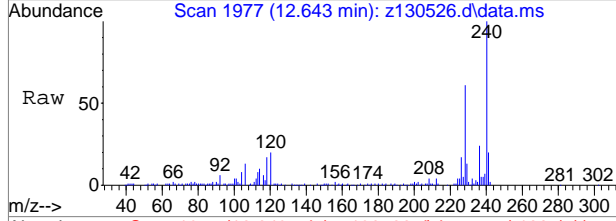
#84  
 Pyrene  
 Concen: 6.71 ppm  
 RT: 10.811 min Scan# 1634  
 Delta R.T. -0.025 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 18.8  | 0.0   | 49.8  |
| 100     | 14.6  | 0.0   | 44.6  |



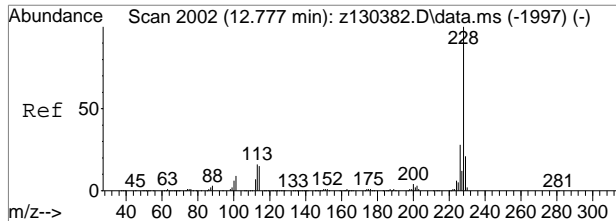
#87  
 Benzo[a]anthracene  
 Concen: 3.54 ppm  
 RT: 12.643 min Scan# 1977  
 Delta R.T. -0.021 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.0  | 0.0   | 50.7  |
| 226     | 27.9  | 0.0   | 56.2  |



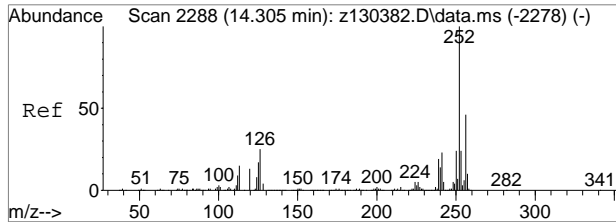
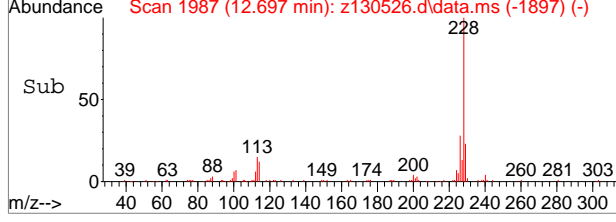
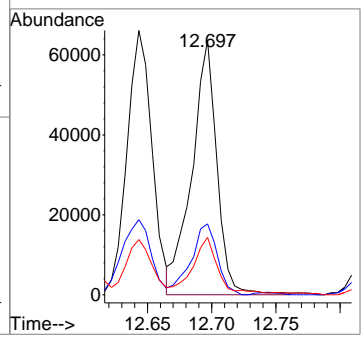
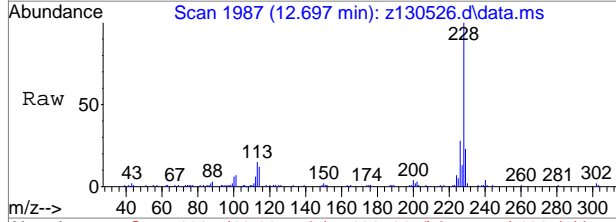
9.1.16  
9





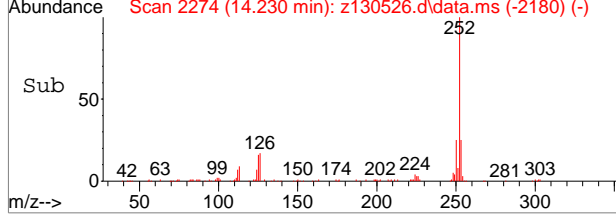
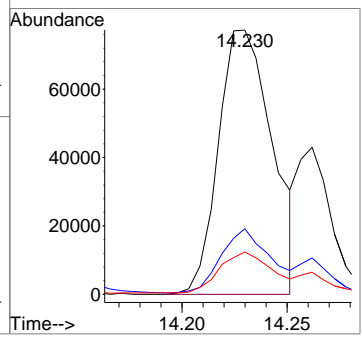
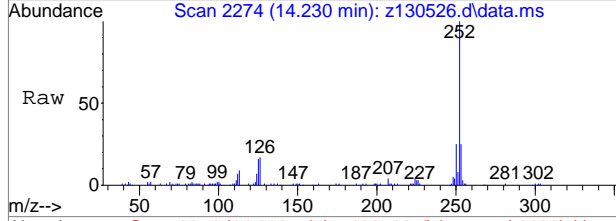
#89  
 Chrysene  
 Concen: 3.66 ppm  
 RT: 12.697 min Scan# 1987  
 Delta R.T. -0.021 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 86678 |       |       |
| 226     | 28.1  | 0.0   | 58.0  |
| 229     | 22.0  | 0.0   | 50.8  |

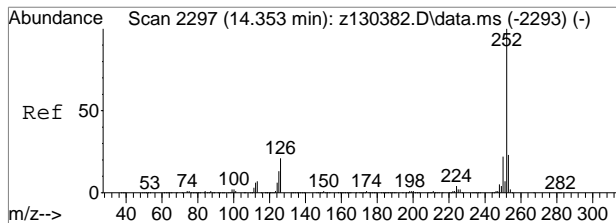


#93  
 Benzo[b]fluoranthene  
 Concen: 5.35 ppm  
 RT: 14.230 min Scan# 2274  
 Delta R.T. -0.000 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 138191 |       |       |
| 253     | 25.0   | 0.0   | 52.0  |
| 125     | 16.0   | 0.0   | 47.1  |

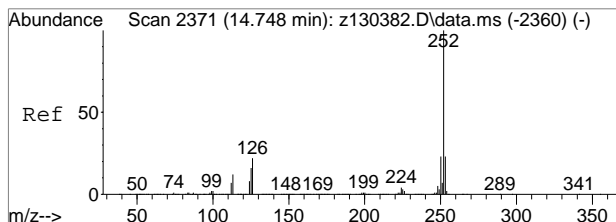
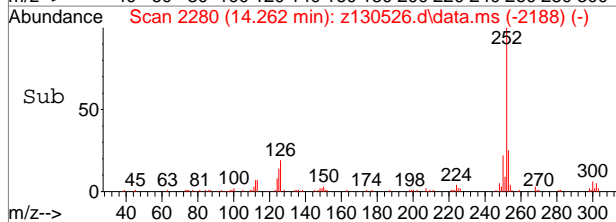
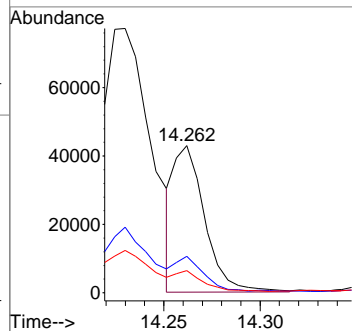
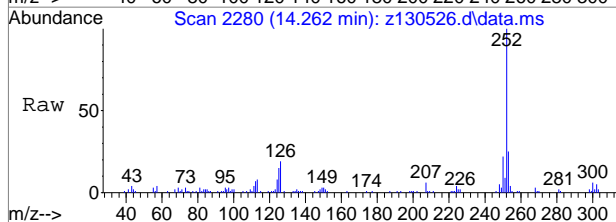


9.1.16  
 9



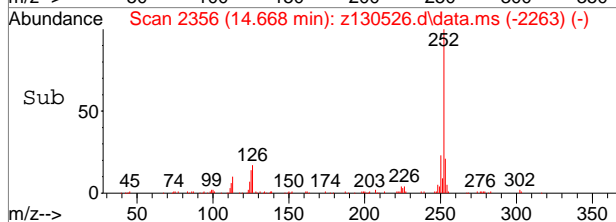
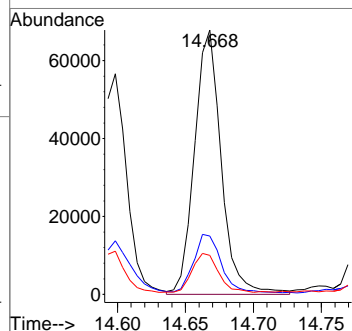
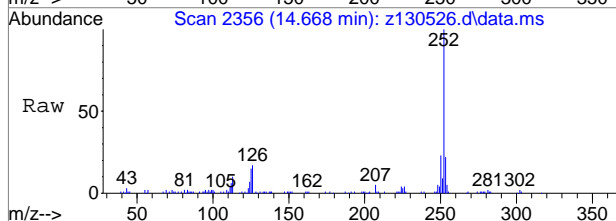
#94  
 Benzo[k]fluoranthene  
 Concen: 2.00 ppm  
 RT: 14.262 min Scan# 2280  
 Delta R.T. -0.011 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 25.3  | 0.0   | 52.1  |
| 125     | 14.5  | 0.0   | 44.9  |

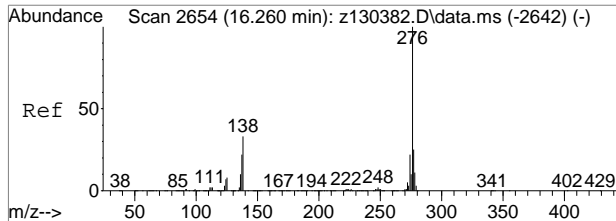


#95  
 Benzo[a]pyrene  
 Concen: 4.06 ppm  
 RT: 14.668 min Scan# 2356  
 Delta R.T. -0.006 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 21.4  | 0.0   | 51.1  |
| 125     | 13.9  | 0.0   | 47.3  |

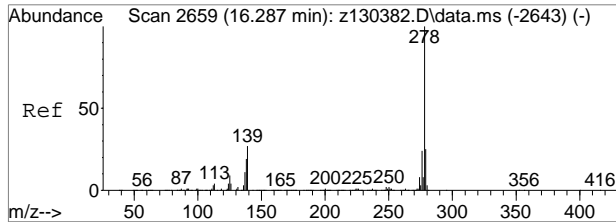
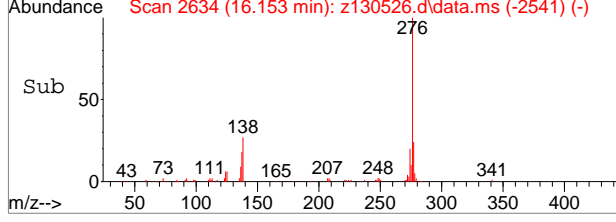
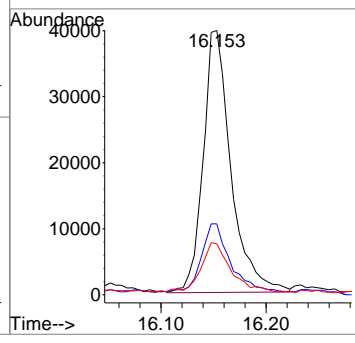
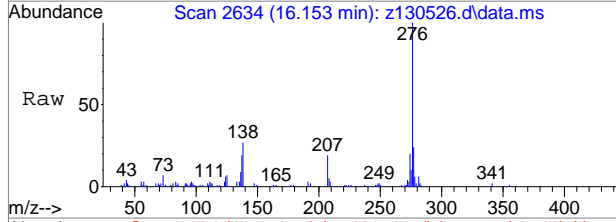


9.1.16  
 9



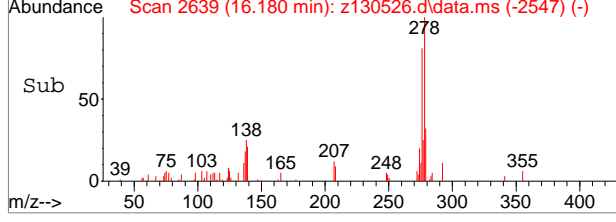
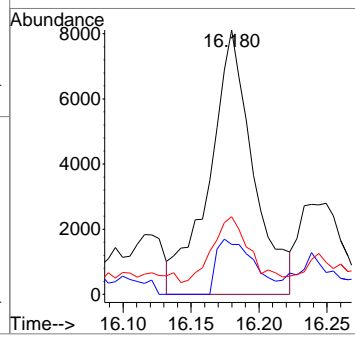
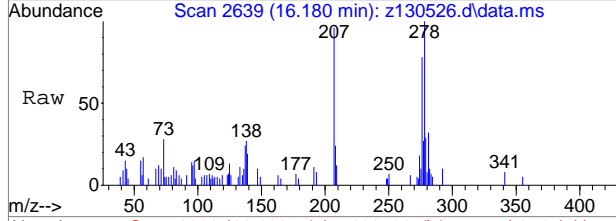
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 3.64 ppm  
 RT: 16.153 min Scan# 2634  
 Delta R.T. -0.006 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 73284 |       |       |
| 138     | 26.2  | 1.5   | 61.5  |
| 137     | 18.3  | 0.0   | 50.0  |

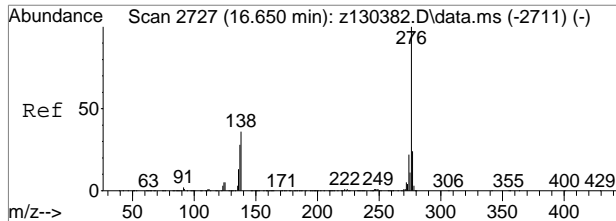


#98  
 Dibenz[a,h]anthracene  
 Concen: 0.88 ppm  
 RT: 16.180 min Scan# 2639  
 Delta R.T. -0.011 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 18049 |       |       |
| 139     | 17.3  | 0.0   | 55.8  |
| 279     | 26.1  | 0.0   | 53.0  |

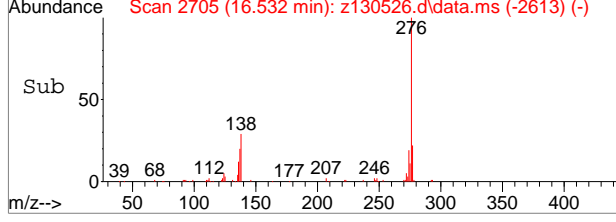
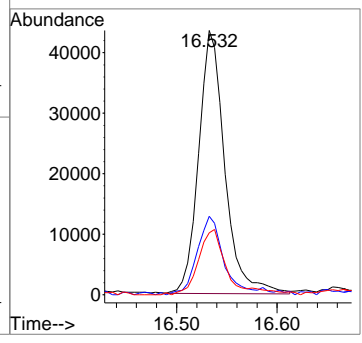
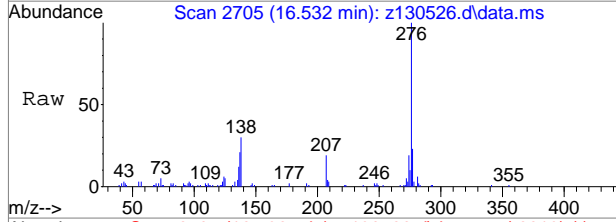


9.1.16  
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#100  
 Benzo[g,h,i]perylene  
 Concen: 3.85 ppm  
 RT: 16.532 min Scan# 2705  
 Delta R.T. -0.011 min  
 Lab File: z130526.d  
 Acq: 10 May 2018 9:29 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 29.3  | 7.0   | 67.0  |
| 277     | 22.7  | 0.0   | 54.2  |



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2p3489\
Data File : 2p79180.d
Acq On : 6 May 2018 3:06 am
Operator : seanbl
Sample : jc65058-13A Inst : MS2P
Misc : op11697,e2p3489,100,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M
Quant Results File: M2P3484.RES
Quant Time: May 08 00:15:40 2018
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 07 21:27:43 2018
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (1-114), System Monitoring Compounds (5-112), and Target Compounds.

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.1.17
9

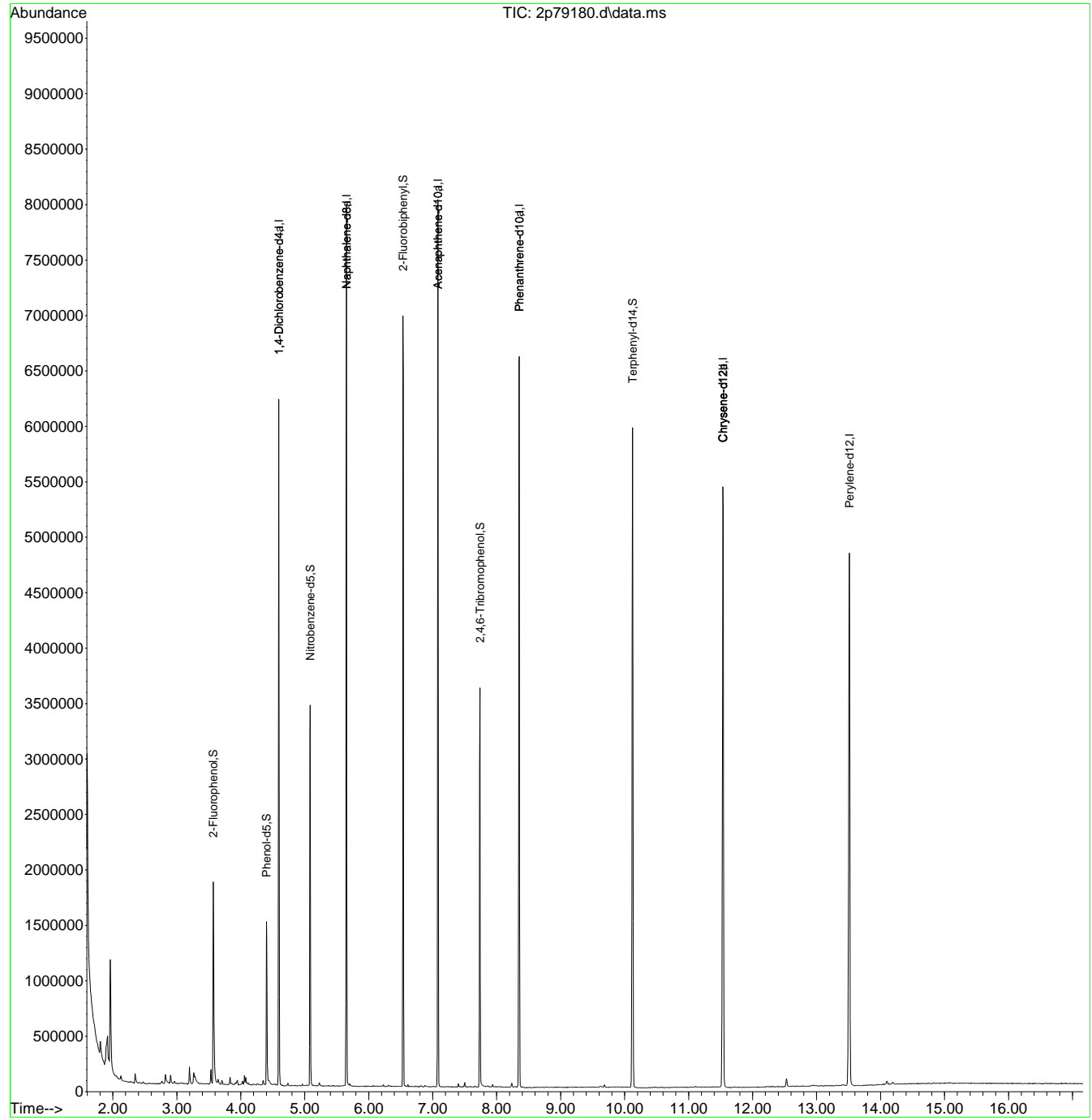


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2p3489\  
Data File : 2p79180.d  
Acq On : 6 May 2018 3:06 am  
Operator : seanbl  
Sample : jc65058-13A  
Misc : op11697,e2p3489,100,,,1,1  
ALS Vial : 22 Sample Multiplier: 1

Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
Quant Results File: M2P3484.RES  
Quant Time: May 08 00:15:40 2018  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Mon May 07 21:27:43 2018  
Response via : Initial Calibration



9.1.17  
9





## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
 Data File : z130570.d  
 Acq On : 11 May 2018 7:50 pm  
 Operator : christc2  
 Sample : jc65058-15  
 Misc : op11648,ez6441,30.6,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 14 18:22:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Sun May 13 21:35:59 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.860  | 152  | 241153   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.779  | 136  | 968548   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 7.178  | 164  | 472934   | 40.00 | ppm    | 0.00     |
| 69) Phenanthrene-d10         | 8.797  | 188  | 854557   | 40.00 | ppm    | 0.00     |
| 83) Chrysene-d12             | 12.627 | 240  | 619563   | 40.00 | ppm    | 0.00     |
| 91) Perylene-d12             | 14.716 | 264  | 648671   | 40.00 | ppm    | 0.00     |
| 101) 1,4-Dichlorobenzene-d4a | 4.860  | 152  | 241153   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10a       | 8.797  | 188  | 854557   | 40.00 | ppm    | 0.00     |
| 107) Chrysene-d12a           | 12.627 | 240  | 619563   | 40.00 | ppm    | 0.00     |
| 109) Acenaphthene-d10a       | 7.178  | 164  | 472934   | 40.00 | ppm    | 0.00     |
| 111) Naphthalene-d8a         | 5.779  | 136  | 968548   | 40.00 | ppm    | 0.00     |
| 113) Phenanthrene-d10b       | 8.797  | 188  | 854557   | 40.00 | ppm    | 0.00     |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.882  | 112  | 349371   | 38.89 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.78% |          |
| 8) Phenol-d5                 | 4.587  | 99   | 439182   | 40.73 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.46% |          |
| 25) Nitrobenzene-d5          | 5.255  | 82   | 324419   | 38.59 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.18% |          |
| 51) 2-Fluorobiphenyl         | 6.580  | 172  | 660414   | 39.85 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.70% |          |
| 73) 2,4,6-Tribromophenol     | 7.974  | 330  | 107378   | 40.72 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 81.44% |          |
| 85) Terphenyl-d14            | 11.046 | 244  | 576052   | 39.19 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.38% |          |
| 104) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 105) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| Target Compounds             |        |      |          |       |        |          |
| 18) Acetophenone             | 5.143  | 105  | 5754     | 0.53  | ppm    | 87       |
| 38) Naphthalene              | 5.789  | 128  | 132998   | 5.40  | ppm    | 97       |
| 44) 2-Methylnaphthalene      | 6.297  | 141  | 22903    | 1.53  | ppm    | 88       |
| 53) Biphenyl                 | 6.665  | 154  | 12807    | 0.67  | ppm    | 98       |
| 56) Acenaphthylene           | 7.045  | 152  | 140753   | 6.06  | ppm    | 98       |
| 59) Acenaphthene             | 7.205  | 153  | 21235    | 1.52  | ppm    | 89       |
| 62) Dibenzofuran             | 7.365  | 168  | 58361    | 2.88  | ppm    | 97       |
| 66) Fluorene                 | 7.712  | 166  | 41494    | 2.64  | ppm    | 96       |
| 77) Phenanthrene             | 8.829  | 178  | 705787   | 30.91 | ppm    | 98       |
| 78) Anthracene               | 8.888  | 178  | 216222   | 9.36  | ppm    | 98       |
| 79) Carbazole                | 9.096  | 167  | 71689    | 3.04  | ppm    | 99       |
| 81) Fluoranthene             | 10.453 | 202  | 1552000  | 62.25 | ppm    | 94       |
| 84) Pyrene                   | 10.784 | 202  | 1431031  | 67.79 | ppm    | 93       |
| 87) Benzo[a]anthracene       | 12.611 | 228  | 747590   | 38.40 | ppm    | 97       |
| 89) Chrysene                 | 12.665 | 228  | 662805   | 36.22 | ppm    | 99       |
| 93) Benzo[b]fluoranthene     | 14.203 | 252  | 1079714  | 49.04 | ppm    | 95       |
| 94) Benzo[k]fluoranthene     | 14.235 | 252  | 309396   | 15.12 | ppm    | 92       |

## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
 Data File : z130570.d  
 Acq On : 11 May 2018 7:50 pm  
 Operator : christc2  
 Sample : jc65058-15  
 Misc : op11648,ez6441,30.6,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 14 18:22:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Sun May 13 21:35:59 2018  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| 95) Benzo[a]pyrene         | 14.641 | 252  | 722851   | 37.01 | ppm   | 93       |
| 96) Indeno[1,2,3-cd]pyrene | 16.121 | 276  | 662267   | 38.61 | ppm   | 91       |
| 98) Dibenz[a,h]anthracene  | 16.142 | 278  | 135683   | 7.73  | ppm   | 92       |
| 100) Benzo[g,h,i]perylene  | 16.506 | 276  | 624632   | 35.85 | ppm   | 89       |
| 102) Benzaldehyde          | 4.539  | 105  | 4726     | 0.77  | ppm # | 40       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

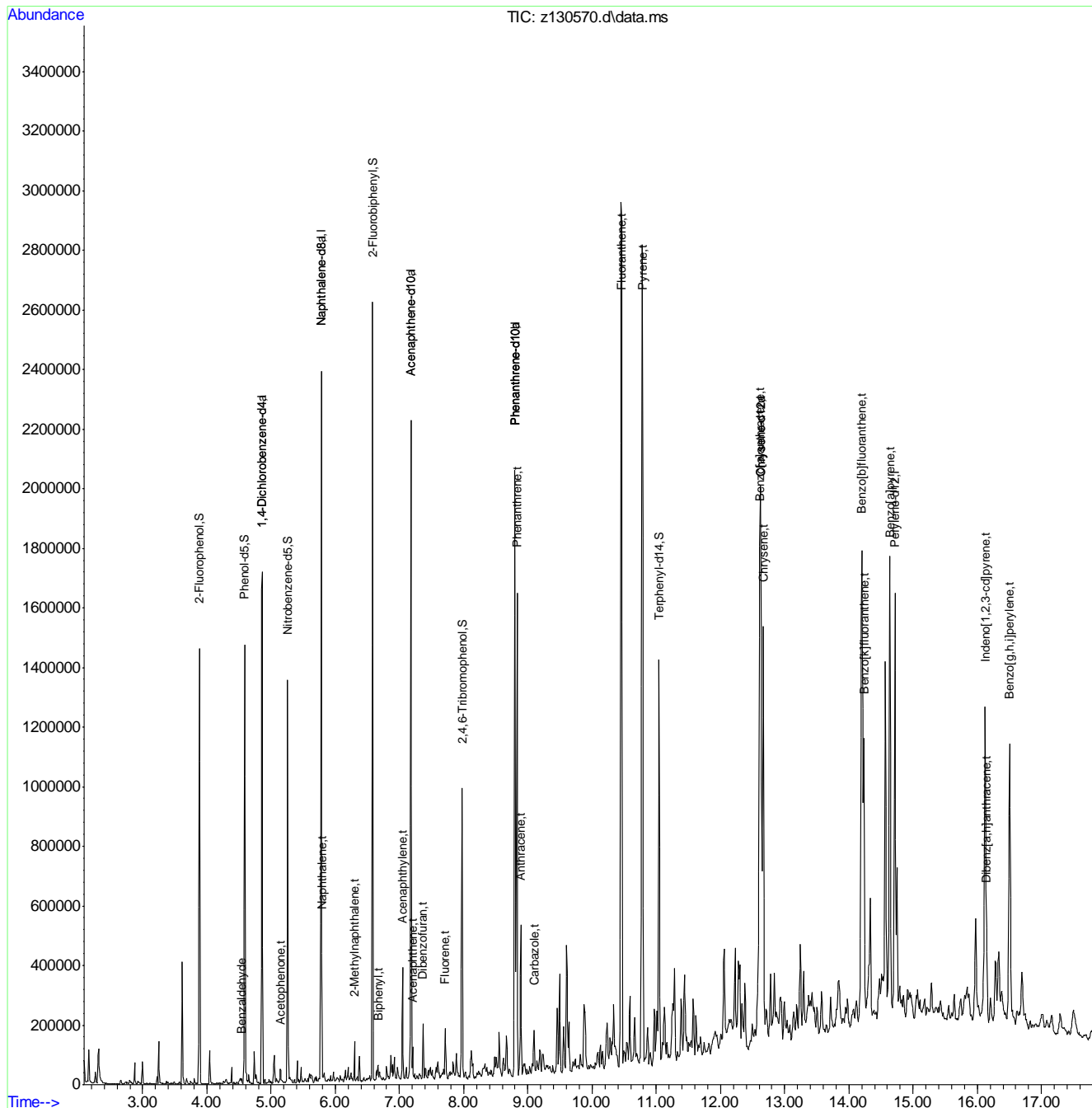
9.1.18

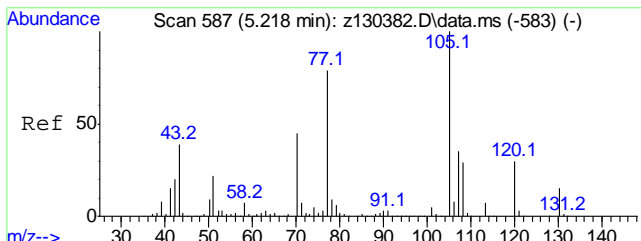
9

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-14-18\jonkm\ez6441\  
 Data File : z130570.d  
 Acq On : 11 May 2018 7:50 pm  
 Operator : christc2  
 Sample : jc65058-15  
 Misc : op11648,ez6441,30.6,,,1,1  
 ALS Vial : 10 Sample Multiplier: 1

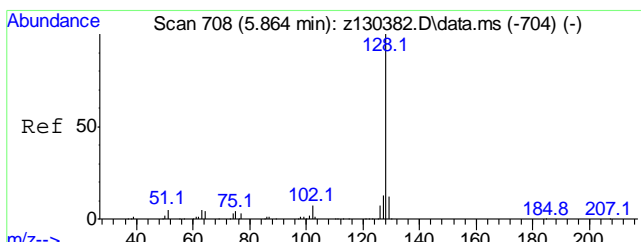
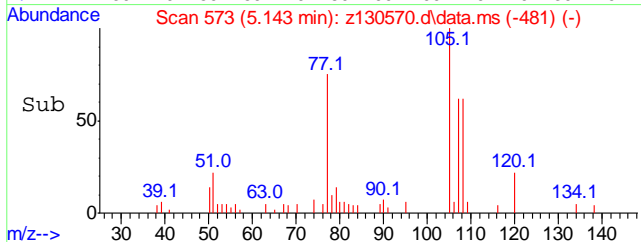
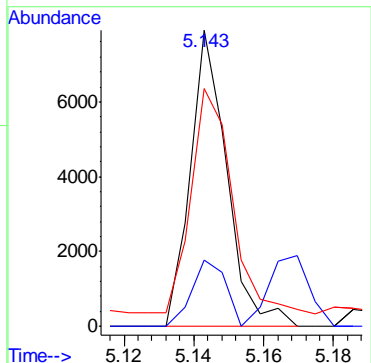
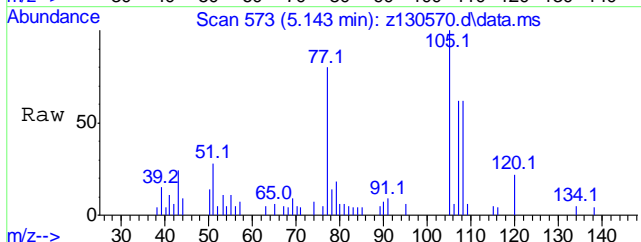
Quant Time: May 14 18:22:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Sun May 13 21:35:59 2018  
 Response via : Initial Calibration





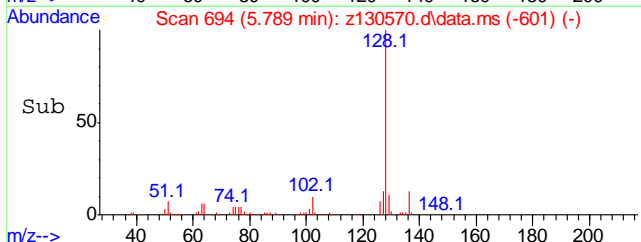
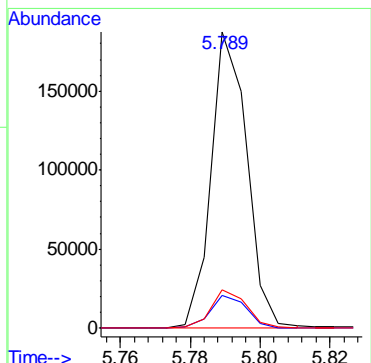
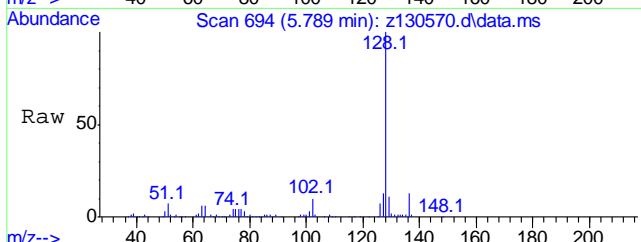
#18  
 Acetophenone  
 Concen: 0.53 ppm  
 RT: 5.143 min Scan# 573  
 Delta R.T. -0.007 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 10.5  | 0.3   | 60.3  |
| 77      | 75.3  | 49.3  | 109.3 |

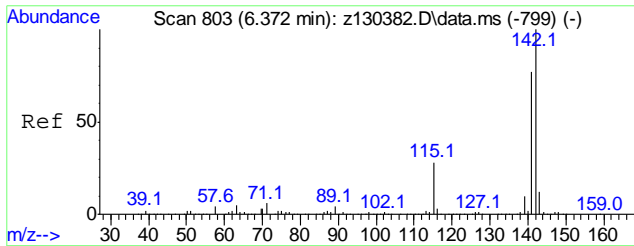


#38  
 Naphthalene  
 Concen: 5.40 ppm  
 RT: 5.789 min Scan# 694  
 Delta R.T. -0.005 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.0  | 0.0   | 42.1  |
| 127     | 12.8  | 0.0   | 41.9  |

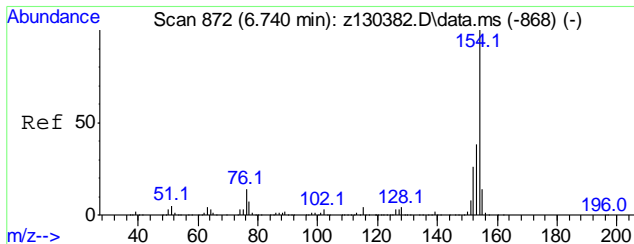
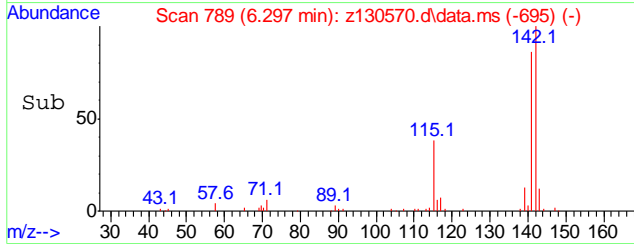
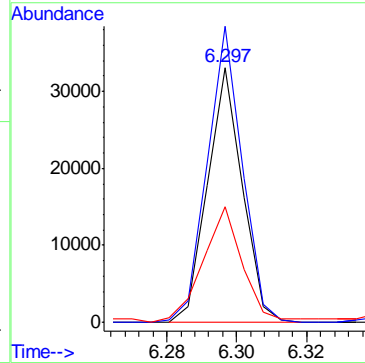
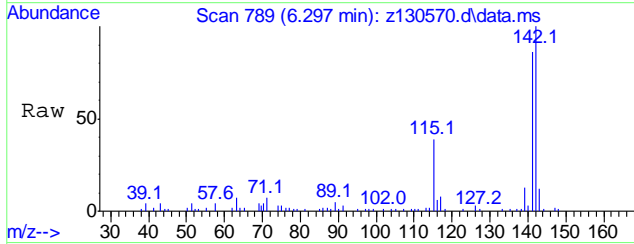


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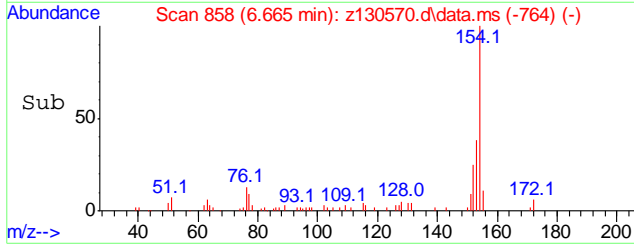
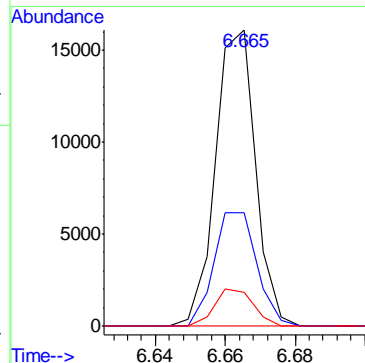
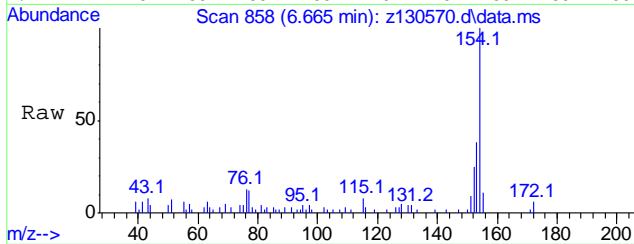
#44  
 2-Methylnaphthalene  
 Concen: 1.53 ppm  
 RT: 6.297 min Scan# 789  
 Delta R.T. 0.001 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 115.8 | 99.8  | 159.8 |
| 115     | 43.7  | 6.1   | 66.1  |

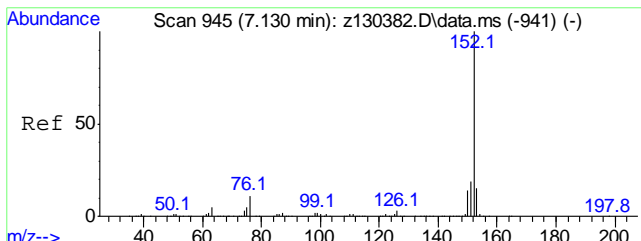


#53  
 Biphenyl  
 Concen: 0.67 ppm  
 RT: 6.665 min Scan# 858  
 Delta R.T. -0.000 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 38.1  | 7.7   | 67.7  |
| 155     | 11.5  | 0.0   | 44.2  |

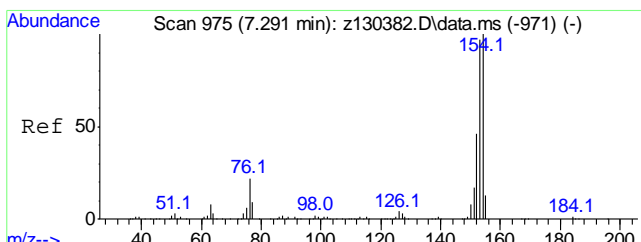
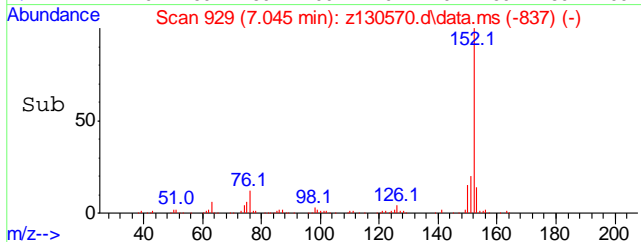
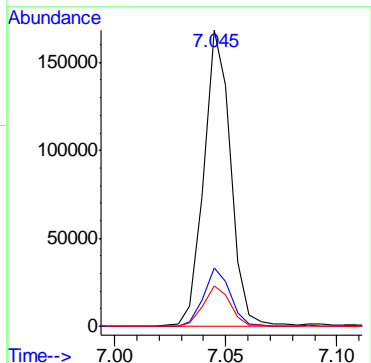
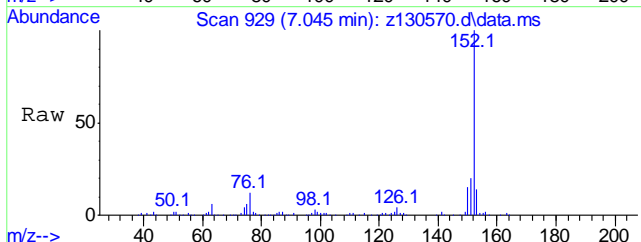


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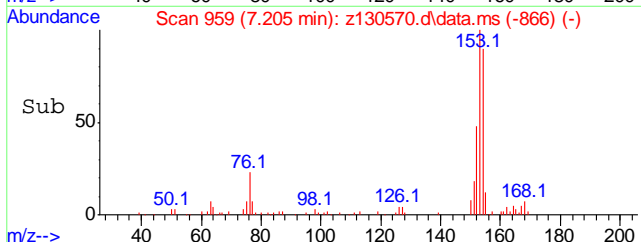
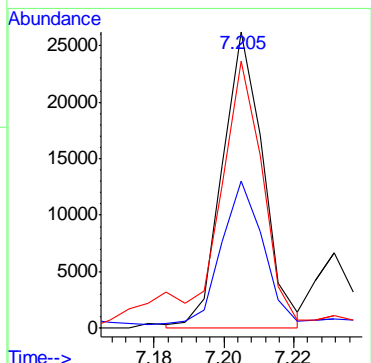
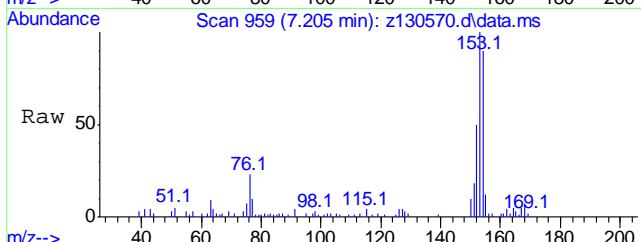
#56  
 Acenaphthylene  
 Concen: 6.06 ppm  
 RT: 7.045 min Scan# 929  
 Delta R.T. -0.007 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 20.0  | 0.0   | 49.4  |
| 153     | 13.5  | 0.0   | 44.5  |

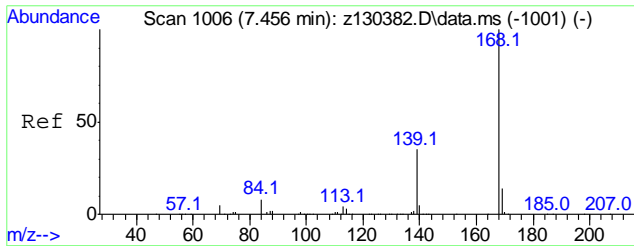


#59  
 Acenaphthene  
 Concen: 1.52 ppm  
 RT: 7.205 min Scan# 959  
 Delta R.T. -0.005 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 49.4  | 16.8  | 76.8  |
| 154     | 85.7  | 69.7  | 129.7 |

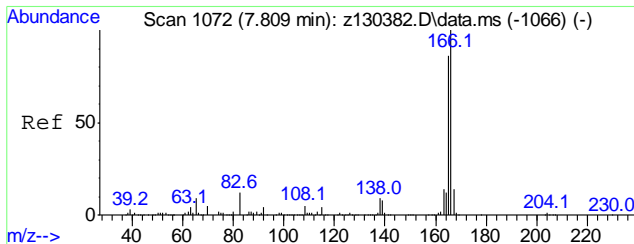
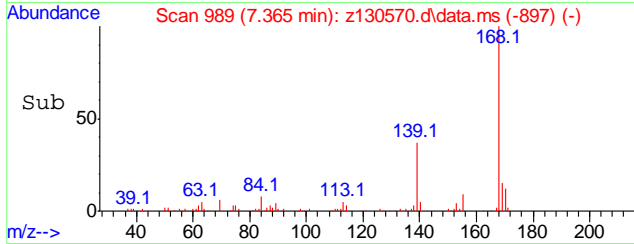
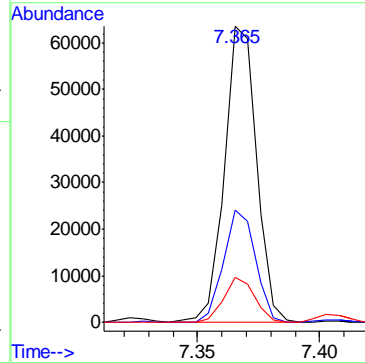
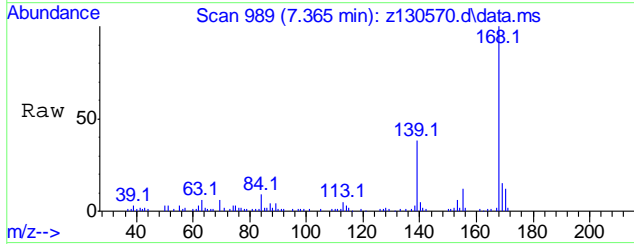


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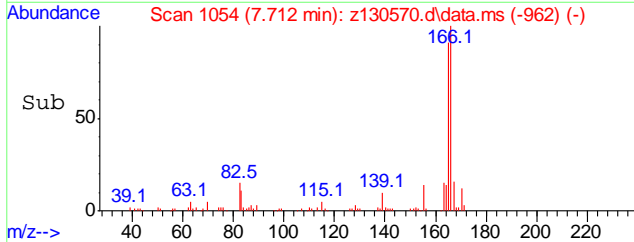
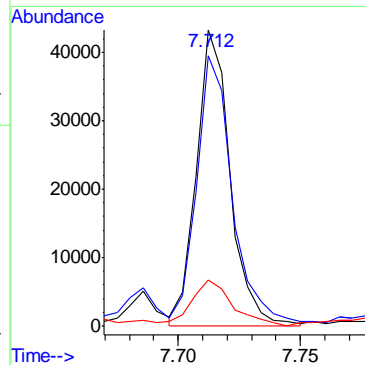
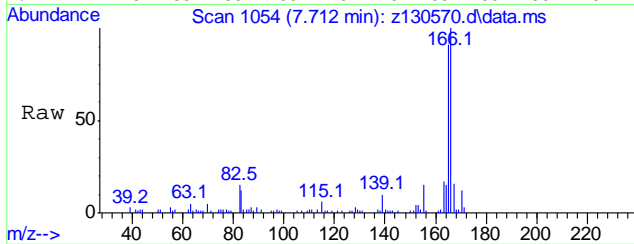
#62  
 Dibenzofuran  
 Concen: 2.88 ppm  
 RT: 7.365 min Scan# 989  
 Delta R.T. -0.009 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 37.9  | 5.5   | 65.5  |
| 169     | 15.2  | 0.0   | 44.4  |

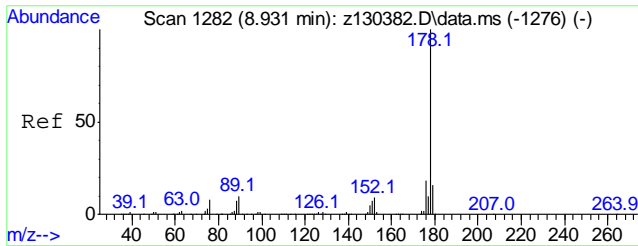


#66  
 Fluorene  
 Concen: 2.64 ppm  
 RT: 7.712 min Scan# 1054  
 Delta R.T. -0.010 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 90.9  | 56.3  | 116.3 |
| 167     | 14.7  | 0.0   | 44.1  |

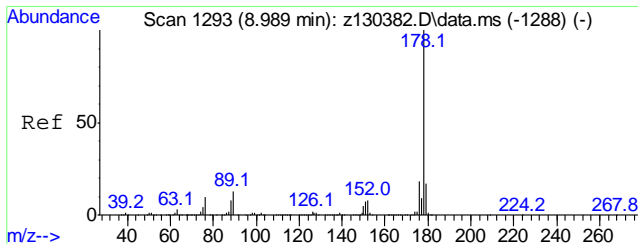
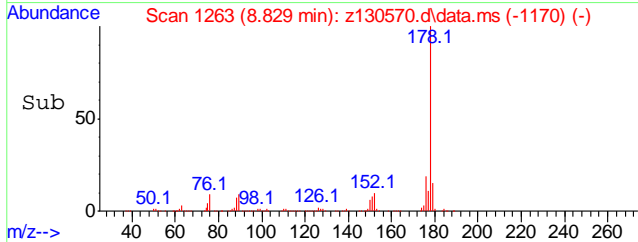
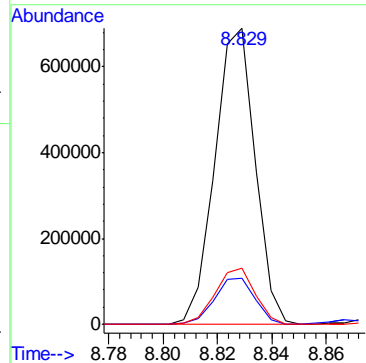
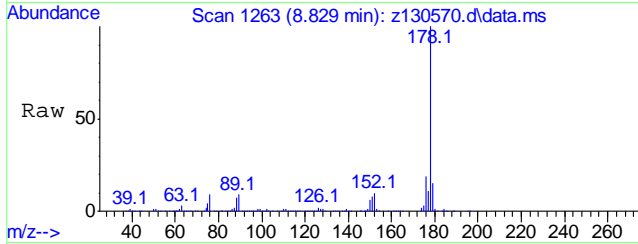


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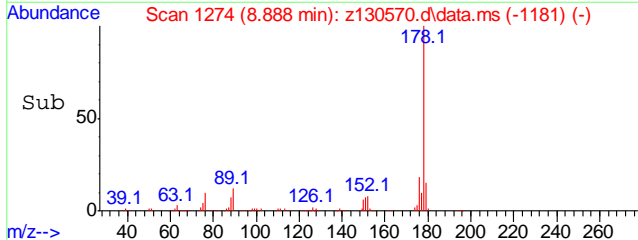
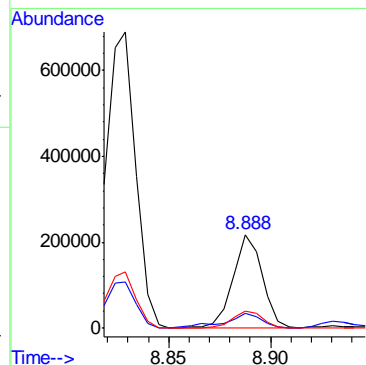
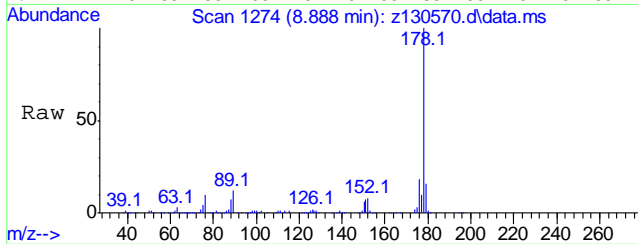
#77  
 Phenanthrene  
 Concen: 30.91 ppm  
 RT: 8.829 min Scan# 1263  
 Delta R.T. -0.005 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.3  | 0.0   | 46.3  |
| 176     | 18.9  | 0.0   | 48.1  |



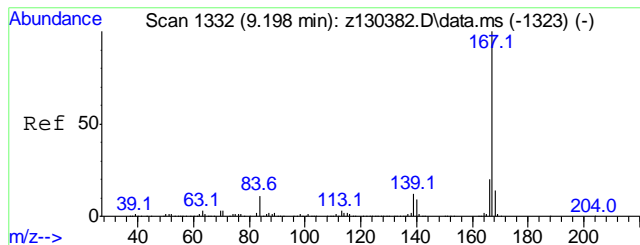
#78  
 Anthracene  
 Concen: 9.36 ppm  
 RT: 8.888 min Scan# 1274  
 Delta R.T. -0.004 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.2  | 0.0   | 46.9  |
| 176     | 18.4  | 0.0   | 48.0  |



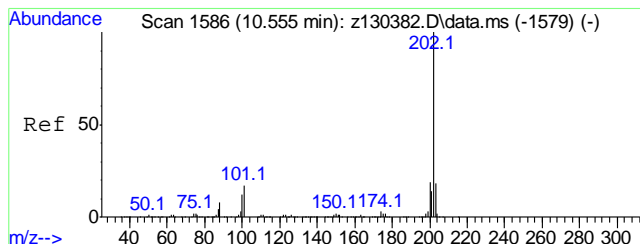
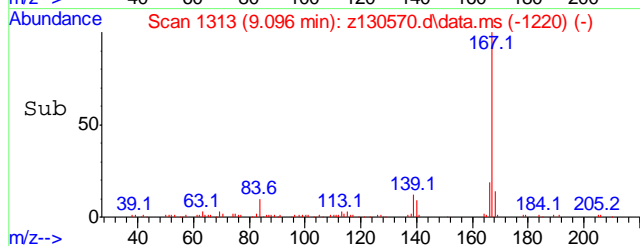
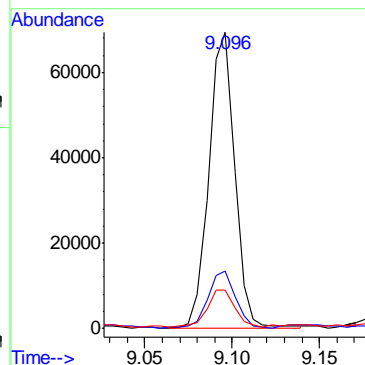
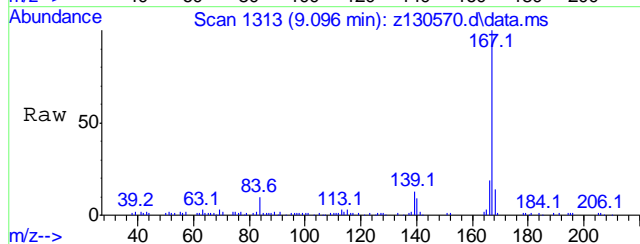
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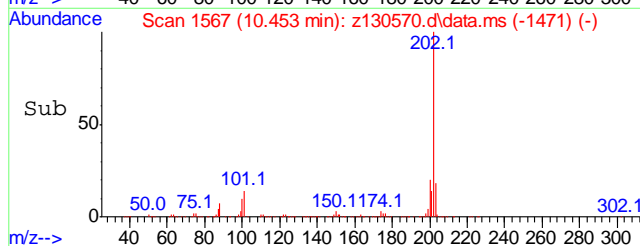
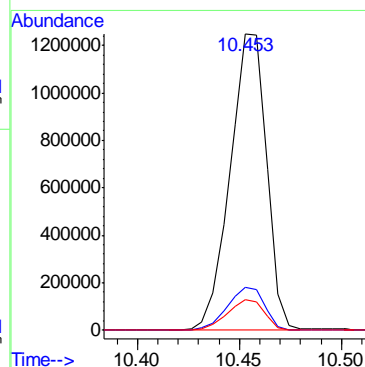
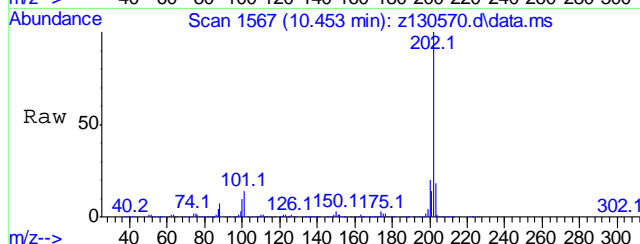
#79  
 Carbazole  
 Concen: 3.04 ppm  
 RT: 9.096 min Scan# 1313  
 Delta R.T. -0.002 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

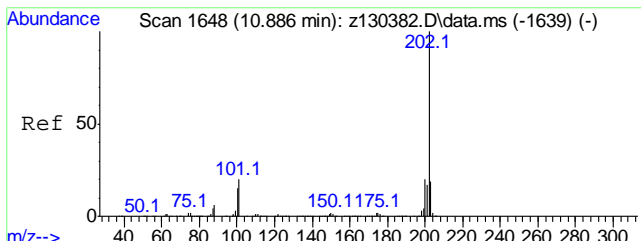
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 71689 | 100   |       |
| 166     | 18.8  | 0.0   | 49.8  |
| 139     | 12.1  | 0.0   | 42.1  |



#81  
 Fluoranthene  
 Concen: 62.25 ppm  
 RT: 10.453 min Scan# 1567  
 Delta R.T. 0.013 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

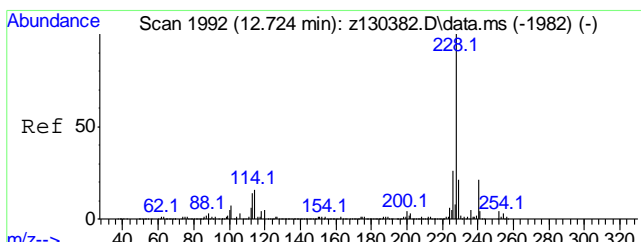
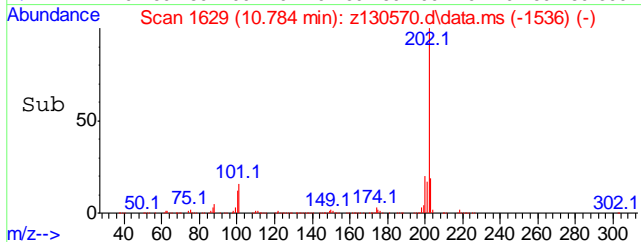
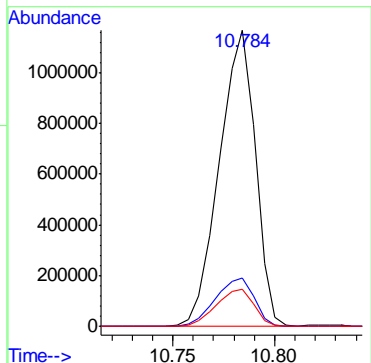
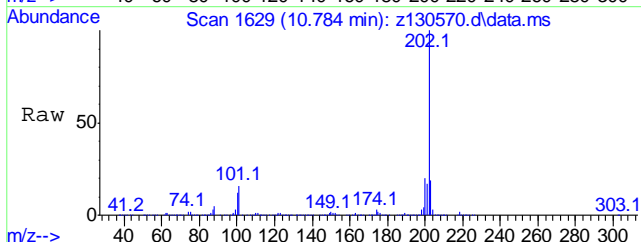
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1552000 | 100   |       |
| 101     | 14.4    | 0.0   | 47.2  |
| 100     | 10.2    | 0.0   | 42.3  |





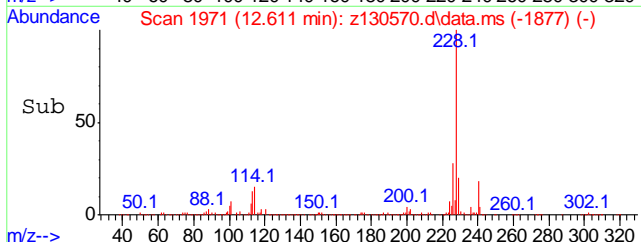
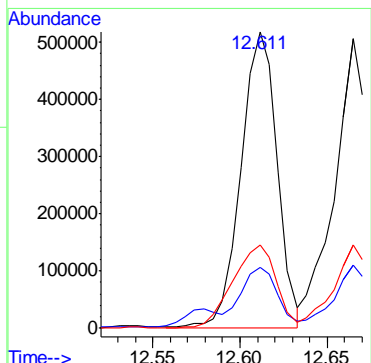
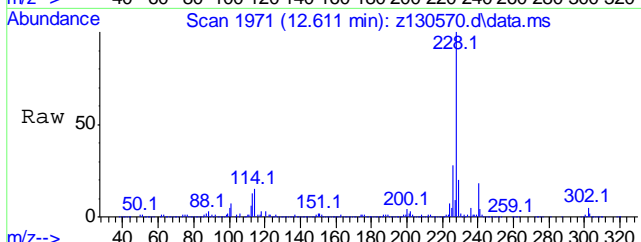
#84  
 Pyrene  
 Concen: 67.79 ppm  
 RT: 10.784 min Scan# 1629  
 Delta R.T. -0.006 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1431031 |       |       |
| 101     | 16.2    | 0.0   | 49.8  |
| 100     | 12.4    | 0.0   | 44.6  |

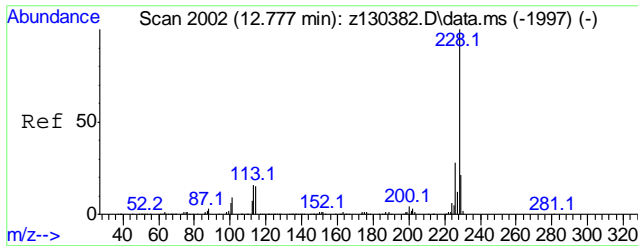


#87  
 Benzo[a]anthracene  
 Concen: 38.40 ppm  
 RT: 12.611 min Scan# 1971  
 Delta R.T. -0.000 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 228     | 747590 |       |       |
| 229     | 19.5   | 0.0   | 50.7  |
| 226     | 28.0   | 0.0   | 56.2  |

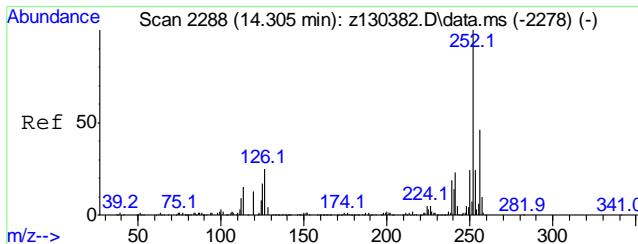
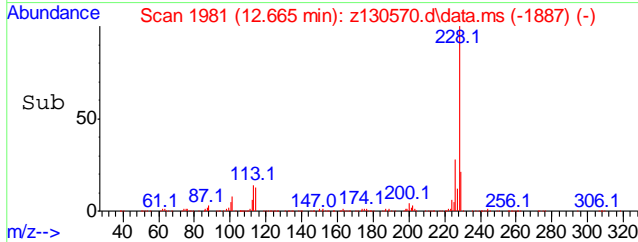
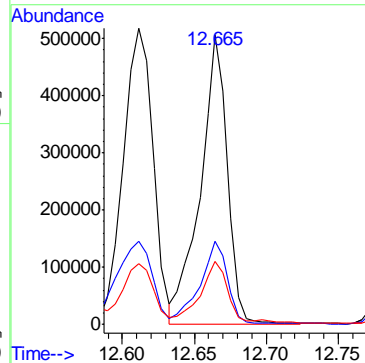
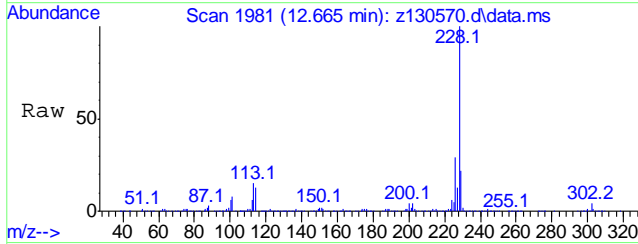


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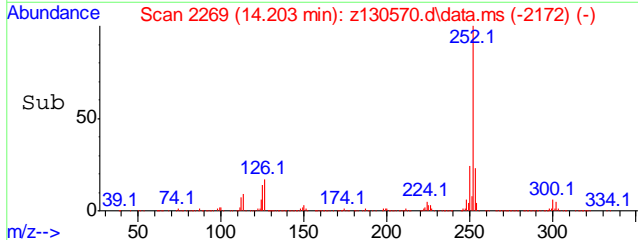
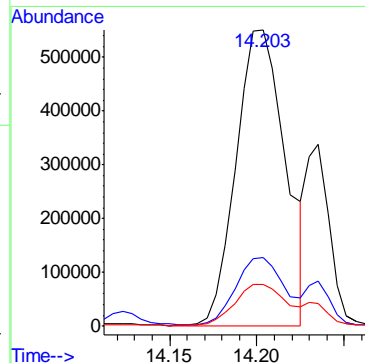
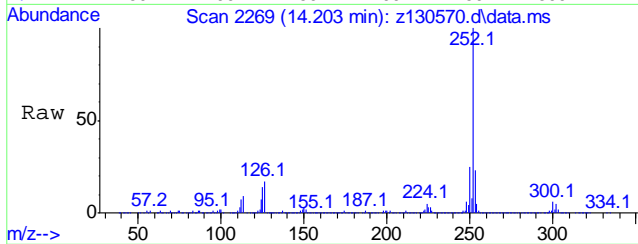
#89  
 Chrysene  
 Concen: 36.22 ppm  
 RT: 12.665 min Scan# 1981  
 Delta R.T. 0.000 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.7  | 0.0   | 58.0  |
| 229     | 21.2  | 0.0   | 50.8  |

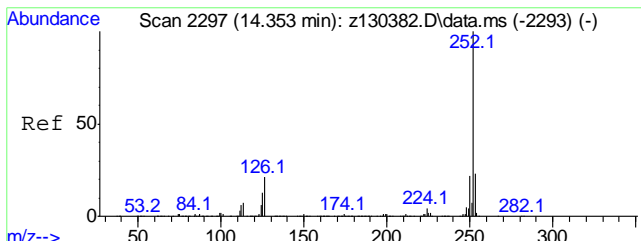


#93  
 Benzo[b]fluoranthene  
 Concen: 49.04 ppm  
 RT: 14.203 min Scan# 2269  
 Delta R.T. 0.020 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.0  | 0.0   | 52.0  |
| 125     | 13.5  | 0.0   | 47.1  |

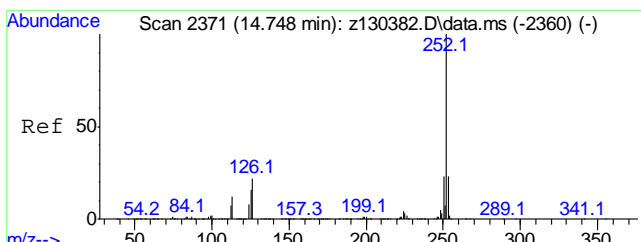
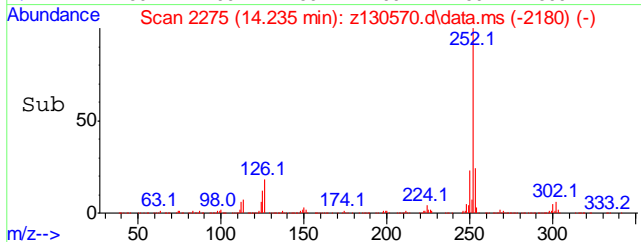
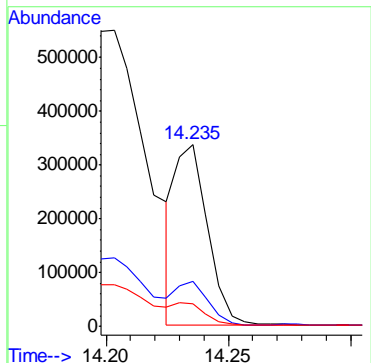
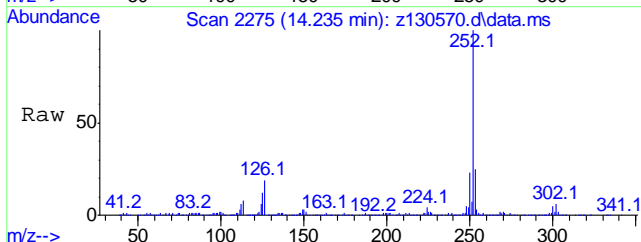


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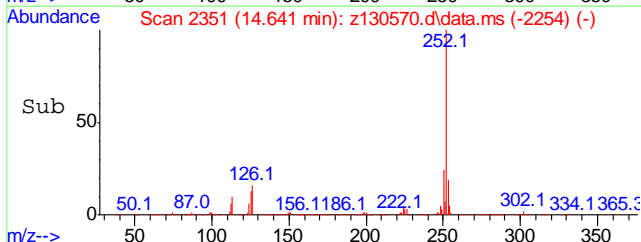
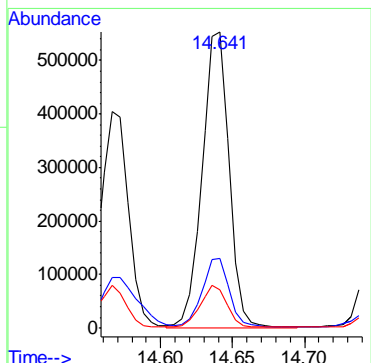
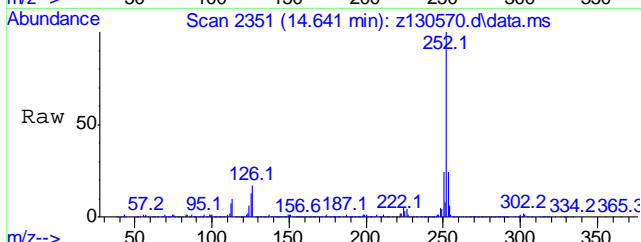
#94  
 Benzo[k]fluoranthene  
 Concen: 15.12 ppm  
 RT: 14.235 min Scan# 2275  
 Delta R.T. 0.009 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.0 | 0.0   | 52.1  |
| 125     | 10.1 | 0.0   | 44.9  |

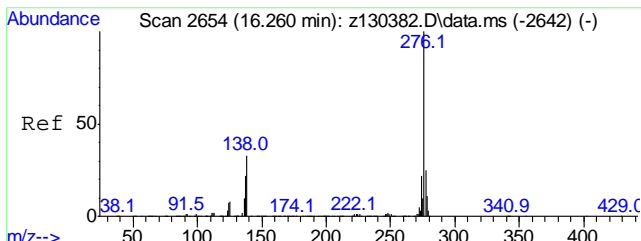


#95  
 Benzo[a]pyrene  
 Concen: 37.01 ppm  
 RT: 14.641 min Scan# 2351  
 Delta R.T. 0.016 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.1 | 0.0   | 51.1  |
| 125     | 12.5 | 0.0   | 47.3  |

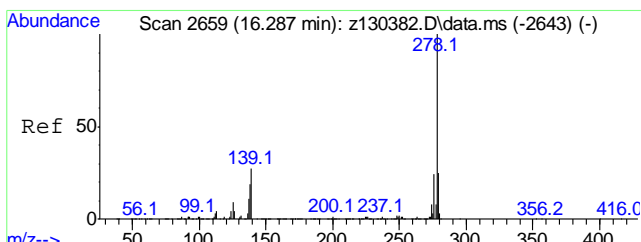
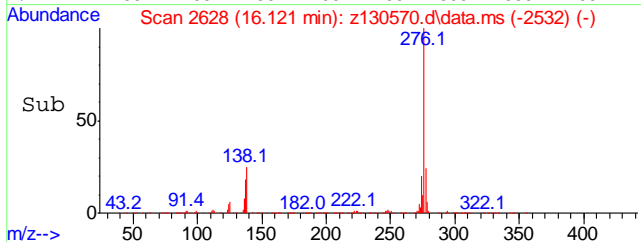
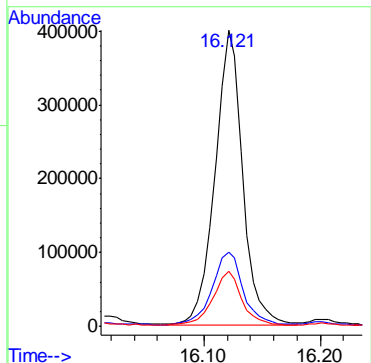
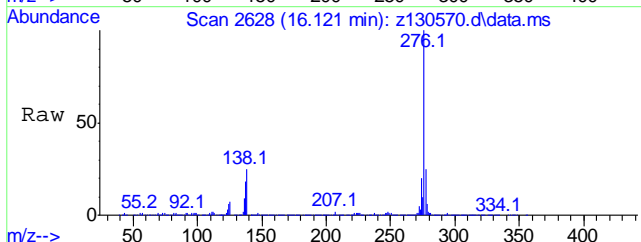


9.1.18  
 9



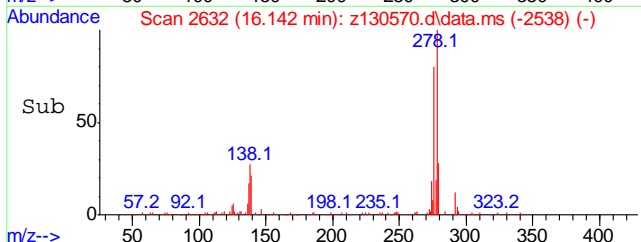
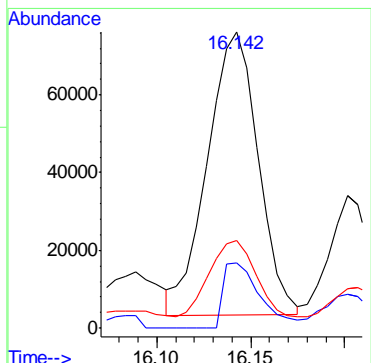
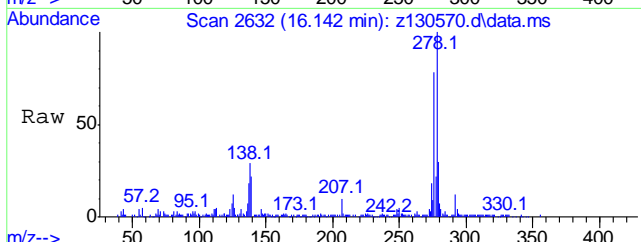
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 38.61 ppm  
 RT: 16.121 min Scan# 2628  
 Delta R.T. 0.015 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 662267 |       |       |
| 276     | 100    |       |       |
| 138     | 24.7   | 1.5   | 61.5  |
| 137     | 18.1   | 0.0   | 50.0  |

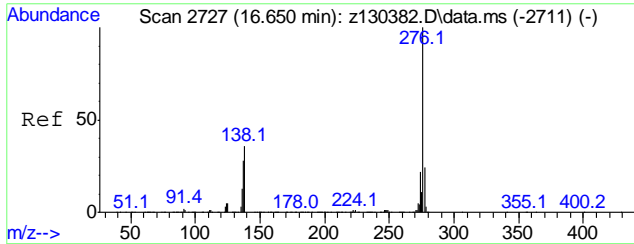


#98  
 Dibenz[a,h]anthracene  
 Concen: 7.73 ppm  
 RT: 16.142 min Scan# 2632  
 Delta R.T. 0.005 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 135683 |       |       |
| 278     | 100    |       |       |
| 139     | 22.9   | 0.0   | 55.8  |
| 279     | 28.5   | 0.0   | 53.0  |

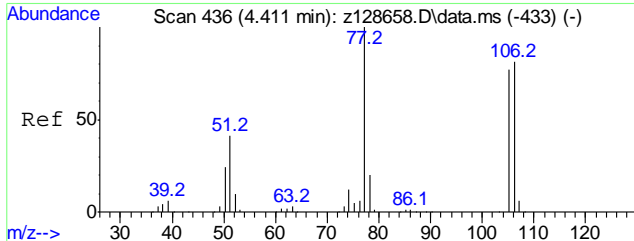
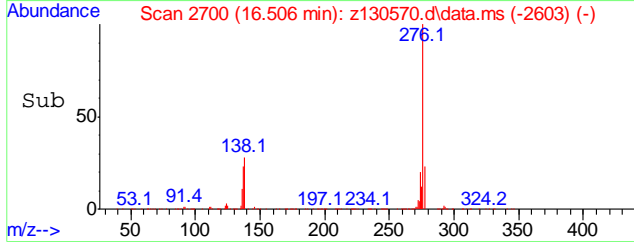
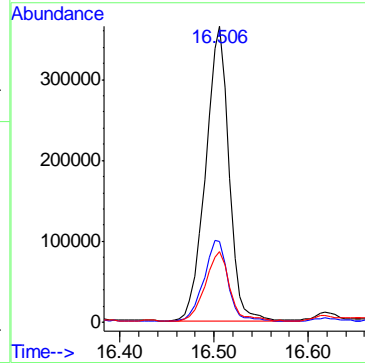
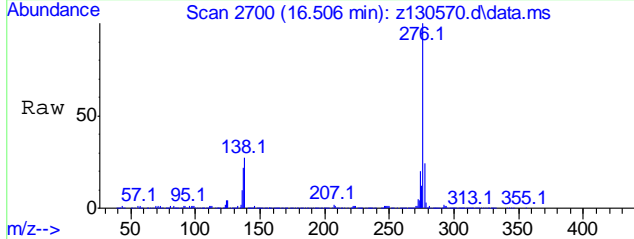


9.1.18  
 9



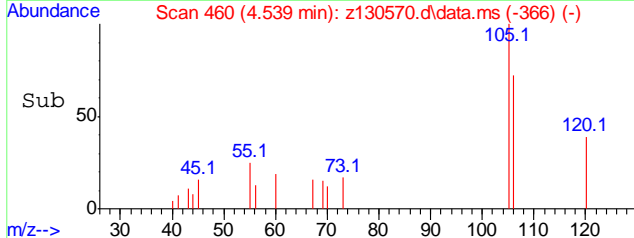
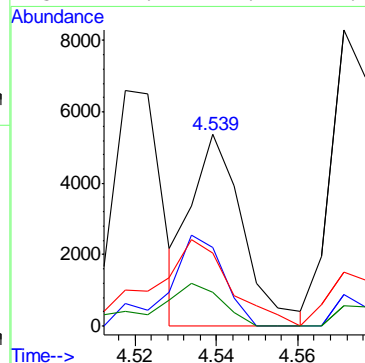
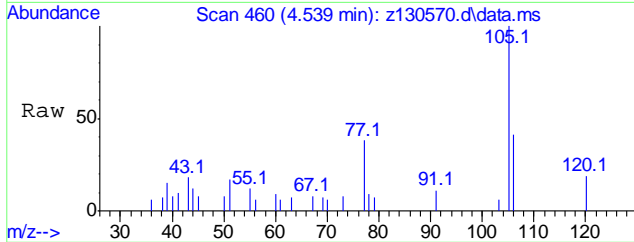
#100  
 Benzo[g,h,i]perylene  
 Concen: 35.85 ppm  
 RT: 16.506 min Scan# 2700  
 Delta R.T. 0.016 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 26.9  | 7.0   | 67.0  |
| 277     | 23.5  | 0.0   | 54.2  |



#102  
 Benzaldehyde  
 Concen: 0.77 ppm  
 RT: 4.539 min Scan# 460  
 Delta R.T. 0.003 min  
 Lab File: z130570.d  
 Acq: 11 May 2018 7:50 pm

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 105     | 100   |       |        |
| 106     | 42.4  | 75.3  | 135.3# |
| 77      | 33.6  | 70.6  | 130.6# |
| 51      | 14.1  | 11.2  | 71.2   |



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7502\  
 Data File : F176110.D  
 Acq On : 3 May 2018 12:07 am  
 Operator : chriss2  
 Sample : op11647-mb1  
 Misc : op11647,ef7502,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 03 09:31:58 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 02 21:46:32 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |
|------------------------------|--------|------|----------|-------|---------|----------|
| Internal Standards           |        |      |          |       |         |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.276  | 152  | 68544    | 40.00 | ppm     | -0.02    |
| 24) Naphthalene-d8           | 5.195  | 136  | 257040   | 40.00 | ppm     | -0.02    |
| 47) Acenaphthene-d10         | 6.493  | 164  | 141852   | 40.00 | ppm     | -0.03    |
| 69) Phenanthrene-d10         | 8.165  | 188  | 259299   | 40.00 | ppm     | -0.04    |
| 83) Chrysene-d12             | 13.187 | 240  | 256320   | 40.00 | ppm     | -0.11    |
| 91) Perylene-d12             | 16.194 | 264  | 241638   | 40.00 | ppm     | -0.12    |
| 101) 1,4-Dichlorobenzene-d4a | 4.276  | 152  | 68544    | 40.00 | ppm     | -0.02    |
| 103) Phenanthrene-d10a       | 8.165  | 188  | 259299   | 40.00 | ppm     | -0.04    |
| 105) Chrysene-d12a           | 13.187 | 240  | 256320   | 40.00 | ppm     | -0.06    |
| 107) Naphthalene-d8a         | 5.195  | 136  | 257040   | 40.00 | ppm     | -0.02    |
| 109) Acenaphthene-d10a       | 6.493  | 164  | 141852   | 40.00 | ppm     | -0.03    |
| System Monitoring Compounds  |        |      |          |       |         |          |
| 5) 2-Fluorophenol            | 3.298  | 112  | 90936    | 45.54 | ppm     | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 91.08%  |          |
| 8) Phenol-d5                 | 4.041  | 99   | 117553   | 41.10 | ppm     | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 82.20%  |          |
| 25) Nitrobenzene-d5          | 4.682  | 82   | 107683   | 38.55 | ppm     | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.10%  |          |
| 51) 2-Fluorobiphenyl         | 5.964  | 172  | 204413   | 38.05 | ppm     | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 76.10%  |          |
| 73) 2,4,6-Tribromophenol     | 7.283  | 330  | 36256    | 52.41 | ppm     | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 104.82% |          |
| 85) Terphenyl-d14            | 11.050 | 244  | 228200   | 39.23 | ppm     | -0.11    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.46%  |          |

Target Compounds Qvalue

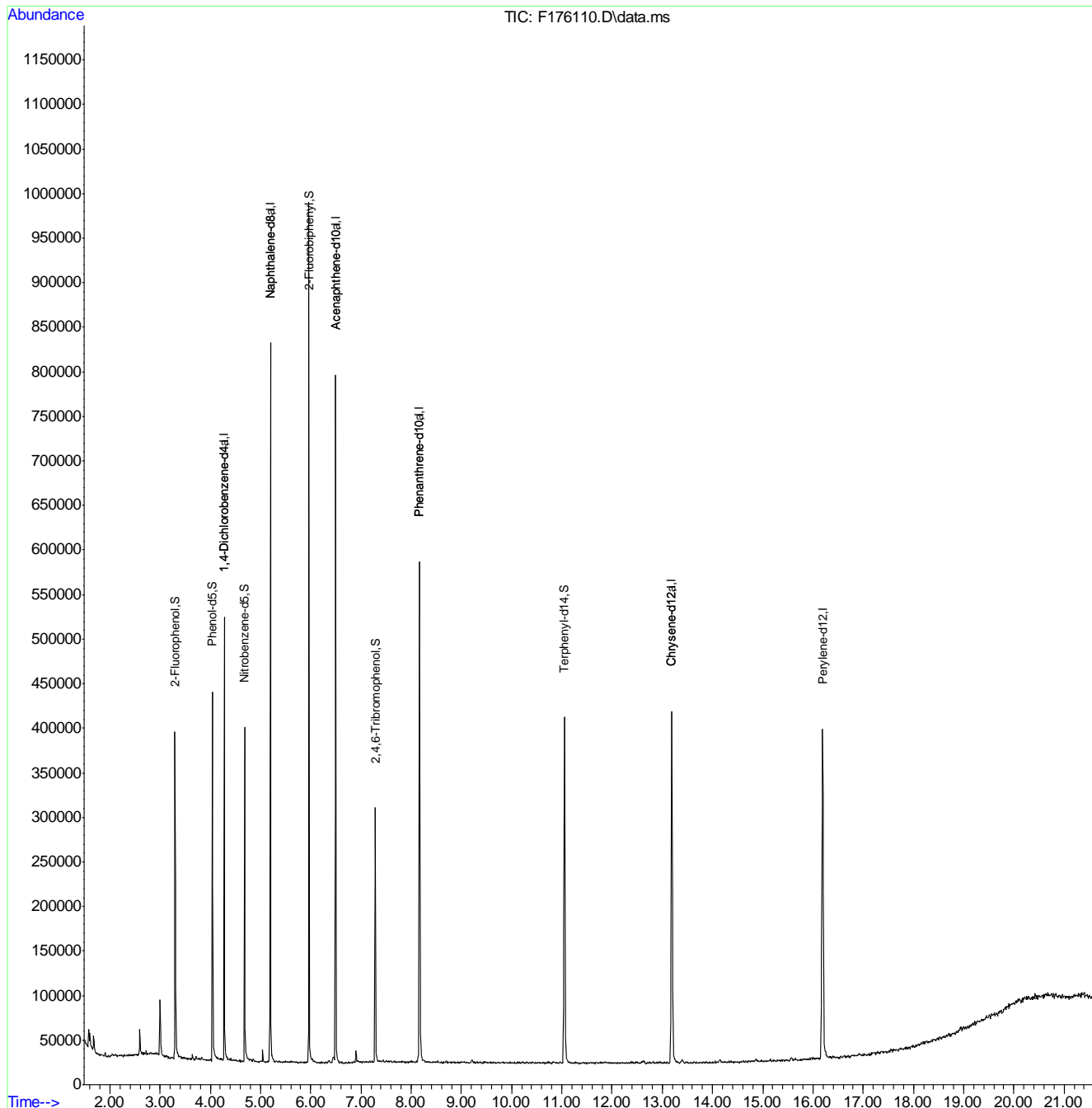
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1  
9

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7502\  
 Data File : F176110.D  
 Acq On : 3 May 2018 12:07 am  
 Operator : chriss2  
 Sample : op11647-mb1  
 Misc : op11647,ef7502,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 03 09:31:58 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MF7484.M  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Wed May 02 21:46:32 2018  
 Response via : Initial Calibration



9.2.1  
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6192\  
 Data File : M145715.D  
 Acq On : 3 May 2018 1:55 am  
 Operator : chriss2  
 Sample : op11697-mb1  
 Misc : op11697,em6192,1000,,,1,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 03 10:32:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Wed May 02 21:51:38 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.553  | 152  | 133871   | 40.00 | ppm    | -0.01    |
| 24) Naphthalene-d8           | 5.654  | 136  | 472582   | 40.00 | ppm    | -0.06    |
| 47) Acenaphthene-d10         | 7.945  | 164  | 266168   | 40.00 | ppm    | -0.07    |
| 69) Phenanthrene-d10         | 10.535 | 188  | 515131   | 40.00 | ppm    | -0.08    |
| 83) Chrysene-d12             | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| 91) Perylene-d12             | 18.296 | 264  | 467114   | 40.00 | ppm    | -0.09    |
| 101) 1,4-Dichlorobenzene-d4a | 4.553  | 152  | 133871   | 40.00 | ppm    | -0.04    |
| 103) Acenaphthene-d10a       | 7.945  | 164  | 266168   | 40.00 | ppm    | -0.07    |
| 106) Chrysene-d12a           | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| 109) Phenanthrene-d10a       | 10.535 | 188  | 515131   | 40.00 | ppm    | -0.08    |
| 112) Naphthalene-d8a         | 5.654  | 136  | 472582   | 40.00 | ppm    | -0.06    |
| 114) Chrysene-d12b           | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.587  | 112  | 74707    | 14.92 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 29.84% |          |
| 8) Phenol-d5                 | 4.318  | 99   | 65675    | 11.02 | ppm    | 0.02     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 22.04% |          |
| 25) Nitrobenzene-d5          | 4.991  | 82   | 172246   | 37.32 | ppm    | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 74.64% |          |
| 51) 2-Fluorobiphenyl         | 6.957  | 172  | 355652   | 34.41 | ppm    | -0.07    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 68.82% |          |
| 73) 2,4,6-Tribromophenol     | 9.286  | 330  | 63216    | 43.75 | ppm    | -0.08    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.50% |          |
| 85) Terphenyl-d14            | 13.703 | 244  | 265132   | 21.43 | ppm    | -0.10    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 42.86% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |

Target Compounds Qvalue

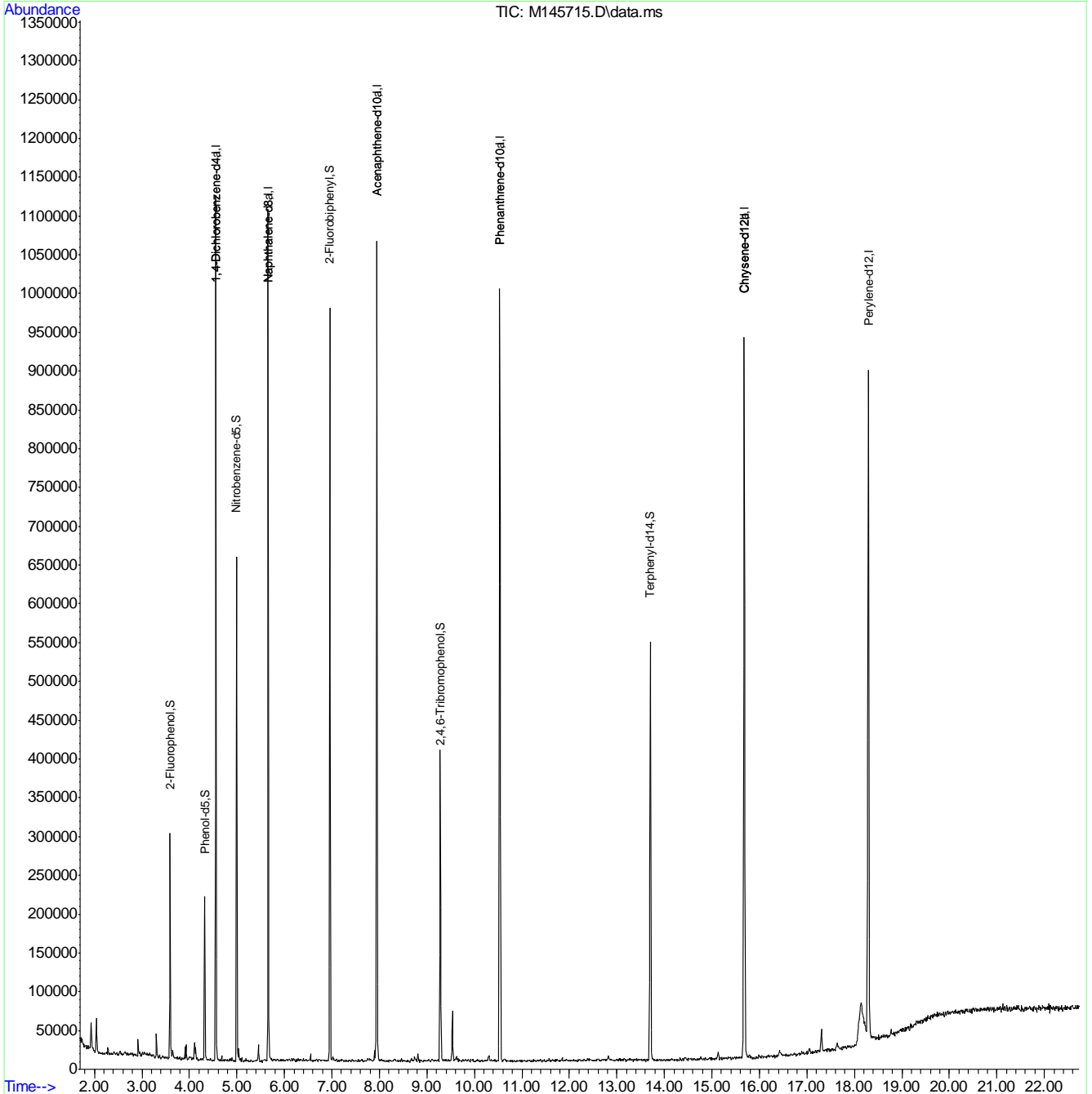
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.22  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6192\  
 Data File : M145715.D  
 Acq On : 3 May 2018 1:55 am  
 Operator : chriss2  
 Sample : op11697-mb1  
 Misc : op11697,em6192,1000,,,1,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 03 10:32:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Wed May 02 21:51:38 2018  
 Response via : Initial Calibration



9.2.2  
9

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130506.d  
 Acq On : 10 May 2018 12:00 pm  
 Operator : christc2  
 Sample : op11648-mb1 Inst : SVOAMSZ  
 Misc : op11648,ez6439,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 10 21:45:29 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.886  | 152  | 244960   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.805  | 136  | 975866   | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 7.205  | 164  | 506288   | 40.00 | ppm    | -0.01    |
| 69) Phenanthrene-d10         | 8.834  | 188  | 966078   | 40.00 | ppm    | -0.01    |
| 83) Chrysene-d12             | 12.659 | 240  | 885917   | 40.00 | ppm    | -0.02    |
| 91) Perylene-d12             | 14.748 | 264  | 833130   | 40.00 | ppm    | -0.01    |
| 101) 1,4-Dichlorobenzene-d4a | 4.886  | 152  | 244960   | 40.00 | ppm    | 0.00     |
| 103) Phenanthrene-d10a       | 8.834  | 188  | 966078   | 40.00 | ppm    | -0.01    |
| 107) Chrysene-d12a           | 12.659 | 240  | 885917   | 40.00 | ppm    | -0.01    |
| 109) Acenaphthene-d10a       | 7.205  | 164  | 506288   | 40.00 | ppm    | -0.01    |
| 111) Naphthalene-d8a         | 5.805  | 136  | 975866   | 40.00 | ppm    | 0.00     |
| 113) Phenanthrene-d10b       | 8.834  | 188  | 966078   | 40.00 | ppm    | -0.01    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.909  | 112  | 388234   | 42.55 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 85.10% |          |
| 8) Phenol-d5                 | 4.614  | 99   | 480318   | 43.85 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.70% |          |
| 25) Nitrobenzene-d5          | 5.282  | 82   | 363087   | 42.86 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 85.72% |          |
| 51) 2-Fluorobiphenyl         | 6.612  | 172  | 749204   | 42.23 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 84.46% |          |
| 73) 2,4,6-Tribromophenol     | 8.006  | 330  | 139044   | 46.64 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 93.28% |          |
| 85) Terphenyl-d14            | 11.083 | 244  | 847166   | 40.31 | ppm    | -0.01    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 80.62% |          |
| 104) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 105) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |

Target Compounds Qvalue

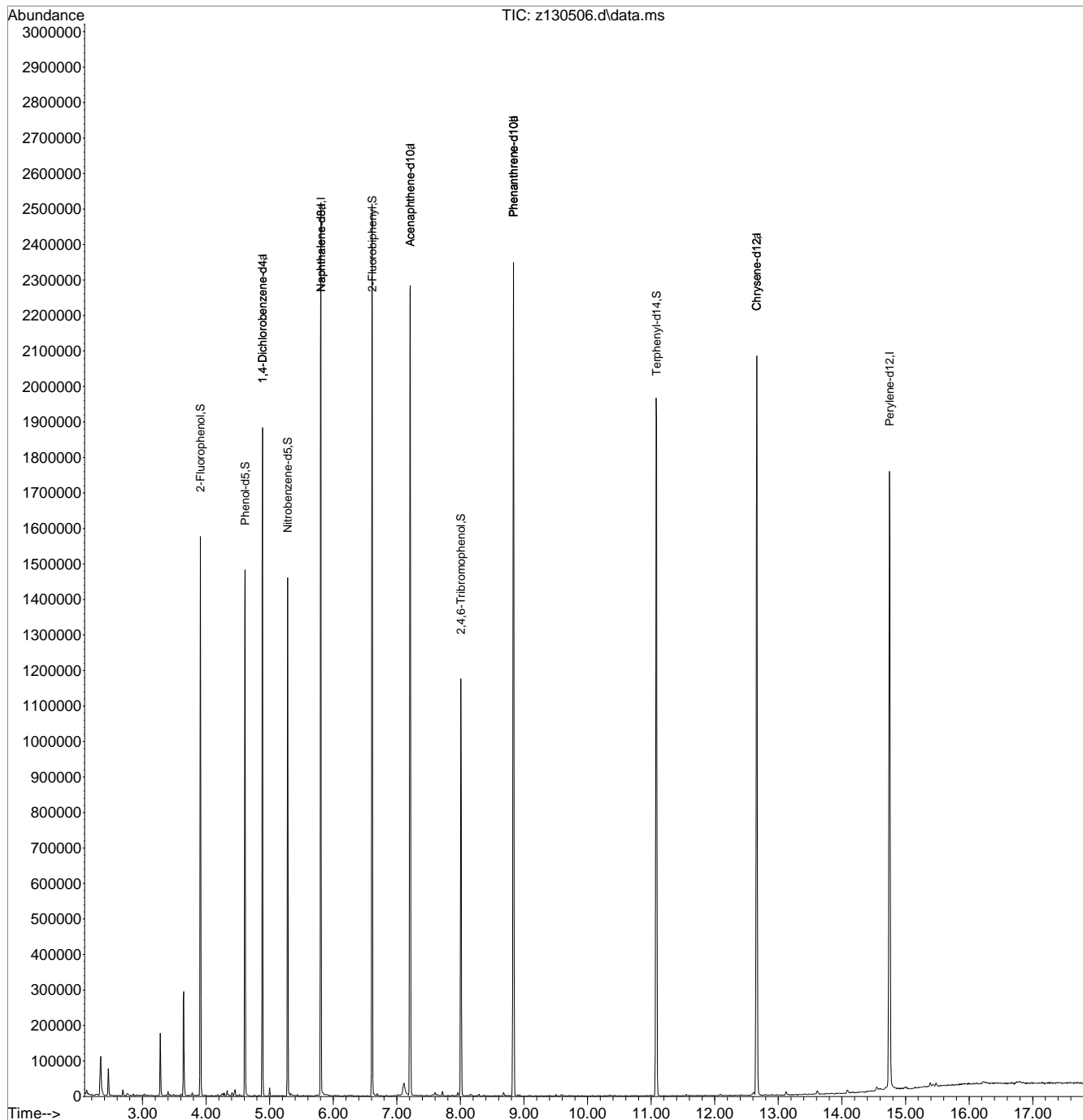
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.3  
9

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ez6439\  
 Data File : z130506.d  
 Acq On : 10 May 2018 12:00 pm  
 Operator : christc2  
 Sample : op11648-mb1 Inst : SVOAMSZ  
 Misc : op11648,ez6439,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MZ6436.M  
 Quant Results File: MZ6436.RES  
 Quant Time: May 10 21:45:29 2018  
 Quant Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um  
 QLast Update : Wed May 09 17:38:39 2018  
 Response via : Initial Calibration



9.2.3  
9



## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4600-MB1 | PF145597.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 82% 70-116% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4600-MB2 | PF145608.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-11

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 80% 70-116% |

**Method Blank Summary****Job Number:** JC65058**Account:** AGMNYF Arcadis**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GLM3851-MB2 | LM94701.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |

**The QC reported here applies to the following samples:****Method:** SW846 8015C

JC65058-9

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 95% 70-116% |



# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| GLM3851-MB1 | LM94691.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |

The QC reported here applies to the following samples:

Method: SW846 8015C

GLM3851-BS, JC65618-2MS, JC65618-2MSD

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 96% 70-116% |

10.1.4  
10

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4600-BS | PF145605.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | Limits |
|---------|------------------|----------------|--------------|----------|--------|
|         | TPH-GRO (C6-C10) | 400            | 351          | 88       | 75-126 |

| CAS No. | Surrogate Recoveries | BSP | Limits  |
|---------|----------------------|-----|---------|
| 98-08-8 | aaa-Trifluorotoluene | 93% | 70-116% |

10.2.1  
10

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| GLM3851-BS | LM94698.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-9

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | Limits |
|---------|------------------|----------------|--------------|----------|--------|
|         | TPH-GRO (C6-C10) | 400            | 337          | 84       | 75-126 |

| CAS No. | Surrogate Recoveries | BSP  | Limits  |
|---------|----------------------|------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 105% | 70-116% |

10.2.2  
10

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| JC65058-5MS  | PF145603.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |
| JC65058-5MSD | PF145604.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |
| JC65058-5    | PF145598.D | 1  | 05/01/18 | KC | n/a       | n/a        | GPF4600          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No. | Compound         | JC65058-5<br>mg/kg | Spike<br>Q | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|--------------------|------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                 | 502        | 472         | 94      | 502            | 477          | 95       | 1   | 68-128/11         |

| CAS No. | Surrogate Recoveries | MS  | MSD | JC65058-5 | Limits  |
|---------|----------------------|-----|-----|-----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 91% | 93% | 80%       | 70-116% |

10.3.1  
10

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65618-2MS  | LM94696.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |
| JC65618-2MSD | LM94697.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |
| JC65618-2    | LM94692.D | 1  | 05/09/18 | KC | n/a       | n/a        | GLM3851          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-9

| CAS No. | Compound         | JC65618-2<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                 | 457            | 404         | 88      | 457            | 411          | 90       | 2   | 68-128/11         |

| CAS No. | Surrogate Recoveries | MS   | MSD  | JC65618-2 | Limits  |
|---------|----------------------|------|------|-----------|---------|
| 98-08-8 | aaa-Trifluorotoluene | 107% | 107% | 96%       | 70-116% |

10.3.2  
10

\* = Outside of Control Limits.

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> |
|---------------|-------------|-----------------|
| JC65058-5     | PF145598.D  | 80              |
| JC65058-6     | PF145599.D  | 81              |
| JC65058-7     | PF145600.D  | 77              |
| JC65058-8     | PF145601.D  | 79              |
| JC65058-9     | LM94702.D   | 96              |
| JC65058-10    | PF145602.D  | 80              |
| JC65058-11    | PF145609.D  | 80              |
| GLM3851-BS    | LM94698.D   | 105             |
| GLM3851-MB2   | LM94701.D   | 95              |
| GPF4600-BS    | PF145605.D  | 93              |
| GPF4600-MB1   | PF145597.D  | 82              |
| GPF4600-MB2   | PF145608.D  | 80              |
| JC65058-5MS   | PF145603.D  | 91              |
| JC65058-5MSD  | PF145604.D  | 93              |
| JC65618-2MS   | LM94696.D   | 107             |
| JC65618-2MSD  | LM94697.D   | 107             |
| GLM3851-MB1   | LM94691.D   | 96              |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = aaa-Trifluorotoluene | 70-116%         |

(a) Recovery from GC signal #1

10.4.1  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GLM3850-CC3729 | <b>Injection Date:</b> 05/08/18 |
| <b>Lab File ID:</b> LM94683.D    | <b>Injection Time:</b> 15:21    |
| <b>Instrument ID:</b> GCLM       | <b>Method:</b> SW846 8015C      |

S1<sup>a</sup>  
RT

|           |       |
|-----------|-------|
| Check Std | 10.83 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GLM3851-RT    | LM94688.D   | 05/09/18      | 07:53         | 10.83              |

### Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GLM3851-CC3729 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> LM94689.D    | <b>Injection Time:</b> 08:34    |
| <b>Instrument ID:</b> GCLM       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 10.82 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GLM3851-MB1   | LM94691.D   | 05/09/18      | 09:30         | 10.82              |
| JC65618-2     | LM94692.D   | 05/09/18      | 10:06         | 10.82              |
| ZZZZZZ        | LM94693.D   | 05/09/18      | 10:27         | 10.82              |
| ZZZZZZ        | LM94694.D   | 05/09/18      | 10:56         | 10.82              |
| ZZZZZZ        | LM94695.D   | 05/09/18      | 11:25         | 10.82              |
| JC65618-2MS   | LM94696.D   | 05/09/18      | 11:54         | 10.83              |
| JC65618-2MSD  | LM94697.D   | 05/09/18      | 12:16         | 10.82              |
| GLM3851-BS    | LM94698.D   | 05/09/18      | 12:44         | 10.83              |

**Surrogate Compounds**

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.2  
**10**



# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GLM3851-CC3729 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> LM94699.D    | <b>Injection Time:</b> 13:12    |
| <b>Instrument ID:</b> GCLM       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 10.83 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GLM3851-MB2   | LM94701.D   | 05/09/18      | 14:26         | 10.82              |
| JC65058-9     | LM94702.D   | 05/09/18      | 15:24         | 10.82              |
| ZZZZZZ        | LM94703.D   | 05/09/18      | 15:53         | 10.82              |
| ZZZZZZ        | LM94704.D   | 05/09/18      | 16:14         | 10.82              |

### Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.3  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4599-CC4589 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> PF145589.D   | <b>Injection Time:</b> 16:49    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 11.08 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4600-RT    | PF145594.D  | 05/01/18      | 07:06         | 11.08              |

### Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.4  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4600-CC4589 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> PF145595.D   | <b>Injection Time:</b> 08:37    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

S1<sup>a</sup>  
RT

|           |       |
|-----------|-------|
| Check Std | 11.11 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4600-MB1   | PF145597.D  | 05/01/18      | 09:37         | 11.09              |
| JC65058-5     | PF145598.D  | 05/01/18      | 10:12         | 11.09              |
| JC65058-6     | PF145599.D  | 05/01/18      | 10:38         | 11.09              |
| JC65058-7     | PF145600.D  | 05/01/18      | 11:04         | 11.09              |
| JC65058-8     | PF145601.D  | 05/01/18      | 11:30         | 11.09              |
| JC65058-10    | PF145602.D  | 05/01/18      | 11:56         | 11.09              |
| JC65058-5MS   | PF145603.D  | 05/01/18      | 12:22         | 11.09              |
| JC65058-5MSD  | PF145604.D  | 05/01/18      | 12:48         | 11.09              |
| GPF4600-BS    | PF145605.D  | 05/01/18      | 13:13         | 11.09              |

## Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.5  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4600-CC4589 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> PF145606.D   | <b>Injection Time:</b> 13:40    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

S1<sup>a</sup>  
RT

|           |       |
|-----------|-------|
| Check Std | 11.09 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4600-MB2   | PF145608.D  | 05/01/18      | 14:48         | 11.10              |
| JC65058-11    | PF145609.D  | 05/01/18      | 15:13         | 11.11              |

### Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.6  
10

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3729-ICC3729  
**Lab FileID:** LM92038.D

## Response Factor Report GCLM

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Initial Calibration

### Calibration Files

0.2 =LM92035.D 0.8 =LM92036.D 4 =LM92037.D  
8 =LM92038.D 20 =LM92039.D 40 =LM92041.D 30 =LM92040.D

| Compound              | 0.2   | 0.8   | 4     | 8     | 20    | 40    | 30    | Avg   | %RSD     |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)H TPH-GRO (C6-C10)  | 1.411 | 2.302 | 2.836 | 2.614 | 2.206 | 2.185 | 2.310 | 2.266 | E6 19.66 |
| 2)H TPH-GRO (C6-C12)  | 1.390 | 2.112 | 2.586 | 2.370 | 1.967 | 1.946 | 2.061 | 2.062 | E6 18.22 |
| 3)S a,a,a-Trifluoroto | 2.212 | 2.318 | 2.467 | 2.680 | 3.184 | 3.485 | 3.439 | 2.827 | E6 18.96 |

Average % RSD = 18.9

( 100.0 %) 3 of 3 compounds' % RSD > 0

(#) = Out of Range

MLM3729.M

Wed Dec 13 09:39:21 2017

RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3729-ICV3729  
**Lab FileID:** LM92044.D

## Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM92044.D Vial: 13  
Acq On : 12 Dec 2017 5:34 pm Operator: KRIZHKAC  
Sample : ICV3729-8000 Inst : GCLM  
Misc : GC51650, GLM3729, 10.0, , 100, 10, 1 Multiplr: 1.00  
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT Window   |
|-----|------------------------|-------|----------|-------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 2.266 | 2.680 E6 | -18.3 | 103   | 0.00     | 8.54-15.10  |
| 2 H | TPH-GRO (C6-C12)       | 2.062 | 2.394 E6 | -16.1 | 101   | 0.00     | 8.32-15.32  |
| 3 S | a,a,a-Trifluorotoluene | 2.827 | 2.745 E6 | 2.9   | 102   | 0.00     | 10.78-10.90 |

Average % D = 12.4

( 0.0 %) 0 of 3 compounds' %D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
LM92038.D MLM3729.M Wed Dec 13 09:41:01 2017 RPT1

10.6.2  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3850-CC3729  
**Lab FileID:** LM94683.D

## Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94683.D Vial: 19  
Acq On : 8 May 2018 3:21 pm Operator: KRIZHKAC  
Sample : CC3729-4000 Inst : GCLM  
Misc : GC52481,GLM3850,10.0,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|-------|----------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 2.266 | 2.582 E6 | -13.9 | 91    | 0.00     | 8.54  | 15.10  |
| 2 H | TPH-GRO (C6-C12)       | 2.062 | 2.382 E6 | -15.5 | 92    | 0.00     | 8.32  | 15.32  |
| 3 S | a,a,a-Trifluorotoluene | 2.827 | 2.941 E6 | -4.0  | 119   | -0.01    | 10.77 | 10.89  |

Average % D = 11.2

( 0.0 %) 0 of 3 compounds '%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
LM92037.D MLM3729.M Wed May 09 08:19:40 2018 RPT1

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3851-CC3729  
**Lab FileID:** LM94689.D

## Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94689.D Vial: 4  
Acq On : 9 May 2018 8:34 am Operator: KRIZHKAC  
Sample : CC3729-4000 Inst : GCLM  
Misc : GC52481,GLM3851,10.0,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|-------|----------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 2.266 | 2.586 E6 | -14.1 | 91    | 0.00     | 8.54  | 15.10  |
| 2 H | TPH-GRO (C6-C12)       | 2.062 | 2.366 E6 | -14.7 | 92    | 0.00     | 8.32  | 15.32  |
| 3 S | a,a,a-Trifluorotoluene | 2.827 | 2.943 E6 | -4.1  | 119   | -0.02    | 10.76 | 10.88  |

Average % D = 11.0

( 0.0 %) 0 of 3 compounds'%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
LM92037.D MLM3729.M Thu May 10 10:09:35 2018 RPT1

10.6.4  
10



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3851-CC3729  
**Lab FileID:** LM94699.D

## Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94699.D Vial: 14  
Acq On : 9 May 2018 1:12 pm Operator: KRIZHKAC  
Sample : CC3729-8000 Inst : GCLM  
Misc : GC52485,GLM3851,10.0,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|-------|----------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 2.266 | 2.556 E6 | -12.8 | 98    | 0.00     | 8.54  | 15.10  |
| 2 H | TPH-GRO (C6-C12)       | 2.062 | 2.339 E6 | -13.4 | 99    | 0.00     | 8.32  | 15.32  |
| 3 S | a,a,a-Trifluorotoluene | 2.827 | 3.198 E6 | -13.1 | 119   | -0.01    | 10.77 | 10.89  |

Average % D = 13.1

( 0.0 %) 0 of 3 compounds'%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
LM92038.D MLM3729.M Thu May 10 10:10:50 2018 RPT1

10.6.5  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GLM3851-CC3729  
**Lab FileID:** LM94705.D

## Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\LM94705.D Vial: 20  
Acq On : 9 May 2018 4:43 pm Operator: KRIZHKAC  
Sample : CC3729-4000 Inst : GCLM  
Misc : GC52481,GLM3851,10.0,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E

Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|-------|----------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 2.266 | 2.591 E6 | -14.3 | 91    | 0.00     | 8.54  | 15.10  |
| 2 H | TPH-GRO (C6-C12)       | 2.062 | 2.412 E6 | -17.0 | 93    | 0.00     | 8.32  | 15.32  |
| 3 S | a,a,a-Trifluorotoluene | 2.827 | 2.922 E6 | -3.4  | 118   | -0.01    | 10.77 | 10.89  |

Average % D = 11.6

( 0.0 %) 0 of 3 compounds'%D > 20

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
LM92037.D MLM3729.M Thu May 10 10:10:25 2018 RPT1

10.6.6  
10

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICC4589  
**Lab FileID:** PF145432.D

---

Response Factor Report GCPF

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration

Calibration Files

0.2 =PF145429.d 0.8 =PF145430.d 4 =PF145431.d 8 =PF145432.d  
20 =PF145433.d 40 =PF145435.d 30 =PF145434.d

| Compound              | 0.2   | 0.8   | 4     | 8     | 20    | 40    | 30    | Avg   | %RSD     |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)H TPH-GRO (C6-C10)  | 2.740 | 2.369 | 2.659 | 2.692 | 2.680 | 2.564 | 2.763 | 2.638 | E5 5.10  |
| 2)H TPH-GRO (C6-C12)  | 2.750 | 2.290 | 2.535 | 2.573 | 2.504 | 2.384 | 2.599 | 2.519 | E5 5.93  |
| 3)S a,a,a-Trifluoroto | 2.247 | 2.207 | 2.472 | 2.834 | 3.042 | 3.316 | 3.273 | 2.770 | E5 16.86 |

(#) = Out of Range

MPF4589.M

Tue Apr 24 09:12:15 2018

10.6.7  
10

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICV4589  
**Lab FileID:** PF145456.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145456.d Vial: 5  
Acq On : 19 Apr 2018 11:36 am Operator: KRIZHKAC  
Sample : ICV4589-8000 Inst : GCPF  
Misc : GC52331,GPF4589,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 275.420 E3 | -4.4  | 102   | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 265.226 E3 | -5.3  | 103   | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 318.961 E3 | -15.1 | 113   | 0.00     | 11.01 | 11.16  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145432.d MPF4589.M Tue Apr 24 09:16:15 2018

10.6.8  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145589.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145589.d Vial: 21  
Acq On : 30 Apr 2018 16:49 pm Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52447,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT Window   |
|-----|------------------------|---------|------------|------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 250.180 E3 | 5.2  | 94    | 0.00     | 8.04-13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 239.728 E3 | 4.8  | 95    | 0.00     | 7.72-14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 265.250 E3 | 4.2  | 107   | -0.01    | 11.00-11.15 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Tue May 01 08:32:07 2018

10.6.9  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4600-CC4589  
**Lab FileID:** PF145595.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145595.d Vial: 4  
Acq On : 01 May 2018 8:37 am Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52447,GPF4600,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT Window   |
|-----|------------------------|---------|------------|------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 256.907 E3 | 2.6  | 97    | 0.00     | 8.04-13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 248.198 E3 | 1.5  | 98    | 0.00     | 7.72-14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 261.066 E3 | 5.8  | 106   | 0.02     | 11.04-11.19 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Wed May 02 08:59:09 2018

10.6.10  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4600-CC4589  
**Lab FileID:** PF145606.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145606.d Vial: 15  
Acq On : 01 May 2018 13:40 pm Operator: KRIZHKAC  
Sample : CC4589-8000 Inst : GCPF  
Misc : GC52447,GPF4600,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 242.131 E3 | 8.2  | 90    | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 231.197 E3 | 8.2  | 90    | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 279.545 E3 | -0.9 | 99    | 0.00     | 11.02 | 11.17  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145432.d MPF4589.M Wed May 02 09:00:29 2018

10.6.11  
10

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4600-CC4589  
**Lab FileID:** PF145610.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145610.d Vial: 19  
Acq On : 01 May 2018 15:39 pm Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52447,GPF4600,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 234.665 E3 | 11.0 | 88    | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 224.962 E3 | 10.7 | 89    | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 257.425 E3 | 7.1  | 104   | 0.00     | 11.02 | 11.17  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Wed May 02 08:59:45 2018

10.6.12  
10



GC Volatiles

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Raw Data

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Data Path : C:\msdchem\1\data\  
 Data File : PF145598.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 10:12 am  
 Operator : KRIZHKAC  
 Sample : JC65058-5  
 Misc : GC52447,GPF4600,10.13,,100,10,1  
 ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:01:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.093 | 66566533   | 240.306 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 80.10%       |

Target Compounds

(f)=RT Delta > 1/2 Window

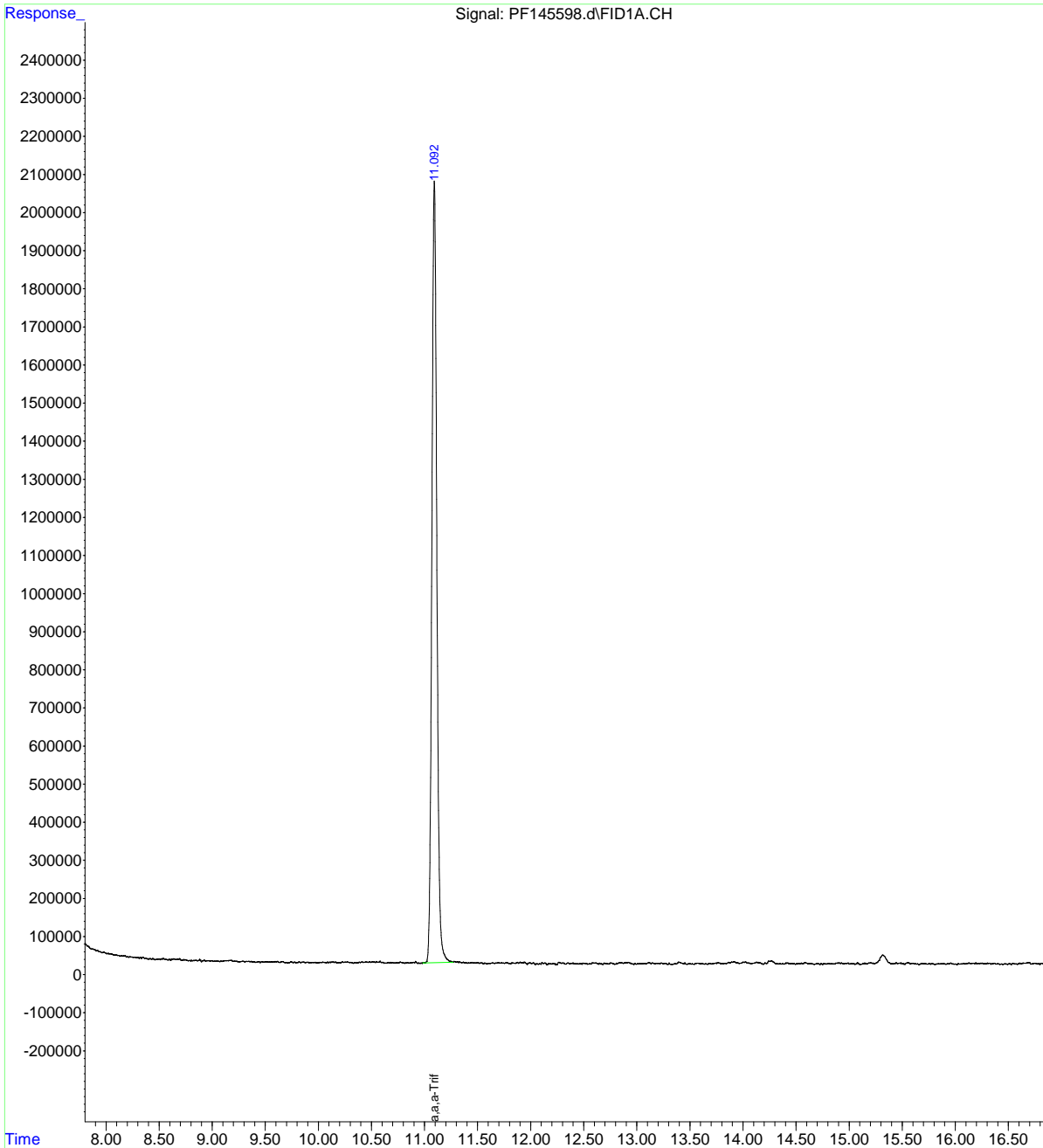
(m)=manual int.

11.11  
11

Data Path : C:\msdchem\1\data\  
Data File : PF145598.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 10:12 am  
Operator : KRIZHKAC  
Sample : JC65058-5  
Misc : GC52447,GPF4600,10.13,,100,10,1  
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:01:20 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.1  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145599.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 10:38 am  
 Operator : KRIZHKAC  
 Sample : JC65058-6  
 Misc : GC52447,GPF4600,9.40,,100,10,1  
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:01:43 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.087 | 67617678   | 244.101 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 81.37%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

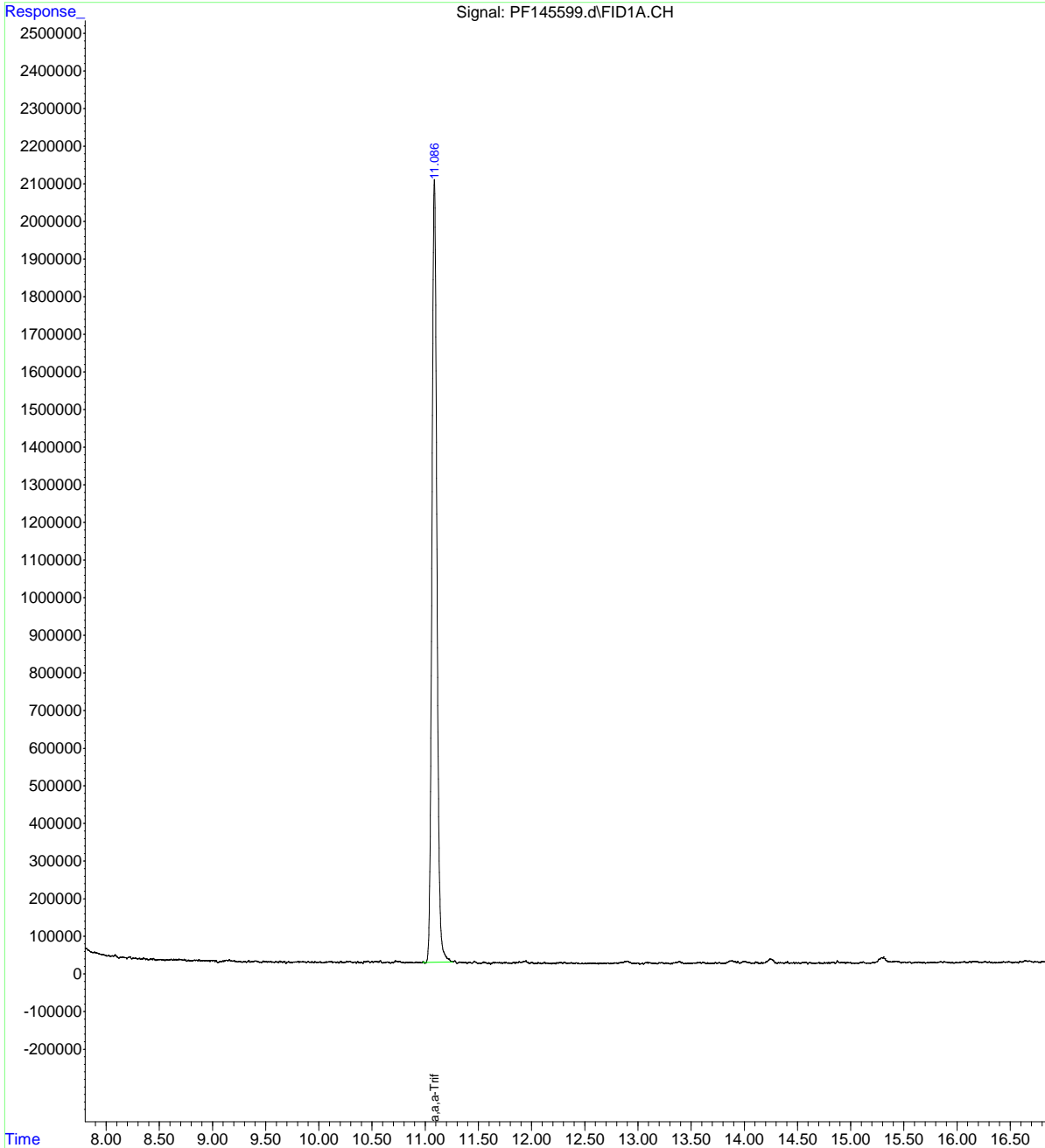
11.12

11

Data Path : C:\msdchem\1\data\  
Data File : PF145599.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 10:38 am  
Operator : KRIZHKAC  
Sample : JC65058-6  
Misc : GC52447,GPF4600,9.40,,100,10,1  
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:01:43 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.12  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145600.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 11:04 am  
 Operator : KRIZHKAC  
 Sample : JC65058-7  
 Misc : GC52447,GPF4600,9.77,,100,10,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:02:04 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.094 | 64297157   | 232.114 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 77.37%       |

Target Compounds

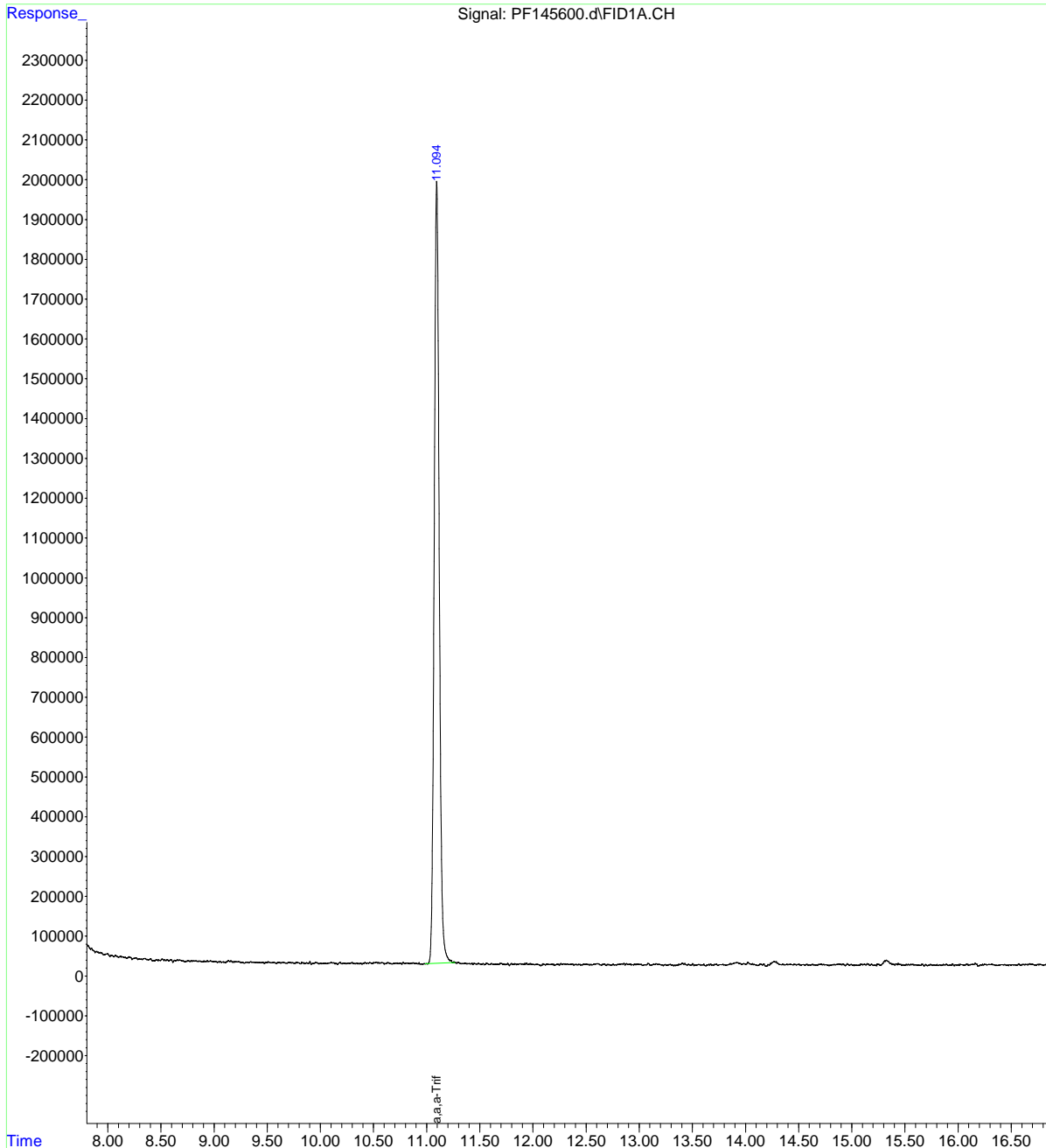
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\  
Data File : PF145600.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 11:04 am  
Operator : KRIZHKAC  
Sample : JC65058-7  
Misc : GC52447,GPF4600,9.77,,100,10,1  
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:02:04 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.1.3  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145601.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 11:30 am  
 Operator : KRIZHKAC  
 Sample : JC65058-8  
 Misc : GC52447,GPF4600,9.25,,100,10,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:02:18 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.090 | 66048165   | 238.435 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 79.48%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

11.14

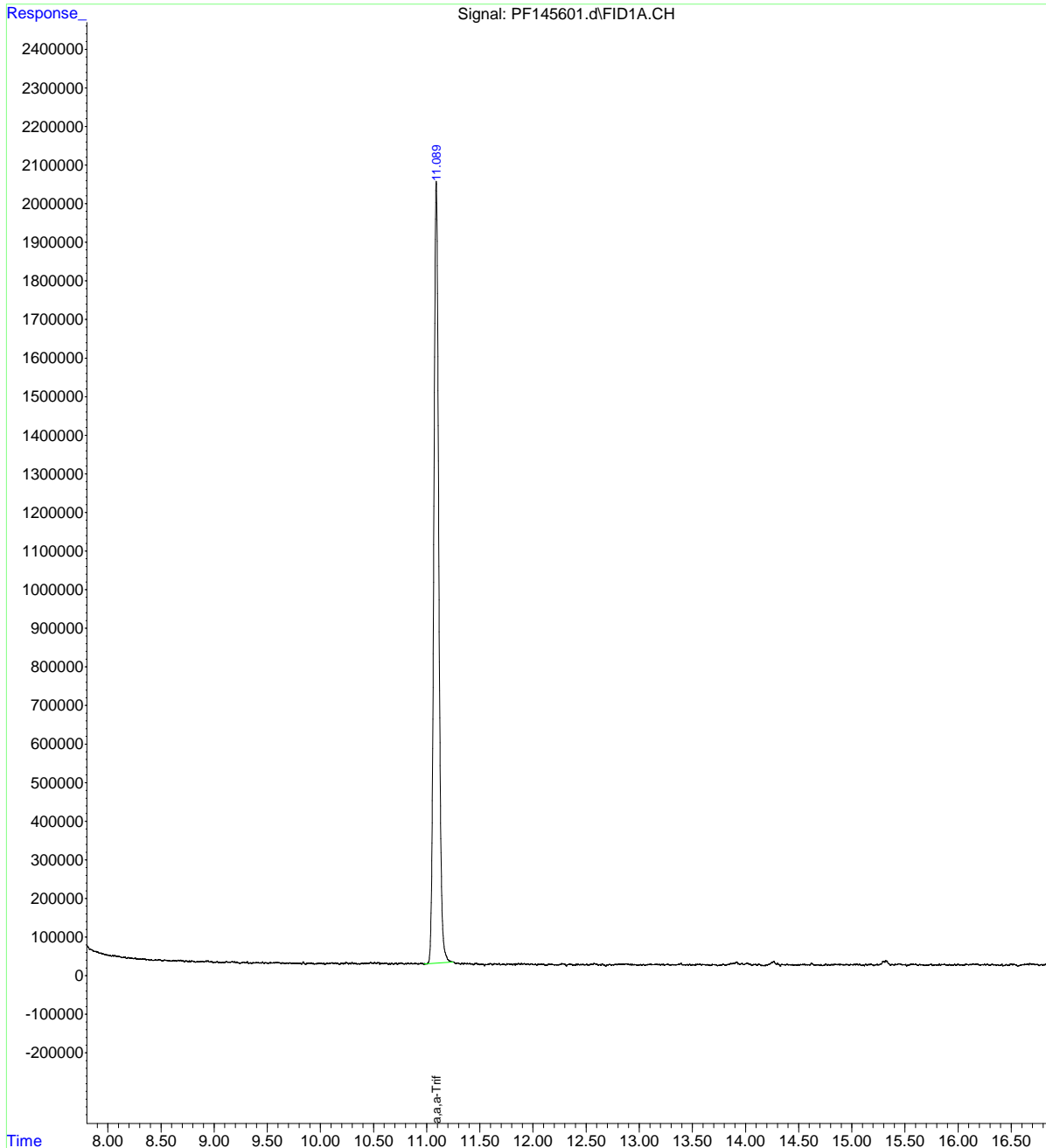
11



Data Path : C:\msdchem\1\data\  
Data File : PF145601.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 11:30 am  
Operator : KRIZHKAC  
Sample : JC65058-8  
Misc : GC52447,GPF4600,9.25,,100,10,1  
ALS Vial : 10 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:02:18 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.14  
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94702.D Vial: 17  
 Acq On : 9 May 2018 3:24 pm Operator: KRIZHKAC  
 Sample : JC65058-9 Inst : GCLM  
 Misc : GC52495,GLM3851,9.14,,100,10,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: May 10 10:16 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
 Title : Method SW846 8015C (GRO) .  
 Last Update : Wed Dec 13 09:36:39 2017  
 Response via : Initial Calibration  
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

| Compound                    | R.T.           | Response   | Conc Units   |
|-----------------------------|----------------|------------|--------------|
| -----                       |                |            |              |
| System Monitoring Compounds |                |            |              |
| 3) S a,a,a-Trifluorotoluene | 10.82          | 814003191  | 287.986 ug/l |
| Spiked Amount 300.000       | Range 70 - 116 | Recovery = | 96.00%       |

Target Compounds

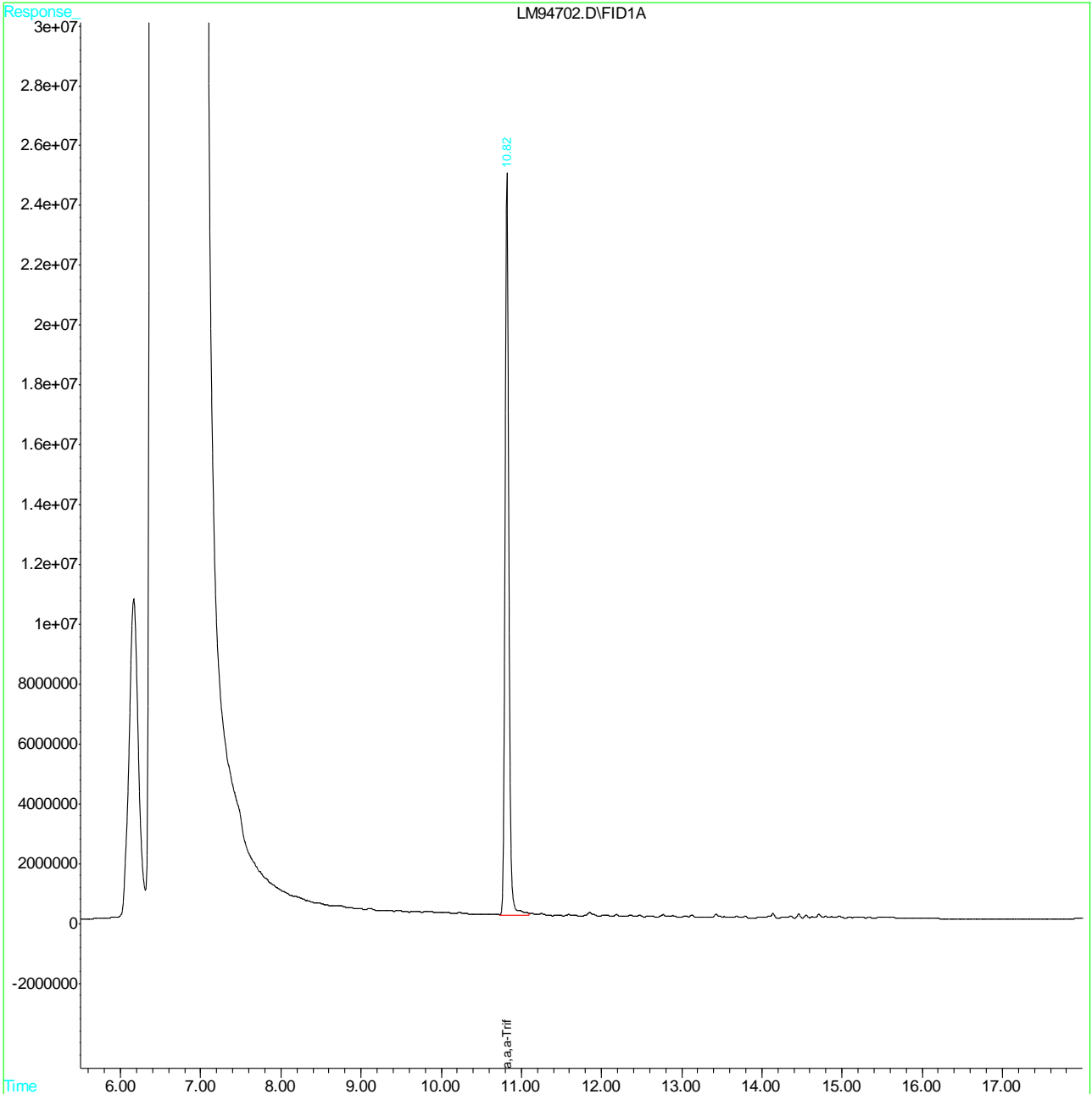
11.15  
11

Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94702.D Vial: 17  
Acq On : 9 May 2018 3:24 pm Operator: KRIZHKAC  
Sample : JC65058-9 Inst : GCLM  
Misc : GC52495,GLM3851,9.14,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: May 10 10:16 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration  
DataAcq Meth : MLM3729.M

Volume Inj. : N/A  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



11.15  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145602.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 11:56 am  
 Operator : KRIZHKAC  
 Sample : JC65058-10  
 Misc : GC52447,GPF4600,10.46,,100,10,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:02:47 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.087 | 66167981   | 238.867 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 79.62%       |

Target Compounds

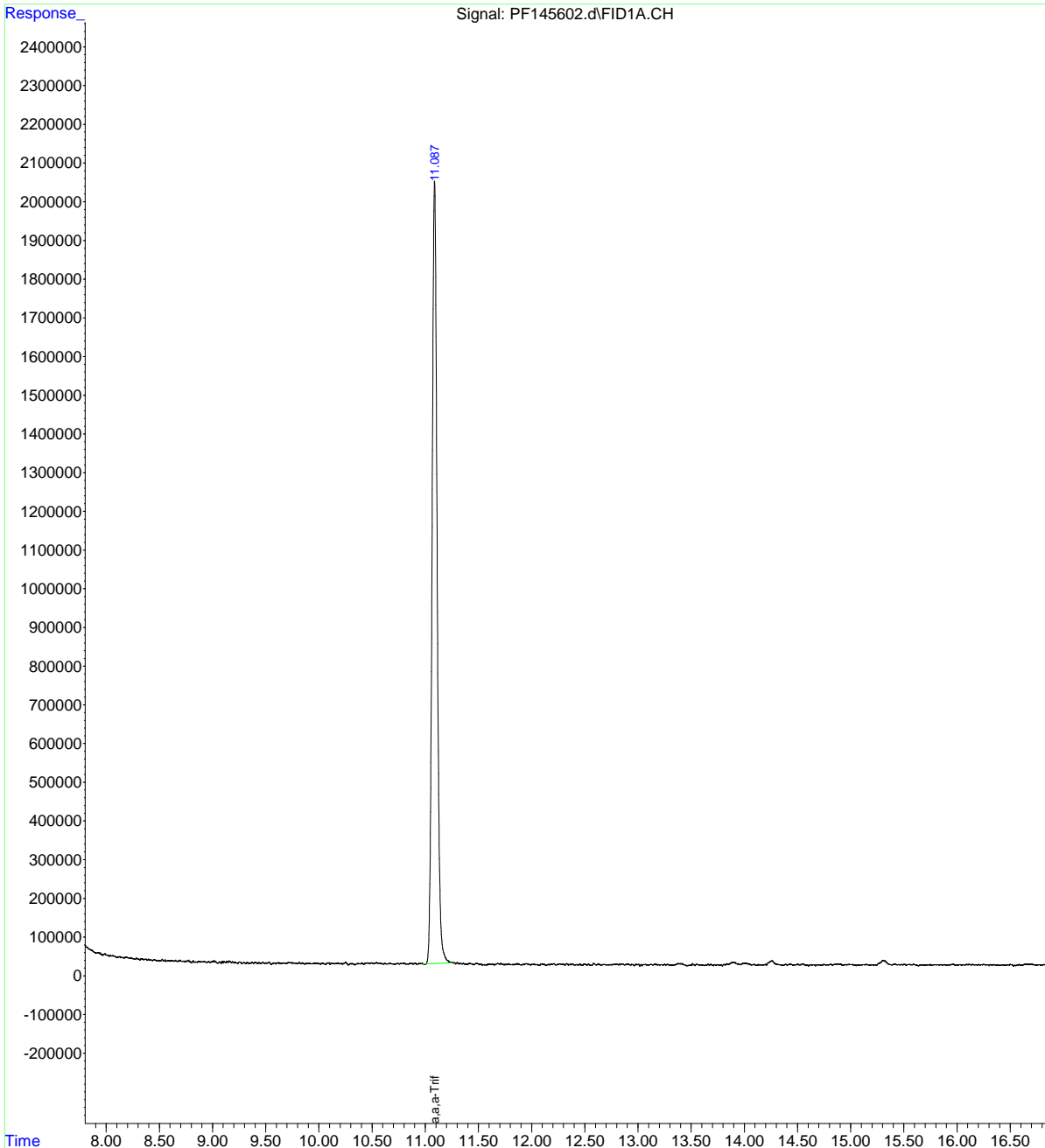
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\  
Data File : PF145602.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 11:56 am  
Operator : KRIZHKAC  
Sample : JC65058-10  
Misc : GC52447,GPF4600,10.46,,100,10,1  
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:02:47 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.1.6  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145609.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 15:13 pm  
 Operator : KRIZHKAC  
 Sample : JC65058-11  
 Misc : GC52447,GPF4600,9.28,,100,10,1  
 ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:04:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.105 | 66730277   | 240.897 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 80.30%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

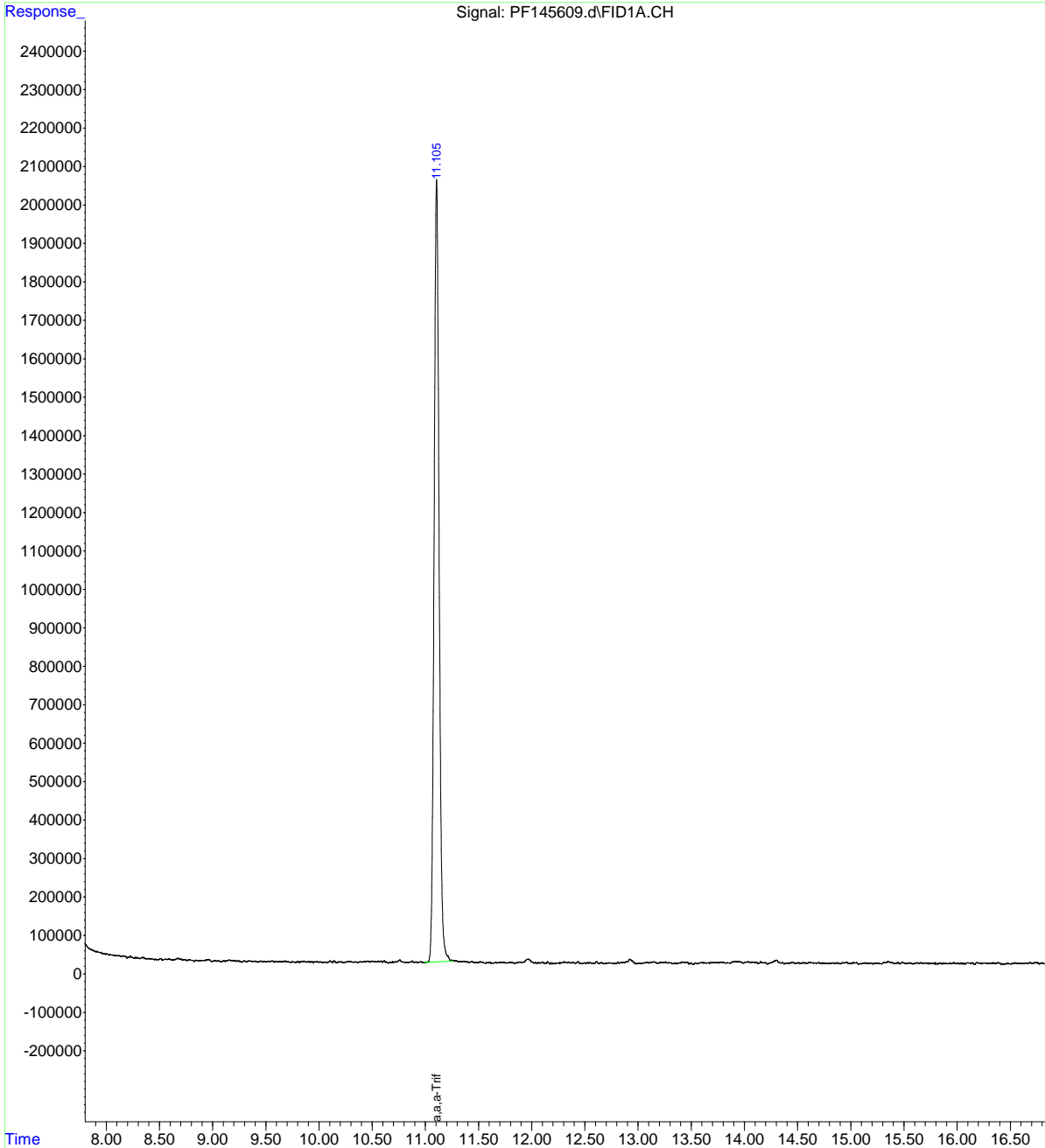
11.17

11

Data Path : C:\msdchem\1\data\  
Data File : PF145609.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 15:13 pm  
Operator : KRIZHKAC  
Sample : JC65058-11  
Misc : GC52447,GPF4600,9.28,,100,10,1  
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:04:44 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.17  
11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\LM94701.D Vial: 16  
 Acq On : 9 May 2018 2:26 pm Operator: KRIZHKAC  
 Sample : MB2 Inst : GCLM  
 Misc : GC52485,GLM3851,10.0,,100,10,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: May 10 10:16 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
 Title : Method SW846 8015C (GRO) .  
 Last Update : Wed Dec 13 09:36:39 2017  
 Response via : Initial Calibration  
 DataAcq Meth : MLM3729.M

Volume Inj. : N/A  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um

| Compound                    | R.T.           | Response   | Conc Units   |
|-----------------------------|----------------|------------|--------------|
| System Monitoring Compounds |                |            |              |
| 3) S a,a,a-Trifluorotoluene | 10.82          | 805141208  | 284.851 ug/l |
| Spiked Amount 300.000       | Range 70 - 116 | Recovery = | 94.95%       |

Target Compounds

11.21  
11

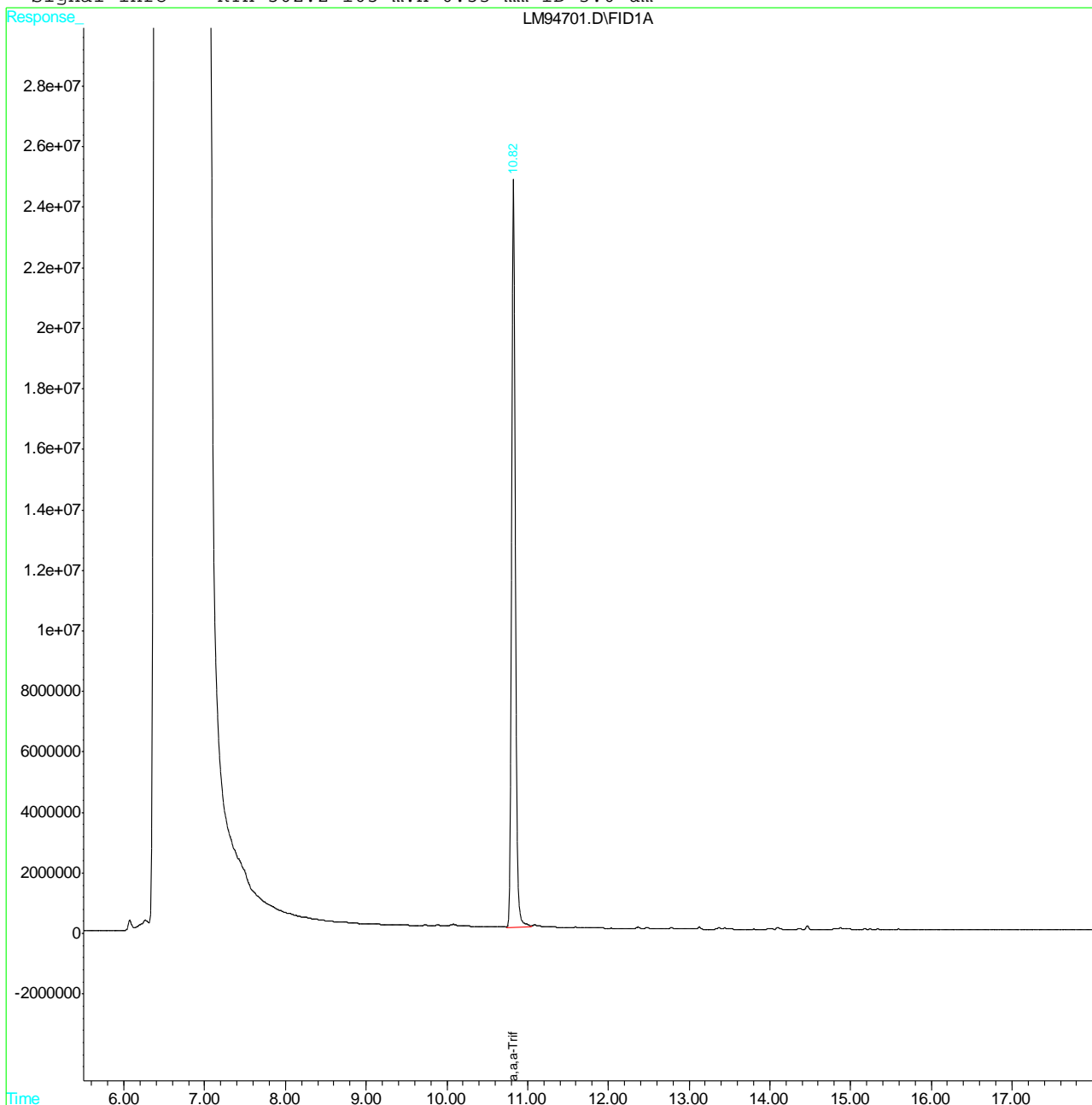


Quantitation Report

Data File : C:\HPCHEM\1\DATA\LM94701.D Vial: 16  
Acq On : 9 May 2018 2:26 pm Operator: KRIZHKAC  
Sample : MB2 Inst : GCLM  
Misc : GC52485,GLM3851,10.0,,100,10,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: May 10 10:16 2018 Quant Results File: MLM3729.RES

Quant Method : C:\HPCHEM\1\METHODS\MLM3729.M (Chemstation Integrator)  
Title : Method SW846 8015C (GRO) .  
Last Update : Wed Dec 13 09:36:39 2017  
Response via : Multiple Level Calibration  
DataAcq Meth : MLM3729.M

Volume Inj. : N/A  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : RTX-502.2 105 m.X 0.53 mm ID 3.0 um



11.21  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145597.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 9:37 am  
 Operator : KRIZHKAC  
 Sample : MB1  
 Misc : GC52447,GPF4600,10.0,,100,10,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:00:52 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.    | Response | Conc Units   |
|-----------------------------|---------|----------|--------------|
| System Monitoring Compounds |         |          |              |
| 3) S a,a,a-Trifluorotoluene | 11.089  | 68182305 | 246.139 ug/l |
| Spiked Amount               | 300.000 | Recovery | = 82.05%     |

Target Compounds

(f)=RT Delta > 1/2 Window

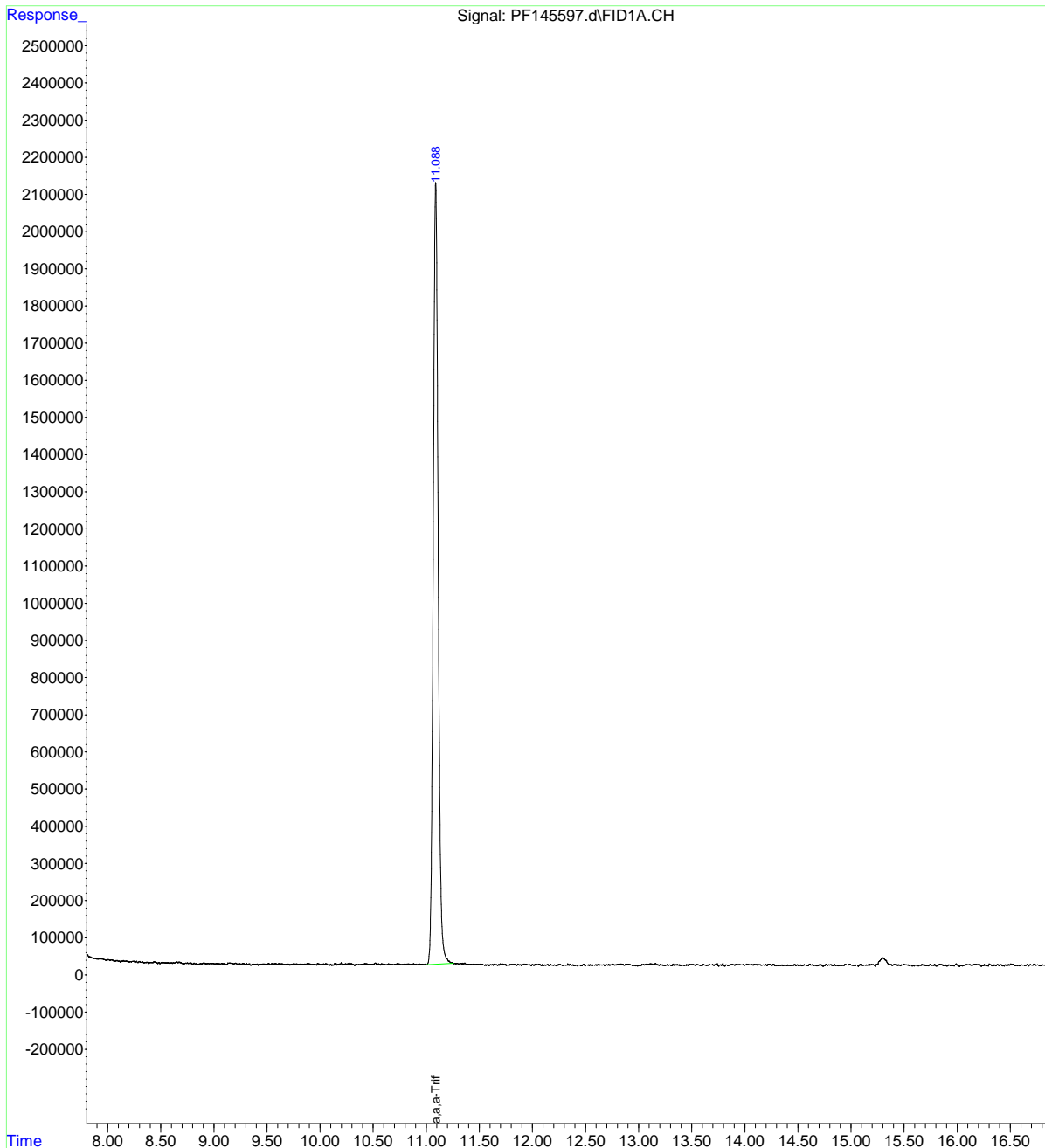
(m)=manual int.

11.22  
11

Data Path : C:\msdchem\1\data\  
Data File : PF145597.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 9:37 am  
Operator : KRIZHKAC  
Sample : MB1  
Misc : GC52447,GPF4600,10.0,,100,10,1  
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:00:52 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.22  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145608.d  
 Signal(s) : FID1A.CH  
 Acq On : 01 May 2018 14:48 pm  
 Operator : KRIZHKAC  
 Sample : MB2  
 Misc : GC52447,GPF4600,10.0,,100,10,1  
 ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 02 09:04:19 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.    | Response | Conc Units   |
|-----------------------------|---------|----------|--------------|
| System Monitoring Compounds |         |          |              |
| 3) S a,a,a-Trifluorotoluene | 11.100  | 66720324 | 240.861 ug/l |
| Spiked Amount               | 300.000 | Recovery | = 80.29%     |

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

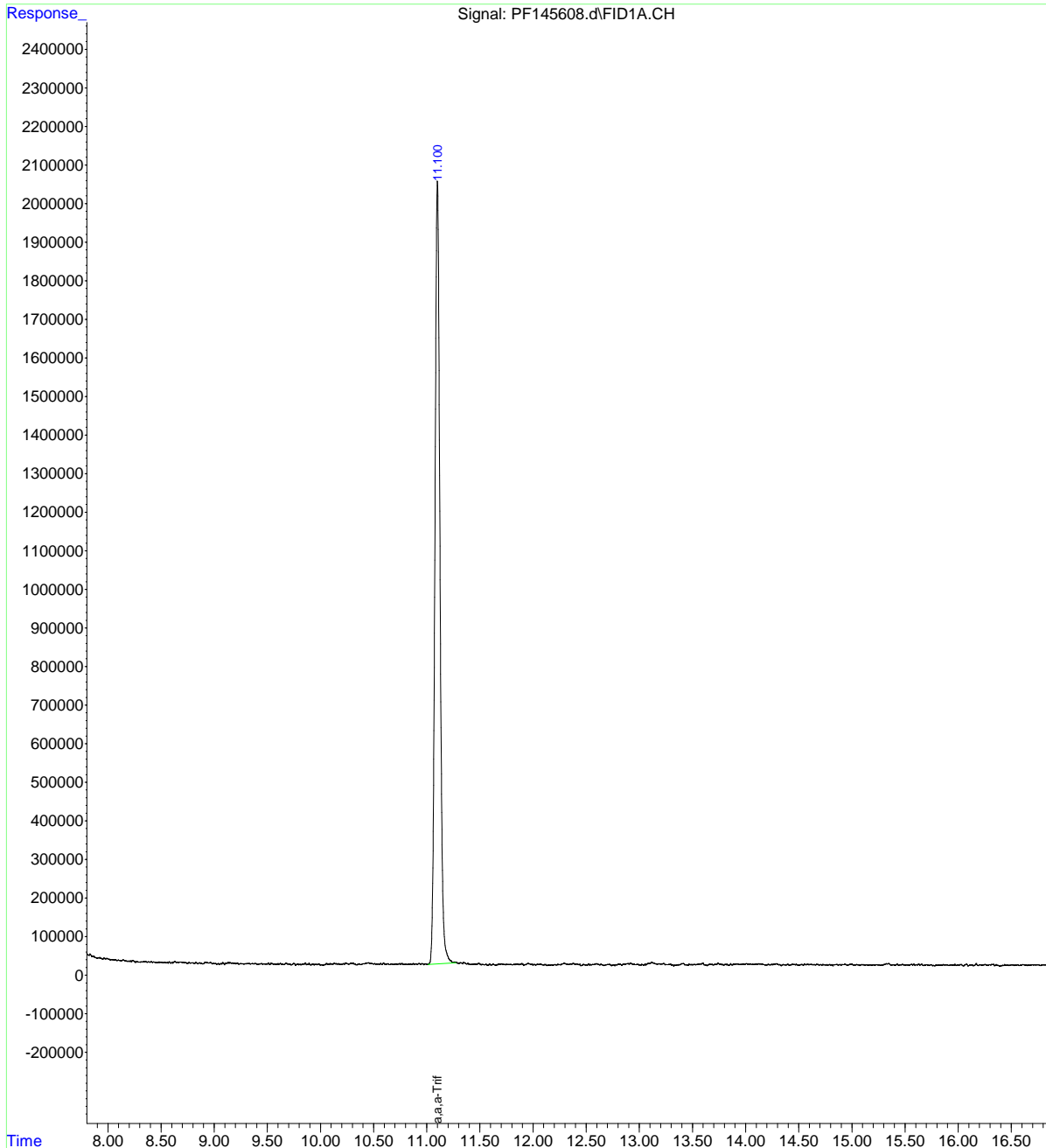
11.23  
11



Data Path : C:\msdchem\1\data\  
Data File : PF145608.d  
Signal(s) : FID1A.CH  
Acq On : 01 May 2018 14:48 pm  
Operator : KRIZHKAC  
Sample : MB2  
Misc : GC52447,GPF4600,10.0,,100,10,1  
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 02 09:04:19 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.2.3  
11

## GC/LC Semi-volatiles

### QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11676-MB1 | 3G116199.D | 1  | 05/01/18 | VDT | 05/01/18  | OP11676    | G3G4034          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 17   | 11   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.3  | 2.9  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.3  | 1.5  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.3  | 3.0  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.3  | 2.4  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 17   | 9.8  | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 17   | 6.6  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1700 | 1500 | ug/kg |   |
| 93-65-2   | MCPP              | ND     | 1700 | 1500 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.7  | 1.2  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 17   | 9.7  | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 70%    | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 71%    | 10-159% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MB2 | 3G116292.D | 1  | 05/04/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | Result | RL   | MDL   | Units | Q |
|---------|-------------------|--------|------|-------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 0.42 | 0.12  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 0.12 | 0.025 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 92%    | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 105%   | 50-142% |



**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11920-MB1 | 3G116435.D | 1  | 05/14/18 | VDT | 05/10/18  | OP11920    | G3G4043          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.   | Compound          | Result | RL   | MDL  | Units | Q |
|-----------|-------------------|--------|------|------|-------|---|
| 94-75-7   | 2,4-D             | ND     | 17   | 11   | ug/kg |   |
| 93-72-1   | 2,4,5-TP (Silvex) | ND     | 3.3  | 2.9  | ug/kg |   |
| 93-76-5   | 2,4,5-T           | ND     | 3.3  | 1.5  | ug/kg |   |
| 75-99-0   | Dalapon           | ND     | 3.3  | 3.0  | ug/kg |   |
| 1918-00-9 | Dicamba           | ND     | 3.3  | 2.4  | ug/kg |   |
| 120-36-5  | Dichloroprop      | ND     | 17   | 9.8  | ug/kg |   |
| 88-85-7   | Dinoseb           | ND     | 17   | 6.6  | ug/kg |   |
| 94-74-6   | MCPA              | ND     | 1700 | 1500 | ug/kg |   |
| 93-65-2   | MCPP              | ND     | 1700 | 1500 | ug/kg |   |
| 87-86-5   | Pentachlorophenol | ND     | 1.7  | 1.2  | ug/kg |   |
| 94-82-6   | 2,4-DB            | ND     | 17   | 9.7  | ug/kg |   |

| CAS No.    | Surrogate Recoveries | Limits       |
|------------|----------------------|--------------|
| 19719-28-9 | 2,4-DCAA             | 126% 10-159% |
| 19719-28-9 | 2,4-DCAA             | 127% 10-159% |

# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MB1 | 3G116250.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL   | MDL   | Units | Q |
|---------|-------------------|--------|------|-------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 0.42 | 0.12  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 0.12 | 0.025 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 96% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 86% 50-142% |

12.1.4  
12

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11667-MB1 | 1G145800.D | 1  | 05/01/18 | DM | 05/01/18  | OP11667    | G1G4635          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 68%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 110%   | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 84%    | 10-156% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MB2 | 8G14785.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.33   | 0.14   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0067 | 0.0030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.013  | 0.0045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.17   | 0.11   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 84%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 42%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 46%    | 10-137% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MB1 | 6G56092.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 78%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 81%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    | 10-156% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MB1 | 8G15031.D | 1  | 05/11/18 | MH | 05/10/18  | OP11917    | G8G489           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 87%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 63%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 77%    | 10-156% |

# Method Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MB1 | 6G55909.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.33   | 0.14   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0067 | 0.0030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.013  | 0.0045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.17   | 0.11   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Results | Limits  |
|-----------|----------------------|---------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%     | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 87%     | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69%     | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 76%     | 10-137% |

12.1.9  
12

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-MB1 | XX227795.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 100%   | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 102%   | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 102%   | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   | 10-166% |



**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-MB1 | 2G162946.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 98%    | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 100%   | 10-166% |

**Method Blank Summary**

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11656-MB1 | ZZ88758.D | 1  | 05/01/18 | CP | 04/30/18  | OP11656    | GZZ3198          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No. | Compound          | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
|         | TPH-DRO (C10-C28) | ND     | 10 | 2.4 | mg/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 84-15-1    | o-Terphenyl          | 65%    | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 90%    | 25-137% |
| 438-22-2   | 5a-Androstane        | 82%    | 22-134% |

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB29 | 3G116308.D | 1  | 05/05/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits       |
|------------|----------------------|--------------|
| 19719-28-9 | 2,4-DCAA             | 100% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 92% 50-142%  |

12.2.1  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB28 | 3G116309.D | 1  | 05/05/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 99% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 89% 50-142% |

12.2.2  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB26 | OA133141.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | GOA4561          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 77% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 95% 50-142% |

12.2.3  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB25 | 3G116272.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 94% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 85% 50-142% |

12.2.4  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB28 | 8G14811.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Results | Limits  |
|-----------|----------------------|---------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 68%     | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 85%     | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 54%     | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 60%     | 10-137% |

12.2.5  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB29 | 8G14812.D | 1  | 05/04/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 50%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 70%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 47%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 57%    | 10-137% |

12.2.6  
12



# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB25 | 6G55926.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 62%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 69%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 75%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    | 10-137% |

12.2.7  
12

# Leachate Blank Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB26 | 6G55927.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 82%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 92%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    | 10-137% |

12.2.8  
12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11676-BS1 | 3G116200.D | 1  | 05/01/18 | VDT | 05/01/18  | OP11676    | G3G4034          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound          | Spike ug/kg | BSP ug/kg | BSP %           | Limits |
|-----------|-------------------|-------------|-----------|-----------------|--------|
| 94-75-7   | 2,4-D             | 133         | 53.4      | 40              | 39-153 |
| 93-72-1   | 2,4,5-TP (Silvex) | 26.7        | 13.1      | 49              | 49-139 |
| 93-76-5   | 2,4,5-T           | 26.7        | 10.5      | 39              | 37-135 |
| 75-99-0   | Dalapon           | 26.7        | 7.9       | 30              | 28-144 |
| 1918-00-9 | Dicamba           | 26.7        | 10.8      | 41              | 39-151 |
| 120-36-5  | Dichloroprop      | 133         | 76.0      | 57 <sup>a</sup> | 57-144 |
| 88-85-7   | Dinoseb           | 133         | 26.8      | 20              | 10-159 |
| 94-74-6   | MCPA              | 6670        | 2660      | 40              | 32-180 |
| 93-65-2   | MCPP              | 6670        | 3180      | 48              | 45-193 |
| 87-86-5   | Pentachlorophenol | 13.3        | 3.8       | 29 <sup>a</sup> | 29-141 |
| 94-82-6   | 2,4-DB            | 133         | 61.7      | 46              | 23-157 |

| CAS No.    | Surrogate Recoveries | BSP | Limits  |
|------------|----------------------|-----|---------|
| 19719-28-9 | 2,4-DCAA             | 93% | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 88% | 10-159% |

(a) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

\* = Outside of Control Limits.

12.3.1  
 12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-BS2 | 3G116293.D | 1  | 05/04/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|-------------------|---------------|-------------|----------|--------|
| 94-75-7 | 2,4-D             | 13.3          | 16.4        | 123      | 46-153 |
| 93-72-1 | 2,4,5-TP (Silvex) | 2.67          | 2.9         | 109      | 57-151 |

| CAS No.    | Surrogate Recoveries | BSP  | Limits  |
|------------|----------------------|------|---------|
| 19719-28-9 | 2,4-DCAA             | 117% | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 123% | 50-142% |

12.3.2  
12

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11920-BS1 | 3G116434.D | 1  | 05/14/18 | VDT | 05/10/18  | OP11920    | G3G4043          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.   | Compound          | Spike ug/kg | BSP ug/kg | BSP %           | Limits |
|-----------|-------------------|-------------|-----------|-----------------|--------|
| 94-75-7   | 2,4-D             | 133         | 138       | 104             | 39-153 |
| 93-72-1   | 2,4,5-TP (Silvex) | 26.7        | 26.3      | 99              | 49-139 |
| 93-76-5   | 2,4,5-T           | 26.7        | 22.8      | 86              | 37-135 |
| 75-99-0   | Dalapon           | 26.7        | 22.4      | 84              | 28-144 |
| 1918-00-9 | Dicamba           | 26.7        | 24.9      | 93              | 39-151 |
| 120-36-5  | Dichloroprop      | 133         | 119       | 89              | 57-144 |
| 88-85-7   | Dinoseb           | 133         | 56.3      | 42              | 10-159 |
| 94-74-6   | MCPA              | 6670        | 5710      | 86              | 32-180 |
| 93-65-2   | MCPP              | 6670        | 8230      | 123             | 45-193 |
| 87-86-5   | Pentachlorophenol | 13.3        | 8.8       | 66              | 29-141 |
| 94-82-6   | 2,4-DB            | 133         | 130       | 98 <sup>a</sup> | 23-157 |

| CAS No.    | Surrogate Recoveries | BSP  | Limits  |
|------------|----------------------|------|---------|
| 19719-28-9 | 2,4-DCAA             | 124% | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 153% | 10-159% |

(a) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

\* = Outside of Control Limits.

12.3.3  
12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11667-BS1 | 1G145801.D | 1  | 05/02/18 | DM | 05/01/18  | OP11667    | G1G4635          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound            | Spike ug/kg | BSP ug/kg | BSP %            | Limits |
|------------|---------------------|-------------|-----------|------------------|--------|
| 309-00-2   | Aldrin              | 16.7        | 14.0      | 84               | 46-120 |
| 319-84-6   | alpha-BHC           | 16.7        | 12.4      | 74               | 45-116 |
| 319-85-7   | beta-BHC            | 16.7        | 18.6      | 112 <sup>a</sup> | 42-121 |
| 319-86-8   | delta-BHC           | 16.7        | 13.2      | 79               | 42-121 |
| 58-89-9    | gamma-BHC (Lindane) | 16.7        | 14.3      | 86               | 46-118 |
| 5103-71-9  | alpha-Chlordane     | 16.7        | 13.8      | 83               | 49-119 |
| 5103-74-2  | gamma-Chlordane     | 16.7        | 13.6      | 82               | 48-121 |
| 60-57-1    | Dieldrin            | 16.7        | 17.4      | 104              | 48-126 |
| 72-54-8    | 4,4'-DDD            | 16.7        | 13.6      | 82               | 47-120 |
| 72-55-9    | 4,4'-DDE            | 16.7        | 15.0      | 90               | 48-121 |
| 50-29-3    | 4,4'-DDT            | 16.7        | 15.3      | 92               | 45-135 |
| 72-20-8    | Endrin              | 16.7        | 14.5      | 87               | 51-137 |
| 1031-07-8  | Endosulfan sulfate  | 16.7        | 14.6      | 88               | 48-128 |
| 7421-93-4  | Endrin aldehyde     | 16.7        | 14.3      | 86               | 46-125 |
| 959-98-8   | Endosulfan-I        | 16.7        | 13.9      | 83               | 47-118 |
| 33213-65-9 | Endosulfan-II       | 16.7        | 13.6      | 82               | 49-121 |
| 76-44-8    | Heptachlor          | 16.7        | 13.4      | 80               | 48-120 |
| 1024-57-3  | Heptachlor epoxide  | 16.7        | 13.4      | 80               | 46-122 |
| 72-43-5    | Methoxychlor        | 16.7        | 13.9      | 83               | 44-136 |
| 53494-70-5 | Endrin ketone       | 16.7        | 14.5      | 87               | 44-139 |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 97%  | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 79%  | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 128% | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 91%  | 10-156% |

(a) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

\* = Outside of Control Limits.

12.3.4  
12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-BS2 | 8G14786.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.   | Compound            | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|-----------|---------------------|---------------|-------------|----------|--------|
| 58-89-9   | gamma-BHC (Lindane) | 1.67          | 1.7         | 102      | 37-178 |
| 72-20-8   | Endrin              | 1.67          | 1.5         | 90       | 45-182 |
| 76-44-8   | Heptachlor          | 1.67          | 1.4         | 84       | 26-172 |
| 1024-57-3 | Heptachlor epoxide  | 1.67          | 1.4         | 84       | 43-173 |
| 72-43-5   | Methoxychlor        | 1.67          | 1.6         | 96       | 40-192 |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 74% | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 86% | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 77% | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 82% | 10-137% |

12.3.5  
12

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-BS1 | 6G56093.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound            | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|---------------------|----------------|--------------|----------|--------|
| 309-00-2   | Aldrin              | 16.7           | 14.8         | 89       | 46-120 |
| 319-84-6   | alpha-BHC           | 16.7           | 13.9         | 83       | 45-116 |
| 319-85-7   | beta-BHC            | 16.7           | 14.4         | 86       | 42-121 |
| 319-86-8   | delta-BHC           | 16.7           | 13.6         | 82       | 42-121 |
| 58-89-9    | gamma-BHC (Lindane) | 16.7           | 13.8         | 83       | 46-118 |
| 5103-71-9  | alpha-Chlordane     | 16.7           | 15.3         | 92       | 49-119 |
| 5103-74-2  | gamma-Chlordane     | 16.7           | 15.0         | 90       | 48-121 |
| 60-57-1    | Dieldrin            | 16.7           | 13.6         | 82       | 48-126 |
| 72-54-8    | 4,4'-DDD            | 16.7           | 14.1         | 85       | 47-120 |
| 72-55-9    | 4,4'-DDE            | 16.7           | 14.6         | 88       | 48-121 |
| 50-29-3    | 4,4'-DDT            | 16.7           | 15.5         | 93       | 45-135 |
| 72-20-8    | Endrin              | 16.7           | 15.7         | 94       | 51-137 |
| 1031-07-8  | Endosulfan sulfate  | 16.7           | 14.2         | 85       | 48-128 |
| 7421-93-4  | Endrin aldehyde     | 16.7           | 14.8         | 89       | 46-125 |
| 959-98-8   | Endosulfan-I        | 16.7           | 14.5         | 87       | 47-118 |
| 33213-65-9 | Endosulfan-II       | 16.7           | 14.2         | 85       | 49-121 |
| 76-44-8    | Heptachlor          | 16.7           | 15.0         | 90       | 48-120 |
| 1024-57-3  | Heptachlor epoxide  | 16.7           | 14.2         | 85       | 46-122 |
| 72-43-5    | Methoxychlor        | 16.7           | 15.4         | 92       | 44-136 |
| 53494-70-5 | Endrin ketone       | 16.7           | 14.4         | 86       | 44-139 |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 80% | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 85% | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 87% | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 94% | 10-156% |

\* = Outside of Control Limits.

12.3.6  
12



# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-BS1 | XX227796.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 149          | 112      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 156          | 117      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 99%  | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 102% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 103% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 107% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

12.3.7  
12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-BS1 | 2G162947.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 160          | 120      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 158          | 118      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 99%  | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 105% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 101% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 110% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

12.3.8  
12

# Blank Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11656-BS1 | ZZ88759.D | 1  | 05/01/18 | CP | 04/30/18  | OP11656    | GZZ3198          |

**The QC reported here applies to the following samples:** **Method:** SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No. | Compound          | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | Limits |
|---------|-------------------|----------------|--------------|----------|--------|
|         | TPH-DRO (C10-C28) | 100            | 61.1         | 61       | 44-120 |

| CAS No.    | Surrogate Recoveries | BSP | Limits  |
|------------|----------------------|-----|---------|
| 84-15-1    | o-Terphenyl          | 48% | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 57% | 25-137% |
| 438-22-2   | 5a-Androstane        | 51% | 22-134% |

12.3.9  
12

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11676-MS  | 3G116205.D | 1  | 05/01/18 | VDT | 05/01/18  | OP11676    | G3G4034          |
| OP11676-MSD | 3G116206.D | 1  | 05/01/18 | VDT | 05/01/18  | OP11676    | G3G4034          |
| JC65099-2   | 3G116202.D | 1  | 05/01/18 | VDT | 05/01/18  | OP11676    | G3G4034          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-12, JC65058-13, JC65058-15

| CAS No.   | Compound          | JC65099-2<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD    | Limits<br>Rec/RPD |
|-----------|-------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|--------|-------------------|
| 94-75-7   | 2,4-D             | ND                 | 144                 | ND          | 0* a    | 143            | 13.6         | 10       | 200* a | 10-164/54         |
| 93-72-1   | 2,4,5-TP (Silvex) | ND                 | 28.7                | 3.7         | 13      | 28.5           | 9.6          | 34       | 89* a  | 10-159/51         |
| 93-76-5   | 2,4,5-T           | ND                 | 28.7                | ND          | 0* a    | 28.5           | 3.4          | 12       | 200* a | 10-144/56         |
| 75-99-0   | Dalapon           | ND                 | 28.7                | 4.0         | 14      | 28.5           | 9.5          | 33       | 81* a  | 10-165/50         |
| 1918-00-9 | Dicamba           | ND                 | 28.7                | ND          | 0* a    | 28.5           | 6.2          | 22       | 200* a | 10-178/52         |
| 120-36-5  | Dichloroprop      | ND                 | 144                 | ND          | 0* a    | 143            | 31.1         | 22       | 200* a | 10-166/55         |
| 88-85-7   | Dinoseb           | ND                 | 144                 | 99.4        | 69      | 143            | 85.4         | 60       | 15     | 10-156/44         |
| 94-74-6   | MCPA              | ND                 | 7180                | ND          | 0* a    | 7130           | ND           | 0* a     | nc     | 10-208/51         |
| 93-65-2   | MCPP              | ND                 | 7180                | ND          | 0* a    | 7130           | ND           | 0* a     | nc     | 10-240/52         |
| 87-86-5   | Pentachlorophenol | ND                 | 14.4                | 7.4         | 52      | 14.3           | 8.2          | 58       | 10     | 10-171/47         |
| 94-82-6   | 2,4-DB            | ND                 | 144                 | 10.7        | 7* a    | 143            | 10.9         | 8* a     | 2      | 10-153/57         |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC65099-2 | Limits  |
|------------|----------------------|-----|-----|-----------|---------|
| 19719-28-9 | 2,4-DCAA             | 11% | 22% | 31%       | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 11% | 20% | 26%       | 10-159% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

12.4.1  
12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MS  | 3G116270.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| OP11688-MSD | 3G116271.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| JC65130-4   | 3G116267.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | JC65130-4<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 94-75-7 | 2,4-D             | ND                | 13.3               | 12.5       | 94      | 13.3          | 11.4        | 86       | 9   | 43-136/44         |
| 93-72-1 | 2,4,5-TP (Silvex) | ND                | 2.67               | 3.0        | 113     | 2.67          | 2.7         | 101      | 11  | 47-141/41         |

| CAS No.    | Surrogate Recoveries | MS   | MSD | JC65130-4 | Limits  |
|------------|----------------------|------|-----|-----------|---------|
| 19719-28-9 | 2,4-DCAA             | 106% | 99% | 112%      | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 90%  | 80% | 96%       | 50-142% |

\* = Outside of Control Limits.

12.4.2  
12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11920-MS  | OA133327.D | 1  | 05/14/18 | VDT | 05/10/18  | OP11920    | GOA4568          |
| OP11920-MSD | OA133329.D | 1  | 05/14/18 | VDT | 05/10/18  | OP11920    | GOA4568          |
| JC65058-10  | OA133305.D | 1  | 05/11/18 | VDT | 05/10/18  | OP11920    | GOA4567          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.   | Compound          | JC65058-10<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD    | Limits<br>Rec/RPD |
|-----------|-------------------|---------------------|---------------------|-------------|---------|----------------|--------------|----------|--------|-------------------|
| 94-75-7   | 2,4-D             | ND                  | 140                 | 64.5        | 46      | 136            | 24.7         | 18       | 89* a  | 10-164/54         |
| 93-72-1   | 2,4,5-TP (Silvex) | ND                  | 28.1                | 22.0        | 78      | 27.2           | 6.0          | 22       | 114* a | 10-159/51         |
| 93-76-5   | 2,4,5-T           | ND                  | 28.1                | 13.5        | 48      | 27.2           | 4.5          | 17       | 100* a | 10-144/56         |
| 75-99-0   | Dalapon           | ND                  | 28.1                | 13.4        | 48      | 27.2           | 6.8          | 25       | 65* a  | 10-165/50         |
| 1918-00-9 | Dicamba           | ND                  | 28.1                | 17.2        | 61      | 27.2           | 5.9          | 22       | 98* a  | 10-178/52         |
| 120-36-5  | Dichloroprop      | ND                  | 140                 | 87.2        | 62      | 136            | 20.4         | 15       | 124* a | 10-166/55         |
| 88-85-7   | Dinoseb           | ND                  | 140                 | ND          | 0* a    | 136            | ND           | 0* a     | nc     | 10-156/44         |
| 94-74-6   | MCPA              | ND                  | 7010                | 3830        | 55      | 6790           | 1610         | 24       | 82* a  | 10-208/51         |
| 93-65-2   | MCPP              | ND                  | 7010                | 7820        | 112     | 6790           | 2030         | 30       | 118* a | 10-240/52         |
| 87-86-5   | Pentachlorophenol | ND                  | 14                  | 6.9         | 49      | 13.6           | 1.9          | 14       | 114* a | 10-171/47         |
| 94-82-6   | 2,4-DB            | ND                  | 140                 | 80.0        | 57      | 136            | 48.4         | 36       | 49     | 10-153/57         |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC65058-10 | Limits  |
|------------|----------------------|-----|-----|------------|---------|
| 19719-28-9 | 2,4-DCAA             | 56% | 18% | 52%        | 10-159% |
| 19719-28-9 | 2,4-DCAA             | 60% | 20% | 56%        | 10-159% |

(a) Outside the QC limits.

\* = Outside of Control Limits.

12.4.3  
12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11667-MS  | 1G145808.D | 1  | 05/02/18 | DM | 05/01/18  | OP11667    | G1G4635          |
| OP11667-MSD | 1G145809.D | 1  | 05/02/18 | DM | 05/01/18  | OP11667    | G1G4635          |
| JC65070-5   | 1G145807.D | 1  | 05/02/18 | DM | 05/01/18  | OP11667    | G1G4635          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound            | JC65070-5<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 | 17.7                | 16.2        | 91      | 17.7           | 17.2         | 97       | 6   | 23-143/44         |
| 319-84-6   | alpha-BHC           | ND                 | 17.7                | 17.8        | 100     | 17.7           | 17.7         | 100      | 1   | 18-152/47         |
| 319-85-7   | beta-BHC            | ND                 | 17.7                | 14.4        | 81      | 17.7           | 18.1         | 102      | 23  | 7-143/48          |
| 319-86-8   | delta-BHC           | ND                 | 17.7                | 15.1        | 85      | 17.7           | 14.3         | 81       | 5   | 13-155/49         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 17.7                | 15.1        | 85      | 17.7           | 16.5         | 93       | 9   | 23-138/49         |
| 5103-71-9  | alpha-Chlordane     | ND                 | 17.7                | 14.7        | 83      | 17.7           | 16.0         | 90       | 8   | 16-149/46         |
| 5103-74-2  | gamma-Chlordane     | ND                 | 17.7                | 13.3        | 75      | 17.7           | 14.6         | 82       | 9   | 14-152/45         |
| 60-57-1    | Dieldrin            | ND                 | 17.7                | 15.4        | 87      | 17.7           | 17.4         | 98       | 12  | 14-154/46         |
| 72-54-8    | 4,4'-DDD            | ND                 | 17.7                | 15.7        | 89      | 17.7           | 17.5         | 99       | 11  | 18-149/51         |
| 72-55-9    | 4,4'-DDE            | ND                 | 17.7                | 14.7        | 83      | 17.7           | 15.8         | 89       | 7   | 10-154/49         |
| 50-29-3    | 4,4'-DDT            | ND                 | 17.7                | 17.2        | 97      | 17.7           | 18.8         | 106      | 9   | 10-170/50         |
| 72-20-8    | Endrin              | ND                 | 17.7                | 19.1        | 108     | 17.7           | 21.9         | 124      | 14  | 18-173/49         |
| 1031-07-8  | Endosulfan sulfate  | ND                 | 17.7                | 16.3        | 92      | 17.7           | 17.7         | 100      | 8   | 19-132/50         |
| 7421-93-4  | Endrin aldehyde     | ND                 | 17.7                | 16.8        | 95      | 17.7           | 18.6         | 105      | 10  | 10-160/53         |
| 959-98-8   | Endosulfan-I        | ND                 | 17.7                | 14.6        | 82      | 17.7           | 15.9         | 90       | 9   | 18-143/46         |
| 33213-65-9 | Endosulfan-II       | ND                 | 17.7                | 15.7        | 89      | 17.7           | 16.9         | 95       | 7   | 21-132/46         |
| 76-44-8    | Heptachlor          | ND                 | 17.7                | 15.4        | 87      | 17.7           | 16.9         | 95       | 9   | 22-146/46         |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 17.7                | 14.9        | 84      | 17.7           | 15.2         | 86       | 2   | 21-151/45         |
| 72-43-5    | Methoxychlor        | ND                 | 17.7                | 15.4        | 87      | 17.7           | 17.1         | 97       | 10  | 11-166/50         |
| 53494-70-5 | Endrin ketone       | ND                 | 17.7                | 15.5        | 88      | 17.7           | 16.0         | 90       | 3   | 8-179/51          |
| 8001-35-2  | Toxaphene           | ND                 |                     | ND          |         |                | ND           |          | nc  | 50-150/30         |

| CAS No.   | Surrogate Recoveries | MS  | MSD  | JC65070-5 | Limits  |
|-----------|----------------------|-----|------|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 81% | 88%  | 75%       | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 75% | 79%  | 69%       | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 98% | 100% | 90%       | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 83% | 86%  | 77%       | 10-156% |

\* = Outside of Control Limits.

12.4.4  
 12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MS  | 6G55923.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| OP11692-MSD | 6G55924.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| JC65070-1A  | 6G55922.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.    | Compound            | JC65070-1A<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 1.67       | 1.4        | 84      | 1.67          | 1.6         | 96       | 13  | 39-160/97         |
| 12789-03-6 | Chlordane           | ND                 |            | ND         |         |               | ND          |          | nc  | 81-123/10         |
| 72-20-8    | Endrin              | ND                 | 1.67       | 1.3        | 78      | 1.67          | 1.6         | 96       | 21  | 43-169/95         |
| 76-44-8    | Heptachlor          | ND                 | 1.67       | 1.2        | 72      | 1.67          | 1.5         | 90       | 22  | 35-152/102        |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 1.67       | 1.3        | 78      | 1.67          | 1.5         | 90       | 14  | 42-159/96         |
| 72-43-5    | Methoxychlor        | ND                 | 1.67       | 1.2        | 72      | 1.67          | 1.4         | 84       | 15  | 47-170/99         |
| 8001-35-2  | Toxaphene           | ND                 |            | ND         |         |               | ND          |          | nc  | 50-150/8          |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65070-1A | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 65% | 77% | 68%        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 74% | 89% | 82%        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 62% | 69% | 56%        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69% | 79% | 66%        | 10-137% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MS             | 6G56095.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |
| OP11917-MSD            | 6G56096.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |
| JC65058-5 <sup>a</sup> | 6G56094.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound            | JC65058-5<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 | 18.3                | 13.5        | 74      | 18.1           | 13.3         | 74       | 1   | 23-143/44         |
| 319-84-6   | alpha-BHC           | ND                 | 18.3                | 12.9        | 70      | 18.1           | 13.4         | 74       | 4   | 18-152/47         |
| 319-85-7   | beta-BHC            | ND                 | 18.3                | 14.7        | 80      | 18.1           | 13.8         | 76       | 6   | 7-143/48          |
| 319-86-8   | delta-BHC           | ND                 | 18.3                | 12.8        | 70      | 18.1           | 14.0         | 77       | 9   | 13-155/49         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 18.3                | 14.4        | 79      | 18.1           | 12.4         | 69       | 15  | 23-138/49         |
| 5103-71-9  | alpha-Chlordane     | ND                 | 18.3                | 13.9        | 76      | 18.1           | 13.1         | 72       | 6   | 16-149/46         |
| 5103-74-2  | gamma-Chlordane     | ND                 | 18.3                | 14.6        | 80      | 18.1           | 15.8         | 87       | 8   | 14-152/45         |
| 60-57-1    | Dieldrin            | ND                 | 18.3                | 12.2        | 67      | 18.1           | 11.9         | 66       | 2   | 14-154/46         |
| 72-54-8    | 4,4'-DDD            | ND                 | 18.3                | 12.5        | 68      | 18.1           | 11.9         | 66       | 5   | 18-149/51         |
| 72-55-9    | 4,4'-DDE            | ND                 | 18.3                | 12.6        | 69      | 18.1           | 12.4         | 69       | 2   | 10-154/49         |
| 50-29-3    | 4,4'-DDT            | ND                 | 18.3                | 13.3        | 73      | 18.1           | 13.0         | 72       | 2   | 10-170/50         |
| 72-20-8    | Endrin              | ND                 | 18.3                | 14.0        | 76      | 18.1           | 13.3         | 74       | 5   | 18-173/49         |
| 1031-07-8  | Endosulfan sulfate  | ND                 | 18.3                | 10.5        | 57      | 18.1           | 10.1         | 56       | 4   | 19-132/50         |
| 7421-93-4  | Endrin aldehyde     | ND                 | 18.3                | 13.2        | 72      | 18.1           | 12.6         | 70       | 5   | 10-160/53         |
| 959-98-8   | Endosulfan-I        | ND                 | 18.3                | 12.9        | 70      | 18.1           | 12.5         | 69       | 3   | 18-143/46         |
| 33213-65-9 | Endosulfan-II       | ND                 | 18.3                | 12.3        | 67      | 18.1           | 11.9         | 66       | 3   | 21-132/46         |
| 76-44-8    | Heptachlor          | ND                 | 18.3                | 16.7        | 91      | 18.1           | 16.1         | 89       | 4   | 22-146/46         |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 18.3                | 13.8        | 75      | 18.1           | 14.4         | 80       | 4   | 21-151/45         |
| 72-43-5    | Methoxychlor        | ND                 | 18.3                | 13.0        | 71      | 18.1           | 12.5         | 69       | 4   | 11-166/50         |
| 53494-70-5 | Endrin ketone       | ND                 | 18.3                | 12.9        | 70      | 18.1           | 13.2         | 73       | 2   | 8-179/51          |
| 8001-35-2  | Toxaphene           | ND                 |                     | ND          |         |                | ND           |          | nc  | 50-150/30         |

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| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65058-5 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 56% | 56% | 58%       | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 66% | 80% | 72%       | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 68% | 66% | 68%       | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 79% | 85% | 86%       | 10-156% |

(a) Sample extracted outside the holding time.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11668-MS  | XX227798.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |
| OP11668-MSD | XX227799.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |
| JC65130-1   | XX227797.D | 1  | 05/01/18 | TR | 05/01/18  | OP11668    | GXX6332          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No.    | Compound     | JC65130-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                 | 145                 | 187         | 129     | 145            | 181          | 125      | 3   | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                 |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | ND                 | 145                 | 212         | 146     | 145            | 173          | 119      | 20  | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                 |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS   | MSD     | JC65130-1 | Limits  |
|-----------|----------------------|------|---------|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%  | 89%     | 87%       | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 107% | 105%    | 94%       | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 74%  | 83%     | 68%       | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 166% | 178%* a | 105%      | 10-166% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

12.4.7  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11775-MS  | 2G162949.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |
| OP11775-MSD | 2G162950.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |
| JC65281-54  | 2G162948.D | 1  | 05/07/18 | TR | 05/05/18  | OP11775    | G2G4326          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65058-12, JC65058-13, JC65058-15

| CAS No.    | Compound     | JC65281-54<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|---------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                  | 148                 | 170         | 115     | 149            | 160          | 107      | 6   | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | 224                 | 148                 | 359         | 91      | 149            | 368          | 97       | 2   | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65281-54 | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 95% | 88% | 93%        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 98% | 90% | 99%        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 82% | 77% | 87%        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 83% | 75% | 91%        | 10-166% |

\* = Outside of Control Limits.

12.4.8  
12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11656-MS  | ZZ88761.D | 1  | 05/01/18 | CP | 04/30/18  | OP11656    | GZZ3198          |
| OP11656-MSD | ZZ88762.D | 1  | 05/01/18 | CP | 04/30/18  | OP11656    | GZZ3198          |
| JC65141-2   | ZZ88760.D | 1  | 05/01/18 | CP | 04/30/18  | OP11656    | GZZ3198          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

| CAS No. | Compound          | JC65141-2<br>mg/kg | Spike<br>Q | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-------------------|--------------------|------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-DRO (C10-C28) | ND                 | 104        | 73.3        | 70      | 99.5           | 63.4         | 64       | 14  | 10-145/50         |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC65141-2 | Limits  |
|------------|----------------------|-----|-----|-----------|---------|
| 84-15-1    | o-Terphenyl          | 72% | 62% | 56%       | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 91% | 77% | 76%       | 25-137% |
| 438-22-2   | 5a-Androstane        | 82% | 70% | 70%       | 22-134% |

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12

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LS9 | 3G116270.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| JC65130-4   | 3G116267.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65058-13A

| CAS No. | Compound          | JC65130-4<br>ug/l | Spike<br>Q | LS<br>ug/l | LS<br>% | Limits |
|---------|-------------------|-------------------|------------|------------|---------|--------|
| 94-75-7 | 2,4-D             | ND                | 13.3       | 12.5       | 94      | 43-136 |
| 93-72-1 | 2,4,5-TP (Silvex) | ND                | 2.67       | 3.0        | 113     | 47-141 |

| CAS No.    | Surrogate Recoveries | LS   | JC65130-4 | Limits  |
|------------|----------------------|------|-----------|---------|
| 19719-28-9 | 2,4-DCAA             | 106% | 112%      | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 90%  | 96%       | 50-142% |

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LS9 | 6G55923.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| JC65070-1A  | 6G55922.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65058-13A

| CAS No.    | Compound            | JC65070-1A<br>ug/l | Spike<br>Q ug/l | LS<br>ug/l | LS<br>% | Limits |
|------------|---------------------|--------------------|-----------------|------------|---------|--------|
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 1.67            | 1.4        | 84      | 39-160 |
| 12789-03-6 | Chlordane           | ND                 |                 | ND         |         | 81-123 |
| 72-20-8    | Endrin              | ND                 | 1.67            | 1.3        | 78      | 43-169 |
| 76-44-8    | Heptachlor          | ND                 | 1.67            | 1.2        | 72      | 35-152 |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 1.67            | 1.3        | 78      | 42-159 |
| 72-43-5    | Methoxychlor        | ND                 | 1.67            | 1.2        | 72      | 47-170 |
| 8001-35-2  | Toxaphene           | ND                 |                 | ND         |         | 50-150 |

| CAS No.   | Surrogate Recoveries | LS  | JC65070-1A | Limits  |
|-----------|----------------------|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 65% | 68%        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 74% | 82%        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 62% | 56%        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69% | 66%        | 10-137% |

\* = Outside of Control Limits.

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 100786898 | 2.29 | 628152220 | 1.97 |
| Upper Limit <sup>a</sup> | 201573796 | 2.79 | 125630444 | 2.47 |
| Lower Limit <sup>b</sup> | 50393449  | 1.79 | 314076110 | 1.47 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11667-MB1   | 99091804  | 2.29    | 641659641 | 1.97    |
| OP11667-BS1   | 108703973 | 2.29    | 690863673 | 1.98    |
| ZZZZZZ        | 100890202 | 2.29    | 676289286 | 1.98    |
| ZZZZZZ        | 95789663  | 2.29    | 614440165 | 1.98    |
| ZZZZZZ        | 97144150  | 2.29    | 691875357 | 1.97    |
| ZZZZZZ        | 102535734 | 2.29    | 713494608 | 1.98    |
| JC65070-5     | 109519301 | 2.29    | 763069484 | 1.98    |
| OP11667-MS    | 95917682  | 2.29    | 695971229 | 1.98    |
| OP11667-MSD   | 105945537 | 2.29    | 740681360 | 1.98    |
| ZZZZZZ        | 96521696  | 2.29    | 707975000 | 1.98    |
| ZZZZZZ        | 99924837  | 2.29    | 734998880 | 1.97    |
| ZZZZZZ        | 94138550  | 2.29    | 670195444 | 1.98    |
| ZZZZZZ        | 107651871 | 2.29    | 607618605 | 1.98    |
| ZZZZZZ        | 94336133  | 2.29    | 584215814 | 1.97    |
| ZZZZZZ        | 98257838  | 2.29    | 698003806 | 1.97    |
| ZZZZZZ        | 101242834 | 2.29    | 725470914 | 1.98    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.1  
12

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                |                        |             |
|-----------------------|----------------|------------------------|-------------|
| <b>Check Std:</b>     | G1G4635-CC4628 | <b>Injection Date:</b> | 05/02/18    |
| <b>Lab File ID:</b>   | 1G145819.D     | <b>Injection Time:</b> | 05:28       |
| <b>Instrument ID:</b> | GC1G           | <b>Method:</b>         | SW846 8081B |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 90648749  | 2.30 | 703916679 | 1.98 |
| Upper Limit <sup>a</sup> | 181297498 | 2.80 | 140783335 | 2.48 |
| Lower Limit <sup>b</sup> | 45324375  | 1.80 | 351958340 | 1.48 |

| Lab Sample ID | IS 1      |      | IS 2      |      |
|---------------|-----------|------|-----------|------|
|               | AREA      | RT   | AREA      | RT   |
| ZZZZZZ        | 100006999 | 2.29 | 689393890 | 1.98 |
| ZZZZZZ        | 101419112 | 2.29 | 744290010 | 1.98 |
| ZZZZZZ        | 105625808 | 2.30 | 643542775 | 1.98 |
| JC65058-12    | 92201022  | 2.29 | 565067839 | 1.98 |
| JC65058-13    | 103521251 | 2.29 | 684769526 | 1.97 |
| JC65058-15    | 105157674 | 2.30 | 676310031 | 1.98 |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.2  
12



# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

| IS 1 | IS 2 |      |    |
|------|------|------|----|
| AREA | RT   | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 245896485 | 2.16 | 406222535 | 1.96 |
| Upper Limit <sup>a</sup> | 491792970 | 2.66 | 812445070 | 2.46 |
| Lower Limit <sup>b</sup> | 122948243 | 1.66 | 203111268 | 1.46 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11693-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11691-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11692-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11694-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11691-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11693-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11692-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11694-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| ZZZZZZ        | 239189629 | 2.15    | 408919165 | 1.95    |
| JC64929-3     | 250389369 | 2.16    | 448621983 | 1.96    |
| OP11691-LS7   | 241043329 | 2.16    | 437020894 | 1.95    |
| OP11691-MS    | 241043329 | 2.16    | 437020894 | 1.95    |
| OP11691-MSD   | 240703552 | 2.16    | 441137356 | 1.95    |
| ZZZZZZ        | 273767498 | 2.16    | 505731486 | 1.96    |
| ZZZZZZ        | 243155573 | 2.16    | 448055200 | 1.96    |
| ZZZZZZ        | 247266816 | 2.16    | 429601455 | 1.95    |
| ZZZZZZ        | 264279615 | 2.16    | 487453082 | 1.95    |
| ZZZZZZ        | 249636584 | 2.16    | 456113849 | 1.95    |
| ZZZZZZ        | 256360514 | 2.16    | 459320655 | 1.95    |
| ZZZZZZ        | 264530845 | 2.16    | 483670477 | 1.95    |
| JC65070-1A    | 247931428 | 2.16    | 474538834 | 1.95    |
| OP11692-MS    | 265275656 | 2.16    | 478001071 | 1.96    |
| OP11692-LS9   | 265275656 | 2.16    | 478001071 | 1.96    |
| OP11692-MSD   | 239010317 | 2.15    | 443790381 | 1.95    |
| OP11691-LB17  | 259479165 | 2.16    | 460735578 | 1.96    |
| OP11692-LB25  | 260136126 | 2.15    | 452986588 | 1.95    |
| OP11694-LB26  | 246584683 | 2.16    | 439607111 | 1.96    |
| OP11692-LB26  | 246584683 | 2.16    | 439607111 | 1.96    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.3  
12

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 265153096 | 2.16 | 365249378 | 1.96 |
| Upper Limit <sup>a</sup> | 530306192 | 2.66 | 730498756 | 2.46 |
| Lower Limit <sup>b</sup> | 132576548 | 1.66 | 182624689 | 1.46 |

| Lab Sample ID          | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|------------------------|-----------|---------|-----------|---------|
| OP11917-MB1            | 241848136 | 2.16    | 338425780 | 1.96    |
| OP11917-BS1            | 237997952 | 2.16    | 334368251 | 1.96    |
| JC65058-5 <sup>c</sup> | 244630336 | 2.16    | 379420134 | 1.96    |
| OP11917-MS             | 252437142 | 2.16    | 368992571 | 1.96    |
| OP11917-MSD            | 251419578 | 2.16    | 416096790 | 1.97    |
| JC65058-6 <sup>c</sup> | 640931645 | 2.17    | 365042643 | 1.97    |
| JC65058-7 <sup>c</sup> | 230904696 | 2.16    | 343186897 | 1.96    |
| JC65058-8 <sup>c</sup> | 239522924 | 2.16    | 337808128 | 1.96    |
| JC65058-10             | 242267852 | 2.16    | 348477528 | 1.96    |
| JC65058-11             | 215029112 | 2.16    | 340169932 | 1.96    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) Sample extracted outside the holding time.

12.6.4  
12

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 479965222 | 2.41 | 182221404 | 1.94 |
| Upper Limit <sup>a</sup> | 959930444 | 2.91 | 364442808 | 2.44 |
| Lower Limit <sup>b</sup> | 239982611 | 1.91 | 91110702  | 1.44 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11692-MB2   | 481995372 | 2.41    | 203951101 | 1.94    |
| OP11691-MB2   | 481995372 | 2.41    | 203951101 | 1.94    |
| OP11692-BS2   | 469340055 | 2.41    | 197816829 | 1.94    |
| OP11691-BS2   | 469340055 | 2.41    | 197816829 | 1.94    |
| ZZZZZZ        | 382020906 | 2.40    | 156775136 | 1.93    |
| ZZZZZZ        | 454975323 | 2.41    | 194975288 | 1.94    |
| ZZZZZZ        | 486488094 | 2.41    | 219431537 | 1.94    |
| ZZZZZZ        | 495959112 | 2.41    | 210580583 | 1.94    |
| ZZZZZZ        | 487246380 | 2.41    | 214815023 | 1.94    |
| ZZZZZZ        | 495690256 | 2.40    | 212503068 | 1.93    |
| JC65058-13A   | 480261013 | 2.41    | 209844828 | 1.94    |
| ZZZZZZ        | 490877766 | 2.40    | 208820473 | 1.93    |
| ZZZZZZ        | 482133418 | 2.41    | 205888483 | 1.94    |
| ZZZZZZ        | 472599037 | 2.41    | 201336204 | 1.93    |
| ZZZZZZ        | 481038556 | 2.41    | 205155044 | 1.94    |
| ZZZZZZ        | 453977219 | 2.41    | 206195220 | 1.94    |
| ZZZZZZ        | 457701598 | 2.40    | 196623402 | 1.93    |
| ZZZZZZ        | 465326381 | 2.40    | 208696906 | 1.93    |
| ZZZZZZ        | 446558857 | 2.41    | 192972552 | 1.94    |
| ZZZZZZ        | 476695554 | 2.41    | 209704410 | 1.94    |
| ZZZZZZ        | 493368795 | 2.41    | 232843224 | 1.93    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.5 12

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14804.D  | <b>Injection Time:</b> 22:00    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 500030347 | 2.41 | 196428580 | 1.93 |
| Upper Limit <sup>a</sup> | 100006069 | 2.91 | 392857160 | 2.43 |
| Lower Limit <sup>b</sup> | 250015174 | 1.91 | 98214290  | 1.43 |

| Lab Sample ID | IS 1      |      | IS 2       |      |
|---------------|-----------|------|------------|------|
|               | AREA      | RT   | AREA       | RT   |
| ZZZZZZ        | 447412842 | 2.41 | 200318753  | 1.93 |
| ZZZZZZ        | 468098423 | 2.41 | 204344839  | 1.94 |
| ZZZZZZ        | 855326666 | 2.41 | 1006758379 | 1.97 |
| OP11691-LB32  | 508572888 | 2.41 | 215114093  | 1.94 |
| OP11691-LB34  | 485290740 | 2.40 | 206796033  | 1.93 |
| OP11692-LB28  | 503608409 | 2.41 | 222557457  | 1.94 |
| OP11692-LB29  | 490806865 | 2.41 | 237579864  | 1.94 |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.6  
12

# Internal Standard Area Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |              |                        |             |
|-----------------------|--------------|------------------------|-------------|
| <b>Check Std:</b>     | G8G489-CC480 | <b>Injection Date:</b> | 05/11/18    |
| <b>Lab File ID:</b>   | 8G15027.D    | <b>Injection Time:</b> | 10:17       |
| <b>Instrument ID:</b> | GC8G         | <b>Method:</b>         | SW846 8081B |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 528174890 | 2.40 | 186642140 | 1.93 |
| Upper Limit <sup>a</sup> | 105634978 | 2.90 | 373284280 | 2.43 |
| Lower Limit <sup>b</sup> | 264087445 | 1.90 | 93321070  | 1.43 |

| Lab Sample ID          | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|------------------------|-----------|---------|-----------|---------|
| OP11917-MB1            | 506453758 | 2.40    | 185764114 | 1.93    |
| JC65058-6 <sup>c</sup> | 599072249 | 2.40    | 217912160 | 1.93    |
| ZZZZZZ                 | 463299265 | 2.40    | 168200330 | 1.92    |
| ZZZZZZ                 | 471081897 | 2.40    | 174093993 | 1.93    |
| ZZZZZZ                 | 504641966 | 2.40    | 190814809 | 1.93    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) Sample extracted outside the holding time. Confirmation run.

12.6.7  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> G1G4628-DDT     | <b>Injection Date:</b> 04/25/18 |
| <b>Lab File ID:</b> 1G145465.D | <b>Injection Time:</b> 11:55    |
| <b>Instrument ID:</b> GC1G     |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 19117068          | 3242526           |
| 4,4'-DDE | 17540271          | 2426192           |
| 4,4'-DDT | 1139549834        | 151721138         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 3.1 % | 3.6 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 6205253   | 869695    |
| Endrin ketone   | 16073186  | 1914397   |
| Endrin          | 736751809 | 103748583 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 2.9 % | 2.6 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|-----------------|-------------|---------------|---------------|--------------|------------------------------|
| G1G4628-IC4628  | 1G145467.D  | 04/25/18      | 12:29         | 00:34        | Initial cal 1                |
| G1G4628-IC4628  | 1G145468.D  | 04/25/18      | 12:46         | 00:51        | Initial cal 2                |
| G1G4628-IC4628  | 1G145469.D  | 04/25/18      | 13:04         | 01:09        | Initial cal 5                |
| G1G4628-IC4628  | 1G145470.D  | 04/25/18      | 13:21         | 01:26        | Initial cal 10               |
| G1G4628-ICC4628 | 1G145471.D  | 04/25/18      | 13:38         | 01:44        | Initial cal 25               |
| G1G4628-IC4628  | 1G145472.D  | 04/25/18      | 13:55         | 02:01        | Initial cal 50               |
| G1G4628-IC4628  | 1G145473.D  | 04/25/18      | 14:13         | 02:18        | Initial cal 75               |
| G1G4628-IC4628  | 1G145474.D  | 04/25/18      | 14:30         | 02:35        | Initial cal 100              |
| G1G4628-IC4628  | 1G145475.D  | 04/25/18      | 14:47         | 02:53        | Initial cal 500              |
| G1G4628-IC4628  | 1G145476.D  | 04/25/18      | 15:05         | 03:10        | Initial cal 500              |
| G1G4628-ICV4628 | 1G145478.D  | 04/25/18      | 15:39         | 03:45        | Initial cal verification 500 |
| G1G4628-ICV4628 | 1G145479.D  | 04/25/18      | 15:56         | 04:02        | Initial cal verification 500 |
| G1G4628-ICV4628 | 1G145481.D  | 04/25/18      | 16:31         | 04:36        | Initial cal verification 50  |

12.7.1  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> G1G4635-DDT     | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145797.D | <b>Injection Time:</b> 22:52    |
| <b>Instrument ID:</b> GC1G     |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 15877155          | 3314204           |
| 4,4'-DDE | 11689066          | 2204648           |
| 4,4'-DDT | 1227378374        | 138647107         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 2.2 % | 3.8 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 3469017   | 462488    |
| Endrin ketone   | 5644477   | 786829    |
| Endrin          | 792039893 | 107895683 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.1 % | 1.1 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| G1G4635-CC4628 | 1G145798.D  | 05/01/18      | 23:18         | 00:26        | Continuing cal 50                           |
| OP11667-MB1    | 1G145800.D  | 05/01/18      | 23:54         | 01:02        | Method Blank                                |
| OP11667-BS1    | 1G145801.D  | 05/02/18      | 00:12         | 01:20        | Blank Spike                                 |
| ZZZZZZ         | 1G145802.D  | 05/02/18      | 00:29         | 01:37        | (unrelated sample)                          |
| ZZZZZZ         | 1G145804.D  | 05/02/18      | 01:03         | 02:12        | (unrelated sample)                          |
| ZZZZZZ         | 1G145805.D  | 05/02/18      | 01:20         | 02:29        | (unrelated sample)                          |
| ZZZZZZ         | 1G145806.D  | 05/02/18      | 01:37         | 02:46        | (unrelated sample)                          |
| JC65070-5      | 1G145807.D  | 05/02/18      | 01:55         | 03:04        | (used for QC only; not part of job JC65058) |
| OP11667-MS     | 1G145808.D  | 05/02/18      | 02:12         | 03:21        | Matrix Spike                                |
| OP11667-MSD    | 1G145809.D  | 05/02/18      | 02:30         | 03:39        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 1G145810.D  | 05/02/18      | 02:48         | 03:57        | (unrelated sample)                          |
| ZZZZZZ         | 1G145811.D  | 05/02/18      | 03:06         | 04:14        | (unrelated sample)                          |
| ZZZZZZ         | 1G145812.D  | 05/02/18      | 03:24         | 04:32        | (unrelated sample)                          |
| ZZZZZZ         | 1G145813.D  | 05/02/18      | 03:41         | 04:49        | (unrelated sample)                          |
| ZZZZZZ         | 1G145814.D  | 05/02/18      | 03:59         | 05:07        | (unrelated sample)                          |
| ZZZZZZ         | 1G145815.D  | 05/02/18      | 04:17         | 05:25        | (unrelated sample)                          |
| ZZZZZZ         | 1G145816.D  | 05/02/18      | 04:35         | 05:43        | (unrelated sample)                          |
| G1G4635-CC4628 | 1G145819.D  | 05/02/18      | 05:28         | 06:37        | Continuing cal 25                           |
| ZZZZZZ         | 1G145821.D  | 05/02/18      | 06:04         | 07:12        | (unrelated sample)                          |
| ZZZZZZ         | 1G145822.D  | 05/02/18      | 06:22         | 07:30        | (unrelated sample)                          |
| ZZZZZZ         | 1G145823.D  | 05/02/18      | 06:40         | 07:48        | (unrelated sample)                          |
| JC65058-12     | 1G145824.D  | 05/02/18      | 07:02         | 08:10        | SB-104 (2-5) (9-13)                         |
| JC65058-13     | 1G145825.D  | 05/02/18      | 07:20         | 08:28        | TP-100 (2-6)                                |
| JC65058-15     | 1G145826.D  | 05/02/18      | 07:38         | 08:46        | SB-105 (0-5)                                |

12.7.2 12

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1671-DDT    | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 6G55778.D | <b>Injection Time:</b> 10:46    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound  | Response Signal 1 | Response Signal 2 |
|-----------|-------------------|-------------------|
| 4,4' -DDD | 11318971          | 7536013           |
| 4,4' -DDE | 11688813          | 6661386           |
| 4,4' -DDT | 697113892         | 431734229         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 3.2 % | 3.2 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 0         | 0         |
| Endrin ketone   | 3648777   | 6453656   |
| Endrin          | 397383387 | 243111166 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 0.9 % | 2.6 % |
|-------------------------------|-------|-------|

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|-----------------|-------------|---------------|---------------|--------------|------------------------------|
| G6G1671-IC1671  | 6G55780.D   | 04/30/18      | 11:25         | 00:39        | Initial cal 1                |
| G6G1671-IC1671  | 6G55781.D   | 04/30/18      | 11:43         | 00:57        | Initial cal 2                |
| G6G1671-IC1671  | 6G55782.D   | 04/30/18      | 12:01         | 01:15        | Initial cal 5                |
| G6G1671-IC1671  | 6G55783.D   | 04/30/18      | 12:18         | 01:33        | Initial cal 10               |
| G6G1671-ICC1671 | 6G55784.D   | 04/30/18      | 12:36         | 01:50        | Initial cal 25               |
| G6G1671-IC1671  | 6G55785.D   | 04/30/18      | 12:54         | 02:08        | Initial cal 50               |
| G6G1671-IC1671  | 6G55786.D   | 04/30/18      | 13:12         | 02:26        | Initial cal 75               |
| G6G1671-IC1671  | 6G55787.D   | 04/30/18      | 13:29         | 02:44        | Initial cal 100              |
| G6G1671-IC1671  | 6G55788.D   | 04/30/18      | 13:47         | 03:02        | Initial cal 500              |
| G6G1671-IC1671  | 6G55789.D   | 04/30/18      | 14:05         | 03:19        | Initial cal 500              |
| G6G1671-ICV1671 | 6G55790.D   | 04/30/18      | 14:23         | 03:37        | Initial cal verification 25  |
| G6G1671-ICV1671 | 6G55791.D   | 04/30/18      | 14:41         | 03:55        | Initial cal verification 500 |
| G6G1671-ICV1671 | 6G55792.D   | 04/30/18      | 14:58         | 04:13        | Initial cal verification 500 |
| G6G1671-ICV1671 | 6G55793.D   | 04/30/18      | 15:16         | 04:31        | Initial cal verification 50  |
| G6G1671-ICV1671 | 6G55794.D   | 04/30/18      | 15:34         | 04:48        | Initial cal verification 50  |

12.7.3  
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# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1676-DDT    | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55906.D | <b>Injection Time:</b> 00:53    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 19501761          | 10275885          |
| 4,4'-DDE | 25861452          | 14147167          |
| 4,4'-DDT | 764342428         | 445613900         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 5.6 % | 5.2 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 1261822   | 1133937   |
| Endrin ketone   | 5649469   | 22626534  |
| Endrin          | 465751762 | 268274769 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.5 % | 8.1 % |
|-------------------------------|-------|-------|

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100  
 (b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| G6G1676-CC1671 | 6G55907.D   | 05/03/18      | 01:19         | 00:26        | Continuing cal 50                           |
| OP11693-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11694-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11691-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11692-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11691-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11694-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11692-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11693-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| ZZZZZZ         | 6G55911.D   | 05/03/18      | 02:30         | 01:37        | (unrelated sample)                          |
| JC64929-3      | 6G55912.D   | 05/03/18      | 02:48         | 01:55        | (used for QC only; not part of job JC65058) |
| OP11691-LS7    | 6G55913.D   | 05/03/18      | 03:06         | 02:13        | Leachate Spike                              |
| OP11691-MS     | 6G55913.D   | 05/03/18      | 03:06         | 02:13        | Matrix Spike                                |
| OP11691-MSD    | 6G55914.D   | 05/03/18      | 03:24         | 02:31        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 6G55915.D   | 05/03/18      | 03:42         | 02:49        | (unrelated sample)                          |
| ZZZZZZ         | 6G55916.D   | 05/03/18      | 04:00         | 03:07        | (unrelated sample)                          |
| ZZZZZZ         | 6G55917.D   | 05/03/18      | 04:17         | 03:25        | (unrelated sample)                          |
| ZZZZZZ         | 6G55918.D   | 05/03/18      | 04:35         | 03:42        | (unrelated sample)                          |
| ZZZZZZ         | 6G55919.D   | 05/03/18      | 04:53         | 04:00        | (unrelated sample)                          |
| ZZZZZZ         | 6G55920.D   | 05/03/18      | 05:11         | 04:18        | (unrelated sample)                          |
| ZZZZZZ         | 6G55921.D   | 05/03/18      | 05:29         | 04:36        | (unrelated sample)                          |
| JC65070-1A     | 6G55922.D   | 05/03/18      | 05:47         | 04:54        | (used for QC only; not part of job JC65058) |
| OP11692-MS     | 6G55923.D   | 05/03/18      | 06:04         | 05:12        | Matrix Spike                                |
| OP11692-LS9    | 6G55923.D   | 05/03/18      | 06:04         | 05:12        | Leachate Spike                              |

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# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1676-DDT    | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55906.D | <b>Injection Time:</b> 00:53    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| OP11692-MSD    | 6G55924.D   | 05/03/18      | 06:22         | 05:29        | Matrix Spike Duplicate                      |
| OP11691-LB17   | 6G55925.D   | 05/03/18      | 06:40         | 05:47        | Leachate Blank                              |
| OP11692-LB25   | 6G55926.D   | 05/03/18      | 06:58         | 06:05        | Leachate Blank                              |
| OP11694-LB26   | 6G55927.D   | 05/03/18      | 07:16         | 06:23        | Leachate Blank                              |
| OP11692-LB26   | 6G55927.D   | 05/03/18      | 07:16         | 06:23        | Leachate Blank                              |
| G6G1676-CC1671 | 6G55928.D   | 05/03/18      | 07:33         | 06:41        | Continuing cal 25                           |
| ZZZZZZ         | 6G55930.D   | 05/03/18      | 08:09         | 07:16        | (unrelated sample)                          |
| ZZZZZZ         | 6G55931.D   | 05/03/18      | 08:27         | 07:34        | (unrelated sample)                          |
| ZZZZZZ         | 6G55932.D   | 05/03/18      | 08:45         | 07:52        | (unrelated sample)                          |
| ZZZZZZ         | 6G55933.D   | 05/03/18      | 09:03         | 08:10        | (unrelated sample)                          |
| ZZZZZZ         | 6G55934.D   | 05/03/18      | 09:20         | 08:28        | (unrelated sample)                          |
| ZZZZZZ         | 6G55935.D   | 05/03/18      | 09:38         | 08:45        | (unrelated sample)                          |
| ZZZZZZ         | 6G55936.D   | 05/03/18      | 09:56         | 09:03        | (unrelated sample)                          |
| TD20224-1      | 6G55938.D   | 05/03/18      | 10:32         | 09:39        | (used for QC only; not part of job JC65058) |
| OP11694-LS10   | 6G55939.D   | 05/03/18      | 10:50         | 09:57        | Leachate Spike                              |
| OP11694-MS     | 6G55939.D   | 05/03/18      | 10:50         | 09:57        | Matrix Spike                                |
| OP11694-MSD    | 6G55940.D   | 05/03/18      | 11:07         | 10:14        | Matrix Spike Duplicate                      |
| JC64994-1      | 6G55941.D   | 05/03/18      | 11:25         | 10:32        | (used for QC only; not part of job JC65058) |
| OP11693-LS8    | 6G55942.D   | 05/03/18      | 11:43         | 10:50        | Leachate Spike                              |
| OP11693-MS     | 6G55942.D   | 05/03/18      | 11:43         | 10:50        | Matrix Spike                                |
| OP11693-MSD    | 6G55943.D   | 05/03/18      | 12:01         | 11:08        | Matrix Spike Duplicate                      |

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# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1681-DDT    | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 6G56089.D | <b>Injection Time:</b> 23:49    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 14106219          | 9254256           |
| 4,4'-DDE | 22511619          | 15337332          |
| 4,4'-DDT | 743151397         | 512081219         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 4.7 % | 4.6 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 1218062   | 1015917   |
| Endrin ketone   | 3524988   | 6137947   |
| Endrin          | 443065879 | 299430681 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.1 % | 2.3 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|----------------|-------------|---------------|---------------|--------------|------------------------|
| G6G1681-CC1671 | 6G56090.D   | 05/11/18      | 00:11         | 00:22        | Continuing cal 25      |
| OP11917-MB1    | 6G56092.D   | 05/11/18      | 00:46         | 00:57        | Method Blank           |
| OP11917-BS1    | 6G56093.D   | 05/11/18      | 01:04         | 01:15        | Blank Spike            |
| JC65058-5      | 6G56094.D   | 05/11/18      | 01:22         | 01:33        | SB-104 (13-17)         |
| OP11917-MS     | 6G56095.D   | 05/11/18      | 01:40         | 01:51        | Matrix Spike           |
| OP11917-MSD    | 6G56096.D   | 05/11/18      | 01:58         | 02:09        | Matrix Spike Duplicate |
| JC65058-6      | 6G56097.D   | 05/11/18      | 02:16         | 02:27        | SB-104 (5-9)           |
| JC65058-7      | 6G56098.D   | 05/11/18      | 02:34         | 02:44        | TP-100 (6-8)           |
| JC65058-8      | 6G56099.D   | 05/11/18      | 02:51         | 03:02        | TP-100 (8-10)          |
| JC65058-10     | 6G56100.D   | 05/11/18      | 03:09         | 03:20        | TP-100 (2-6)           |
| JC65058-11     | 6G56101.D   | 05/11/18      | 03:27         | 03:38        | SB-105 (8-15)          |

12.7.5  
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# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G480-DDT     | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 8G14660.D | <b>Injection Time:</b> 09:37    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound  | Response Signal 1 | Response Signal 2 |
|-----------|-------------------|-------------------|
| 4,4' -DDD | 4702652           | 13246895          |
| 4,4' -DDE | 7581019           | 16295442          |
| 4,4' -DDT | 335444140         | 753169405         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 3.5 % | 3.8 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 411333    | 1087433   |
| Endrin ketone   | 1067617   | 7308080   |
| Endrin          | 181761143 | 422980109 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 0.8 % | 1.9 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|---------------|-------------|---------------|---------------|--------------|------------------------------|
| G8G480-IC480  | 8G14662.D   | 05/01/18      | 10:14         | 00:37        | Initial cal 1                |
| G8G480-IC480  | 8G14663.D   | 05/01/18      | 10:30         | 00:53        | Initial cal 2                |
| G8G480-IC480  | 8G14664.D   | 05/01/18      | 10:46         | 01:09        | Initial cal 5                |
| G8G480-IC480  | 8G14665.D   | 05/01/18      | 11:02         | 01:25        | Initial cal 10               |
| G8G480-ICC480 | 8G14666.D   | 05/01/18      | 11:19         | 01:42        | Initial cal 25               |
| G8G480-IC480  | 8G14667.D   | 05/01/18      | 11:35         | 01:58        | Initial cal 50               |
| G8G480-IC480  | 8G14668.D   | 05/01/18      | 11:51         | 02:14        | Initial cal 75               |
| G8G480-IC480  | 8G14669.D   | 05/01/18      | 12:08         | 02:31        | Initial cal 100              |
| G8G480-IC480  | 8G14670.D   | 05/01/18      | 12:24         | 02:47        | Initial cal 500              |
| G8G480-IC480  | 8G14671.D   | 05/01/18      | 12:40         | 03:03        | Initial cal 500              |
| G8G480-ICV480 | 8G14672.D   | 05/01/18      | 12:56         | 03:19        | Initial cal verification 25  |
| G8G480-ICV480 | 8G14673.D   | 05/01/18      | 13:13         | 03:36        | Initial cal verification 500 |
| G8G480-ICV480 | 8G14674.D   | 05/01/18      | 13:29         | 03:52        | Initial cal verification 500 |
| G8G480-ICV480 | 8G14675.D   | 05/01/18      | 13:45         | 04:08        | Initial cal verification 50  |
| G8G480-ICV480 | 8G14676.D   | 05/01/18      | 14:02         | 04:25        | Initial cal verification 50  |

12.7.6  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G483-DDT     | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14782.D | <b>Injection Time:</b> 16:03    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound  | Response Signal 1 | Response Signal 2 |
|-----------|-------------------|-------------------|
| 4,4' -DDD | 3980127           | 12929725          |
| 4,4' -DDE | 4605022           | 10679824          |
| 4,4' -DDT | 380537657         | 951244790         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 2.2 % | 2.4 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 702529    | 1970799   |
| Endrin ketone   | 1259622   | 3003672   |
| Endrin          | 204225219 | 456925916 |

|                               |     |       |
|-------------------------------|-----|-------|
| Endrin Breakdown <sup>b</sup> | 1 % | 1.1 % |
|-------------------------------|-----|-------|

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| G8G483-CC480  | 8G14783.D   | 05/03/18      | 16:19         | 00:16        | Continuing cal 50  |
| OP11691-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 00:48        | Method Blank       |
| OP11692-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 00:48        | Method Blank       |
| OP11691-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 01:05        | Blank Spike        |
| OP11692-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 01:05        | Blank Spike        |
| ZZZZZZ        | 8G14787.D   | 05/03/18      | 17:24         | 01:21        | (unrelated sample) |
| ZZZZZZ        | 8G14788.D   | 05/03/18      | 17:40         | 01:37        | (unrelated sample) |
| ZZZZZZ        | 8G14789.D   | 05/03/18      | 17:56         | 01:53        | (unrelated sample) |
| ZZZZZZ        | 8G14790.D   | 05/03/18      | 18:13         | 02:10        | (unrelated sample) |
| ZZZZZZ        | 8G14791.D   | 05/03/18      | 18:29         | 02:26        | (unrelated sample) |
| ZZZZZZ        | 8G14792.D   | 05/03/18      | 18:45         | 02:42        | (unrelated sample) |
| JC65058-13A   | 8G14793.D   | 05/03/18      | 19:01         | 02:58        | TP-100 (2-6)       |
| ZZZZZZ        | 8G14794.D   | 05/03/18      | 19:18         | 03:15        | (unrelated sample) |
| ZZZZZZ        | 8G14795.D   | 05/03/18      | 19:34         | 03:31        | (unrelated sample) |
| ZZZZZZ        | 8G14796.D   | 05/03/18      | 19:50         | 03:47        | (unrelated sample) |
| ZZZZZZ        | 8G14797.D   | 05/03/18      | 20:07         | 04:04        | (unrelated sample) |
| ZZZZZZ        | 8G14798.D   | 05/03/18      | 20:23         | 04:20        | (unrelated sample) |
| ZZZZZZ        | 8G14799.D   | 05/03/18      | 20:39         | 04:36        | (unrelated sample) |
| ZZZZZZ        | 8G14800.D   | 05/03/18      | 20:55         | 04:52        | (unrelated sample) |
| ZZZZZZ        | 8G14801.D   | 05/03/18      | 21:12         | 05:09        | (unrelated sample) |
| ZZZZZZ        | 8G14802.D   | 05/03/18      | 21:28         | 05:25        | (unrelated sample) |
| ZZZZZZ        | 8G14803.D   | 05/03/18      | 21:44         | 05:41        | (unrelated sample) |
| G8G483-CC480  | 8G14804.D   | 05/03/18      | 22:00         | 05:57        | Continuing cal 25  |
| ZZZZZZ        | 8G14806.D   | 05/03/18      | 22:33         | 06:30        | (unrelated sample) |

12.7.7  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G483-DDT     | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14782.D | <b>Injection Time:</b> 16:03    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | 8G14807.D   | 05/03/18      | 22:49         | 06:46        | (unrelated sample) |
| ZZZZZZ        | 8G14808.D   | 05/03/18      | 23:06         | 07:03        | (unrelated sample) |
| OP11691-LB32  | 8G14809.D   | 05/03/18      | 23:22         | 07:19        | Leachate Blank     |
| OP11691-LB34  | 8G14810.D   | 05/03/18      | 23:38         | 07:35        | Leachate Blank     |
| OP11692-LB28  | 8G14811.D   | 05/03/18      | 23:54         | 07:51        | Leachate Blank     |
| OP11692-LB29  | 8G14812.D   | 05/04/18      | 00:11         | 08:08        | Leachate Blank     |

# DDT/Endrin Breakdown Check

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G489-DDT     | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15026.D | <b>Injection Time:</b> 10:01    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound  | Response Signal 1 | Response Signal 2 |
|-----------|-------------------|-------------------|
| 4,4' -DDD | 14818967          | 49085740          |
| 4,4' -DDE | 11226316          | 56213180          |
| 4,4' -DDT | 280928946         | 800316821         |

|                            |       |        |
|----------------------------|-------|--------|
| DDT Breakdown <sup>a</sup> | 8.5 % | 11.6 % |
|----------------------------|-------|--------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 515197    | 2597821   |
| Endrin ketone   | 3019733   | 1824181   |
| Endrin          | 193731494 | 546283814 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.8 % | 0.8 % |
|-------------------------------|-------|-------|

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100

(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| G8G489-CC480  | 8G15027.D   | 05/11/18      | 10:17         | 00:16        | Continuing cal 50  |
| OP11917-MB1   | 8G15031.D   | 05/11/18      | 11:41         | 01:40        | Method Blank       |
| JC65058-6     | 8G15032.D   | 05/11/18      | 11:58         | 01:57        | SB-104 (5-9)       |
| ZZZZZZ        | 8G15033.D   | 05/11/18      | 12:14         | 02:13        | (unrelated sample) |
| ZZZZZZ        | 8G15034.D   | 05/11/18      | 12:30         | 02:29        | (unrelated sample) |
| ZZZZZZ        | 8G15035.D   | 05/11/18      | 12:47         | 02:46        | (unrelated sample) |

12.7.8 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4567-CC4559 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> OA133295.D   | <b>Injection Time:</b> 13:10    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Sample ID:</b> JC65058-5      | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> OA133301.D   | <b>Injection Time:</b> 16:06    |
| <b>Client ID:</b> SB-104 (13-17) |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| Pentachlorophenol | 1              | 9.17  | 9.17  | 3.2  |   | ug/kg | 16.9        |
| Pentachlorophenol | 2 <sup>a</sup> | 11.18 | 11.22 | 2.7  |   | ug/kg |             |

(a) Final result reported from this column.

12.8.1  
12



# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4568-CC4559 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133319.D   | <b>Injection Time:</b> 08:55    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Sample ID:</b> JC65058-11    | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133326.D  | <b>Injection Time:</b> 12:24    |
| <b>Client ID:</b> SB-105 (8-15) |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| Pentachlorophenol | 1              | 9.17  | 9.17  | 22.7 |   | ug/kg | 5.4         |
| Pentachlorophenol | 2 <sup>a</sup> | 11.18 | 11.22 | 21.5 |   | ug/kg |             |

(a) Final result reported from this column.

12.8.2  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4576-CC4559 | <b>Injection Date:</b> 05/24/18 |
| <b>Lab File ID:</b> OA133515.D   | <b>Injection Time:</b> 11:22    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

|                                       |                                 |
|---------------------------------------|---------------------------------|
| <b>Sample ID:</b> JC65058-12          | <b>Injection Date:</b> 05/24/18 |
| <b>Lab File ID:</b> OA133517.D        | <b>Injection Time:</b> 12:42    |
| <b>Client ID:</b> SB-104 (2-5) (9-13) |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| Pentachlorophenol | 1              | 9.19  | 9.17  | 21.7 |   | ug/kg | 12.2        |
| Pentachlorophenol | 2 <sup>a</sup> | 11.19 | 11.22 | 19.2 |   | ug/kg |             |

(a) Final result reported from this column.

12.8.3  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4035-CC4020 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 3G116239.D   | <b>Injection Time:</b> 23:25    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> JC65058-15   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116241.D | <b>Injection Time:</b> 00:22    |
| <b>Client ID:</b> SB-105 (0-5) |                                 |

| Compound          | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|------|-------|------|---|-------|-------------|
| Pentachlorophenol | 1              | 9.08 | 9.08  | 2.4  |   | ug/kg | 4.3         |
| Pentachlorophenol | 2 <sup>a</sup> | 9.94 | 9.94  | 2.3  |   | ug/kg |             |

(a) Final result reported from this column.

12.8.4  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4034-CC4020 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116197.D   | <b>Injection Time:</b> 19:06    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11676-BS1  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116200.D | <b>Injection Time:</b> 20:31    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound                       | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D                          | 1              | 8.83  | 8.84  | 57.6 |   | ug/kg | 7.6         |
| 2,4-D                          | 2 <sup>a</sup> | 9.48  | 9.49  | 53.4 |   | ug/kg |             |
| 2,4,5-TP (Silvex)              | 1              | 9.90  | 9.91  | 15.5 |   | ug/kg | 16.8        |
| 2,4,5-TP (Silvex)              | 2 <sup>a</sup> | 10.56 | 10.57 | 13.1 |   | ug/kg |             |
| 2,4,5-T                        | 1              | 10.27 | 10.29 | 11.2 |   | ug/kg | 6.5         |
| 2,4,5-T                        | 2 <sup>a</sup> | 11.11 | 11.12 | 10.5 |   | ug/kg |             |
| Dalapon                        | 1              | 2.48  | 2.47  | 7.9  |   | ug/kg | 0.0         |
| Dalapon                        | 2 <sup>a</sup> | 2.45  | 2.45  | 7.9  |   | ug/kg |             |
| Dicamba                        | 1              | 7.66  | 7.65  | 12.7 |   | ug/kg | 16.2        |
| Dicamba                        | 2 <sup>a</sup> | 8.15  | 8.15  | 10.8 |   | ug/kg |             |
| Dichloroprop                   | 1              | 8.54  | 8.54  | 66.7 |   | ug/kg | 13.0        |
| Dichloroprop <sup>b</sup>      | 2 <sup>a</sup> | 9.05  | 9.05  | 76.0 |   | ug/kg |             |
| Dinoseb                        | 1              | 12.41 | 12.41 | 56.1 |   | ug/kg | 70.7        |
| Dinoseb                        | 2 <sup>a</sup> | 12.21 | 12.22 | 26.8 |   | ug/kg |             |
| MCPA                           | 1 <sup>a</sup> | 8.09  | 8.09  | 2660 |   | ug/kg | 12.0        |
| MCPA                           | 2              | 8.61  | 8.61  | 3000 |   | ug/kg |             |
| MCPP                           | 1 <sup>a</sup> | 7.91  | 7.91  | 3180 |   | ug/kg | 9.6         |
| MCPP                           | 2              | 8.31  | 8.30  | 3500 |   | ug/kg |             |
| Pentachlorophenol              | 1              | 9.08  | 9.08  | 3.6  |   | ug/kg | 5.4         |
| Pentachlorophenol <sup>b</sup> | 2 <sup>a</sup> | 9.94  | 9.95  | 3.8  |   | ug/kg |             |
| 2,4-DB                         | 1              | 10.99 | 11.02 | 69.7 |   | ug/kg | 12.2        |
| 2,4-DB                         | 2 <sup>a</sup> | 11.83 | 11.84 | 61.7 |   | ug/kg |             |

(a) QC results reported from this column.

(b) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

12.8.5  
12

## GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116290.D   | <b>Injection Time:</b> 15:51    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11688-BS2  | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116293.D | <b>Injection Time:</b> 17:39    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1              | 8.82  | 8.81  | 16.6 |   | ug/1  | 1.2         |
| 2,4-D             | 2 <sup>a</sup> | 9.47  | 9.45  | 16.4 |   | ug/1  |             |
| 2,4,5-TP (Silvex) | 1              | 9.89  | 9.89  | 3.4  |   | ug/1  | 15.9        |
| 2,4,5-TP (Silvex) | 2 <sup>a</sup> | 10.55 | 10.54 | 2.9  |   | ug/1  |             |

(a) QC results reported from this column.

12.8.6  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4043-CC4020 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> 3G116432.D   | <b>Injection Time:</b> 08:54    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11920-BS1  | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> 3G116434.D | <b>Injection Time:</b> 09:53    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D               | 1              | 8.80  | 8.84  | 199  | E | ug/kg | 36.2        |
| 2,4-D               | 2 <sup>a</sup> | 9.46  | 9.48  | 138  |   | ug/kg |             |
| 2,4,5-TP (Silvex)   | 1              | 9.89  | 9.91  | 26.7 |   | ug/kg | 1.5         |
| 2,4,5-TP (Silvex)   | 2 <sup>a</sup> | 10.55 | 10.57 | 26.3 |   | ug/kg |             |
| 2,4,5-T             | 1 <sup>a</sup> | 10.25 | 10.28 | 22.8 |   | ug/kg | 36.0        |
| 2,4,5-T             | 2              | 11.10 | 11.11 | 32.8 | E | ug/kg |             |
| Dalapon             | 1 <sup>a</sup> | 2.47  | 2.47  | 22.4 |   | ug/kg | 10.6        |
| Dalapon             | 2              | 2.44  | 2.44  | 24.9 |   | ug/kg |             |
| Dicamba             | 1              | 7.65  | 7.65  | 30.0 |   | ug/kg | 18.6        |
| Dicamba             | 2 <sup>a</sup> | 8.14  | 8.14  | 24.9 |   | ug/kg |             |
| Dichloroprop        | 1 <sup>a</sup> | 8.53  | 8.54  | 119  |   | ug/kg | 98.1        |
| Dichloroprop        | 2              | 9.03  | 9.05  | 348  | E | ug/kg |             |
| Dinoseb             | 1              | 12.40 | 12.41 | 119  |   | ug/kg | 71.5        |
| Dinoseb             | 2 <sup>a</sup> | 12.20 | 12.21 | 56.3 |   | ug/kg |             |
| MCPA                | 1 <sup>a</sup> | 8.08  | 8.09  | 5710 |   | ug/kg | 31.6        |
| MCPA                | 2              | 8.60  | 8.61  | 7850 | E | ug/kg |             |
| MCPP                | 1              | 7.91  | 7.91  | 9450 | E | ug/kg | 13.8        |
| MCPP                | 2 <sup>a</sup> | 8.30  | 8.30  | 8230 | E | ug/kg |             |
| Pentachlorophenol   | 1 <sup>a</sup> | 9.07  | 9.08  | 8.8  |   | ug/kg | 2.2         |
| Pentachlorophenol   | 2              | 9.94  | 9.94  | 9.0  |   | ug/kg |             |
| 2,4-DB              | 1              | 10.98 | 11.00 | 109  |   | ug/kg | 17.6        |
| 2,4-DB <sup>b</sup> | 2 <sup>a</sup> | 11.81 | 11.83 | 130  |   | ug/kg |             |

(a) QC results reported from this column.

(b) Reported from the 2nd signal. The %D of the CCV on the 1st signal exceeds the method criteria of 20%, so it being used for confirmation only.

12.8.7  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4034-CC4020 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116197.D   | <b>Injection Time:</b> 19:06    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11676-MS   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116205.D | <b>Injection Time:</b> 22:54    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.90  | 9.91  | 3.7  |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 2              | 10.57 | 10.57 | ND   |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.48  | 2.47  | 4.0  |   | ug/kg | 10.5        |
| Dalapon           | 2              | 2.45  | 2.45  | 3.6  |   | ug/kg |             |
| Dinoseb           | 1 <sup>a</sup> | 12.41 | 12.41 | 99.4 |   | ug/kg | 1.6         |
| Dinoseb           | 2              | 12.21 | 12.22 | 101  |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.08  | 9.08  | 7.4  |   | ug/kg | 9.0         |
| Pentachlorophenol | 2              | 9.95  | 9.95  | 8.1  |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 11.01 | 11.02 | 10.7 | J | ug/kg |             |
| 2,4-DB            | 2              | 11.84 | 11.84 | ND   |   | ug/kg |             |

(a) QC results reported from this column.

12.8.8  
12

## GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11688-MS   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116270.D | <b>Injection Time:</b> 19:53    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.81  | 8.85  | 12.5 |   | ug/l  | 27.6        |
| 2,4-D             | 2              | 9.46  | 9.49  | 16.5 |   | ug/l  |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.88  | 9.91  | 3.0  |   | ug/l  | 9.5         |
| 2,4,5-TP (Silvex) | 2              | 10.55 | 10.57 | 3.3  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.9  
12



# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4568-CC4559 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133319.D   | <b>Injection Time:</b> 08:55    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11920-MS   | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133327.D | <b>Injection Time:</b> 12:53    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.87  | 8.89  | 64.5 |   | ug/kg | 1.9         |
| 2,4-D             | 2              | 10.56 | 10.57 | 63.3 |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 10.18 | 10.19 | 22.0 |   | ug/kg | 14.6        |
| 2,4,5-TP (Silvex) | 2              | 12.08 | 12.09 | 19.0 |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.63 | 10.65 | 13.5 |   | ug/kg | 0.7         |
| 2,4,5-T           | 2              | 12.86 | 12.87 | 13.6 |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.35  | 2.35  | 13.4 |   | ug/kg | 1.5         |
| Dalapon           | 2              | 2.66  | 2.66  | 13.6 |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.56  | 7.56  | 17.2 |   | ug/kg | 11.7        |
| Dicamba           | 2              | 8.83  | 8.83  | 15.3 |   | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.55  | 8.56  | 87.2 |   | ug/kg | 7.0         |
| Dichloroprop      | 2              | 9.99  | 10.00 | 81.3 |   | ug/kg |             |
| MCPA              | 1 <sup>a</sup> | 8.03  | 8.04  | 3830 |   | ug/kg | 21.7        |
| MCPA              | 2              | 9.41  | 9.42  | 3080 |   | ug/kg |             |
| MCPP              | 1 <sup>a</sup> | 7.84  | 7.84  | 7820 |   | ug/kg | 54.7        |
| MCPP              | 2              | 9.02  | 9.02  | 4460 |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.16  | 9.17  | 6.9  |   | ug/kg | 19.0        |
| Pentachlorophenol | 2              | 11.21 | 11.22 | 5.7  |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 11.60 | 11.61 | 80.0 |   | ug/kg | 22.8        |
| 2,4-DB            | 2              | 13.91 | 13.92 | 63.6 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.10 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4034-CC4020 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116197.D   | <b>Injection Time:</b> 19:06    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11676-MSD            | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116206.D           | <b>Injection Time:</b> 23:22    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.84  | 8.84  | 13.6 | J | ug/kg | 7.6         |
| 2,4-D             | 2              | 9.49  | 9.49  | 12.6 | J | ug/kg |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.90  | 9.91  | 9.6  |   | ug/kg | 34.1        |
| 2,4,5-TP (Silvex) | 2              | 10.57 | 10.57 | 6.8  |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.28 | 10.29 | 3.4  | J | ug/kg | 19.4        |
| 2,4,5-T           | 2              | 11.12 | 11.12 | 2.8  | J | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.48  | 2.47  | 9.5  |   | ug/kg | 9.9         |
| Dalapon           | 2              | 2.45  | 2.45  | 8.6  |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.66  | 7.65  | 6.2  |   | ug/kg | 27.5        |
| Dicamba           | 2              | 8.15  | 8.15  | 4.7  |   | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.55  | 8.54  | 31.1 |   | ug/kg | 4.9         |
| Dichloroprop      | 2              | 9.05  | 9.05  | 29.6 |   | ug/kg |             |
| Dinoseb           | 1 <sup>a</sup> | 12.41 | 12.41 | 85.4 |   | ug/kg | 5.2         |
| Dinoseb           | 2              | 12.21 | 12.22 | 81.1 |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.08  | 9.08  | 8.2  |   | ug/kg | 4.8         |
| Pentachlorophenol | 2              | 9.95  | 9.95  | 8.6  |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 11.01 | 11.02 | 10.9 | J | ug/kg | 14.5        |
| 2,4-DB            | 2              | 11.84 | 11.84 | 12.6 | J | ug/kg |             |

(a) QC results reported from this column.

12.8.11  
12

## GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11688-MSD            | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116271.D           | <b>Injection Time:</b> 20:22    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.81  | 8.85  | 11.4 |   | ug/l  | 25.3        |
| 2,4-D             | 2              | 9.46  | 9.49  | 14.7 |   | ug/l  |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.88  | 9.91  | 2.7  |   | ug/l  | 7.1         |
| 2,4,5-TP (Silvex) | 2              | 10.55 | 10.57 | 2.9  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.12  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4568-CC4559 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133319.D   | <b>Injection Time:</b> 08:55    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11920-MSD            | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133329.D           | <b>Injection Time:</b> 14:01    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.89  | 8.89  | 24.7 |   | ug/kg | 5.8         |
| 2,4-D             | 2              | 10.57 | 10.57 | 23.3 |   | ug/kg |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 10.19 | 10.19 | 6.0  |   | ug/kg | 12.5        |
| 2,4,5-TP (Silvex) | 2              | 12.08 | 12.09 | 6.8  |   | ug/kg |             |
| 2,4,5-T           | 1 <sup>a</sup> | 10.65 | 10.65 | 4.5  |   | ug/kg | 2.2         |
| 2,4,5-T           | 2              | 12.86 | 12.87 | 4.6  |   | ug/kg |             |
| Dalapon           | 1 <sup>a</sup> | 2.35  | 2.35  | 6.8  |   | ug/kg | 91.6        |
| Dalapon           | 2              | 2.66  | 2.66  | 18.3 |   | ug/kg |             |
| Dicamba           | 1 <sup>a</sup> | 7.57  | 7.56  | 5.9  |   | ug/kg | 90.2        |
| Dicamba           | 2              | 8.82  | 8.83  | 15.6 |   | ug/kg |             |
| Dichloroprop      | 1 <sup>a</sup> | 8.57  | 8.56  | 20.4 |   | ug/kg | 37.1        |
| Dichloroprop      | 2              | 10.00 | 10.00 | 29.7 |   | ug/kg |             |
| MCPA              | 1 <sup>a</sup> | 8.04  | 8.04  | 1610 | J | ug/kg |             |
| MCPA <sup>b</sup> | 2              | 9.42  | 9.42  | ND   |   | ug/kg |             |
| MCPP              | 1 <sup>a</sup> | 7.85  | 7.84  | 2030 |   | ug/kg |             |
| MCPP <sup>b</sup> | 2              | 9.02  | 9.02  | ND   |   | ug/kg |             |
| Pentachlorophenol | 1 <sup>a</sup> | 9.17  | 9.17  | 1.9  |   | ug/kg | 5.4         |
| Pentachlorophenol | 2              | 11.21 | 11.22 | 1.8  |   | ug/kg |             |
| 2,4-DB            | 1 <sup>a</sup> | 11.61 | 11.61 | 48.4 |   | ug/kg | 108.3       |
| 2,4-DB            | 2              | 13.91 | 13.92 | 14.4 | J | ug/kg |             |

(a) QC results reported from this column.

(b) Outside the QC limits.

12.8.13  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11667-BS1  | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 1G145801.D | <b>Injection Time:</b> 00:12    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound              | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-----------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin                | 1              | 4.12  | 4.13  | 18.1 |   | ug/kg | 25.5        |
| Aldrin                | 2 <sup>a</sup> | 5.34  | 5.34  | 14.0 |   | ug/kg |             |
| alpha-BHC             | 1              | 3.00  | 3.01  | 18.5 |   | ug/kg | 39.5        |
| alpha-BHC             | 2 <sup>a</sup> | 3.82  | 3.81  | 12.4 |   | ug/kg |             |
| beta-BHC <sup>b</sup> | 1 <sup>a</sup> | 3.38  | 3.38  | 18.6 |   | ug/kg | 36.2        |
| beta-BHC <sup>b</sup> | 2              | 4.35  | 4.35  | 12.9 |   | ug/kg |             |
| delta-BHC             | 1              | 3.57  | 3.57  | 16.5 |   | ug/kg | 22.2        |
| delta-BHC             | 2 <sup>a</sup> | 4.77  | 4.77  | 13.2 |   | ug/kg |             |
| gamma-BHC (Lindane)   | 1              | 3.29  | 3.30  | 16.9 |   | ug/kg | 16.7        |
| gamma-BHC (Lindane)   | 2 <sup>a</sup> | 4.27  | 4.26  | 14.3 |   | ug/kg |             |
| alpha-Chlordane       | 1              | 5.16  | 5.17  | 16.5 |   | ug/kg | 17.8        |
| alpha-Chlordane       | 2 <sup>a</sup> | 6.71  | 6.71  | 13.8 |   | ug/kg |             |
| gamma-Chlordane       | 1              | 5.00  | 5.00  | 14.2 |   | ug/kg | 4.3         |
| gamma-Chlordane       | 2 <sup>a</sup> | 6.48  | 6.48  | 13.6 |   | ug/kg |             |
| Dieldrin              | 1 <sup>a</sup> | 5.66  | 5.67  | 17.4 |   | ug/kg | 5.0         |
| Dieldrin              | 2              | 7.26  | 7.26  | 18.3 |   | ug/kg |             |
| 4,4'-DDD              | 1              | 6.13  | 6.14  | 23.2 |   | ug/kg | 52.2        |
| 4,4'-DDD              | 2 <sup>a</sup> | 7.94  | 7.94  | 13.6 |   | ug/kg |             |
| 4,4'-DDE              | 1              | 5.28  | 5.29  | 16.5 |   | ug/kg | 9.5         |
| 4,4'-DDE              | 2 <sup>a</sup> | 6.96  | 6.96  | 15.0 |   | ug/kg |             |
| 4,4'-DDT              | 1              | 6.53  | 6.54  | 20.2 |   | ug/kg | 27.6        |
| 4,4'-DDT              | 2 <sup>a</sup> | 8.48  | 8.48  | 15.3 |   | ug/kg |             |
| Endrin                | 1              | 5.99  | 6.00  | 23.2 |   | ug/kg | 46.2        |
| Endrin                | 2 <sup>a</sup> | 7.78  | 7.78  | 14.5 |   | ug/kg |             |
| Endosulfan sulfate    | 1              | 7.62  | 7.63  | 19.9 |   | ug/kg | 30.7        |
| Endosulfan sulfate    | 2 <sup>a</sup> | 9.19  | 9.19  | 14.6 |   | ug/kg |             |
| Endrin aldehyde       | 1              | 6.94  | 6.95  | 19.4 |   | ug/kg | 30.3        |
| Endrin aldehyde       | 2 <sup>a</sup> | 8.72  | 8.72  | 14.3 |   | ug/kg |             |
| Endosulfan-I          | 1              | 5.34  | 5.35  | 16.4 |   | ug/kg | 16.5        |
| Endosulfan-I          | 2 <sup>a</sup> | 6.82  | 6.82  | 13.9 |   | ug/kg |             |
| Endosulfan-II         | 1              | 6.32  | 6.33  | 19.6 |   | ug/kg | 36.1        |
| Endosulfan-II         | 2 <sup>a</sup> | 8.14  | 8.14  | 13.6 |   | ug/kg |             |
| Heptachlor            | 1              | 3.79  | 3.79  | 16.7 |   | ug/kg | 21.9        |
| Heptachlor            | 2 <sup>a</sup> | 4.87  | 4.86  | 13.4 |   | ug/kg |             |
| Heptachlor epoxide    | 1              | 4.83  | 4.84  | 15.9 |   | ug/kg | 17.1        |
| Heptachlor epoxide    | 2 <sup>a</sup> | 6.19  | 6.18  | 13.4 |   | ug/kg |             |
| Methoxychlor          | 1              | 7.33  | 7.33  | 18.8 |   | ug/kg | 30.0        |
| Methoxychlor          | 2 <sup>a</sup> | 9.68  | 9.68  | 13.9 |   | ug/kg |             |
| Endrin ketone         | 1              | 8.07  | 8.08  | 18.3 |   | ug/kg | 23.2        |
| Endrin ketone         | 2 <sup>a</sup> | 10.04 | 10.04 | 14.5 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.14 12

## GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11667-BS1  | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 1G145801.D | <b>Injection Time:</b> 00:12    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound | Column | RT | StdRT | Conc | Q | Units | RPD<br>Conc |
|----------|--------|----|-------|------|---|-------|-------------|
|----------|--------|----|-------|------|---|-------|-------------|

(b) Reported from the 1st signal. The %D of the CCV on the 2nd signal exceeds the method criteria of 20%, so it being used for confirmation only.

12.8.14  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11692-BS2 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14786.D | <b>Injection Time:</b> 17:08    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.60  | 3.60  | 1.7  |   | ug/l  | 0.0         |
| gamma-BHC (Lindane) | 2              | 4.77  | 4.77  | 1.7  |   | ug/l  |             |
| Endrin              | 1              | 6.64  | 6.64  | 1.6  |   | ug/l  |             |
| Endrin              | 2 <sup>a</sup> | 8.71  | 8.71  | 1.5  |   | ug/l  | 6.5         |
| Heptachlor          | 1 <sup>a</sup> | 4.17  | 4.17  | 1.4  |   | ug/l  |             |
| Heptachlor          | 2              | 5.45  | 5.46  | 1.5  |   | ug/l  | 6.9         |
| Heptachlor epoxide  | 1 <sup>a</sup> | 5.35  | 5.35  | 1.4  |   | ug/l  |             |
| Heptachlor epoxide  | 2              | 6.94  | 6.94  | 1.5  |   | ug/l  | 6.9         |
| Methoxychlor        | 1 <sup>a</sup> | 8.08  | 8.08  | 1.6  |   | ug/l  |             |
| Methoxychlor        | 2              | 10.80 | 10.80 | 1.9  |   | ug/l  | 17.1        |

(a) QC results reported from this column.

12.8.15  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11917-BS1 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56093.D | <b>Injection Time:</b> 01:04    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.12  | 14.8 |   | ug/kg | 6.5         |
| Aldrin              | 2              | 4.96 | 4.96  | 15.8 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 13.9 |   | ug/kg | 12.8        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 15.8 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 14.4 |   | ug/kg | 4.7         |
| beta-BHC            | 2              | 4.06 | 4.06  | 15.1 |   | ug/kg |             |
| delta-BHC           | 1              | 3.55 | 3.56  | 13.9 |   | ug/kg | 2.2         |
| delta-BHC           | 2 <sup>a</sup> | 4.43 | 4.44  | 13.6 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 13.8 |   | ug/kg | 5.6         |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 14.6 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 15.3 |   | ug/kg | 8.7         |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 16.7 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 15.0 |   | ug/kg | 16.5        |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 17.7 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 13.6 |   | ug/kg | 15.0        |
| Dieldrin            | 2              | 6.78 | 6.78  | 15.8 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 14.1 |   | ug/kg | 19.2        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 17.1 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 14.6 |   | ug/kg | 8.5         |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 15.9 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 15.5 |   | ug/kg | 6.9         |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 16.6 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 15.7 |   | ug/kg | 2.5         |
| Endrin              | 2              | 7.27 | 7.27  | 16.1 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 14.2 |   | ug/kg | 9.4         |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 15.6 |   | ug/kg |             |
| Endrin aldehyde     | 1              | 6.91 | 6.91  | 15.2 |   | ug/kg | 2.7         |
| Endrin aldehyde     | 2 <sup>a</sup> | 8.18 | 8.19  | 14.8 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.32 | 5.33  | 14.5 |   | ug/kg | 5.4         |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 15.3 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 14.2 |   | ug/kg | 11.3        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 15.9 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 15.0 |   | ug/kg | 3.3         |
| Heptachlor          | 2              | 4.53 | 4.53  | 15.5 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 14.2 |   | ug/kg | 0.7         |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 14.3 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 15.4 |   | ug/kg | 3.8         |
| Methoxychlor        | 2              | 9.22 | 9.23  | 16.0 |   | ug/kg |             |
| Endrin ketone       | 1              | 8.03 | 8.03  | 14.7 |   | ug/kg | 2.1         |
| Endrin ketone       | 2 <sup>a</sup> | 9.60 | 9.60  | 14.4 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.16 12



# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11667-MS   | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 1G145808.D | <b>Injection Time:</b> 02:12    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.12  | 4.13  | 16.2 |   | ug/kg | 7.7         |
| Aldrin              | 2              | 5.34  | 5.34  | 15.0 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.00  | 3.01  | 17.8 |   | ug/kg | 38.1        |
| alpha-BHC           | 2              | 3.82  | 3.81  | 12.1 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.38  | 3.38  | 14.4 |   | ug/kg | 7.2         |
| beta-BHC            | 2              | 4.36  | 4.35  | 13.4 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.57  | 3.57  | 15.1 |   | ug/kg | 14.9        |
| delta-BHC           | 2              | 4.77  | 4.77  | 13.0 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30  | 3.30  | 15.1 |   | ug/kg | 16.5        |
| gamma-BHC (Lindane) | 2              | 4.27  | 4.26  | 12.8 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.16  | 5.17  | 14.7 |   | ug/kg | 5.6         |
| alpha-Chlordane     | 2              | 6.71  | 6.71  | 13.9 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.99  | 5.00  | 13.3 |   | ug/kg | 2.2         |
| gamma-Chlordane     | 2              | 6.48  | 6.48  | 13.6 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.66  | 5.67  | 15.4 |   | ug/kg | 16.1        |
| Dieldrin            | 2              | 7.26  | 7.26  | 18.1 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.12  | 6.14  | 15.7 |   | ug/kg | 17.3        |
| 4,4'-DDD            | 2              | 7.94  | 7.94  | 13.2 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.28  | 5.29  | 14.7 |   | ug/kg | 2.0         |
| 4,4'-DDE            | 2              | 6.96  | 6.96  | 15.0 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.53  | 6.54  | 17.2 |   | ug/kg | 12.3        |
| 4,4'-DDT            | 2              | 8.48  | 8.48  | 15.2 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.99  | 6.00  | 19.1 |   | ug/kg | 30.8        |
| Endrin              | 2              | 7.78  | 7.78  | 14.0 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.61  | 7.63  | 16.3 |   | ug/kg | 17.3        |
| Endosulfan sulfate  | 2              | 9.19  | 9.19  | 13.7 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.94  | 6.95  | 16.8 |   | ug/kg | 20.3        |
| Endrin aldehyde     | 2              | 8.72  | 8.72  | 13.7 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.34  | 5.35  | 14.6 |   | ug/kg | 7.8         |
| Endosulfan-I        | 2              | 6.81  | 6.82  | 13.5 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.31  | 6.33  | 15.7 |   | ug/kg | 15.8        |
| Endosulfan-II       | 2              | 8.14  | 8.14  | 13.4 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78  | 3.79  | 15.4 |   | ug/kg | 13.9        |
| Heptachlor          | 2              | 4.87  | 4.86  | 13.4 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.83  | 4.84  | 14.9 |   | ug/kg | 10.6        |
| Heptachlor epoxide  | 2              | 6.19  | 6.18  | 13.4 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.32  | 7.33  | 15.4 |   | ug/kg | 21.6        |
| Methoxychlor        | 2              | 9.67  | 9.68  | 12.4 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.06  | 8.08  | 15.5 |   | ug/kg | 10.2        |
| Endrin ketone       | 2              | 10.04 | 10.04 | 14.0 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.17 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11692-MS   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55923.D  | <b>Injection Time:</b> 06:04    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 1.4  |   | ug/l  | 0.0         |
| gamma-BHC (Lindane) | 2              | 3.98 | 3.98  | 1.4  |   | ug/l  |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.98  | 1.3  |   | ug/l  | 7.4         |
| Endrin              | 2              | 7.28 | 7.28  | 1.4  |   | ug/l  |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 1.2  |   | ug/l  | 8.0         |
| Heptachlor          | 2              | 4.53 | 4.54  | 1.3  |   | ug/l  |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.83  | 1.3  |   | ug/l  | 7.4         |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 1.4  |   | ug/l  |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.30  | 1.2  |   | ug/l  | 8.0         |
| Methoxychlor        | 2              | 9.23 | 9.24  | 1.3  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.18  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

---

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11917-MS   | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56095.D  | <b>Injection Time:</b> 01:40    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.12  | 13.5 |   | ug/kg | 7.8         |
| Aldrin              | 2              | 4.96 | 4.96  | 14.6 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 12.9 |   | ug/kg | 12.4        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 14.6 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 14.7 |   | ug/kg | 10.8        |
| beta-BHC            | 2              | 4.06 | 4.06  | 13.2 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.56  | 12.8 |   | ug/kg | 3.8         |
| delta-BHC           | 2              | 4.43 | 4.44  | 13.3 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 14.4 |   | ug/kg | 4.1         |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 15.0 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 13.9 |   | ug/kg | 2.1         |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 14.2 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 14.6 |   | ug/kg | 0.0         |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 14.6 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 12.2 |   | ug/kg | 13.7        |
| Dieldrin            | 2              | 6.78 | 6.78  | 14.0 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 12.5 |   | ug/kg | 11.3        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 14.0 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 12.6 |   | ug/kg | 9.8         |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 13.9 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 13.3 |   | ug/kg | 12.0        |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 15.0 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 14.0 |   | ug/kg | 3.5         |
| Endrin              | 2              | 7.27 | 7.27  | 14.5 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 10.5 |   | ug/kg | 12.5        |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 11.9 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 13.2 |   | ug/kg | 3.9         |
| Endrin aldehyde     | 2              | 8.19 | 8.19  | 12.7 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 12.9 |   | ug/kg | 2.3         |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 13.2 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 12.3 |   | ug/kg | 15.0        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 14.3 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 16.7 |   | ug/kg | 18.3        |
| Heptachlor          | 2              | 4.53 | 4.53  | 13.9 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 13.8 |   | ug/kg | 0.7         |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 13.7 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 13.0 |   | ug/kg | 12.3        |
| Methoxychlor        | 2              | 9.22 | 9.23  | 14.7 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.03 | 8.03  | 12.9 |   | ug/kg | 4.5         |
| Endrin ketone       | 2              | 9.60 | 9.60  | 13.5 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.19 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11667-MSD            | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 1G145809.D           | <b>Injection Time:</b> 02:30    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.12  | 4.13  | 17.2 |   | ug/kg | 11.7        |
| Aldrin              | 2              | 5.34  | 5.34  | 15.3 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.00  | 3.01  | 17.7 |   | ug/kg | 31.4        |
| alpha-BHC           | 2              | 3.82  | 3.81  | 12.9 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.38  | 3.38  | 18.1 |   | ug/kg | 27.7        |
| beta-BHC            | 2              | 4.36  | 4.35  | 13.7 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.57  | 3.57  | 14.3 |   | ug/kg | 0.7         |
| delta-BHC           | 2              | 4.77  | 4.77  | 14.4 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30  | 3.30  | 16.5 |   | ug/kg | 21.5        |
| gamma-BHC (Lindane) | 2              | 4.27  | 4.26  | 13.3 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.17  | 5.17  | 16.0 |   | ug/kg | 8.5         |
| alpha-Chlordane     | 2              | 6.71  | 6.71  | 14.7 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 5.00  | 5.00  | 14.6 |   | ug/kg | 1.4         |
| gamma-Chlordane     | 2              | 6.48  | 6.48  | 14.4 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.67  | 5.67  | 17.4 |   | ug/kg | 6.1         |
| Dieldrin            | 2              | 7.26  | 7.26  | 18.5 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.12  | 6.14  | 17.5 |   | ug/kg | 22.2        |
| 4,4'-DDD            | 2              | 7.94  | 7.94  | 14.0 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.28  | 5.29  | 15.8 |   | ug/kg | 1.3         |
| 4,4'-DDE            | 2              | 6.96  | 6.96  | 15.6 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.53  | 6.54  | 18.8 |   | ug/kg | 16.7        |
| 4,4'-DDT            | 2              | 8.48  | 8.48  | 15.9 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.99  | 6.00  | 21.9 |   | ug/kg | 39.3        |
| Endrin              | 2              | 7.78  | 7.78  | 14.7 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.62  | 7.63  | 17.7 |   | ug/kg | 20.6        |
| Endosulfan sulfate  | 2              | 9.19  | 9.19  | 14.4 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.94  | 6.95  | 18.6 |   | ug/kg | 25.5        |
| Endrin aldehyde     | 2              | 8.72  | 8.72  | 14.4 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.34  | 5.35  | 15.9 |   | ug/kg | 11.3        |
| Endosulfan-I        | 2              | 6.81  | 6.82  | 14.2 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.32  | 6.33  | 16.9 |   | ug/kg | 18.8        |
| Endosulfan-II       | 2              | 8.14  | 8.14  | 14.0 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.79  | 3.79  | 16.9 |   | ug/kg | 8.6         |
| Heptachlor          | 2              | 4.87  | 4.86  | 15.5 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.83  | 4.84  | 15.2 |   | ug/kg | 7.5         |
| Heptachlor epoxide  | 2              | 6.19  | 6.18  | 14.1 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.32  | 7.33  | 17.1 |   | ug/kg | 25.7        |
| Methoxychlor        | 2              | 9.67  | 9.68  | 13.2 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.07  | 8.08  | 16.0 |   | ug/kg | 9.8         |
| Endrin ketone       | 2              | 10.04 | 10.04 | 14.5 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.20 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11692-MSD            | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55924.D            | <b>Injection Time:</b> 06:22    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.29 | 3.30  | 1.6  |   | ug/l  | 6.1         |
| gamma-BHC (Lindane) | 2              | 3.98 | 3.98  | 1.7  |   | ug/l  |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.98  | 1.6  |   | ug/l  | 6.1         |
| Endrin              | 2              | 7.28 | 7.28  | 1.7  |   | ug/l  |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 1.5  |   | ug/l  | 6.5         |
| Heptachlor          | 2              | 4.53 | 4.54  | 1.6  |   | ug/l  |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.83  | 1.5  |   | ug/l  | 12.5        |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 1.7  |   | ug/l  |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.30  | 1.4  |   | ug/l  | 19.4        |
| Methoxychlor        | 2              | 9.23 | 9.24  | 1.7  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.21  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11917-MSD            | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56096.D            | <b>Injection Time:</b> 01:58    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.12 | 4.12  | 13.3 |   | ug/kg | 20.9        |
| Aldrin              | 2              | 4.96 | 4.96  | 16.4 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 13.4 |   | ug/kg | 24.3        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 17.1 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 13.8 |   | ug/kg | 14.1        |
| beta-BHC            | 2              | 4.06 | 4.06  | 15.9 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.56  | 14.0 |   | ug/kg | 8.2         |
| delta-BHC           | 2              | 4.43 | 4.44  | 15.2 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 12.4 |   | ug/kg | 41.0        |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 18.8 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 13.1 |   | ug/kg | 19.3        |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 15.9 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 15.8 |   | ug/kg | 50.2        |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 26.4 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 11.9 |   | ug/kg | 27.5        |
| Dieldrin            | 2              | 6.78 | 6.78  | 15.7 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 11.9 |   | ug/kg | 33.0        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 16.6 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 12.4 |   | ug/kg | 22.2        |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 15.5 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 13.0 |   | ug/kg | 24.9        |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 16.7 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 13.3 |   | ug/kg | 19.0        |
| Endrin              | 2              | 7.27 | 7.27  | 16.1 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 10.1 |   | ug/kg | 24.3        |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 12.9 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 12.6 |   | ug/kg | 13.3        |
| Endrin aldehyde     | 2              | 8.18 | 8.19  | 14.4 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 12.5 |   | ug/kg | 22.1        |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 15.6 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 11.9 |   | ug/kg | 30.6        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 16.2 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 16.1 |   | ug/kg | 2.5         |
| Heptachlor          | 2              | 4.53 | 4.53  | 15.7 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 14.4 |   | ug/kg | 50.0        |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 24.0 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 12.5 |   | ug/kg | 25.2        |
| Methoxychlor        | 2              | 9.22 | 9.23  | 16.1 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.03 | 8.03  | 13.2 |   | ug/kg | 5.9         |
| Endrin ketone       | 2              | 9.60 | 9.60  | 14.0 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.22 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11668-BS1  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227796.D | <b>Injection Time:</b> 17:55    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 149  |   | ug/kg | 9.6         |
| Aroclor 1016 | 2              |       |       | 164  |   | ug/kg |             |
| AR1016-A     | 1              | 3.20  | 3.19  | 168  |   | ug/kg |             |
| AR1016-A     | 2              | 4.21  | 4.21  | 199  |   | ug/kg |             |
| AR1016-B     | 1              | 3.57  | 3.57  | 159  |   | ug/kg |             |
| AR1016-B     | 2              | 4.76  | 4.76  | 159  |   | ug/kg |             |
| AR1016-C     | 1              | 4.13  | 4.12  | 131  |   | ug/kg |             |
| AR1016-C     | 2              | 5.41  | 5.40  | 152  |   | ug/kg |             |
| AR1016-D     | 1              | 4.29  | 4.28  | 146  |   | ug/kg |             |
| AR1016-D     | 2              | 5.59  | 5.59  | 159  |   | ug/kg |             |
| AR1016-E     | 1              | 4.78  | 4.77  | 143  |   | ug/kg |             |
| AR1016-E     | 2              | 6.25  | 6.25  | 151  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 156  |   | ug/kg | 1.3         |
| Aroclor 1260 | 2              |       |       | 158  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.12  | 125  |   | ug/kg |             |
| AR1260-A     | 2              | 8.86  | 8.85  | 133  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 179  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 172  |   | ug/kg |             |
| AR1260-C     | 1              | 7.61  | 7.61  | 160  |   | ug/kg |             |
| AR1260-C     | 2              | 9.41  | 9.41  | 161  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.04  | 156  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 166  |   | ug/kg |             |
| AR1260-E     | 1              | 8.44  | 8.43  | 162  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 160  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.23  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11775-BS1  | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162947.D | <b>Injection Time:</b> 10:02    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 160  |   | ug/kg | 7.2         |
| Aroclor 1016 | 2              |       |       | 172  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 185  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.09  | 224  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 159  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 165  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 143  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 147  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 157  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 170  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.76  | 154  |   | ug/kg |             |
| AR1016-E     | 2              | 6.10  | 6.09  | 156  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 158  |   | ug/kg | 2.5         |
| Aroclor 1260 | 2              |       |       | 162  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 124  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 132  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 171  |   | ug/kg |             |
| AR1260-B     | 2              | 8.81  | 8.80  | 176  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 184  |   | ug/kg |             |
| AR1260-C     | 2              | 9.24  | 9.23  | 163  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.05  | 151  |   | ug/kg |             |
| AR1260-D     | 2              | 9.59  | 9.58  | 164  |   | ug/kg |             |
| AR1260-E     | 1              | 8.44  | 8.43  | 160  |   | ug/kg |             |
| AR1260-E     | 2              | 10.13 | 10.13 | 176  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.24 12



# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

---

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11668-MS   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227798.D | <b>Injection Time:</b> 18:28    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 187  |   | ug/kg | 14.9        |
| Aroclor 1016 | 2              |       |       | 217  |   | ug/kg |             |
| AR1016-C     | 1              | 4.11  | 4.12  | 147  |   | ug/kg |             |
| AR1016-C     | 2              | 5.40  | 5.40  | 124  |   | ug/kg |             |
| AR1016-D     | 1              | 4.27  | 4.28  | 272  |   | ug/kg |             |
| AR1016-D     | 2              | 5.59  | 5.59  | 129  |   | ug/kg |             |
| AR1016-E     | 1              | 4.81  | 4.77  | 142  |   | ug/kg |             |
| AR1016-E     | 2              | 6.26  | 6.25  | 397  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 212  |   | ug/kg | 23.3        |
| Aroclor 1260 | 2              |       |       | 268  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 203  |   | ug/kg |             |
| AR1260-A     | 2              | 8.82  | 8.85  | 220  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 306  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 415  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.04  | 173  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 174  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 167  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 262  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.25  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11775-MS   | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162949.D | <b>Injection Time:</b> 10:36    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 170  |   | ug/kg | 3.0         |
| Aroclor 1016 | 2              |       |       | 165  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 190  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.09  | 206  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 174  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 171  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 153  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 147  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 166  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 151  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.76  | 167  |   | ug/kg |             |
| AR1016-E     | 2              | 6.09  | 6.09  | 151  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 359  |   | ug/kg | 25.8        |
| Aroclor 1260 | 2              |       |       | 277  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 360  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 274  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 364  |   | ug/kg |             |
| AR1260-B     | 2              | 8.80  | 8.80  | 268  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 354  |   | ug/kg |             |
| AR1260-C     | 2              | 9.23  | 9.23  | 283  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.05  | 369  |   | ug/kg |             |
| AR1260-D     | 2              | 9.58  | 9.58  | 289  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 348  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.13 | 273  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.26 12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11668-MSD            | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227799.D           | <b>Injection Time:</b> 18:44    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 181  |   | ug/kg | 5.7         |
| Aroclor 1016 | 2              |       |       | 171  |   | ug/kg |             |
| AR1016-C     | 1              | 4.11  | 4.12  | 138  |   | ug/kg |             |
| AR1016-C     | 2              | 5.40  | 5.40  | 114  |   | ug/kg |             |
| AR1016-D     | 1              | 4.27  | 4.28  | 295  |   | ug/kg |             |
| AR1016-D     | 2              | 5.58  | 5.59  | 130  |   | ug/kg |             |
| AR1016-E     | 1              | 4.80  | 4.77  | 111  |   | ug/kg |             |
| AR1016-E     | 2              | 6.25  | 6.25  | 269  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 173  |   | ug/kg | 22.6        |
| Aroclor 1260 | 2              |       |       | 217  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 185  |   | ug/kg |             |
| AR1260-A     | 2              | 8.81  | 8.85  | 186  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.27  | 240  |   | ug/kg |             |
| AR1260-B     | 2              | 8.97  | 8.97  | 275  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.04  | 126  |   | ug/kg |             |
| AR1260-D     | 2              | 9.75  | 9.75  | 204  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 143  |   | ug/kg |             |
| AR1260-E     | 2              | 10.30 | 10.30 | 202  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.27  
12

# GC Identification Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11775-MSD            | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162950.D           | <b>Injection Time:</b> 10:53    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 160  |   | ug/kg | 0.6         |
| Aroclor 1016 | 2              |       |       | 159  |   | ug/kg |             |
| AR1016-A     | 1              | 3.15  | 3.15  | 178  |   | ug/kg |             |
| AR1016-A     | 2              | 4.08  | 4.09  | 196  |   | ug/kg |             |
| AR1016-B     | 1              | 3.55  | 3.55  | 164  |   | ug/kg |             |
| AR1016-B     | 2              | 4.62  | 4.62  | 161  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.09  | 145  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.26  | 142  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.25  | 160  |   | ug/kg |             |
| AR1016-D     | 2              | 5.45  | 5.45  | 151  |   | ug/kg |             |
| AR1016-E     | 1              | 4.76  | 4.76  | 153  |   | ug/kg |             |
| AR1016-E     | 2              | 6.09  | 6.09  | 143  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 368  |   | ug/kg | 8.2         |
| Aroclor 1260 | 2              |       |       | 339  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.12  | 374  |   | ug/kg |             |
| AR1260-A     | 2              | 8.69  | 8.69  | 347  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.28  | 371  |   | ug/kg |             |
| AR1260-B     | 2              | 8.80  | 8.80  | 339  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.62  | 360  |   | ug/kg |             |
| AR1260-C     | 2              | 9.23  | 9.23  | 335  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.05  | 378  |   | ug/kg |             |
| AR1260-D     | 2              | 9.58  | 9.58  | 347  |   | ug/kg |             |
| AR1260-E     | 1              | 8.43  | 8.43  | 359  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.13 | 325  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.28  
12

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8151A | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|
| JC65058-13A   | OA133179.D  | 96              | 104             |
| OP11688-BS2   | 3G116293.D  | 117             | 123             |
| OP11688-LB28  | 3G116309.D  | 99              | 89              |
| OP11688-LB29  | 3G116308.D  | 100             | 92              |
| OP11688-LS9   | 3G116270.D  | 106             | 90              |
| OP11688-MB2   | 3G116292.D  | 92              | 105             |
| OP11688-MS    | 3G116270.D  | 106             | 90              |
| OP11688-MSD   | 3G116271.D  | 99              | 80              |
| OP11688-LB25  | 3G116272.D  | 94              | 85              |
| OP11688-LB26  | OA133141.D  | 77              | 95              |
| OP11688-MB1   | 3G116250.D  | 96              | 86              |

**Surrogate Compounds**                      **Recovery Limits**

S1 = 2,4-DCAA                                      50-142%

(a) Recovery from GC signal #2  
(b) Recovery from GC signal #1

12.9.1  
12

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8151A | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup>   | S1 <sup>b</sup>   |
|---------------|-------------|-------------------|-------------------|
| JC65058-5     | OA133301.D  | 27                | 33                |
| JC65058-6     | OA133302.D  | 38                | 65                |
| JC65058-7     | OA133303.D  | 76                | 98                |
| JC65058-8     | OA133304.D  | 79                | 93                |
| JC65058-10    | OA133305.D  | 52                | 56                |
| JC65058-11    | OA133326.D  | 28                | 32                |
| JC65058-11    | OA133306.D  | 24                | 32                |
| JC65058-12    | OA133509.D  | 58                | 104               |
| JC65058-12    | OA133517.D  | 199* <sup>c</sup> | 208* <sup>c</sup> |
| JC65058-12    | 3G116242.D  | 332* <sup>c</sup> | 196* <sup>c</sup> |
| JC65058-13    | 3G116201.D  | 88                | 87                |
| JC65058-15    | 3G116241.D  | 61                | 67                |
| OP11676-BS1   | 3G116200.D  | 93                | 88                |
| OP11676-MB1   | 3G116199.D  | 70                | 71                |
| OP11676-MS    | 3G116205.D  | 11                | 11                |
| OP11676-MSD   | 3G116206.D  | 22                | 20                |
| OP11920-BS1   | 3G116434.D  | 124               | 153               |
| OP11920-MB1   | 3G116435.D  | 126               | 127               |
| OP11920-MS    | OA133327.D  | 56                | 60                |
| OP11920-MSD   | OA133329.D  | 18                | 20                |

**Surrogate Compounds**                      **Recovery Limits**

S1 = 2,4-DCAA                                      10-159%

- (a) Recovery from GC signal #2
- (b) Recovery from GC signal #1
- (c) Outside of in house control limits, refer to re-extract.

12.9.2  
12

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8081B | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|-----------------|
| JC65058-13A   | 8G14793.D   | 80              | 95              | 76              | 86              |
| OP11692-BS2   | 8G14786.D   | 74              | 86              | 77              | 82              |
| OP11692-LB28  | 8G14811.D   | 68              | 85              | 54              | 60              |
| OP11692-LB29  | 8G14812.D   | 50              | 70              | 47              | 57              |
| OP11692-LS9   | 6G55923.D   | 65              | 74              | 62              | 69              |
| OP11692-MB2   | 8G14785.D   | 73              | 84              | 42              | 46              |
| OP11692-MS    | 6G55923.D   | 65              | 74              | 62              | 69              |
| OP11692-MSD   | 6G55924.D   | 77              | 89              | 69              | 79              |
| OP11692-LB25  | 6G55926.D   | 62              | 69              | 75              | 83              |
| OP11692-LB26  | 6G55927.D   | 82              | 92              | 83              | 94              |
| OP11692-MB1   | 6G55909.D   | 77              | 87              | 69              | 76              |

**Surrogate Compounds**

**Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = Tetrachloro-m-xylene | 30-137% |
| S2 = Decachlorobiphenyl   | 10-137% |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

12.9.3  
12

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8081B | <b>Matrix:</b> SO |
|----------------------------|-------------------|

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup>   |
|---------------|-------------|-----------------|-----------------|-----------------|-------------------|
| JC65058-5     | 6G56094.D   | 58              | 72              | 68              | 86                |
| JC65058-6     | 8G15032.D   | 68              | 73              | 59              | 104               |
| JC65058-6     | 6G56097.D   | 80              | 33              | 43              | 295* <sup>c</sup> |
| JC65058-7     | 6G56098.D   | 65              | 75              | 67              | 100               |
| JC65058-8     | 6G56099.D   | 71              | 77              | 68              | 104               |
| JC65058-10    | 6G56100.D   | 75              | 82              | 74              | 255* <sup>c</sup> |
| JC65058-11    | 6G56101.D   | 70              | 84              | 70              | 105               |
| JC65058-12    | 1G145824.D  | 83              | 77              | 136             | 91                |
| JC65058-13    | 1G145825.D  | 95              | 86              | 131             | 86                |
| JC65058-15    | 1G145826.D  | 83              | 80              | 121             | 107               |
| OP11667-BS1   | 1G145801.D  | 97              | 79              | 128             | 91                |
| OP11667-MB1   | 1G145800.D  | 78              | 68              | 110             | 84                |
| OP11667-MS    | 1G145808.D  | 81              | 75              | 98              | 83                |
| OP11667-MSD   | 1G145809.D  | 88              | 79              | 100             | 86                |
| OP11917-BS1   | 6G56093.D   | 80              | 85              | 87              | 94                |
| OP11917-MB1   | 6G56092.D   | 73              | 78              | 81              | 86                |
| OP11917-MB1   | 8G15031.D   | 78              | 87              | 63              | 77                |
| OP11917-MS    | 6G56095.D   | 56              | 66              | 68              | 79                |
| OP11917-MSD   | 6G56096.D   | 56              | 80              | 66              | 85                |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = Tetrachloro-m-xylene | 25-135%         |
| S2 = Decachlorobiphenyl   | 10-156%         |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.9.4  
12



# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8082A | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup>   | S2 <sup>b</sup>    |
|---------------|-------------|-----------------|-----------------|-------------------|--------------------|
| JC65058-5     | XX227808.D  | 91              | 103             | 77                | 100                |
| JC65058-6     | XX227820.D  | 103             | 80              | 232* <sup>c</sup> | 1937* <sup>c</sup> |
| JC65058-7     | XX227821.D  | 86              | 89              | 71                | 129                |
| JC65058-8     | XX227822.D  | 84              | 93              | 88                | 233* <sup>c</sup>  |
| JC65058-10    | XX227823.D  | 108             | 113             | 98                | 135                |
| JC65058-11    | XX227828.D  | 101             | 112             | 100               | 127                |
| JC65058-12    | 2G163181.D  | 98              | 95              | 74                | 202* <sup>c</sup>  |
| JC65058-13    | 2G162968.D  | 86              | 91              | 88                | 92                 |
| JC65058-15    | 2G162969.D  | 69              | 71              | 59                | 225* <sup>c</sup>  |
| OP11668-BS1   | XX227796.D  | 99              | 102             | 103               | 107                |
| OP11668-MB1   | XX227795.D  | 100             | 102             | 102               | 106                |
| OP11668-MS    | XX227798.D  | 92              | 107             | 74                | 166                |
| OP11668-MSD   | XX227799.D  | 89              | 105             | 83                | 178* <sup>c</sup>  |
| OP11775-BS1   | 2G162947.D  | 99              | 105             | 101               | 110                |
| OP11775-MB1   | 2G162946.D  | 90              | 98              | 94                | 100                |
| OP11775-MS    | 2G162949.D  | 95              | 98              | 82                | 83                 |
| OP11775-MSD   | 2G162950.D  | 88              | 90              | 77                | 75                 |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = Tetrachloro-m-xylene | 24-152%         |
| S2 = Decachlorobiphenyl   | 10-166%         |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.9.5  
12

# Surrogate Recovery Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S2 <sup>a</sup> | S3 <sup>a</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|
| JC65058-5     | ZZ88780.D   | 65              | 88              | 80              |
| JC65058-6     | ZZ88781.D   | 68              | 97              | 86              |
| JC65058-7     | ZZ88782.D   | 61              | 83              | 76              |
| JC65058-8     | ZZ88783.D   | 61              | 84              | 77              |
| JC65058-10    | ZZ88784.D   | 63              | 86              | 79              |
| JC65058-11    | ZZ88785.D   | 60              | 82              | 75              |
| OP11656-BS1   | ZZ88759.D   | 48              | 57              | 51              |
| OP11656-MB1   | ZZ88758.D   | 65              | 90              | 82              |
| OP11656-MS    | ZZ88761.D   | 72              | 91              | 82              |
| OP11656-MSD   | ZZ88762.D   | 62              | 77              | 70              |

| Surrogate Compounds  | Recovery Limits |
|----------------------|-----------------|
| S1 = o-Terphenyl     | 18-132%         |
| S2 = Tetracosane-d50 | 25-137%         |
| S3 = 5a-Androstane   | 22-134%         |

(a) Recovery from GC signal #1

12.9.6  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4034-CC4020 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 3G116197.D   | <b>Injection Time:</b> 19:06    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.45 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11676-MB1   | 3G116199.D  | 05/01/18      | 20:03         | 7.94               | 7.47               |
| OP11676-BS1   | 3G116200.D  | 05/01/18      | 20:31         | 7.93               | 7.46               |
| JC65058-13    | 3G116201.D  | 05/01/18      | 21:00         | 7.93               | 7.47               |
| JC65099-2     | 3G116202.D  | 05/01/18      | 21:28         | 7.94               | 7.47               |
| ZZZZZZ        | 3G116203.D  | 05/01/18      | 21:57         | 7.94               | 7.47               |
| ZZZZZZ        | 3G116204.D  | 05/01/18      | 22:25         | 7.93               | 7.46               |
| OP11676-MS    | 3G116205.D  | 05/01/18      | 22:54         | 7.94               | 7.48               |
| OP11676-MSD   | 3G116206.D  | 05/01/18      | 23:22         | 7.93               | 7.46               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4035-CC4020 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 3G116239.D   | <b>Injection Time:</b> 23:25    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**    **S1<sup>b</sup>**  
**RT**    **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.45 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| JC65058-15      | 3G116241.D  | 05/03/18      | 00:22         | 7.93               | 7.46               |
| JC65058-12      | 3G116242.D  | 05/03/18      | 00:50         | 7.95               | 7.49               |
| ZZZZZZ          | 3G116243.D  | 05/03/18      | 01:19         | 7.94               | 7.47               |
| ZZZZZZ          | 3G116244.D  | 05/03/18      | 01:47         | 7.91               | 7.46               |
| ZZZZZZ          | 3G116245.D  | 05/03/18      | 02:16         | 7.93               | 7.46               |
| G3G4035-ECC4020 | 3G116246.D  | 05/03/18      | 02:44         | 7.93               | 7.46               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.2  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116248.D   | <b>Injection Time:</b> 09:00    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11689-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93               | 7.46               |
| OP11688-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93               | 7.46               |
| OP11687-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93               | 7.46               |
| OP11690-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93               | 7.46               |
| OP11688-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92               | 7.45               |
| OP11689-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92               | 7.45               |
| OP11687-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92               | 7.45               |
| OP11690-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116252.D  | 05/03/18      | 11:16         | 7.92               | 7.46               |
| ZZZZZZ        | 3G116253.D  | 05/03/18      | 11:45         | 7.93               | 7.45               |
| ZZZZZZ        | 3G116254.D  | 05/03/18      | 12:13         | 7.93               | 7.45               |
| ZZZZZZ        | 3G116255.D  | 05/03/18      | 12:42         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116256.D  | 05/03/18      | 13:10         | 7.92               | 7.45               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.3  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11688-LS9   | 3G116270.D  | 05/03/18      | 19:53         | 7.92               | 7.45               |
| OP11688-MS    | 3G116270.D  | 05/03/18      | 19:53         | 7.92               | 7.45               |
| OP11688-MSD   | 3G116271.D  | 05/03/18      | 20:22         | 7.92               | 7.45               |
| OP11688-LB25  | 3G116272.D  | 05/03/18      | 20:50         | 7.93               | 7.45               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.4  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116290.D   | <b>Injection Time:</b> 15:51    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.92 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11688-MB2   | 3G116292.D  | 05/04/18      | 17:10         | 7.92               | 7.46               |
| OP11687-MB2   | 3G116292.D  | 05/04/18      | 17:10         | 7.92               | 7.46               |
| OP11687-BS2   | 3G116293.D  | 05/04/18      | 17:39         | 7.92               | 7.45               |
| OP11688-BS2   | 3G116293.D  | 05/04/18      | 17:39         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116294.D  | 05/04/18      | 18:07         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116295.D  | 05/04/18      | 18:36         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116296.D  | 05/04/18      | 19:05         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116297.D  | 05/04/18      | 19:33         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116298.D  | 05/04/18      | 20:02         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116299.D  | 05/04/18      | 20:31         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116300.D  | 05/04/18      | 20:59         | 7.93               | 7.46               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.5  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116301.D   | <b>Injection Time:</b> 21:28    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.92 | 7.45 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| ZZZZZZ          | 3G116304.D  | 05/04/18      | 22:54         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116305.D  | 05/04/18      | 23:23         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116306.D  | 05/04/18      | 23:51         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116307.D  | 05/05/18      | 00:20         | 7.93               | 7.46               |
| OP11688-LB29    | 3G116308.D  | 05/05/18      | 00:48         | 7.93               | 7.46               |
| OP11688-LB28    | 3G116309.D  | 05/05/18      | 01:17         | 7.93               | 7.47               |
| OP11687-LB34    | 3G116310.D  | 05/05/18      | 01:46         | 7.93               | 7.46               |
| OP11687-LB32    | 3G116311.D  | 05/05/18      | 02:14         | 7.93               | 7.46               |
| G3G4037-ECC4020 | 3G116312.D  | 05/05/18      | 02:42         | 7.93               | 7.46               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.6 12



# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4043-CC4020 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> 3G116432.D   | <b>Injection Time:</b> 08:54    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.45 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11920-BS1   | 3G116434.D  | 05/14/18      | 09:53         | 7.92               | 7.45               |
| OP11920-MB1   | 3G116435.D  | 05/14/18      | 10:27         | 7.93               | 7.47               |

### Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.7  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                |                        |             |
|-----------------------|----------------|------------------------|-------------|
| <b>Check Std:</b>     | GOA4561-CC4559 | <b>Injection Date:</b> | 05/03/18    |
| <b>Lab File ID:</b>   | OA133132.D     | <b>Injection Time:</b> | 15:17       |
| <b>Instrument ID:</b> | GCOA           | <b>Method:</b>         | SW846 8151A |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| TD20224-1     | OA133134.D  | 05/03/18      | 16:14         | 8.54               | 7.34               |
| JC64994-1     | OA133135.D  | 05/03/18      | 16:43         | 8.54               | 7.34               |
| OP11689-LS8   | OA133136.D  | 05/03/18      | 17:12         | 8.54               | 7.34               |
| OP11689-MS    | OA133136.D  | 05/03/18      | 17:12         | 8.54               | 7.34               |
| OP11689-MSD   | OA133137.D  | 05/03/18      | 17:41         | 8.54               | 7.34               |
| OP11690-LS10  | OA133138.D  | 05/03/18      | 18:10         | 8.54               | 7.34               |
| OP11690-MS    | OA133138.D  | 05/03/18      | 18:10         | 8.54               | 7.34               |
| OP11690-MSD   | OA133139.D  | 05/03/18      | 18:38         | 8.54               | 7.34               |
| OP11689-LB18  | OA133140.D  | 05/03/18      | 19:07         | 8.55               | 7.35               |
| OP11690-LB26  | OA133141.D  | 05/03/18      | 19:36         | 8.55               | 7.35               |
| OP11688-LB26  | OA133141.D  | 05/03/18      | 19:36         | 8.55               | 7.35               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.8  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4562-CC4559 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> OA133176.D   | <b>Injection Time:</b> 18:05    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| ZZZZZZ          | OA133178.D  | 05/04/18      | 19:03         | 8.55               | 7.36               |
| JC65058-13A     | OA133179.D  | 05/04/18      | 19:32         | 8.55               | 7.36               |
| ZZZZZZ          | OA133180.D  | 05/04/18      | 20:00         | 8.55               | 7.35               |
| ZZZZZZ          | OA133181.D  | 05/04/18      | 20:29         | 8.55               | 7.36               |
| ZZZZZZ          | OA133182.D  | 05/04/18      | 20:58         | 8.55               | 7.36               |
| ZZZZZZ          | OA133183.D  | 05/04/18      | 21:26         | 8.55               | 7.36               |
| ZZZZZZ          | OA133184.D  | 05/04/18      | 21:55         | 8.55               | 7.36               |
| ZZZZZZ          | OA133185.D  | 05/04/18      | 22:24         | 8.55               | 7.35               |
| GOA4562-ECC4559 | OA133186.D  | 05/04/18      | 22:53         | 8.55               | 7.35               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.9  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4567-CC4559 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> OA133295.D   | <b>Injection Time:</b> 13:10    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>   S1<sup>b</sup>**  
**RT     RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| JC65058-5     | OA133301.D  | 05/11/18      | 16:06         | 8.56               | 7.36               |
| JC65058-6     | OA133302.D  | 05/11/18      | 16:34         | 8.55               | 7.35               |
| JC65058-7     | OA133303.D  | 05/11/18      | 17:03         | 8.56               | 7.36               |
| JC65058-8     | OA133304.D  | 05/11/18      | 17:31         | 8.56               | 7.36               |
| JC65058-10    | OA133305.D  | 05/11/18      | 18:00         | 8.56               | 7.36               |
| JC65058-11    | OA133306.D  | 05/11/18      | 18:29         | 8.56               | 7.33               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.10 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4568-CC4559 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> OA133319.D   | <b>Injection Time:</b> 08:55    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>   S1<sup>b</sup>**  
**RT     RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11951-MB1     | OA133321.D  | 05/14/18      | 10:00         | 8.56               | 7.36               |
| OP11975-MB1     | OA133321.D  | 05/14/18      | 10:00         | 8.56               | 7.36               |
| OP11951-BS1     | OA133322.D  | 05/14/18      | 10:29         | 8.55               | 7.35               |
| OP11975-BS1     | OA133322.D  | 05/14/18      | 10:29         | 8.55               | 7.35               |
| LA43799-1B      | OA133323.D  | 05/14/18      | 10:58         | 8.55               | 7.35               |
| OP11975-LS6     | OA133324.D  | 05/14/18      | 11:27         | 8.55               | 7.35               |
| OP11975-MS      | OA133324.D  | 05/14/18      | 11:27         | 8.55               | 7.35               |
| OP11975-MSD     | OA133325.D  | 05/14/18      | 11:55         | 8.54               | 7.34               |
| JC65058-11      | OA133326.D  | 05/14/18      | 12:24         | 8.56               | 7.33               |
| OP11920-MS      | OA133327.D  | 05/14/18      | 12:53         | 8.55               | 7.34               |
| OP11920-MSD     | OA133329.D  | 05/14/18      | 14:01         | 8.55               | 7.36               |
| GOA4568-ECC4559 | OA133330.D  | 05/14/18      | 14:53         | 8.55               | 7.35               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.11  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4575-CC4559 | <b>Injection Date:</b> 05/24/18 |
| <b>Lab File ID:</b> OA133507.D   | <b>Injection Time:</b> 06:17    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>   S1<sup>b</sup>**  
**RT     RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| JC65058-12    | OA133509.D  | 05/24/18      | 08:30         | 8.55               | 7.34               |
| OP12202-MB1   | OA133510.D  | 05/24/18      | 08:59         | 8.57               | 7.37               |
| OP12202-BS1   | OA133511.D  | 05/24/18      | 09:27         | 8.55               | 7.35               |
| OP12202-BSD   | OA133512.D  | 05/24/18      | 09:56         | 8.55               | 7.35               |
| ZZZZZZ        | OA133513.D  | 05/24/18      | 10:25         | 8.56               | 7.37               |
| ZZZZZZ        | OA133514.D  | 05/24/18      | 10:53         | 8.57               | 7.37               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.12 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4576-CC4559 | <b>Injection Date:</b> 05/24/18 |
| <b>Lab File ID:</b> OA133515.D   | <b>Injection Time:</b> 11:22    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| JC65058-12    | OA133517.D  | 05/24/18      | 12:42         | 8.60               | 7.40               |

### Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.13  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 1G145798.D   | <b>Injection Time:</b> 23:18    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 3.13                  | 9.81                  | 11.69                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11667-MB1   | 1G145800.D  | 05/01/18      | 23:54         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| OP11667-BS1   | 1G145801.D  | 05/02/18      | 00:12         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145802.D  | 05/02/18      | 00:29         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| ZZZZZZ        | 1G145804.D  | 05/02/18      | 01:03         | 2.54                  | 3.13                  | 9.79                  | 11.68                 |
| ZZZZZZ        | 1G145805.D  | 05/02/18      | 01:20         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145806.D  | 05/02/18      | 01:37         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| JC65070-5     | 1G145807.D  | 05/02/18      | 01:55         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| OP11667-MS    | 1G145808.D  | 05/02/18      | 02:12         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| OP11667-MSD   | 1G145809.D  | 05/02/18      | 02:30         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| ZZZZZZ        | 1G145810.D  | 05/02/18      | 02:48         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| ZZZZZZ        | 1G145811.D  | 05/02/18      | 03:06         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145812.D  | 05/02/18      | 03:24         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145813.D  | 05/02/18      | 03:41         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145814.D  | 05/02/18      | 03:59         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| ZZZZZZ        | 1G145815.D  | 05/02/18      | 04:17         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145816.D  | 05/02/18      | 04:35         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |

**Surrogate Compounds**

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.14 12



# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G1G4635-CC4628 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 1G145819.D   | <b>Injection Time:</b> 05:28    |
| <b>Instrument ID:</b> GC1G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 3.13                  | 9.81                  | 11.69                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ        | 1G145821.D  | 05/02/18      | 06:04         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| ZZZZZZ        | 1G145822.D  | 05/02/18      | 06:22         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |
| ZZZZZZ        | 1G145823.D  | 05/02/18      | 06:40         | 2.55                  | 3.13                  | 9.80                  | 11.69                 |
| JC65058-12    | 1G145824.D  | 05/02/18      | 07:02         | 2.55                  | 3.13                  | 9.81                  | 11.69                 |
| JC65058-13    | 1G145825.D  | 05/02/18      | 07:20         | 2.54                  | 3.13                  | 9.80                  | 11.69                 |
| JC65058-15    | 1G145826.D  | 05/02/18      | 07:38         | 2.54                  | 3.13                  | 9.80                  | 11.68                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.15 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.94                  | 9.85                  | 11.75                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11693-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11693-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55911.D   | 05/03/18      | 02:30         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC64929-3     | 6G55912.D   | 05/03/18      | 02:48         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-LS7   | 6G55913.D   | 05/03/18      | 03:06         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MS    | 6G55913.D   | 05/03/18      | 03:06         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MSD   | 6G55914.D   | 05/03/18      | 03:24         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55915.D   | 05/03/18      | 03:42         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55916.D   | 05/03/18      | 04:00         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55917.D   | 05/03/18      | 04:17         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55918.D   | 05/03/18      | 04:35         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55919.D   | 05/03/18      | 04:53         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55920.D   | 05/03/18      | 05:11         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55921.D   | 05/03/18      | 05:29         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC65070-1A    | 6G55922.D   | 05/03/18      | 05:47         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MS    | 6G55923.D   | 05/03/18      | 06:04         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LS9   | 6G55923.D   | 05/03/18      | 06:04         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MSD   | 6G55924.D   | 05/03/18      | 06:22         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-LB17  | 6G55925.D   | 05/03/18      | 06:40         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LB25  | 6G55926.D   | 05/03/18      | 06:58         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-LB26  | 6G55927.D   | 05/03/18      | 07:16         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LB26  | 6G55927.D   | 05/03/18      | 07:16         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.16 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.94                  | 9.84                  | 11.74                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11917-MB1   | 6G56092.D   | 05/11/18      | 00:46         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-BS1   | 6G56093.D   | 05/11/18      | 01:04         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-5     | 6G56094.D   | 05/11/18      | 01:22         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-MS    | 6G56095.D   | 05/11/18      | 01:40         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-MSD   | 6G56096.D   | 05/11/18      | 01:58         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-6     | 6G56097.D   | 05/11/18      | 02:16         | 2.55                  | 2.94                  | 9.84                  | 11.72                 |
| JC65058-7     | 6G56098.D   | 05/11/18      | 02:34         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-8     | 6G56099.D   | 05/11/18      | 02:51         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-10    | 6G56100.D   | 05/11/18      | 03:09         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-11    | 6G56101.D   | 05/11/18      | 03:27         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |

### Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.17 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11692-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14787.D   | 05/03/18      | 17:24         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14788.D   | 05/03/18      | 17:40         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14789.D   | 05/03/18      | 17:56         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14790.D   | 05/03/18      | 18:13         | 2.69                  | 3.45                  | 10.88                 | 13.51                 |
| ZZZZZZ        | 8G14791.D   | 05/03/18      | 18:29         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14792.D   | 05/03/18      | 18:45         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| JC65058-13A   | 8G14793.D   | 05/03/18      | 19:01         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14794.D   | 05/03/18      | 19:18         | 2.68                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14795.D   | 05/03/18      | 19:34         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14796.D   | 05/03/18      | 19:50         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14797.D   | 05/03/18      | 20:07         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14798.D   | 05/03/18      | 20:23         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14799.D   | 05/03/18      | 20:39         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14800.D   | 05/03/18      | 20:55         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14801.D   | 05/03/18      | 21:12         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14802.D   | 05/03/18      | 21:28         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14803.D   | 05/03/18      | 21:44         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

**Surrogate Compounds**

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.18 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14804.D  | <b>Injection Time:</b> 22:00    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.69                  | 3.45                  | 10.88                 | 13.51                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ        | 8G14806.D   | 05/03/18      | 22:33         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14807.D   | 05/03/18      | 22:49         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14808.D   | 05/03/18      | 23:06         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-LB32  | 8G14809.D   | 05/03/18      | 23:22         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-LB34  | 8G14810.D   | 05/03/18      | 23:38         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-LB28  | 8G14811.D   | 05/03/18      | 23:54         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-LB29  | 8G14812.D   | 05/04/18      | 00:11         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.19  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G489-CC480 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15027.D  | <b>Injection Time:</b> 10:17    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.68                  | 3.45                  | 10.87                 | 13.49                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11917-MB1   | 8G15031.D   | 05/11/18      | 11:41         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| JC65058-6     | 8G15032.D   | 05/11/18      | 11:58         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| ZZZZZZ        | 8G15033.D   | 05/11/18      | 12:14         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| ZZZZZZ        | 8G15034.D   | 05/11/18      | 12:30         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| ZZZZZZ        | 8G15035.D   | 05/11/18      | 12:47         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.20 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162944.D   | <b>Injection Time:</b> 09:11    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11775-MB1      | 2G162946.D     | 05/07/18         | 09:45            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-BS1      | 2G162947.D     | 05/07/18         | 10:02            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| JC65281-54       | 2G162948.D     | 05/07/18         | 10:19            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-MS       | 2G162949.D     | 05/07/18         | 10:36            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| OP11775-MSD      | 2G162950.D     | 05/07/18         | 10:53            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| ZZZZZZ           | 2G162951.D     | 05/07/18         | 11:10            | 2.78                  | 3.43                  | 10.00                 | 11.79                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.21  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4326-CC4311 | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> 2G162965.D   | <b>Injection Time:</b> 15:21    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC65058-13    | 2G162968.D  | 05/07/18      | 17:29         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| JC65058-15    | 2G162969.D  | 05/07/18      | 17:46         | 2.78                  | 3.43                  | 9.98                  | 11.79                 |
| ZZZZZZ        | 2G162970.D  | 05/07/18      | 18:03         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| ZZZZZZ        | 2G162971.D  | 05/07/18      | 18:20         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| ZZZZZZ        | 2G162972.D  | 05/07/18      | 18:37         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| ZZZZZZ        | 2G162973.D  | 05/07/18      | 18:53         | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.22  
12



# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4328-CC4311 | <b>Injection Date:</b> 05/09/18 |
| <b>Lab File ID:</b> 2G163175.D   | <b>Injection Time:</b> 21:27    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC65058-12       | 2G163181.D     | 05/09/18         | 23:09            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |
| ZZZZZ            | 2G163182.D     | 05/09/18         | 23:26            | 2.78                  | 3.43                  | 9.97                  | 11.78                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.23  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227793.D   | <b>Injection Time:</b> 17:05    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11668-MB1   | XX227795.D  | 05/01/18      | 17:38         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| OP11668-BS1   | XX227796.D  | 05/01/18      | 17:55         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| JC65130-1     | XX227797.D  | 05/01/18      | 18:11         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| OP11668-MS    | XX227798.D  | 05/01/18      | 18:28         | 2.81                  | 3.55                  | 9.97                  | 11.97                 |
| OP11668-MSD   | XX227799.D  | 05/01/18      | 18:44         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227800.D  | 05/01/18      | 19:01         | 2.81                  | 3.54                  | 9.99                  | 11.95                 |
| ZZZZZZ        | XX227801.D  | 05/01/18      | 19:17         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.24  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227804.D   | <b>Injection Time:</b> 20:06    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ        | XX227806.D  | 05/01/18      | 20:39         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227807.D  | 05/01/18      | 20:56         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| JC65058-5     | XX227808.D  | 05/01/18      | 21:12         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227809.D  | 05/01/18      | 21:29         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227810.D  | 05/01/18      | 21:45         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227811.D  | 05/01/18      | 22:01         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| ZZZZZZ        | XX227812.D  | 05/01/18      | 22:18         | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.25  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> XX227815.D   | <b>Injection Time:</b> 23:07    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.97                  | 11.97                 |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ           | XX227818.D     | 05/01/18         | 23:57            | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| JC65058-6        | XX227820.D     | 05/02/18         | 00:29            | 2.81                  | 3.55                  | 9.97                  | 11.99                 |
| JC65058-7        | XX227821.D     | 05/02/18         | 00:46            | 2.81                  | 3.55                  | 9.96                  | 11.97                 |
| JC65058-8        | XX227822.D     | 05/02/18         | 01:02            | 2.81                  | 3.55                  | 9.96                  | 11.98                 |
| JC65058-10       | XX227823.D     | 05/02/18         | 01:19            | 2.81                  | 3.55                  | 9.97                  | 11.97                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.26  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GXX6332-CC6321 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> XX227826.D   | <b>Injection Time:</b> 02:08    |
| <b>Instrument ID:</b> GCXX       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC65058-11       | XX227828.D     | 05/02/18         | 02:41            | 2.81                  | 3.55                  | 9.96                  | 11.97                 |

### Surrogate Compounds

S1 = Tetrachloro-m-xylene

S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

12.10.27  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GZZ3198-CC3143 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> ZZ88755A.D   | <b>Injection Time:</b> 00:16    |
| <b>Instrument ID:</b> GCZZ       | <b>Method:</b> SW846 8015C      |

|           | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|
| Check Std | 8.61                  | 9.99                  | 9.07                  |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|
| GZZ3198-RT    | ZZ88756.D   | 05/01/18      | 00:49         |                       |                       |                       |
| OP11656-MB1   | ZZ88758.D   | 05/01/18      | 01:55         | 8.61                  | 10.00                 | 9.08                  |
| OP11656-BS1   | ZZ88759.D   | 05/01/18      | 02:28         | 8.61                  | 9.99                  | 9.08                  |
| JC65141-2     | ZZ88760.D   | 05/01/18      | 03:01         | 8.61                  | 10.00                 | 9.08                  |
| OP11656-MS    | ZZ88761.D   | 05/01/18      | 03:34         | 8.61                  | 10.00                 | 9.08                  |
| OP11656-MSD   | ZZ88762.D   | 05/01/18      | 04:07         | 8.61                  | 9.99                  | 9.08                  |
| ZZZZZZ        | ZZ88763.D   | 05/01/18      | 04:41         | 8.61                  | 10.00                 | 9.08                  |
| ZZZZZZ        | ZZ88764.D   | 05/01/18      | 05:14         | 8.61                  | 10.00                 | 9.08                  |
| ZZZZZZ        | ZZ88765.D   | 05/01/18      | 05:47         | 8.61                  | 10.00                 | 9.08                  |
| ZZZZZZ        | ZZ88766.D   | 05/01/18      | 06:20         | 8.61                  | 10.00                 | 9.08                  |

### Surrogate Compounds

S1 = o-Terphenyl  
 S2 = Tetracosane-d50  
 S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.28  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GZZ3198-CC3143 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> ZZ88778.D    | <b>Injection Time:</b> 12:58    |
| <b>Instrument ID:</b> GCZZ       | <b>Method:</b> SW846 8015C      |

|           | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|
| Check Std | 8.61                  | 9.99                  | 9.07                  |

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|-----------------------|
| JC65058-5        | ZZ88780.D      | 05/01/18         | 14:04            | 8.61                  | 10.00                 | 9.08                  |
| JC65058-6        | ZZ88781.D      | 05/01/18         | 14:38            | 8.62                  | 10.00                 | 9.08                  |
| JC65058-7        | ZZ88782.D      | 05/01/18         | 15:11            | 8.61                  | 10.00                 | 9.08                  |
| JC65058-8        | ZZ88783.D      | 05/01/18         | 16:16            | 8.62                  | 10.00                 | 9.08                  |
| JC65058-10       | ZZ88784.D      | 05/01/18         | 16:49            | 8.61                  | 10.00                 | 9.08                  |
| JC65058-11       | ZZ88785.D      | 05/01/18         | 17:23            | 8.61                  | 10.00                 | 9.08                  |

## Surrogate Compounds

S1 = o-Terphenyl  
S2 = Tetracosane-d50  
S3 = 5a-Androstane

(a) Retention time from GC signal #1

12.10.29  
12

# Initial Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4628-ICC4628  
Lab FileID: 1G145471.D

## Response Factor Report GC1G

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Initial Calibration

### Calibration Files

2 =1G145468.D 5 =1G145469.D 10 =1G145470.D 25 =1G145471.D  
50 =1G145472.D 100 =1G145474.D 1 =1G145467.D 75 =1G145473.D

| Compound  | 2              | 5     | 10    | 25    | 50    | 100   | 1     | 75    | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----   |                |       |       |       |       |       |       |       |       |       |
| 1) I 1-bromo-2-nitrobenzen                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-                                       | 0.891          | 0.950 | 0.938 | 0.944 | 1.066 | 0.950 | 0.834 | 0.969 | 0.943 | 7.02  |
| 3) Hexachlorobe                                       | 1.639          | 1.655 | 1.700 | 1.633 | 1.820 | 1.624 | 1.792 | 1.641 | 1.688 | 4.53  |
| 4) alpha-BHC  | 1.118          | 1.306 | 1.304 | 1.329 | 1.545 | 1.476 | 1.219 | 1.447 | 1.343 | 10.48 |
| 5) gamma-BHC  | 1.115          | 1.188 | 1.201 | 1.193 | 1.371 | 1.288 | 1.221 | 1.288 | 1.233 | 6.43  |
| 6) Heptachlor   | 1.112          | 1.193 | 1.215 | 1.254 | 1.435 | 1.321 | 1.411 | 1.328 | 1.284 | 8.61  |
| 7) beta-BHC   | 0.547          | 0.591 | 0.534 | 0.563 | 0.613 | 0.570 | 0.511 | 0.574 | 0.563 | 5.72  |
| 8) delta-BHC  | 0.776          | 0.904 | 0.999 | 1.151 | 1.315 | 1.249 | 1.044 | 1.247 | 1.086 | 17.32 |
| 9) Aldrin   | 1.029          | 1.126 | 1.180 | 1.153 | 1.329 | 1.243 | 1.241 | 1.239 | 1.192 | 7.68  |
| 10) Alachlor  | 0.155          | 0.126 | 0.127 | 0.127 | 0.139 | 0.135 | 0.196 | 0.135 | 0.142 | 16.60 |
| 11) Heptachlor E                                      | 0.980          | 1.076 | 1.111 | 1.092 | 1.258 | 1.145 | 1.110 | 1.158 | 1.116 | 7.07  |
| 12) gamma-Chlord                                      | 1.010          | 1.054 | 1.110 | 1.101 | 1.274 | 1.186 | 1.228 | 1.188 | 1.144 | 7.86  |
| 13) alpha-Chlord                                      | 0.960          | 1.049 | 1.079 | 1.063 | 1.220 | 1.131 | 1.108 | 1.135 | 1.093 | 6.94  |
| 14) Endosulfan I                                      | 1.053          | 1.180 | 1.206 | 1.151 | 1.319 | 1.197 | 1.223 | 1.209 | 1.192 | 6.22  |
| 15) 4,4'-DDE  | 0.893          | 0.914 | 0.919 | 0.925 | 1.065 | 1.001 | 1.178 | 0.999 | 0.987 | 9.83  |
| 16) Dieldrin  | 1.027          | 1.059 | 1.081 | 1.093 | 1.270 | 1.182 | 1.057 | 1.177 | 1.118 | 7.41  |
| 17) Endrin  | 0.923          | 0.972 | 1.009 | 1.019 | 1.176 | 1.090 | 1.012 | 1.091 | 1.036 | 7.65  |
| 18) 4,4'-DDD  | 0.716          | 0.717 | 0.760 | 0.772 | 0.919 | 0.857 | 0.794 | 0.855 | 0.799 | 9.08  |
| 19) Endosulfan I                                      | 0.861          | 0.959 | 0.996 | 0.972 | 1.120 | 1.023 | 1.076 | 1.030 | 1.005 | 7.81  |
| 20) 4,4'-DDT  | 0.622          | 0.648 | 0.693 | 0.764 | 0.890 | 0.875 | 0.528 | 0.857 | 0.735 | 18.15 |
| 21) Endrin Aldeh                                      | 0.729          | 0.812 | 0.817 | 0.808 | 0.866 | 0.845 | 0.765 | 0.842 | 0.811 | 5.53  |
| 22) Endosulfan S                                      | 0.656          | 0.759 | 0.790 | 0.802 | 0.912 | 0.853 | 0.731 | 0.848 | 0.794 | 10.05 |
| 23) Methoxychlor                                      | 0.210          | 0.239 | 0.289 | 0.332 | 0.407 | 0.395 | 0.161 | 0.390 | 0.303 | 30.77 |
| -----   |                |       |       |       |       |       |       |       |       |       |
| ---- Quadratic regression ---- Coefficient = 0.9984   |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01368 + 0.39702 *A + 0.00297 *A^2 |                |       |       |       |       |       |       |       |       |       |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 24) Mirex   | 0.747          | 0.807 | 0.826 | 0.805 | 0.878 | 0.793 | 0.818 | 0.802 | 0.810 | 4.51  |
| 25) Endrin Keton                                      | 0.835          | 0.878 | 0.917 | 0.932 | 1.066 | 0.986 | 0.890 | 0.991 | 0.937 | 7.91  |
| 26) Decachlorobi                                      | 0.948          | 0.953 | 0.978 | 0.951 | 1.045 | 0.940 | 0.985 | 0.956 | 0.970 | 3.52  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 27) I 1-bromo-2-nitrobenzen                           | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) Toxaphene{A}                                      |                |       |       |       | 0.018 |       |       | 0.018 |       | 0.00  |
| 29) Toxaphene{B}                                      |                |       |       |       | 0.044 |       |       | 0.044 |       | 0.00  |
| 30) Toxaphene{C}                                      |                |       |       |       | 0.037 |       |       | 0.037 |       | 0.00  |
| 31) Toxaphene{D}                                      |                |       |       |       | 0.025 |       |       | 0.025 |       | 0.00  |
| 32) Toxaphene{E}                                      |                |       |       |       | 0.027 |       |       | 0.027 |       | 0.00  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 33) I 1-bromo-2-nitrobenzen                           | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) Chlordane {A}                                     |                |       |       |       | 0.062 |       |       | 0.062 |       | 0.00  |
| 35) Chlordane {B}                                     |                |       |       |       | 0.026 |       |       | 0.026 |       | 0.00  |
| 36) Chlordane {C}                                     |                |       |       |       | 0.153 |       |       | 0.153 |       | 0.00  |
| 37) Chlordane {D}                                     |                |       |       |       | 0.239 |       |       | 0.239 |       | 0.00  |
| 38) Chlordane {E}                                     |                |       |       |       | 0.027 |       |       | 0.027 |       | 0.00  |

Signal #2



# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICC4628  
**Lab FileID:** 1G145471.D

|       |                       |       |       |       |       |       |       |       |       |       |       |
|-------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I  | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 2)    | Tetrachloro-          | 1.015 | 1.010 | 1.030 | 1.009 | 1.140 | 0.987 | 1.062 | 1.012 | 1.033 | 4.67  |
| 3)    | Hexachlorobe          | 1.367 | 1.308 | 1.308 | 1.271 | 1.437 | 1.246 | 1.840 | 1.282 | 1.382 | 14.08 |
| 4)    | alpha-BHC             | 1.299 | 1.331 | 1.346 | 1.385 | 1.643 | 1.493 | 1.355 | 1.516 | 1.421 | 8.31  |
| 5)    | gamma-BHC             | 1.214 | 1.241 | 1.259 | 1.276 | 1.487 | 1.322 | 1.188 | 1.347 | 1.292 | 7.33  |
| 6)    | Heptachlor            | 1.186 | 1.248 | 1.276 | 1.278 | 1.484 | 1.314 | 1.351 | 1.337 | 1.309 | 6.72  |
| 7)    | beta-BHC              | 0.528 | 0.562 | 0.592 | 0.582 | 0.663 | 0.567 | 0.626 | 0.587 | 0.588 | 7.00  |
| 8)    | delta-BHC             | 1.026 | 1.112 | 1.135 | 1.157 | 1.374 | 1.237 | 1.098 | 1.249 | 1.173 | 9.27  |
| 9)    | Aldrin                | 1.296 | 1.267 | 1.269 | 1.267 | 1.464 | 1.302 | 1.243 | 1.319 | 1.303 | 5.31  |
| 10)   | Alachlor              | 0.189 | 0.179 | 0.180 | 0.164 | 0.180 | 0.152 | 0.191 | 0.158 | 0.174 | 8.26  |
| 11)   | Heptachlor E          | 1.224 | 1.197 | 1.195 | 1.183 | 1.349 | 1.184 | 1.129 | 1.209 | 1.209 | 5.22  |
| 12)   | gamma-Chlord          | 1.201 | 1.193 | 1.202 | 1.180 | 1.365 | 1.204 | 1.266 | 1.226 | 1.229 | 4.94  |
| 13)   | alpha-Chlord          | 1.148 | 1.160 | 1.165 | 1.150 | 1.316 | 1.154 | 1.159 | 1.175 | 1.178 | 4.76  |
| 14)   | Endosulfan I          | 1.144 | 1.101 | 1.102 | 1.085 | 1.237 | 1.084 | 1.175 | 1.106 | 1.129 | 4.73  |
| 15)   | 4,4'-DDE              | 0.999 | 1.040 | 1.050 | 1.051 | 1.231 | 1.113 | 0.956 | 1.124 | 1.070 | 7.95  |
| 16)   | Dieldrin              | 1.186 | 1.190 | 1.201 | 1.189 | 1.379 | 1.227 | 1.281 | 1.247 | 1.237 | 5.36  |
| 17)   | Endrin                | 1.039 | 1.049 | 1.051 | 1.044 | 1.209 | 1.079 | 1.080 | 1.090 | 1.080 | 5.12  |
| 18)   | 4,4'-DDD              | 0.791 | 0.767 | 0.791 | 0.791 | 0.933 | 0.854 | 0.877 | 0.848 | 0.831 | 6.76  |
| 19)   | Endosulfan I          | 1.050 | 1.038 | 1.058 | 1.029 | 1.181 | 1.046 | 1.186 | 1.056 | 1.081 | 5.94  |
| 20)   | 4,4'-DDT              | 0.512 | 0.568 | 0.608 | 0.669 | 0.816 | 0.774 | 0.520 | 0.763 | 0.654 | 18.32 |
| 21)   | Endrin Aldeh          | 0.848 | 0.843 | 0.803 | 0.823 | 0.887 | 0.822 | 0.927 | 0.836 | 0.848 | 4.71  |
| 22)   | Endosulfan S          | 0.780 | 0.799 | 0.747 | 0.809 | 0.929 | 0.831 | 0.780 | 0.840 | 0.814 | 6.76  |
| 23)   | Methoxychlor          | 0.317 | 0.361 | 0.316 | 0.348 | 0.406 | 0.359 | 0.315 | 0.362 | 0.348 | 9.07  |
| 24)   | Mirex                 | 0.709 | 0.760 | 0.715 | 0.737 | 0.814 | 0.699 | 0.852 | 0.717 | 0.750 | 7.35  |
| 25)   | Endrin Keton          | 0.791 | 0.826 | 0.822 | 0.858 | 1.014 | 0.906 | 0.879 | 0.919 | 0.877 | 8.05  |
| 26)   | Decachlorobi          | 0.971 | 0.934 | 0.897 | 0.916 | 1.025 | 0.882 | 0.876 | 0.907 | 0.926 | 5.42  |
| 27) I | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 28)   | Toxaphene{A}          |       |       |       |       | 0.020 |       |       | 0.020 | 0.00  |       |
| 29)   | Toxaphene{B}          |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |
| 30)   | Toxaphene{C}          |       |       |       |       | 0.042 |       |       | 0.042 | 0.00  |       |
| 31)   | Toxaphene{D}          |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |
| 32)   | Toxaphene{E}          |       |       |       |       | 0.021 |       |       | 0.021 | 0.00  |       |
| 33) I | 1-bromo-2-nitrobenzen | ----- | ISTD  | ----- |       |       |       |       |       |       |       |
| 34)   | Chlordane {A}         |       |       |       |       | 0.057 |       |       | 0.057 | 0.00  |       |
| 35)   | Chlordane {B}         |       |       |       |       | 0.026 |       |       | 0.026 | 0.00  |       |
| 36)   | Chlordane {C}         |       |       |       |       | 0.143 |       |       | 0.143 | 0.00  |       |
| 37)   | Chlordane {D}         |       |       |       |       | 0.238 |       |       | 0.238 | 0.00  |       |
| 38)   | Chlordane {E}         |       |       |       |       | 0.025 |       |       | 0.025 | 0.00  |       |

(#) = Out of Range ### Number of calibration levels exceeded format ###

1PST4628.M

Thu Apr 26 09:15:45 2018

RPT1

12.11.1  
12

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4628-ICV4628  
Lab FileID: 1G145478.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD1A.CH Vial: 14  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145478.D\ECD2B.CH  
Acq On : 4-25-18 03:39:32 PM Operator: dharas  
Sample : icv4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT Window   |
|-------|------------------------|-------|-------|-------|-------|----------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 103   | 0.00     | 1.95- 2.01  |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.964 | -2.2  | 93    | 0.00     | 2.52- 2.58  |
| 26 SA | Decachlorobiphenyl     | 0.970 | 1.009 | -4.0  | 100   | 0.00     | 9.79- 9.85  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 93    | 0.00     | 1.88- 2.08  |
| 34    | Chlordane {A}          | 0.062 | 0.071 | -14.5 | 107   | 0.00     | 3.70- 3.90  |
| 35    | Chlordane {B}          | 0.026 | 0.026 | 0.0   | 93    | 0.00     | 4.66- 4.86  |
| 36    | Chlordane {C}          | 0.153 | 0.154 | -0.7  | 94    | 0.00     | 4.91- 5.11  |
| 37    | Chlordane {D}          | 0.239 | 0.245 | -2.5  | 95    | 0.00     | 5.07- 5.27  |
| 38    | Chlordane {E}          | 0.027 | 0.030 | -11.1 | 103   | 0.00     | 5.97- 6.17  |
| ***** | Signal #2              | ***** |       |       |       |          |             |
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 110   | 0.00     | 2.27- 2.33  |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.916 | 11.3  | 88    | 0.00     | 3.11- 3.17  |
| 26 SA | Decachlorobiphenyl     | 0.926 | 0.922 | 0.4   | 99    | 0.00     | 11.68-11.74 |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 95    | 0.00     | 2.20- 2.40  |
| 34    | Chlordane {A}          | 0.057 | 0.067 | -17.5 | 111   | 0.00     | 4.78- 4.98  |
| 35    | Chlordane {B}          | 0.026 | 0.030 | -15.4 | 108   | 0.00     | 6.04- 6.24  |
| 36    | Chlordane {C}          | 0.143 | 0.144 | -0.7  | 96    | 0.00     | 6.40- 6.60  |
| 37    | Chlordane {D}          | 0.238 | 0.239 | -0.4  | 96    | 0.00     | 6.63- 6.83  |
| 38    | Chlordane {E}          | 0.025 | 0.027 | -8.0  | 104   | 0.00     | 7.82- 8.02  |

(#) = Out of Range  
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:08:59 2018 RPT1

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4628-ICV4628  
Lab FileID: 1G145479.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD1A.CH Vial: 15  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145479.D\ECD2B.CH  
Acq On : 4-25-18 03:56:45 PM Operator: dharas  
Sample : icv4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|-------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 110   | 0.00     | 1.95-  | 2.01   |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.840 | 10.9  | 87    | 0.00     | 2.52-  | 2.58   |
| 26 SA | Decachlorobiphenyl     | 0.970 | 0.955 | 1.5   | 101   | 0.00     | 9.79-  | 9.85   |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 1.88-  | 2.08   |
| 28 L8 | Toxaphene{A}           | 0.018 | 0.019 | -5.6  | 104   | 0.00     | 5.59-  | 5.79   |
| 29 L8 | Toxaphene{B}           | 0.044 | 0.046 | -4.5  | 101   | 0.00     | 6.22-  | 6.42   |
| 30 L8 | Toxaphene{C}           | 0.037 | 0.039 | -5.4  | 102   | 0.00     | 6.39-  | 6.59   |
| 31 L8 | Toxaphene{D}           | 0.025 | 0.030 | -20.0 | 118   | 0.00     | 6.74-  | 6.94   |
| 32 L8 | Toxaphene{E}           | 0.027 | 0.029 | -7.4  | 105   | 0.00     | 7.39-  | 7.59   |
| ***** | Signal #2              | ***** |       |       |       |          |        |        |
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 112   | 0.00     | 2.27-  | 2.33   |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.909 | 12.0  | 89    | 0.00     | 3.11-  | 3.17   |
| 26 SA | Decachlorobiphenyl     | 0.926 | 0.900 | 2.8   | 98    | 0.00     | 11.68- | 11.74  |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 98    | 0.00     | 2.20-  | 2.40   |
| 28 L8 | Toxaphene{A}           | 0.020 | 0.020 | 0.0   | 100   | 0.00     | 7.14-  | 7.34   |
| 29 L8 | Toxaphene{B}           | 0.025 | 0.026 | -4.0  | 100   | 0.00     | 8.03-  | 8.23   |
| 30 L8 | Toxaphene{C}           | 0.042 | 0.043 | -2.4  | 100   | 0.00     | 8.20-  | 8.40   |
| 31 L8 | Toxaphene{D}           | 0.025 | 0.026 | -4.0  | 101   | 0.00     | 8.63-  | 8.83   |
| 32 L8 | Toxaphene{E}           | 0.021 | 0.021 | 0.0   | 99    | 0.00     | 9.53-  | 9.73   |

(#) = Out of Range  
1G145479.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:09:00 2018 RPT1

12.11.3  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145481.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD1A.CH Vial: 17  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145481.D\ECD2B.CH  
Acq On : 4-25-18 04:31:21 PM Operator: dharas  
Sample : icv4628-50 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|                       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-----------------------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 1.95- | 2.01   |
| 3                     | Hexachlorobenzene      | 1.688 | 1.743 | -3.3 | 100   | 0.00     | 2.85- | 2.91   |
| ***** Signal #2 ***** |                        |       |       |      |       |          |       |        |
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 113   | 0.00     | 2.27- | 2.33   |
| 3                     | Hexachlorobenzene      | 1.382 | 1.329 | 3.8  | 104   | 0.00     | 3.65- | 3.71   |

(#) = Out of Range  
1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:09:01 2018 RPT1

12.11.4  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145508.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD1A.CH Vial: 25  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145508.D\ECD2B.CH  
Acq On : 4-25-18 06:53:01 PM Operator: dharas  
Sample : icv4628-50 Inst : GC1G  
Misc : op11477,g1g4628,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Wed Apr 25 15:35:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|                       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-----------------------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 116   | 0.00     | 1.95- | 2.01   |
| 10                    | Alachlor               | 0.142 | 0.126 | 11.3 | 105   | 0.00     | 4.22- | 4.28   |
| ***** Signal #2 ***** |                        |       |       |      |       |          |       |        |
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 121   | 0.00     | 2.27- | 2.33   |
| 10                    | Alachlor               | 0.174 | 0.151 | 13.2 | 101   | 0.00     | 5.09- | 5.15   |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
1G145472.D 1PST4628.M Thu Apr 26 09:09:02 2018 RPT1

12.11.5  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145488.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD1A.CH Vial: 5  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145488.D\ECD2B.CH  
 Acq On : 4-25-18 07:10:15 PM Operator: dharas  
 Sample : icv4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed Apr 25 15:35:08 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | RT   | Window |
|--------------------------------|--------|--------|-------|-------|----------|------|--------|
| 1 I 1-bromo-2-nitrobenzene     | 1.000  | 1.000  | 0.0   | 97    | 0.00     | 1.95 | 2.01   |
| 2 SAB Tetrachloro-m-xylene     | 0.943  | 0.835  | 11.5  | 86    | 0.00     | 2.52 | 2.58   |
| 4 A alpha-BHC                  | 1.343  | 1.359  | -1.2  | 99    | 0.00     | 2.98 | 3.04   |
| 5 MA gamma-BHC                 | 1.233  | 1.293  | -4.9  | 105   | 0.00     | 3.27 | 3.33   |
| 6 MA Heptachlor                | 1.284  | 1.312  | -2.2  | 101   | 0.00     | 3.77 | 3.83   |
| 7 B beta-BHC                   | 0.563  | 0.571  | -1.4  | 98    | 0.00     | 3.35 | 3.41   |
| 8 B delta-BHC                  | 1.086  | 1.141  | -5.1  | 96    | 0.00     | 3.54 | 3.61   |
| 9 MB Aldrin                    | 1.192  | 1.191  | 0.1   | 100   | 0.00     | 4.11 | 4.17   |
| 11 B Heptachlor Epoxide        | 1.116  | 1.105  | 1.0   | 98    | 0.00     | 4.81 | 4.87   |
| 12 B gamma-Chlordane           | 1.144  | 1.151  | -0.6  | 101   | 0.00     | 4.98 | 5.04   |
| 13 B alpha-Chlordane           | 1.093  | 1.152  | -5.4  | 105   | 0.00     | 5.15 | 5.21   |
| 14 A Endosulfan I              | 1.192  | 1.184  | 0.7   | 100   | 0.00     | 5.33 | 5.39   |
| 15 B 4,4'-DDE                  | 0.987  | 1.094  | -10.8 | 115   | 0.00     | 5.26 | 5.32   |
| 16 MA Dieldrin                 | 1.118  | 1.150  | -2.9  | 102   | 0.00     | 5.65 | 5.71   |
| 17 MA Endrin                   | 1.036  | 1.103  | -6.5  | 105   | 0.00     | 5.98 | 6.04   |
| 18 A 4,4'-DDD                  | 0.799  | 0.839  | -5.0  | 105   | 0.00     | 6.10 | 6.17   |
| 19 B Endosulfan II             | 1.005  | 0.989  | 1.6   | 99    | 0.00     | 6.30 | 6.36   |
| 20 MA 4,4'-DDT                 | 0.735  | 0.836  | -13.7 | 106   | 0.00     | 6.52 | 6.58   |
| 21 B Endrin Aldehyde           | 0.811  | 0.790  | 2.6   | 95    | 0.00     | 6.93 | 6.99   |
| 22 B Endosulfan Sulfate        | 0.794  | 0.862  | -8.6  | 104   | 0.00     | 7.61 | 7.67   |
| ----- True Calc. % Drift ----- |        |        |       |       |          |      |        |
| 23 A Methoxychlor              | 25.000 | 26.181 | -4.7  | 114   | 0.00     | 7.30 | 7.36   |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |        |
| 24 Mirex                       | 0.810  | 0.766  | 5.4   | 92    | 0.00     | 7.48 | 7.54   |
| 25 B Endrin Ketone             | 0.937  | 0.876  | 6.5   | 91    | 0.00     | 8.06 | 8.12   |
| 26 SA Decachlorobiphenyl       | 0.970  | 0.868  | 10.5  | 88    | 0.00     | 9.79 | 9.85   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |      |     |      |      |      |
|----------------------------|-------|-------|------|-----|------|------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 101 | 0.00 | 2.27 | 2.33 |
| 2 SAB Tetrachloro-m-xylene | 1.033 | 0.893 | 13.6 | 89  | 0.00 | 3.11 | 3.17 |
| 4 A alpha-BHC              | 1.421 | 1.409 | 0.8  | 103 | 0.00 | 3.80 | 3.86 |
| 5 MA gamma-BHC             | 1.292 | 1.263 | 2.2  | 100 | 0.00 | 4.25 | 4.31 |
| 6 MA Heptachlor            | 1.309 | 1.318 | -0.7 | 104 | 0.00 | 4.85 | 4.91 |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4628-ICV4628  
**Lab FileID:** 1G145488.D

|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 7  | B  | beta-BHC           | 0.588 | 0.545 | 7.3   | 95  | 0.00 | 4.34- 4.40  |
| 8  | B  | delta-BHC          | 1.173 | 1.168 | 0.4   | 102 | 0.00 | 4.76- 4.82  |
| 9  | MB | Aldrin             | 1.303 | 1.264 | 3.0   | 101 | 0.00 | 5.33- 5.39  |
| 11 | B  | Heptachlor Epoxide | 1.209 | 1.183 | 2.2   | 101 | 0.00 | 6.17- 6.23  |
| 12 | B  | gamma-Chlordane    | 1.229 | 1.184 | 3.7   | 101 | 0.00 | 6.47- 6.53  |
| 13 | B  | alpha-Chlordane    | 1.178 | 1.142 | 3.1   | 100 | 0.00 | 6.70- 6.76  |
| 14 | A  | Endosulfan I       | 1.129 | 1.103 | 2.3   | 103 | 0.00 | 6.80- 6.86  |
| 15 | B  | 4,4'-DDE           | 1.070 | 1.126 | -5.2  | 108 | 0.00 | 6.95- 7.01  |
| 16 | MA | Dieldrin           | 1.237 | 1.190 | 3.8   | 101 | 0.00 | 7.25- 7.31  |
| 17 | MA | Endrin             | 1.080 | 1.104 | -2.2  | 107 | 0.00 | 7.77- 7.83  |
| 18 | A  | 4,4'-DDD           | 0.831 | 0.851 | -2.4  | 109 | 0.00 | 7.93- 7.99  |
| 19 | B  | Endosulfan II      | 1.081 | 1.018 | 5.8   | 100 | 0.00 | 8.13- 8.19  |
| 20 | MA | 4,4'-DDT           | 0.654 | 0.753 | -15.1 | 114 | 0.00 | 8.47- 8.53  |
| 21 | B  | Endrin Aldehyde    | 0.848 | 0.801 | 5.5   | 98  | 0.00 | 8.71- 8.77  |
| 22 | B  | Endosulfan Sulfate | 0.814 | 0.891 | -9.5  | 111 | 0.00 | 9.19- 9.25  |
| 23 | A  | Methoxychlor       | 0.348 | 0.342 | 1.7   | 99  | 0.00 | 9.66- 9.72  |
| 24 |    | Mirex              | 0.750 | 0.686 | 8.5   | 94  | 0.00 | 9.98-10.04  |
| 25 | B  | Endrin Ketone      | 0.877 | 0.831 | 5.2   | 98  | 0.00 | 10.03-10.09 |
| 26 | SA | Decachlorobiphenyl | 0.926 | 0.898 | 3.0   | 99  | 0.00 | 11.68-11.74 |

(#) = Out of Range  
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 26 09:08:10 2018 RPT1

12.11.6  
12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4635-CC4628  
 Lab FileID: 1G145798.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145798.D\ECD1A.CH Vial: 4  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145798.D\ECD2B.CH  
 Acq On : 01 May 2018 11:18 pm Operator: christp  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11467,glg4635,15.2,,,10,5 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev   | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|--------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0    | 82    | 0.00     | 1.94- | 2.00   |
| 2 SAB | Tetrachloro-m-xylene   | 0.943 | 0.914 | 3.1    | 71    | 0.00     | 2.51- | 2.57   |
| 3     | Hexachlorobenzene      | 1.688 | 1.637 | 3.0    | 74    | 0.00     | 2.85- | 2.91   |
| 4 A   | alpha-BHC              | 1.343 | 1.333 | 0.7    | 71    | 0.00     | 2.98- | 3.04   |
| 5 MA  | gamma-BHC              | 1.233 | 1.181 | 4.2    | 71    | 0.00     | 3.27- | 3.33   |
| 6 MA  | Heptachlor             | 1.284 | 1.208 | 5.9    | 69    | 0.00     | 3.76- | 3.82   |
| 7 B   | beta-BHC               | 0.563 | 0.564 | -0.2   | 76    | 0.00     | 3.35- | 3.41   |
| 8 B   | delta-BHC              | 1.086 | 1.017 | 6.4    | 64    | 0.00     | 3.54- | 3.60   |
| 9 MB  | Aldrin                 | 1.192 | 1.071 | 10.2   | 66    | 0.00     | 4.10- | 4.16   |
| 10    | Alachlor               | 0.142 | 0.129 | 9.2    | 76    | 0.00     | 4.22- | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.116 | 0.996 | 10.8   | 65    | 0.00     | 4.81- | 4.87   |
| 12 B  | gamma-Chlordane        | 1.144 | 0.999 | 12.7   | 65    | 0.00     | 4.97- | 5.03   |
| 13 B  | alpha-Chlordane        | 1.093 | 1.065 | 2.6    | 72    | 0.00     | 5.14- | 5.20   |
| 14 A  | Endosulfan I           | 1.192 | 1.130 | 5.2    | 71    | 0.00     | 5.32- | 5.38   |
| 15 B  | 4,4'-DDE               | 0.987 | 1.014 | -2.7   | 79    | 0.00     | 5.26- | 5.32   |
| 16 MA | Dieldrin               | 1.118 | 1.187 | -6.2   | 77    | 0.00     | 5.64- | 5.70   |
| 17 MA | Endrin                 | 1.036 | 1.162 | -12.2  | 82    | 0.00     | 5.97- | 6.03   |
| 18 A  | 4,4'-DDD               | 0.799 | 0.864 | -8.1   | 78    | 0.02     | 6.10- | 6.17   |
| 19 B  | Endosulfan II          | 1.005 | 1.090 | -8.5   | 80    | 0.00     | 6.30- | 6.36   |
| 20 MA | 4,4'-DDT               | 0.735 | 0.871 | -18.5  | 81    | 0.01     | 6.51- | 6.57   |
| 21 B  | Endrin Aldehyde        | 0.811 | 0.950 | -17.1  | 90    | 0.00     | 6.92- | 6.98   |
| 22 B  | Endosulfan Sulfate     | 0.794 | 0.987 | -24.3# | 89    | 0.00     | 7.60- | 7.66   |

|      |              | True   | Calc.  | % Drift |    |      |       |      |
|------|--------------|--------|--------|---------|----|------|-------|------|
| 23 A | Methoxychlor | 50.000 | 56.177 | -12.4   | 88 | 0.02 | 7.30- | 7.36 |

|       |                    | AvgRF | CCRF  | % Dev  |    |      |       |      |
|-------|--------------------|-------|-------|--------|----|------|-------|------|
| 24    | Mirex              | 0.810 | 0.898 | -10.9  | 84 | 0.00 | 7.47- | 7.53 |
| 25 B  | Endrin Ketone      | 0.937 | 1.083 | -15.6  | 84 | 0.00 | 8.05- | 8.11 |
| 26 SA | Decachlorobiphenyl | 0.970 | 1.254 | -29.3# | 99 | 0.00 | 9.78- | 9.84 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |       |       |      |
|-------|------------------------|-------|-------|-------|-----|-------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 111 | -0.01 | 2.26- | 2.32 |
| 2 SAB | Tetrachloro-m-xylene   | 1.033 | 0.920 | 10.9  | 90  | -0.01 | 3.10- | 3.16 |
| 3     | Hexachlorobenzene      | 1.382 | 1.421 | -2.8  | 110 | 0.00  | 3.63- | 3.69 |
| 4 A   | alpha-BHC              | 1.421 | 1.215 | 14.5  | 82  | -0.01 | 3.78- | 3.84 |
| 5 MA  | gamma-BHC              | 1.292 | 1.089 | 15.7  | 81  | 0.00  | 4.23- | 4.29 |
| 6 MA  | Heptachlor             | 1.309 | 1.087 | 17.0  | 81  | -0.01 | 4.83- | 4.89 |
| 7 B   | beta-BHC               | 0.588 | 0.462 | 21.4# | 77  | 0.00  | 4.32- | 4.38 |
| 8 B   | delta-BHC              | 1.173 | 1.008 | 14.1  | 82  | 0.00  | 4.74- | 4.80 |

12.11.7 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4635-CC4628  
**Lab FileID:** 1G145798.D

|       |                    |       |       |       |     |       |        |       |
|-------|--------------------|-------|-------|-------|-----|-------|--------|-------|
| 9 MB  | Aldrin             | 1.303 | 1.086 | 16.7  | 83  | -0.01 | 5.31-  | 5.37  |
| 10    | Alachlor           | 0.174 | 0.139 | 20.1# | 86  | 0.00  | 5.08-  | 5.14  |
| 11 B  | Heptachlor Epoxide | 1.209 | 1.041 | 13.9  | 86  | 0.00  | 6.15-  | 6.21  |
| 12 B  | gamma-Chlordane    | 1.229 | 1.018 | 17.2  | 83  | 0.00  | 6.45-  | 6.51  |
| 13 B  | alpha-Chlordane    | 1.178 | 0.995 | 15.5  | 84  | 0.00  | 6.68-  | 6.74  |
| 14 A  | Endosulfan I       | 1.129 | 0.967 | 14.3  | 87  | 0.00  | 6.79-  | 6.85  |
| 15 B  | 4,4'-DDE           | 1.070 | 1.124 | -5.0  | 102 | 0.00  | 6.93-  | 6.99  |
| 16 MA | Dieldrin           | 1.237 | 1.079 | 12.8  | 87  | 0.00  | 7.23-  | 7.29  |
| 17 MA | Endrin             | 1.080 | 0.976 | 9.6   | 90  | 0.00  | 7.75-  | 7.81  |
| 18 A  | 4,4'-DDD           | 0.831 | 0.764 | 8.1   | 91  | 0.00  | 7.91-  | 7.97  |
| 19 B  | Endosulfan II      | 1.081 | 0.948 | 12.3  | 89  | 0.00  | 8.11-  | 8.17  |
| 20 MA | 4,4'-DDT           | 0.654 | 0.643 | 1.7   | 88  | 0.00  | 8.45-  | 8.51  |
| 21 B  | Endrin Aldehyde    | 0.848 | 0.738 | 13.0  | 93  | 0.00  | 8.69-  | 8.75  |
| 22 B  | Endosulfan Sulfate | 0.814 | 0.763 | 6.3   | 91  | 0.00  | 9.16-  | 9.22  |
| 23 A  | Methoxychlor       | 0.348 | 0.295 | 15.2  | 81  | 0.00  | 9.65-  | 9.71  |
| 24    | Mirex              | 0.750 | 0.661 | 11.9  | 90  | 0.00  | 9.97-  | 10.03 |
| 25 B  | Endrin Ketone      | 0.877 | 0.767 | 12.5  | 84  | 0.00  | 10.01- | 10.07 |
| 26 SA | Decachlorobiphenyl | 0.926 | 0.903 | 2.5   | 98  | 0.00  | 11.66- | 11.72 |

(#) = Out of Range  
 1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 05:52:56 2018 RPT1

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G1G4635-CC4628  
 Lab FileID: 1G145819.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145819.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145819.D\ECD2B.CH  
 Acq On : 5-2-18 05:28:57 AM Operator: christp  
 Sample : cc4628-25 Inst : GC1G  
 Misc : op11667,glg4635,15.7,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                   | AvgRF | CCRF  | %Dev   | Area% | Dev(min) | RT   | Window |
|----------------------------|-------|-------|--------|-------|----------|------|--------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0    | 82    | 0.00     | 1.95 | 2.01   |
| 2 SAB Tetrachloro-m-xylene | 0.943 | 1.104 | -17.1  | 96    | 0.00     | 2.51 | 2.57   |
| 3 Hexachlorobenzene        | 1.688 | 1.979 | -17.2  | 99    | 0.00     | 2.84 | 2.90   |
| 4 A alpha-BHC              | 1.343 | 1.551 | -15.5  | 96    | 0.00     | 2.97 | 3.03   |
| 5 MA gamma-BHC             | 1.233 | 1.386 | -12.4  | 95    | 0.00     | 3.27 | 3.33   |
| 6 MA Heptachlor            | 1.284 | 1.241 | 3.3    | 81    | 0.00     | 3.76 | 3.82   |
| 7 B beta-BHC               | 0.563 | 0.586 | -4.1   | 85    | 0.01     | 3.36 | 3.42   |
| 8 B delta-BHC              | 1.086 | 1.110 | -2.2   | 79    | 0.02     | 3.55 | 3.61   |
| 9 MB Aldrin                | 1.192 | 1.392 | -16.8  | 99    | 0.00     | 4.10 | 4.16   |
| 10 Alachlor                | 0.142 | 0.136 | 4.2    | 88    | 0.00     | 4.22 | 4.28   |
| 11 B Heptachlor Epoxide    | 1.116 | 1.296 | -16.1  | 97    | 0.00     | 4.80 | 4.86   |
| 12 B gamma-Chlordane       | 1.144 | 1.171 | -2.4   | 87    | 0.00     | 4.97 | 5.03   |
| 13 B alpha-Chlordane       | 1.093 | 1.201 | -9.9   | 92    | 0.00     | 5.14 | 5.20   |
| 14 A Endosulfan I          | 1.192 | 1.435 | -20.4# | 102   | 0.00     | 5.32 | 5.38   |
| 15 B 4,4'-DDE              | 0.987 | 0.986 | 0.1    | 87    | 0.01     | 5.26 | 5.32   |
| 16 MA Dieldrin             | 1.118 | 1.327 | -18.7  | 99    | 0.00     | 5.64 | 5.70   |
| 17 MA Endrin               | 1.036 | 1.067 | -3.0   | 86    | 0.00     | 5.97 | 6.03   |
| 18 A 4,4'-DDD              | 0.799 | 0.859 | -7.5   | 91    | 0.03     | 6.11 | 6.18   |
| 19 B Endosulfan II         | 1.005 | 1.171 | -16.5  | 99    | 0.00     | 6.29 | 6.35   |
| 20 MA 4,4'-DDT             | 0.735 | 0.629 | 14.4   | 67    | 0.01     | 6.51 | 6.57   |
| 21 B Endrin Aldehyde       | 0.811 | 1.037 | -27.9# | 105   | 0.00     | 6.92 | 6.98   |
| 22 B Endosulfan Sulfate    | 0.794 | 0.952 | -19.9  | 97    | 0.00     | 7.59 | 7.65   |

|                   | True   | Calc.  | % Drift |    |      |      |      |
|-------------------|--------|--------|---------|----|------|------|------|
| 23 A Methoxychlor | 25.000 | 20.134 | 19.5    | 72 | 0.02 | 7.31 | 7.37 |

|                          | AvgRF | CCRF  | % Dev  |     |      |      |      |
|--------------------------|-------|-------|--------|-----|------|------|------|
| 24 Mirex                 | 0.810 | 0.991 | -22.3# | 101 | 0.00 | 7.46 | 7.52 |
| 25 B Endrin Ketone       | 0.937 | 0.999 | -6.6   | 88  | 0.00 | 8.05 | 8.11 |
| 26 SA Decachlorobiphenyl | 0.970 | 1.217 | -25.5# | 105 | 0.00 | 9.78 | 9.84 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |        |     |      |      |      |
|----------------------------|-------|-------|--------|-----|------|------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0    | 88  | 0.00 | 2.27 | 2.33 |
| 2 SAB Tetrachloro-m-xylene | 1.033 | 1.106 | -7.1   | 96  | 0.00 | 3.10 | 3.16 |
| 3 Hexachlorobenzene        | 1.382 | 1.764 | -27.6# | 122 | 0.00 | 3.64 | 3.70 |
| 4 A alpha-BHC              | 1.421 | 1.476 | -3.9   | 93  | 0.00 | 3.79 | 3.85 |
| 5 MA gamma-BHC             | 1.292 | 1.355 | -4.9   | 93  | 0.00 | 4.24 | 4.30 |

12.11.8 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4635-CC4628  
**Lab FileID:** 1G145819.D

|    |    |                    |       |       |       |    |      |             |
|----|----|--------------------|-------|-------|-------|----|------|-------------|
| 6  | MA | Heptachlor         | 1.309 | 1.243 | 5.0   | 85 | 0.00 | 4.84- 4.90  |
| 7  | B  | beta-BHC           | 0.588 | 0.560 | 4.8   | 84 | 0.00 | 4.33- 4.39  |
| 8  | B  | delta-BHC          | 1.173 | 1.121 | 4.4   | 85 | 0.00 | 4.75- 4.81  |
| 9  | MB | Aldrin             | 1.303 | 1.415 | -8.6  | 98 | 0.00 | 5.31- 5.37  |
| 10 |    | Alachlor           | 0.174 | 0.158 | 9.2   | 84 | 0.00 | 5.08- 5.14  |
| 11 | B  | Heptachlor Epoxide | 1.209 | 1.246 | -3.1  | 92 | 0.00 | 6.16- 6.22  |
| 12 | B  | gamma-Chlordane    | 1.229 | 1.283 | -4.4  | 95 | 0.00 | 6.45- 6.51  |
| 13 | B  | alpha-Chlordane    | 1.178 | 1.266 | -7.5  | 96 | 0.00 | 6.68- 6.74  |
| 14 | A  | Endosulfan I       | 1.129 | 1.185 | -5.0  | 96 | 0.00 | 6.79- 6.85  |
| 15 | B  | 4,4'-DDE           | 1.070 | 1.186 | -10.8 | 99 | 0.00 | 6.94- 7.00  |
| 16 | MA | Dieldrin           | 1.237 | 1.268 | -2.5  | 93 | 0.00 | 7.23- 7.29  |
| 17 | MA | Endrin             | 1.080 | 0.973 | 9.9   | 82 | 0.00 | 7.75- 7.81  |
| 18 | A  | 4,4'-DDD           | 0.831 | 0.774 | 6.9   | 86 | 0.00 | 7.92- 7.98  |
| 19 | B  | Endosulfan II      | 1.081 | 1.100 | -1.8  | 94 | 0.00 | 8.11- 8.17  |
| 20 | MA | 4,4'-DDT           | 0.654 | 0.480 | 26.6# | 63 | 0.00 | 8.45- 8.51  |
| 21 | B  | Endrin Aldehyde    | 0.848 | 0.899 | -6.0  | 96 | 0.00 | 8.69- 8.75  |
| 22 | B  | Endosulfan Sulfate | 0.814 | 0.776 | 4.7   | 84 | 0.00 | 9.17- 9.23  |
| 23 | A  | Methoxychlor       | 0.348 | 0.253 | 27.3# | 64 | 0.00 | 9.65- 9.71  |
| 24 |    | Mirex              | 0.750 | 0.799 | -6.5  | 95 | 0.00 | 9.97-10.03  |
| 25 | B  | Endrin Ketone      | 0.877 | 0.788 | 10.1  | 80 | 0.00 | 10.01-10.07 |
| 26 | SA | Decachlorobiphenyl | 0.926 | 1.020 | -10.2 | 98 | 0.00 | 11.66-11.72 |

(#) = Out of Range  
1G145471.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 11:34:09 2018 RPT1

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4636-CC4628  
**Lab FileID:** 1G145828.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\1G4636\1G145828.D\ECD1A.CH Vial: 4  
 Acq On : 5-2-18 08:59:35 AM Operator: rebeccak  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11667,g1g4636,15.4,,,10,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\1\DATA\1G4636\1G145828.D\ECD2B.CH Vial: 4  
 Acq On : 5-2-18 08:59:34 AM Operator: rebeccak  
 Sample : cc4628-50 Inst : GC1G  
 Misc : op11667,g1g4636,15.4,,,10,1 Multiplr: 1.00  
 IntFile : AUTOINT2.E

Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | RT Window  |
|--------------------------------|--------|--------|-------|-------|----------|------------|
| 1 I 1-bromo-2-nitrobenzene     | 1.000  | 1.000  | 0.0   | 104   | 0.00     | 1.94- 2.00 |
| 2 SAB Tetrachloro-m-xylene     | 0.943  | 0.884  | 6.3   | 86    | 0.00     | 2.51- 2.57 |
| 3 Hexachlorobenzene            | 1.688  | 1.509  | 10.6  | 86    | 0.00     | 2.84- 2.90 |
| 4 A alpha-BHC                  | 1.343  | 1.262  | 6.0   | 85    | 0.00     | 2.97- 3.03 |
| 5 MA gamma-BHC                 | 1.233  | 1.114  | 9.7   | 85    | 0.00     | 3.26- 3.32 |
| 6 MA Heptachlor                | 1.284  | 1.146  | 10.7  | 83    | 0.00     | 3.75- 3.81 |
| 7 B beta-BHC                   | 0.563  | 0.479  | 14.9  | 82    | 0.00     | 3.35- 3.41 |
| 8 B delta-BHC                  | 1.086  | 1.034  | 4.8   | 82    | 0.00     | 3.54- 3.60 |
| 9 MB Aldrin                    | 1.192  | 1.067  | 10.5  | 84    | 0.00     | 4.09- 4.15 |
| 10 Alachlor                    | 0.142  | 0.116  | 18.3  | 87    | 0.00     | 4.21- 4.27 |
| 11 B Heptachlor Epoxide        | 1.116  | 0.871  | 22.0# | 72    | 0.00     | 4.79- 4.85 |
| 12 B gamma-Chlordane           | 1.144  | 0.852  | 25.5# | 70    | 0.00     | 4.96- 5.02 |
| 13 B alpha-Chlordane           | 1.093  | 0.989  | 9.5   | 85    | 0.00     | 5.13- 5.19 |
| 14 A Endosulfan I              | 1.192  | 1.051  | 11.8  | 83    | 0.00     | 5.31- 5.37 |
| 15 B 4,4'-DDE                  | 0.987  | 0.984  | 0.3   | 96    | 0.00     | 5.25- 5.31 |
| 16 MA Dieldrin                 | 1.118  | 1.025  | 8.3   | 84    | 0.00     | 5.63- 5.69 |
| 17 MA Endrin                   | 1.036  | 0.974  | 6.0   | 86    | 0.00     | 5.96- 6.02 |
| 18 A 4,4'-DDD                  | 0.799  | 0.743  | 7.0   | 84    | 0.00     | 6.08- 6.15 |
| 19 B Endosulfan II             | 1.005  | 0.907  | 9.8   | 84    | 0.00     | 6.28- 6.34 |
| 20 MA 4,4'-DDT                 | 0.735  | 0.773  | -5.2  | 91    | 0.00     | 6.50- 6.56 |
| 21 B Endrin Aldehyde           | 0.811  | 0.780  | 3.8   | 94    | 0.00     | 6.90- 6.96 |
| 22 B Endosulfan Sulfate        | 0.794  | 0.817  | -2.9  | 93    | 0.00     | 7.58- 7.64 |
| ----- True Calc. % Drift ----- |        |        |       |       |          |            |
| 23 A Methoxychlor              | 50.000 | 51.963 | -3.9  | 103   | 0.00     | 7.29- 7.35 |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |            |
| 24 Mirex                       | 0.810  | 0.742  | 8.4   | 88    | -0.01    | 7.46- 7.52 |
| 25 B Endrin Ketone             | 0.937  | 0.890  | 5.0   | 87    | 0.00     | 8.03- 8.09 |
| 26 SA Decachlorobiphenyl       | 0.970  | 0.969  | 0.1   | 97    | 0.00     | 9.77- 9.83 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

12.11.9 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G1G4636-CC4628  
**Lab FileID:** 1G145828.D

|    |     |                        |       |       |       |     |       |        |       |
|----|-----|------------------------|-------|-------|-------|-----|-------|--------|-------|
| 1  | I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 117 | -0.01 | 2.26-  | 2.32  |
| 2  | SAB | Tetrachloro-m-xylene   | 1.033 | 0.929 | 10.1  | 95  | 0.00  | 3.10-  | 3.16  |
| 3  |     | Hexachlorobenzene      | 1.382 | 1.486 | -7.5  | 121 | 0.00  | 3.64-  | 3.70  |
| 4  | A   | alpha-BHC              | 1.421 | 1.314 | 7.5   | 93  | 0.00  | 3.79-  | 3.85  |
| 5  | MA  | gamma-BHC              | 1.292 | 1.182 | 8.5   | 93  | 0.00  | 4.24-  | 4.30  |
| 6  | MA  | Heptachlor             | 1.309 | 1.240 | 5.3   | 97  | 0.00  | 4.84-  | 4.90  |
| 7  | B   | beta-BHC               | 0.588 | 0.516 | 12.2  | 91  | 0.00  | 4.32-  | 4.38  |
| 8  | B   | delta-BHC              | 1.173 | 1.094 | 6.7   | 93  | 0.00  | 4.74-  | 4.80  |
| 9  | MB  | Aldrin                 | 1.303 | 1.175 | 9.8   | 94  | 0.00  | 5.31-  | 5.37  |
| 10 |     | Alachlor               | 0.174 | 0.135 | 22.4# | 87  | 0.00  | 5.08-  | 5.14  |
| 11 | B   | Heptachlor Epoxide     | 1.209 | 1.246 | -3.1  | 108 | 0.00  | 6.16-  | 6.22  |
| 12 | B   | gamma-Chlordane        | 1.229 | 1.087 | 11.6  | 93  | 0.00  | 6.45-  | 6.51  |
| 13 | B   | alpha-Chlordane        | 1.178 | 1.027 | 12.8  | 91  | 0.00  | 6.68-  | 6.74  |
| 14 | A   | Endosulfan I           | 1.129 | 0.969 | 14.2  | 91  | 0.00  | 6.79-  | 6.85  |
| 15 | B   | 4,4'-DDE               | 1.070 | 1.090 | -1.9  | 103 | 0.00  | 6.93-  | 6.99  |
| 16 | MA  | Dieldrin               | 1.237 | 1.109 | 10.3  | 94  | 0.00  | 7.23-  | 7.29  |
| 17 | MA  | Endrin                 | 1.080 | 0.988 | 8.5   | 95  | 0.00  | 7.75-  | 7.81  |
| 18 | A   | 4,4'-DDD               | 0.831 | 0.766 | 7.8   | 96  | 0.00  | 7.91-  | 7.97  |
| 19 | B   | Endosulfan II          | 1.081 | 0.956 | 11.6  | 94  | 0.00  | 8.11-  | 8.17  |
| 20 | MA  | 4,4'-DDT               | 0.654 | 0.755 | -15.4 | 108 | 0.00  | 8.45-  | 8.51  |
| 21 | B   | Endrin Aldehyde        | 0.848 | 0.753 | 11.2  | 99  | 0.00  | 8.69-  | 8.75  |
| 22 | B   | Endosulfan Sulfate     | 0.814 | 0.779 | 4.3   | 98  | 0.00  | 9.16-  | 9.22  |
| 23 | A   | Methoxychlor           | 0.348 | 0.356 | -2.3  | 102 | 0.00  | 9.64-  | 9.70  |
| 24 |     | Mirex                  | 0.750 | 0.676 | 9.9   | 97  | 0.00  | 9.96-  | 10.02 |
| 25 | B   | Endrin Ketone          | 0.877 | 0.785 | 10.5  | 90  | 0.00  | 10.01- | 10.07 |
| 26 | SA  | Decachlorobiphenyl     | 0.926 | 0.896 | 3.2   | 102 | 0.00  | 11.66- | 11.72 |

(#) = Out of Range  
 1G145472.D 1PST4628.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 11:52:18 2018 RPT1

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : 2PCB4311.M  
 Title :  
 Last Update : Thu Apr 19 15:41:07 2018  
 Response Via : Initial Calibration

Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D  
 1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

|      | Compound         | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg      | %RSD  |
|------|------------------|-------|-------|-------|-------|-------|-------|----------|-------|
| 1) S | Tetrachloro-m... | 3.853 | 3.487 | 3.538 | 3.692 | 3.667 | 3.785 | 3.670 E6 | 3.81  |
| 2)   | AR1221-A         |       |       |       | 2.897 |       |       | 2.897 E4 | 0.00  |
| 3)   | AR1221-B         |       |       |       | 4.202 |       |       | 4.202 E4 | 0.00  |
| 4)   | AR1221-C         |       |       |       | 1.288 |       |       | 1.288 E5 | 0.00  |
| 5)   | AR1221-D         |       |       |       | 1.466 |       |       | 1.466 E4 | 0.00  |
| 6)   | AR1221-E         |       |       |       | 1.436 |       |       | 1.436 E4 | 0.00  |
| 7)   | AR1232-A         |       |       |       | 9.734 |       |       | 9.734 E4 | 0.00  |
| 8)   | AR1232-B         |       |       |       | 6.684 |       |       | 6.684 E4 | 0.00  |
| 9)   | AR1232-C         |       |       |       | 1.305 |       |       | 1.305 E5 | 0.00  |
| 10)  | AR1232-D         |       |       |       | 5.447 |       |       | 5.447 E4 | 0.00  |
| 11)  | AR1232-E         |       |       |       | 5.149 |       |       | 5.149 E4 | 0.00  |
| 12)  | AR1242-A         |       |       |       | 1.198 |       |       | 1.198 E5 | 0.00  |
| 13)  | AR1242-B         |       |       |       | 2.525 |       |       | 2.525 E5 | 0.00  |
| 14)  | AR1242-C         |       |       |       | 1.054 |       |       | 1.054 E5 | 0.00  |
| 15)  | AR1242-D         |       |       |       | 1.090 |       |       | 1.090 E5 | 0.00  |
| 16)  | AR1242-E         |       |       |       | 9.298 |       |       | 9.298 E4 | 0.00  |
| 17)  | AR1248-A         |       |       |       | 5.917 |       |       | 5.917 E4 | 0.00  |
| 18)  | AR1248-B         |       |       |       | 1.544 |       |       | 1.544 E5 | 0.00  |
| 19)  | AR1248-C         |       |       |       | 1.652 |       |       | 1.652 E5 | 0.00  |
| 20)  | AR1248-D         |       |       |       | 1.598 |       |       | 1.598 E5 | 0.00  |
| 21)  | AR1248-E         |       |       |       | 1.421 |       |       | 1.421 E5 | 0.00  |
| 22)  | AR1248-F         |       |       |       | 1.402 |       |       | 1.402 E5 | 0.00  |
| 23)  | AR1248-G         |       |       |       | 1.572 |       |       | 1.572 E5 | 0.00  |
| 24)  | AR1254-A         |       |       |       | 1.234 |       |       | 1.234 E5 | 0.00  |
| 25)  | AR1254-B         |       |       |       | 2.588 |       |       | 2.588 E5 | 0.00  |
| 26)  | AR1254-C         |       |       |       | 1.370 |       |       | 1.370 E5 | 0.00  |
| 27)  | AR1254-D         |       |       |       | 2.459 |       |       | 2.459 E5 | 0.00  |
| 28)  | AR1254-E         |       |       |       | 1.825 |       |       | 1.825 E5 | 0.00  |
| 29)  | AR1254-F         |       |       |       | 1.712 |       |       | 1.712 E5 | 0.00  |
| 30)  | AR1254-G         |       |       |       | 2.518 |       |       | 2.518 E5 | 0.00  |
| 31)  | AR1016-A         | 9.451 | 7.869 | 7.627 | 7.558 | 7.126 | 7.105 | 7.789 E4 | 11.13 |
| 32)  | AR1016-B         | 1.685 | 1.361 | 1.324 | 1.304 | 1.242 | 1.247 | 1.361 E5 | 12.16 |
| 33)  | AR1016-C         | 3.261 | 2.840 | 2.792 | 2.854 | 2.797 | 2.854 | 2.900 E5 | 6.18  |
| 34)  | AR1016-D         | 1.360 | 1.162 | 1.156 | 1.157 | 1.119 | 1.140 | 1.182 E5 | 7.49  |
| 35)  | AR1016-E         | 1.424 | 1.227 | 1.184 | 1.176 | 1.145 | 1.161 | 1.219 E5 | 8.51  |
| 36)  | AR1260-A         | 3.759 | 3.397 | 3.078 | 3.178 | 3.473 | 3.566 | 3.408 E5 | 7.36  |
| 37)  | AR1260-B         | 1.602 | 1.368 | 1.501 | 1.530 | 1.316 | 1.349 | 1.444 E5 | 8.00  |
| 38)  | AR1260-C         | 1.676 | 1.539 | 1.642 | 1.690 | 1.480 | 1.527 | 1.592 E5 | 5.54  |
| 39)  | AR1260-D         | 3.627 | 3.372 | 3.743 | 3.953 | 3.621 | 3.712 | 3.671 E5 | 5.17  |
| 40)  | AR1260-E         | 3.931 | 3.596 | 3.895 | 4.026 | 3.611 | 3.668 | 3.788 E5 | 4.88  |
| 41)  | AR1262-A         |       |       |       | 1.935 |       |       | 1.935 E5 | 0.00  |
| 42)  | AR1262-B         |       |       |       | 2.424 |       |       | 2.424 E5 | 0.00  |
| 43)  | AR1262-C         |       |       |       | 2.270 |       |       | 2.270 E5 | 0.00  |
| 44)  | AR1262-D         |       |       |       | 4.854 |       |       | 4.854 E5 | 0.00  |
| 45)  | AR1262-E         |       |       |       | 5.588 |       |       | 5.588 E5 | 0.00  |
| 46)  | AR1268-A         |       |       |       | 5.754 |       |       | 5.754 E5 | 0.00  |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

|       |                  |       |       |       |       |       |       |       |    |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 47)   | AR1268-B         |       |       |       | 5.673 |       |       | 5.673 | E5 | 0.00 |
| 48)   | AR1268-C         |       |       |       | 4.730 |       |       | 4.730 | E5 | 0.00 |
| 49)   | AR1268-D         |       |       |       | 1.992 |       |       | 1.992 | E5 | 0.00 |
| 50)   | AR1268-E         |       |       |       | 1.615 |       |       | 1.615 | E6 | 0.00 |
| 51) S | Decachlorobip... | 4.697 | 4.061 | 3.924 | 3.931 | 3.825 | 3.897 | 4.056 | E6 | 7.97 |

Signal #2 Calibration Files

|      |              |      |             |      |             |
|------|--------------|------|-------------|------|-------------|
| 50   | =2G162102a.D | 250  | =2G162097.D | 500  | =2G162098.D |
| 1000 | =2G162099.D  | 2000 | =2G162100.D | 3000 | =2G162101.D |

|      | Compound         | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   |    | %RSD  |
|------|------------------|-------|-------|-------|-------|-------|-------|-------|----|-------|
| 1) S | Tetrachloro-m... | 2.359 | 2.161 | 2.233 | 2.322 | 2.300 | 2.354 | 2.288 | E7 | 3.37  |
| 2)   | AR1221-A         |       |       |       | 1.409 |       |       | 1.409 | E5 | 0.00  |
| 3)   | AR1221-B         |       |       |       | 2.507 |       |       | 2.507 | E5 | 0.00  |
| 4)   | AR1221-C         |       |       |       | 6.558 |       |       | 6.558 | E5 | 0.00  |
| 5)   | AR1221-D         |       |       |       | 1.222 |       |       | 1.222 | E5 | 0.00  |
| 6)   | AR1221-E         |       |       |       | 8.849 |       |       | 8.849 | E4 | 0.00  |
| 7)   | AR1232-A         |       |       |       | 5.020 |       |       | 5.020 | E5 | 0.00  |
| 8)   | AR1232-B         |       |       |       | 3.935 |       |       | 3.935 | E5 | 0.00  |
| 9)   | AR1232-C         |       |       |       | 8.152 |       |       | 8.152 | E5 | 0.00  |
| 10)  | AR1232-D         |       |       |       | 3.615 |       |       | 3.615 | E5 | 0.00  |
| 11)  | AR1232-E         |       |       |       | 2.173 |       |       | 2.173 | E5 | 0.00  |
| 12)  | AR1242-A         |       |       |       | 7.054 |       |       | 7.054 | E5 | 0.00  |
| 13)  | AR1242-B         |       |       |       | 1.548 |       |       | 1.548 | E6 | 0.00  |
| 14)  | AR1242-C         |       |       |       | 6.668 |       |       | 6.668 | E5 | 0.00  |
| 15)  | AR1242-D         |       |       |       | 4.564 |       |       | 4.564 | E5 | 0.00  |
| 16)  | AR1242-E         |       |       |       | 6.343 |       |       | 6.343 | E5 | 0.00  |
| 17)  | AR1248-A         |       |       |       | 3.627 |       |       | 3.627 | E5 | 0.00  |
| 18)  | AR1248-B         |       |       |       | 9.548 |       |       | 9.548 | E5 | 0.00  |
| 19)  | AR1248-C         |       |       |       | 5.697 |       |       | 5.697 | E5 | 0.00  |
| 20)  | AR1248-D         |       |       |       | 7.271 |       |       | 7.271 | E5 | 0.00  |
| 21)  | AR1248-E         |       |       |       | 8.799 |       |       | 8.799 | E5 | 0.00  |
| 22)  | AR1248-F         |       |       |       | 1.097 |       |       | 1.097 | E6 | 0.00  |
| 23)  | AR1248-G         |       |       |       | 1.220 |       |       | 1.220 | E6 | 0.00  |
| 24)  | AR1254-A         |       |       |       | 9.925 |       |       | 9.925 | E5 | 0.00  |
| 25)  | AR1254-B         |       |       |       | 9.839 |       |       | 9.839 | E5 | 0.00  |
| 26)  | AR1254-C         |       |       |       | 7.977 |       |       | 7.977 | E5 | 0.00  |
| 27)  | AR1254-D         |       |       |       | 1.634 |       |       | 1.634 | E6 | 0.00  |
| 28)  | AR1254-E         |       |       |       | 1.089 |       |       | 1.089 | E6 | 0.00  |
| 29)  | AR1254-F         |       |       |       | 1.181 |       |       | 1.181 | E6 | 0.00  |
| 30)  | AR1254-G         |       |       |       | 1.511 |       |       | 1.511 | E6 | 0.00  |
| 31)  | AR1016-A         | 4.464 | 3.663 | 3.554 | 3.667 | 3.532 | 3.597 | 3.746 | E5 | 9.50  |
| 32)  | AR1016-B         | 1.008 | 0.785 | 0.781 | 0.777 | 0.734 | 0.721 | 0.801 | E6 | 13.07 |
| 33)  | AR1016-C         | 1.870 | 1.661 | 1.687 | 1.744 | 1.719 | 1.721 | 1.734 | E6 | 4.20  |
| 34)  | AR1016-D         | 8.979 | 7.276 | 7.297 | 7.378 | 7.117 | 7.090 | 7.523 | E5 | 9.59  |
| 35)  | AR1016-E         | 5.760 | 4.925 | 4.923 | 5.029 | 5.023 | 5.124 | 5.131 | E5 | 6.19  |
| 36)  | AR1260-A         | 2.222 | 1.949 | 1.820 | 1.882 | 2.043 | 2.081 | 2.000 | E6 | 7.30  |
| 37)  | AR1260-B         | 1.009 | 0.803 | 0.897 | 0.917 | 0.804 | 0.816 | 0.874 | E6 | 9.41  |
| 38)  | AR1260-C         | 1.124 | 0.949 | 1.023 | 1.051 | 0.980 | 1.006 | 1.022 | E6 | 5.98  |
| 39)  | AR1260-D         | 2.347 | 1.930 | 2.170 | 2.256 | 2.063 | 2.114 | 2.146 | E6 | 6.84  |
| 40)  | AR1260-E         | 2.219 | 1.874 | 2.089 | 2.144 | 1.933 | 1.971 | 2.038 | E6 | 6.55  |
| 41)  | AR1262-A         |       |       |       | 1.044 |       |       | 1.044 | E6 | 0.00  |
| 42)  | AR1262-B         |       |       |       | 1.428 |       |       | 1.428 | E6 | 0.00  |
| 43)  | AR1262-C         |       |       |       | 1.336 |       |       | 1.336 | E6 | 0.00  |
| 44)  | AR1262-D         |       |       |       | 2.732 |       |       | 2.732 | E6 | 0.00  |
| 45)  | AR1262-E         |       |       |       | 3.034 |       |       | 3.034 | E6 | 0.00  |
| 46)  | AR1268-A         |       |       |       | 3.086 |       |       | 3.086 | E6 | 0.00  |
| 47)  | AR1268-B         |       |       |       | 3.099 |       |       | 3.099 | E6 | 0.00  |
| 48)  | AR1268-C         |       |       |       | 2.498 |       |       | 2.498 | E6 | 0.00  |

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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

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|       |                  |       |       |       |       |       |       |       |          |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| 49)   | AR1268-D         |       |       |       | 1.038 |       |       |       | 1.038 E6 | 0.00 |
| 50)   | AR1268-E         |       |       |       | 8.238 |       |       |       | 8.238 E6 | 0.00 |
| 51) S | Decachlorobip... | 2.219 | 1.845 | 1.796 | 1.874 | 1.841 | 1.884 | 1.910 | E7       | 8.10 |

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(#) = Out of Range

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.975 E6   | -8.3         | 108   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 76.686 E3  | 1.5          | 101   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 141.949 E3 | -4.3         | 109   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 305.729 E3 | -5.4         | 107   | 0.00     | 4.08- | 4.14   |
| 34  | AR1016-D             | 118.235 | 126.283 E3 | -6.8         | 109   | 0.00     | 4.24- | 4.30   |
| 35  | AR1016-E             | 121.934 | 124.361 E3 | -2.0         | 106   | 0.00     | 4.75- | 4.81   |
| 36  | AR1260-A             | 340.850 | 344.355 E3 | -1.0         | 108   | 0.00     | 7.12- | 7.18   |
| 37  | AR1260-B             | 144.444 | 147.854 E3 | -2.4         | 97    | 0.00     | 7.28- | 7.34   |
| 38  | AR1260-C             | 159.229 | 170.106 E3 | -6.8         | 101   | 0.00     | 7.62- | 7.68   |
| 39  | AR1260-D             | 367.146 | 387.161 E3 | -5.5         | 98    | 0.00     | 8.05- | 8.11   |
| 40  | AR1260-E             | 378.788 | 394.757 E3 | -4.2         | 98    | 0.00     | 8.39- | 8.55   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

|      |                    |       |       |    |     |     |      |  |  |  |  |            |  |
|------|--------------------|-------|-------|----|-----|-----|------|--|--|--|--|------------|--|
| 42   | AR1262-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 43   | AR1262-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 44   | AR1262-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 45   | AR1262-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 46   | AR1268-A           |       |       |    |     |     |      |  |  |  |  |            |  |
| 47   | AR1268-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 48   | AR1268-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 49   | AR1268-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 50   | AR1268-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.006 | E6 | 1.2 | 102 | 0.00 |  |  |  |  | 9.98-10.04 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |  |  |  |  |             |  |
|-----|----------------------|---------|---------|----|-------|-----|------|--|--|--|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.201  | E6 | -10.1 | 109 | 0.00 |  |  |  |  | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 3   | AR1221-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 4   | AR1221-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 5   | AR1221-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 6   | AR1221-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 7   | AR1232-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 8   | AR1232-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 9   | AR1232-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 10  | AR1232-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 11  | AR1232-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 12  | AR1242-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 13  | AR1242-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 14  | AR1242-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 15  | AR1242-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 16  | AR1242-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 17  | AR1248-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 18  | AR1248-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 19  | AR1248-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 20  | AR1248-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 21  | AR1248-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 22  | AR1248-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 23  | AR1248-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 24  | AR1254-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 25  | AR1254-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 26  | AR1254-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 27  | AR1254-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 28  | AR1254-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 29  | AR1254-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 30  | AR1254-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 31  | AR1016-A             | 374.605 | 415.731 | E3 | -11.0 | 113 | 0.00 |  |  |  |  | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.845   | E6 | -5.5  | 109 | 0.00 |  |  |  |  | 4.60- 4.66  |  |
| 33  | AR1016-C             | 1.734   | 1.899   | E6 | -9.5  | 109 | 0.00 |  |  |  |  | 5.25- 5.31  |  |
| 34  | AR1016-D             | 752.270 | 823.449 | E3 | -9.5  | 112 | 0.00 |  |  |  |  | 5.43- 5.49  |  |
| 35  | AR1016-E             | 513.080 | 544.014 | E3 | -6.0  | 108 | 0.00 |  |  |  |  | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 2.060   | E6 | -3.0  | 109 | 0.00 |  |  |  |  | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 0.905   | E6 | -3.5  | 99  | 0.00 |  |  |  |  | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 1.071   | E6 | -4.8  | 102 | 0.00 |  |  |  |  | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 2.253   | E6 | -5.0  | 100 | 0.00 |  |  |  |  | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 2.122   | E6 | -4.1  | 99  | 0.00 |  |  |  |  | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 42  | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43  | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44  | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45  | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46  | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47  | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |

12.11.11  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

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|      |                    |        |        |    |     |     |      |  |             |              |
|------|--------------------|--------|--------|----|-----|-----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |     |     |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |     |     |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |     |     |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 18.717 | E6 | 2.0 | 100 | 0.00 |  | 11.78-11.84 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162099.D 2PCB4311.M              Thu Apr 19 15:43:22 2018    RPT1

12.11.11  
12

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4311-ICV4311  
Lab FileID: 2G162107.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|    | Compound | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|----|----------|---------|------------|------|-------|----------|-------|--------|
| 2  | AR1221-A | 28.967  | 30.231 E3  | -4.4 | 104   | 0.00     | 2.18- | 2.38   |
| 3  | AR1221-B | 42.023  | 40.285 E3  | 4.1  | 96    | 0.00     | 2.85- | 3.05   |
| 4  | AR1221-C | 128.795 | 122.705 E3 | 4.7  | 95    | 0.00     | 3.05- | 3.25   |
| 5  | AR1221-D | 14.657  | 11.965 E3  | 18.4 | 82    | 0.00     | 3.46- | 3.66   |
| 6  | AR1221-E | 14.364  | 14.535 E3  | -1.2 | 101   | 0.00     | 3.60- | 3.80   |
| 24 | AR1254-A | 123.364 | 129.470 E3 | -4.9 | 105   | 0.00     | 4.78- | 5.78   |
| 25 | AR1254-B | 258.753 | 268.829 E3 | -3.9 | 104   | 0.00     | 5.52- | 5.72   |
| 26 | AR1254-C | 136.952 | 143.562 E3 | -4.8 | 105   | 0.00     | 5.88- | 6.08   |
| 27 | AR1254-D | 245.908 | 257.604 E3 | -4.8 | 105   | 0.00     | 6.04- | 6.24   |
| 28 | AR1254-E | 182.509 | 189.827 E3 | -4.0 | 104   | 0.00     | 6.42- | 6.62   |
| 29 | AR1254-F | 171.196 | 179.789 E3 | -5.0 | 105   | 0.00     | 6.67- | 6.87   |
| 30 | AR1254-G | 251.778 | 263.449 E3 | -4.6 | 105   | 0.00     | 7.05- | 7.25   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|    |          |         |             |      |     |      |       |      |
|----|----------|---------|-------------|------|-----|------|-------|------|
| 2  | AR1221-A | 140.927 | 146.033 E3  | -3.6 | 104 | 0.00 | 2.77- | 2.97 |
| 3  | AR1221-B | 250.670 | 252.257 E3  | -0.6 | 101 | 0.00 | 3.72- | 3.92 |
| 4  | AR1221-C | 655.831 | 636.187 E3  | 3.0  | 97  | 0.00 | 3.99- | 4.19 |
| 5  | AR1221-D | 122.166 | 105.889 E3  | 13.3 | 87  | 0.00 | 4.55- | 4.75 |
| 6  | AR1221-E | 88.492  | 89.522 E3   | -1.2 | 101 | 0.00 | 4.67- | 4.87 |
| 24 | AR1254-A | 992.497 | 1051.994 E3 | -6.0 | 106 | 0.00 | 6.20- | 7.20 |
| 25 | AR1254-B | 983.915 | 1037.386 E3 | -5.4 | 105 | 0.00 | 6.86- | 7.06 |
| 26 | AR1254-C | 797.725 | 839.207 E3  | -5.2 | 105 | 0.00 | 7.37- | 7.56 |
| 27 | AR1254-D | 1.634   | 1.719 E6    | -5.2 | 105 | 0.00 | 7.53- | 7.73 |
| 28 | AR1254-E | 1.089   | 1.136 E6    | -4.3 | 104 | 0.00 | 7.86- | 8.06 |
| 29 | AR1254-F | 1.181   | 1.231 E6    | -4.2 | 104 | 0.00 | 8.32- | 8.52 |
| 30 | AR1254-G | 1.511   | 1.615 E6    | -6.9 | 107 | 0.00 | 8.62- | 8.82 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:57 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162108.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 7 AR1232-A  | 97.343  | 98.365 E3  | -1.0 | 101   | 0.00     | 3.05 | 3.25   |
| 8 AR1232-B  | 66.843  | 68.498 E3  | -2.5 | 102   | 0.00     | 3.46 | 3.66   |
| 9 AR1232-C  | 130.487 | 135.897 E3 | -4.1 | 104   | 0.00     | 4.01 | 4.21   |
| 10 AR1232-D | 54.474  | 56.766 E3  | -4.2 | 104   | 0.00     | 4.17 | 4.37   |
| 11 AR1232-E | 51.489  | 53.116 E3  | -3.2 | 103   | 0.00     | 4.68 | 4.88   |
| 41 AR1262-A | 193.481 | 203.733 E3 | -5.3 | 105   | 0.00     | 6.67 | 6.87   |
| 42 AR1262-B | 242.383 | 258.534 E3 | -6.7 | 107   | 0.00     | 7.21 | 7.41   |
| 43 AR1262-C | 227.005 | 238.593 E3 | -5.1 | 105   | 0.00     | 7.55 | 7.75   |
| 44 AR1262-D | 485.357 | 514.218 E3 | -5.9 | 106   | 0.00     | 7.98 | 8.18   |
| 45 AR1262-E | 558.779 | 598.920 E3 | -7.2 | 107   | 0.00     | 8.43 | 8.63   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 7 AR1232-A  | 501.961 | 512.204 E3 | -2.0 | 102 | 0.00 | 4.00  | 4.20  |
| 8 AR1232-B  | 393.517 | 401.624 E3 | -2.1 | 102 | 0.00 | 4.54  | 4.74  |
| 9 AR1232-C  | 815.235 | 827.075 E3 | -1.5 | 101 | 0.00 | 5.18  | 5.38  |
| 10 AR1232-D | 361.545 | 372.004 E3 | -2.9 | 103 | 0.00 | 5.37  | 5.57  |
| 11 AR1232-E | 217.324 | 220.012 E3 | -1.2 | 101 | 0.00 | 6.02  | 6.22  |
| 41 AR1262-A | 1.044   | 1.084 E6   | -3.8 | 104 | 0.00 | 8.09  | 8.29  |
| 42 AR1262-B | 1.428   | 1.495 E6   | -4.7 | 105 | 0.00 | 8.73  | 8.93  |
| 43 AR1262-C | 1.336   | 1.393 E6   | -4.3 | 104 | 0.00 | 9.16  | 9.36  |
| 44 AR1262-D | 2.732   | 2.841 E6   | -4.0 | 104 | 0.00 | 9.51  | 9.71  |
| 45 AR1262-E | 3.034   | 3.169 E6   | -4.4 | 104 | 0.00 | 10.02 | 10.22 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:59 2018 RPT1

12.11.13  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162109.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 12 AR1242-A | 119.785 | 114.904 E3 | 4.1  | 96    | 0.00     | 3.46 | 3.66   |
| 13 AR1242-B | 252.484 | 244.856 E3 | 3.0  | 97    | 0.00     | 4.01 | 4.21   |
| 14 AR1242-C | 105.443 | 101.790 E3 | 3.5  | 97    | 0.00     | 4.17 | 4.37   |
| 15 AR1242-D | 108.979 | 102.543 E3 | 5.9  | 94    | 0.00     | 4.68 | 4.88   |
| 16 AR1242-E | 92.981  | 87.846 E3  | 5.5  | 94    | 0.00     | 5.27 | 5.47   |
| 46 AR1268-A | 575.351 | 581.914 E3 | -1.1 | 101   | 0.00     | 8.42 | 8.62   |
| 47 AR1268-B | 567.310 | 583.888 E3 | -2.9 | 103   | 0.00     | 8.48 | 8.68   |
| 48 AR1268-C | 473.024 | 486.973 E3 | -2.9 | 103   | 0.00     | 8.75 | 8.95   |
| 49 AR1268-D | 199.180 | 204.671 E3 | -2.8 | 103   | 0.00     | 9.24 | 9.44   |
| 50 AR1268-E | 1.615   | 1.646 E6   | -1.9 | 102   | 0.00     | 9.64 | 9.84   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 12 AR1242-A | 705.391 | 679.662 E3 | 3.6  | 96  | 0.00 | 4.53  | 4.73  |
| 13 AR1242-B | 1.548   | 1.499 E6   | 3.2  | 97  | 0.00 | 5.18  | 5.38  |
| 14 AR1242-C | 666.761 | 667.573 E3 | -0.1 | 100 | 0.00 | 5.37  | 5.57  |
| 15 AR1242-D | 456.404 | 438.896 E3 | 3.8  | 96  | 0.00 | 6.01  | 6.21  |
| 16 AR1242-E | 634.341 | 601.296 E3 | 5.2  | 95  | 0.00 | 6.63  | 6.83  |
| 46 AR1268-A | 3.086   | 3.010 E6   | 2.5  | 98  | 0.00 | 10.02 | 10.22 |
| 47 AR1268-B | 3.099   | 3.068 E6   | 1.0  | 99  | 0.00 | 10.09 | 10.29 |
| 48 AR1268-C | 2.498   | 2.444 E6   | 2.2  | 98  | 0.00 | 10.46 | 10.66 |
| 49 AR1268-D | 1.038   | 1.042 E6   | -0.4 | 100 | 0.00 | 10.86 | 11.06 |
| 50 AR1268-E | 8.238   | 7.835 E6   | 4.9  | 95  | 0.00 | 11.33 | 11.53 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2G162099.D 2PCB4311.M Thu Apr 19 16:23:22 2018 RPT1

12.11.14 12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162110.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|-------|-------|----------|------|--------|
| 17 AR1248-A | 59.174  | 55.493 E3  | 6.2   | 94    | 0.00     | 3.45 | 3.65   |
| 18 AR1248-B | 154.398 | 154.781 E3 | -0.2  | 100   | 0.00     | 4.01 | 4.21   |
| 19 AR1248-C | 165.207 | 165.431 E3 | -0.1  | 100   | 0.00     | 4.40 | 4.60   |
| 20 AR1248-D | 159.827 | 163.966 E3 | -2.6  | 103   | 0.00     | 4.68 | 4.88   |
| 21 AR1248-E | 142.066 | 146.330 E3 | -3.0  | 103   | 0.00     | 4.79 | 4.99   |
| 22 AR1248-F | 140.157 | 154.154 E3 | -10.0 | 110   | 0.00     | 5.26 | 5.46   |
| 23 AR1248-G | 157.220 | 168.971 E3 | -7.5  | 107   | 0.00     | 5.12 | 6.12   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |      |      |
|-------------|---------|------------|------|-----|------|------|------|
| 17 AR1248-A | 362.749 | 338.780 E3 | 6.6  | 93  | 0.00 | 4.53 | 4.73 |
| 18 AR1248-B | 954.786 | 932.709 E3 | 2.3  | 98  | 0.00 | 5.18 | 5.38 |
| 19 AR1248-C | 569.681 | 572.997 E3 | -0.6 | 101 | 0.00 | 5.63 | 5.83 |
| 20 AR1248-D | 727.117 | 735.665 E3 | -1.2 | 101 | 0.00 | 6.01 | 6.21 |
| 21 AR1248-E | 879.894 | 914.038 E3 | -3.9 | 104 | 0.00 | 6.19 | 6.39 |
| 22 AR1248-F | 1.097   | 1.158 E6   | -5.6 | 106 | 0.00 | 6.62 | 6.82 |
| 23 AR1248-G | 1.220   | 1.306 E6   | -7.0 | 107 | 0.00 | 6.55 | 7.55 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2G162099.D 2PCB4311.M Thu Apr 19 16:41:13 2018 RPT1

12.11.15  
12

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
Lab FileID: 2G162944.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162944.D\ECD1A.CH Vial: 61  
Signal #2 : C:\msdchem\1\DATA\2G4326\2G162944.D\ECD2B.CH  
Acq On : 07 May 2018 9:11 am Operator: tianweir  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11709,G2G4326,15.0,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu May 03 08:38:56 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.049 E6   | -10.3        | 110   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 82.335 E3  | -5.7         | 109   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 143.061 E3 | -5.1         | 110   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 301.563 E3 | -4.0         | 106   | 0.00     | 4.06- | 4.12   |
| 34  | AR1016-D             | 118.235 | 128.329 E3 | -8.5         | 111   | 0.00     | 4.22- | 4.28   |
| 35  | AR1016-E             | 121.934 | 131.269 E3 | -7.7         | 112   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 343.862 E3 | -0.9         | 108   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 167.908 E3 | -16.2        | 110   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 186.253 E3 | -17.0        | 110   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 414.775 E3 | -13.0        | 105   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 425.480 E3 | -12.3        | 106   | 0.00     | 8.35- | 8.51   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.11.16  
12



# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
 Lab FileID: 2G162944.D

|                       |                      |         |         |    |        |     |       |             |              |
|-----------------------|----------------------|---------|---------|----|--------|-----|-------|-------------|--------------|
| 42                    | AR1262-B             |         |         |    |        |     |       |             | -----NA----- |
| 43                    | AR1262-C             |         |         |    |        |     |       |             | -----NA----- |
| 44                    | AR1262-D             |         |         |    |        |     |       |             | -----NA----- |
| 45                    | AR1262-E             |         |         |    |        |     |       |             | -----NA----- |
| 46                    | AR1268-A             |         |         |    |        |     |       |             | -----NA----- |
| 47                    | AR1268-B             |         |         |    |        |     |       |             | -----NA----- |
| 48                    | AR1268-C             |         |         |    |        |     |       |             | -----NA----- |
| 49                    | AR1268-D             |         |         |    |        |     |       |             | -----NA----- |
| 50                    | AR1268-E             |         |         |    |        |     |       |             | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 4.202   | E6 | -3.6   | 107 | 0.00  | 9.94-10.00  |              |
| ***** Signal #2 ***** |                      |         |         |    |        |     |       |             |              |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 25.447  | E6 | -11.2  | 110 | 0.00  | 3.40- 3.46  |              |
| 2                     | AR1221-A             |         |         |    |        |     |       |             | -----NA----- |
| 3                     | AR1221-B             |         |         |    |        |     |       |             | -----NA----- |
| 4                     | AR1221-C             |         |         |    |        |     |       |             | -----NA----- |
| 5                     | AR1221-D             |         |         |    |        |     |       |             | -----NA----- |
| 6                     | AR1221-E             |         |         |    |        |     |       |             | -----NA----- |
| 7                     | AR1232-A             |         |         |    |        |     |       |             | -----NA----- |
| 8                     | AR1232-B             |         |         |    |        |     |       |             | -----NA----- |
| 9                     | AR1232-C             |         |         |    |        |     |       |             | -----NA----- |
| 10                    | AR1232-D             |         |         |    |        |     |       |             | -----NA----- |
| 11                    | AR1232-E             |         |         |    |        |     |       |             | -----NA----- |
| 12                    | AR1242-A             |         |         |    |        |     |       |             | -----NA----- |
| 13                    | AR1242-B             |         |         |    |        |     |       |             | -----NA----- |
| 14                    | AR1242-C             |         |         |    |        |     |       |             | -----NA----- |
| 15                    | AR1242-D             |         |         |    |        |     |       |             | -----NA----- |
| 16                    | AR1242-E             |         |         |    |        |     |       |             | -----NA----- |
| 17                    | AR1248-A             |         |         |    |        |     |       |             | -----NA----- |
| 18                    | AR1248-B             |         |         |    |        |     |       |             | -----NA----- |
| 19                    | AR1248-C             |         |         |    |        |     |       |             | -----NA----- |
| 20                    | AR1248-D             |         |         |    |        |     |       |             | -----NA----- |
| 21                    | AR1248-E             |         |         |    |        |     |       |             | -----NA----- |
| 22                    | AR1248-F             |         |         |    |        |     |       |             | -----NA----- |
| 23                    | AR1248-G             |         |         |    |        |     |       |             | -----NA----- |
| 24                    | AR1254-A             |         |         |    |        |     |       |             | -----NA----- |
| 25                    | AR1254-B             |         |         |    |        |     |       |             | -----NA----- |
| 26                    | AR1254-C             |         |         |    |        |     |       |             | -----NA----- |
| 27                    | AR1254-D             |         |         |    |        |     |       |             | -----NA----- |
| 28                    | AR1254-E             |         |         |    |        |     |       |             | -----NA----- |
| 29                    | AR1254-F             |         |         |    |        |     |       |             | -----NA----- |
| 30                    | AR1254-G             |         |         |    |        |     |       |             | -----NA----- |
| 31                    | AR1016-A             | 374.605 | 434.159 | E3 | -15.9  | 118 | 0.00  | 4.06- 4.12  |              |
| 32                    | AR1016-B             | 0.801   | 0.841   | E6 | -5.0   | 108 | 0.00  | 4.59- 4.65  |              |
| 33                    | AR1016-C             | 1.734   | 1.869   | E6 | -7.8   | 107 | 0.00  | 5.23- 5.29  |              |
| 34                    | AR1016-D             | 752.270 | 846.400 | E3 | -12.5  | 115 | 0.00  | 5.42- 5.48  |              |
| 35                    | AR1016-E             | 513.080 | 567.376 | E3 | -10.6  | 113 | -0.01 | 6.06- 6.12  |              |
| 36                    | AR1260-A             | 2.000   | 2.119   | E6 | -6.0   | 113 | -0.02 | 8.66- 8.72  |              |
| 37                    | AR1260-B             | 0.874   | 1.074   | E6 | -22.9# | 117 | -0.02 | 8.77- 8.83  |              |
| 38                    | AR1260-C             | 1.022   | 1.210   | E6 | -18.4  | 115 | -0.02 | 9.20- 9.27  |              |
| 39                    | AR1260-D             | 2.146   | 2.554   | E6 | -19.0  | 113 | -0.02 | 9.55- 9.61  |              |
| 40                    | AR1260-E             | 2.038   | 2.463   | E6 | -20.9# | 115 | -0.02 | 10.10-10.16 |              |
| 41                    | AR1262-A             |         |         |    |        |     |       |             | -----NA----- |
| 42                    | AR1262-B             |         |         |    |        |     |       |             | -----NA----- |
| 43                    | AR1262-C             |         |         |    |        |     |       |             | -----NA----- |
| 44                    | AR1262-D             |         |         |    |        |     |       |             | -----NA----- |
| 45                    | AR1262-E             |         |         |    |        |     |       |             | -----NA----- |
| 46                    | AR1268-A             |         |         |    |        |     |       |             | -----NA----- |
| 47                    | AR1268-B             |         |         |    |        |     |       |             | -----NA----- |

12.11.16 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162944.D

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|      |                    |        |        |    |       |     |       |             |  |              |
|------|--------------------|--------|--------|----|-------|-----|-------|-------------|--|--------------|
| 48   | AR1268-C           |        |        |    |       |     |       |             |  | -----NA----- |
| 49   | AR1268-D           |        |        |    |       |     |       |             |  | -----NA----- |
| 50   | AR1268-E           |        |        |    |       |     |       |             |  | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 21.631 | E6 | -13.3 | 115 | -0.03 | 11.75-11.81 |  | -----        |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162708.D 2PCB4311.M              Mon May 07 14:54:59 2018    RPT1

12.11.16  
12

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
Lab FileID: 2G162954.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162954.D\ECD1A.CH Vial: 68  
Signal #2 : C:\msdchem\1\DATA\2G4326\2G162954.D\ECD2B.CH  
Acq On : 07 May 2018 12:00 pm Operator: tianweir  
Sample : cc4311-500 Inst : HP G1530A  
Misc : OP11775,G2G4326,15.0,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu May 03 08:38:56 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.990 E6   | -8.7         | 113   | 0.01     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 87.615 E3  | -12.5        | 115   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 150.009 E3 | -10.3        | 113   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 304.624 E3 | -5.1         | 109   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 132.705 E3 | -12.2        | 115   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 130.904 E3 | -7.4         | 111   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 335.001 E3 | 1.7          | 109   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 165.871 E3 | -14.8        | 111   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 181.576 E3 | -14.0        | 111   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 385.692 E3 | -5.1         | 103   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 413.041 E3 | -9.0         | 106   | 0.00     | 8.36- | 8.52   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.11.17  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162954.D

|      |                    |       |       |    |      |     |      |  |  |  |  |            |  |
|------|--------------------|-------|-------|----|------|-----|------|--|--|--|--|------------|--|
| 42   | AR1262-B           |       |       |    |      |     |      |  |  |  |  |            |  |
| 43   | AR1262-C           |       |       |    |      |     |      |  |  |  |  |            |  |
| 44   | AR1262-D           |       |       |    |      |     |      |  |  |  |  |            |  |
| 45   | AR1262-E           |       |       |    |      |     |      |  |  |  |  |            |  |
| 46   | AR1268-A           |       |       |    |      |     |      |  |  |  |  |            |  |
| 47   | AR1268-B           |       |       |    |      |     |      |  |  |  |  |            |  |
| 48   | AR1268-C           |       |       |    |      |     |      |  |  |  |  |            |  |
| 49   | AR1268-D           |       |       |    |      |     |      |  |  |  |  |            |  |
| 50   | AR1268-E           |       |       |    |      |     |      |  |  |  |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.128 | E6 | -1.8 | 105 | 0.00 |  |  |  |  | 9.94-10.00 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |        |     |       |  |  |  |  |             |  |
|-----|----------------------|---------|---------|----|--------|-----|-------|--|--|--|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.488  | E6 | -11.4  | 114 | 0.00  |  |  |  |  | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 3   | AR1221-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 4   | AR1221-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 5   | AR1221-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 6   | AR1221-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 7   | AR1232-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 8   | AR1232-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 9   | AR1232-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 10  | AR1232-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 11  | AR1232-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 12  | AR1242-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 13  | AR1242-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 14  | AR1242-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 15  | AR1242-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 16  | AR1242-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 17  | AR1248-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 18  | AR1248-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 19  | AR1248-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 20  | AR1248-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 21  | AR1248-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 22  | AR1248-F             |         |         |    |        |     |       |  |  |  |  |             |  |
| 23  | AR1248-G             |         |         |    |        |     |       |  |  |  |  |             |  |
| 24  | AR1254-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 25  | AR1254-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 26  | AR1254-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 27  | AR1254-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 28  | AR1254-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 29  | AR1254-F             |         |         |    |        |     |       |  |  |  |  |             |  |
| 30  | AR1254-G             |         |         |    |        |     |       |  |  |  |  |             |  |
| 31  | AR1016-A             | 374.605 | 453.131 | E3 | -21.0# | 127 | 0.00  |  |  |  |  | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.884   | E6 | -10.4  | 113 | 0.00  |  |  |  |  | 4.59- 4.65  |  |
| 33  | AR1016-C             | 1.734   | 1.897   | E6 | -9.4   | 112 | 0.00  |  |  |  |  | 5.23- 5.29  |  |
| 34  | AR1016-D             | 752.270 | 865.178 | E3 | -15.0  | 119 | 0.00  |  |  |  |  | 5.42- 5.48  |  |
| 35  | AR1016-E             | 513.080 | 570.483 | E3 | -11.2  | 116 | -0.01 |  |  |  |  | 6.07- 6.13  |  |
| 36  | AR1260-A             | 2.000   | 1.969   | E6 | 1.5    | 108 | -0.02 |  |  |  |  | 8.66- 8.72  |  |
| 37  | AR1260-B             | 0.874   | 1.019   | E6 | -16.6  | 114 | -0.02 |  |  |  |  | 8.77- 8.83  |  |
| 38  | AR1260-C             | 1.022   | 1.138   | E6 | -11.4  | 111 | -0.02 |  |  |  |  | 9.21- 9.27  |  |
| 39  | AR1260-D             | 2.146   | 2.304   | E6 | -7.4   | 106 | -0.02 |  |  |  |  | 9.55- 9.61  |  |
| 40  | AR1260-E             | 2.038   | 2.228   | E6 | -9.3   | 107 | -0.02 |  |  |  |  | 10.10-10.16 |  |
| 41  | AR1262-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 42  | AR1262-B             |         |         |    |        |     |       |  |  |  |  |             |  |
| 43  | AR1262-C             |         |         |    |        |     |       |  |  |  |  |             |  |
| 44  | AR1262-D             |         |         |    |        |     |       |  |  |  |  |             |  |
| 45  | AR1262-E             |         |         |    |        |     |       |  |  |  |  |             |  |
| 46  | AR1268-A             |         |         |    |        |     |       |  |  |  |  |             |  |
| 47  | AR1268-B             |         |         |    |        |     |       |  |  |  |  |             |  |

12.11.17  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162954.D

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|      |                    |        |        |    |     |              |       |             |
|------|--------------------|--------|--------|----|-----|--------------|-------|-------------|
| 48   | AR1268-C           |        |        |    |     | -----NA----- |       |             |
| 49   | AR1268-D           |        |        |    |     | -----NA----- |       |             |
| 50   | AR1268-E           |        |        |    |     | -----NA----- |       |             |
| 51 S | Decachlorobiphenyl | 19.099 | 19.019 | E6 | 0.4 | 106          | -0.03 | 11.75-11.81 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Mon May 07 14:54:50 2018    RPT1

12.11.17  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162965.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162965.D\ECD1A.CH Vial: 78  
Signal #2 : C:\msdchem\1\DATA\2G4326\2G162965.D\ECD2B.CH  
Acq On : 07 May 2018 3:21 pm Operator: tianweir  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11735,G2G4326,16.6,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu May 03 08:38:56 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.013 E6   | -9.3  | 109   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | NA    |       |          |       |        |
| 3   | AR1221-B             |         |            | NA    |       |          |       |        |
| 4   | AR1221-C             |         |            | NA    |       |          |       |        |
| 5   | AR1221-D             |         |            | NA    |       |          |       |        |
| 6   | AR1221-E             |         |            | NA    |       |          |       |        |
| 7   | AR1232-A             |         |            | NA    |       |          |       |        |
| 8   | AR1232-B             |         |            | NA    |       |          |       |        |
| 9   | AR1232-C             |         |            | NA    |       |          |       |        |
| 10  | AR1232-D             |         |            | NA    |       |          |       |        |
| 11  | AR1232-E             |         |            | NA    |       |          |       |        |
| 12  | AR1242-A             |         |            | NA    |       |          |       |        |
| 13  | AR1242-B             |         |            | NA    |       |          |       |        |
| 14  | AR1242-C             |         |            | NA    |       |          |       |        |
| 15  | AR1242-D             |         |            | NA    |       |          |       |        |
| 16  | AR1242-E             |         |            | NA    |       |          |       |        |
| 17  | AR1248-A             |         |            | NA    |       |          |       |        |
| 18  | AR1248-B             |         |            | NA    |       |          |       |        |
| 19  | AR1248-C             |         |            | NA    |       |          |       |        |
| 20  | AR1248-D             |         |            | NA    |       |          |       |        |
| 21  | AR1248-E             |         |            | NA    |       |          |       |        |
| 22  | AR1248-F             |         |            | NA    |       |          |       |        |
| 23  | AR1248-G             |         |            | NA    |       |          |       |        |
| 24  | AR1254-A             |         |            | NA    |       |          |       |        |
| 25  | AR1254-B             |         |            | NA    |       |          |       |        |
| 26  | AR1254-C             |         |            | NA    |       |          |       |        |
| 27  | AR1254-D             |         |            | NA    |       |          |       |        |
| 28  | AR1254-E             |         |            | NA    |       |          |       |        |
| 29  | AR1254-F             |         |            | NA    |       |          |       |        |
| 30  | AR1254-G             |         |            | NA    |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 82.240 E3  | -5.6  | 109   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 141.906 E3 | -4.3  | 109   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 301.013 E3 | -3.8  | 105   | 0.00     | 4.06- | 4.12   |
| 34  | AR1016-D             | 118.235 | 127.456 E3 | -7.8  | 110   | 0.00     | 4.22- | 4.28   |
| 35  | AR1016-E             | 121.934 | 128.141 E3 | -5.1  | 109   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 336.496 E3 | 1.3   | 106   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 165.203 E3 | -14.4 | 108   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 181.322 E3 | -13.9 | 107   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 407.492 E3 | -11.0 | 103   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 419.786 E3 | -10.8 | 104   | 0.00     | 8.36- | 8.51   |
| 41  | AR1262-A             |         |            | NA    |       |          |       |        |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162965.D

|                       |                      |         |         |    |       |     |       |             |              |
|-----------------------|----------------------|---------|---------|----|-------|-----|-------|-------------|--------------|
| 42                    | AR1262-B             |         |         |    |       |     |       |             | -----NA----- |
| 43                    | AR1262-C             |         |         |    |       |     |       |             | -----NA----- |
| 44                    | AR1262-D             |         |         |    |       |     |       |             | -----NA----- |
| 45                    | AR1262-E             |         |         |    |       |     |       |             | -----NA----- |
| 46                    | AR1268-A             |         |         |    |       |     |       |             | -----NA----- |
| 47                    | AR1268-B             |         |         |    |       |     |       |             | -----NA----- |
| 48                    | AR1268-C             |         |         |    |       |     |       |             | -----NA----- |
| 49                    | AR1268-D             |         |         |    |       |     |       |             | -----NA----- |
| 50                    | AR1268-E             |         |         |    |       |     |       |             | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 4.042   | E6 | 0.3   | 103 | 0.00  | 9.94-10.00  |              |
| ***** Signal #2 ***** |                      |         |         |    |       |     |       |             |              |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 24.266  | E6 | -6.0  | 105 | 0.00  | 3.40- 3.46  |              |
| 2                     | AR1221-A             |         |         |    |       |     |       |             | -----NA----- |
| 3                     | AR1221-B             |         |         |    |       |     |       |             | -----NA----- |
| 4                     | AR1221-C             |         |         |    |       |     |       |             | -----NA----- |
| 5                     | AR1221-D             |         |         |    |       |     |       |             | -----NA----- |
| 6                     | AR1221-E             |         |         |    |       |     |       |             | -----NA----- |
| 7                     | AR1232-A             |         |         |    |       |     |       |             | -----NA----- |
| 8                     | AR1232-B             |         |         |    |       |     |       |             | -----NA----- |
| 9                     | AR1232-C             |         |         |    |       |     |       |             | -----NA----- |
| 10                    | AR1232-D             |         |         |    |       |     |       |             | -----NA----- |
| 11                    | AR1232-E             |         |         |    |       |     |       |             | -----NA----- |
| 12                    | AR1242-A             |         |         |    |       |     |       |             | -----NA----- |
| 13                    | AR1242-B             |         |         |    |       |     |       |             | -----NA----- |
| 14                    | AR1242-C             |         |         |    |       |     |       |             | -----NA----- |
| 15                    | AR1242-D             |         |         |    |       |     |       |             | -----NA----- |
| 16                    | AR1242-E             |         |         |    |       |     |       |             | -----NA----- |
| 17                    | AR1248-A             |         |         |    |       |     |       |             | -----NA----- |
| 18                    | AR1248-B             |         |         |    |       |     |       |             | -----NA----- |
| 19                    | AR1248-C             |         |         |    |       |     |       |             | -----NA----- |
| 20                    | AR1248-D             |         |         |    |       |     |       |             | -----NA----- |
| 21                    | AR1248-E             |         |         |    |       |     |       |             | -----NA----- |
| 22                    | AR1248-F             |         |         |    |       |     |       |             | -----NA----- |
| 23                    | AR1248-G             |         |         |    |       |     |       |             | -----NA----- |
| 24                    | AR1254-A             |         |         |    |       |     |       |             | -----NA----- |
| 25                    | AR1254-B             |         |         |    |       |     |       |             | -----NA----- |
| 26                    | AR1254-C             |         |         |    |       |     |       |             | -----NA----- |
| 27                    | AR1254-D             |         |         |    |       |     |       |             | -----NA----- |
| 28                    | AR1254-E             |         |         |    |       |     |       |             | -----NA----- |
| 29                    | AR1254-F             |         |         |    |       |     |       |             | -----NA----- |
| 30                    | AR1254-G             |         |         |    |       |     |       |             | -----NA----- |
| 31                    | AR1016-A             | 374.605 | 409.178 | E3 | -9.2  | 112 | 0.00  | 4.06- 4.12  |              |
| 32                    | AR1016-B             | 0.801   | 0.803   | E6 | -0.2  | 103 | 0.00  | 4.59- 4.65  |              |
| 33                    | AR1016-C             | 1.734   | 1.753   | E6 | -1.1  | 100 | 0.00  | 5.23- 5.29  |              |
| 34                    | AR1016-D             | 752.270 | 783.808 | E3 | -4.2  | 106 | 0.00  | 5.42- 5.48  |              |
| 35                    | AR1016-E             | 513.080 | 521.061 | E3 | -1.6  | 104 | -0.01 | 6.06- 6.12  |              |
| 36                    | AR1260-A             | 2.000   | 1.868   | E6 | 6.6   | 99  | -0.02 | 8.66- 8.72  |              |
| 37                    | AR1260-B             | 0.874   | 0.959   | E6 | -9.7  | 105 | -0.02 | 8.77- 8.83  |              |
| 38                    | AR1260-C             | 1.022   | 1.084   | E6 | -6.1  | 103 | -0.02 | 9.20- 9.26  |              |
| 39                    | AR1260-D             | 2.146   | 2.297   | E6 | -7.0  | 102 | -0.02 | 9.55- 9.61  |              |
| 40                    | AR1260-E             | 2.038   | 2.246   | E6 | -10.2 | 105 | -0.03 | 10.09-10.15 |              |
| 41                    | AR1262-A             |         |         |    |       |     |       |             | -----NA----- |
| 42                    | AR1262-B             |         |         |    |       |     |       |             | -----NA----- |
| 43                    | AR1262-C             |         |         |    |       |     |       |             | -----NA----- |
| 44                    | AR1262-D             |         |         |    |       |     |       |             | -----NA----- |
| 45                    | AR1262-E             |         |         |    |       |     |       |             | -----NA----- |
| 46                    | AR1268-A             |         |         |    |       |     |       |             | -----NA----- |
| 47                    | AR1268-B             |         |         |    |       |     |       |             | -----NA----- |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162965.D

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|      |                    |        |        |    |      |              |       |             |  |
|------|--------------------|--------|--------|----|------|--------------|-------|-------------|--|
| 48   | AR1268-C           |        |        |    |      | -----NA----- |       |             |  |
| 49   | AR1268-D           |        |        |    |      | -----NA----- |       |             |  |
| 50   | AR1268-E           |        |        |    |      | -----NA----- |       |             |  |
| 51 S | Decachlorobiphenyl | 19.099 | 20.144 | E6 | -5.5 | 107          | -0.03 | 11.75-11.81 |  |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162708.D 2PCB4311.M                Mon May 07 16:10:42 2018    RPT1

12.11.18  
12



# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
 Lab FileID: 2G162976.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4326\2G162976.D\ECD1A.CH Vial: 13  
 Signal #2 : C:\msdchem\1\DATA\2G4326\2G162976.D\ECD2B.CH  
 Acq On : 07 May 2018 7:44 pm Operator: rebeccak  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11775,G2G4326,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu May 03 08:38:56 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.143 E6   | -12.9 | 117   | 0.01     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | NA    |       |          |       |        |
| 3   | AR1221-B             |         |            | NA    |       |          |       |        |
| 4   | AR1221-C             |         |            | NA    |       |          |       |        |
| 5   | AR1221-D             |         |            | NA    |       |          |       |        |
| 6   | AR1221-E             |         |            | NA    |       |          |       |        |
| 7   | AR1232-A             |         |            | NA    |       |          |       |        |
| 8   | AR1232-B             |         |            | NA    |       |          |       |        |
| 9   | AR1232-C             |         |            | NA    |       |          |       |        |
| 10  | AR1232-D             |         |            | NA    |       |          |       |        |
| 11  | AR1232-E             |         |            | NA    |       |          |       |        |
| 12  | AR1242-A             |         |            | NA    |       |          |       |        |
| 13  | AR1242-B             |         |            | NA    |       |          |       |        |
| 14  | AR1242-C             |         |            | NA    |       |          |       |        |
| 15  | AR1242-D             |         |            | NA    |       |          |       |        |
| 16  | AR1242-E             |         |            | NA    |       |          |       |        |
| 17  | AR1248-A             |         |            | NA    |       |          |       |        |
| 18  | AR1248-B             |         |            | NA    |       |          |       |        |
| 19  | AR1248-C             |         |            | NA    |       |          |       |        |
| 20  | AR1248-D             |         |            | NA    |       |          |       |        |
| 21  | AR1248-E             |         |            | NA    |       |          |       |        |
| 22  | AR1248-F             |         |            | NA    |       |          |       |        |
| 23  | AR1248-G             |         |            | NA    |       |          |       |        |
| 24  | AR1254-A             |         |            | NA    |       |          |       |        |
| 25  | AR1254-B             |         |            | NA    |       |          |       |        |
| 26  | AR1254-C             |         |            | NA    |       |          |       |        |
| 27  | AR1254-D             |         |            | NA    |       |          |       |        |
| 28  | AR1254-E             |         |            | NA    |       |          |       |        |
| 29  | AR1254-F             |         |            | NA    |       |          |       |        |
| 30  | AR1254-G             |         |            | NA    |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 90.115 E3  | -15.7 | 118   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 148.791 E3 | -9.4  | 112   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 289.791 E3 | 0.1   | 104   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 126.558 E3 | -7.0  | 109   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 128.162 E3 | -5.1  | 108   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 344.988 E3 | -1.2  | 112   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 165.929 E3 | -14.9 | 111   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 179.693 E3 | -12.9 | 109   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 404.873 E3 | -10.3 | 108   | 0.00     | 8.01- | 8.07   |
| 40  | AR1260-E             | 378.788 | 424.397 E3 | -12.0 | 109   | 0.00     | 8.35- | 8.51   |
| 41  | AR1262-A             |         |            | NA    |       |          |       |        |

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# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4326-CC4311  
 Lab FileID: 2G162976.D

|                       |                      |         |            |        |     |       |  |  |             |  |
|-----------------------|----------------------|---------|------------|--------|-----|-------|--|--|-------------|--|
| 42                    | AR1262-B             |         |            |        |     |       |  |  |             |  |
| 43                    | AR1262-C             |         |            |        |     |       |  |  |             |  |
| 44                    | AR1262-D             |         |            |        |     |       |  |  |             |  |
| 45                    | AR1262-E             |         |            |        |     |       |  |  |             |  |
| 46                    | AR1268-A             |         |            |        |     |       |  |  |             |  |
| 47                    | AR1268-B             |         |            |        |     |       |  |  |             |  |
| 48                    | AR1268-C             |         |            |        |     |       |  |  |             |  |
| 49                    | AR1268-D             |         |            |        |     |       |  |  |             |  |
| 50                    | AR1268-E             |         |            |        |     |       |  |  |             |  |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 4.226 E6   | -4.2   | 108 | 0.00  |  |  | 9.94-10.00  |  |
| ***** Signal #2 ***** |                      |         |            |        |     |       |  |  |             |  |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 26.125 E6  | -14.2  | 117 | 0.00  |  |  | 3.40- 3.46  |  |
| 2                     | AR1221-A             |         |            |        |     |       |  |  |             |  |
| 3                     | AR1221-B             |         |            |        |     |       |  |  |             |  |
| 4                     | AR1221-C             |         |            |        |     |       |  |  |             |  |
| 5                     | AR1221-D             |         |            |        |     |       |  |  |             |  |
| 6                     | AR1221-E             |         |            |        |     |       |  |  |             |  |
| 7                     | AR1232-A             |         |            |        |     |       |  |  |             |  |
| 8                     | AR1232-B             |         |            |        |     |       |  |  |             |  |
| 9                     | AR1232-C             |         |            |        |     |       |  |  |             |  |
| 10                    | AR1232-D             |         |            |        |     |       |  |  |             |  |
| 11                    | AR1232-E             |         |            |        |     |       |  |  |             |  |
| 12                    | AR1242-A             |         |            |        |     |       |  |  |             |  |
| 13                    | AR1242-B             |         |            |        |     |       |  |  |             |  |
| 14                    | AR1242-C             |         |            |        |     |       |  |  |             |  |
| 15                    | AR1242-D             |         |            |        |     |       |  |  |             |  |
| 16                    | AR1242-E             |         |            |        |     |       |  |  |             |  |
| 17                    | AR1248-A             |         |            |        |     |       |  |  |             |  |
| 18                    | AR1248-B             |         |            |        |     |       |  |  |             |  |
| 19                    | AR1248-C             |         |            |        |     |       |  |  |             |  |
| 20                    | AR1248-D             |         |            |        |     |       |  |  |             |  |
| 21                    | AR1248-E             |         |            |        |     |       |  |  |             |  |
| 22                    | AR1248-F             |         |            |        |     |       |  |  |             |  |
| 23                    | AR1248-G             |         |            |        |     |       |  |  |             |  |
| 24                    | AR1254-A             |         |            |        |     |       |  |  |             |  |
| 25                    | AR1254-B             |         |            |        |     |       |  |  |             |  |
| 26                    | AR1254-C             |         |            |        |     |       |  |  |             |  |
| 27                    | AR1254-D             |         |            |        |     |       |  |  |             |  |
| 28                    | AR1254-E             |         |            |        |     |       |  |  |             |  |
| 29                    | AR1254-F             |         |            |        |     |       |  |  |             |  |
| 30                    | AR1254-G             |         |            |        |     |       |  |  |             |  |
| 31                    | AR1016-A             | 374.605 | 465.846 E3 | -24.4# | 131 | 0.00  |  |  | 4.05- 4.11  |  |
| 32                    | AR1016-B             | 0.801   | 0.737 E6   | 8.0    | 94  | 0.00  |  |  | 4.59- 4.65  |  |
| 33                    | AR1016-C             | 1.734   | 1.851 E6   | -6.7   | 110 | 0.00  |  |  | 5.23- 5.29  |  |
| 34                    | AR1016-D             | 752.270 | 845.391 E3 | -12.4  | 116 | 0.00  |  |  | 5.42- 5.48  |  |
| 35                    | AR1016-E             | 513.080 | 550.792 E3 | -7.4   | 112 | -0.01 |  |  | 6.06- 6.12  |  |
| 36                    | AR1260-A             | 2.000   | 1.651 E6   | 17.4   | 91  | -0.02 |  |  | 8.66- 8.72  |  |
| 37                    | AR1260-B             | 0.874   | 0.963 E6   | -10.2  | 107 | -0.02 |  |  | 8.77- 8.83  |  |
| 38                    | AR1260-C             | 1.022   | 1.164 E6   | -13.9  | 114 | -0.02 |  |  | 9.20- 9.26  |  |
| 39                    | AR1260-D             | 2.146   | 2.431 E6   | -13.3  | 112 | -0.03 |  |  | 9.55- 9.61  |  |
| 40                    | AR1260-E             | 2.038   | 2.352 E6   | -15.4  | 113 | -0.03 |  |  | 10.09-10.15 |  |
| 41                    | AR1262-A             |         |            |        |     |       |  |  |             |  |
| 42                    | AR1262-B             |         |            |        |     |       |  |  |             |  |
| 43                    | AR1262-C             |         |            |        |     |       |  |  |             |  |
| 44                    | AR1262-D             |         |            |        |     |       |  |  |             |  |
| 45                    | AR1262-E             |         |            |        |     |       |  |  |             |  |
| 46                    | AR1268-A             |         |            |        |     |       |  |  |             |  |
| 47                    | AR1268-B             |         |            |        |     |       |  |  |             |  |

12.11.19 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4326-CC4311  
**Lab FileID:** 2G162976.D

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|      |                    |        |        |    |      |     |       |  |             |              |
|------|--------------------|--------|--------|----|------|-----|-------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |      |     |       |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |      |     |       |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |      |     |       |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 20.695 | E6 | -8.4 | 115 | -0.03 |  | 11.75-11.81 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Tue May 08 10:43:32 2018    RPT1

12.11.19  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4328-CC4311  
**Lab FileID:** 2G163175.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4328\2G163175.D\ECD1A.CH Vial: 56  
 Signal #2 : C:\msdchem\1\DATA\2G4328\2G163175.D\ECD2B.CH  
 Acq On : 09 May 2018 9:27 pm Operator: tianweir  
 Sample : cc4311-1000 Inst : HP G1530A  
 Misc : OP11863,G2G4328,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu May 10 09:36:48 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.026 E6   | -9.7         | 109   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 81.434 E3  | -4.5         | 108   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 141.701 E3 | -4.1         | 109   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 297.805 E3 | -2.7         | 104   | 0.00     | 4.06- | 4.12   |
| 34  | AR1016-D             | 118.235 | 126.467 E3 | -7.0         | 109   | 0.00     | 4.22- | 4.28   |
| 35  | AR1016-E             | 121.934 | 127.375 E3 | -4.5         | 108   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 333.673 E3 | 2.1          | 105   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 161.187 E3 | -11.6        | 105   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 179.447 E3 | -12.7        | 106   | 0.00     | 7.58- | 7.64   |
| 39  | AR1260-D             | 367.146 | 401.008 E3 | -9.2         | 101   | 0.00     | 8.01- | 8.07   |
| 40  | AR1260-E             | 378.788 | 404.966 E3 | -6.9         | 101   | 0.00     | 8.35- | 8.51   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4328-CC4311  
**Lab FileID:** 2G163175.D

|                       |                      |         |         |    |      |     |      |  |  |              |
|-----------------------|----------------------|---------|---------|----|------|-----|------|--|--|--------------|
| 42                    | AR1262-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 43                    | AR1262-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 44                    | AR1262-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 45                    | AR1262-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 46                    | AR1268-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 47                    | AR1268-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 48                    | AR1268-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 49                    | AR1268-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 50                    | AR1268-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 3.733   | E6 | 8.0  | 95  | 0.00 |  |  | 9.94-10.00   |
| ***** Signal #2 ***** |                      |         |         |    |      |     |      |  |  |              |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 23.511  | E6 | -2.7 | 101 | 0.00 |  |  | 3.40- 3.46   |
| 2                     | AR1221-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 3                     | AR1221-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 4                     | AR1221-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 5                     | AR1221-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 6                     | AR1221-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 7                     | AR1232-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 8                     | AR1232-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 9                     | AR1232-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 10                    | AR1232-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 11                    | AR1232-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 12                    | AR1242-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 13                    | AR1242-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 14                    | AR1242-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 15                    | AR1242-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 16                    | AR1242-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 17                    | AR1248-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 18                    | AR1248-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 19                    | AR1248-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 20                    | AR1248-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 21                    | AR1248-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 22                    | AR1248-F             |         |         |    |      |     |      |  |  | -----NA----- |
| 23                    | AR1248-G             |         |         |    |      |     |      |  |  | -----NA----- |
| 24                    | AR1254-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 25                    | AR1254-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 26                    | AR1254-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 27                    | AR1254-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 28                    | AR1254-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 29                    | AR1254-F             |         |         |    |      |     |      |  |  | -----NA----- |
| 30                    | AR1254-G             |         |         |    |      |     |      |  |  | -----NA----- |
| 31                    | AR1016-A             | 374.605 | 373.888 | E3 | 0.2  | 102 | 0.00 |  |  | 4.05- 4.11   |
| 32                    | AR1016-B             | 0.801   | 0.775   | E6 | 3.2  | 100 | 0.00 |  |  | 4.59- 4.65   |
| 33                    | AR1016-C             | 1.734   | 1.694   | E6 | 2.3  | 97  | 0.00 |  |  | 5.23- 5.29   |
| 34                    | AR1016-D             | 752.270 | 742.503 | E3 | 1.3  | 101 | 0.00 |  |  | 5.42- 5.48   |
| 35                    | AR1016-E             | 513.080 | 501.700 | E3 | 2.2  | 100 | 0.00 |  |  | 6.06- 6.12   |
| 36                    | AR1260-A             | 2.000   | 1.795   | E6 | 10.3 | 95  | 0.00 |  |  | 8.66- 8.72   |
| 37                    | AR1260-B             | 0.874   | 0.902   | E6 | -3.2 | 98  | 0.00 |  |  | 8.77- 8.83   |
| 38                    | AR1260-C             | 1.022   | 1.027   | E6 | -0.5 | 98  | 0.00 |  |  | 9.20- 9.26   |
| 39                    | AR1260-D             | 2.146   | 2.179   | E6 | -1.5 | 97  | 0.00 |  |  | 9.55- 9.61   |
| 40                    | AR1260-E             | 2.038   | 2.075   | E6 | -1.8 | 97  | 0.00 |  |  | 10.09-10.15  |
| 41                    | AR1262-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 42                    | AR1262-B             |         |         |    |      |     |      |  |  | -----NA----- |
| 43                    | AR1262-C             |         |         |    |      |     |      |  |  | -----NA----- |
| 44                    | AR1262-D             |         |         |    |      |     |      |  |  | -----NA----- |
| 45                    | AR1262-E             |         |         |    |      |     |      |  |  | -----NA----- |
| 46                    | AR1268-A             |         |         |    |      |     |      |  |  | -----NA----- |
| 47                    | AR1268-B             |         |         |    |      |     |      |  |  | -----NA----- |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4328-CC4311  
**Lab FileID:** 2G163175.D

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|      |                    |        |        |    |     |    |      |  |             |              |
|------|--------------------|--------|--------|----|-----|----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |     |    |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |     |    |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |     |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 17.970 | E6 | 5.9 | 96 | 0.00 |  | 11.75-11.81 |              |

---

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G163207.D 2PCB4311.M              Thu May 10 09:51:16 2018    RPT1

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# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4328-CC4311  
 Lab FileID: 2G163185.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4328\2G163185.D\ECD1A.CH Vial: 63  
 Signal #2 : C:\msdchem\1\DATA\2G4328\2G163185.D\ECD2B.CH  
 Acq On : 10 May 2018 12:24 am Operator: tianweir  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11775,G2G4328,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu May 10 09:36:48 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.056 E6   | -10.5        | 115   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 87.288 E3  | -12.1        | 114   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 150.878 E3 | -10.9        | 114   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 302.597 E3 | -4.4         | 108   | 0.00     | 4.06- | 4.12   |
| 34  | AR1016-D             | 118.235 | 127.727 E3 | -8.0         | 111   | 0.00     | 4.22- | 4.28   |
| 35  | AR1016-E             | 121.934 | 132.577 E3 | -8.7         | 112   | 0.00     | 4.73- | 4.79   |
| 36  | AR1260-A             | 340.850 | 337.342 E3 | 1.0          | 110   | 0.00     | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 165.016 E3 | -14.2        | 110   | 0.00     | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 182.144 E3 | -14.4        | 111   | 0.00     | 7.58- | 7.64   |
| 39  | AR1260-D             | 367.146 | 396.953 E3 | -8.1         | 106   | 0.00     | 8.01- | 8.07   |
| 40  | AR1260-E             | 378.788 | 407.865 E3 | -7.7         | 105   | 0.00     | 8.35- | 8.51   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4328-CC4311  
**Lab FileID:** 2G163185.D

|      |                    |       |       |    |     |    |      |  |            |  |
|------|--------------------|-------|-------|----|-----|----|------|--|------------|--|
| 42   | AR1262-B           |       |       |    |     |    |      |  |            |  |
| 43   | AR1262-C           |       |       |    |     |    |      |  |            |  |
| 44   | AR1262-D           |       |       |    |     |    |      |  |            |  |
| 45   | AR1262-E           |       |       |    |     |    |      |  |            |  |
| 46   | AR1268-A           |       |       |    |     |    |      |  |            |  |
| 47   | AR1268-B           |       |       |    |     |    |      |  |            |  |
| 48   | AR1268-C           |       |       |    |     |    |      |  |            |  |
| 49   | AR1268-D           |       |       |    |     |    |      |  |            |  |
| 50   | AR1268-E           |       |       |    |     |    |      |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 3.847 | E6 | 5.2 | 98 | 0.00 |  | 9.94-10.00 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |  |             |  |
|-----|----------------------|---------|---------|----|-------|-----|------|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 23.768  | E6 | -3.9  | 106 | 0.00 |  | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |         |    |       |     |      |  |             |  |
| 3   | AR1221-B             |         |         |    |       |     |      |  |             |  |
| 4   | AR1221-C             |         |         |    |       |     |      |  |             |  |
| 5   | AR1221-D             |         |         |    |       |     |      |  |             |  |
| 6   | AR1221-E             |         |         |    |       |     |      |  |             |  |
| 7   | AR1232-A             |         |         |    |       |     |      |  |             |  |
| 8   | AR1232-B             |         |         |    |       |     |      |  |             |  |
| 9   | AR1232-C             |         |         |    |       |     |      |  |             |  |
| 10  | AR1232-D             |         |         |    |       |     |      |  |             |  |
| 11  | AR1232-E             |         |         |    |       |     |      |  |             |  |
| 12  | AR1242-A             |         |         |    |       |     |      |  |             |  |
| 13  | AR1242-B             |         |         |    |       |     |      |  |             |  |
| 14  | AR1242-C             |         |         |    |       |     |      |  |             |  |
| 15  | AR1242-D             |         |         |    |       |     |      |  |             |  |
| 16  | AR1242-E             |         |         |    |       |     |      |  |             |  |
| 17  | AR1248-A             |         |         |    |       |     |      |  |             |  |
| 18  | AR1248-B             |         |         |    |       |     |      |  |             |  |
| 19  | AR1248-C             |         |         |    |       |     |      |  |             |  |
| 20  | AR1248-D             |         |         |    |       |     |      |  |             |  |
| 21  | AR1248-E             |         |         |    |       |     |      |  |             |  |
| 22  | AR1248-F             |         |         |    |       |     |      |  |             |  |
| 23  | AR1248-G             |         |         |    |       |     |      |  |             |  |
| 24  | AR1254-A             |         |         |    |       |     |      |  |             |  |
| 25  | AR1254-B             |         |         |    |       |     |      |  |             |  |
| 26  | AR1254-C             |         |         |    |       |     |      |  |             |  |
| 27  | AR1254-D             |         |         |    |       |     |      |  |             |  |
| 28  | AR1254-E             |         |         |    |       |     |      |  |             |  |
| 29  | AR1254-F             |         |         |    |       |     |      |  |             |  |
| 30  | AR1254-G             |         |         |    |       |     |      |  |             |  |
| 31  | AR1016-A             | 374.605 | 427.050 | E3 | -14.0 | 120 | 0.00 |  | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.825   | E6 | -3.0  | 106 | 0.00 |  | 4.59- 4.65  |  |
| 33  | AR1016-C             | 1.734   | 1.715   | E6 | 1.1   | 102 | 0.00 |  | 5.23- 5.29  |  |
| 34  | AR1016-D             | 752.270 | 790.817 | E3 | -5.1  | 108 | 0.00 |  | 5.42- 5.48  |  |
| 35  | AR1016-E             | 513.080 | 519.333 | E3 | -1.2  | 105 | 0.00 |  | 6.06- 6.12  |  |
| 36  | AR1260-A             | 2.000   | 1.814   | E6 | 9.3   | 100 | 0.00 |  | 8.66- 8.72  |  |
| 37  | AR1260-B             | 0.874   | 0.917   | E6 | -4.9  | 102 | 0.00 |  | 8.77- 8.83  |  |
| 38  | AR1260-C             | 1.022   | 1.035   | E6 | -1.3  | 101 | 0.00 |  | 9.20- 9.26  |  |
| 39  | AR1260-D             | 2.146   | 2.151   | E6 | -0.2  | 99  | 0.00 |  | 9.55- 9.61  |  |
| 40  | AR1260-E             | 2.038   | 2.088   | E6 | -2.5  | 100 | 0.00 |  | 10.09-10.15 |  |
| 41  | AR1262-A             |         |         |    |       |     |      |  |             |  |
| 42  | AR1262-B             |         |         |    |       |     |      |  |             |  |
| 43  | AR1262-C             |         |         |    |       |     |      |  |             |  |
| 44  | AR1262-D             |         |         |    |       |     |      |  |             |  |
| 45  | AR1262-E             |         |         |    |       |     |      |  |             |  |
| 46  | AR1268-A             |         |         |    |       |     |      |  |             |  |
| 47  | AR1268-B             |         |         |    |       |     |      |  |             |  |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4328-CC4311  
**Lab FileID:** 2G163185.D

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|      |                    |        |        |    |      |    |      |  |             |              |
|------|--------------------|--------|--------|----|------|----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |      |    |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |      |    |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |      |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 17.153 | E6 | 10.2 | 96 | 0.00 |  | 11.75-11.81 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Thu May 10 09:50:54 2018    RPT1

12:11:21  
12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICC4020  
**Lab FileID:** 3G115849.D

## Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Initial Calibration

### Calibration Files

500 =3G115851.D 400 =3G115850.D 300 =3G115849.D 200 =3G115848.D  
100 =3G115847.D 50 =3G115846.D

| Compound             | 500   | 400   | 300   | 200   | 100   | 50    | Avg   | %RSD     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 7.083 | 7.185 | 7.406 | 7.854 | 8.144 | 8.279 | 7.659 | E6 6.60  |
| 2) S 2,4-DCAA        | 3.395 | 3.459 | 3.670 | 3.877 | 4.246 | 4.778 | 3.904 | E6 13.52 |
| 3) Dicamba           | 1.693 | 1.733 | 1.817 | 1.866 | 1.929 | 2.020 | 1.843 | E7 6.63  |
| 4) MCPP              | 8.521 | 8.350 | 8.258 | 7.576 | 5.974 |       | 7.736 | E3 13.55 |
| 5) MCPA              | 1.407 | 1.377 | 1.417 | 1.367 | 1.194 |       | 1.352 | E4 6.74  |
| 6) Dichloroprop      | 3.780 | 3.774 | 4.012 | 4.262 | 4.656 | 5.052 | 4.256 | E6 12.03 |
| 7) 2,4-D             | 4.908 | 4.979 | 5.254 | 5.553 | 6.030 | 6.504 | 5.538 | E6 11.32 |
| 8) Pentachlorophenol | 6.916 | 6.953 | 6.924 | 7.246 | 7.227 | 7.203 | 7.078 | E7 2.29  |
| 9) 2,4,5-TP          | 2.659 | 2.711 | 2.817 | 2.909 | 2.976 | 3.082 | 2.859 | E7 5.63  |
| 10) 2,4,5-T          | 2.676 | 2.730 | 2.846 | 2.940 | 3.214 | 3.225 | 2.939 | E7 8.05  |
| 11) 2,4-DB           | 2.821 | 2.888 | 3.052 | 3.192 | 3.458 | 3.888 | 3.216 | E6 12.44 |
| 12) Dinoseb          | 1.346 | 1.371 | 1.445 | 1.534 | 1.621 | 1.739 | 1.509 | E7 10.09 |
| 13) Picloram         | 3.049 | 3.102 | 3.215 | 3.300 | 3.423 | 3.617 | 3.284 | E7 6.44  |

### Signal #2

|                      |       |       |       |       |       |       |       |          |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 1.761 | 1.772 | 1.822 | 1.909 | 1.945 | 1.969 | 1.863 | E6 4.83  |
| 2) S 2,4-DCAA        | 8.144 | 8.280 | 8.342 | 8.604 | 8.877 | 9.343 | 8.598 | E5 5.22  |
| 3) Dicamba           | 4.872 | 5.077 | 5.157 | 5.458 | 6.312 | 5.996 | 5.479 | E6 10.31 |
| 4) MCPP              | 1.668 | 1.662 | 1.613 | 1.524 | 1.172 |       | 1.528 | E3 13.55 |
| 5) MCPA              | 2.780 | 2.783 | 2.748 | 2.648 | 2.181 |       | 2.628 | E3 9.74  |
| 6) Dichloroprop      | 1.066 | 1.088 | 1.114 | 1.166 | 1.222 | 1.269 | 1.154 | E6 6.92  |
| 7) 2,4-D             | 1.367 | 1.419 | 1.440 | 1.500 | 1.558 | 1.612 | 1.482 | E6 6.18  |
| 8) Pentachlorophenol | 2.489 | 2.546 | 2.507 | 2.573 | 2.469 | 2.382 | 2.494 | E7 2.68  |
| 9) 2,4,5-TP          | 1.019 | 1.036 | 1.049 | 1.061 | 1.025 | 1.004 | 1.032 | E7 2.01  |
| 10) 2,4,5-T          | 0.953 | 0.965 | 0.984 | 1.003 | 0.986 | 1.006 | 0.983 | E7 2.11  |
| 11) 2,4-DB           | 8.083 | 8.098 | 8.311 | 8.326 | 8.197 | 8.128 | 8.190 | E5 1.30  |
| 12) Dinoseb          | 6.018 | 6.007 | 6.129 | 6.267 | 6.105 | 6.090 | 6.102 | E6 1.54  |
| 13) Picloram         | 1.401 | 1.400 | 1.417 | 1.402 | 1.364 | 1.353 | 1.390 | E7 1.82  |

(#) = Out of Range

3H4020.M

Tue Apr 10 14:49:23 2018

GC3G

12.11.22  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICV4020  
**Lab FileID:** 3G115853.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD1A.CH Vial: 8  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD2B.CH  
 Acq On : 4-10-2018 02:10:00 PM Operator: vinced  
 Sample : icv4020-300 Inst : GC3G  
 Misc : op11152,g3g4020,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.336 E6  | 4.2   | 99    | 0.00     | 2.45-  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 3.735 E6  | 4.3   | 102   | 0.00     | 7.43-  | 7.50   |
| 3   | Dicamba           | 18.429 | 19.458 E6 | -5.6  | 107   | 0.00     | 7.63-  | 7.70   |
| 4   | MCPD              | 7.736  | 8.540 E3  | -10.4 | 103   | 0.00     | 7.89-  | 7.96   |
| 5   | MCPA              | 13.523 | 14.274 E3 | -5.6  | 101   | 0.00     | 8.06-  | 8.13   |
| 6   | Dichloroprop      | 4.256  | 3.945 E6  | 7.3   | 98    | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 5.255 E6  | 5.1   | 100   | 0.00     | 8.79-  | 8.86   |
| 8   | Pentachlorophenol | 70.783 | 77.775 E6 | -9.9  | 112   | 0.00     | 9.05-  | 9.12   |
| 9   | 2,4,5-TP          | 28.591 | 28.106 E6 | 1.7   | 100   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 30.215 E6 | -2.8  | 106   | 0.00     | 10.23- | 10.30  |
| 11  | 2,4-DB            | 3.216  | 3.108 E6  | 3.4   | 102   | 0.00     | 10.95- | 11.04  |
| 12  | Dinoseb           | 15.094 | 14.627 E6 | 3.1   | 101   | 0.00     | 12.39- | 12.46  |
| 13  | Picloram          | 32.841 | 31.101 E6 | 5.3   | 97    | 0.00     | 12.13- | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.814 E6   | 2.6   | 100 | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 852.586 E3 | 0.8   | 102 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.725 E6   | -4.5  | 111 | 0.00 | 8.12-  | 8.19  |
| 4   | MCPD              | 1.528   | 1.683 E3   | -10.1 | 104 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.764 E3   | -5.2  | 101 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.084 E6   | 6.1   | 97  | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.449 E6   | 2.2   | 101 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 28.185 E6  | -13.0 | 112 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.371 E6  | -0.5  | 99  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.002 E6  | -1.7  | 102 | 0.00 | 11.06- | 11.15 |
| 11  | 2,4-DB            | 819.049 | 797.665 E3 | 2.6   | 96  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 6.096 E6   | 0.1   | 99  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.572 E6  | 2.3   | 96  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue Apr 10 14:49:40 2018 GC3G

12.11.23 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4034-CC4020  
**Lab FileID:** 3G116197.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116197.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116197.D\ECD2B.CH  
 Acq On : 5-1-2018 07:06:20 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11359,g3g4034,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Wed May 02 09:47:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.699 E6  | -0.5   | 104   | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.051 E6  | -3.8   | 110   | -0.02    | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 20.746 E6 | -12.6  | 114   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.569 E3  | -10.8  | 104   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.774 E3 | -9.3   | 104   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.604 E6  | -8.2   | 115   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.272 E6  | -13.3  | 119   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 79.568 E6 | -12.4  | 115   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 32.271 E6 | -12.9  | 115   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 33.706 E6 | -14.7  | 118   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.671 E6  | -14.1  | 120   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 19.078 E6 | -26.4# | 132   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 34.261 E6 | -4.3   | 107   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.815 E6   | 2.6   | 100 | 0.00  | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 909.263 E3 | -5.7  | 109 | -0.02 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.175 E6   | 5.5   | 100 | 0.00  | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.739 E3   | -13.8 | 108 | 0.00  | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.994 E3   | -13.9 | 109 | 0.00  | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.219 E6   | -5.6  | 109 | 0.00  | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.546 E6   | -4.3  | 107 | 0.00  | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 27.521 E6  | -10.3 | 110 | 0.00  | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.839 E6  | -5.0  | 103 | 0.00  | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 10.508 E6  | -6.9  | 107 | 0.00  | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 813.418 E3 | 0.7   | 98  | 0.00  | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 6.379 E6   | -4.5  | 104 | 0.00  | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 14.629 E6  | -5.3  | 103 | 0.00  | 13.64- | 13.71 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Wed May 02 11:02:49 2018 GC3G

12.11.24 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4034-CC4020  
**Lab FileID:** 3G116208.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116208.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116208.D\ECD2B.CH  
 Acq On : 02 May 2018 12:19 am Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11676,g3g4034,15.6,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Wed May 02 09:47:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 8.265 E6  | -7.9   | 105   | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.475 E6  | -14.6  | 115   | -0.02    | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 22.228 E6 | -20.6# | 119   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.305 E3  | -7.4   | 110   | 0.00     | 7.88-  | 7.95   |
| 5   | MCPA              | 13.523 | 15.425 E3 | -14.1  | 113   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 5.253 E6  | -23.4# | 123   | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 7.012 E6  | -26.6# | 126   | 0.01     | 8.82-  | 8.89   |
| 8   | Pentachlorophenol | 70.783 | 85.861 E6 | -21.3# | 118   | 0.00     | 9.05-  | 9.12   |
| 9   | 2,4,5-TP          | 28.591 | 36.438 E6 | -27.4# | 125   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 37.202 E6 | -26.6# | 127   | 0.01     | 10.27- | 10.34  |
| 11  | 2,4-DB            | 3.216  | 4.418 E6  | -37.4# | 138   | 0.02     | 10.99- | 11.08  |
| 12  | Dinoseb           | 15.094 | 20.168 E6 | -33.6# | 131   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 33.845 E6 | -3.1   | 103   | 0.02     | 12.19- | 12.26  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.911 E6   | -2.6  | 100 | 0.00  | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 937.404 E3 | -9.0  | 109 | -0.02 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.113 E6   | 6.7   | 94  | 0.00  | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.768 E3   | -15.7 | 116 | 0.00  | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 3.034 E3   | -15.4 | 115 | 0.00  | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.286 E6   | -11.4 | 110 | 0.00  | 9.02-  | 9.09  |
| 7   | 2,4-D             | 1.482   | 1.629 E6   | -9.9  | 109 | 0.00  | 9.46-  | 9.53  |
| 8   | Pentachlorophenol | 24.942  | 27.834 E6  | -11.6 | 108 | 0.00  | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.786 E6  | -4.5  | 102 | 0.00  | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 10.297 E6  | -4.7  | 103 | 0.00  | 11.09- | 11.18 |
| 11  | 2,4-DB            | 819.049 | 824.789 E3 | -0.7  | 99  | 0.01  | 11.82- | 11.89 |
| 12  | Dinoseb           | 6.102   | 6.126 E6   | -0.4  | 98  | 0.00  | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.938 E6  | -0.3  | 99  | 0.01  | 13.65- | 13.72 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Wed May 02 11:02:28 2018 GC3G

12.11.25 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4035-CC4020  
**Lab FileID:** 3G116239.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116239.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116239.D\ECD2B.CH  
 Acq On : 02 May 2018 11:25 pm Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11634,g3g4035,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.746 E6  | -1.1   | 105   | 0.00     | 2.45-  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 4.150 E6  | -6.3   | 113   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 21.297 E6 | -15.6  | 117   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.709 E3  | -12.6  | 105   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 15.720 E3 | -16.2  | 111   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.831 E6  | -13.5  | 120   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.488 E6  | -17.2  | 123   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 81.905 E6 | -15.7  | 118   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 33.863 E6 | -18.4  | 120   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 33.707 E6 | -14.7  | 118   | 0.00     | 10.26- | 10.33  |
| 11  | 2,4-DB            | 3.216  | 3.676 E6  | -14.3  | 120   | 0.00     | 10.98- | 11.07  |
| 12  | Dinoseb           | 15.094 | 18.408 E6 | -22.0# | 127   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 33.118 E6 | -0.8   | 103   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.782 E6   | 4.3   | 98  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 900.273 E3 | -4.7  | 108 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.307 E6   | 3.1   | 103 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.765 E3   | -15.5 | 109 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 3.114 E3   | -18.5 | 113 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.220 E6   | -5.7  | 110 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.542 E6   | -4.0  | 107 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 27.293 E6  | -9.4  | 109 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.996 E6  | -6.5  | 105 | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 10.586 E6  | -7.7  | 108 | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 815.588 E3 | 0.4   | 98  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 6.031 E6   | 1.2   | 98  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.963 E6  | -0.5  | 99  | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 11:55:14 2018 GC3G

12.11.26 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4035-ECC4020  
**Lab FileID:** 3G116246.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116246.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116246.D\ECD2B.CH  
 Acq On : 5-3-2018 02:44:45 AM Operator: vinced  
 Sample : ecc4020-200 Inst : GC3G  
 Misc : op11634,g3g4035,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 8.217 E6  | -7.3   | 105   | 0.00     | 2.45-  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 4.487 E6  | -14.9  | 116   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 22.071 E6 | -19.8  | 118   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.218 E3  | -6.2   | 108   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 15.467 E3 | -14.4  | 113   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 5.272 E6  | -23.9# | 124   | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 6.933 E6  | -25.2# | 125   | 0.00     | 8.82-  | 8.89   |
| 8   | Pentachlorophenol | 70.783 | 85.830 E6 | -21.3# | 118   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 35.367 E6 | -23.7# | 122   | 0.00     | 9.89-  | 9.96   |
| 10  | 2,4,5-T           | 29.385 | 34.742 E6 | -18.2  | 118   | 0.00     | 10.26- | 10.33  |
| 11  | 2,4-DB            | 3.216  | 3.938 E6  | -22.5# | 123   | 0.00     | 10.98- | 11.08  |
| 12  | Dinoseb           | 15.094 | 20.329 E6 | -34.7# | 133   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 33.420 E6 | -1.8   | 101   | 0.00     | 12.18- | 12.25  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.859 E6   | 0.2   | 97  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 911.872 E3 | -6.1  | 106 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 4.893 E6   | 10.7  | 90  | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.682 E3   | -10.1 | 110 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.922 E3   | -11.2 | 110 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.240 E6   | -7.5  | 106 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.557 E6   | -5.1  | 104 | 0.00 | 9.46-  | 9.53  |
| 8   | Pentachlorophenol | 24.942  | 27.200 E6  | -9.1  | 106 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.959 E6  | -6.2  | 103 | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 10.464 E6  | -6.4  | 104 | 0.00 | 11.09- | 11.18 |
| 11  | 2,4-DB            | 819.049 | 842.194 E3 | -2.8  | 101 | 0.00 | 11.82- | 11.89 |
| 12  | Dinoseb           | 6.102   | 5.904 E6   | 3.2   | 94  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.527 E6  | 2.7   | 96  | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 11:54:51 2018 GC3G

12.11.27 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4036-CC4020  
**Lab FileID:** 3G116248.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116248.D\ECD1A.CH Vial: 2  
Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116248.D\ECD2B.CH  
Acq On : 5-3-2018 09:00:15 AM Operator: vinced  
Sample : cc4020-200 Inst : GC3G  
Misc : op11634,g3g4036,30,,,2.5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Thu May 03 13:26:26 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.354 E6  | 4.0  | 94    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.984 E6  | -2.0 | 103   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 17.984 E6 | 2.4  | 96    | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 6.899 E3  | 10.8 | 91    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 12.478 E3 | 7.7  | 91    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.508 E6  | -5.9 | 106   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 5.885 E6  | -6.3 | 106   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 73.130 E6 | -3.3 | 101   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 28.772 E6 | -0.6 | 99    | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 28.962 E6 | 1.4  | 99    | 0.00     | 10.23- | 10.30  |
| 11  | 2,4-DB            | 3.216  | 3.073 E6  | 4.4  | 96    | 0.00     | 10.95- | 11.04  |
| 12  | Dinoseb           | 15.094 | 15.938 E6 | -5.6 | 104   | 0.00     | 12.37- | 12.44  |
| 13  | Picloram          | 32.841 | 30.978 E6 | 5.7  | 94    | 0.00     | 12.13- | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.792 E6   | 3.8  | 94  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 866.346 E3 | -0.8 | 101 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 4.713 E6   | 14.0 | 86  | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.423 E3   | 6.9  | 93  | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.470 E3   | 6.0  | 93  | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.226 E6   | -6.2 | 105 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.535 E6   | -3.6 | 102 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 25.547 E6  | -2.4 | 99  | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.399 E6  | -0.7 | 98  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.993 E6   | -1.6 | 100 | 0.00 | 11.06- | 11.15 |
| 11  | 2,4-DB            | 819.049 | 689.375 E3 | 15.8 | 83  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 5.977 E6   | 2.0  | 95  | 0.00 | 12.17- | 12.24 |
| 13  | Picloram          | 13.896  | 13.059 E6  | 6.0  | 93  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 14:07:31 2018 GC3G

12.11.28 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4036-CC4020  
**Lab FileID:** 3G116257.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116257.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116257.D\ECD2B.CH  
 Acq On : 5-3-2018 01:39:37 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 13:26:26 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.248 E6  | 5.4   | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.930 E6  | -0.7  | 107   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.872 E6 | -7.8  | 109   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.049 E3  | -4.0  | 97    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.375 E3 | -6.3  | 101   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.541 E6  | -6.7  | 113   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.101 E6  | -10.2 | 116   | 0.01     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 76.568 E6 | -8.2  | 111   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 31.494 E6 | -10.2 | 112   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 31.334 E6 | -6.6  | 110   | 0.02     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.397 E6  | -5.6  | 111   | 0.03     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 17.199 E6 | -13.9 | 119   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 31.776 E6 | 3.2   | 99    | 0.03     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.681 E6   | 9.8  | 92  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 881.723 E3 | -2.5 | 106 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.259 E6   | 4.0  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.671 E3   | -9.4 | 104 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.834 E3   | -7.8 | 103 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.181 E6   | -2.3 | 106 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.543 E6   | -4.1 | 107 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 25.517 E6  | -2.3 | 102 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.355 E6  | -0.3 | 99  | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 9.871 E6   | -0.4 | 100 | 0.01 | 11.07- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 781.430 E3 | 4.6  | 94  | 0.02 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.805 E6   | 4.9  | 95  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.282 E6  | 4.4  | 94  | 0.02 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 14:07:48 2018 GC3G

12.11.29 12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4036-CC4020  
 Lab FileID: 3G116268.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116268.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116268.D\ECD2B.CH  
 Acq On : 5-3-2018 06:55:53 PM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11688,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 09:10:12 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.770 E6  | -1.4   | 99    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.310 E6  | -10.4  | 111   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 20.913 E6 | -13.5  | 112   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.695 E3  | 0.5    | 102   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.228 E3 | -5.2   | 104   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.983 E6  | -17.1  | 117   | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 6.679 E6  | -20.6# | 120   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 82.771 E6 | -16.9  | 114   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 33.718 E6 | -17.9  | 116   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 33.862 E6 | -15.2  | 115   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.907 E6  | -21.5# | 122   | 0.00     | 10.97- | 11.07  |
| 12  | Dinoseb           | 15.094 | 19.418 E6 | -28.6# | 127   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 33.096 E6 | -0.8   | 100   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.783 E6   | 4.3   | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 936.345 E3 | -8.9  | 109 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.567 E6   | -1.6  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.617 E3   | -5.8  | 106 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.774 E3   | -5.6  | 105 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.252 E6   | -8.5  | 107 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.637 E6   | -10.5 | 109 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.135 E6  | -4.8  | 102 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.521 E6  | -1.9  | 99  | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 9.980 E6   | -1.5  | 99  | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 810.988 E3 | 1.0   | 97  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.856 E6   | 4.0   | 93  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.188 E6  | 5.1   | 94  | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Fri May 04 09:46:08 2018 GC3G

12:11:30 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4036-CC4020  
**Lab FileID:** 3G116273.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116273.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116273.D\ECD2B.CH  
 Acq On : 5-3-2018 09:19:19 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11688,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 09:10:12 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.268 E6  | 5.1    | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.986 E6  | -2.1   | 109   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 20.389 E6 | -10.6  | 112   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.319 E3  | -7.5   | 101   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.687 E3 | -8.6   | 104   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.597 E6  | -8.0   | 115   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.263 E6  | -13.1  | 119   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 79.806 E6 | -12.7  | 115   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 32.742 E6 | -14.5  | 116   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 33.345 E6 | -13.5  | 117   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.598 E6  | -11.9  | 118   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 18.943 E6 | -25.5# | 131   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 32.562 E6 | 0.8    | 101   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.675 E6   | 10.1  | 92  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 894.356 E3 | -4.0  | 107 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.344 E6   | 2.5   | 104 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.732 E3   | -13.4 | 107 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.942 E3   | -11.9 | 107 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.175 E6   | -1.8  | 106 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.482 E6   | 0.0   | 103 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 25.854 E6  | -3.7  | 103 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.486 E6  | -1.6  | 100 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.997 E6   | -1.7  | 102 | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 795.460 E3 | 2.9   | 96  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.739 E6   | 5.9   | 94  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.286 E6  | 4.4   | 94  | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 09:46:32 2018 GC3G

12.11.31 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4037-CC4020  
**Lab FileID:** 3G116290.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116290.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116290.D\ECD2B.CH  
 Acq On : 5-4-2018 03:51:34 PM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11726,g3g4037,15.8,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev | Area% | Dev(min) | RT    | Window |
|-----|-------------------|--------|-----------|------|-------|----------|-------|--------|
| 1   | Dalapon           | 7.659  | 6.976 E6  | 8.9  | 89    | 0.00     | 2.45  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 4.040 E6  | -3.5 | 104   | 0.00     | 7.42  | 7.49   |
| 3   | Dicamba           | 18.429 | 16.564 E6 | 10.1 | 89    | 0.00     | 7.62  | 7.69   |
| 4   | MCPD              | 7.736  | 7.074 E3  | 8.6  | 93    | 0.00     | 7.88  | 7.95   |
| 5   | MCPA              | 13.523 | 11.993 E3 | 11.3 | 88    | 0.00     | 8.05  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.280 E6  | -0.6 | 100   | 0.00     | 8.50  | 8.57   |
| 7   | 2,4-D             | 5.538  | 5.412 E6  | 2.3  | 97    | -0.03    | 8.78  | 8.85   |
| 8   | Pentachlorophenol | 70.783 | 66.337 E6 | 6.3  | 92    | 0.00     | 9.04  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 25.878 E6 | 9.5  | 89    | -0.02    | 9.86  | 9.93   |
| 10  | 2,4,5-T           | 29.385 | 30.782 E6 | -4.8 | 105   | -0.03    | 10.21 | 10.28  |
| 11  | 2,4-DB            | 3.216  | 3.099 E6  | 3.6  | 97    | -0.03    | 10.93 | 11.03  |
| 12  | Dinoseb           | 15.094 | 15.160 E6 | -0.4 | 99    | 0.00     | 12.37 | 12.44  |
| 13  | Picloram          | 32.841 | 28.958 E6 | 11.8 | 88    | -0.03    | 12.13 | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |       |       |       |
|-----|-------------------|---------|------------|------|-----|-------|-------|-------|
| 1   | Dalapon           | 1.863   | 1.653 E6   | 11.3 | 87  | 0.00  | 2.40  | 2.47  |
| 2 S | 2,4-DCAA          | 859.825 | 875.548 E3 | -1.8 | 102 | 0.00  | 7.89  | 7.95  |
| 3   | Dicamba           | 5.479   | 4.512 E6   | 17.6 | 83  | 0.00  | 8.10  | 8.17  |
| 4   | MCPD              | 1.528   | 1.441 E3   | 5.7  | 95  | 0.00  | 8.26  | 8.33  |
| 5   | MCPA              | 2.628   | 2.553 E3   | 2.9  | 96  | -0.01 | 8.56  | 8.63  |
| 6   | Dichloroprop      | 1.154   | 1.115 E6   | 3.4  | 96  | -0.01 | 9.00  | 9.07  |
| 7   | 2,4-D             | 1.482   | 1.400 E6   | 5.5  | 93  | -0.03 | 9.42  | 9.49  |
| 8   | Pentachlorophenol | 24.942  | 22.901 E6  | 8.2  | 89  | -0.01 | 9.90  | 9.97  |
| 9   | 2,4,5-TP          | 10.323  | 9.819 E6   | 4.9  | 93  | -0.02 | 10.51 | 10.58 |
| 10  | 2,4,5-T           | 9.832   | 9.013 E6   | 8.3  | 90  | -0.03 | 11.04 | 11.13 |
| 11  | 2,4-DB            | 819.049 | 796.198 E3 | 2.8  | 96  | -0.04 | 11.77 | 11.84 |
| 12  | Dinoseb           | 6.102   | 5.219 E6   | 14.5 | 83  | -0.02 | 12.16 | 12.23 |
| 13  | Picloram          | 13.896  | 12.273 E6  | 11.7 | 88  | -0.03 | 13.60 | 13.67 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:12 2018 GC3G

12.11.32 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4037-CC4020  
**Lab FileID:** 3G116301.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3G4037\3G116301.D\ECD1A.CH Vial: 3  
 Acq On : 5-4-2018 09:28:37 PM Operator: vined  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\MSDCHEM\1\DATA\3G4037\3G116301.D\ECD2B.CH Vial: 3  
 Acq On : 5-4-2018 09:28:36 PM Operator: vined  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.256 E6  | 5.3   | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.991 E6  | -2.2  | 109   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.373 E6 | -5.1  | 107   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.322 E3  | -7.6  | 101   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.060 E3 | -4.0  | 99    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.544 E6  | -6.8  | 113   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.091 E6  | -10.0 | 116   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 75.547 E6 | -6.7  | 109   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 31.015 E6 | -8.5  | 110   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 30.780 E6 | -4.7  | 108   | 0.00     | 10.24- | 10.31  |
| 11  | 2,4-DB            | 3.216  | 3.358 E6  | -4.4  | 110   | 0.00     | 10.96- | 11.05  |
| 12  | Dinoseb           | 15.094 | 16.194 E6 | -7.3  | 112   | 0.00     | 12.37- | 12.44  |
| 13  | Picloram          | 32.841 | 31.456 E6 | 4.2   | 98    | 0.00     | 12.15- | 12.22  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.703 E6   | 8.6  | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 891.415 E3 | -3.7 | 107 | 0.00 | 7.89-  | 7.95  |
| 3   | Dicamba           | 5.479   | 5.202 E6   | 5.1  | 101 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.670 E3   | -9.3 | 104 | 0.00 | 8.26-  | 8.33  |
| 5   | MCPA              | 2.628   | 2.833 E3   | -7.8 | 103 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.159 E6   | -0.4 | 104 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.471 E6   | 0.7  | 102 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 25.069 E6  | -0.5 | 100 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.156 E6  | 1.6  | 97  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.828 E6   | 0.0  | 100 | 0.00 | 11.07- | 11.16 |
| 11  | 2,4-DB            | 819.049 | 782.223 E3 | 4.5  | 94  | 0.00 | 11.80- | 11.87 |
| 12  | Dinoseb           | 6.102   | 5.495 E6   | 9.9  | 90  | 0.00 | 12.17- | 12.24 |
| 13  | Picloram          | 13.896  | 12.945 E6  | 6.8  | 91  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:35 2018 GC3G

12.11.33 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4037-ECC4020  
**Lab FileID:** 3G116312.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116312.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116312.D\ECD2B.CH  
 Acq On : 5-5-2018 02:42:57 AM Operator: vinced  
 Sample : ecc4020-200 Inst : GC3G  
 Misc : op11688,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.588 E6  | 0.9   | 97    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.302 E6  | -10.2 | 111   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.922 E6 | -8.1  | 107   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.869 E3  | -1.7  | 104   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.071 E3 | -4.1  | 103   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.944 E6  | -16.2 | 116   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.542 E6  | -18.1 | 118   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 79.174 E6 | -11.9 | 109   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 32.970 E6 | -15.3 | 113   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 32.418 E6 | -10.3 | 110   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.608 E6  | -12.2 | 113   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 17.123 E6 | -13.4 | 112   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 32.093 E6 | 2.3   | 97    | 0.00     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.773 E6   | 4.8   | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 958.982 E3 | -11.5 | 111 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.545 E6   | -1.2  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.663 E3   | -8.8  | 109 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.888 E3   | -9.9  | 109 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.254 E6   | -8.7  | 108 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.577 E6   | -6.4  | 105 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.043 E6  | -4.4  | 101 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.641 E6  | -3.1  | 100 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.076 E6  | -2.5  | 100 | 0.00 | 11.07- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 825.770 E3 | -0.8  | 99  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.565 E6   | 8.8   | 89  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 12.720 E6  | 8.5   | 91  | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:13 2018 GC3G

12.11.34 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4043-CC4020  
**Lab FileID:** 3G116432.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116432.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116432.D\ECD2B.CH  
 Acq On : 5-14-2018 08:54:40 AM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11920,g3g4043,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 14 10:34:33 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 6.464 E6  | 15.6  | 82    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.178 E6  | -7.0  | 108   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.315 E6 | -4.8  | 103   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.047 E3  | 8.9   | 93    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 12.745 E3 | 5.8   | 93    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.891 E6  | -14.9 | 115   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.127 E6  | -10.6 | 110   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 76.751 E6 | -8.4  | 106   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 30.025 E6 | -5.0  | 103   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 29.808 E6 | -1.4  | 101   | 0.00     | 10.24- | 10.31  |
| 11  | 2,4-DB            | 3.216  | 3.626 E6  | -12.7 | 114   | 0.00     | 10.96- | 11.05  |
| 12  | Dinoseb           | 15.094 | 16.381 E6 | -8.5  | 107   | 0.00     | 12.37- | 12.44  |
| 13  | Picloram          | 32.841 | 28.290 E6 | 13.9  | 86    | 0.00     | 12.15- | 12.22  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.626 E6   | 12.7  | 85  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 950.977 E3 | -10.6 | 111 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.129 E6   | 6.4   | 94  | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.458 E3   | 4.6   | 96  | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.531 E3   | 3.7   | 96  | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.315 E6   | -14.0 | 113 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.568 E6   | -5.8  | 105 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.619 E6  | -6.7  | 103 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.517 E6  | -1.9  | 99  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.988 E6   | -1.6  | 100 | 0.00 | 11.07- | 11.16 |
| 11  | 2,4-DB            | 819.049 | 705.973 E3 | 13.8  | 85  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 6.198 E6   | -1.6  | 99  | 0.00 | 12.17- | 12.24 |
| 13  | Picloram          | 13.896  | 11.707 E6  | 15.8  | 83  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 10:37:17 2018 GC3G

12.11.35 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4043-CC4020  
**Lab FileID:** 3G116436.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116436.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116436.D\ECD2B.CH  
 Acq On : 14 May 2018 10:56 am Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11920,g3g4043,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 14 12:22:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 6.758 E6  | 11.8   | 91    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.998 E6  | -2.4   | 109   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.562 E6 | -6.1   | 108   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.962 E3  | -2.9   | 96    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 13.177 E3 | 2.6    | 93    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.699 E6  | -10.4  | 117   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.243 E6  | -12.7  | 119   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 78.317 E6 | -10.6  | 113   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 31.727 E6 | -11.0  | 113   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 32.104 E6 | -9.3   | 113   | 0.00     | 10.26- | 10.33  |
| 11  | 2,4-DB            | 3.216  | 3.912 E6  | -21.6# | 128   | 0.00     | 10.98- | 11.07  |
| 12  | Dinoseb           | 15.094 | 18.719 E6 | -24.0# | 130   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 28.567 E6 | 13.0   | 89    | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.629 E6   | 12.6  | 89  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 917.288 E3 | -6.7  | 110 | 0.00 | 7.89-  | 7.95  |
| 3   | Dicamba           | 5.479   | 5.230 E6   | 4.5   | 101 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.716 E3   | -12.3 | 106 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.893 E3   | -10.1 | 105 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.255 E6   | -8.8  | 113 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.622 E6   | -9.4  | 113 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.353 E6  | -5.7  | 105 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.502 E6  | -1.7  | 100 | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 9.885 E6   | -0.5  | 100 | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 771.636 E3 | 5.8   | 93  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 6.177 E6   | -1.2  | 101 | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 12.287 E6  | 11.6  | 87  | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 12:23:38 2018 GC3G

12.11.36 12



# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

## Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration

### Calibration Files

5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d  
 100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d  
 = =

| Compound                                  | 5     | 10    | 25    | 50    | 100   | 1     | 75    | 2     | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-m-xylene                   | 0.937 | 0.914 | 0.936 | 0.973 | 1.007 | 1.084 | 0.982 | 0.943 | 0.972 | 5.57  |
| 3) hexachlorobenzene                      | 1.022 | 1.033 | 1.042 | 1.079 | 1.085 | 1.271 | 1.095 | 1.053 | 1.085 | 7.34  |
| 4) alpha-BHC                              | 1.184 | 1.208 | 1.340 | 1.459 | 1.524 | 1.314 | 1.516 | 1.163 | 1.338 | 11.04 |
| 5) gamma-BHC                              | 1.132 | 1.137 | 1.236 | 1.325 | 1.368 | 1.415 | 1.374 | 1.152 | 1.267 | 9.25  |
| 6) Heptachlor                             | 1.099 | 1.099 | 1.172 | 1.249 | 1.270 | 1.305 | 1.276 | 1.109 | 1.197 | 7.32  |
| 7) beta-BHC                               | 0.560 | 0.531 | 0.543 | 0.559 | 0.560 | 0.645 | 0.568 | 0.567 | 0.567 | 6.05  |
| 8) delta-BHC                              | 0.969 | 1.003 | 1.123 | 1.228 | 1.293 | 1.083 | 1.279 | 0.962 | 1.117 | 12.18 |
| 9) Aldrin                                 | 1.052 | 1.060 | 1.150 | 1.238 | 1.265 | 1.222 | 1.274 | 1.047 | 1.164 | 8.51  |
| 10) alachlor                              | 0.145 | 0.140 | 0.140 | 0.142 | 0.134 |       | 0.140 |       | 0.140 | 2.52  |
| 11) Heptachlor Epoxide                    | 1.019 | 0.991 | 1.060 | 1.124 | 1.145 | 1.121 | 1.155 | 0.991 | 1.076 | 6.40  |
| 12) gamma-Chlordane                       | 0.964 | 0.976 | 1.051 | 1.129 | 1.174 | 1.059 | 1.174 | 0.952 | 1.060 | 8.65  |
| 13) alpha-Chlordane                       | 1.019 | 0.982 | 1.040 | 1.103 | 1.136 | 1.224 | 1.139 | 1.039 | 1.085 | 7.33  |
| 14) Endosulfan I                          | 0.944 | 0.924 | 0.979 | 1.039 | 1.058 | 1.118 | 1.068 | 0.963 | 1.012 | 6.79  |
| 15) 4,4'-DDE                              | 0.934 | 0.922 | 1.009 | 1.096 | 1.140 | 1.095 | 1.140 | 0.931 | 1.033 | 9.24  |
| 16) Dieldrin                              | 0.993 | 0.994 | 1.079 | 1.165 | 1.187 | 1.144 | 1.206 | 0.997 | 1.096 | 8.36  |
| 17) Endrin                                | 0.953 | 0.899 | 0.964 | 1.033 | 1.049 | 1.054 | 1.068 | 0.913 | 0.992 | 6.79  |
| 18) 4,4'-DDD                              | 0.797 | 0.774 | 0.836 | 0.900 | 0.920 | 0.899 | 0.934 | 0.788 | 0.856 | 7.56  |
| 19) Endosulfan II                         | 0.970 | 0.933 | 0.963 | 1.012 | 1.017 | 1.406 | 1.039 | 1.074 | 1.052 | 14.27 |
| 20) 4,4'-DDT                              | 0.737 | 0.743 | 0.802 | 0.870 | 0.903 | 0.844 | 0.914 | 0.751 | 0.821 | 8.84  |
| 21) Endrin Aldehyde                       | 0.803 | 0.770 | 0.796 | 0.836 | 0.833 | 0.945 | 0.855 | 0.824 | 0.833 | 6.32  |
| 22) Endosulfan Sulfate                    | 0.791 | 0.758 | 0.792 | 0.833 | 0.841 | 0.925 | 0.858 | 0.801 | 0.825 | 6.29  |
| 23) Methoxychlor                          |       |       |       |       |       |       |       |       |       |       |

12.11.37 12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 24) | Mirex                   | 0.516          | 0.458 | 0.468 | 0.480 | 0.473 | 0.552 | 0.487 | 0.482 | 0.490 | 6.24  |
| 25) | Endrin Ketone           | 0.833          | 0.792 | 0.774 | 0.785 | 0.773 | 1.050 | 0.798 | 0.858 | 0.833 | 11.13 |
| 26) | Decachlorobiphenyl      | 0.924          | 0.912 | 0.956 | 1.006 | 1.005 | 1.086 | 1.029 | 0.931 | 0.981 | 6.17  |
|     |                         | 0.983          | 0.929 | 0.914 | 0.922 | 0.892 | 1.300 | 0.929 | 1.055 | 0.991 | 13.66 |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.016 |       |       |       |       | 0.016 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.041 |       |       |       |       | 0.041 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.033 |       |       |       |       | 0.033 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.027 |       |       |       |       | 0.027 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.054 |       |       |       |       | 0.054 | 0.00  |
| 35) | Chlordane {B}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.045 |       |       |       |       | 0.045 | 0.00  |
| 36) | Chlordane {C}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.145 |       |       |       |       | 0.145 | 0.00  |
| 37) | Chlordane {D}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.228 |       |       |       |       | 0.228 | 0.00  |
| 38) | Chlordane {E}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |

Signal #2

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1)  | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2)  | Tetrachloro-m-xylene    |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.878          | 0.885 | 0.907 | 0.945 | 1.004 | 0.981 | 0.968 | 0.882 | 0.931 | 5.35  |
| 3)  | hexachlorobenzene       |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.120          | 1.130 | 1.119 | 1.146 | 1.192 | 1.299 | 1.165 | 1.172 | 1.168 | 5.06  |
| 4)  | alpha-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.073          | 1.128 | 1.243 | 1.360 | 1.490 | 1.146 | 1.430 | 1.045 | 1.239 | 13.63 |
| 5)  | gamma-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.031          | 1.065 | 1.150 | 1.242 | 1.352 | 1.136 | 1.298 | 1.023 | 1.162 | 10.67 |
| 6)  | Heptachlor              |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.093          | 1.097 | 1.153 | 1.225 | 1.303 | 1.223 | 1.267 | 1.097 | 1.182 | 7.06  |
| 7)  | beta-BHC                |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.513          | 0.510 | 0.515 | 0.527 | 0.550 | 0.604 | 0.537 | 0.514 | 0.534 | 5.92  |
| 8)  | delta-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.923          | 0.964 | 1.051 | 1.160 | 1.279 | 1.110 | 1.225 | 0.921 | 1.079 | 12.73 |
| 9)  | Aldrin                  |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.939          | 0.957 | 1.022 | 1.101 | 1.190 | 1.050 | 1.147 | 0.919 | 1.041 | 9.61  |
| 10) | alachlor                |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.152          | 0.138 | 0.135 | 0.135 | 0.133 |       | 0.134 |       | 0.138 | 5.09  |
| 11) | Heptachlor Epoxide      |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.953          | 0.942 | 0.979 | 1.034 | 1.098 | 1.030 | 1.065 | 0.948 | 1.006 | 5.86  |
| 12) | gamma-Chlordane         |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.951          | 0.927 | 0.976 | 1.036 | 1.112 | 0.910 | 1.074 | 0.902 | 0.986 | 8.03  |
| 13) | alpha-Chlordane         |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.936          | 0.896 | 0.970 | 1.012 | 1.066 | 0.939 | 1.032 | 0.827 | 0.960 | 8.08  |

12.11.37 12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 14) | Endosulfan I            | 0.892          | 0.845 | 0.882 | 0.932 | 0.994 | 0.993 | 0.955 | 0.844 | 0.917 | 6.61  |
| 15) | 4,4'-DDE                | 0.839          | 0.863 | 0.923 | 0.997 | 1.085 | 0.903 | 1.044 | 0.802 | 0.932 | 10.82 |
| 16) | Dieldrin                | 0.884          | 0.904 | 0.959 | 1.034 | 1.124 | 0.978 | 1.078 | 0.912 | 0.984 | 8.86  |
| 17) | Endrin                  | 0.872          | 0.882 | 0.909 | 0.976 | 1.050 | 1.138 | 1.020 | 0.881 | 0.966 | 10.03 |
| 18) | 4,4'-DDD                | 0.736          | 0.733 | 0.765 | 0.820 | 0.889 | 0.891 | 0.858 | 0.731 | 0.803 | 8.76  |
| 19) | Endosulfan II           | 0.900          | 0.876 | 0.885 | 0.926 | 0.978 | 1.323 | 0.951 | 0.983 | 0.978 | 14.84 |
| 20) | 4,4'-DDT                | 0.670          | 0.708 | 0.760 | 0.820 | 0.901 | 0.776 | 0.863 | 0.703 | 0.775 | 10.51 |
| 21) | Endrin Aldehyde         | 0.703          | 0.697 | 0.710 | 0.734 | 0.774 | 0.847 | 0.755 | 0.721 | 0.743 | 6.71  |
| 22) | Endosulfan Sulfate      | 0.687          | 0.695 | 0.715 | 0.747 | 0.796 | 0.836 | 0.774 | 0.700 | 0.744 | 7.26  |
| 23) | Methoxychlor            | 0.423          | 0.429 | 0.438 | 0.449 | 0.467 | 0.431 | 0.460 | 0.426 | 0.440 | 3.73  |
| 24) | Mirex                   | 0.734          | 0.730 | 0.711 | 0.712 | 0.735 | 0.885 | 0.725 | 0.736 | 0.746 | 7.67  |
| 25) | Endrin Ketone           | 0.879          | 0.850 | 0.879 | 0.915 | 0.975 | 1.451 | 0.953 | 0.981 | 0.985 | 19.70 |
| 26) | Decachlorobiphenyl      | 0.924          | 0.908 | 0.866 | 0.875 | 0.893 | 1.128 | 0.885 | 0.952 | 0.929 | 9.16  |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       | 0.019 |       |       |       |       | 0.019 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       | 0.025 |       |       |       |       | 0.025 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       | 0.047 |       |       |       |       | 0.047 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       | 0.023 |       |       |       |       | 0.023 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       | 0.054 |       |       |       |       | 0.054 | 0.00  |
| 35) | Chlordane {B}           |                |       |       | 0.040 |       |       |       |       | 0.040 | 0.00  |
| 36) | Chlordane {C}           |                |       |       | 0.126 |       |       |       |       | 0.126 | 0.00  |
| 37) | Chlordane {D}           |                |       |       | 0.206 |       |       |       |       | 0.206 | 0.00  |
| 38) | Chlordane {E}           |                |       |       | 0.021 |       |       |       |       | 0.021 | 0.00  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

6PST1671.M

Mon Apr 30 17:43:44 2018

12.11.37  
12

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1671-ICV1671  
Lab FileID: 6G55790.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH  
Acq On : 30-Apr-18, 14:23:25 Operator: dharas  
Sample : icv1671-25 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 102   | -0.02    | 1.44- | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 1.010 | -3.9  | 110   | -0.02    | 2.50- | 2.56   |
| 4 A   | alpha-BHC              | 1.338 | 1.571 | -17.4 | 119   | -0.01    | 2.97- | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.426 | -12.5 | 117   | -0.01    | 3.26- | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.362 | -13.8 | 118   | -0.01    | 3.75- | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.628 | -10.8 | 118   | -0.01    | 3.33- | 3.39   |
| 8 B   | delta-BHC              | 1.117 | 1.334 | -19.4 | 121   | -0.01    | 3.51- | 3.57   |
| 9 MB  | Aldrin                 | 1.164 | 1.327 | -14.0 | 117   | -0.01    | 4.08- | 4.14   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 1.233 | -14.6 | 118   | -0.01    | 4.78- | 4.84   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.261 | -19.0 | 122   | -0.01    | 4.95- | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 1.229 | -13.3 | 120   | -0.01    | 5.12- | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 1.180 | -16.6 | 123   | -0.01    | 5.29- | 5.35   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.198 | -16.0 | 121   | -0.01    | 5.23- | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.269 | -15.8 | 120   | -0.01    | 5.61- | 5.67   |
| 17 MA | Endrin                 | 0.992 | 1.152 | -16.1 | 122   | -0.01    | 5.93- | 5.99   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.999 | -16.7 | 122   | -0.01    | 6.06- | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 1.107 | -5.2  | 117   | -0.01    | 6.25- | 6.31   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.930 | -13.3 | 118   | -0.01    | 6.47- | 6.53   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.937 | -12.5 | 120   | -0.01    | 6.88- | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.962 | -16.6 | 124   | -0.01    | 7.56- | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.535 | -9.2  | 116   | -0.01    | 7.26- | 7.32   |
| 24    | Mirex                  | 0.833 | 0.886 | -6.4  | 117   | -0.01    | 7.41- | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 1.108 | -12.9 | 118   | -0.01    | 8.00- | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 1.025 | -3.4  | 114   | -0.01    | 9.81- | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |       |       |      |
|-------|------------------------|-------|-------|-------|-----|-------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | -0.01 | 1.65- | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.973 | -4.5  | 107 | 0.00  | 2.90- | 2.96 |
| 4 A   | alpha-BHC              | 1.239 | 1.459 | -17.8 | 117 | 0.00  | 3.53- | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.337 | -15.1 | 116 | 0.00  | 3.94- | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.342 | -13.5 | 116 | 0.00  | 4.50- | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.593 | -11.0 | 115 | 0.00  | 4.02- | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 1.250 | -15.8 | 118 | 0.00  | 4.40- | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 1.180 | -13.4 | 115 | 0.00  | 4.93- | 4.99 |
| 11 B  | Heptachlor Epoxide     | 1.006 | 1.143 | -13.6 | 116 | 0.00  | 5.73- | 5.79 |
| 12 B  | gamma-Chlordane        | 0.986 | 1.164 | -18.1 | 119 | 0.00  | 6.01- | 6.07 |
| 13 B  | alpha-Chlordane        | 0.960 | 1.122 | -16.9 | 115 | 0.00  | 6.23- | 6.29 |

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55790.D

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|    |    |                    |       |       |       |     |       |             |
|----|----|--------------------|-------|-------|-------|-----|-------|-------------|
| 14 | A  | Endosulfan I       | 0.917 | 1.067 | -16.4 | 120 | 0.00  | 6.32- 6.38  |
| 15 | B  | 4,4'-DDE           | 0.932 | 1.097 | -17.7 | 118 | 0.00  | 6.49- 6.55  |
| 16 | MA | Dieldrin           | 0.984 | 1.136 | -15.4 | 118 | 0.00  | 6.75- 6.81  |
| 17 | MA | Endrin             | 0.966 | 1.101 | -14.0 | 120 | -0.01 | 7.24- 7.30  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.923 | -14.9 | 120 | 0.00  | 7.42- 7.48  |
| 19 | B  | Endosulfan II      | 0.978 | 1.021 | -4.4  | 115 | 0.00  | 7.58- 7.64  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.887 | -14.5 | 116 | -0.01 | 7.95- 8.01  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.843 | -13.5 | 118 | -0.01 | 8.15- 8.21  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.875 | -17.6 | 122 | -0.01 | 8.61- 8.67  |
| 23 | A  | Methoxychlor       | 0.440 | 0.516 | -17.3 | 117 | -0.02 | 9.18- 9.24  |
| 24 |    | Mirex              | 0.746 | 0.824 | -10.5 | 115 | -0.02 | 9.49- 9.55  |
| 25 | B  | Endrin Ketone      | 0.985 | 1.028 | -4.4  | 116 | -0.02 | 9.56- 9.62  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.998 | -7.4  | 115 | -0.02 | 11.69-11.75 |

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(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Mon Apr 30 17:38:40 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55791.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH  
Acq On : 30-Apr-18, 14:41:11 Operator: dharas  
Sample : icv1671-500 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-----------------------------|-------|-------|-------|-------|----------|------|--------|
| 33 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | -0.02    | 1.44 | 2.44   |
| 34 Chlordane {A}            | 0.054 | 0.063 | -16.7 | 117   | -0.01    | 3.68 | 3.88   |
| 35 Chlordane {B}            | 0.045 | 0.039 | 13.3  | 88    | -0.01    | 4.15 | 4.35   |
| 36 Chlordane {C}            | 0.145 | 0.145 | 0.0   | 99    | -0.01    | 4.87 | 5.07   |
| 37 Chlordane {D}            | 0.228 | 0.230 | -0.9  | 101   | -0.01    | 5.04 | 5.24   |
| 38 Chlordane {E}            | 0.026 | 0.028 | -7.7  | 110   | -0.01    | 5.92 | 6.12   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                             |       |       |       |     |       |      |      |
|-----------------------------|-------|-------|-------|-----|-------|------|------|
| 33 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | -0.01 | 1.65 | 2.65 |
| 34 Chlordane {A}            | 0.054 | 0.064 | -18.5 | 116 | 0.00  | 4.43 | 4.63 |
| 35 Chlordane {B}            | 0.040 | 0.036 | 10.0  | 89  | 0.00  | 5.05 | 5.25 |
| 36 Chlordane {C}            | 0.126 | 0.128 | -1.6  | 100 | 0.00  | 5.94 | 6.14 |
| 37 Chlordane {D}            | 0.206 | 0.208 | -1.0  | 100 | 0.00  | 6.16 | 6.36 |
| 38 Chlordane {E}            | 0.021 | 0.023 | -9.5  | 108 | 0.00  | 7.30 | 7.50 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6g55785.d 6PST1671.M Mon Apr 30 17:38:57 2018

12.11.39  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55792.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15  
Acq On : 30-Apr-18, 14:58:58 Operator: dharas  
Sample : icv1671-500 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0  
Acq On : 30-Apr-18, 14:58:59 Operator: dharas  
Sample : icv1671-500 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-----------------------------|-------|-------|------|-------|----------|------|--------|
| 27 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102   | -0.02    | 1.44 | 2.44   |
| 28 L8 Toxaphene{A}          | 0.016 | 0.017 | -6.3 | 107   | -0.01    | 5.55 | 5.75   |
| 29 L8 Toxaphene{B}          | 0.041 | 0.044 | -7.3 | 108   | -0.01    | 6.17 | 6.37   |
| 30 L8 Toxaphene{C}          | 0.033 | 0.035 | -6.1 | 107   | 0.00     | 6.35 | 6.55   |
| 31 L8 Toxaphene{D}          | 0.026 | 0.026 | 0.0  | 103   | -0.01    | 6.69 | 6.89   |
| 32 L8 Toxaphene{E}          | 0.027 | 0.029 | -7.4 | 110   | -0.01    | 7.33 | 7.53   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                             |       |       |       |     |       |      |      |
|-----------------------------|-------|-------|-------|-----|-------|------|------|
| 27 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 101 | 0.00  | 1.65 | 2.65 |
| 28 L8 Toxaphene{A}          | 0.019 | 0.021 | -10.5 | 108 | 0.00  | 6.64 | 6.84 |
| 29 L8 Toxaphene{B}          | 0.025 | 0.026 | -4.0  | 102 | -0.01 | 7.48 | 7.68 |
| 30 L8 Toxaphene{C}          | 0.047 | 0.046 | 2.1   | 98  | -0.01 | 7.64 | 7.84 |
| 31 L8 Toxaphene{D}          | 0.026 | 0.027 | -3.8  | 104 | -0.01 | 8.08 | 8.28 |
| 32 L8 Toxaphene{E}          | 0.023 | 0.024 | -4.3  | 101 | -0.02 | 8.97 | 9.17 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

12.11.40 12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55793.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH  
Acq On : 30-Apr-18, 15:16:44 Operator: dharas  
Sample : icv1671-50 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-----|------------------------|-------|-------|-------|-------|----------|------|--------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | -0.02    | 1.44 | 2.44   |
| 10  | alachlor               | 0.140 | 0.155 | -10.7 | 109   | -0.01    | 4.22 | 4.28   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                        |       |       |      |     |       |      |      |
|-----|------------------------|-------|-------|------|-----|-------|------|------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.01 | 1.65 | 2.65 |
| 10  | alachlor               | 0.138 | 0.150 | -8.7 | 109 | 0.00  | 4.75 | 4.81 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6g55785.d    6PST1671.M                      Mon Apr 30 17:39:01 2018

12.11.41  
12



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55794.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH  
Acq On : 30-Apr-18, 15:34:38 Operator: dharas  
Sample : icv1671-50 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-----|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 103   | -0.02    | 1.44 | 2.44   |
| 3   | hexachlorobenzene      | 1.085 | 1.076 | 0.8  | 102   | -0.01    | 2.83 | 2.89   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                        |       |       |     |     |       |      |      |
|-----|------------------------|-------|-------|-----|-----|-------|------|------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0 | 100 | -0.01 | 1.65 | 2.65 |
| 3   | hexachlorobenzene      | 1.168 | 1.139 | 2.5 | 99  | 0.00  | 3.38 | 3.44 |

(#) = Out of Range  
6g55785.d 6PST1671.M SPCC's out = 0 CCC's out = 0  
Mon Apr 30 17:39:03 2018

12.11.42  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55907.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1676\6g55907.d\ECD1A.CH Vial: 4  
 Signal #2 : C:\msdchem\1\data\G6G1676\6g55907.d\ECD2B.CH  
 Acq On : 03-May-18, 01:19:26 Operator: christp  
 Sample : cc1671-50 Inst : GC6G  
 Misc : OP11683,g6g1676,320,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 101   | 0.00     | 1.46 | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.913 | 6.1  | 95    | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.021 | 5.9  | 95    | 0.00     | 2.84 | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.300 | 2.8  | 90    | 0.00     | 2.98 | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.180 | 6.9  | 90    | 0.00     | 3.27 | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.123 | 6.2  | 91    | 0.00     | 3.76 | 3.82   |
| 7 B   | beta-BHC               | 0.567 | 0.495 | 12.7 | 89    | 0.00     | 3.34 | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 1.002 | 10.3 | 82    | 0.00     | 3.53 | 3.59   |
| 9 MB  | Aldrin                 | 1.164 | 1.072 | 7.9  | 87    | 0.00     | 4.09 | 4.15   |
| 10    | alachlor               | 0.140 | 0.121 | 13.6 | 86    | 0.00     | 4.23 | 4.29   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.991 | 7.9  | 89    | 0.00     | 4.80 | 4.86   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.007 | 5.0  | 90    | 0.00     | 4.96 | 5.02   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.995 | 8.3  | 91    | 0.00     | 5.13 | 5.19   |
| 14 A  | Endosulfan I           | 1.012 | 0.942 | 6.9  | 91    | 0.00     | 5.31 | 5.37   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.019 | 1.4  | 94    | 0.00     | 5.24 | 5.30   |
| 16 MA | Dieldrin               | 1.096 | 1.051 | 4.1  | 91    | 0.00     | 5.63 | 5.69   |
| 17 MA | Endrin                 | 0.992 | 0.970 | 2.2  | 95    | 0.00     | 5.95 | 6.01   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.832 | 2.8  | 93    | 0.00     | 6.07 | 6.13   |
| 19 B  | Endosulfan II          | 1.052 | 0.916 | 12.9 | 91    | 0.00     | 6.27 | 6.33   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.770 | 6.2  | 89    | 0.00     | 6.49 | 6.55   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.726 | 12.8 | 88    | 0.00     | 6.89 | 6.95   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.696 | 15.6 | 84    | 0.00     | 7.57 | 7.63   |
| 23 A  | Methoxychlor           | 0.490 | 0.429 | 12.4 | 90    | 0.00     | 7.27 | 7.33   |
| 24    | Mirex                  | 0.833 | 0.694 | 16.7 | 89    | 0.00     | 7.42 | 7.48   |
| 25 B  | Endrin Ketone          | 0.981 | 0.920 | 6.2  | 92    | 0.00     | 8.01 | 8.07   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.820 | 17.3 | 90    | 0.00     | 9.82 | 9.88   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |      |      |      |
|-------|------------------------|-------|-------|------|----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 97 | 0.00 | 1.66 | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.912 | 2.0  | 93 | 0.00 | 2.91 | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.145 | 2.0  | 97 | 0.00 | 3.39 | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.256 | -1.4 | 89 | 0.00 | 3.54 | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.151 | 0.9  | 90 | 0.00 | 3.95 | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.145 | 3.1  | 91 | 0.00 | 4.51 | 4.57 |
| 7 B   | beta-BHC               | 0.534 | 0.491 | 8.1  | 90 | 0.00 | 4.03 | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 0.963 | 10.8 | 80 | 0.00 | 4.41 | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 1.017 | 2.3  | 89 | 0.00 | 4.94 | 5.00 |

12.11.43 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55907.D

|       |                    |       |       |      |     |      |             |
|-------|--------------------|-------|-------|------|-----|------|-------------|
| 10    | alachlor           | 0.138 | 0.119 | 13.8 | 85  | 0.00 | 4.76- 4.82  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.965 | 4.1  | 90  | 0.00 | 5.74- 5.80  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.968 | 1.8  | 91  | 0.00 | 6.02- 6.08  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.928 | 3.3  | 89  | 0.00 | 6.24- 6.30  |
| 14 A  | Endosulfan I       | 0.917 | 0.887 | 3.3  | 92  | 0.00 | 6.33- 6.39  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.959 | -2.9 | 93  | 0.00 | 6.50- 6.56  |
| 16 MA | Dieldrin           | 0.984 | 0.975 | 0.9  | 91  | 0.00 | 6.76- 6.82  |
| 17 MA | Endrin             | 0.966 | 0.934 | 3.3  | 93  | 0.00 | 7.25- 7.31  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.778 | 3.1  | 92  | 0.00 | 7.44- 7.50  |
| 19 B  | Endosulfan II      | 0.978 | 0.846 | 13.5 | 89  | 0.00 | 7.60- 7.66  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.756 | 2.5  | 89  | 0.00 | 7.97- 8.03  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.683 | 8.1  | 90  | 0.00 | 8.17- 8.23  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.663 | 10.9 | 86  | 0.00 | 8.63- 8.69  |
| 23 A  | Methoxychlor       | 0.440 | 0.441 | -0.2 | 95  | 0.00 | 9.21- 9.27  |
| 24    | Mirex              | 0.746 | 0.769 | -3.1 | 105 | 0.00 | 9.52- 9.58  |
| 25 B  | Endrin Ketone      | 0.985 | 0.905 | 8.1  | 96  | 0.00 | 9.58- 9.64  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.976 | -5.1 | 108 | 0.01 | 11.72-11.78 |

(#) = Out of Range  
6g55785.d 6PST1671.M

SPCC's out =0 CCC's out = 0  
Thu May 03 13:09:37 2018

12.11.43  
12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1676-CC1671  
 Lab FileID: 6G55928.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1676\6g55928.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1676\6g55928.d\ECD2B.CH  
 Acq On : 03-May-18, 07:33:59 Operator: christp  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11692,g6g1676,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 1.46 | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.975 | -0.3 | 110   | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.126 | -3.8 | 114   | 0.00     | 2.84 | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.372 | -2.5 | 108   | 0.00     | 2.98 | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.266 | 0.1  | 108   | 0.00     | 3.27 | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.158 | 3.3  | 104   | 0.00     | 3.75 | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.557 | 1.8  | 109   | 0.00     | 3.34 | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 1.110 | 0.6  | 105   | 0.00     | 3.52 | 3.58   |
| 9 MB  | Aldrin                 | 1.164 | 1.200 | -3.1 | 110   | 0.00     | 4.08 | 4.14   |
| 10    | alachlor               | 0.140 | 0.146 | -4.3 | 110   | 0.00     | 4.22 | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 1.123 | -4.4 | 112   | 0.00     | 4.79 | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.136 | -7.2 | 114   | 0.00     | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 1.112 | -2.5 | 113   | 0.00     | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 1.041 | -2.9 | 113   | 0.00     | 5.30 | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.079 | -4.5 | 113   | 0.00     | 5.23 | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.147 | -4.7 | 112   | 0.00     | 5.62 | 5.68   |
| 17 MA | Endrin                 | 0.992 | 0.978 | 1.4  | 107   | 0.00     | 5.94 | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.893 | -4.3 | 113   | 0.00     | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 1.013 | 3.7  | 111   | 0.00     | 6.26 | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.768 | 6.5  | 101   | 0.00     | 6.48 | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.852 | -2.3 | 113   | 0.00     | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.798 | 3.3  | 107   | 0.00     | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.444 | 9.4  | 100   | 0.00     | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.813 | 2.4  | 111   | 0.00     | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 1.042 | -6.2 | 115   | 0.00     | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.937 | 5.4  | 108   | -0.01    | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 104 | 0.00 | 1.66 | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.952 | -2.3 | 109 | 0.00 | 2.91 | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.220 | -4.5 | 113 | 0.00 | 3.39 | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.260 | -1.7 | 105 | 0.00 | 3.54 | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.164 | -0.2 | 105 | 0.00 | 3.95 | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.121 | 5.2  | 101 | 0.00 | 4.50 | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.524 | 1.9  | 106 | 0.00 | 4.03 | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 1.034 | 4.2  | 102 | 0.00 | 4.41 | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 1.056 | -1.4 | 107 | 0.00 | 4.94 | 5.00 |
| 10    | alachlor               | 0.138 | 0.140 | -1.4 | 108 | 0.00 | 4.76 | 4.82 |
| 11 B  | Heptachlor Epoxide     | 1.006 | 1.018 | -1.2 | 108 | 0.00 | 5.74 | 5.80 |
| 12 B  | gamma-Chlordane        | 0.986 | 1.040 | -5.5 | 111 | 0.00 | 6.02 | 6.08 |

12.11.44 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55928.D

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|    |    |                    |       |       |      |     |      |        |       |
|----|----|--------------------|-------|-------|------|-----|------|--------|-------|
| 13 | B  | alpha-Chlordane    | 0.960 | 0.990 | -3.1 | 106 | 0.00 | 6.24-  | 6.30  |
| 14 | A  | Endosulfan I       | 0.917 | 0.915 | 0.2  | 108 | 0.00 | 6.33-  | 6.39  |
| 15 | B  | 4,4'-DDE           | 0.932 | 0.976 | -4.7 | 110 | 0.00 | 6.50-  | 6.56  |
| 16 | MA | Dieldrin           | 0.984 | 1.007 | -2.3 | 109 | 0.00 | 6.76-  | 6.82  |
| 17 | MA | Endrin             | 0.966 | 0.902 | 6.6  | 103 | 0.00 | 7.25-  | 7.31  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.805 | -0.2 | 109 | 0.00 | 7.44-  | 7.50  |
| 19 | B  | Endosulfan II      | 0.978 | 0.920 | 5.9  | 108 | 0.00 | 7.60-  | 7.66  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.710 | 8.4  | 97  | 0.00 | 7.96-  | 8.02  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.748 | -0.7 | 109 | 0.00 | 8.16-  | 8.22  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.714 | 4.0  | 104 | 0.00 | 8.63-  | 8.69  |
| 23 | A  | Methoxychlor       | 0.440 | 0.404 | 8.2  | 96  | 0.00 | 9.20-  | 9.26  |
| 24 |    | Mirex              | 0.746 | 0.741 | 0.7  | 108 | 0.00 | 9.51-  | 9.57  |
| 25 | B  | Endrin Ketone      | 0.985 | 0.943 | 4.3  | 111 | 0.00 | 9.58-  | 9.64  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.907 | 2.4  | 109 | 0.00 | 11.72- | 11.78 |

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(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 22:41:12 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56090.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56090.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1681\6g56090.d\ECD2B.CH  
 Acq On : 11-May-18, 00:11:20 Operator: christp  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11854,g6g1681,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 1.46- | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.894 | 8.0  | 86    | 0.00     | 2.51- | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 0.992 | 8.6  | 86    | 0.00     | 2.84- | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.178 | 12.0 | 79    | 0.00     | 2.98- | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.095 | 13.6 | 80    | 0.00     | 3.27- | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.082 | 9.6  | 83    | 0.00     | 3.76- | 3.82   |
| 7 B   | beta-BHC               | 0.567 | 0.495 | 12.7 | 82    | 0.00     | 3.34- | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 0.900 | 19.4 | 72    | 0.00     | 3.53- | 3.59   |
| 9 MB  | Aldrin                 | 1.164 | 1.060 | 8.9  | 83    | 0.00     | 4.09- | 4.15   |
| 10    | alachlor               | 0.140 | 0.127 | 9.3  | 82    | 0.00     | 4.23- | 4.29   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.935 | 13.1 | 80    | 0.00     | 4.79- | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.939 | 11.4 | 81    | 0.00     | 4.95- | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.949 | 12.5 | 83    | 0.00     | 5.12- | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.908 | 10.3 | 84    | 0.00     | 5.30- | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.958 | 7.3  | 86    | 0.00     | 5.24- | 5.30   |
| 16 MA | Dieldrin               | 1.096 | 1.004 | 8.4  | 84    | 0.00     | 5.62- | 5.68   |
| 17 MA | Endrin                 | 0.992 | 0.937 | 5.5  | 88    | 0.00     | 5.94- | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.778 | 9.1  | 84    | 0.00     | 6.06- | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.884 | 16.0 | 83    | 0.00     | 6.26- | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.730 | 11.1 | 82    | 0.00     | 6.48- | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.720 | 13.6 | 82    | 0.00     | 6.88- | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.693 | 16.0 | 79    | 0.00     | 7.56- | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.427 | 12.9 | 82    | 0.00     | 7.26- | 7.32   |
| 24    | Mirex                  | 0.833 | 0.707 | 15.1 | 83    | 0.00     | 7.41- | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.847 | 13.7 | 80    | 0.00     | 8.00- | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.842 | 15.0 | 83    | 0.00     | 9.81- | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |       |      |
|-------|------------------------|-------|-------|------|-----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 105 | 0.00 | 1.66- | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.872 | 6.3  | 101 | 0.00 | 2.91- | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.115 | 4.5  | 104 | 0.00 | 3.39- | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.137 | 8.2  | 96  | 0.00 | 3.54- | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.053 | 9.4  | 96  | 0.00 | 3.95- | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.078 | 8.8  | 98  | 0.00 | 4.50- | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.485 | 9.2  | 99  | 0.00 | 4.03- | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 0.874 | 19.0 | 87  | 0.00 | 4.41- | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 0.938 | 9.9  | 96  | 0.00 | 4.93- | 4.99 |
| 10    | alachlor               | 0.138 | 0.124 | 10.1 | 97  | 0.00 | 4.75- | 4.81 |

12.11.45 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56090.D

|    |    |                    |       |       |      |     |      |             |
|----|----|--------------------|-------|-------|------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 1.006 | 0.895 | 11.0 | 96  | 0.00 | 5.73- 5.79  |
| 12 | B  | gamma-Chlordane    | 0.986 | 0.959 | 2.7  | 103 | 0.00 | 6.01- 6.07  |
| 13 | B  | alpha-Chlordane    | 0.960 | 0.855 | 10.9 | 92  | 0.00 | 6.23- 6.29  |
| 14 | A  | Endosulfan I       | 0.917 | 0.828 | 9.7  | 98  | 0.00 | 6.32- 6.38  |
| 15 | B  | 4,4'-DDE           | 0.932 | 0.883 | 5.3  | 100 | 0.00 | 6.50- 6.56  |
| 16 | MA | Dieldrin           | 0.984 | 0.898 | 8.7  | 98  | 0.00 | 6.75- 6.81  |
| 17 | MA | Endrin             | 0.966 | 0.872 | 9.7  | 101 | 0.00 | 7.24- 7.30  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.721 | 10.2 | 99  | 0.00 | 7.43- 7.49  |
| 19 | B  | Endosulfan II      | 0.978 | 0.825 | 15.6 | 98  | 0.00 | 7.59- 7.65  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.687 | 11.4 | 95  | 0.00 | 7.96- 8.02  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.650 | 12.5 | 96  | 0.00 | 8.16- 8.22  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.630 | 15.3 | 92  | 0.00 | 8.62- 8.68  |
| 23 | A  | Methoxychlor       | 0.440 | 0.412 | 6.4  | 99  | 0.00 | 9.20- 9.26  |
| 24 |    | Mirex              | 0.746 | 0.643 | 13.8 | 95  | 0.00 | 9.50- 9.56  |
| 25 | B  | Endrin Ketone      | 0.985 | 0.822 | 16.5 | 98  | 0.00 | 9.57- 9.63  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.795 | 14.4 | 96  | 0.00 | 11.71-11.77 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Fri May 11 09:34:21 2018

12.11.45  
12

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1681-CC1671  
Lab FileID: 6G56119.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56119.d\ECD1A.CH Vial: 2  
Signal #2 : C:\msdchem\1\data\G6G1681\6g56119.d\ECD2B.CH  
Acq On : 11-May-18, 10:12:23 Operator: minam  
Sample : cc1671-25 Inst : GC6G  
Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Wed May 16 07:59:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|-------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 91    | 0.00     | 1.44 | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.918 | 5.6   | 89    | 0.00     | 2.50 | 2.56   |
| 3     | hexachlorobenzene      | 1.085 | 1.019 | 6.1   | 89    | 0.00     | 2.83 | 2.89   |
| 4 A   | alpha-BHC              | 1.338 | 1.184 | 11.5  | 80    | 0.00     | 2.97 | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.027 | 18.9  | 75    | 0.00     | 3.26 | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.020 | 14.8  | 79    | 0.00     | 3.75 | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.465 | 18.0  | 78    | 0.00     | 3.33 | 3.39   |
| 8 B   | delta-BHC              | 1.117 | 0.870 | 22.1# | 70    | 0.00     | 3.51 | 3.57   |
| 9 MB  | Aldrin                 | 1.164 | 1.001 | 14.0  | 79    | 0.00     | 4.08 | 4.14   |
| 10    | alachlor               | 0.140 | 0.136 | 2.9   | 88    | 0.00     | 4.22 | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.871 | 19.1  | 75    | 0.00     | 4.78 | 4.84   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.869 | 18.0  | 75    | 0.00     | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.888 | 18.2  | 77    | 0.00     | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.843 | 16.7  | 78    | 0.00     | 5.29 | 5.35   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.862 | 16.6  | 78    | 0.00     | 5.23 | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 0.930 | 15.1  | 78    | 0.00     | 5.61 | 5.67   |
| 17 MA | Endrin                 | 0.992 | 0.875 | 11.8  | 82    | 0.00     | 5.93 | 5.99   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.746 | 12.9  | 81    | 0.00     | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.845 | 19.7  | 80    | 0.00     | 6.25 | 6.31   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.618 | 24.7# | 70    | 0.00     | 6.47 | 6.53   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.694 | 16.7  | 79    | 0.00     | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.695 | 15.8  | 80    | 0.00     | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.398 | 18.8  | 77    | 0.00     | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.683 | 18.0  | 80    | 0.00     | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.766 | 21.9# | 73    | 0.00     | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.817 | 17.6  | 81    | 0.00     | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 107 | 0.00 | 1.65 | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.888 | 4.6  | 105 | 0.00 | 2.90 | 2.96 |
| 3     | hexachlorobenzene      | 1.168 | 1.135 | 2.8  | 109 | 0.00 | 3.38 | 3.44 |
| 4 A   | alpha-BHC              | 1.239 | 1.127 | 9.0  | 97  | 0.00 | 3.53 | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.040 | 10.5 | 97  | 0.00 | 3.94 | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.054 | 10.8 | 98  | 0.00 | 4.49 | 4.55 |
| 7 B   | beta-BHC               | 0.534 | 0.480 | 10.1 | 100 | 0.00 | 4.02 | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 0.890 | 17.5 | 91  | 0.00 | 4.40 | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 0.895 | 14.0 | 94  | 0.00 | 4.93 | 4.99 |



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56119.D

|       |                    |       |       |       |     |       |        |       |
|-------|--------------------|-------|-------|-------|-----|-------|--------|-------|
| 10    | alachlor           | 0.138 | 0.126 | 8.7   | 100 | 0.00  | 4.75-  | 4.81  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.831 | 17.4  | 91  | 0.00  | 5.73-  | 5.79  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.851 | 13.7  | 94  | 0.00  | 6.01-  | 6.07  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.896 | 6.7   | 99  | 0.00  | 6.23-  | 6.29  |
| 14 A  | Endosulfan I       | 0.917 | 0.774 | 15.6  | 94  | 0.00  | 6.32-  | 6.38  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.808 | 13.3  | 94  | -0.01 | 6.49-  | 6.55  |
| 16 MA | Dieldrin           | 0.984 | 0.840 | 14.6  | 94  | 0.00  | 6.75-  | 6.81  |
| 17 MA | Endrin             | 0.966 | 0.815 | 15.6  | 96  | 0.00  | 7.24-  | 7.30  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.680 | 15.3  | 95  | 0.00  | 7.43-  | 7.49  |
| 19 B  | Endosulfan II      | 0.978 | 0.784 | 19.8  | 95  | 0.00  | 7.59-  | 7.65  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.576 | 25.7# | 81  | 0.00  | 7.96-  | 8.02  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.616 | 17.1  | 93  | 0.00  | 8.15-  | 8.21  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.628 | 15.6  | 94  | 0.00  | 8.62-  | 8.68  |
| 23 A  | Methoxychlor       | 0.440 | 0.356 | 19.1  | 87  | 0.00  | 9.19-  | 9.25  |
| 24    | Mirex              | 0.746 | 0.623 | 16.5  | 94  | -0.01 | 9.50-  | 9.56  |
| 25 B  | Endrin Ketone      | 0.985 | 0.687 | 30.3# | 84  | 0.00  | 9.57-  | 9.63  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.754 | 18.8  | 93  | -0.01 | 11.71- | 11.77 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Wed May 16 14:24:15 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56121.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56121.d\ECD1A.CH Vial: 5  
 Signal #2 : C:\msdchem\1\data\G6G1681\6g56121.d\ECD2B.CH  
 Acq On : 11-May-18, 12:00:13 Operator: minam  
 Sample : cc1671-500 Inst : GC6G  
 Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|                       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT Window   |
|-----------------------|------------------------|-------|-------|------|-------|----------|-------------|
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 70    | -0.01    | 1.45- 2.45  |
| 2 SAB                 | Tetrachloro-m-xylene   | 0.972 | 0.909 | 6.5  | 65    | 0.00     | 2.51- 2.57  |
| 26 SA                 | Decachlorobiphenyl     | 0.991 | 0.942 | 4.9  | 71    | 0.00     | 9.82- 9.88  |
| 33 I                  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 69    | 0.00     | 1.45- 2.45  |
| 34                    | Chlordane {A}          | 0.054 | 0.051 | 5.6  | 65    | 0.00     | 3.69- 3.89  |
| 35                    | Chlordane {B}          | 0.045 | 0.042 | 6.7  | 64    | 0.00     | 4.16- 4.36  |
| 36                    | Chlordane {C}          | 0.145 | 0.137 | 5.5  | 65    | 0.00     | 4.89- 5.09  |
| 37                    | Chlordane {D}          | 0.228 | 0.220 | 3.5  | 67    | 0.00     | 5.05- 5.25  |
| 38                    | Chlordane {E}          | 0.026 | 0.024 | 7.7  | 64    | 0.00     | 5.94- 6.14  |
| ***** Signal #2 ***** |                        |       |       |      |       |          |             |
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.65- 2.65  |
| 2 SAB                 | Tetrachloro-m-xylene   | 0.931 | 0.883 | 5.2  | 78    | 0.00     | 2.90- 2.96  |
| 26 SA                 | Decachlorobiphenyl     | 0.929 | 0.923 | 0.6  | 88    | 0.00     | 11.71-11.77 |
| 33 I                  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.65- 2.65  |
| 34                    | Chlordane {A}          | 0.054 | 0.050 | 7.4  | 77    | 0.00     | 4.43- 4.63  |
| 35                    | Chlordane {B}          | 0.040 | 0.035 | 12.5 | 74    | 0.00     | 5.05- 5.25  |
| 36                    | Chlordane {C}          | 0.126 | 0.124 | 1.6  | 82    | 0.00     | 5.94- 6.14  |
| 37                    | Chlordane {D}          | 0.206 | 0.198 | 3.9  | 80    | 0.00     | 6.16- 6.36  |
| 38                    | Chlordane {E}          | 0.021 | 0.019 | 9.5  | 73    | 0.00     | 7.30- 7.50  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 6g55785.d 6PST1671.M Mon May 14 10:14:52 2018

12.11.47 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56122.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56122.d\ECD1A.CH Vial: 6  
Signal #2 : C:\msdchem\1\data\G6G1681\6g56122.d\ECD2B.CH  
Acq On : 11-May-18, 12:18:02 Operator: minam  
Sample : cc1671-500 Inst : GC6G  
Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.02    | 1.44- | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.940 | 3.3  | 81    | -0.01    | 2.50- | 2.56   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.854 | 13.8 | 77    | -0.01    | 9.81- | 9.87   |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.44- | 2.44   |
| 28 L8 | Toxaphene{A}           | 0.016 | 0.016 | 0.0  | 83    | 0.00     | 5.55- | 5.75   |
| 29 L8 | Toxaphene{B}           | 0.041 | 0.040 | 2.4  | 81    | -0.01    | 6.17- | 6.37   |
| 30 L8 | Toxaphene{C}           | 0.033 | 0.028 | 15.2 | 70    | -0.01    | 6.35- | 6.55   |
| 31 L8 | Toxaphene{D}           | 0.026 | 0.024 | 7.7  | 76    | 0.00     | 6.69- | 6.89   |
| 32 L8 | Toxaphene{E}           | 0.027 | 0.025 | 7.4  | 78    | 0.00     | 7.34- | 7.54   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |       |        |       |
|-------|------------------------|-------|-------|------|-----|-------|--------|-------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.02 | 1.64-  | 2.64  |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.932 | -0.1 | 96  | 0.00  | 2.90-  | 2.96  |
| 26 SA | Decachlorobiphenyl     | 0.929 | 0.825 | 11.2 | 92  | 0.00  | 11.71- | 11.77 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99  | -0.01 | 1.64-  | 2.64  |
| 28 L8 | Toxaphene{A}           | 0.019 | 0.020 | -5.3 | 101 | 0.00  | 6.65-  | 6.85  |
| 29 L8 | Toxaphene{B}           | 0.025 | 0.022 | 12.0 | 88  | 0.00  | 7.49-  | 7.69  |
| 30 L8 | Toxaphene{C}           | 0.047 | 0.039 | 17.0 | 82  | 0.00  | 7.65-  | 7.85  |
| 31 L8 | Toxaphene{D}           | 0.026 | 0.025 | 3.8  | 96  | 0.00  | 8.09-  | 8.29  |
| 32 L8 | Toxaphene{E}           | 0.023 | 0.023 | 0.0  | 96  | 0.00  | 8.98-  | 9.18  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.01 | 1.64-  | 2.64  |

(#) = Out of Range  
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Mon May 14 11:15:23 2018

12.11.48  
12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICC480  
**Lab FileID:** 8G14666.D

## Response Factor Report GC8G

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Initial Calibration

### Calibration Files

2 =8g14663.d 5 =8g14664.d 10 =8g14665.d 25 =8g14666.d  
50 =8g14667.d 100 =8g14669.d 1 =8g14662.d 75 =8g14668.d

| Compound                                   | 2     | 5     | 10    | 25    | 50    | 100   | 1     | 75    | Avg   | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1-bromo-2-nitrobenzen -----ISTD-----  |       |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-                            | 0.863 | 0.848 | 0.891 | 0.917 | 0.956 | 1.003 | 1.125 | 0.962 | 0.946 | 9.45  |
| 3) hexachlorobe                            | 1.368 | 1.330 | 1.331 | 1.328 | 1.369 | 1.417 | 1.612 | 1.405 | 1.395 | 6.74  |
| 4) alpha-BHC                               | 1.006 | 0.989 | 1.037 | 1.153 | 1.295 | 1.445 | 1.481 | 1.393 | 1.225 | 16.64 |
| 5) gamma-BHC                               | 1.039 | 0.979 | 1.014 | 1.100 | 1.215 | 1.340 | 1.180 | 1.297 | 1.145 | 11.69 |
| 6) Heptachlor                              | 1.026 | 1.020 | 1.029 | 1.100 | 1.189 | 1.291 | 1.249 | 1.254 | 1.145 | 9.96  |
| 7) beta-BHC                                | 0.568 | 0.533 | 0.508 | 0.523 | 0.540 | 0.564 | 0.564 | 0.558 | 0.545 | 4.05  |
| 8) delta-BHC                               | 0.769 | 0.766 | 0.815 | 0.899 | 1.025 | 1.176 | 0.866 | 1.117 | 0.929 | 17.04 |
| 9) Aldrin                                  | 0.923 | 0.900 | 0.920 | 0.998 | 1.100 | 1.211 | 1.058 | 1.170 | 1.035 | 11.50 |
| 10)alachlor                                |       | 0.145 | 0.142 | 0.141 | 0.144 | 0.144 |       | 0.146 | 0.144 | 1.28  |
| 11) Heptachlor E                           | 0.935 | 0.903 | 0.928 | 0.968 | 1.044 | 1.126 | 1.156 | 1.088 | 1.018 | 9.61  |
| 12) gamma-Chlord                           | 0.797 | 0.834 | 0.904 | 0.929 | 1.005 | 1.102 | 0.916 | 1.064 | 0.944 | 11.30 |
| 13) alpha-Chlord                           | 0.877 | 0.861 | 0.882 | 0.942 | 1.007 | 1.090 | 1.045 | 1.057 | 0.970 | 9.36  |
| 14) Endosulfan I                           | 0.772 | 0.781 | 0.827 | 0.875 | 0.944 | 1.024 | 0.900 | 0.994 | 0.890 | 10.56 |
| 15) 4,4'-DDE                               | 0.908 | 0.862 | 0.891 | 0.956 | 1.038 | 1.137 | 1.189 | 1.098 | 1.010 | 12.20 |
| 16) Dieldrin                               | 0.831 | 0.854 | 0.883 | 0.954 | 1.045 | 1.151 | 1.052 | 1.115 | 0.986 | 12.42 |
| 17) Endrin                                 | 0.795 | 0.799 | 0.806 | 0.862 | 0.944 | 1.039 | 0.923 | 1.002 | 0.896 | 10.64 |
| 18) 4,4'-DDD                               | 0.666 | 0.674 | 0.678 | 0.727 | 0.803 | 0.887 | 0.811 | 0.855 | 0.763 | 11.46 |
| 19) Endosulfan I                           | 0.945 | 0.838 | 0.837 | 0.865 | 0.925 | 0.995 | 1.237 | 0.972 | 0.952 | 13.65 |
| 20) 4,4'-DDT                               | 0.599 | 0.630 | 0.660 | 0.721 | 0.795 | 0.893 | 0.647 | 0.855 | 0.725 | 15.24 |
| 21) Endrin Aldeh                           | 0.714 | 0.735 | 0.727 | 0.740 | 0.778 | 0.826 | 0.927 | 0.809 | 0.782 | 9.06  |
| 22) Endosulfan S                           | 0.665 | 0.640 | 0.628 | 0.650 | 0.687 | 0.742 | 0.719 | 0.725 | 0.682 | 6.29  |
| 23) Methoxychlor                           | 0.438 | 0.430 | 0.438 | 0.451 | 0.467 | 0.487 | 0.565 | 0.480 | 0.470 | 9.35  |
| 24) Mirex                                  | 0.767 | 0.760 | 0.787 | 0.765 | 0.778 | 0.800 | 0.953 | 0.795 | 0.801 | 7.91  |
| 25) Endrin Keton                           | 0.808 | 0.810 | 0.791 | 0.825 | 0.877 | 0.946 | 1.054 | 0.921 | 0.879 | 10.29 |
| 26) Decachlorobi                           | 1.101 | 1.007 | 0.993 | 0.956 | 1.016 | 1.068 | 1.297 | 1.043 | 1.060 | 9.97  |
| 27) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 28) Toxaphene{A}                           |       |       |       |       | 0.015 |       |       | 0.015 |       | 0.00  |
| 29) Toxaphene{B}                           |       |       |       |       | 0.038 |       |       | 0.038 |       | 0.00  |
| 30) Toxaphene{C}                           |       |       |       |       | 0.030 |       |       | 0.030 |       | 0.00  |
| 31) Toxaphene{D}                           |       |       |       |       | 0.028 |       |       | 0.028 |       | 0.00  |
| 32) Toxaphene{E}                           |       |       |       |       | 0.025 |       |       | 0.025 |       | 0.00  |
| 33) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 34) Chlordane {A}                          |       |       |       |       | 0.051 |       |       | 0.051 |       | 0.00  |
| 35) Chlordane {B}                          |       |       |       |       | 0.043 |       |       | 0.043 |       | 0.00  |
| 36) Chlordane {C}                          |       |       |       |       | 0.128 |       |       | 0.128 |       | 0.00  |
| 37) Chlordane {D}                          |       |       |       |       | 0.208 |       |       | 0.208 |       | 0.00  |
| 38) Chlordane {E}                          |       |       |       |       | 0.034 |       |       | 0.034 |       | 0.00  |

Signal #2

1) I 1-bromo-2-nitrobenzen -----ISTD-----  
2) Tetrachloro- 0.884 0.814 0.811 0.784 0.779 0.784 0.934 0.760 0.819 7.30

12.11.49 12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICC480  
**Lab FileID:** 8G14666.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 3)  | hexachlorobe            | 1.093          | 1.075 | 1.070 | 1.008 | 1.005 | 0.999 | 1.313 | 0.998 | 1.070 | 9.86  |
| 4)  | alpha-BHC               | 1.100          | 1.021 | 1.018 | 1.029 | 1.079 | 1.122 | 1.195 | 1.102 | 1.083 | 5.59  |
| 5)  | gamma-BHC               | 1.015          | 0.954 | 0.964 | 0.974 | 1.018 | 1.054 | 1.138 | 1.029 | 1.018 | 5.85  |
| 6)  | Heptachlor              | 1.014          | 1.007 | 0.986 | 0.991 | 1.025 | 1.037 | 1.267 | 1.009 | 1.042 | 8.88  |
| 7)  | beta-BHC                | 0.475          | 0.502 | 0.467 | 0.454 | 0.460 | 0.458 | 0.608 | 0.452 | 0.484 | 10.86 |
| 8)  | delta-BHC               | 0.820          | 0.841 | 0.832 | 0.857 | 0.919 | 0.977 | 0.987 | 0.928 | 0.895 | 7.42  |
| 9)  | Aldrin                  | 0.949          | 0.960 | 0.947 | 0.953 | 1.003 | 1.018 | 1.053 | 0.976 | 0.982 | 3.92  |
| 10) | alachlor                |                | 0.156 | 0.141 | 0.131 | 0.129 | 0.122 |       | 0.121 | 0.133 | 10.07 |
| 11) | Heptachlor E            | 0.870          | 0.832 | 0.819 | 0.765 | 1.098 | 1.134 | 0.900 | 1.042 | 0.933 | 14.97 |
| 12) | gamma-Chlord            | 0.986          | 0.959 | 0.949 | 0.943 | 0.915 | 0.949 | 1.088 | 1.182 | 0.996 | 9.17  |
| 13) | alpha-Chlord            | 1.175          | 1.062 | 0.989 | 0.972 | 0.993 | 1.022 | 1.507 | 0.932 | 1.082 | 17.29 |
| 14) | Endosulfan I            | 0.889          | 0.911 | 0.918 | 0.920 | 0.961 | 0.987 | 0.877 | 0.803 | 0.908 | 6.13  |
| 15) | 4,4'-DDE                | 0.939          | 0.996 | 0.997 | 1.011 | 1.075 | 1.126 | 1.087 | 0.970 | 1.025 | 6.25  |
| 16) | Dieldrin                | 0.955          | 0.987 | 0.895 | 1.044 | 1.134 | 1.191 | 1.033 | 1.099 | 1.042 | 9.35  |
| 17) | Endrin                  | 0.929          | 0.923 | 0.929 | 0.911 | 1.008 | 1.057 | 1.053 | 0.994 | 0.976 | 6.15  |
| 18) | 4,4'-DDD                | 0.824          | 0.799 | 0.819 | 0.808 | 0.891 | 0.939 | 0.883 | 0.897 | 0.858 | 5.99  |
| 19) | Endosulfan I            | 1.068          | 0.975 | 0.951 | 0.921 | 0.981 | 1.018 | 1.174 | 0.974 | 1.008 | 7.96  |
| 20) | 4,4'-DDT                | 0.677          | 0.703 | 0.719 | 0.751 | 0.818 | 0.890 | 0.618 | 0.837 | 0.752 | 12.06 |
| 21) | Endrin Aldeh            | 0.761          | 0.781 | 0.752 | 0.740 | 0.768 | 0.803 | 0.925 | 0.764 | 0.787 | 7.49  |
| 22) | Endosulfan S            | 0.914          | 0.729 | 0.702 | 0.681 | 0.705 | 0.745 | 0.866 | 0.717 | 0.758 | 11.23 |
| 23) | Methoxychlor            | 0.419          | 0.412 | 0.420 | 0.416 | 0.427 | 0.445 | 0.481 | 0.439 | 0.432 | 5.23  |
| 24) | Mirex                   | 0.695          | 0.688 | 0.694 | 0.665 | 0.626 | 0.668 | 0.843 | 0.670 | 0.694 | 9.27  |
| 25) | Endrin Keton            | 0.847          | 0.814 | 0.805 | 0.798 | 0.775 | 0.862 | 0.882 | 0.854 | 0.830 | 4.41  |
| 26) | Decachlorobi            | 0.978          | 0.876 | 0.854 | 0.826 | 0.836 | 0.824 | 1.047 | 0.824 | 0.883 | 9.50  |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       |       | 0.026 |       |       |       | 0.026 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       |       | 0.027 |       |       |       | 0.027 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       |       | 0.052 |       |       |       | 0.052 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       |       | 0.030 |       |       |       | 0.030 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       |       | 0.022 |       |       |       | 0.022 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       |       | 0.045 |       |       |       | 0.045 | 0.00  |
| 35) | Chlordane {B}           |                |       |       |       | 0.037 |       |       |       | 0.037 | 0.00  |
| 36) | Chlordane {C}           |                |       |       |       | 0.112 |       |       |       | 0.112 | 0.00  |
| 37) | Chlordane {D}           |                |       |       |       | 0.199 |       |       |       | 0.199 | 0.00  |
| 38) | Chlordane {E}           |                |       |       |       | 0.036 |       |       |       | 0.036 | 0.00  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

8PST480.M

Tue May 01 15:22:08 2018

12.11.49  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14672.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14672.d\ECD1A.ch Vial: 31  
 Signal #2 : C:\msdchem\1\data\8G480\8g14672.d\ECD2B.ch  
 Acq On : 1 May 2018 12:56 pm Operator: rebeccak  
 Sample : icv480-25 Inst : GC8G  
 Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 1.43-  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.837 | 11.5 | 88    | 0.00     | 2.65-  | 2.71   |
| 4 A   | alpha-BHC              | 1.225 | 1.139 | 7.0  | 96    | 0.00     | 3.22-  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.076 | 6.0  | 95    | 0.00     | 3.57-  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.088 | 5.0  | 96    | 0.00     | 4.14-  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.516 | 5.3  | 95    | 0.00     | 3.66-  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.894 | 3.8  | 96    | 0.00     | 3.87-  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 0.980 | 5.3  | 95    | 0.00     | 4.52-  | 4.58   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.957 | 6.0  | 96    | 0.00     | 5.32-  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.939 | 0.5  | 98    | 0.00     | 5.50-  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.938 | 3.3  | 96    | 0.00     | 5.69-  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.899 | -1.0 | 99    | 0.00     | 5.89-  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 0.954 | 5.5  | 97    | 0.00     | 5.81-  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 0.939 | 4.8  | 95    | 0.00     | 6.25-  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.868 | 3.1  | 97    | 0.00     | 6.61-  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.731 | 4.2  | 97    | 0.00     | 6.74-  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.846 | 11.1 | 95    | 0.00     | 6.97-  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.688 | 5.1  | 92    | 0.00     | 7.20-  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.742 | 5.1  | 97    | 0.00     | 7.67-  | 7.73   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.662 | 2.9  | 98    | 0.00     | 8.42-  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.443 | 5.7  | 95    | 0.00     | 8.06-  | 8.12   |
| 24    | Mirex                  | 0.801 | 0.765 | 4.5  | 97    | 0.00     | 8.26-  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.804 | 8.5  | 94    | 0.00     | 8.92-  | 8.98   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 0.974 | 8.1  | 99    | 0.00     | 10.85- | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |      |       |      |
|-------|------------------------|-------|-------|------|----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98 | 0.00 | 1.90- | 2.90 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.730 | 10.9 | 91 | 0.00 | 3.42- | 3.48 |
| 4 A   | alpha-BHC              | 1.083 | 1.023 | 5.5  | 97 | 0.00 | 4.23- | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 0.940 | 7.7  | 95 | 0.00 | 4.74- | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.945 | 9.3  | 93 | 0.00 | 5.43- | 5.49 |
| 7 B   | beta-BHC               | 0.484 | 0.443 | 8.5  | 96 | 0.00 | 4.84- | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.832 | 7.0  | 95 | 0.00 | 5.31- | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.895 | 8.9  | 92 | 0.00 | 5.96- | 6.02 |

12.11.50

12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14672.D

|    |    |                    |       |       |      |     |      |             |
|----|----|--------------------|-------|-------|------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 0.933 | 1.024 | -9.8 | 131 | 0.00 | 6.91- 6.97  |
| 12 | B  | gamma-Chlordane    | 0.996 | 0.854 | 14.3 | 89  | 0.00 | 7.24- 7.30  |
| 13 | B  | alpha-Chlordane    | 1.082 | 0.931 | 14.0 | 94  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.920 | -1.3 | 98  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.011 | 1.4  | 98  | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.040 | 0.2  | 98  | 0.00 | 8.11- 8.17  |
| 17 | MA | Endrin             | 0.976 | 0.960 | 1.6  | 103 | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.845 | 1.5  | 102 | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.931 | 7.6  | 99  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.731 | 2.8  | 95  | 0.00 | 9.45- 9.51  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.748 | 5.0  | 99  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.698 | 7.9  | 100 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.404 | 6.5  | 95  | 0.00 | 10.78-10.84 |
| 24 |    | Mirex              | 0.694 | 0.657 | 5.3  | 97  | 0.00 | 11.24-11.30 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.761 | 8.3  | 93  | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.799 | 9.5  | 95  | 0.00 | 13.48-13.54 |

(#) = Out of Range  
8g14666.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:16:57 2018

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G8G480-ICV480  
Lab FileID: 8G14673.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14673.d\ECD1A.ch Vial: 32  
Signal #2 : C:\msdchem\1\data\8G480\8g14673.d\ECD2B.ch  
Acq On : 1 May 2018 1:13 pm Operator: rebeccak  
Sample : icv480-500 Inst : GC8G  
Misc : opl1561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|-------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 98    | 0.00     | 1.43-  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.850 | 10.1  | 87    | 0.00     | 2.66-  | 2.72   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.000 | 5.7   | 97    | 0.00     | 10.85- | 10.91  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | 0.00     | 1.43-  | 2.43   |
| 34    | Chlordane {A}          | 0.051 | 0.059 | -15.7 | 116   | 0.00     | 4.07-  | 4.27   |
| 35    | Chlordane {B}          | 0.043 | 0.039 | 9.3   | 91    | 0.00     | 4.61-  | 4.81   |
| 36    | Chlordane {C}          | 0.128 | 0.130 | -1.6  | 101   | 0.00     | 5.43-  | 5.63   |
| 37    | Chlordane {D}          | 0.208 | 0.208 | 0.0   | 100   | 0.00     | 5.62-  | 5.82   |
| 38    | Chlordane {E}          | 0.034 | 0.030 | 11.8  | 88    | 0.00     | 6.80-  | 7.00   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |        |       |
|-------|------------------------|-------|-------|-------|-----|------|--------|-------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 98  | 0.00 | 1.91-  | 2.91  |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.725 | 11.5  | 91  | 0.00 | 3.42-  | 3.48  |
| 26 SA | Decachlorobiphenyl     | 0.883 | 0.830 | 6.0   | 97  | 0.00 | 13.48- | 13.54 |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | 0.00 | 1.91-  | 2.91  |
| 34    | Chlordane {A}          | 0.045 | 0.052 | -15.6 | 117 | 0.00 | 5.36-  | 5.56  |
| 35    | Chlordane {B}          | 0.037 | 0.034 | 8.1   | 91  | 0.00 | 6.11-  | 6.31  |
| 36    | Chlordane {C}          | 0.112 | 0.097 | 13.4  | 86  | 0.00 | 7.17-  | 7.37  |
| 37    | Chlordane {D}          | 0.199 | 0.188 | 5.5   | 94  | 0.00 | 7.42-  | 7.62  |
| 38    | Chlordane {E}          | 0.036 | 0.037 | -2.8  | 104 | 0.00 | 9.10-  | 9.30  |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:17:17 2018



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14674.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14674.d\ECD1A.ch Vial: 33  
Signal #2 : C:\msdchem\1\data\8G480\8g14674.d\ECD2B.ch  
Acq On : 1 May 2018 1:29 pm Operator: rebeccak  
Sample : icv480-500 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43-  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.867 | 8.4  | 90    | 0.00     | 2.66-  | 2.72   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.012 | 4.5  | 99    | 0.00     | 10.85- | 10.91  |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102   | 0.00     | 1.43-  | 2.43   |
| 28 L8 | Toxaphene{A}           | 0.015 | 0.016 | -6.7 | 104   | 0.00     | 6.19-  | 6.39   |
| 29 L8 | Toxaphene{B}           | 0.038 | 0.038 | 0.0  | 102   | 0.00     | 6.89-  | 7.09   |
| 30 L8 | Toxaphene{C}           | 0.030 | 0.030 | 0.0  | 102   | 0.00     | 7.08-  | 7.28   |
| 31 L8 | Toxaphene{D}           | 0.028 | 0.028 | 0.0  | 102   | 0.00     | 7.46-  | 7.66   |
| 32 L8 | Toxaphene{E}           | 0.025 | 0.025 | 0.0  | 103   | 0.00     | 8.19-  | 8.39   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |        |       |
|-------|------------------------|-------|-------|------|-----|------|--------|-------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99  | 0.00 | 1.91-  | 2.91  |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.744 | 9.2  | 95  | 0.00 | 3.42-  | 3.48  |
| 26 SA | Decachlorobiphenyl     | 0.883 | 0.829 | 6.1  | 98  | 0.00 | 13.48- | 13.54 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 1.91-  | 2.91  |
| 28 L8 | Toxaphene{A}           | 0.026 | 0.021 | 19.2 | 82  | 0.00 | 7.99-  | 8.19  |
| 29 L8 | Toxaphene{B}           | 0.027 | 0.028 | -3.7 | 108 | 0.00 | 8.97-  | 9.17  |
| 30 L8 | Toxaphene{C}           | 0.052 | 0.052 | 0.0  | 103 | 0.00 | 9.15-  | 9.35  |
| 31 L8 | Toxaphene{D}           | 0.030 | 0.030 | 0.0  | 99  | 0.00 | 9.64-  | 9.84  |
| 32 L8 | Toxaphene{E}           | 0.022 | 0.020 | 9.1  | 92  | 0.00 | 10.65- | 10.85 |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:17:19 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14675.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14675.d\ECD1A.ch Vial: 34  
Signal #2 : C:\msdchem\1\data\8G480\8g14675.d\ECD2B.ch  
Acq On : 1 May 2018 1:45 pm Operator: rebeccak  
Sample : icv480-50 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|----------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98    | 0.00     | 1.43 | 2.43   |
| 10alachlor                 | 0.144 | 0.158 | -9.7 | 107   | 0.00     | 4.68 | 4.74   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |      |     |      |      |      |
|----------------------------|-------|-------|------|-----|------|------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 100 | 0.00 | 1.90 | 2.90 |
| 10alachlor                 | 0.133 | 0.137 | -3.0 | 106 | 0.00 | 5.71 | 5.77 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
8g14667.d 8PST480.M Tue May 01 15:17:21 2018

12:11:53  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14676.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14676.d\ECD1A.ch Vial: 35  
Signal #2 : C:\msdchem\1\data\8G480\8g14676.d\ECD2B.ch  
Acq On : 1 May 2018 2:02 pm Operator: rebeccak  
Sample : icv480-50 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|                       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-----------------------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43- | 2.43   |
| 3                     | hexachlorobenzene      | 1.395 | 1.331 | 4.6  | 96    | 0.00     | 3.05- | 3.11   |
| ***** Signal #2 ***** |                        |       |       |      |       |          |       |        |
| 1 I                   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 103   | 0.00     | 1.90- | 2.90   |
| 3                     | hexachlorobenzene      | 1.070 | 0.998 | 6.7  | 102   | 0.00     | 4.04- | 4.10   |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:17:23 2018

12.11.54  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14783.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G483\8g14783.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G483\8g14783.d\ECD2B.ch  
 Acq On : 3 May 2018 4:19 pm Operator: dharas  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11717,g8g483,1000,,,5,10 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 92    | 0.00     | 1.44  | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.962 | -1.7  | 93    | 0.00     | 2.66  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.465 | -5.0  | 99    | 0.00     | 3.06  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.304 | -6.4  | 93    | 0.00     | 3.23  | 3.29   |
| 5 MA  | gamma-BHC              | 1.145 | 1.204 | -5.2  | 92    | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.136 | 0.8   | 88    | 0.00     | 4.14  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.516 | 5.3   | 88    | 0.00     | 3.66  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.959 | -3.2  | 86    | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.078 | -4.2  | 90    | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.141 | 2.1   | 90    | 0.00     | 4.67  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.955 | 6.2   | 85    | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.970 | -2.8  | 89    | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.984 | -1.4  | 90    | 0.00     | 5.69  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.934 | -4.9  | 91    | 0.00     | 5.89  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.009 | 0.1   | 90    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.011 | -2.5  | 89    | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.951 | -6.1  | 93    | 0.00     | 6.61  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.790 | -3.5  | 91    | 0.00     | 6.74  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.920 | 3.4   | 92    | 0.00     | 6.97  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.815 | -12.4 | 95    | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.760 | 2.8   | 90    | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.772 | -13.2 | 104   | 0.00     | 8.42  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.481 | -2.3  | 95    | 0.00     | 8.05  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.756 | 5.6   | 90    | 0.00     | 8.26  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.943 | -7.3  | 99    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.001 | 5.6   | 91    | 0.00     | 10.85 | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |      |      |
|-------|------------------------|-------|-------|-------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100 | 0.00 | 1.91 | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.848 | -3.5  | 109 | 0.00 | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.063 | 0.7   | 105 | 0.00 | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.127 | -4.1  | 104 | 0.00 | 4.23 | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 0.970 | 4.7   | 95  | 0.00 | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.924 | 11.3  | 90  | 0.00 | 5.43 | 5.49 |
| 7 B   | beta-BHC               | 0.484 | 0.381 | 21.3# | 83  | 0.00 | 4.84 | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.862 | 3.7   | 93  | 0.00 | 5.31 | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.864 | 12.0  | 86  | 0.00 | 5.96 | 6.02 |
| 10    | alachlor               | 0.133 | 0.110 | 17.3  | 85  | 0.00 | 5.71 | 5.77 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.798 | 14.5  | 72  | 0.00 | 6.91 | 6.97 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.822 | 17.5  | 90  | 0.00 | 7.23 | 7.29 |

12.11.55 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14783.D

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|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.855 | 21.0# | 86  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.835 | 8.0   | 87  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 0.961 | 6.2   | 89  | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.205 | -15.6 | 106 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.823 | 15.7  | 81  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.760 | 11.4  | 85  | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.889 | 11.8  | 90  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.820 | -9.0  | 100 | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.742 | 5.7   | 96  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.810 | -6.9  | 114 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.451 | -4.4  | 105 | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.662 | 4.6   | 105 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.918 | -10.6 | 118 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.797 | 9.7   | 95  | 0.00 | 13.47-13.53 |

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(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 00:29:35 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14804.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G483\8g14804.d\ECD1A.ch Vial: 2  
 Signal #2 : C:\msdchem\1\data\8G483\8g14804.d\ECD2B.ch  
 Acq On : 3 May 2018 10:00 pm Operator: dharas  
 Sample : cc480-25 Inst : GC8G  
 Misc : op11691,g8g483,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.930 | 1.7  | 101   | 0.00     | 2.66  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.417 | -1.6 | 106   | 0.00     | 3.06  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.165 | 4.9  | 100   | 0.00     | 3.22  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.118 | 2.4  | 101   | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.103 | 3.7  | 99    | 0.00     | 4.14  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.524 | 3.9  | 99    | 0.00     | 3.66  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.919 | 1.1  | 101   | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.024 | 1.1  | 102   | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.143 | 0.7  | 101   | 0.00     | 4.67  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.985 | 3.2  | 101   | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.957 | -1.4 | 102   | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.969 | 0.1  | 102   | 0.00     | 5.69  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.902 | -1.3 | 102   | 0.00     | 5.89  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 0.950 | 5.9  | 99    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 0.969 | 1.7  | 101   | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.853 | 4.8  | 98    | 0.00     | 6.61  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.715 | 6.3  | 98    | 0.00     | 6.74  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.877 | 7.9  | 100   | 0.00     | 6.97  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.726 | -0.1 | 100   | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.747 | 4.5  | 100   | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.632 | 7.3  | 96    | 0.00     | 8.42  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.448 | 4.7  | 98    | 0.00     | 8.06  | 8.12   |
| 24    | Mirex                  | 0.801 | 0.796 | 0.6  | 103   | 0.00     | 8.26  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.821 | 6.6  | 99    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.024 | 3.4  | 106   | 0.00     | 10.85 | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 103 | 0.00 | 1.91 | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.894 | -9.2 | 118 | 0.00 | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.117 | -4.4 | 114 | 0.00 | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.139 | -5.2 | 114 | 0.00 | 4.23 | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 1.025 | -0.7 | 109 | 0.00 | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.958 | 8.1  | 100 | 0.00 | 5.42 | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.458 | 5.4  | 104 | 0.00 | 4.84 | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.877 | 2.0  | 106 | 0.00 | 5.31 | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.909 | 7.4  | 98  | 0.00 | 5.96 | 6.02 |
| 10    | alachlor               | 0.133 | 0.127 | 4.5  | 100 | 0.00 | 5.71 | 5.77 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.841 | 9.9  | 113 | 0.00 | 6.91 | 6.97 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.869 | 12.8 | 95  | 0.00 | 7.23 | 7.29 |

12.11.56 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14804.D

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|    |    |                    |       |       |        |     |      |             |
|----|----|--------------------|-------|-------|--------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.895 | 17.3   | 95  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.861 | 5.2    | 97  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.030 | -0.5   | 105 | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.280 | -22.8# | 126 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.815 | 16.5   | 92  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.776 | 9.6    | 99  | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.930 | 7.7    | 104 | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.797 | -6.0   | 110 | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.797 | -1.3   | 111 | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.701 | 7.5    | 106 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.411 | 4.9    | 102 | 0.00 | 10.78-10.84 |
| 24 |    | Mirex              | 0.694 | 0.728 | -4.9   | 113 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.842 | -1.4   | 109 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.826 | 6.5    | 103 | 0.00 | 13.48-13.54 |

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(#) = Out of Range  
8g14666.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 02:20:04 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G484-CC480  
**Lab FileID:** 8G14815.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G484\8g14815.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G484\8g14815.d\ECD2B.ch  
 Acq On : 4 May 2018 2:27 am Operator: christp  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11692,g8g484,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 91    | 0.01     | 1.44  | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.936 | 1.1   | 89    | 0.00     | 2.66  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.447 | -3.7  | 97    | 0.00     | 3.06  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.248 | -1.9  | 88    | 0.00     | 3.23  | 3.29   |
| 5 MA  | gamma-BHC              | 1.145 | 1.173 | -2.4  | 88    | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.216 | -6.2  | 93    | 0.00     | 4.14  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.528 | 3.1   | 89    | 0.00     | 3.66  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.831 | 10.5  | 74    | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.118 | -8.0  | 93    | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.145 | -0.7  | 92    | 0.00     | 4.68  | 4.74   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.986 | 3.1   | 86    | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.996 | -5.5  | 90    | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 1.031 | -6.3  | 93    | 0.00     | 5.70  | 5.76   |
| 14 A  | Endosulfan I           | 0.890 | 0.955 | -7.3  | 92    | 0.00     | 5.90  | 5.96   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.089 | -7.8  | 96    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.061 | -7.6  | 93    | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.986 | -10.0 | 95    | 0.00     | 6.62  | 6.68   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.813 | -6.6  | 92    | 0.00     | 6.74  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.934 | 1.9   | 92    | 0.00     | 6.97  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.782 | -7.9  | 90    | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.778 | 0.5   | 91    | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.656 | 3.8   | 87    | 0.00     | 8.42  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.464 | 1.3   | 91    | 0.00     | 8.05  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.739 | 7.7   | 87    | 0.00     | 8.26  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.885 | -0.7  | 92    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.009 | 4.8   | 91    | 0.00     | 10.85 | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |      |      |
|-------|------------------------|-------|-------|-------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 109 | 0.00 | 1.91 | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.786 | 4.0   | 110 | 0.00 | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 0.975 | 8.9   | 106 | 0.00 | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 0.983 | 9.2   | 100 | 0.00 | 4.22 | 4.28 |
| 5 MA  | gamma-BHC              | 1.018 | 0.870 | 14.5  | 93  | 0.00 | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.870 | 16.5  | 93  | 0.00 | 5.42 | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.380 | 21.5# | 90  | 0.00 | 4.83 | 4.89 |
| 8 B   | delta-BHC              | 0.895 | 0.642 | 28.3# | 76  | 0.00 | 5.30 | 5.36 |
| 9 MB  | Aldrin                 | 0.982 | 0.803 | 18.2  | 87  | 0.00 | 5.95 | 6.01 |
| 10    | alachlor               | 0.133 | 0.102 | 23.3# | 86  | 0.00 | 5.70 | 5.76 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.724 | 22.4# | 72  | 0.00 | 6.90 | 6.96 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.733 | 26.4# | 87  | 0.00 | 7.23 | 7.29 |

12.11.57 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G484-CC480  
**Lab FileID:** 8G14815.D

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|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.787 | 27.3# | 87  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.765 | 15.7  | 87  | 0.00 | 7.60- 7.66  |
| 15 | B  | 4,4'-DDE           | 1.025 | 0.969 | 5.5   | 99  | 0.00 | 7.76- 7.82  |
| 16 | MA | Dieldrin           | 1.042 | 1.072 | -2.9  | 103 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.822 | 15.8  | 89  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.736 | 14.2  | 90  | 0.00 | 8.83- 8.89  |
| 19 | B  | Endosulfan II      | 1.008 | 0.820 | 18.7  | 91  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.736 | 2.1   | 98  | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.684 | 13.1  | 97  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.625 | 17.5  | 97  | 0.00 | 10.22-10.28 |
| 23 | A  | Methoxychlor       | 0.432 | 0.397 | 8.1   | 101 | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.632 | 8.9   | 110 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.876 | -5.5  | 123 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.700 | 20.7# | 91  | 0.00 | 13.47-13.53 |

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(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 05:20:40 2018

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G8G489-CC480  
 Lab FileID: 8G15027.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G489\8g15027.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G489\8g15027.d\ECD2B.ch  
 Acq On : 11 May 2018 10:17 am Operator: mailisih  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11905,g8g489,320,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Fri May 11 12:02:44 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 95    | -0.02    | 1.43  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.947 | -0.1 | 94    | 0.00     | 2.65  | 2.71   |
| 3     | hexachlorobenzene      | 1.395 | 1.395 | 0.0  | 96    | 0.00     | 3.05  | 3.11   |
| 4 A   | alpha-BHC              | 1.225 | 1.228 | -0.2 | 90    | 0.00     | 3.22  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.136 | 0.8  | 88    | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.134 | 1.0  | 90    | 0.00     | 4.13  | 4.19   |
| 7 B   | beta-BHC               | 0.545 | 0.513 | 5.9  | 90    | 0.00     | 3.65  | 3.71   |
| 8 B   | delta-BHC              | 0.929 | 0.856 | 7.9  | 79    | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.073 | -3.7 | 92    | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.141 | 2.1  | 92    | 0.00     | 4.67  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.984 | 3.3  | 89    | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.976 | -3.4 | 92    | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.974 | -0.4 | 91    | 0.00     | 5.69  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.907 | -1.9 | 91    | 0.00     | 5.89  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.010 | 0.0  | 92    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.011 | -2.5 | 92    | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.946 | -5.6 | 95    | 0.00     | 6.61  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.805 | -5.5 | 95    | 0.00     | 6.73  | 6.79   |
| 19 B  | Endosulfan II          | 0.952 | 0.890 | 6.5  | 91    | 0.00     | 6.96  | 7.02   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.606 | 16.4 | 72    | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.737 | 5.8  | 90    | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.643 | 5.7  | 89    | 0.00     | 8.41  | 8.47   |
| 23 A  | Methoxychlor           | 0.470 | 0.389 | 17.2 | 79    | 0.00     | 8.05  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.714 | 10.9 | 87    | 0.00     | 8.25  | 8.31   |
| 25 B  | Endrin Ketone          | 0.879 | 0.781 | 11.1 | 84    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 0.944 | 10.9 | 88    | 0.00     | 10.84 | 10.90  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |       |      |      |
|-------|------------------------|-------|-------|------|-----|-------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 110 | -0.01 | 1.90 | 2.90 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.842 | -2.8 | 119 | 0.00  | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.034 | 3.4  | 113 | 0.00  | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.064 | 1.8  | 108 | 0.00  | 4.22 | 4.28 |
| 5 MA  | gamma-BHC              | 1.018 | 0.920 | 9.6  | 99  | 0.00  | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.904 | 13.2 | 97  | 0.00  | 5.42 | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.397 | 18.0 | 95  | 0.00  | 4.83 | 4.89 |
| 8 B   | delta-BHC              | 0.895 | 0.743 | 17.0 | 89  | 0.00  | 5.30 | 5.36 |
| 9 MB  | Aldrin                 | 0.982 | 0.846 | 13.8 | 92  | 0.00  | 5.95 | 6.01 |
| 10    | alachlor               | 0.133 | 0.108 | 18.8 | 92  | 0.00  | 5.70 | 5.76 |

12.11.58 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G489-CC480  
**Lab FileID:** 8G15027.D

|    |    |                    |       |       |        |     |      |             |
|----|----|--------------------|-------|-------|--------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 0.933 | 0.791 | 15.2   | 79  | 0.00 | 6.90- 6.96  |
| 12 | B  | gamma-Chlordane    | 0.996 | 0.897 | 9.9    | 108 | 0.00 | 7.23- 7.29  |
| 13 | B  | alpha-Chlordane    | 1.082 | 1.118 | -3.3   | 124 | 0.00 | 7.48- 7.54  |
| 14 | A  | Endosulfan I       | 0.908 | 1.147 | -26.3# | 131 | 0.00 | 7.60- 7.66  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.110 | -8.3   | 113 | 0.00 | 7.76- 7.82  |
| 16 | MA | Dieldrin           | 1.042 | 0.933 | 10.5   | 90  | 0.00 | 8.09- 8.15  |
| 17 | MA | Endrin             | 0.976 | 0.945 | 3.2    | 103 | 0.00 | 8.67- 8.73  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.861 | -0.3   | 106 | 0.00 | 8.83- 8.89  |
| 19 | B  | Endosulfan II      | 1.008 | 0.930 | 7.7    | 104 | 0.00 | 9.06- 9.12  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.642 | 14.6   | 86  | 0.00 | 9.43- 9.49  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.724 | 8.0    | 103 | 0.00 | 9.70- 9.76  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.651 | 14.1   | 101 | 0.00 | 10.22-10.28 |
| 23 | A  | Methoxychlor       | 0.432 | 0.361 | 16.4   | 93  | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.623 | 10.2   | 109 | 0.00 | 11.22-11.28 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.727 | 12.4   | 103 | 0.00 | 11.27-11.33 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.717 | 18.8   | 94  | 0.00 | 13.46-13.52 |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 11 14:04:46 2018

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4559-ICC4559  
**Lab FileID:** OA133102.D

## Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
Title : HERB  
Last Update : Thu May 03 09:51:17 2018  
Response via : Initial Calibration

### Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d  
100 =oa133100.d 50 =oa133099.d

| Compound             | 500   | 400   | 300   | 200   | 100   | 50    | Avg   | %RSD     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 0.879 | 0.891 | 0.915 | 0.957 | 1.044 | 1.104 | 0.965 | E6 9.38  |
| 2) S 2,4-DCAA        | 5.066 | 5.108 | 5.284 | 5.352 | 6.015 | 6.645 | 5.578 | E5 11.20 |
| 3) Dicamba           | 2.394 | 2.407 | 2.479 | 2.409 | 2.611 | 2.853 | 2.526 | E6 7.11  |
| 4) MCPP              | 1.472 | 1.507 | 1.511 | 1.512 | 1.506 |       | 1.502 | E3 1.11  |
| 5) MCPA              | 2.638 | 2.730 | 2.748 | 2.877 | 3.025 |       | 2.804 | E3 5.35  |
| 6) Dichloroprop      | 6.003 | 6.108 | 6.378 | 6.606 | 7.324 | 8.217 | 6.773 | E5 12.54 |
| 7) 2,4-D             | 7.450 | 7.618 | 7.880 | 8.223 | 8.964 | 9.568 | 8.284 | E5 9.98  |
| 8) Pentachlorophenol | 1.127 | 1.130 | 1.116 | 1.123 | 1.134 | 1.098 | 1.121 | E7 1.16  |
| 9) 2,4,5-TP          | 4.300 | 4.307 | 4.332 | 4.320 | 4.391 | 4.511 | 4.360 | E6 1.86  |
| 10) 2,4,5-T          | 4.168 | 4.277 | 4.308 | 4.315 | 4.378 | 4.553 | 4.333 | E6 2.95  |
| 11) 2,4-DB           | 4.144 | 4.302 | 4.448 | 4.625 | 4.800 | 5.487 | 4.635 | E5 10.31 |
| 12) Dinoseb          | 2.716 | 2.826 | 2.952 | 2.911 | 3.152 | 3.449 | 3.001 | E6 8.77  |
| 13) Picloram         | 5.114 | 5.127 | 5.205 | 5.110 | 5.027 | 5.019 | 5.100 | E6 1.36  |

### Signal #2

|                      |       |       |       |       |       |       |       |          |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 1.054 | 1.076 | 1.110 | 1.169 | 1.260 | 1.353 | 1.170 | E7 9.92  |
| 2) S 2,4-DCAA        | 0.769 | 0.798 | 0.852 | 0.912 | 1.079 | 1.235 | 0.941 | E7 19.27 |
| 3) Dicamba           | 3.365 | 3.524 | 3.766 | 3.882 | 4.386 | 4.492 | 3.903 | E7 11.65 |
| 4) MCPP              | 2.714 | 2.796 | 2.809 | 2.828 | 2.584 |       | 2.746 | E4 3.66  |
| 5) MCPA              | 5.757 | 6.054 | 6.408 | 6.741 | 6.904 |       | 6.373 | E4 7.45  |
| 6) Dichloroprop      | 0.763 | 0.790 | 0.845 | 0.898 | 1.060 | 1.227 | 0.930 | E7 19.27 |
| 7) 2,4-D             | 1.055 | 1.066 | 1.161 | 1.237 | 1.358 | 1.537 | 1.236 | E7 15.05 |
| 8) Pentachlorophenol | 1.313 | 1.354 | 1.375 | 1.430 | 1.525 | 1.610 | 1.434 | E8 7.87  |
| 9) 2,4,5-TP          | 4.878 | 4.992 | 5.212 | 5.398 | 5.663 | 6.258 | 5.400 | E7 9.37  |
| 10) 2,4,5-T          | 5.176 | 5.342 | 5.558 | 5.728 | 5.887 | 6.352 | 5.674 | E7 7.39  |
| 11) 2,4-DB           | 6.568 | 6.741 | 7.050 | 7.420 | 7.949 | 8.558 | 7.381 | E6 10.30 |
| 12) Dinoseb          | 2.420 | 2.534 | 2.714 | 2.861 | 3.258 | 3.641 | 2.905 | E7 15.98 |
| 13) Picloram         | 3.970 | 4.133 | 4.291 | 4.448 | 4.769 | 5.057 | 4.445 | E7 9.14  |

(#) = Out of Range

HOA4559.M

Thu May 03 10:03:01 2018

12.11.59

12

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4559-ICV4559  
Lab FileID: OA133105.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0  
Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH  
Acq On : 02-May-18, 18:42:11 Operator: vinced  
Sample : icv4559-300 Inst : SVOA0A  
Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
Title : HERB  
Last Update : Thu May 03 09:51:17 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 945.953 E3 | 2.0   | 103   | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 561.020 E3 | -0.6  | 106   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.760 E6   | -9.3  | 111   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.579 E3   | -5.1  | 104   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.875 E3   | -2.5  | 105   | 0.00     | 8.00-  | 8.06   |
| 6   | Dichloroprop      | 677.279 | 676.760 E3 | 0.1   | 106   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 843.668 E3 | -1.8  | 107   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 12.796 E6  | -14.1 | 115   | 0.00     | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.566 E6   | -4.7  | 105   | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.550 E6   | -5.0  | 106   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 479.684 E3 | -3.5  | 108   | 0.01     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 3.161 E6   | -5.3  | 107   | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.288 E6   | -3.7  | 102   | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.136 E6  | 4.8   | 100 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.102 E6   | 3.3   | 107 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 41.326 E6  | -5.9  | 110 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 31.252 E3  | -13.8 | 111 | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 74.907 E3  | -17.5 | 117 | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.672 E6   | 6.8   | 103 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.382 E6  | -0.2  | 107 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 155.279 E6 | -8.3  | 113 | 0.00 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.765 E6  | -1.4  | 105 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 59.311 E6  | -4.5  | 107 | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.534 E6   | -2.1  | 107 | 0.00 | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 28.284 E6  | 2.6   | 104 | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 43.644 E6  | 1.8   | 102 | 0.00 | 16.62- | 16.68 |

(#) = Out of Range  
oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 10:02:29 2018

12.11.60  
12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4561-CC4559  
 Lab FileID: OA133132.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4561\oa133132.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4561\oa133132.d\ECD2B.CH  
 Acq On : 03-May-18, 15:17:19 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11629,goa4561,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:16:40 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 896.941 E3 | 7.0  | 94    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 531.124 E3 | 4.8  | 99    | -0.04    | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.297 E6   | 9.1  | 95    | -0.03    | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.472 E3   | 2.0  | 97    | 0.02     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.770 E3   | 1.2  | 96    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 638.744 E3 | 5.7  | 97    | -0.03    | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 812.527 E3 | 1.9  | 99    | -0.01    | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.572 E6  | 5.7  | 94    | -0.08    | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.148 E6   | 4.9  | 96    | -0.02    | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.211 E6   | 2.8  | 98    | -0.01    | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 457.023 E3 | 1.4  | 99    | -0.01    | 11.58- | 11.68  |
| 12  | Dinoseb           | 3.001   | 2.613 E6   | 12.9 | 90    | -0.02    | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.087 E6   | 0.3  | 100   | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.475 E6  | 1.9   | 98  | 0.00  | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.145 E6   | 2.8   | 100 | -0.03 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 38.841 E6  | 0.5   | 100 | -0.03 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 21.524 E3  | 21.6# | 76  | -0.03 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 46.191 E3  | 27.5# | 69  | 0.00  | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 9.207 E6   | 1.0   | 103 | -0.02 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.352 E6  | 0.0   | 100 | -0.01 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 138.727 E6 | 3.3   | 97  | -0.06 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.268 E6  | -0.5  | 101 | -0.01 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 56.700 E6  | 0.1   | 99  | 0.00  | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.320 E6   | 0.8   | 99  | 0.00  | 13.89- | 13.98 |
| 12  | Dinoseb           | 29.046  | 26.773 E6  | 7.8   | 94  | -0.02 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 48.320 E6  | -8.7  | 109 | 0.01  | 16.62- | 16.68 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 oal33101.d HOA4559.M Fri May 04 11:25:12 2018

12.11.61 12

# Continuing Calibration Summary

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4561-CC4559  
Lab FileID: OA133143.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4561\oa133143.d\ECD1A.CH Vial: 0  
Signal #2 : C:\msdchem\1\data\OA4561\oa133143.d\ECD2B.CH  
Acq On : 03-May-18, 20:34:03 Operator: vinced  
Sample : cc4559-300 Inst : SVOA0A  
Misc : op11687,goa4561,30,,,2.5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
Title : HERB  
Last Update : Fri May 04 11:16:40 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 824.569 E3 | 14.5  | 90    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 478.368 E3 | 14.2  | 91    | -0.04    | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.207 E6   | 12.6  | 89    | -0.03    | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.379 E3   | 8.2   | 91    | 0.02     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.568 E3   | 8.4   | 93    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 590.052 E3 | 12.9  | 93    | -0.03    | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 756.233 E3 | 8.7   | 96    | -0.01    | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.157 E6  | 9.4   | 91    | -0.08    | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.000 E6   | 8.3   | 92    | -0.02    | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.076 E6   | 5.9   | 95    | -0.02    | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 429.506 E3 | 7.3   | 97    | -0.02    | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 2.319 E6   | 22.7# | 79    | -0.02    | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.015 E6   | 1.7   | 96    | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 11.702  | 10.492 E6  | 10.3  | 94  | 0.00  | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 8.171 E6   | 13.2  | 96  | -0.03 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 34.675 E6  | 11.1  | 92  | -0.03 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 21.969 E3  | 20.0# | 78  | -0.03 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 45.550 E3  | 28.5# | 71  | 0.00  | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.043 E6   | 13.6  | 95  | -0.02 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 11.203 E6  | 9.3   | 96  | -0.01 | 10.54- | 10.60 |
| 8   | Pentachlorophenol | 143.443 | 126.313 E6 | 11.9  | 92  | -0.06 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 49.786 E6  | 7.8   | 96  | -0.02 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 52.657 E6  | 7.2   | 95  | 0.00  | 12.81- | 12.93 |
| 11  | 2,4-DB            | 7.381   | 6.714 E6   | 9.0   | 95  | 0.00  | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 23.008 E6  | 20.8# | 85  | -0.02 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 44.344 E6  | 0.2   | 103 | 0.01  | 16.62- | 16.68 |

(#) = Out of Range  
oal33102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 11:25:35 2018

12.11.62  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4562-CC4559  
**Lab FileID:** OA133176.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4562\oa133176.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4562\oa133176.d\ECD2B.CH  
 Acq On : 04-May-18, 18:05:52 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11726,goa4562,15.8,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:53:04 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 886.255 E3 | 8.2   | 93    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 521.453 E3 | 6.5   | 97    | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.345 E6   | 7.2   | 97    | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.466 E3   | 2.4   | 97    | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.836 E3   | -1.1  | 99    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 657.014 E3 | 3.0   | 99    | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 826.958 E3 | 0.2   | 101   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.840 E6  | 3.3   | 97    | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.245 E6   | 2.6   | 98    | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.309 E6   | 0.6   | 100   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 466.378 E3 | -0.6  | 101   | 0.02     | 11.58- | 11.68  |
| 12  | Dinoseb           | 3.001   | 1.890 E6   | 37.0# | 65    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.099 E6   | 0.0   | 100   | 0.02     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.552 E6  | 1.3   | 99  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.744 E6   | -3.6  | 107 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 43.775 E6  | -12.2 | 113 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 20.947 E3  | 23.7# | 74  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 47.059 E3  | 26.2# | 70  | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 9.326 E6   | -0.2  | 104 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.347 E6  | 0.1   | 100 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 140.404 E6 | 2.1   | 98  | 0.00 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.135 E6  | -0.2  | 100 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 55.967 E6  | 1.4   | 98  | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.445 E6   | -0.9  | 100 | 0.02 | 13.89- | 13.98 |
| 12  | Dinoseb           | 29.046  | 18.731 E6  | 35.5# | 65  | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 46.025 E6  | -3.6  | 103 | 0.02 | 16.62- | 16.68 |

(#) = Out of Range  
 oa133101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:39:09 2018

12.11.63 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4562-ECC4559  
**Lab FileID:** OA133186.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4562\oa133186.d\ECD1A.CH Vial: 0  
 Acq On : 04-May-18, 22:53:05 Operator: vined  
 Sample : ecc4559-300 Inst : SVOA0A  
 Misc : op11688,goa4562,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4562\oa133186.d\ECD2B.CH Vial: 3  
 Acq On : 04-May-18, 22:53:05 Operator: vined  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op11688,goa4562,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:53:04 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT Window   |
|-----|-------------------|---------|------------|-------|-------|----------|-------------|
| 1   | Dalapon           | 964.956 | 807.488 E3 | 16.3  | 88    | 0.00     | 2.32- 2.38  |
| 2 S | 2,4-DCAA          | 557.841 | 481.526 E3 | 13.7  | 91    | 0.00     | 7.32- 7.38  |
| 3   | Dicamba           | 2.526   | 2.222 E6   | 12.0  | 90    | 0.00     | 7.53- 7.59  |
| 4   | MCPD              | 1.502   | 1.367 E3   | 9.0   | 90    | 0.00     | 7.81- 7.87  |
| 5   | MCPA              | 2.804   | 2.593 E3   | 7.5   | 94    | 0.00     | 8.01- 8.07  |
| 6   | Dichloroprop      | 677.279 | 598.805 E3 | 11.6  | 94    | -0.01    | 8.52- 8.58  |
| 7   | 2,4-D             | 828.384 | 760.369 E3 | 8.2   | 96    | 0.00     | 8.86- 8.93  |
| 8   | Pentachlorophenol | 11.215  | 10.319 E6  | 8.0   | 92    | 0.00     | 9.13- 9.19  |
| 9   | 2,4,5-TP          | 4.360   | 4.027 E6   | 7.6   | 93    | 0.00     | 10.17-10.23 |
| 10  | 2,4,5-T           | 4.333   | 4.039 E6   | 6.8   | 94    | 0.00     | 10.63-10.70 |
| 11  | 2,4-DB            | 463.455 | 431.660 E3 | 6.9   | 97    | 0.00     | 11.58-11.67 |
| 12  | Dinoseb           | 3.001   | 1.794 E6   | 40.2# | 61    | 0.00     | 13.50-13.56 |
| 13  | Picloram          | 5.100   | 4.847 E6   | 5.0   | 93    | 0.02     | 13.17-13.23 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |             |
|-----|-------------------|---------|------------|-------|-----|------|-------------|
| 1   | Dalapon           | 11.702  | 10.330 E6  | 11.7  | 93  | 0.00 | 2.63- 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 8.497 E6   | 9.7   | 100 | 0.00 | 8.52- 8.58  |
| 3   | Dicamba           | 39.025  | 38.703 E6  | 0.8   | 103 | 0.00 | 8.80- 8.86  |
| 4   | MCPD              | 27.463  | 21.587 E3  | 21.4# | 77  | 0.00 | 8.99- 9.05  |
| 5   | MCPA              | 63.726  | 42.433 E3  | 33.4# | 66  | 0.00 | 9.38- 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.305 E6   | 10.7  | 98  | 0.00 | 9.97-10.03  |
| 7   | 2,4-D             | 12.358  | 11.101 E6  | 10.2  | 96  | 0.00 | 10.55-10.61 |
| 8   | Pentachlorophenol | 143.443 | 127.649 E6 | 11.0  | 93  | 0.00 | 11.18-11.24 |
| 9   | 2,4,5-TP          | 54.001  | 49.245 E6  | 8.8   | 94  | 0.00 | 12.06-12.12 |
| 10  | 2,4,5-T           | 56.738  | 51.997 E6  | 8.4   | 94  | 0.00 | 12.81-12.93 |
| 11  | 2,4-DB            | 7.381   | 6.652 E6   | 9.9   | 94  | 0.01 | 13.88-13.97 |
| 12  | Dinoseb           | 29.046  | 17.193 E6  | 40.8# | 63  | 0.00 | 14.45-14.52 |
| 13  | Picloram          | 44.447  | 43.052 E6  | 3.1   | 100 | 0.02 | 16.61-16.67 |

(#) = Out of Range  
 oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:39:27 2018

12.11.64 12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4567-CC4559  
 Lab FileID: OA133295.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4567\oa133295.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4567\oa133295.d\ECD2B.CH  
 Acq On : 11-May-18, 13:10:39 Operator: vinced  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op11880,goa4567,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 10 10:34:55 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|-------------------|---------|------------|-------|-------|----------|-------|--------|
| 1   | Dalapon           | 964.956 | 888.886 E3 | 7.9   | 97    | 0.00     | 2.32  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 565.873 E3 | -1.4  | 107   | 0.00     | 7.32  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.655 E6   | -5.1  | 107   | 0.00     | 7.53  | 7.59   |
| 4   | MCPD              | 1.502   | 1.588 E3   | -5.7  | 105   | 0.00     | 7.81  | 7.87   |
| 5   | MCPA              | 2.804   | 2.945 E3   | -5.0  | 107   | 0.00     | 8.01  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 685.267 E3 | -1.2  | 107   | 0.00     | 8.53  | 8.59   |
| 7   | 2,4-D             | 828.384 | 863.028 E3 | -4.2  | 110   | 0.00     | 8.85  | 8.92   |
| 8   | Pentachlorophenol | 11.215  | 11.588 E6  | -3.3  | 104   | 0.00     | 9.14  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.704 E6   | -7.9  | 109   | 0.00     | 10.17 | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.587 E6   | -5.9  | 106   | 0.00     | 10.63 | 10.70  |
| 11  | 2,4-DB            | 463.455 | 519.594 E3 | -12.1 | 117   | 0.00     | 11.58 | 11.67  |
| 12  | Dinoseb           | 3.001   | 3.064 E6   | -2.1  | 104   | 0.00     | 13.49 | 13.55  |
| 13  | Picloram          | 5.100   | 5.858 E6   | -14.9 | 113   | 0.02     | 13.17 | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |       |       |
|-----|-------------------|---------|------------|-------|-----|------|-------|-------|
| 1   | Dalapon           | 11.702  | 11.172 E6  | 4.5   | 101 | 0.00 | 2.63  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.502 E6   | -1.0  | 112 | 0.00 | 8.52  | 8.58  |
| 3   | Dicamba           | 39.025  | 43.531 E6  | -11.5 | 116 | 0.00 | 8.80  | 8.86  |
| 4   | MCPD              | 27.463  | 25.912 E3  | 5.6   | 92  | 0.00 | 8.99  | 9.05  |
| 5   | MCPA              | 63.726  | 51.423 E3  | 19.3  | 80  | 0.00 | 9.38  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 9.278 E6   | 0.3   | 110 | 0.00 | 9.97  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.258 E6  | 0.8   | 106 | 0.00 | 10.54 | 10.60 |
| 8   | Pentachlorophenol | 143.443 | 141.775 E6 | 1.2   | 103 | 0.00 | 11.19 | 11.25 |
| 9   | 2,4,5-TP          | 54.001  | 58.033 E6  | -7.5  | 111 | 0.00 | 12.06 | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 59.639 E6  | -5.1  | 107 | 0.00 | 12.81 | 12.93 |
| 11  | 2,4-DB            | 7.381   | 7.628 E6   | -3.3  | 108 | 0.00 | 13.88 | 13.97 |
| 12  | Dinoseb           | 29.046  | 29.183 E6  | -0.5  | 108 | 0.00 | 14.45 | 14.52 |
| 13  | Picloram          | 44.447  | 48.855 E6  | -9.9  | 114 | 0.00 | 16.61 | 16.67 |

(#) = Out of Range  
 oal33102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Fri May 11 14:23:27 2018

12.11.65 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4567-CC4559  
**Lab FileID:** OA133299.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4567\oa133299.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4567\oa133299.d\ECD2B.CH  
 Acq On : 11-May-18, 15:08:47 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11920,goa4567,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 10 10:34:55 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 975.781 E3 | -1.1   | 102   | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 611.771 E3 | -9.7   | 114   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.779 E6   | -10.0  | 115   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.735 E3   | -15.5  | 115   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 3.241 E3   | -15.6  | 113   | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 743.356 E3 | -9.8   | 113   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 940.829 E3 | -13.6  | 114   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 12.301 E6  | -9.7   | 110   | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.906 E6   | -12.5  | 114   | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.669 E6   | -7.8   | 108   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 505.585 E3 | -9.1   | 109   | 0.00     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 3.242 E6   | -8.0   | 111   | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 6.161 E6   | -20.8# | 121   | 0.02     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |        |     |      |        |       |
|-----|-------------------|---------|------------|--------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 12.227 E6  | -4.5   | 105 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 10.434 E6  | -10.9  | 114 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 43.798 E6  | -12.2  | 113 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 26.185 E3  | 4.7    | 93  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 57.704 E3  | 9.4    | 86  | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 10.361 E6  | -11.4  | 115 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 13.565 E6  | -9.8   | 110 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 152.965 E6 | -6.6   | 107 | 0.00 | 11.19- | 11.25 |
| 9   | 2,4,5-TP          | 54.001  | 60.397 E6  | -11.8  | 112 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 61.872 E6  | -9.0   | 108 | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 8.214 E6   | -11.3  | 111 | 0.01 | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 31.664 E6  | -9.0   | 111 | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 53.339 E6  | -20.0# | 120 | 0.02 | 16.62- | 16.68 |

(#) = Out of Range  
 oal33101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Fri May 11 17:03:35 2018

12.11.66 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4567-CC4559  
**Lab FileID:** OA133308.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4567\oa133308.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4567\oa133308.d\ECD2B.CH  
 Acq On : 11-May-18, 19:26:12 Operator: vinced  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op11920,goa4567,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Mon May 14 12:02:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 892.990 E3 | 7.5   | 98    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 579.073 E3 | -3.8  | 110   | -0.02    | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.733 E6   | -8.2  | 110   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.566 E3   | -4.3  | 104   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.988 E3   | -6.6  | 109   | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 687.771 E3 | -1.5  | 108   | 0.00     | 8.52-  | 8.58   |
| 7   | 2,4-D             | 828.384 | 868.555 E3 | -4.8  | 110   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 11.709 E6  | -4.4  | 105   | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.745 E6   | -8.8  | 110   | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.590 E6   | -5.9  | 107   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 476.215 E3 | -2.8  | 107   | 0.00     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 2.897 E6   | 3.5   | 98    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.741 E6   | -12.6 | 110   | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.023 E6  | 5.8   | 99  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.330 E6   | 0.8   | 110 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 43.254 E6  | -10.8 | 115 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 26.857 E3  | 2.2   | 96  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 54.484 E3  | 14.5  | 85  | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 9.173 E6   | 1.4   | 109 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.364 E6  | -0.0  | 106 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 138.894 E6 | 3.2   | 101 | 0.03 | 11.19- | 11.25 |
| 9   | 2,4,5-TP          | 54.001  | 55.007 E6  | -1.9  | 106 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 57.463 E6  | -1.3  | 103 | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.494 E6   | -1.5  | 106 | 0.00 | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 25.949 E6  | 10.7  | 96  | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 46.971 E6  | -5.7  | 109 | 0.00 | 16.62- | 16.68 |

(#) = Out of Range  
 oal33102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 12:07:24 2018

12.11.67 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4568-CC4559  
**Lab FileID:** OA133319.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4568\oa133319.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4568\oa133319.d\ECD2B.CH  
 Acq On : 14-May-18, 08:55:06 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11920,goa4568,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Mon May 14 15:39:56 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF        | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|-------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 1000.105 E3 | -3.6  | 104   | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 469.228 E3  | 15.9  | 88    | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.263 E6    | 10.4  | 94    | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.246 E3    | 17.0  | 82    | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.279 E3    | 18.7  | 79    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 583.057 E3  | 13.9  | 88    | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 655.786 E3  | 20.8# | 80    | 0.00     | 8.85-  | 8.92   |
| 8   | Pentachlorophenol | 11.215  | 9.848 E6    | 12.2  | 88    | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 3.749 E6    | 14.0  | 87    | 0.00     | 10.16- | 10.22  |
| 10  | 2,4,5-T           | 4.333   | 3.465 E6    | 20.0# | 80    | 0.00     | 10.62- | 10.69  |
| 11  | 2,4-DB            | 463.455 | 379.737 E3  | 18.1  | 82    | 0.00     | 11.57- | 11.66  |
| 12  | Dinoseb           | 3.001   | 2.783 E6    | 7.3   | 96    | 0.00     | 13.49- | 13.55  |
| 13  | Picloram          | 5.100   | 4.120 E6    | 19.2  | 81    | 0.00     | 13.15- | 13.21  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |    |      |        |       |
|-----|-------------------|---------|------------|-------|----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.298 E6  | 3.5   | 97 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 8.953 E6   | 4.8   | 98 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 36.807 E6  | 5.7   | 95 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 27.318 E3  | 0.5   | 97 | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 62.430 E3  | 2.0   | 93 | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 8.463 E6   | 9.0   | 94 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 10.889 E6  | 11.9  | 88 | 0.00 | 10.54- | 10.60 |
| 8   | Pentachlorophenol | 143.443 | 130.254 E6 | 9.2   | 91 | 0.00 | 11.18- | 11.26 |
| 9   | 2,4,5-TP          | 54.001  | 46.168 E6  | 14.5  | 86 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 45.964 E6  | 19.0  | 80 | 0.00 | 12.81- | 12.93 |
| 11  | 2,4-DB            | 7.381   | 6.171 E6   | 16.4  | 83 | 0.00 | 13.88- | 13.97 |
| 12  | Dinoseb           | 29.046  | 27.907 E6  | 3.9   | 98 | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 31.609 E6  | 28.9# | 71 | 0.00 | 16.60- | 16.66 |

(#) = Out of Range  
 oal33101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 15:40:03 2018

12.11.68 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4568-ECC4559  
**Lab FileID:** OA133330.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD1A.CH Vial: 0  
 Acq On : 14-May-18, 14:53:04 Operator: vined  
 Sample : ecc4559-300 Inst : SVOA0A  
 Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4568\oa133330.d\ECD2B.CH Vial: 3  
 Acq On : 14-May-18, 14:53:04 Operator: vined  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op11920,goa4568,16.0,,,5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Mon May 14 15:39:56 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 875.244 E3 | 9.3  | 96    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 514.842 E3 | 7.7  | 97    | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.423 E6   | 4.1  | 98    | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.457 E3   | 3.0  | 96    | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.688 E3   | 4.1  | 98    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 620.159 E3 | 8.4  | 97    | 0.00     | 8.52-  | 8.58   |
| 7   | 2,4-D             | 828.384 | 768.948 E3 | 7.2  | 98    | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.862 E6  | 3.1  | 97    | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.232 E6   | 2.9  | 98    | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.069 E6   | 6.1  | 94    | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 415.519 E3 | 10.3 | 93    | 0.00     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 2.584 E6   | 13.9 | 88    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 4.975 E6   | 2.5  | 96    | 0.02     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 10.952 E6  | 6.4   | 99  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.183 E6   | 2.4   | 108 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 37.615 E6  | 3.6   | 100 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 24.447 E3  | 11.0  | 87  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 53.523 E3  | 16.0  | 84  | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.645 E6   | 7.1   | 102 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 11.811 E6  | 4.4   | 102 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 137.284 E6 | 4.3   | 100 | 0.00 | 11.18- | 11.26 |
| 9   | 2,4,5-TP          | 54.001  | 52.977 E6  | 1.9   | 102 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 54.677 E6  | 3.6   | 98  | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 6.912 E6   | 6.4   | 98  | 0.00 | 13.88- | 13.97 |
| 12  | Dinoseb           | 29.046  | 21.726 E6  | 25.2# | 80  | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 41.046 E6  | 7.7   | 96  | 0.01 | 16.62- | 16.68 |

(#) = Out of Range  
 oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 14 15:40:19 2018

12.11.69 12

# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4575-CC4559  
 Lab FileID: OA133507.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4575\oa133507.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4575\oa133507.d\ECD2B.CH  
 Acq On : 24-May-18, 06:17:42 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op12177,goa4575,15.8,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 24 11:47:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF        | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|-------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 1041.153 E3 | -7.9  | 109   | 0.00     | 2.33-  | 2.39   |
| 2 S | 2,4-DCAA          | 557.841 | 576.266 E3  | -3.3  | 108   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.589 E6    | -2.5  | 107   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.656 E3    | -10.3 | 110   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 3.155 E3    | -12.5 | 110   | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 703.244 E3  | -3.8  | 106   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 872.789 E3  | -5.4  | 106   | 0.00     | 8.87-  | 8.94   |
| 8   | Pentachlorophenol | 11.215  | 11.203 E6   | 0.1   | 100   | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.374 E6    | -0.3  | 101   | 0.00     | 10.18- | 10.24  |
| 10  | 2,4,5-T           | 4.333   | 4.508 E6    | -4.0  | 104   | 0.00     | 10.65- | 10.72  |
| 11  | 2,4-DB            | 463.455 | 503.277 E3  | -8.6  | 109   | 0.00     | 11.60- | 11.69  |
| 12  | Dinoseb           | 3.001   | 2.739 E6    | 8.7   | 94    | 0.00     | 13.51- | 13.57  |
| 13  | Picloram          | 5.100   | 5.064 E6    | 0.7   | 99    | 0.00     | 13.20- | 13.26  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 12.740 E6  | -8.9  | 109 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 10.356 E6  | -10.1 | 114 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 42.579 E6  | -9.1  | 110 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 25.533 E3  | 7.0   | 90  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 56.138 E3  | 11.9  | 83  | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 9.917 E6   | -6.6  | 110 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.988 E6  | -5.1  | 105 | 0.00 | 10.56- | 10.62 |
| 8   | Pentachlorophenol | 143.443 | 139.356 E6 | 2.8   | 97  | 0.00 | 11.18- | 11.26 |
| 9   | 2,4,5-TP          | 54.001  | 54.701 E6  | -1.3  | 101 | 0.00 | 12.07- | 12.13 |
| 10  | 2,4,5-T           | 56.738  | 55.417 E6  | 2.3   | 97  | 0.00 | 12.83- | 12.95 |
| 11  | 2,4-DB            | 7.381   | 6.979 E6   | 5.4   | 94  | 0.00 | 13.90- | 13.99 |
| 12  | Dinoseb           | 29.046  | 24.815 E6  | 14.6  | 87  | 0.00 | 14.46- | 14.53 |
| 13  | Picloram          | 44.447  | 43.231 E6  | 2.7   | 97  | 0.00 | 16.63- | 16.69 |

(#) = Out of Range  
 oal33101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Thu May 24 11:48:52 2018

12.11.70 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4576-CC4559  
**Lab FileID:** OA133515.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4576\oa133515.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4576\oa133515.d\ECD2B.CH  
 Acq On : 24-May-18, 11:22:43 Operator: vinced  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op12202,goa4576,1050,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 24 11:47:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 876.453 E3 | 9.2   | 96    | 0.00     | 2.33-  | 2.39   |
| 2 S | 2,4-DCAA          | 557.841 | 566.587 E3 | -1.6  | 107   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.582 E6   | -2.2  | 104   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.687 E3   | -12.3 | 112   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.983 E3   | -6.4  | 109   | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 685.758 E3 | -1.3  | 108   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 844.515 E3 | -1.9  | 107   | 0.00     | 8.87-  | 8.94   |
| 8   | Pentachlorophenol | 11.215  | 11.418 E6  | -1.8  | 102   | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.477 E6   | -2.7  | 103   | 0.00     | 10.18- | 10.24  |
| 10  | 2,4,5-T           | 4.333   | 4.450 E6   | -2.7  | 103   | 0.00     | 10.64- | 10.71  |
| 11  | 2,4-DB            | 463.455 | 463.745 E3 | -0.1  | 104   | 0.00     | 11.59- | 11.69  |
| 12  | Dinoseb           | 3.001   | 2.723 E6   | 9.3   | 92    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.232 E6   | -2.6  | 101   | 0.00     | 13.19- | 13.25  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 10.735 E6  | 8.3  | 97  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.636 E6   | -2.4 | 113 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 40.661 E6  | -4.2 | 108 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 28.618 E3  | -4.2 | 102 | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 56.935 E3  | 10.7 | 89  | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 9.235 E6   | 0.7  | 109 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.502 E6  | -1.2 | 108 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 139.208 E6 | 3.0  | 101 | 0.00 | 11.18- | 11.26 |
| 9   | 2,4,5-TP          | 54.001  | 54.042 E6  | -0.1 | 104 | 0.00 | 12.07- | 12.13 |
| 10  | 2,4,5-T           | 56.738  | 56.398 E6  | 0.6  | 101 | 0.00 | 12.83- | 12.95 |
| 11  | 2,4-DB            | 7.381   | 6.977 E6   | 5.5  | 99  | 0.00 | 13.89- | 13.99 |
| 12  | Dinoseb           | 29.046  | 25.931 E6  | 10.7 | 96  | 0.00 | 14.46- | 14.53 |
| 13  | Picloram          | 44.447  | 44.786 E6  | -0.8 | 104 | 0.00 | 16.63- | 16.69 |

(#) = Out of Range  
 oal33102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Thu May 24 11:56:52 2018

12.11.71 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4576-CC4559  
**Lab FileID:** OA133519.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4576\oa133519.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4576\oa133519.d\ECD2B.CH  
 Acq On : 24-May-18, 13:39:42 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11676,goa4576,15.4,,,5,4 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 24 14:31:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF        | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|-------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 1033.819 E3 | -7.1  | 108   | 0.00     | 2.33-  | 2.39   |
| 2 S | 2,4-DCAA          | 557.841 | 555.527 E3  | 0.4   | 104   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.403 E6    | 4.9   | 100   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.664 E3    | -10.8 | 110   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 3.038 E3    | -8.3  | 106   | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 693.252 E3  | -2.4  | 105   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 840.117 E3  | -1.4  | 102   | 0.00     | 8.87-  | 8.94   |
| 8   | Pentachlorophenol | 11.215  | 11.155 E6   | 0.5   | 99    | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.291 E6    | 1.6   | 99    | 0.00     | 10.18- | 10.24  |
| 10  | 2,4,5-T           | 4.333   | 4.258 E6    | 1.7   | 99    | 0.00     | 10.65- | 10.72  |
| 11  | 2,4-DB            | 463.455 | 449.882 E3  | 2.9   | 97    | 0.00     | 11.60- | 11.69  |
| 12  | Dinoseb           | 3.001   | 2.661 E6    | 11.3  | 91    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 4.711 E6    | 7.6   | 92    | 0.00     | 13.20- | 13.26  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 12.506 E6  | -6.9 | 107 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 10.089 E6  | -7.2 | 111 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 41.595 E6  | -6.6 | 107 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 26.564 E3  | 3.3  | 94  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 56.621 E3  | 11.1 | 84  | 0.00 | 9.39-  | 9.45  |
| 6   | Dichloroprop      | 9.304   | 9.731 E6   | -4.6 | 108 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.831 E6  | -3.8 | 104 | 0.00 | 10.56- | 10.62 |
| 8   | Pentachlorophenol | 143.443 | 139.427 E6 | 2.8  | 98  | 0.00 | 11.18- | 11.26 |
| 9   | 2,4,5-TP          | 54.001  | 54.024 E6  | -0.0 | 100 | 0.00 | 12.07- | 12.13 |
| 10  | 2,4,5-T           | 56.738  | 55.235 E6  | 2.6  | 96  | 0.00 | 12.83- | 12.95 |
| 11  | 2,4-DB            | 7.381   | 6.920 E6   | 6.2  | 93  | 0.00 | 13.90- | 13.99 |
| 12  | Dinoseb           | 29.046  | 25.769 E6  | 11.3 | 90  | 0.00 | 14.46- | 14.53 |
| 13  | Picloram          | 44.447  | 44.337 E6  | 0.2  | 100 | 0.00 | 16.63- | 16.69 |

(#) = Out of Range  
 oal33101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Thu May 24 14:33:57 2018

12.11.72 12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

## Response Factor Report HP G1530A

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Initial Calibration

### Calibration Files

50 =xx227127.D 250 =xx227128.D 500 =xx227129.D 1000=xx227130.D  
2000 =xx227131.D 3000 =xx227132.D

| Compound                 | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   | %RSD    |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1) S Tetrachloro-m-xylen | 8.785 | 8.000 | 8.067 | 8.812 | 7.909 | 7.997 | 8.262 | E6 5.07 |
| 2) AR1221-A              |       |       |       | 5.174 |       |       | 5.174 | E4 0.00 |
| 3) AR1221-B              |       |       |       | 8.842 |       |       | 8.842 | E4 0.00 |
| 4) AR1221-C              |       |       |       | 2.709 |       |       | 2.709 | E5 0.00 |
| 5) AR1221-D              |       |       |       | 3.205 |       |       | 3.205 | E4 0.00 |
| 6) AR1221-E              |       |       |       | 3.963 |       |       | 3.963 | E4 0.00 |
| 7) AR1232-A              |       |       |       | 2.157 |       |       | 2.157 | E5 0.00 |
| 8) AR1232-B              |       |       |       | 1.323 |       |       | 1.323 | E5 0.00 |
| 9) AR1232-C              |       |       |       | 2.865 |       |       | 2.865 | E5 0.00 |
| 10) AR1232-D             |       |       |       | 1.107 |       |       | 1.107 | E5 0.00 |
| 11) AR1232-E             |       |       |       | 1.078 |       |       | 1.078 | E5 0.00 |
| 12) AR1242-A             |       |       |       | 2.360 |       |       | 2.360 | E5 0.00 |
| 13) AR1242-B             |       |       |       | 5.388 |       |       | 5.388 | E5 0.00 |
| 14) AR1242-C             |       |       |       | 2.067 |       |       | 2.067 | E5 0.00 |
| 15) AR1242-D             |       |       |       | 2.249 |       |       | 2.249 | E5 0.00 |
| 16) AR1242-E             |       |       |       | 2.405 |       |       | 2.405 | E5 0.00 |
| 17) AR1248-A             |       |       |       | 1.193 |       |       | 1.193 | E5 0.00 |
| 18) AR1248-B             |       |       |       | 3.477 |       |       | 3.477 | E5 0.00 |
| 19) AR1248-C             |       |       |       | 3.183 |       |       | 3.183 | E5 0.00 |
| 20) AR1248-D             |       |       |       | 3.251 |       |       | 3.251 | E5 0.00 |
| 21) AR1248-E             |       |       |       | 3.020 |       |       | 3.020 | E5 0.00 |
| 22) AR1248-F             |       |       |       | 3.438 |       |       | 3.438 | E5 0.00 |
| 23) AR1248-G             |       |       |       | 5.262 |       |       | 5.262 | E5 0.00 |
| 24) AR1254-A             |       |       |       | 2.744 |       |       | 2.744 | E5 0.00 |
| 25) AR1254-B             |       |       |       | 4.889 |       |       | 4.889 | E5 0.00 |
| 26) AR1254-C             |       |       |       | 2.782 |       |       | 2.782 | E5 0.00 |
| 27) AR1254-D             |       |       |       | 5.467 |       |       | 5.467 | E5 0.00 |
| 28) AR1254-E             |       |       |       | 4.144 |       |       | 4.144 | E5 0.00 |
| 29) AR1254-F             |       |       |       | 3.611 |       |       | 3.611 | E5 0.00 |
| 30) AR1254-G             |       |       |       | 5.307 |       |       | 5.307 | E5 0.00 |
| 31) AR1262-A             |       |       |       | 3.755 |       |       | 3.755 | E5 0.00 |
| 32) AR1262-B             |       |       |       | 5.293 |       |       | 5.293 | E5 0.00 |
| 33) AR1262-C             |       |       |       | 4.780 |       |       | 4.780 | E5 0.00 |
| 34) AR1262-D             |       |       |       | 1.221 |       |       | 1.221 | E6 0.00 |
| 35) AR1262-E             |       |       |       | 1.384 |       |       | 1.384 | E6 0.00 |
| 36) AR1268-A             |       |       |       | 1.395 |       |       | 1.395 | E6 0.00 |
| 37) AR1268-B             |       |       |       | 1.519 |       |       | 1.519 | E6 0.00 |
| 38) AR1268-C             |       |       |       | 1.270 |       |       | 1.270 | E6 0.00 |
| 39) AR1268-D             |       |       |       | 5.193 |       |       | 5.193 | E5 0.00 |
| 40) AR1268-E             |       |       |       | 4.274 |       |       | 4.274 | E6 0.00 |
| 41) AR1016-A             | 1.790 | 1.789 | 1.784 | 1.750 | 1.663 | 1.631 | 1.734 | E5 4.04 |
| 42) AR1016-B             | 3.031 | 2.705 | 2.662 | 2.618 | 2.483 | 2.455 | 2.659 | E5 7.80 |
| 43) AR1016-C             | 6.843 | 5.959 | 6.004 | 6.033 | 5.888 | 5.957 | 6.114 | E5 5.90 |
| 44) AR1016-D             | 2.712 | 2.336 | 2.230 | 2.306 | 2.205 | 2.204 | 2.332 | E5 8.32 |
| 45) AR1016-E             | 2.720 | 2.412 | 2.422 | 2.427 | 2.324 | 2.332 | 2.440 | E5 5.93 |
| 46) AR1260-A             | 7.610 | 7.124 | 6.630 | 6.723 | 7.269 | 7.423 | 7.130 | E5 5.43 |
| 47) AR1260-B             | 3.266 | 2.994 | 3.374 | 3.379 | 2.905 | 2.941 | 3.143 | E5 7.03 |

12.11.73  
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# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

|       |                    |       |       |       |       |       |       |       |    |      |
|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 48)   | AR1260-C           | 3.460 | 3.246 | 3.557 | 3.601 | 3.247 | 3.310 | 3.403 | E5 | 4.62 |
| 49)   | AR1260-D           | 0.914 | 0.870 | 0.973 | 1.029 | 0.912 | 0.937 | 0.939 | E6 | 5.89 |
| 50)   | AR1260-E           | 9.314 | 8.856 | 9.627 | 9.767 | 8.529 | 8.711 | 9.134 | E5 | 5.58 |
| 51) S | Decachlorobiphenyl | 1.072 | 0.969 | 0.961 | 1.064 | 0.940 | 0.973 | 0.997 | E7 | 5.67 |

Signal #2

|       |                     |       |       |       |       |       |       |       |    |      |
|-------|---------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 1) S  | Tetrachloro-m-xylen | 8.481 | 7.951 | 7.952 | 8.800 | 7.767 | 7.848 | 8.133 | E6 | 5.06 |
| 2)    | AR1221-A            |       |       |       | 4.680 |       |       | 4.680 | E4 | 0.00 |
| 3)    | AR1221-B            |       |       |       | 8.448 |       |       | 8.448 | E4 | 0.00 |
| 4)    | AR1221-C            |       |       |       | 2.120 |       |       | 2.120 | E5 | 0.00 |
| 5)    | AR1221-D            |       |       |       | 4.025 |       |       | 4.025 | E4 | 0.00 |
| 6)    | AR1221-E            |       |       |       | 2.615 |       |       | 2.615 | E4 | 0.00 |
| 7)    | AR1232-A            |       |       |       | 1.629 |       |       | 1.629 | E5 | 0.00 |
| 8)    | AR1232-B            |       |       |       | 1.272 |       |       | 1.272 | E5 | 0.00 |
| 9)    | AR1232-C            |       |       |       | 2.774 |       |       | 2.774 | E5 | 0.00 |
| 10)   | AR1232-D            |       |       |       | 1.155 |       |       | 1.155 | E5 | 0.00 |
| 11)   | AR1232-E            |       |       |       | 7.554 |       |       | 7.554 | E4 | 0.00 |
| 12)   | AR1242-A            |       |       |       | 2.253 |       |       | 2.253 | E5 | 0.00 |
| 13)   | AR1242-B            |       |       |       | 5.163 |       |       | 5.163 | E5 | 0.00 |
| 14)   | AR1242-C            |       |       |       | 2.160 |       |       | 2.160 | E5 | 0.00 |
| 15)   | AR1242-D            |       |       |       | 1.558 |       |       | 1.558 | E5 | 0.00 |
| 16)   | AR1242-E            |       |       |       | 2.043 |       |       | 2.043 | E5 | 0.00 |
| 17)   | AR1248-A            |       |       |       | 1.149 |       |       | 1.149 | E5 | 0.00 |
| 18)   | AR1248-B            |       |       |       | 3.219 |       |       | 3.219 | E5 | 0.00 |
| 19)   | AR1248-C            |       |       |       | 1.765 |       |       | 1.765 | E5 | 0.00 |
| 20)   | AR1248-D            |       |       |       | 2.356 |       |       | 2.356 | E5 | 0.00 |
| 21)   | AR1248-E            |       |       |       | 2.739 |       |       | 2.739 | E5 | 0.00 |
| 22)   | AR1248-F            |       |       |       | 3.331 |       |       | 3.331 | E5 | 0.00 |
| 23)   | AR1248-G            |       |       |       | 3.086 |       |       | 3.086 | E5 | 0.00 |
| 24)   | AR1254-A            |       |       |       | 2.904 |       |       | 2.904 | E5 | 0.00 |
| 25)   | AR1254-B            |       |       |       | 3.228 |       |       | 3.228 | E5 | 0.00 |
| 26)   | AR1254-C            |       |       |       | 2.659 |       |       | 2.659 | E5 | 0.00 |
| 27)   | AR1254-D            |       |       |       | 5.396 |       |       | 5.396 | E5 | 0.00 |
| 28)   | AR1254-E            |       |       |       | 4.220 |       |       | 4.220 | E5 | 0.00 |
| 29)   | AR1254-F            |       |       |       | 4.354 |       |       | 4.354 | E5 | 0.00 |
| 30)   | AR1254-G            |       |       |       | 5.520 |       |       | 5.520 | E5 | 0.00 |
| 31)   | AR1262-A            |       |       |       | 4.272 |       |       | 4.272 | E5 | 0.00 |
| 32)   | AR1262-B            |       |       |       | 6.983 |       |       | 6.983 | E5 | 0.00 |
| 33)   | AR1262-C            |       |       |       | 5.335 |       |       | 5.335 | E5 | 0.00 |
| 34)   | AR1262-D            |       |       |       | 1.356 |       |       | 1.356 | E6 | 0.00 |
| 35)   | AR1262-E            |       |       |       | 1.472 |       |       | 1.472 | E6 | 0.00 |
| 36)   | AR1268-A            |       |       |       | 1.675 |       |       | 1.675 | E6 | 0.00 |
| 37)   | AR1268-B            |       |       |       | 1.504 |       |       | 1.504 | E6 | 0.00 |
| 38)   | AR1268-C            |       |       |       | 1.298 |       |       | 1.298 | E6 | 0.00 |
| 39)   | AR1268-D            |       |       |       | 5.152 |       |       | 5.152 | E5 | 0.00 |
| 40)   | AR1268-E            |       |       |       | 3.845 |       |       | 3.845 | E6 | 0.00 |
| 41)   | AR1016-A            | 1.430 | 1.428 | 1.305 | 1.303 | 1.218 | 1.207 | 1.315 | E5 | 7.41 |
| 42)   | AR1016-B            | 2.703 | 2.613 | 2.528 | 2.506 | 2.324 | 2.292 | 2.494 | E5 | 6.43 |
| 43)   | AR1016-C            | 6.296 | 6.063 | 5.884 | 5.816 | 5.552 | 5.597 | 5.868 | E5 | 4.80 |
| 44)   | AR1016-D            | 2.698 | 2.621 | 2.495 | 2.455 | 2.291 | 2.270 | 2.472 | E5 | 6.96 |
| 45)   | AR1016-E            | 1.709 | 1.823 | 1.770 | 1.772 | 1.666 | 1.667 | 1.735 | E5 | 3.69 |
| 46)   | AR1260-A            | 8.487 | 8.447 | 7.222 | 7.119 | 7.521 | 7.661 | 7.743 | E5 | 7.68 |
| 47)   | AR1260-B            | 4.561 | 4.315 | 4.562 | 4.498 | 3.859 | 3.903 | 4.283 | E5 | 7.57 |
| 48)   | AR1260-C            | 4.696 | 4.266 | 4.309 | 4.213 | 3.801 | 3.845 | 4.188 | E5 | 7.89 |
| 49)   | AR1260-D            | 1.064 | 1.019 | 1.091 | 1.121 | 1.011 | 1.018 | 1.054 | E6 | 4.31 |
| 50)   | AR1260-E            | 1.031 | 0.969 | 1.033 | 1.030 | 0.902 | 0.915 | 0.980 | E6 | 6.16 |
| 51) S | Decachlorobiphenyl  | 1.075 | 0.904 | 0.853 | 0.952 | 0.834 | 0.861 | 0.913 | E7 | 9.83 |

(#) = Out of Range

12.11.73 12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICC6321  
**Lab FileID:** XX227130.D

PCB6321.M

Fri Apr 20 16:54:30 2018

12.11.73

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227137.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227137.D\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227137.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:42 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.616 E6   | -4.3 | 98    | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 167.535 E3 | 3.4  | 96    | 0.00     | 3.16- | 3.22   |

12.11.74  
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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227137.D

|      |                    |         |         |    |      |     |      |            |
|------|--------------------|---------|---------|----|------|-----|------|------------|
| 42   | AR1016-B           | 265.887 | 277.894 | E3 | -4.5 | 106 | 0.00 | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 643.644 | E3 | -5.3 | 107 | 0.00 | 4.10- 4.16 |
| 44   | AR1016-D           | 233.235 | 245.740 | E3 | -5.4 | 107 | 0.00 | 4.26- 4.32 |
| 45   | AR1016-E           | 243.951 | 255.189 | E3 | -4.6 | 105 | 0.00 | 4.75- 4.82 |
| 46   | AR1260-A           | 713.007 | 725.063 | E3 | -1.7 | 108 | 0.00 | 7.11- 7.17 |
| 47   | AR1260-B           | 314.313 | 324.957 | E3 | -3.4 | 96  | 0.00 | 7.26- 7.32 |
| 48   | AR1260-C           | 340.349 | 354.786 | E3 | -4.2 | 99  | 0.00 | 7.59- 7.66 |
| 49   | AR1260-D           | 939.177 | 987.611 | E3 | -5.2 | 96  | 0.00 | 8.03- 8.09 |
| 50   | AR1260-E           | 913.406 | 930.729 | E3 | -1.9 | 95  | 0.00 | 8.42- 8.48 |
| 51 S | Decachlorobiphenyl | 9.966   | 9.477   | E6 | 4.9  | 89  | 0.00 | 9.95-10.02 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |              |     |      |            |
|-----|----------------------|---------|---------|----|--------------|-----|------|------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.622   | E6 | -6.0         | 98  | 0.00 | 3.53- 3.59 |
| 2   | AR1221-A             |         |         |    | -----NA----- |     |      |            |
| 3   | AR1221-B             |         |         |    | -----NA----- |     |      |            |
| 4   | AR1221-C             |         |         |    | -----NA----- |     |      |            |
| 5   | AR1221-D             |         |         |    | -----NA----- |     |      |            |
| 6   | AR1221-E             |         |         |    | -----NA----- |     |      |            |
| 7   | AR1232-A             |         |         |    | -----NA----- |     |      |            |
| 8   | AR1232-B             |         |         |    | -----NA----- |     |      |            |
| 9   | AR1232-C             |         |         |    | -----NA----- |     |      |            |
| 10  | AR1232-D             |         |         |    | -----NA----- |     |      |            |
| 11  | AR1232-E             |         |         |    | -----NA----- |     |      |            |
| 12  | AR1242-A             |         |         |    | -----NA----- |     |      |            |
| 13  | AR1242-B             |         |         |    | -----NA----- |     |      |            |
| 14  | AR1242-C             |         |         |    | -----NA----- |     |      |            |
| 15  | AR1242-D             |         |         |    | -----NA----- |     |      |            |
| 16  | AR1242-E             |         |         |    | -----NA----- |     |      |            |
| 17  | AR1248-A             |         |         |    | -----NA----- |     |      |            |
| 18  | AR1248-B             |         |         |    | -----NA----- |     |      |            |
| 19  | AR1248-C             |         |         |    | -----NA----- |     |      |            |
| 20  | AR1248-D             |         |         |    | -----NA----- |     |      |            |
| 21  | AR1248-E             |         |         |    | -----NA----- |     |      |            |
| 22  | AR1248-F             |         |         |    | -----NA----- |     |      |            |
| 23  | AR1248-G             |         |         |    | -----NA----- |     |      |            |
| 24  | AR1254-A             |         |         |    | -----NA----- |     |      |            |
| 25  | AR1254-B             |         |         |    | -----NA----- |     |      |            |
| 26  | AR1254-C             |         |         |    | -----NA----- |     |      |            |
| 27  | AR1254-D             |         |         |    | -----NA----- |     |      |            |
| 28  | AR1254-E             |         |         |    | -----NA----- |     |      |            |
| 29  | AR1254-F             |         |         |    | -----NA----- |     |      |            |
| 30  | AR1254-G             |         |         |    | -----NA----- |     |      |            |
| 31  | AR1262-A             |         |         |    | -----NA----- |     |      |            |
| 32  | AR1262-B             |         |         |    | -----NA----- |     |      |            |
| 33  | AR1262-C             |         |         |    | -----NA----- |     |      |            |
| 34  | AR1262-D             |         |         |    | -----NA----- |     |      |            |
| 35  | AR1262-E             |         |         |    | -----NA----- |     |      |            |
| 36  | AR1268-A             |         |         |    | -----NA----- |     |      |            |
| 37  | AR1268-B             |         |         |    | -----NA----- |     |      |            |
| 38  | AR1268-C             |         |         |    | -----NA----- |     |      |            |
| 39  | AR1268-D             |         |         |    | -----NA----- |     |      |            |
| 40  | AR1268-E             |         |         |    | -----NA----- |     |      |            |
| 41  | AR1016-A             | 131.499 | 132.290 | E3 | -0.6         | 102 | 0.00 | 4.19- 4.25 |
| 42  | AR1016-B             | 249.443 | 269.685 | E3 | -8.1         | 108 | 0.00 | 4.74- 4.80 |
| 43  | AR1016-C             | 586.781 | 623.480 | E3 | -6.3         | 107 | 0.00 | 5.38- 5.44 |
| 44  | AR1016-D             | 247.157 | 259.596 | E3 | -5.0         | 106 | 0.00 | 5.57- 5.63 |
| 45  | AR1016-E             | 173.457 | 180.050 | E3 | -3.8         | 102 | 0.00 | 6.23- 6.29 |
| 46  | AR1260-A             | 774.265 | 750.844 | E3 | 3.0          | 105 | 0.00 | 8.84- 8.90 |
| 47  | AR1260-B             | 428.295 | 421.388 | E3 | 1.6          | 94  | 0.00 | 8.96- 9.02 |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227137.D

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|      |                    |         |         |    |      |    |      |             |
|------|--------------------|---------|---------|----|------|----|------|-------------|
| 48   | AR1260-C           | 418.819 | 406.725 | E3 | 2.9  | 97 | 0.00 | 9.39- 9.45  |
| 49   | AR1260-D           | 1.054   | 1.090   | E6 | -3.4 | 97 | 0.00 | 9.74- 9.80  |
| 50   | AR1260-E           | 0.980   | 0.975   | E6 | 0.5  | 95 | 0.00 | 10.28-10.34 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.615   | E6 | 5.7  | 90 | 0.00 | 11.96-12.02 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:53 2018

# Initial Calibration Verification

Job Number: JC65058  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6321-ICV6321  
Lab FileID: XX227138.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227138.D\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\DATA\gx6321\xx227138.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:59 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT   | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.396 E6   | -1.6         | 95    | 0.00     | 2.78 | 2.84   |
| 2   | AR1221-A             | 51.738  | 54.608 E3  | -5.5         | 106   | 0.00     | 2.22 | 2.42   |
| 3   | AR1221-B             | 88.419  | 85.773 E3  | 3.0          | 97    | 0.00     | 2.89 | 3.09   |
| 4   | AR1221-C             | 270.889 | 259.470 E3 | 4.2          | 96    | 0.00     | 3.08 | 3.28   |
| 5   | AR1221-D             | 32.051  | 26.306 E3  | 17.9         | 82    | 0.00     | 3.48 | 3.68   |
| 6   | AR1221-E             | 39.630  | 36.171 E3  | 8.7          | 91    | 0.00     | 3.70 | 3.90   |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |      |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |      |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |      |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |      |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |      |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |      |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |      |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |      |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |      |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |      |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |      |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |      |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |      |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |      |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |      |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |      |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |      |        |
| 24  | AR1254-A             | 274.426 | 286.233 E3 | -4.3         | 104   | 0.00     | 5.17 | 5.37   |
| 25  | AR1254-B             | 488.934 | 504.535 E3 | -3.2         | 103   | 0.00     | 5.51 | 5.71   |
| 26  | AR1254-C             | 278.220 | 290.020 E3 | -4.2         | 104   | 0.00     | 5.88 | 6.08   |
| 27  | AR1254-D             | 546.727 | 575.678 E3 | -5.3         | 105   | 0.00     | 6.04 | 6.24   |
| 28  | AR1254-E             | 414.443 | 429.982 E3 | -3.7         | 104   | 0.00     | 6.42 | 6.62   |
| 29  | AR1254-F             | 361.094 | 379.311 E3 | -5.0         | 105   | 0.00     | 6.66 | 6.86   |
| 30  | AR1254-G             | 530.661 | 553.207 E3 | -4.2         | 104   | 0.00     | 7.04 | 7.24   |
| 31  | AR1262-A             |         |            | -----NA----- |       |          |      |        |
| 32  | AR1262-B             |         |            | -----NA----- |       |          |      |        |
| 33  | AR1262-C             |         |            | -----NA----- |       |          |      |        |
| 34  | AR1262-D             |         |            | -----NA----- |       |          |      |        |
| 35  | AR1262-E             |         |            | -----NA----- |       |          |      |        |
| 36  | AR1268-A             |         |            | -----NA----- |       |          |      |        |
| 37  | AR1268-B             |         |            | -----NA----- |       |          |      |        |
| 38  | AR1268-C             |         |            | -----NA----- |       |          |      |        |
| 39  | AR1268-D             |         |            | -----NA----- |       |          |      |        |
| 40  | AR1268-E             |         |            | -----NA----- |       |          |      |        |
| 41  | AR1016-A             |         |            | -----NA----- |       |          |      |        |

12.11.75  
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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227138.D

|      |                    |       |       |    |      |    |      |              |
|------|--------------------|-------|-------|----|------|----|------|--------------|
| 42   | AR1016-B           |       |       |    |      |    |      | -----NA----- |
| 43   | AR1016-C           |       |       |    |      |    |      | -----NA----- |
| 44   | AR1016-D           |       |       |    |      |    |      | -----NA----- |
| 45   | AR1016-E           |       |       |    |      |    |      | -----NA----- |
| 46   | AR1260-A           |       |       |    |      |    |      | -----NA----- |
| 47   | AR1260-B           |       |       |    |      |    |      | -----NA----- |
| 48   | AR1260-C           |       |       |    |      |    |      | -----NA----- |
| 49   | AR1260-D           |       |       |    |      |    |      | -----NA----- |
| 50   | AR1260-E           |       |       |    |      |    |      | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.966 | 8.209 | E6 | 17.6 | 77 | 0.00 | 9.95-10.02   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |      |              |
|-----|----------------------|---------|---------|----|------|-----|------|--------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 7.892   | E6 | 3.0  | 90  | 0.00 | 3.53- 3.59   |
| 2   | AR1221-A             | 46.798  | 48.866  | E3 | -4.4 | 104 | 0.00 | 2.95- 3.01   |
| 3   | AR1221-B             | 84.479  | 82.187  | E3 | 2.7  | 97  | 0.00 | 3.84- 4.04   |
| 4   | AR1221-C             | 211.961 | 204.263 | E3 | 3.6  | 96  | 0.00 | 4.12- 4.32   |
| 5   | AR1221-D             | 40.254  | 35.744  | E3 | 11.2 | 89  | 0.00 | 4.67- 4.87   |
| 6   | AR1221-E             | 26.153  | 26.886  | E3 | -2.8 | 103 | 0.00 | 4.76- 4.96   |
| 7   | AR1232-A             |         |         |    |      |     |      | -----NA----- |
| 8   | AR1232-B             |         |         |    |      |     |      | -----NA----- |
| 9   | AR1232-C             |         |         |    |      |     |      | -----NA----- |
| 10  | AR1232-D             |         |         |    |      |     |      | -----NA----- |
| 11  | AR1232-E             |         |         |    |      |     |      | -----NA----- |
| 12  | AR1242-A             |         |         |    |      |     |      | -----NA----- |
| 13  | AR1242-B             |         |         |    |      |     |      | -----NA----- |
| 14  | AR1242-C             |         |         |    |      |     |      | -----NA----- |
| 15  | AR1242-D             |         |         |    |      |     |      | -----NA----- |
| 16  | AR1242-E             |         |         |    |      |     |      | -----NA----- |
| 17  | AR1248-A             |         |         |    |      |     |      | -----NA----- |
| 18  | AR1248-B             |         |         |    |      |     |      | -----NA----- |
| 19  | AR1248-C             |         |         |    |      |     |      | -----NA----- |
| 20  | AR1248-D             |         |         |    |      |     |      | -----NA----- |
| 21  | AR1248-E             |         |         |    |      |     |      | -----NA----- |
| 22  | AR1248-F             |         |         |    |      |     |      | -----NA----- |
| 23  | AR1248-G             |         |         |    |      |     |      | -----NA----- |
| 24  | AR1254-A             | 290.353 | 305.060 | E3 | -5.1 | 105 | 0.00 | 6.76- 6.96   |
| 25  | AR1254-B             | 322.819 | 341.487 | E3 | -5.8 | 106 | 0.00 | 7.01- 7.21   |
| 26  | AR1254-C             | 265.885 | 279.431 | E3 | -5.1 | 105 | 0.00 | 7.52- 7.72   |
| 27  | AR1254-D             | 539.574 | 567.881 | E3 | -5.2 | 105 | 0.00 | 7.68- 7.88   |
| 28  | AR1254-E             | 421.992 | 444.332 | E3 | -5.3 | 105 | 0.00 | 8.00- 8.20   |
| 29  | AR1254-F             | 435.433 | 455.359 | E3 | -4.6 | 105 | 0.00 | 8.48- 8.68   |
| 30  | AR1254-G             | 551.950 | 580.040 | E3 | -5.1 | 105 | 0.00 | 8.77- 8.97   |
| 31  | AR1262-A             |         |         |    |      |     |      | -----NA----- |
| 32  | AR1262-B             |         |         |    |      |     |      | -----NA----- |
| 33  | AR1262-C             |         |         |    |      |     |      | -----NA----- |
| 34  | AR1262-D             |         |         |    |      |     |      | -----NA----- |
| 35  | AR1262-E             |         |         |    |      |     |      | -----NA----- |
| 36  | AR1268-A             |         |         |    |      |     |      | -----NA----- |
| 37  | AR1268-B             |         |         |    |      |     |      | -----NA----- |
| 38  | AR1268-C             |         |         |    |      |     |      | -----NA----- |
| 39  | AR1268-D             |         |         |    |      |     |      | -----NA----- |
| 40  | AR1268-E             |         |         |    |      |     |      | -----NA----- |
| 41  | AR1016-A             |         |         |    |      |     |      | -----NA----- |
| 42  | AR1016-B             |         |         |    |      |     |      | -----NA----- |
| 43  | AR1016-C             |         |         |    |      |     |      | -----NA----- |
| 44  | AR1016-D             |         |         |    |      |     |      | -----NA----- |
| 45  | AR1016-E             |         |         |    |      |     |      | -----NA----- |
| 46  | AR1260-A             |         |         |    |      |     |      | -----NA----- |
| 47  | AR1260-B             |         |         |    |      |     |      | -----NA----- |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227138.D

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|      |                    |       |          |      |    |      |  |  |  |             |  |
|------|--------------------|-------|----------|------|----|------|--|--|--|-------------|--|
| 48   | AR1260-C           |       |          |      |    |      |  |  |  |             |  |
| 49   | AR1260-D           |       |          |      |    |      |  |  |  |             |  |
| 50   | AR1260-E           |       |          |      |    |      |  |  |  |             |  |
| 51 S | Decachlorobiphenyl | 9.133 | 7.527 E6 | 17.6 | 79 | 0.00 |  |  |  | 11.96-12.02 |  |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:54 2018

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227139.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227139.D\ECD1A.CH Vial: 18  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227139.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:15 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT   | Window |
|-----|----------------------|---------|------------|-------|-------|----------|------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.250 E6   | -12.0 | 105   | 0.00     | 2.78 | 2.84   |
| 2   | AR1221-A             |         |            |       |       |          |      |        |
| 3   | AR1221-B             |         |            |       |       |          |      |        |
| 4   | AR1221-C             |         |            |       |       |          |      |        |
| 5   | AR1221-D             |         |            |       |       |          |      |        |
| 6   | AR1221-E             |         |            |       |       |          |      |        |
| 7   | AR1232-A             | 215.655 | 203.368 E3 | 5.7   | 94    | 0.00     | 3.08 | 3.28   |
| 8   | AR1232-B             | 132.280 | 129.314 E3 | 2.2   | 98    | 0.00     | 3.48 | 3.68   |
| 9   | AR1232-C             | 286.500 | 284.930 E3 | 0.5   | 99    | 0.00     | 4.03 | 4.23   |
| 10  | AR1232-D             | 110.735 | 110.115 E3 | 0.6   | 99    | 0.00     | 4.19 | 4.39   |
| 11  | AR1232-E             | 107.817 | 108.083 E3 | -0.2  | 100   | 0.00     | 4.69 | 4.89   |
| 12  | AR1242-A             |         |            |       |       |          |      |        |
| 13  | AR1242-B             |         |            |       |       |          |      |        |
| 14  | AR1242-C             |         |            |       |       |          |      |        |
| 15  | AR1242-D             |         |            |       |       |          |      |        |
| 16  | AR1242-E             |         |            |       |       |          |      |        |
| 17  | AR1248-A             |         |            |       |       |          |      |        |
| 18  | AR1248-B             |         |            |       |       |          |      |        |
| 19  | AR1248-C             |         |            |       |       |          |      |        |
| 20  | AR1248-D             |         |            |       |       |          |      |        |
| 21  | AR1248-E             |         |            |       |       |          |      |        |
| 22  | AR1248-F             |         |            |       |       |          |      |        |
| 23  | AR1248-G             |         |            |       |       |          |      |        |
| 24  | AR1254-A             |         |            |       |       |          |      |        |
| 25  | AR1254-B             |         |            |       |       |          |      |        |
| 26  | AR1254-C             |         |            |       |       |          |      |        |
| 27  | AR1254-D             |         |            |       |       |          |      |        |
| 28  | AR1254-E             |         |            |       |       |          |      |        |
| 29  | AR1254-F             |         |            |       |       |          |      |        |
| 30  | AR1254-G             |         |            |       |       |          |      |        |
| 31  | AR1262-A             | 375.538 | 390.901 E3 | -4.1  | 104   | 0.00     | 6.66 | 6.86   |
| 32  | AR1262-B             | 529.278 | 552.142 E3 | -4.3  | 104   | 0.00     | 7.19 | 7.39   |
| 33  | AR1262-C             | 477.985 | 496.654 E3 | -3.9  | 104   | 0.00     | 7.53 | 7.73   |
| 34  | AR1262-D             | 1.221   | 1.283 E6   | -5.1  | 105   | 0.00     | 7.96 | 8.16   |
| 35  | AR1262-E             | 1.384   | 1.420 E6   | -2.6  | 103   | 0.00     | 8.40 | 8.60   |
| 36  | AR1268-A             |         |            |       |       |          |      |        |
| 37  | AR1268-B             |         |            |       |       |          |      |        |
| 38  | AR1268-C             |         |            |       |       |          |      |        |
| 39  | AR1268-D             |         |            |       |       |          |      |        |
| 40  | AR1268-E             |         |            |       |       |          |      |        |
| 41  | AR1016-A             |         |            |       |       |          |      |        |

12.11.76 12

# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6321-ICV6321  
 Lab FileID: XX227139.D

|                       |                      |         |         |    |       |     |      |  |             |  |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|--|-------------|--|
| 42                    | AR1016-B             |         |         |    |       |     |      |  |             |  |
| 43                    | AR1016-C             |         |         |    |       |     |      |  |             |  |
| 44                    | AR1016-D             |         |         |    |       |     |      |  |             |  |
| 45                    | AR1016-E             |         |         |    |       |     |      |  |             |  |
| 46                    | AR1260-A             |         |         |    |       |     |      |  |             |  |
| 47                    | AR1260-B             |         |         |    |       |     |      |  |             |  |
| 48                    | AR1260-C             |         |         |    |       |     |      |  |             |  |
| 49                    | AR1260-D             |         |         |    |       |     |      |  |             |  |
| 50                    | AR1260-E             |         |         |    |       |     |      |  |             |  |
| 51 S                  | Decachlorobiphenyl   | 9.966   | 10.166  | E6 | -2.0  | 96  | 0.00 |  | 9.95-10.02  |  |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |  |             |  |
| 1 S                   | Tetrachloro-m-xylene | 8.133   | 9.016   | E6 | -10.9 | 102 | 0.00 |  | 3.53- 3.59  |  |
| 2                     | AR1221-A             |         |         |    |       |     |      |  |             |  |
| 3                     | AR1221-B             |         |         |    |       |     |      |  |             |  |
| 4                     | AR1221-C             |         |         |    |       |     |      |  |             |  |
| 5                     | AR1221-D             |         |         |    |       |     |      |  |             |  |
| 6                     | AR1221-E             |         |         |    |       |     |      |  |             |  |
| 7                     | AR1232-A             | 162.910 | 164.639 | E3 | -1.1  | 101 | 0.00 |  | 4.12- 4.32  |  |
| 8                     | AR1232-B             | 127.197 | 128.682 | E3 | -1.2  | 101 | 0.00 |  | 4.67- 4.87  |  |
| 9                     | AR1232-C             | 277.377 | 281.287 | E3 | -1.4  | 101 | 0.00 |  | 5.31- 5.51  |  |
| 10                    | AR1232-D             | 115.543 | 119.349 | E3 | -3.3  | 103 | 0.00 |  | 5.50- 5.70  |  |
| 11                    | AR1232-E             | 75.544  | 76.436  | E3 | -1.2  | 101 | 0.00 |  | 6.16- 6.36  |  |
| 12                    | AR1242-A             |         |         |    |       |     |      |  |             |  |
| 13                    | AR1242-B             |         |         |    |       |     |      |  |             |  |
| 14                    | AR1242-C             |         |         |    |       |     |      |  |             |  |
| 15                    | AR1242-D             |         |         |    |       |     |      |  |             |  |
| 16                    | AR1242-E             |         |         |    |       |     |      |  |             |  |
| 17                    | AR1248-A             |         |         |    |       |     |      |  |             |  |
| 18                    | AR1248-B             |         |         |    |       |     |      |  |             |  |
| 19                    | AR1248-C             |         |         |    |       |     |      |  |             |  |
| 20                    | AR1248-D             |         |         |    |       |     |      |  |             |  |
| 21                    | AR1248-E             |         |         |    |       |     |      |  |             |  |
| 22                    | AR1248-F             |         |         |    |       |     |      |  |             |  |
| 23                    | AR1248-G             |         |         |    |       |     |      |  |             |  |
| 24                    | AR1254-A             |         |         |    |       |     |      |  |             |  |
| 25                    | AR1254-B             |         |         |    |       |     |      |  |             |  |
| 26                    | AR1254-C             |         |         |    |       |     |      |  |             |  |
| 27                    | AR1254-D             |         |         |    |       |     |      |  |             |  |
| 28                    | AR1254-E             |         |         |    |       |     |      |  |             |  |
| 29                    | AR1254-F             |         |         |    |       |     |      |  |             |  |
| 30                    | AR1254-G             |         |         |    |       |     |      |  |             |  |
| 31                    | AR1262-A             | 427.229 | 446.310 | E3 | -4.5  | 104 | 0.00 |  | 8.24- 8.44  |  |
| 32                    | AR1262-B             | 698.258 | 723.445 | E3 | -3.6  | 104 | 0.00 |  | 8.89- 9.09  |  |
| 33                    | AR1262-C             | 533.544 | 551.458 | E3 | -3.4  | 103 | 0.00 |  | 9.32- 9.52  |  |
| 34                    | AR1262-D             | 1.356   | 1.396   | E6 | -2.9  | 103 | 0.00 |  | 9.67- 9.87  |  |
| 35                    | AR1262-E             | 1.472   | 1.518   | E6 | -3.1  | 103 | 0.00 |  | 10.19-10.39 |  |
| 36                    | AR1268-A             |         |         |    |       |     |      |  |             |  |
| 37                    | AR1268-B             |         |         |    |       |     |      |  |             |  |
| 38                    | AR1268-C             |         |         |    |       |     |      |  |             |  |
| 39                    | AR1268-D             |         |         |    |       |     |      |  |             |  |
| 40                    | AR1268-E             |         |         |    |       |     |      |  |             |  |
| 41                    | AR1016-A             |         |         |    |       |     |      |  |             |  |
| 42                    | AR1016-B             |         |         |    |       |     |      |  |             |  |
| 43                    | AR1016-C             |         |         |    |       |     |      |  |             |  |
| 44                    | AR1016-D             |         |         |    |       |     |      |  |             |  |
| 45                    | AR1016-E             |         |         |    |       |     |      |  |             |  |
| 46                    | AR1260-A             |         |         |    |       |     |      |  |             |  |
| 47                    | AR1260-B             |         |         |    |       |     |      |  |             |  |

12.11.76 12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227139.D

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|      |                    |       |       |    |     |    |      |  |             |              |
|------|--------------------|-------|-------|----|-----|----|------|--|-------------|--------------|
| 48   | AR1260-C           |       |       |    |     |    |      |  |             | -----NA----- |
| 49   | AR1260-D           |       |       |    |     |    |      |  |             | -----NA----- |
| 50   | AR1260-E           |       |       |    |     |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.133 | 8.925 | E6 | 2.3 | 94 | 0.00 |  | 11.96-12.02 |              |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:55 2018

# Initial Calibration Verification

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6321-ICV6321  
 Lab FileID: XX227140.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227140.D\ECD1A.CH Vial: 19  
 Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227140.D\ECD2B.CH  
 Acq On : 19 Apr 2018 4:32 pm Operator: tianweir  
 Sample : icv6321-1000 Inst : HP G1530A  
 Misc : opl1391,GXX6321,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Apr 19 15:50:14 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.287 E6   | -12.4 | 105   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            |       |       |          |       |        |
| 3   | AR1221-B             |         |            |       |       |          |       |        |
| 4   | AR1221-C             |         |            |       |       |          |       |        |
| 5   | AR1221-D             |         |            |       |       |          |       |        |
| 6   | AR1221-E             |         |            |       |       |          |       |        |
| 7   | AR1232-A             |         |            |       |       |          |       |        |
| 8   | AR1232-B             |         |            |       |       |          |       |        |
| 9   | AR1232-C             |         |            |       |       |          |       |        |
| 10  | AR1232-D             |         |            |       |       |          |       |        |
| 11  | AR1232-E             |         |            |       |       |          |       |        |
| 12  | AR1242-A             | 236.004 | 226.658 E3 | 4.0   | 96    | 0.00     | 3.48- | 3.68   |
| 13  | AR1242-B             | 538.776 | 515.151 E3 | 4.4   | 96    | 0.00     | 4.03- | 4.23   |
| 14  | AR1242-C             | 206.740 | 198.151 E3 | 4.2   | 96    | 0.00     | 4.19- | 4.39   |
| 15  | AR1242-D             | 224.931 | 210.298 E3 | 6.5   | 93    | 0.00     | 4.69- | 4.89   |
| 16  | AR1242-E             | 240.457 | 226.057 E3 | 6.0   | 94    | 0.00     | 5.28- | 5.48   |
| 17  | AR1248-A             |         |            |       |       |          |       |        |
| 18  | AR1248-B             |         |            |       |       |          |       |        |
| 19  | AR1248-C             |         |            |       |       |          |       |        |
| 20  | AR1248-D             |         |            |       |       |          |       |        |
| 21  | AR1248-E             |         |            |       |       |          |       |        |
| 22  | AR1248-F             |         |            |       |       |          |       |        |
| 23  | AR1248-G             |         |            |       |       |          |       |        |
| 24  | AR1254-A             |         |            |       |       |          |       |        |
| 25  | AR1254-B             |         |            |       |       |          |       |        |
| 26  | AR1254-C             |         |            |       |       |          |       |        |
| 27  | AR1254-D             |         |            |       |       |          |       |        |
| 28  | AR1254-E             |         |            |       |       |          |       |        |
| 29  | AR1254-F             |         |            |       |       |          |       |        |
| 30  | AR1254-G             |         |            |       |       |          |       |        |
| 31  | AR1262-A             |         |            |       |       |          |       |        |
| 32  | AR1262-B             |         |            |       |       |          |       |        |
| 33  | AR1262-C             |         |            |       |       |          |       |        |
| 34  | AR1262-D             |         |            |       |       |          |       |        |
| 35  | AR1262-E             |         |            |       |       |          |       |        |
| 36  | AR1268-A             | 1.395   | 1.318 E6   | 5.5   | 95    | 0.00     | 8.40- | 8.60   |
| 37  | AR1268-B             | 1.519   | 1.457 E6   | 4.1   | 96    | 0.00     | 8.45- | 8.65   |
| 38  | AR1268-C             | 1.270   | 1.203 E6   | 5.3   | 95    | 0.00     | 8.72- | 8.92   |
| 39  | AR1268-D             | 519.299 | 494.580 E3 | 4.8   | 95    | 0.00     | 9.22- | 9.42   |
| 40  | AR1268-E             | 4.274   | 4.064 E6   | 4.9   | 95    | 0.00     | 9.61- | 9.81   |
| 41  | AR1016-A             |         |            |       |       |          |       |        |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227140.D

|                       |                      |         |         |    |         |      |      |             |              |
|-----------------------|----------------------|---------|---------|----|---------|------|------|-------------|--------------|
| 42                    | AR1016-B             |         |         |    |         |      |      |             | -----NA----- |
| 43                    | AR1016-C             |         |         |    |         |      |      |             | -----NA----- |
| 44                    | AR1016-D             |         |         |    |         |      |      |             | -----NA----- |
| 45                    | AR1016-E             |         |         |    |         |      |      |             | -----NA----- |
| 46                    | AR1260-A             |         |         |    |         |      |      |             | -----NA----- |
| 47                    | AR1260-B             |         |         |    |         |      |      |             | -----NA----- |
| 48                    | AR1260-C             |         |         |    |         |      |      |             | -----NA----- |
| 49                    | AR1260-D             |         |         |    |         |      |      |             | -----NA----- |
| 50                    | AR1260-E             |         |         |    |         |      |      |             | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 9.966   | 29.686  | E6 | -197.9# | 279# | 0.00 | 9.94-10.01  |              |
| ***** Signal #2 ***** |                      |         |         |    |         |      |      |             |              |
| 1 S                   | Tetrachloro-m-xylene | 8.133   | 9.237   | E6 | -13.6   | 105  | 0.00 | 3.53- 3.59  |              |
| 2                     | AR1221-A             |         |         |    |         |      |      |             | -----NA----- |
| 3                     | AR1221-B             |         |         |    |         |      |      |             | -----NA----- |
| 4                     | AR1221-C             |         |         |    |         |      |      |             | -----NA----- |
| 5                     | AR1221-D             |         |         |    |         |      |      |             | -----NA----- |
| 6                     | AR1221-E             |         |         |    |         |      |      |             | -----NA----- |
| 7                     | AR1232-A             |         |         |    |         |      |      |             | -----NA----- |
| 8                     | AR1232-B             |         |         |    |         |      |      |             | -----NA----- |
| 9                     | AR1232-C             |         |         |    |         |      |      |             | -----NA----- |
| 10                    | AR1232-D             |         |         |    |         |      |      |             | -----NA----- |
| 11                    | AR1232-E             |         |         |    |         |      |      |             | -----NA----- |
| 12                    | AR1242-A             | 225.270 | 217.690 | E3 | 3.4     | 97   | 0.00 | 4.67- 4.87  |              |
| 13                    | AR1242-B             | 516.324 | 498.378 | E3 | 3.5     | 97   | 0.00 | 5.31- 5.51  |              |
| 14                    | AR1242-C             | 216.024 | 210.495 | E3 | 2.6     | 97   | 0.00 | 5.50- 5.70  |              |
| 15                    | AR1242-D             | 155.788 | 147.986 | E3 | 5.0     | 95   | 0.00 | 6.16- 6.36  |              |
| 16                    | AR1242-E             | 204.318 | 193.551 | E3 | 5.3     | 95   | 0.00 | 6.76- 6.96  |              |
| 17                    | AR1248-A             |         |         |    |         |      |      |             | -----NA----- |
| 18                    | AR1248-B             |         |         |    |         |      |      |             | -----NA----- |
| 19                    | AR1248-C             |         |         |    |         |      |      |             | -----NA----- |
| 20                    | AR1248-D             |         |         |    |         |      |      |             | -----NA----- |
| 21                    | AR1248-E             |         |         |    |         |      |      |             | -----NA----- |
| 22                    | AR1248-F             |         |         |    |         |      |      |             | -----NA----- |
| 23                    | AR1248-G             |         |         |    |         |      |      |             | -----NA----- |
| 24                    | AR1254-A             |         |         |    |         |      |      |             | -----NA----- |
| 25                    | AR1254-B             |         |         |    |         |      |      |             | -----NA----- |
| 26                    | AR1254-C             |         |         |    |         |      |      |             | -----NA----- |
| 27                    | AR1254-D             |         |         |    |         |      |      |             | -----NA----- |
| 28                    | AR1254-E             |         |         |    |         |      |      |             | -----NA----- |
| 29                    | AR1254-F             |         |         |    |         |      |      |             | -----NA----- |
| 30                    | AR1254-G             |         |         |    |         |      |      |             | -----NA----- |
| 31                    | AR1262-A             |         |         |    |         |      |      |             | -----NA----- |
| 32                    | AR1262-B             |         |         |    |         |      |      |             | -----NA----- |
| 33                    | AR1262-C             |         |         |    |         |      |      |             | -----NA----- |
| 34                    | AR1262-D             |         |         |    |         |      |      |             | -----NA----- |
| 35                    | AR1262-E             |         |         |    |         |      |      |             | -----NA----- |
| 36                    | AR1268-A             | 1.675   | 1.604   | E6 | 4.2     | 96   | 0.00 | 10.19-10.39 |              |
| 37                    | AR1268-B             | 1.504   | 1.450   | E6 | 3.6     | 96   | 0.00 | 10.26-10.46 |              |
| 38                    | AR1268-C             | 1.298   | 1.233   | E6 | 5.0     | 95   | 0.00 | 10.63-10.83 |              |
| 39                    | AR1268-D             | 515.206 | 493.762 | E3 | 4.2     | 96   | 0.00 | 11.03-11.23 |              |
| 40                    | AR1268-E             | 3.845   | 3.680   | E6 | 4.3     | 96   | 0.00 | 11.51-11.71 |              |
| 41                    | AR1016-A             |         |         |    |         |      |      |             | -----NA----- |
| 42                    | AR1016-B             |         |         |    |         |      |      |             | -----NA----- |
| 43                    | AR1016-C             |         |         |    |         |      |      |             | -----NA----- |
| 44                    | AR1016-D             |         |         |    |         |      |      |             | -----NA----- |
| 45                    | AR1016-E             |         |         |    |         |      |      |             | -----NA----- |
| 46                    | AR1260-A             |         |         |    |         |      |      |             | -----NA----- |
| 47                    | AR1260-B             |         |         |    |         |      |      |             | -----NA----- |

12.11.77 12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227140.D

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|      |                    |       |        |    |         |      |      |  |             |              |
|------|--------------------|-------|--------|----|---------|------|------|--|-------------|--------------|
| 48   | AR1260-C           |       |        |    |         |      |      |  |             | -----NA----- |
| 49   | AR1260-D           |       |        |    |         |      |      |  |             | -----NA----- |
| 50   | AR1260-E           |       |        |    |         |      |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 9.133 | 25.521 | E6 | -179.4# | 268# | 0.00 |  | 11.96-12.02 |              |

---

(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0    CCC's out = 0  
Thu Apr 19 17:03:56 2018

12.11.77  
12



# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...1\xx227141.D\ECD1A.CH Vial: 20  
Signal #2 : C:\msdchem\1\DATA\gxx6321\xx227141.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:48 pm Operator: tianweir  
Sample : icv6321-1000 Inst : HP G1530A  
Misc : op11391,GXX6321,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 9.338 E6   | -13.0 | 106   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA    |       |          |       |        |
| 3   | AR1221-B             |         |            | NA    |       |          |       |        |
| 4   | AR1221-C             |         |            | NA    |       |          |       |        |
| 5   | AR1221-D             |         |            | NA    |       |          |       |        |
| 6   | AR1221-E             |         |            | NA    |       |          |       |        |
| 7   | AR1232-A             |         |            | NA    |       |          |       |        |
| 8   | AR1232-B             |         |            | NA    |       |          |       |        |
| 9   | AR1232-C             |         |            | NA    |       |          |       |        |
| 10  | AR1232-D             |         |            | NA    |       |          |       |        |
| 11  | AR1232-E             |         |            | NA    |       |          |       |        |
| 12  | AR1242-A             |         |            | NA    |       |          |       |        |
| 13  | AR1242-B             |         |            | NA    |       |          |       |        |
| 14  | AR1242-C             |         |            | NA    |       |          |       |        |
| 15  | AR1242-D             |         |            | NA    |       |          |       |        |
| 16  | AR1242-E             |         |            | NA    |       |          |       |        |
| 17  | AR1248-A             | 119.336 | 109.214 E3 | 8.5   | 92    | 0.00     | 3.47- | 3.67   |
| 18  | AR1248-B             | 347.687 | 338.033 E3 | 2.8   | 97    | 0.00     | 4.03- | 4.23   |
| 19  | AR1248-C             | 318.316 | 319.578 E3 | -0.4  | 100   | 0.00     | 4.41- | 4.61   |
| 20  | AR1248-D             | 325.148 | 328.152 E3 | -0.9  | 101   | 0.00     | 4.69- | 4.89   |
| 21  | AR1248-E             | 301.979 | 314.048 E3 | -4.0  | 104   | 0.00     | 4.80- | 5.00   |
| 22  | AR1248-F             | 343.756 | 361.915 E3 | -5.3  | 105   | 0.00     | 5.27- | 5.47   |
| 23  | AR1248-G             | 526.174 | 545.989 E3 | -3.8  | 104   | 0.00     | 5.52- | 5.72   |
| 24  | AR1254-A             |         |            | NA    |       |          |       |        |
| 25  | AR1254-B             |         |            | NA    |       |          |       |        |
| 26  | AR1254-C             |         |            | NA    |       |          |       |        |
| 27  | AR1254-D             |         |            | NA    |       |          |       |        |
| 28  | AR1254-E             |         |            | NA    |       |          |       |        |
| 29  | AR1254-F             |         |            | NA    |       |          |       |        |
| 30  | AR1254-G             |         |            | NA    |       |          |       |        |
| 31  | AR1262-A             |         |            | NA    |       |          |       |        |
| 32  | AR1262-B             |         |            | NA    |       |          |       |        |
| 33  | AR1262-C             |         |            | NA    |       |          |       |        |
| 34  | AR1262-D             |         |            | NA    |       |          |       |        |
| 35  | AR1262-E             |         |            | NA    |       |          |       |        |
| 36  | AR1268-A             |         |            | NA    |       |          |       |        |
| 37  | AR1268-B             |         |            | NA    |       |          |       |        |
| 38  | AR1268-C             |         |            | NA    |       |          |       |        |
| 39  | AR1268-D             |         |            | NA    |       |          |       |        |
| 40  | AR1268-E             |         |            | NA    |       |          |       |        |
| 41  | AR1016-A             |         |            | NA    |       |          |       |        |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

|                       |                      |         |         |    |       |     |      |            |              |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|------------|--------------|
| 42                    | AR1016-B             |         |         |    |       |     |      |            | -----NA----- |
| 43                    | AR1016-C             |         |         |    |       |     |      |            | -----NA----- |
| 44                    | AR1016-D             |         |         |    |       |     |      |            | -----NA----- |
| 45                    | AR1016-E             |         |         |    |       |     |      |            | -----NA----- |
| 46                    | AR1260-A             |         |         |    |       |     |      |            | -----NA----- |
| 47                    | AR1260-B             |         |         |    |       |     |      |            | -----NA----- |
| 48                    | AR1260-C             |         |         |    |       |     |      |            | -----NA----- |
| 49                    | AR1260-D             |         |         |    |       |     |      |            | -----NA----- |
| 50                    | AR1260-E             |         |         |    |       |     |      |            | -----NA----- |
| 51 S                  | Decachlorobiphenyl   | 9.966   | 10.536  | E6 | -5.7  | 99  | 0.00 | 9.94-10.01 |              |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |            |              |
| 1 S                   | Tetrachloro-m-xylene | 8.133   | 9.347   | E6 | -14.9 | 106 | 0.00 | 3.52- 3.58 |              |
| 2                     | AR1221-A             |         |         |    |       |     |      |            | -----NA----- |
| 3                     | AR1221-B             |         |         |    |       |     |      |            | -----NA----- |
| 4                     | AR1221-C             |         |         |    |       |     |      |            | -----NA----- |
| 5                     | AR1221-D             |         |         |    |       |     |      |            | -----NA----- |
| 6                     | AR1221-E             |         |         |    |       |     |      |            | -----NA----- |
| 7                     | AR1232-A             |         |         |    |       |     |      |            | -----NA----- |
| 8                     | AR1232-B             |         |         |    |       |     |      |            | -----NA----- |
| 9                     | AR1232-C             |         |         |    |       |     |      |            | -----NA----- |
| 10                    | AR1232-D             |         |         |    |       |     |      |            | -----NA----- |
| 11                    | AR1232-E             |         |         |    |       |     |      |            | -----NA----- |
| 12                    | AR1242-A             |         |         |    |       |     |      |            | -----NA----- |
| 13                    | AR1242-B             |         |         |    |       |     |      |            | -----NA----- |
| 14                    | AR1242-C             |         |         |    |       |     |      |            | -----NA----- |
| 15                    | AR1242-D             |         |         |    |       |     |      |            | -----NA----- |
| 16                    | AR1242-E             |         |         |    |       |     |      |            | -----NA----- |
| 17                    | AR1248-A             | 114.949 | 108.656 | E3 | 5.5   | 95  | 0.00 | 4.67- 4.87 |              |
| 18                    | AR1248-B             | 321.930 | 321.084 | E3 | 0.3   | 100 | 0.00 | 5.31- 5.51 |              |
| 19                    | AR1248-C             | 176.450 | 179.400 | E3 | -1.7  | 102 | 0.00 | 5.77- 5.97 |              |
| 20                    | AR1248-D             | 235.560 | 241.884 | E3 | -2.7  | 103 | 0.00 | 6.16- 6.36 |              |
| 21                    | AR1248-E             | 273.926 | 288.181 | E3 | -5.2  | 105 | 0.00 | 6.34- 6.54 |              |
| 22                    | AR1248-F             | 333.138 | 357.586 | E3 | -7.3  | 107 | 0.00 | 6.76- 6.96 |              |
| 23                    | AR1248-G             | 308.648 | 332.488 | E3 | -7.7  | 108 | 0.00 | 7.10- 7.30 |              |
| 24                    | AR1254-A             |         |         |    |       |     |      |            | -----NA----- |
| 25                    | AR1254-B             |         |         |    |       |     |      |            | -----NA----- |
| 26                    | AR1254-C             |         |         |    |       |     |      |            | -----NA----- |
| 27                    | AR1254-D             |         |         |    |       |     |      |            | -----NA----- |
| 28                    | AR1254-E             |         |         |    |       |     |      |            | -----NA----- |
| 29                    | AR1254-F             |         |         |    |       |     |      |            | -----NA----- |
| 30                    | AR1254-G             |         |         |    |       |     |      |            | -----NA----- |
| 31                    | AR1262-A             |         |         |    |       |     |      |            | -----NA----- |
| 32                    | AR1262-B             |         |         |    |       |     |      |            | -----NA----- |
| 33                    | AR1262-C             |         |         |    |       |     |      |            | -----NA----- |
| 34                    | AR1262-D             |         |         |    |       |     |      |            | -----NA----- |
| 35                    | AR1262-E             |         |         |    |       |     |      |            | -----NA----- |
| 36                    | AR1268-A             |         |         |    |       |     |      |            | -----NA----- |
| 37                    | AR1268-B             |         |         |    |       |     |      |            | -----NA----- |
| 38                    | AR1268-C             |         |         |    |       |     |      |            | -----NA----- |
| 39                    | AR1268-D             |         |         |    |       |     |      |            | -----NA----- |
| 40                    | AR1268-E             |         |         |    |       |     |      |            | -----NA----- |
| 41                    | AR1016-A             |         |         |    |       |     |      |            | -----NA----- |
| 42                    | AR1016-B             |         |         |    |       |     |      |            | -----NA----- |
| 43                    | AR1016-C             |         |         |    |       |     |      |            | -----NA----- |
| 44                    | AR1016-D             |         |         |    |       |     |      |            | -----NA----- |
| 45                    | AR1016-E             |         |         |    |       |     |      |            | -----NA----- |
| 46                    | AR1260-A             |         |         |    |       |     |      |            | -----NA----- |
| 47                    | AR1260-B             |         |         |    |       |     |      |            | -----NA----- |

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# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6321-ICV6321  
**Lab FileID:** XX227141.D

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|      |                    |       |          |      |    |              |             |  |  |
|------|--------------------|-------|----------|------|----|--------------|-------------|--|--|
| 48   | AR1260-C           |       |          |      |    | -----NA----- |             |  |  |
| 49   | AR1260-D           |       |          |      |    | -----NA----- |             |  |  |
| 50   | AR1260-E           |       |          |      |    | -----NA----- |             |  |  |
| 51 S | Decachlorobiphenyl | 9.133 | 9.357 E6 | -2.5 | 98 | 0.00         | 11.96-12.02 |  |  |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 17:03:57 2018

12.11.78  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227793.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227793.D\ECD1A.CH Vial: 1  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227793.D\ECD2B.CH  
Acq On : 01 May 2018 5:05 pm Operator: tianweir  
Sample : cc6321-1000 Inst : HP G1530A  
Misc : op11592,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.841 E6   | -7.0 | 100   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 174.938 E3 | -0.9 | 100   | 0.00     | 3.16- | 3.22   |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227793.D

|      |                    |         |          |    |       |     |       |       |       |
|------|--------------------|---------|----------|----|-------|-----|-------|-------|-------|
| 42   | AR1016-B           | 265.887 | 268.046  | E3 | -0.8  | 102 | 0.00  | 3.54- | 3.60  |
| 43   | AR1016-C           | 611.410 | 561.077  | E3 | 8.2   | 93  | -0.01 | 4.09- | 4.15  |
| 44   | AR1016-D           | 233.235 | 231.162  | E3 | 0.9   | 100 | -0.01 | 4.25- | 4.31  |
| 45   | AR1016-E           | 243.951 | 256.004  | E3 | -4.9  | 105 | -0.02 | 4.74- | 4.81  |
| 46   | AR1260-A           | 713.007 | 686.954  | E3 | 3.7   | 102 | -0.02 | 7.09- | 7.15  |
| 47   | AR1260-B           | 314.313 | 370.763  | E3 | -18.0 | 110 | -0.02 | 7.24- | 7.30  |
| 48   | AR1260-C           | 340.349 | 373.106  | E3 | -9.6  | 104 | -0.02 | 7.57- | 7.64  |
| 49   | AR1260-D           | 939.177 | 1047.759 | E3 | -11.6 | 102 | -0.02 | 8.01- | 8.07  |
| 50   | AR1260-E           | 913.406 | 991.448  | E3 | -8.5  | 102 | -0.02 | 8.40- | 8.46  |
| 51 S | Decachlorobiphenyl | 9.966   | 10.212   | E6 | -2.5  | 96  | -0.02 | 9.93- | 10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |       |              |      |
|-----|----------------------|---------|---------|----|-------|-----|-------|--------------|------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.466   | E6 | -4.1  | 96  | 0.00  | 3.52-        | 3.58 |
| 2   | AR1221-A             |         |         |    |       |     |       | -----NA----- |      |
| 3   | AR1221-B             |         |         |    |       |     |       | -----NA----- |      |
| 4   | AR1221-C             |         |         |    |       |     |       | -----NA----- |      |
| 5   | AR1221-D             |         |         |    |       |     |       | -----NA----- |      |
| 6   | AR1221-E             |         |         |    |       |     |       | -----NA----- |      |
| 7   | AR1232-A             |         |         |    |       |     |       | -----NA----- |      |
| 8   | AR1232-B             |         |         |    |       |     |       | -----NA----- |      |
| 9   | AR1232-C             |         |         |    |       |     |       | -----NA----- |      |
| 10  | AR1232-D             |         |         |    |       |     |       | -----NA----- |      |
| 11  | AR1232-E             |         |         |    |       |     |       | -----NA----- |      |
| 12  | AR1242-A             |         |         |    |       |     |       | -----NA----- |      |
| 13  | AR1242-B             |         |         |    |       |     |       | -----NA----- |      |
| 14  | AR1242-C             |         |         |    |       |     |       | -----NA----- |      |
| 15  | AR1242-D             |         |         |    |       |     |       | -----NA----- |      |
| 16  | AR1242-E             |         |         |    |       |     |       | -----NA----- |      |
| 17  | AR1248-A             |         |         |    |       |     |       | -----NA----- |      |
| 18  | AR1248-B             |         |         |    |       |     |       | -----NA----- |      |
| 19  | AR1248-C             |         |         |    |       |     |       | -----NA----- |      |
| 20  | AR1248-D             |         |         |    |       |     |       | -----NA----- |      |
| 21  | AR1248-E             |         |         |    |       |     |       | -----NA----- |      |
| 22  | AR1248-F             |         |         |    |       |     |       | -----NA----- |      |
| 23  | AR1248-G             |         |         |    |       |     |       | -----NA----- |      |
| 24  | AR1254-A             |         |         |    |       |     |       | -----NA----- |      |
| 25  | AR1254-B             |         |         |    |       |     |       | -----NA----- |      |
| 26  | AR1254-C             |         |         |    |       |     |       | -----NA----- |      |
| 27  | AR1254-D             |         |         |    |       |     |       | -----NA----- |      |
| 28  | AR1254-E             |         |         |    |       |     |       | -----NA----- |      |
| 29  | AR1254-F             |         |         |    |       |     |       | -----NA----- |      |
| 30  | AR1254-G             |         |         |    |       |     |       | -----NA----- |      |
| 31  | AR1262-A             |         |         |    |       |     |       | -----NA----- |      |
| 32  | AR1262-B             |         |         |    |       |     |       | -----NA----- |      |
| 33  | AR1262-C             |         |         |    |       |     |       | -----NA----- |      |
| 34  | AR1262-D             |         |         |    |       |     |       | -----NA----- |      |
| 35  | AR1262-E             |         |         |    |       |     |       | -----NA----- |      |
| 36  | AR1268-A             |         |         |    |       |     |       | -----NA----- |      |
| 37  | AR1268-B             |         |         |    |       |     |       | -----NA----- |      |
| 38  | AR1268-C             |         |         |    |       |     |       | -----NA----- |      |
| 39  | AR1268-D             |         |         |    |       |     |       | -----NA----- |      |
| 40  | AR1268-E             |         |         |    |       |     |       | -----NA----- |      |
| 41  | AR1016-A             | 131.499 | 128.767 | E3 | 2.1   | 99  | 0.00  | 4.18-        | 4.24 |
| 42  | AR1016-B             | 249.443 | 262.614 | E3 | -5.3  | 105 | -0.01 | 4.73-        | 4.79 |
| 43  | AR1016-C             | 586.781 | 586.325 | E3 | 0.1   | 101 | -0.01 | 5.37-        | 5.43 |
| 44  | AR1016-D             | 247.157 | 259.631 | E3 | -5.0  | 106 | -0.01 | 5.56-        | 5.62 |
| 45  | AR1016-E             | 173.457 | 177.736 | E3 | -2.5  | 100 | -0.01 | 6.22-        | 6.28 |
| 46  | AR1260-A             | 774.265 | 743.424 | E3 | 4.0   | 104 | -0.02 | 8.82-        | 8.88 |
| 47  | AR1260-B             | 428.295 | 490.002 | E3 | -14.4 | 109 | -0.02 | 8.94-        | 9.00 |

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227793.D

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|      |                    |         |         |    |       |     |       |             |
|------|--------------------|---------|---------|----|-------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 448.671 | E3 | -7.1  | 107 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.189   | E6 | -12.8 | 106 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.088   | E6 | -11.0 | 106 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 9.765   | E6 | -6.9  | 103 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:50:55 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227804.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227804.D\ECD1A.CH Vial: 10  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227804.D\ECD2B.CH  
Acq On : 01 May 2018 8:06 pm Operator: tianweir  
Sample : cc6321-500 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.249 E6   | 0.2  | 102   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 173.739 E3 | -0.2 | 97    | 0.00     | 3.15- | 3.21   |

12.11.80  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227804.D

|      |                    |         |         |    |      |     |       |       |       |
|------|--------------------|---------|---------|----|------|-----|-------|-------|-------|
| 42   | AR1016-B           | 265.887 | 266.525 | E3 | -0.2 | 100 | 0.00  | 3.54- | 3.60  |
| 43   | AR1016-C           | 611.410 | 592.907 | E3 | 3.0  | 99  | -0.02 | 4.09- | 4.15  |
| 44   | AR1016-D           | 233.235 | 228.711 | E3 | 1.9  | 103 | -0.02 | 4.25- | 4.31  |
| 45   | AR1016-E           | 243.951 | 230.995 | E3 | 5.3  | 95  | -0.01 | 4.74- | 4.81  |
| 46   | AR1260-A           | 713.007 | 599.021 | E3 | 16.0 | 90  | -0.02 | 7.09- | 7.15  |
| 47   | AR1260-B           | 314.313 | 301.084 | E3 | 4.2  | 89  | -0.02 | 7.25- | 7.31  |
| 48   | AR1260-C           | 340.349 | 304.691 | E3 | 10.5 | 86  | -0.02 | 7.58- | 7.65  |
| 49   | AR1260-D           | 939.177 | 855.506 | E3 | 8.9  | 88  | -0.02 | 8.01- | 8.07  |
| 50   | AR1260-E           | 913.406 | 791.474 | E3 | 13.3 | 82  | -0.02 | 8.40- | 8.46  |
| 51 S | Decachlorobiphenyl | 9.966   | 8.091   | E6 | 18.8 | 84  | -0.02 | 9.93- | 10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |       |              |      |
|-----|----------------------|---------|---------|----|------|-----|-------|--------------|------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.111   | E6 | 0.3  | 102 | 0.00  | 3.52-        | 3.58 |
| 2   | AR1221-A             |         |         |    |      |     |       | -----NA----- |      |
| 3   | AR1221-B             |         |         |    |      |     |       | -----NA----- |      |
| 4   | AR1221-C             |         |         |    |      |     |       | -----NA----- |      |
| 5   | AR1221-D             |         |         |    |      |     |       | -----NA----- |      |
| 6   | AR1221-E             |         |         |    |      |     |       | -----NA----- |      |
| 7   | AR1232-A             |         |         |    |      |     |       | -----NA----- |      |
| 8   | AR1232-B             |         |         |    |      |     |       | -----NA----- |      |
| 9   | AR1232-C             |         |         |    |      |     |       | -----NA----- |      |
| 10  | AR1232-D             |         |         |    |      |     |       | -----NA----- |      |
| 11  | AR1232-E             |         |         |    |      |     |       | -----NA----- |      |
| 12  | AR1242-A             |         |         |    |      |     |       | -----NA----- |      |
| 13  | AR1242-B             |         |         |    |      |     |       | -----NA----- |      |
| 14  | AR1242-C             |         |         |    |      |     |       | -----NA----- |      |
| 15  | AR1242-D             |         |         |    |      |     |       | -----NA----- |      |
| 16  | AR1242-E             |         |         |    |      |     |       | -----NA----- |      |
| 17  | AR1248-A             |         |         |    |      |     |       | -----NA----- |      |
| 18  | AR1248-B             |         |         |    |      |     |       | -----NA----- |      |
| 19  | AR1248-C             |         |         |    |      |     |       | -----NA----- |      |
| 20  | AR1248-D             |         |         |    |      |     |       | -----NA----- |      |
| 21  | AR1248-E             |         |         |    |      |     |       | -----NA----- |      |
| 22  | AR1248-F             |         |         |    |      |     |       | -----NA----- |      |
| 23  | AR1248-G             |         |         |    |      |     |       | -----NA----- |      |
| 24  | AR1254-A             |         |         |    |      |     |       | -----NA----- |      |
| 25  | AR1254-B             |         |         |    |      |     |       | -----NA----- |      |
| 26  | AR1254-C             |         |         |    |      |     |       | -----NA----- |      |
| 27  | AR1254-D             |         |         |    |      |     |       | -----NA----- |      |
| 28  | AR1254-E             |         |         |    |      |     |       | -----NA----- |      |
| 29  | AR1254-F             |         |         |    |      |     |       | -----NA----- |      |
| 30  | AR1254-G             |         |         |    |      |     |       | -----NA----- |      |
| 31  | AR1262-A             |         |         |    |      |     |       | -----NA----- |      |
| 32  | AR1262-B             |         |         |    |      |     |       | -----NA----- |      |
| 33  | AR1262-C             |         |         |    |      |     |       | -----NA----- |      |
| 34  | AR1262-D             |         |         |    |      |     |       | -----NA----- |      |
| 35  | AR1262-E             |         |         |    |      |     |       | -----NA----- |      |
| 36  | AR1268-A             |         |         |    |      |     |       | -----NA----- |      |
| 37  | AR1268-B             |         |         |    |      |     |       | -----NA----- |      |
| 38  | AR1268-C             |         |         |    |      |     |       | -----NA----- |      |
| 39  | AR1268-D             |         |         |    |      |     |       | -----NA----- |      |
| 40  | AR1268-E             |         |         |    |      |     |       | -----NA----- |      |
| 41  | AR1016-A             | 131.499 | 123.961 | E3 | 5.7  | 95  | 0.00  | 4.18-        | 4.24 |
| 42  | AR1016-B             | 249.443 | 245.356 | E3 | 1.6  | 97  | -0.01 | 4.73-        | 4.79 |
| 43  | AR1016-C             | 586.781 | 541.686 | E3 | 7.7  | 92  | -0.01 | 5.37-        | 5.43 |
| 44  | AR1016-D             | 247.157 | 216.612 | E3 | 12.4 | 87  | -0.01 | 5.56-        | 5.62 |
| 45  | AR1016-E             | 173.457 | 157.620 | E3 | 9.1  | 89  | -0.01 | 6.22-        | 6.28 |
| 46  | AR1260-A             | 774.265 | 642.805 | E3 | 17.0 | 89  | -0.02 | 8.82-        | 8.88 |
| 47  | AR1260-B             | 428.295 | 373.700 | E3 | 12.7 | 82  | -0.02 | 8.94-        | 9.00 |

12.11.80 12



# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227804.D

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|      |                    |         |         |    |       |    |       |             |
|------|--------------------|---------|---------|----|-------|----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 404.256 | E3 | 3.5   | 94 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 0.958   | E6 | 9.1   | 88 | -0.02 | 9.73- 9.79  |
| 50   | AR1260-E           | 0.980   | 0.802   | E6 | 18.2  | 78 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 7.150   | E6 | 21.7# | 84 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227129.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:53:13 2018

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227815.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227815.D\ECD1A.CH Vial: 18  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227815.D\ECD2B.CH  
Acq On : 01 May 2018 11:07 pm Operator: tianweir  
Sample : cc6321-1000 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.810 E6   | -6.6 | 100   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 181.514 E3 | -4.7 | 104   | 0.00     | 3.15- | 3.21   |

12.11.81  
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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227815.D

|      |                    |         |          |    |       |     |       |       |       |
|------|--------------------|---------|----------|----|-------|-----|-------|-------|-------|
| 42   | AR1016-B           | 265.887 | 269.258  | E3 | -1.3  | 103 | 0.00  | 3.54- | 3.60  |
| 43   | AR1016-C           | 611.410 | 618.710  | E3 | -1.2  | 103 | -0.02 | 4.09- | 4.15  |
| 44   | AR1016-D           | 233.235 | 240.109  | E3 | -2.9  | 104 | -0.02 | 4.25- | 4.31  |
| 45   | AR1016-E           | 243.951 | 251.278  | E3 | -3.0  | 104 | -0.01 | 4.74- | 4.81  |
| 46   | AR1260-A           | 713.007 | 692.428  | E3 | 2.9   | 103 | -0.02 | 7.09- | 7.15  |
| 47   | AR1260-B           | 314.313 | 350.627  | E3 | -11.6 | 104 | -0.02 | 7.25- | 7.31  |
| 48   | AR1260-C           | 340.349 | 363.927  | E3 | -6.9  | 101 | -0.02 | 7.58- | 7.65  |
| 49   | AR1260-D           | 939.177 | 1007.477 | E3 | -7.3  | 98  | -0.02 | 8.01- | 8.07  |
| 50   | AR1260-E           | 913.406 | 930.010  | E3 | -1.8  | 95  | -0.02 | 8.40- | 8.46  |
| 51 S | Decachlorobiphenyl | 9.966   | 8.881    | E6 | 10.9  | 83  | -0.02 | 9.93- | 10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |       |              |      |
|-----|----------------------|---------|---------|----|------|-----|-------|--------------|------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.820   | E6 | -8.4 | 100 | 0.00  | 3.52-        | 3.58 |
| 2   | AR1221-A             |         |         |    |      |     |       | -----NA----- |      |
| 3   | AR1221-B             |         |         |    |      |     |       | -----NA----- |      |
| 4   | AR1221-C             |         |         |    |      |     |       | -----NA----- |      |
| 5   | AR1221-D             |         |         |    |      |     |       | -----NA----- |      |
| 6   | AR1221-E             |         |         |    |      |     |       | -----NA----- |      |
| 7   | AR1232-A             |         |         |    |      |     |       | -----NA----- |      |
| 8   | AR1232-B             |         |         |    |      |     |       | -----NA----- |      |
| 9   | AR1232-C             |         |         |    |      |     |       | -----NA----- |      |
| 10  | AR1232-D             |         |         |    |      |     |       | -----NA----- |      |
| 11  | AR1232-E             |         |         |    |      |     |       | -----NA----- |      |
| 12  | AR1242-A             |         |         |    |      |     |       | -----NA----- |      |
| 13  | AR1242-B             |         |         |    |      |     |       | -----NA----- |      |
| 14  | AR1242-C             |         |         |    |      |     |       | -----NA----- |      |
| 15  | AR1242-D             |         |         |    |      |     |       | -----NA----- |      |
| 16  | AR1242-E             |         |         |    |      |     |       | -----NA----- |      |
| 17  | AR1248-A             |         |         |    |      |     |       | -----NA----- |      |
| 18  | AR1248-B             |         |         |    |      |     |       | -----NA----- |      |
| 19  | AR1248-C             |         |         |    |      |     |       | -----NA----- |      |
| 20  | AR1248-D             |         |         |    |      |     |       | -----NA----- |      |
| 21  | AR1248-E             |         |         |    |      |     |       | -----NA----- |      |
| 22  | AR1248-F             |         |         |    |      |     |       | -----NA----- |      |
| 23  | AR1248-G             |         |         |    |      |     |       | -----NA----- |      |
| 24  | AR1254-A             |         |         |    |      |     |       | -----NA----- |      |
| 25  | AR1254-B             |         |         |    |      |     |       | -----NA----- |      |
| 26  | AR1254-C             |         |         |    |      |     |       | -----NA----- |      |
| 27  | AR1254-D             |         |         |    |      |     |       | -----NA----- |      |
| 28  | AR1254-E             |         |         |    |      |     |       | -----NA----- |      |
| 29  | AR1254-F             |         |         |    |      |     |       | -----NA----- |      |
| 30  | AR1254-G             |         |         |    |      |     |       | -----NA----- |      |
| 31  | AR1262-A             |         |         |    |      |     |       | -----NA----- |      |
| 32  | AR1262-B             |         |         |    |      |     |       | -----NA----- |      |
| 33  | AR1262-C             |         |         |    |      |     |       | -----NA----- |      |
| 34  | AR1262-D             |         |         |    |      |     |       | -----NA----- |      |
| 35  | AR1262-E             |         |         |    |      |     |       | -----NA----- |      |
| 36  | AR1268-A             |         |         |    |      |     |       | -----NA----- |      |
| 37  | AR1268-B             |         |         |    |      |     |       | -----NA----- |      |
| 38  | AR1268-C             |         |         |    |      |     |       | -----NA----- |      |
| 39  | AR1268-D             |         |         |    |      |     |       | -----NA----- |      |
| 40  | AR1268-E             |         |         |    |      |     |       | -----NA----- |      |
| 41  | AR1016-A             | 131.499 | 136.257 | E3 | -3.6 | 105 | 0.00  | 4.18-        | 4.24 |
| 42  | AR1016-B             | 249.443 | 268.906 | E3 | -7.8 | 107 | -0.01 | 4.73-        | 4.79 |
| 43  | AR1016-C             | 586.781 | 615.512 | E3 | -4.9 | 106 | -0.01 | 5.37-        | 5.43 |
| 44  | AR1016-D             | 247.157 | 259.565 | E3 | -5.0 | 106 | -0.01 | 5.56-        | 5.62 |
| 45  | AR1016-E             | 173.457 | 183.161 | E3 | -5.6 | 103 | -0.02 | 6.22-        | 6.28 |
| 46  | AR1260-A             | 774.265 | 740.912 | E3 | 4.3  | 104 | -0.02 | 8.82-        | 8.88 |
| 47  | AR1260-B             | 428.295 | 466.433 | E3 | -8.9 | 104 | -0.02 | 8.94-        | 9.00 |

12.11.81

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# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227815.D

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|      |                    |         |         |    |      |     |       |             |
|------|--------------------|---------|---------|----|------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 426.679 | E3 | -1.9 | 101 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.151   | E6 | -9.2 | 103 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.009   | E6 | -3.0 | 98  | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.458   | E6 | 7.4  | 89  | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:50:57 2018

12.11.81

12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227826.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227826.D\ECD1A.CH Vial: 26  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227826.D\ECD2B.CH  
Acq On : 02 May 2018 2:08 am Operator: tianweir  
Sample : cc6321-500 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.750 E6   | -5.9 | 108   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 182.601 E3 | -5.3 | 102   | 0.00     | 3.15- | 3.21   |

12.11.82  
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# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6332-CC6321  
 Lab FileID: XX227826.D

|      |                    |         |         |    |       |     |       |            |
|------|--------------------|---------|---------|----|-------|-----|-------|------------|
| 42   | AR1016-B           | 265.887 | 285.209 | E3 | -7.3  | 107 | 0.00  | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 628.596 | E3 | -2.8  | 105 | -0.01 | 4.09- 4.15 |
| 44   | AR1016-D           | 233.235 | 242.593 | E3 | -4.0  | 109 | -0.02 | 4.25- 4.31 |
| 45   | AR1016-E           | 243.951 | 249.576 | E3 | -2.3  | 103 | -0.01 | 4.74- 4.81 |
| 46   | AR1260-A           | 713.007 | 699.622 | E3 | 1.9   | 106 | -0.02 | 7.09- 7.15 |
| 47   | AR1260-B           | 314.313 | 359.254 | E3 | -14.3 | 106 | -0.02 | 7.25- 7.31 |
| 48   | AR1260-C           | 340.349 | 368.216 | E3 | -8.2  | 104 | -0.01 | 7.58- 7.65 |
| 49   | AR1260-D           | 939.177 | 974.217 | E3 | -3.7  | 100 | -0.02 | 8.02- 8.08 |
| 50   | AR1260-E           | 913.406 | 946.628 | E3 | -3.6  | 98  | -0.02 | 8.40- 8.46 |
| 51 S | Decachlorobiphenyl | 9.966   | 8.954   | E6 | 10.2  | 93  | -0.02 | 9.93-10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |              |     |       |            |
|-----|----------------------|---------|---------|----|--------------|-----|-------|------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.817   | E6 | -8.4         | 111 | 0.00  | 3.52- 3.58 |
| 2   | AR1221-A             |         |         |    | -----NA----- |     |       |            |
| 3   | AR1221-B             |         |         |    | -----NA----- |     |       |            |
| 4   | AR1221-C             |         |         |    | -----NA----- |     |       |            |
| 5   | AR1221-D             |         |         |    | -----NA----- |     |       |            |
| 6   | AR1221-E             |         |         |    | -----NA----- |     |       |            |
| 7   | AR1232-A             |         |         |    | -----NA----- |     |       |            |
| 8   | AR1232-B             |         |         |    | -----NA----- |     |       |            |
| 9   | AR1232-C             |         |         |    | -----NA----- |     |       |            |
| 10  | AR1232-D             |         |         |    | -----NA----- |     |       |            |
| 11  | AR1232-E             |         |         |    | -----NA----- |     |       |            |
| 12  | AR1242-A             |         |         |    | -----NA----- |     |       |            |
| 13  | AR1242-B             |         |         |    | -----NA----- |     |       |            |
| 14  | AR1242-C             |         |         |    | -----NA----- |     |       |            |
| 15  | AR1242-D             |         |         |    | -----NA----- |     |       |            |
| 16  | AR1242-E             |         |         |    | -----NA----- |     |       |            |
| 17  | AR1248-A             |         |         |    | -----NA----- |     |       |            |
| 18  | AR1248-B             |         |         |    | -----NA----- |     |       |            |
| 19  | AR1248-C             |         |         |    | -----NA----- |     |       |            |
| 20  | AR1248-D             |         |         |    | -----NA----- |     |       |            |
| 21  | AR1248-E             |         |         |    | -----NA----- |     |       |            |
| 22  | AR1248-F             |         |         |    | -----NA----- |     |       |            |
| 23  | AR1248-G             |         |         |    | -----NA----- |     |       |            |
| 24  | AR1254-A             |         |         |    | -----NA----- |     |       |            |
| 25  | AR1254-B             |         |         |    | -----NA----- |     |       |            |
| 26  | AR1254-C             |         |         |    | -----NA----- |     |       |            |
| 27  | AR1254-D             |         |         |    | -----NA----- |     |       |            |
| 28  | AR1254-E             |         |         |    | -----NA----- |     |       |            |
| 29  | AR1254-F             |         |         |    | -----NA----- |     |       |            |
| 30  | AR1254-G             |         |         |    | -----NA----- |     |       |            |
| 31  | AR1262-A             |         |         |    | -----NA----- |     |       |            |
| 32  | AR1262-B             |         |         |    | -----NA----- |     |       |            |
| 33  | AR1262-C             |         |         |    | -----NA----- |     |       |            |
| 34  | AR1262-D             |         |         |    | -----NA----- |     |       |            |
| 35  | AR1262-E             |         |         |    | -----NA----- |     |       |            |
| 36  | AR1268-A             |         |         |    | -----NA----- |     |       |            |
| 37  | AR1268-B             |         |         |    | -----NA----- |     |       |            |
| 38  | AR1268-C             |         |         |    | -----NA----- |     |       |            |
| 39  | AR1268-D             |         |         |    | -----NA----- |     |       |            |
| 40  | AR1268-E             |         |         |    | -----NA----- |     |       |            |
| 41  | AR1016-A             | 131.499 | 140.277 | E3 | -6.7         | 108 | 0.00  | 4.18- 4.24 |
| 42  | AR1016-B             | 249.443 | 278.300 | E3 | -11.6        | 110 | -0.01 | 4.73- 4.79 |
| 43  | AR1016-C             | 586.781 | 631.799 | E3 | -7.7         | 107 | -0.01 | 5.37- 5.43 |
| 44  | AR1016-D             | 247.157 | 267.155 | E3 | -8.1         | 107 | -0.01 | 5.56- 5.62 |
| 45  | AR1016-E             | 173.457 | 183.437 | E3 | -5.8         | 104 | -0.02 | 6.22- 6.28 |
| 46  | AR1260-A             | 774.265 | 747.643 | E3 | 3.4          | 104 | -0.02 | 8.82- 8.88 |
| 47  | AR1260-B             | 428.295 | 470.839 | E3 | -9.9         | 103 | -0.02 | 8.94- 9.00 |

12.11.82 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227826.D

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|      |                    |         |         |    |      |     |       |             |
|------|--------------------|---------|---------|----|------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 437.447 | E3 | -4.4 | 102 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.140   | E6 | -8.2 | 104 | -0.02 | 9.72- 9.78  |
| 50   | AR1260-E           | 0.980   | 1.035   | E6 | -5.6 | 100 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.721   | E6 | 4.5  | 102 | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227129.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:53:14 2018

12.11.82  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227831.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\gx...2\xx227831.D\ECD1A.CH Vial: 28  
Signal #2 : C:\msdchem\1\DATA\gxx6332\xx227831.D\ECD2B.CH  
Acq On : 02 May 2018 3:30 am Operator: tianweir  
Sample : cc6321-1000 Inst : HP G1530A  
Misc : op11668,GXX6332,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\METHODS\PCB6321.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:50:14 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 8.262   | 8.808 E6   | -6.6 | 100   | 0.00     | 2.78- | 2.84   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1262-A             |         |            | NA   |       |          |       |        |
| 32  | AR1262-B             |         |            | NA   |       |          |       |        |
| 33  | AR1262-C             |         |            | NA   |       |          |       |        |
| 34  | AR1262-D             |         |            | NA   |       |          |       |        |
| 35  | AR1262-E             |         |            | NA   |       |          |       |        |
| 36  | AR1268-A             |         |            | NA   |       |          |       |        |
| 37  | AR1268-B             |         |            | NA   |       |          |       |        |
| 38  | AR1268-C             |         |            | NA   |       |          |       |        |
| 39  | AR1268-D             |         |            | NA   |       |          |       |        |
| 40  | AR1268-E             |         |            | NA   |       |          |       |        |
| 41  | AR1016-A             | 173.436 | 177.718 E3 | -2.5 | 102   | 0.00     | 3.15- | 3.21   |

12.11.83  
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# Continuing Calibration Summary

Job Number: JC65058  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GXX6332-CC6321  
 Lab FileID: XX227831.D

|      |                    |         |          |    |       |     |       |            |
|------|--------------------|---------|----------|----|-------|-----|-------|------------|
| 42   | AR1016-B           | 265.887 | 276.720  | E3 | -4.1  | 106 | 0.00  | 3.54- 3.60 |
| 43   | AR1016-C           | 611.410 | 626.400  | E3 | -2.5  | 104 | -0.02 | 4.09- 4.15 |
| 44   | AR1016-D           | 233.235 | 242.863  | E3 | -4.1  | 105 | -0.02 | 4.25- 4.31 |
| 45   | AR1016-E           | 243.951 | 257.373  | E3 | -5.5  | 106 | -0.01 | 4.74- 4.81 |
| 46   | AR1260-A           | 713.007 | 705.937  | E3 | 1.0   | 105 | -0.02 | 7.09- 7.15 |
| 47   | AR1260-B           | 314.313 | 358.634  | E3 | -14.1 | 106 | -0.02 | 7.25- 7.31 |
| 48   | AR1260-C           | 340.349 | 373.454  | E3 | -9.7  | 104 | -0.01 | 7.58- 7.65 |
| 49   | AR1260-D           | 939.177 | 1034.026 | E3 | -10.1 | 101 | -0.02 | 8.01- 8.07 |
| 50   | AR1260-E           | 913.406 | 977.337  | E3 | -7.0  | 100 | -0.02 | 8.40- 8.46 |
| 51 S | Decachlorobiphenyl | 9.966   | 9.411    | E6 | 5.6   | 88  | -0.02 | 9.93-10.00 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |              |     |       |            |
|-----|----------------------|---------|---------|----|--------------|-----|-------|------------|
| 1 S | Tetrachloro-m-xylene | 8.133   | 8.837   | E6 | -8.7         | 100 | 0.00  | 3.52- 3.58 |
| 2   | AR1221-A             |         |         |    | -----NA----- |     |       |            |
| 3   | AR1221-B             |         |         |    | -----NA----- |     |       |            |
| 4   | AR1221-C             |         |         |    | -----NA----- |     |       |            |
| 5   | AR1221-D             |         |         |    | -----NA----- |     |       |            |
| 6   | AR1221-E             |         |         |    | -----NA----- |     |       |            |
| 7   | AR1232-A             |         |         |    | -----NA----- |     |       |            |
| 8   | AR1232-B             |         |         |    | -----NA----- |     |       |            |
| 9   | AR1232-C             |         |         |    | -----NA----- |     |       |            |
| 10  | AR1232-D             |         |         |    | -----NA----- |     |       |            |
| 11  | AR1232-E             |         |         |    | -----NA----- |     |       |            |
| 12  | AR1242-A             |         |         |    | -----NA----- |     |       |            |
| 13  | AR1242-B             |         |         |    | -----NA----- |     |       |            |
| 14  | AR1242-C             |         |         |    | -----NA----- |     |       |            |
| 15  | AR1242-D             |         |         |    | -----NA----- |     |       |            |
| 16  | AR1242-E             |         |         |    | -----NA----- |     |       |            |
| 17  | AR1248-A             |         |         |    | -----NA----- |     |       |            |
| 18  | AR1248-B             |         |         |    | -----NA----- |     |       |            |
| 19  | AR1248-C             |         |         |    | -----NA----- |     |       |            |
| 20  | AR1248-D             |         |         |    | -----NA----- |     |       |            |
| 21  | AR1248-E             |         |         |    | -----NA----- |     |       |            |
| 22  | AR1248-F             |         |         |    | -----NA----- |     |       |            |
| 23  | AR1248-G             |         |         |    | -----NA----- |     |       |            |
| 24  | AR1254-A             |         |         |    | -----NA----- |     |       |            |
| 25  | AR1254-B             |         |         |    | -----NA----- |     |       |            |
| 26  | AR1254-C             |         |         |    | -----NA----- |     |       |            |
| 27  | AR1254-D             |         |         |    | -----NA----- |     |       |            |
| 28  | AR1254-E             |         |         |    | -----NA----- |     |       |            |
| 29  | AR1254-F             |         |         |    | -----NA----- |     |       |            |
| 30  | AR1254-G             |         |         |    | -----NA----- |     |       |            |
| 31  | AR1262-A             |         |         |    | -----NA----- |     |       |            |
| 32  | AR1262-B             |         |         |    | -----NA----- |     |       |            |
| 33  | AR1262-C             |         |         |    | -----NA----- |     |       |            |
| 34  | AR1262-D             |         |         |    | -----NA----- |     |       |            |
| 35  | AR1262-E             |         |         |    | -----NA----- |     |       |            |
| 36  | AR1268-A             |         |         |    | -----NA----- |     |       |            |
| 37  | AR1268-B             |         |         |    | -----NA----- |     |       |            |
| 38  | AR1268-C             |         |         |    | -----NA----- |     |       |            |
| 39  | AR1268-D             |         |         |    | -----NA----- |     |       |            |
| 40  | AR1268-E             |         |         |    | -----NA----- |     |       |            |
| 41  | AR1016-A             | 131.499 | 138.055 | E3 | -5.0         | 106 | 0.00  | 4.18- 4.24 |
| 42  | AR1016-B             | 249.443 | 270.364 | E3 | -8.4         | 108 | -0.01 | 4.73- 4.79 |
| 43  | AR1016-C             | 586.781 | 619.602 | E3 | -5.6         | 107 | -0.01 | 5.37- 5.43 |
| 44  | AR1016-D             | 247.157 | 263.589 | E3 | -6.6         | 107 | -0.01 | 5.56- 5.62 |
| 45  | AR1016-E             | 173.457 | 185.618 | E3 | -7.0         | 105 | -0.01 | 6.22- 6.28 |
| 46  | AR1260-A             | 774.265 | 769.722 | E3 | 0.6          | 108 | -0.02 | 8.82- 8.88 |
| 47  | AR1260-B             | 428.295 | 483.518 | E3 | -12.9        | 108 | -0.02 | 8.94- 9.00 |

12.11.83 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GXX6332-CC6321  
**Lab FileID:** XX227831.D

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|      |                    |         |         |    |       |     |       |             |
|------|--------------------|---------|---------|----|-------|-----|-------|-------------|
| 48   | AR1260-C           | 418.819 | 445.344 | E3 | -6.3  | 106 | -0.02 | 9.38- 9.44  |
| 49   | AR1260-D           | 1.054   | 1.207   | E6 | -14.5 | 108 | -0.02 | 9.73- 9.79  |
| 50   | AR1260-E           | 0.980   | 1.078   | E6 | -10.0 | 105 | -0.02 | 10.27-10.33 |
| 51 S | Decachlorobiphenyl | 9.133   | 8.926   | E6 | 2.3   | 94  | -0.02 | 11.94-12.00 |

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(#) = Out of Range  
xx227136.D PCB6321.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:50:59 2018

12.11.83

12

# Initial Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3143-ICC3143  
**Lab FileID:** ZZ87292.D

Response Factor Report HP G1530A

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Thu Jan 25 14:15:34 2018  
Response via : Initial Calibration

Calibration Files

5000=zz87294.D 250 =zz87290.D 1000=zz87292.D 500 =zz87291.D  
10k =zz87295.D 100 =zz87289.D 25 =zz87287.D 50k =zz87296.D  
2500=zz87293.D 50 =zz87288.D = =

| Compound              | 5000  | 250   | 1000  | 500   | 10k   | 100   | 25    | 50k   | 2500  | 50    | Avg      | %RSD |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| 1) TPH-DRO            | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 2) TPH-DRO (C10-C44)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 3) TPH-ORO (>C28-C40) | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 4) TPH-DRO (C10-C20)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 5) TPH-ORO (C20-C34)  | 1.580 | 1.492 | 1.670 | 1.631 | 1.548 | 1.643 | 1.844 | 1.595 | 1.619 | 1.796 | 1.642 E6 | 6.53 |
| 6) o-TERPHENYL        | 2.450 | 2.325 | 2.588 | 2.543 |       | 2.626 | 2.941 |       | 2.514 | 2.741 | 2.591 E6 | 7.22 |
| 7) 5a-ANDROSTANE      | 1.905 | 1.798 | 2.014 | 1.972 |       | 1.982 | 2.139 |       | 1.978 | 2.091 | 1.985 E6 | 5.30 |
| 8) TETRACOSANE-d50    | 1.458 | 1.410 | 1.560 | 1.531 |       | 1.569 | 1.777 |       | 1.501 | 1.662 | 1.559 E6 | 7.46 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

DROZZ3143.M Thu Jan 25 14:21:57 2018

12.11.84  
12

# Initial Calibration Verification

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3143-ICV3143  
**Lab FileID:** ZZ87297.D

---

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3143\zz87297.D Vial: 16  
Acq On : 24 Jan 2018 7:10 pm Operator: dharas  
Sample : icv3143-1000 Inst : HP G1530A  
Misc : op9407,gzz3143,11.7,,,1,10 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Thu Jan 25 13:58:45 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF | CCRF     | %Dev | Area% | Dev(min) | RT Window  |
|-------------|-------|----------|------|-------|----------|------------|
| 1 H TPH-DRO | 1.642 | 1.543 E6 | 6.0  | 92    | 0.00     | 4.13-11.44 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87292.D DROZZ3143.M Thu Jan 25 14:09:37 2018

12.11.85  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3198-CC3143  
**Lab FileID:** ZZ88755A.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3198\zz88755a.D Vial: 3  
Acq On : 01 May 2018 12:16 am Operator: christp  
Sample : cc3143-500 Inst : HP G1530A  
Misc : op11550,gzz3198,12.0,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Tue May 01 08:14:43 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.638 E6 | 0.2          | 100   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.607 E6 | -0.6         | 103   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.857 E6 | 6.4          | 94    | 0.00     | 9.04- 9.10 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.511 E6 | 3.1          | 99    | 0.00     | 9.96-10.02 |

(#) = Out of Range SPC's out = 0 CCC's out = 0  
zz87291.D DROZZ3143.M Tue May 01 13:47:12 2018

12.1.86  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3198-CC3143  
**Lab FileID:** ZZ88767.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3198\zz88767.D Vial: 4  
 Acq On : 01 May 2018 6:53 am Operator: christp  
 Sample : cc3143-1000 Inst : HP G1530A  
 Misc : op11656,gzz3198,10.0,,,1,1 Multiplr: 1.00  
 IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
 Title : GCTPHS  
 Last Update : Tue May 01 08:14:43 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.692 E6 | -3.0         | 101   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.742 E6 | -5.8         | 106   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.924 E6 | 3.1          | 96    | 0.00     | 9.04- 9.10 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.597 E6 | -2.4         | 102   | 0.00     | 9.96-10.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 zz87292.D DROZZ3143.M Tue May 01 13:47:00 2018

12.11.87 12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3198-CC3143  
**Lab FileID:** ZZ88778.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3198\zz88778.D Vial: 3  
Acq On : 01 May 2018 12:58 pm Operator: christp  
Sample : cc3143-500 Inst : HP G1530A  
Misc : op11656,gzz3198,11.5,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Tue May 01 08:14:43 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.688 E6 | -2.8         | 104   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.717 E6 | -4.9         | 107   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.919 E6 | 3.3          | 97    | 0.00     | 9.04- 9.10 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.588 E6 | -1.9         | 104   | 0.00     | 9.96-10.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87291.D DROZZ3143.M Tue May 01 13:47:13 2018

12.1.88  
12

# Continuing Calibration Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GZZ3198-CC3143  
**Lab FileID:** ZZ88786.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\GZZ3198\zz88786.D Vial: 4  
Acq On : 01 May 2018 5:56 pm Operator: christp  
Sample : cc3143-1000 Inst : HP G1530A  
Misc : op11656,gzz3198,10.3,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M (Chemstation Integrator)  
Title : GCTPHS  
Last Update : Thu May 03 09:25:20 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|-----|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H | TPH-DRO            | 1.642 | 1.749 E6 | -6.5         | 105   | 0.00     | 4.13-11.44 |
| 2 H | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 4 H | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 5 H | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 6 S | o-TERPHENYL        | 2.591 | 2.830 E6 | -9.2         | 109   | 0.00     | 8.58- 8.64 |
| 7 S | 5a-ANDROSTANE      | 1.985 | 1.998 E6 | -0.7         | 99    | 0.00     | 9.04- 9.10 |
| 8 S | TETRACOSANE-d50    | 1.559 | 1.651 E6 | -5.9         | 106   | 0.00     | 9.97-10.03 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
zz87292.D DROZZ3143.M Thu May 03 09:44:04 2018

12.1.89  
12



GC/LC Semi-volatiles

Raw Data

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33301.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 16:06:00  
 Operator : vinned  
 Sample : jc65058-5  
 Misc : op11920,goa4567,16.0,,,5,1  
 ALS Vial : 0 (Sig #1); 13 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 12:04:41 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 12:02:36 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2   | Resp#1   | Resp#2   | Conc#1   | Conc#2   |
|-----------------------------|---------|--------|----------|----------|----------|----------|
| -----                       |         |        |          |          |          |          |
| System Monitoring Compounds |         |        |          |          |          |          |
| 2) S 2,4-DCAA               | 7.363   | 8.556  | 183.2E6  | 2511.4E6 | 328.439m | 266.924m |
| Spiked Amount               | 500.000 |        | Recovery | =        | 65.69%   | 53.38%   |
| Target Compounds            |         |        |          |          |          |          |
| 8) Pentachlo...             | 9.172   | 11.183 | 99881946 | 1097.2E6 | 8.906    | 7.649    |
| -----                       |         |        |          |          |          |          |

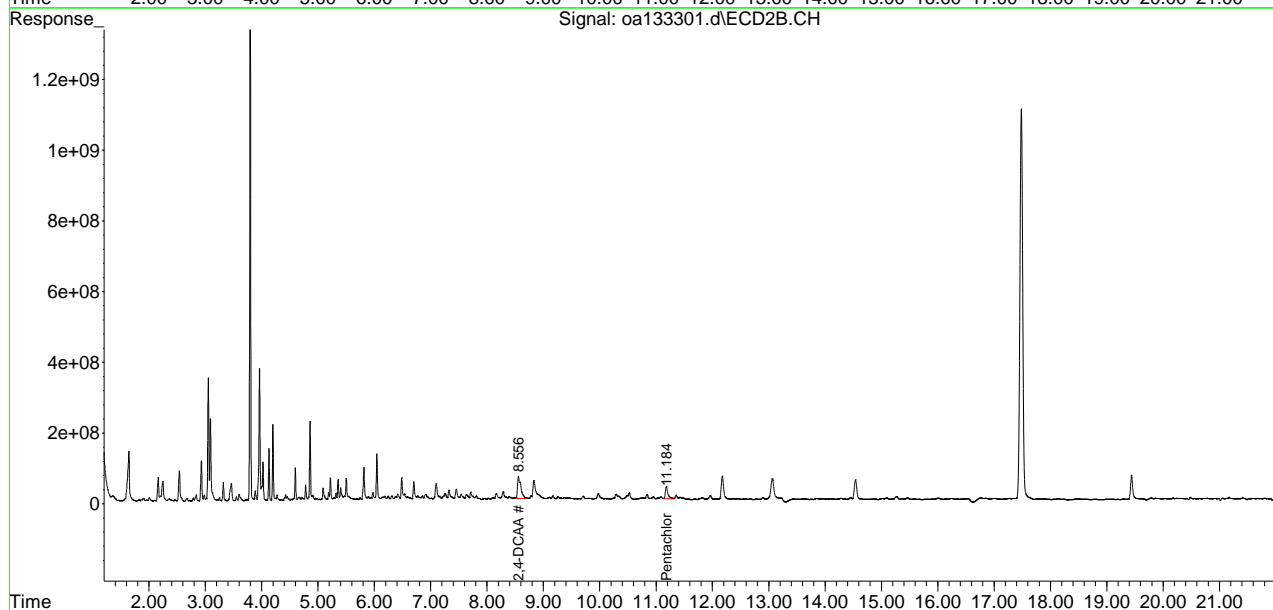
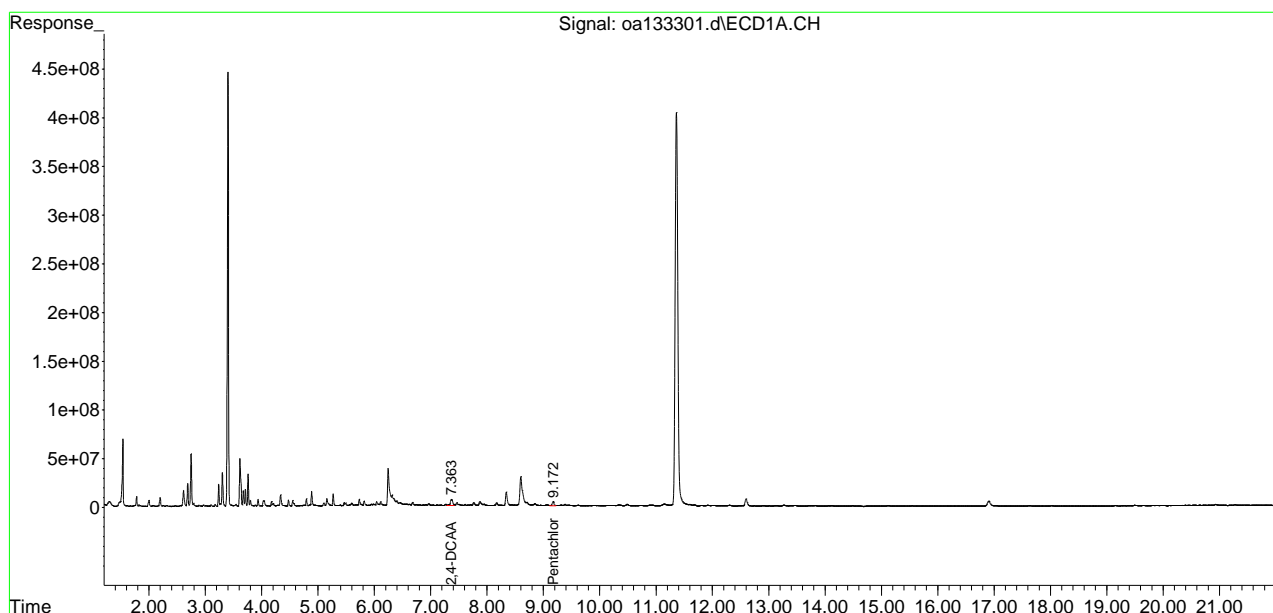
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oa133301.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 16:06:00  
 Operator : vinced  
 Sample : jc65058-5  
 Misc : op11920,goa4567,16.0,,,5,1  
 ALS Vial : 0 (Sig #1); 13 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 12:04:41 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 12:02:36 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.11  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33302.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 16:34:36  
 Operator : vinced  
 Sample : jc65058-6  
 Misc : op11920,goa4567,15.8,,,5,1  
 ALS Vial : 0 (Sig #1); 14 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:38:31 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Thu May 10 09:25:35 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1   | Conc#2    |
|-----------------------------|---------|-------|----------|----------|----------|-----------|
| -----                       |         |       |          |          |          |           |
| System Monitoring Compounds |         |       |          |          |          |           |
| 2) S 2,4-DCAA               | 7.349   | 8.547 | 361.5E6  | 3529.0E6 | 648.080m | 375.076 # |
| Spiked Amount               | 500.000 |       | Recovery | =        | 129.62%  | 75.02%    |

Target Compounds  
 -----

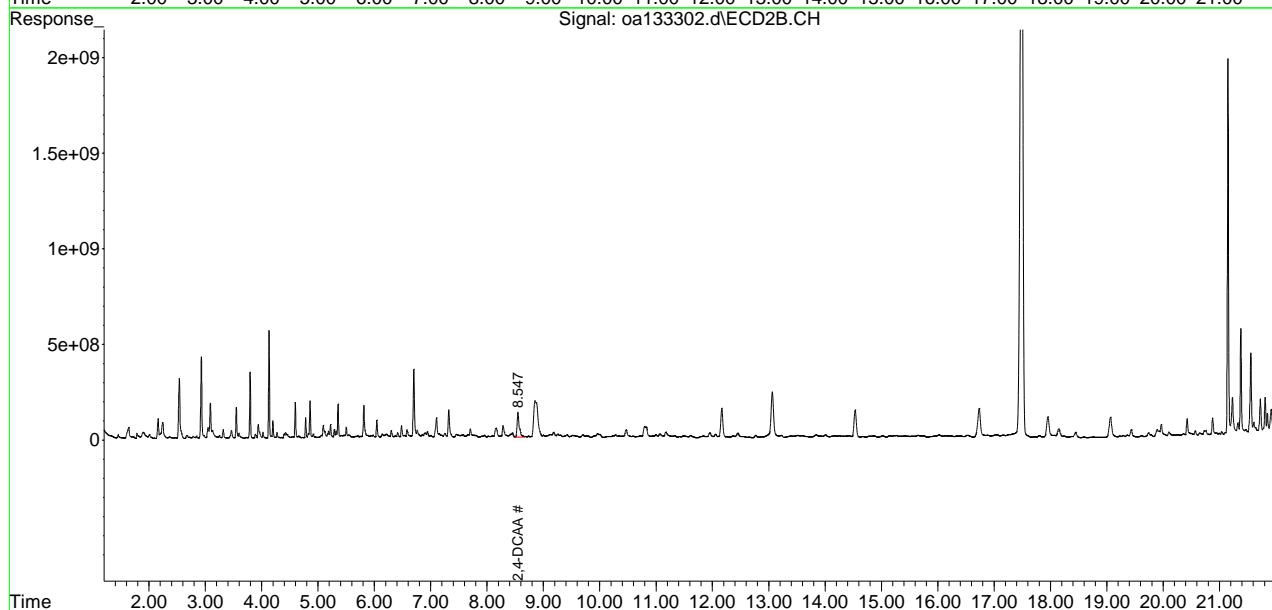
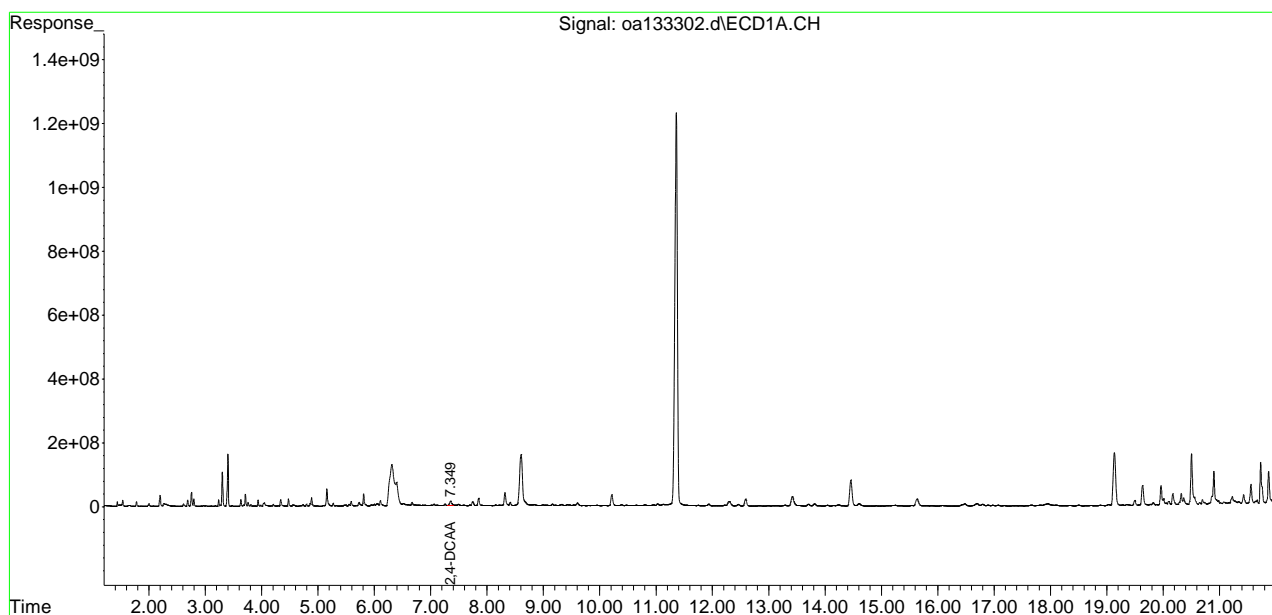
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
Data File : oal33302.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 11-May-18, 16:34:36  
Operator : vinced  
Sample : jc65058-6  
Misc : op11920,goa4567,15.8,,,5,1  
ALS Vial : 0 (Sig #1); 14 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 14 11:38:31 2018  
Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
Quant Title : HERB  
QLast Update : Thu May 10 09:25:35 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33303.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 17:03:16  
 Operator : vinced  
 Sample : jc65058-7  
 Misc : op11920,goa4567,15.9,,,5,1  
 ALS Vial : 0 (Sig #1); 15 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:39:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|-------|----------|----------|---------|---------|
| -----                       |         |       |          |          |         |         |
| System Monitoring Compounds |         |       |          |          |         |         |
| 2) S 2,4-DCAA               | 7.358   | 8.556 | 547.8E6  | 7111.9E6 | 982.069 | 755.882 |
| Spiked Amount               | 500.000 |       | Recovery | =        | 196.41% | 151.18% |

Target Compounds  
 -----

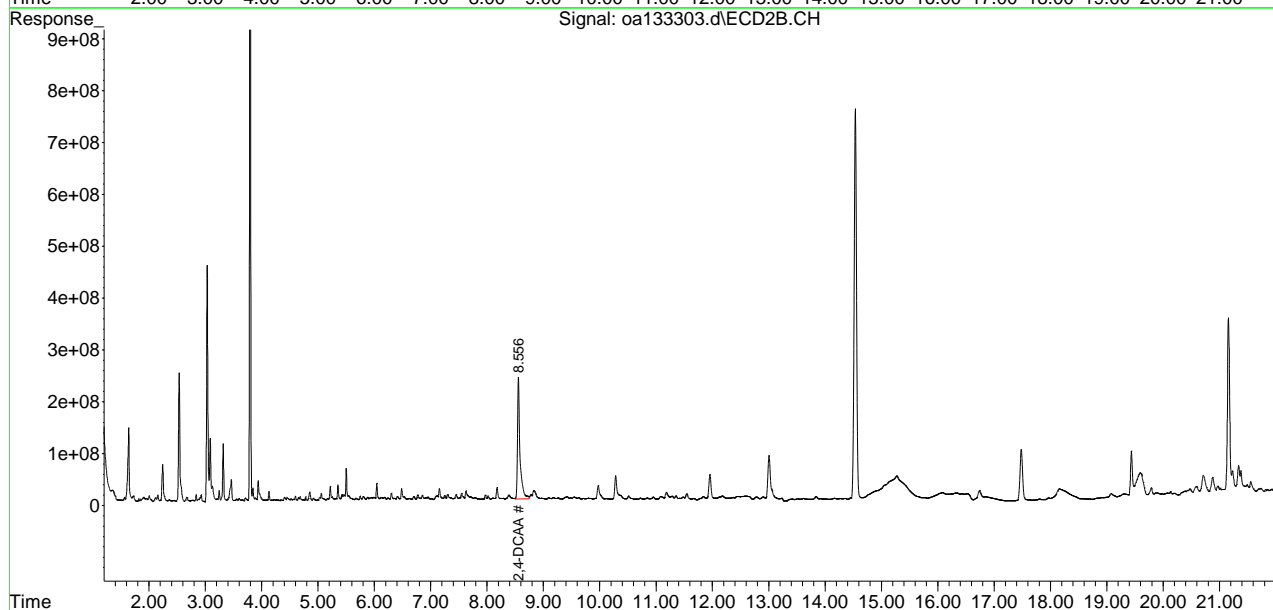
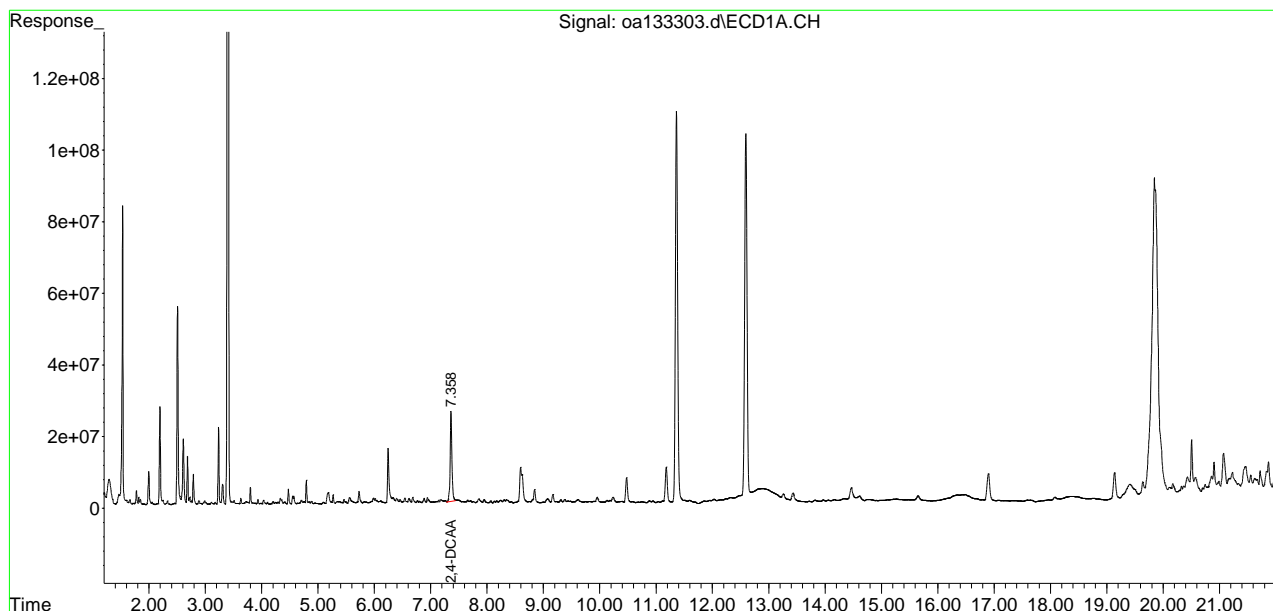
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33303.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 17:03:16  
 Operator : vinced  
 Sample : jc65058-7  
 Misc : op11920,goa4567,15.9,,,5,1  
 ALS Vial : 0 (Sig #1); 15 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:39:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.13 13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33304.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 17:31:48  
 Operator : vinced  
 Sample : jc65058-8  
 Misc : op11920,goa4567,15.9,,,5,1  
 ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:40:39 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|-------|----------|----------|---------|---------|
| -----                       |         |       |          |          |         |         |
| System Monitoring Compounds |         |       |          |          |         |         |
| 2) S 2,4-DCAA               | 7.357   | 8.555 | 520.7E6  | 7418.2E6 | 933.481 | 788.433 |
| Spiked Amount               | 500.000 |       | Recovery | =        | 186.70% | 157.69% |

Target Compounds  
 -----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

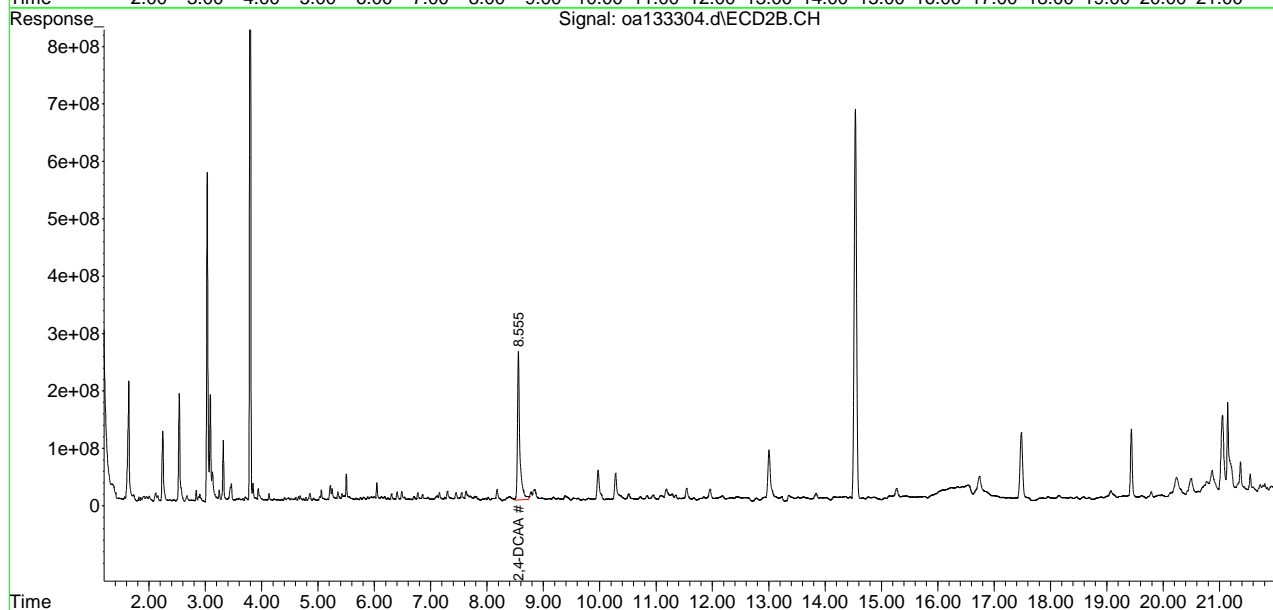
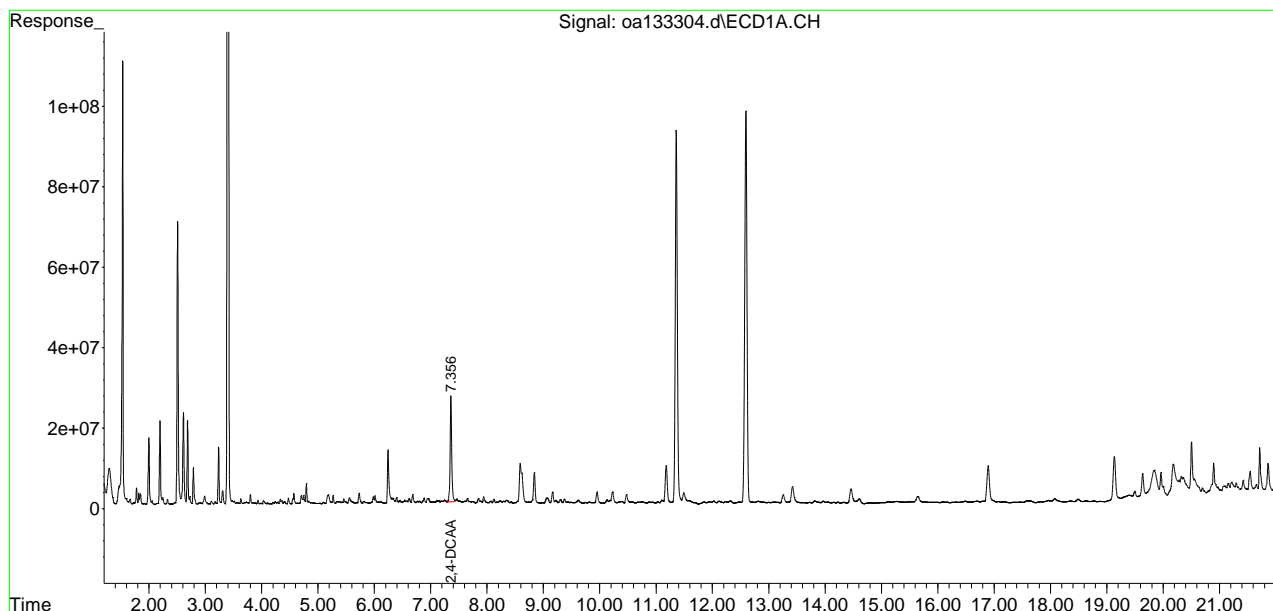


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33304.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 17:31:48  
 Operator : vinced  
 Sample : jc65058-8  
 Misc : op11920,goa4567,15.9,,,5,1  
 ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:40:39 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.14  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33305.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 18:00:22  
 Operator : vinced  
 Sample : jc65058-10  
 Misc : op11920,goa4567,15.5,,,5,1  
 ALS Vial : 0 (Sig #1); 17 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:41:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|-------|----------|----------|---------|---------|
| System Monitoring Compounds |         |       |          |          |         |         |
| 2) S 2,4-DCAA               | 7.365   | 8.562 | 310.0E6  | 4890.7E6 | 555.654 | 519.800 |
| Spiked Amount               | 500.000 |       | Recovery | =        | 111.13% | 103.96% |

Target Compounds

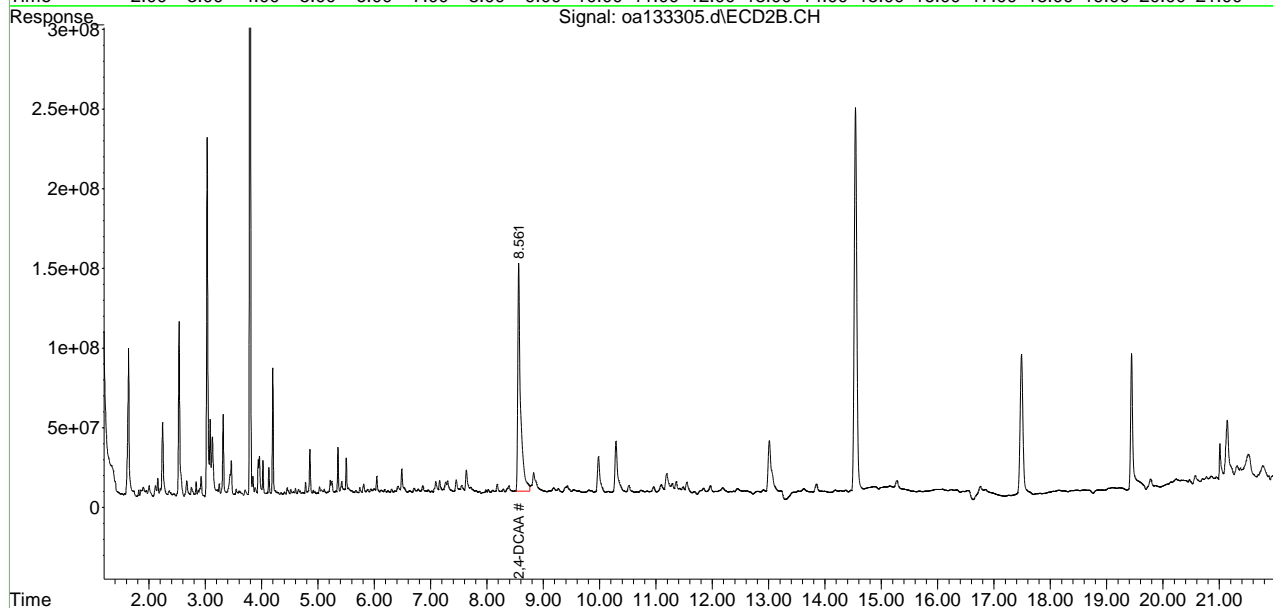
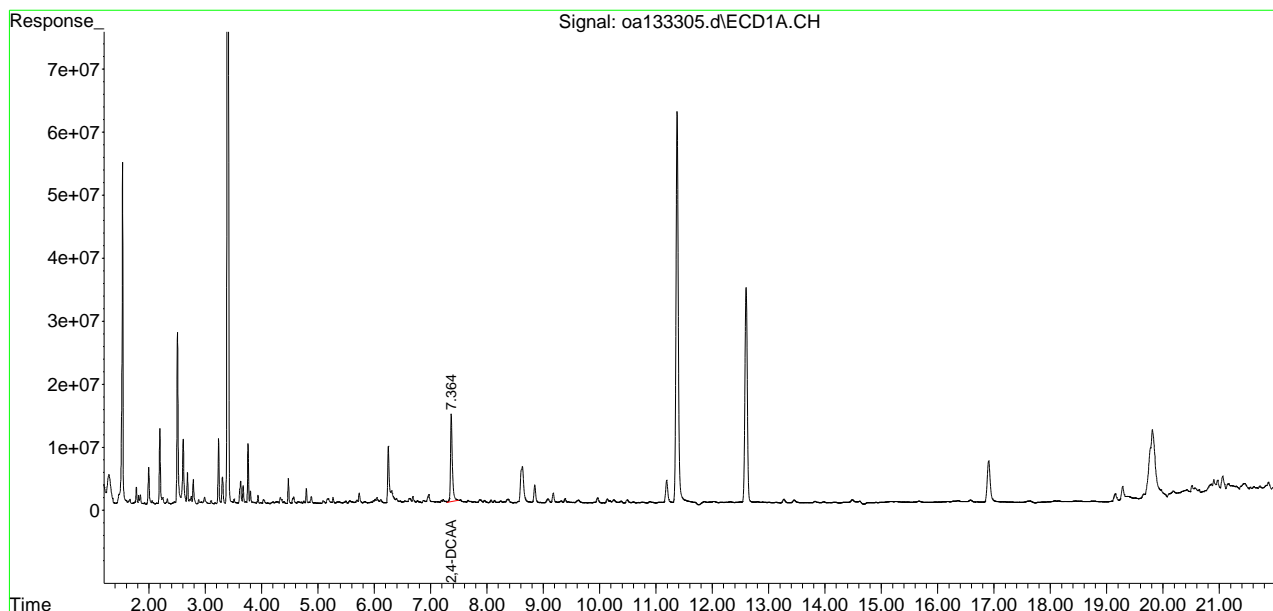
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33305.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 18:00:22  
 Operator : vinced  
 Sample : jc65058-10  
 Misc : op11920,goa4567,15.5,,,5,1  
 ALS Vial : 0 (Sig #1); 17 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:41:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.15  
 13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33306.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 18:29:02  
 Operator : vinned  
 Sample : jc65058-11  
 Misc : op11920,goa4567,15.8,,,5,1  
 ALS Vial : 0 (Sig #1); 18 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:43:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2    | Resp#1   | Resp#2   | Conc#1   | Conc#2   |
|-----------------------------|---------|---------|----------|----------|----------|----------|
| -----                       |         |         |          |          |          |          |
| System Monitoring Compounds |         |         |          |          |          |          |
| 2) S 2,4-DCAA               | 7.327f  | 8.558   | 177.0E6  | 2277.5E6 | 317.232m | 242.067m |
| Spiked Amount               | 500.000 |         | Recovery | =        | 63.45%   | 48.41%   |
| Target Compounds            |         |         |          |          |          |          |
| 8) Pentachlo...             | 9.169   | 11.182f | 704.6E6  | 7157.5E6 | 62.825   | 49.897m  |
| -----                       |         |         |          |          |          |          |

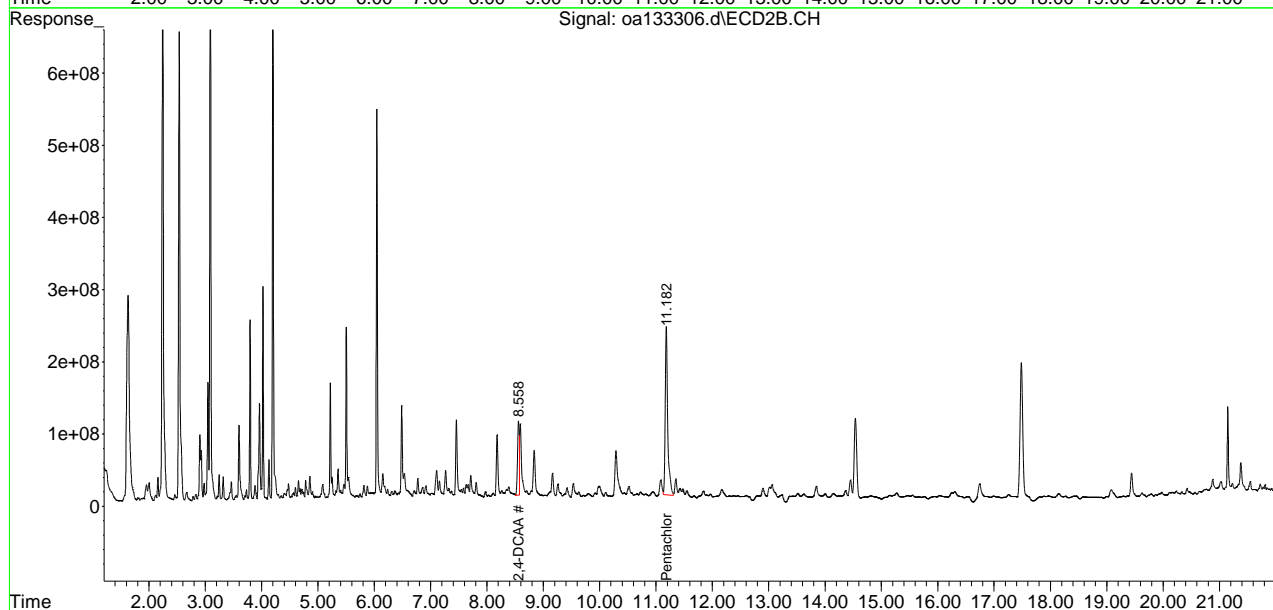
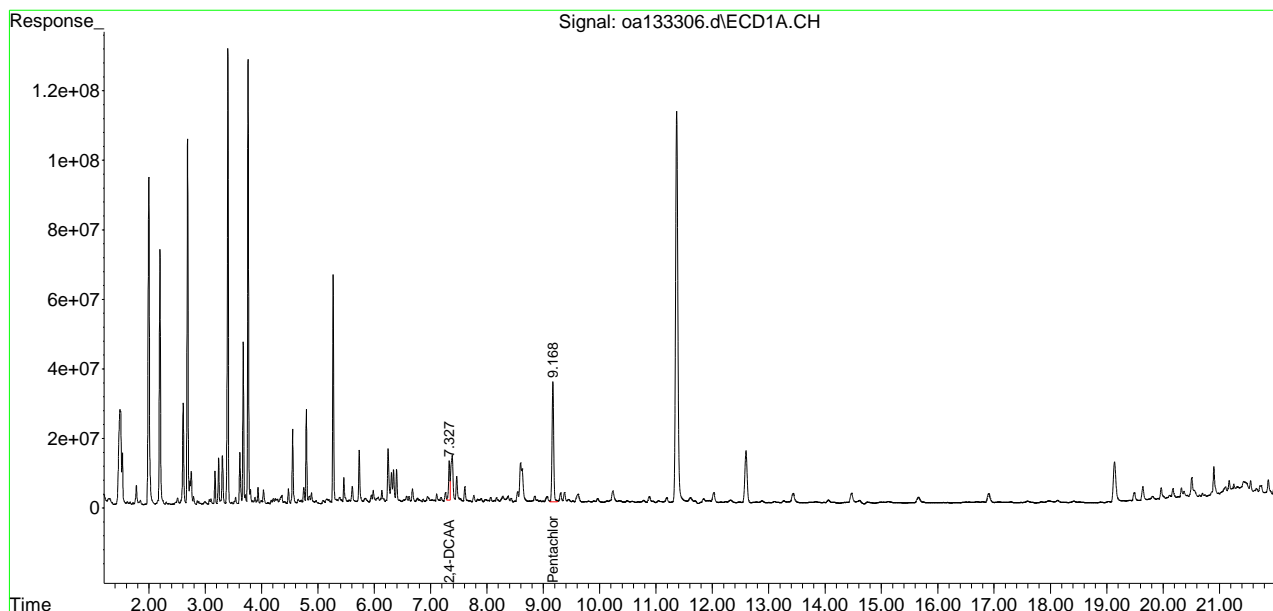
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4567\  
 Data File : oal33306.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 18:29:02  
 Operator : vinced  
 Sample : jc65058-11  
 Misc : op11920,goa4567,15.8,,,5,1  
 ALS Vial : 0 (Sig #1); 18 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 11:43:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 11:32:49 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.1.6  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\  
 Data File : oal33326.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 14-May-18, 12:24:25  
 Operator : vinned  
 Sample : jc65058-11  
 Misc : op11920,goa4568,15.8,,,5,2  
 ALS Vial : 0 (Sig #1); 9 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 14:29:28 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Mon May 14 14:26:45 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2    | Resp#1   | Resp#2   | Conc#1  | Conc#2   |
|-----------------------------|---------|---------|----------|----------|---------|----------|
| -----                       |         |         |          |          |         |          |
| System Monitoring Compounds |         |         |          |          |         |          |
| 2) S 2,4-DCAA               | 7.331   | 8.561   | 90179727 | 1301.4E6 | 161.658 | 138.318m |
| Spiked Amount               | 500.000 |         | Recovery | =        | 32.33%  | 27.66%   |
| Target Compounds            |         |         |          |          |         |          |
| 8) Pentachlo...             | 9.172   | 11.183f | 362.1E6  | 4384.9E6 | 32.291  | 30.569   |
| -----                       |         |         |          |          |         |          |

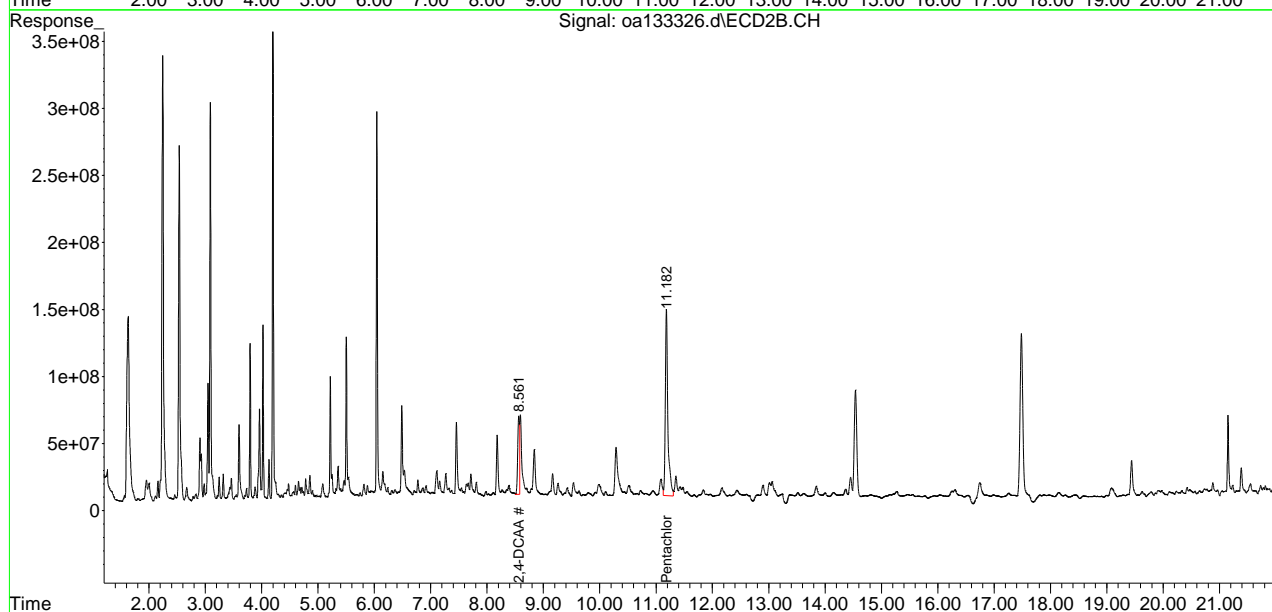
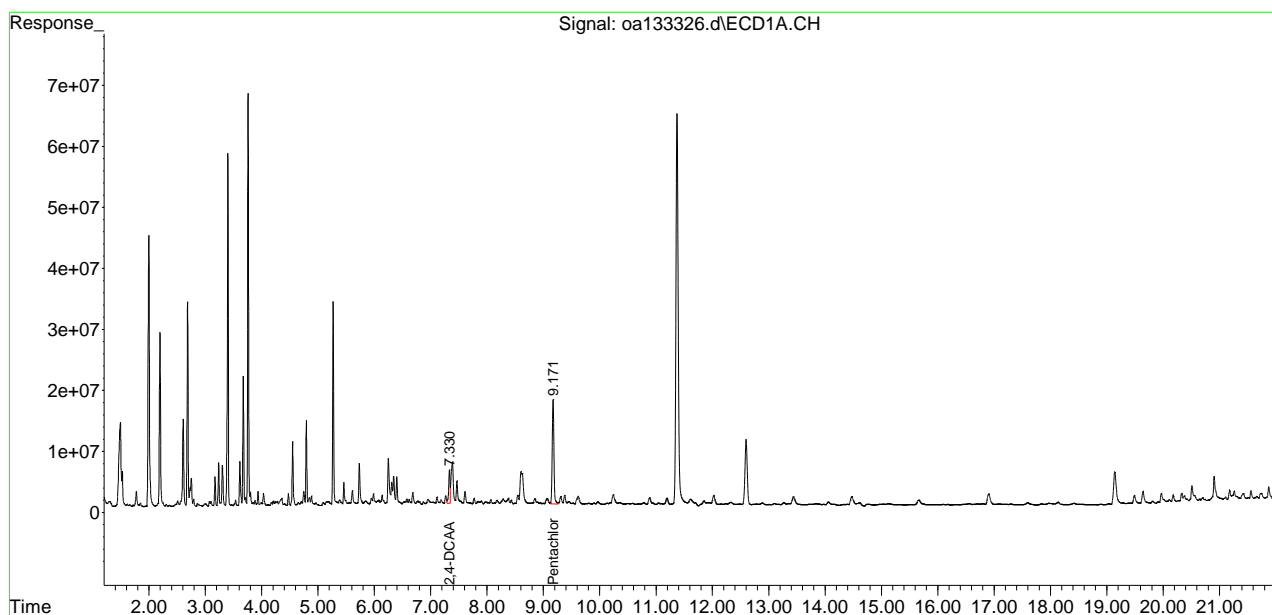
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4568\  
Data File : oal33326.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 14-May-18, 12:24:25  
Operator : vinced  
Sample : jc65058-11  
Misc : op11920,goa4568,15.8,,,5,2  
ALS Vial : 0 (Sig #1); 9 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 14 14:29:28 2018  
Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
Quant Title : HERB  
QLast Update : Mon May 14 14:26:45 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Gwendolyn Burns  
05/24/18 15:13

## Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116242.D\ECD1A.CH Vial: 28  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116242.D\ECD2B.CH  
 Acq On : 03 May 2018 12:50 am Operator: vined  
 Sample : jc65058-12 Inst : GC3G  
 Misc : op11676,g3g4035,15.4,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 03 11:46:19 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

## System Monitoring Compounds

|      |               |         |       |          |          |           |            |
|------|---------------|---------|-------|----------|----------|-----------|------------|
| 2) S | 2,4-DCAA      | 7.49f   | 7.95f | 7635.0E6 | 2854.0E6 | 1955.567m | 3319.333 # |
|      | Spiked Amount | 500.000 |       | Recovery | =        | 391.11%   | 663.87%    |

## Target Compounds

|    |                  |      |       |          |          |         |         |
|----|------------------|------|-------|----------|----------|---------|---------|
| 8) | Pentachloropheno | 9.08 | 9.92f | 3605.5E6 | 1344.6E6 | 50.938m | 53.910m |
|----|------------------|------|-------|----------|----------|---------|---------|

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116242.D 3H4020.M Thu May 03 11:51:24 2018 GC3G

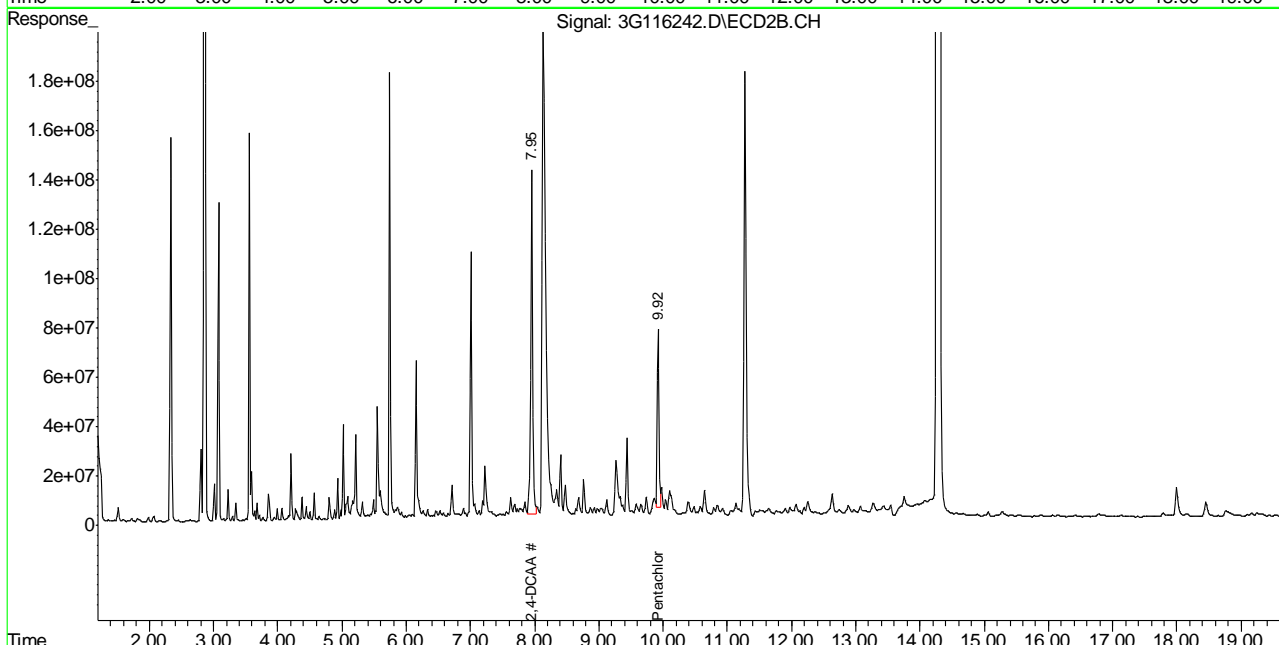
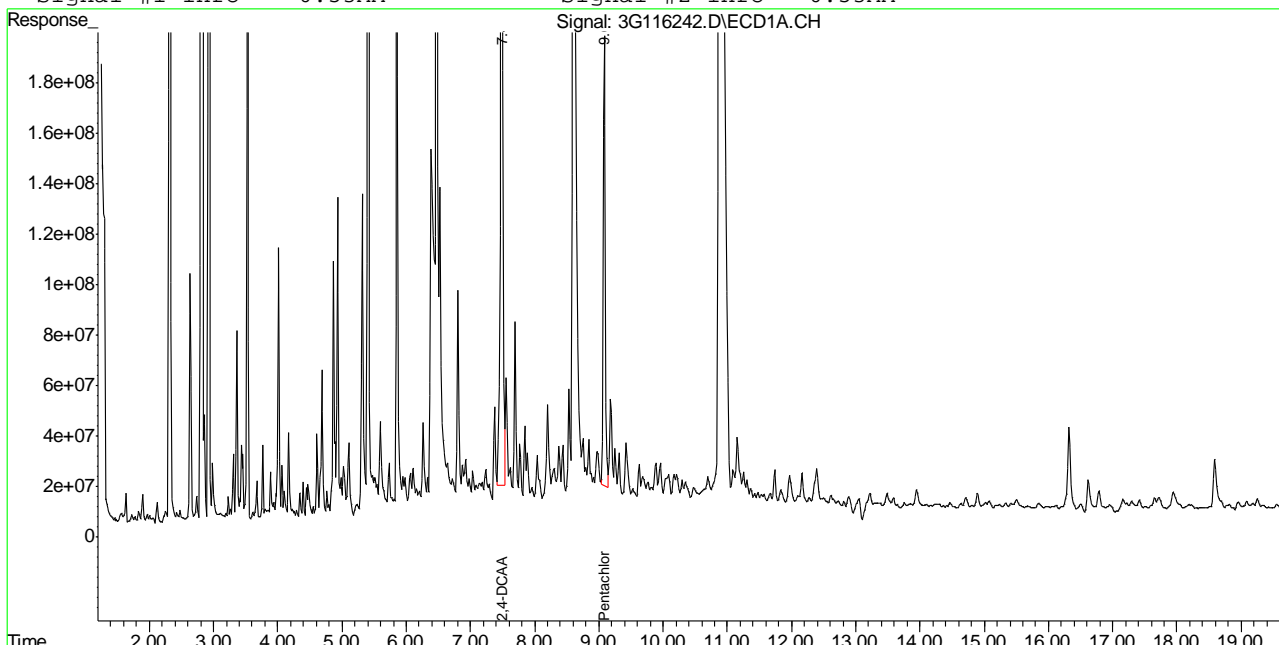


Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116242.D\ECD1A.CH Vial: 28  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116242.D\ECD2B.CH  
 Acq On : 03 May 2018 12:50 am Operator: vinced  
 Sample : jc65058-12 Inst : GC3G  
 Misc : op11676,g3g4035,15.4,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 3 11:50 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.18  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4576\  
 Data File : oal33517.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 24-May-18, 12:42:12  
 Operator : vinced  
 Sample : jc65058-12  
 Misc : op11676,goa4576,15.4,,,5,4  
 ALS Vial : 0 (Sig #1); 10 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 24 14:30:29 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Thu May 24 14:30:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2    | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|---------|----------|----------|---------|---------|
| -----                       |         |         |          |          |         |         |
| System Monitoring Compounds |         |         |          |          |         |         |
| 2) S 2,4-DCAA               | 7.405   | 8.599   | 289.7E6  | 4676.3E6 | 519.243 | 497.013 |
| Spiked Amount               | 500.000 |         | Recovery | =        | 103.85% | 99.40%  |
| Target Compounds            |         |         |          |          |         |         |
| 8) Pentachlo...             | 9.192f  | 11.191f | 162.7E6  | 1840.3E6 | 14.509  | 12.830  |
| -----                       |         |         |          |          |         |         |

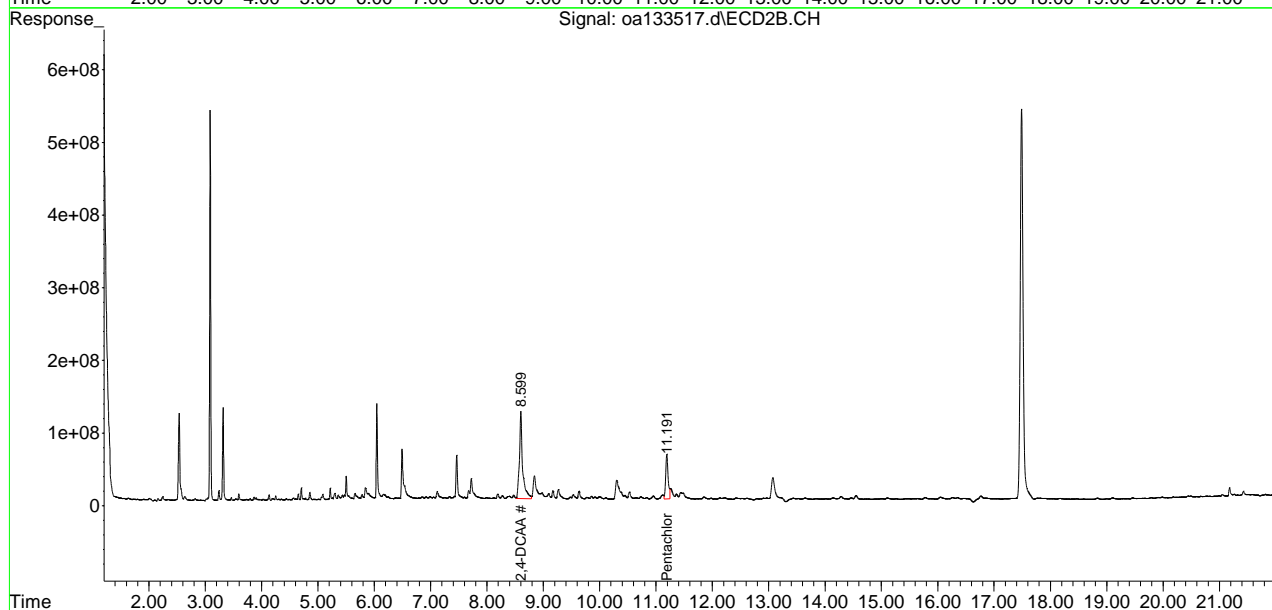
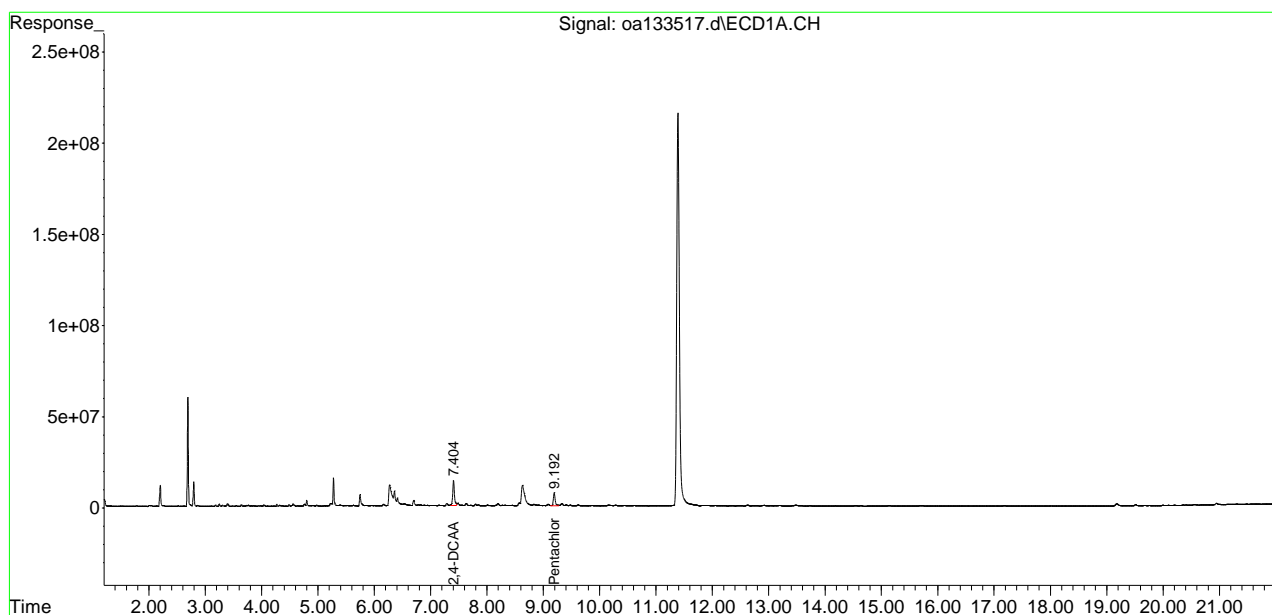
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4576\  
Data File : oa133517.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 24-May-18, 12:42:12  
Operator : vinced  
Sample : jc65058-12  
Misc : op11676,goa4576,15.4,,,5,4  
ALS Vial : 0 (Sig #1); 10 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 24 14:30:29 2018  
Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
Quant Title : HERB  
QLast Update : Thu May 24 14:30:00 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4576\  
 Data File : oal33509.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 24-May-18, 08:30:47  
 Operator : vinned  
 Sample : jc65058-12  
 Misc : op12193,goa4576,15.5,,,5,2  
 ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 24 11:56:09 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Thu May 24 11:47:25 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2    | Resp#1   | Resp#2   | Conc#1   | Conc#2    |
|-----------------------------|---------|---------|----------|----------|----------|-----------|
| -----                       |         |         |          |          |          |           |
| System Monitoring Compounds |         |         |          |          |          |           |
| 2) S 2,4-DCAA               | 7.338   | 8.555   | 290.6E6  | 2705.4E6 | 521.001m | 287.541m# |
| Spiked Amount               | 500.000 |         | Recovery | =        | 104.20%  | 57.51%    |
| Target Compounds            |         |         |          |          |          |           |
| 8) Pentachlo...             | 9.184   | 11.180f | 424.0E6  | 5246.2E6 | 37.806m  | 36.573m   |
| -----                       |         |         |          |          |          |           |

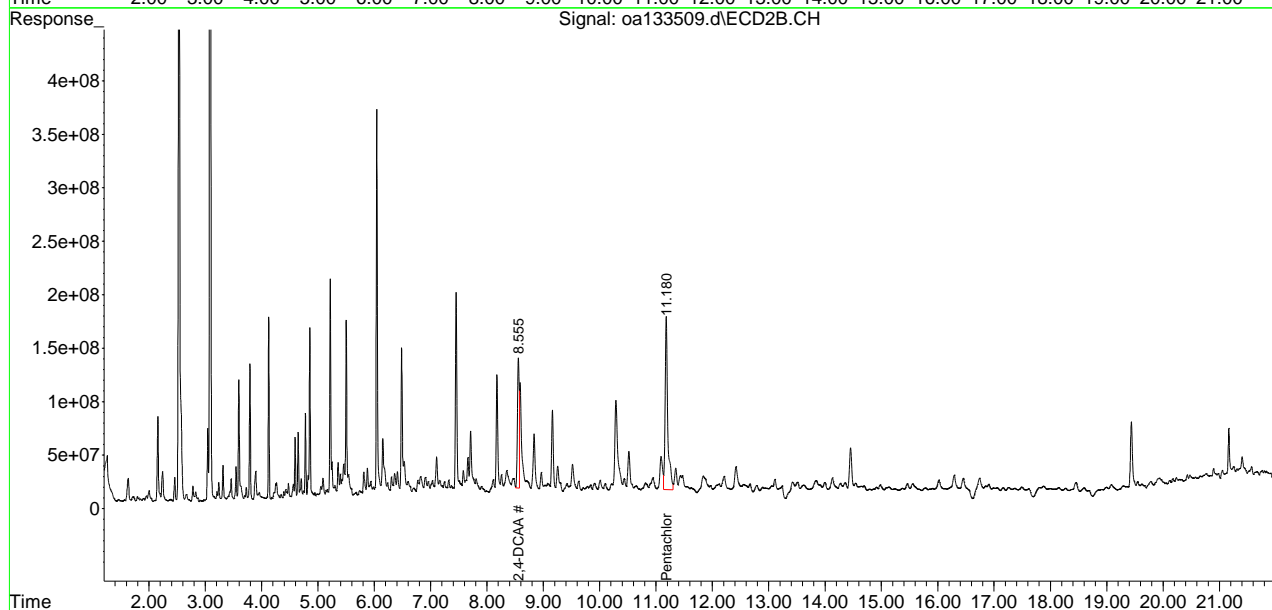
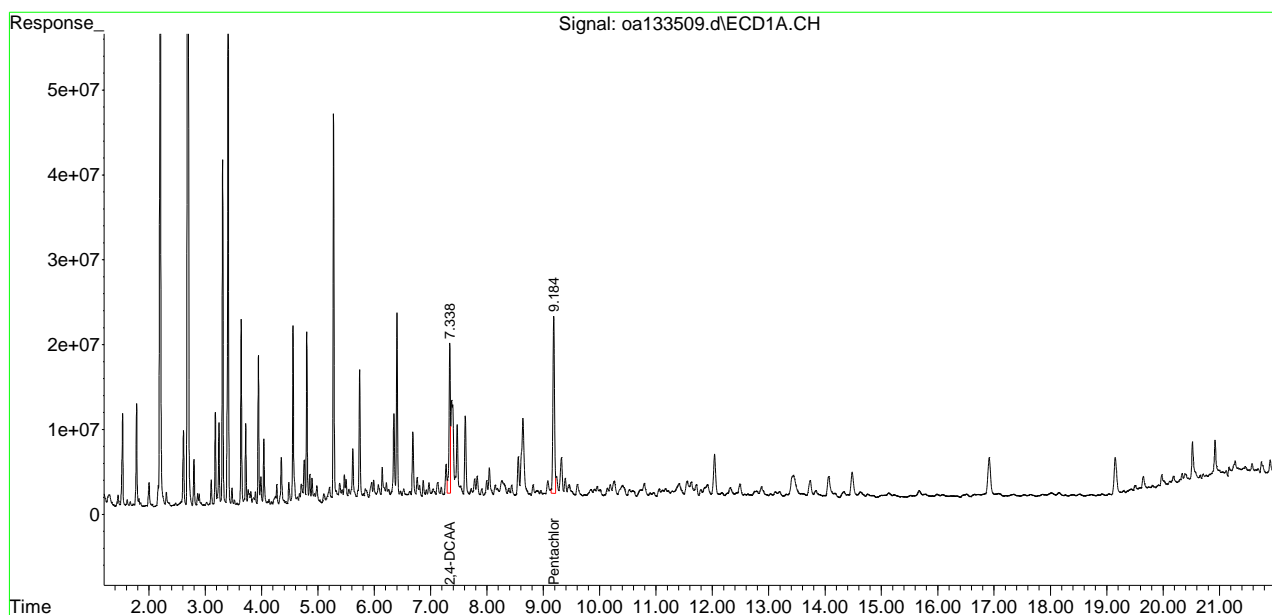
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4576\  
Data File : oa133509.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 24-May-18, 08:30:47  
Operator : vinced  
Sample : jc65058-12  
Misc : op12193,goa4576,15.5,,,5,2  
ALS Vial : 0 (Sig #1); 4 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 24 11:56:09 2018  
Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
Quant Title : HERB  
QLast Update : Thu May 24 11:47:25 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116201.D\ECD1A.CH Vial: 21  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116201.D\ECD2B.CH  
 Acq On : 5-1-2018 09:00:19 PM Operator: vinced  
 Sample : jc65058-13 Inst : GC3G  
 Misc : op11676,g3g4034,15.3,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 02 10:13:14 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Wed May 02 09:47:01 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

System Monitoring Compounds

|      |               |         |      |          |         |         |         |
|------|---------------|---------|------|----------|---------|---------|---------|
| 2) S | 2,4-DCAA      | 7.47    | 7.93 | 3410.5E6 | 754.2E6 | 873.537 | 877.122 |
|      | Spiked Amount | 500.000 |      | Recovery | =       | 174.71% | 175.42% |

Target Compounds

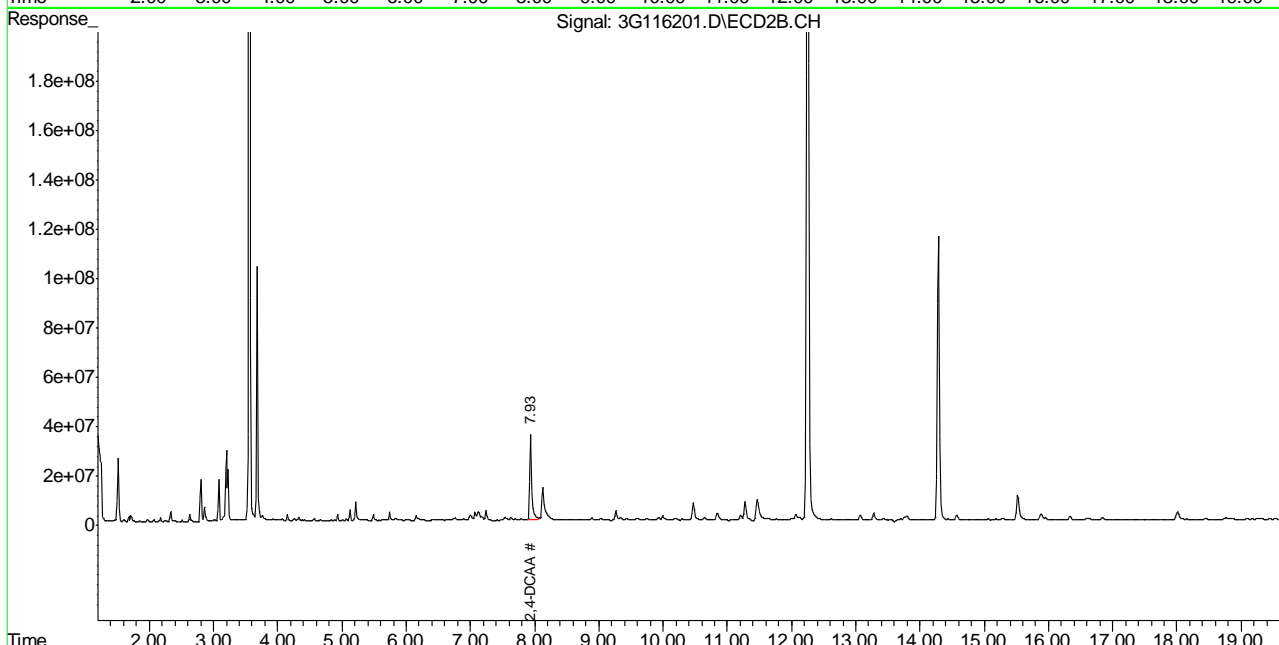
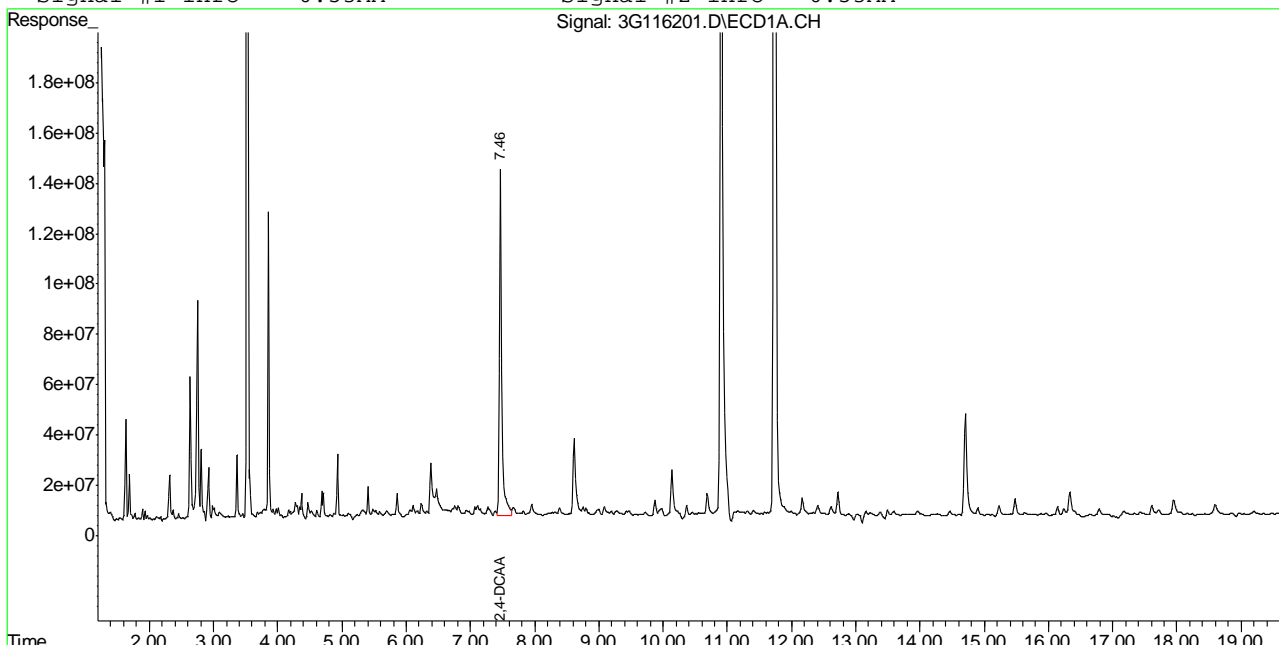
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116201.D 3H4020.M Wed May 02 10:13:41 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116201.D\ECD1A.CH Vial: 21  
Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116201.D\ECD2B.CH  
Acq On : 5-1-2018 09:00:19 PM Operator: vinced  
Sample : jc65058-13 Inst : GC3G  
Misc : op11676,g3g4034,15.3,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 2 10:13 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Wed May 02 09:47:01 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.1.11  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4562\  
 Data File : oal33179.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 04-May-18, 19:32:06  
 Operator : vinced  
 Sample : jc65058-13A  
 Misc : op11688,goa4562,30,,,2.5,1  
 ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 07 11:33:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Fri May 04 11:53:04 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|-------|----------|----------|---------|---------|
| -----                       |         |       |          |          |         |         |
| System Monitoring Compounds |         |       |          |          |         |         |
| 2) S 2,4-DCAA               | 7.358   | 8.552 | 290.2E6  | 4506.1E6 | 520.221 | 478.925 |
| Spiked Amount               | 500.000 |       | Recovery | =        | 104.04% | 95.78%  |

Target Compounds  
 -----

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

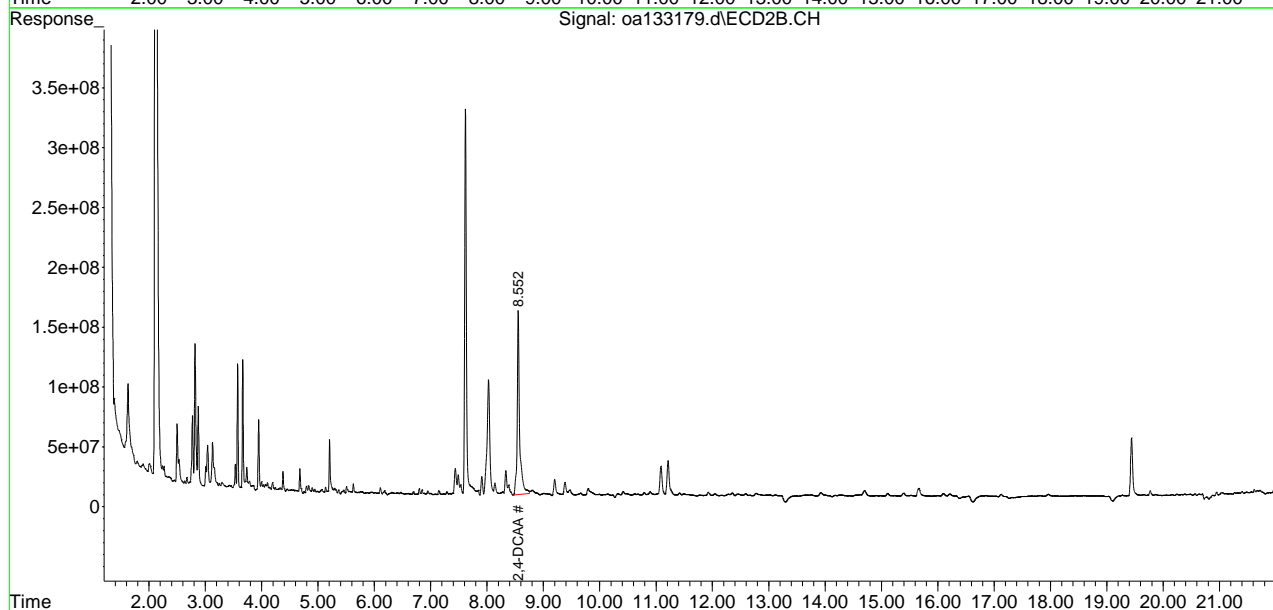
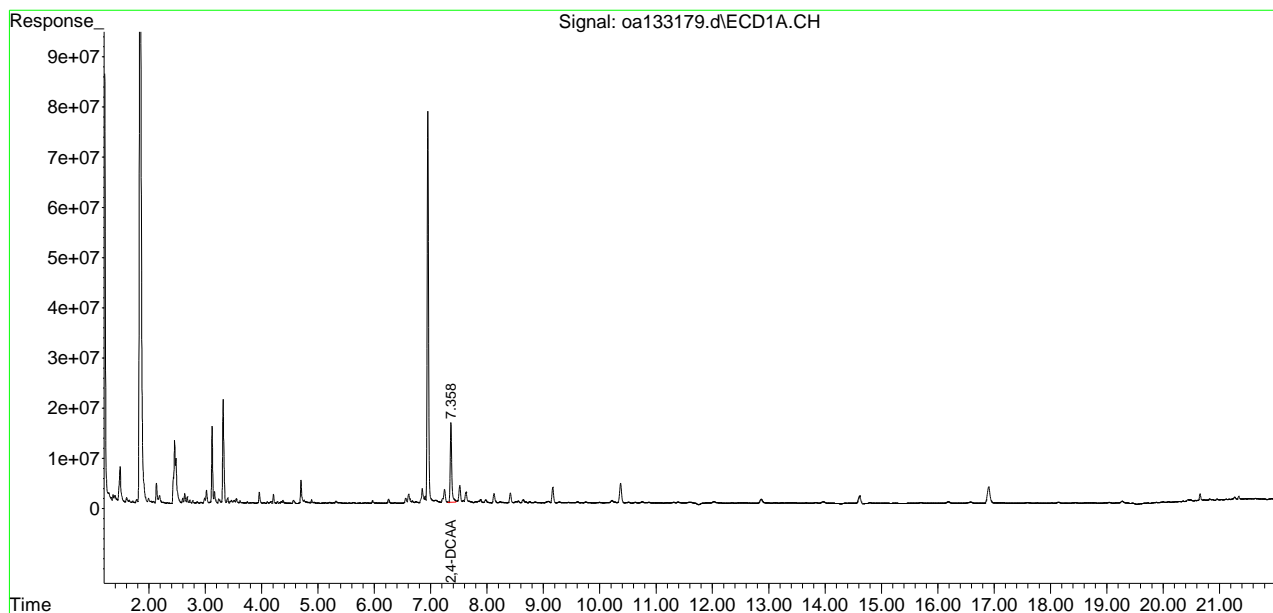


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4562\  
 Data File : oal33179.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 04-May-18, 19:32:06  
 Operator : vinced  
 Sample : jc65058-13A  
 Misc : op11688,goa4562,30,,,2.5,1  
 ALS Vial : 0 (Sig #1); 16 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 07 11:33:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Fri May 04 11:53:04 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116241.D\ECD1A.CH Vial: 27  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116241.D\ECD2B.CH  
 Acq On : 03 May 2018 12:22 am Operator: vinced  
 Sample : jc65058-15 Inst : GC3G  
 Misc : op11676,g3g4035,15.6,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 03 11:46:06 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2 | Resp#1   | Resp#2  | Conc#1   | Conc#2  |
|-----------------------------|---------|------|----------|---------|----------|---------|
| -----                       |         |      |          |         |          |         |
| System Monitoring Compounds |         |      |          |         |          |         |
| 2) S 2,4-DCAA               | 7.46    | 7.93 | 2630.9E6 | 526.7E6 | 673.861m | 612.558 |
| Spiked Amount               | 500.000 |      | Recovery | =       | 134.77%  | 122.51% |
| Target Compounds            |         |      |          |         |          |         |
| 8) Pentachloropheno         | 9.08    | 9.94 | 467.0E6  | 156.3E6 | 6.598    | 6.266   |

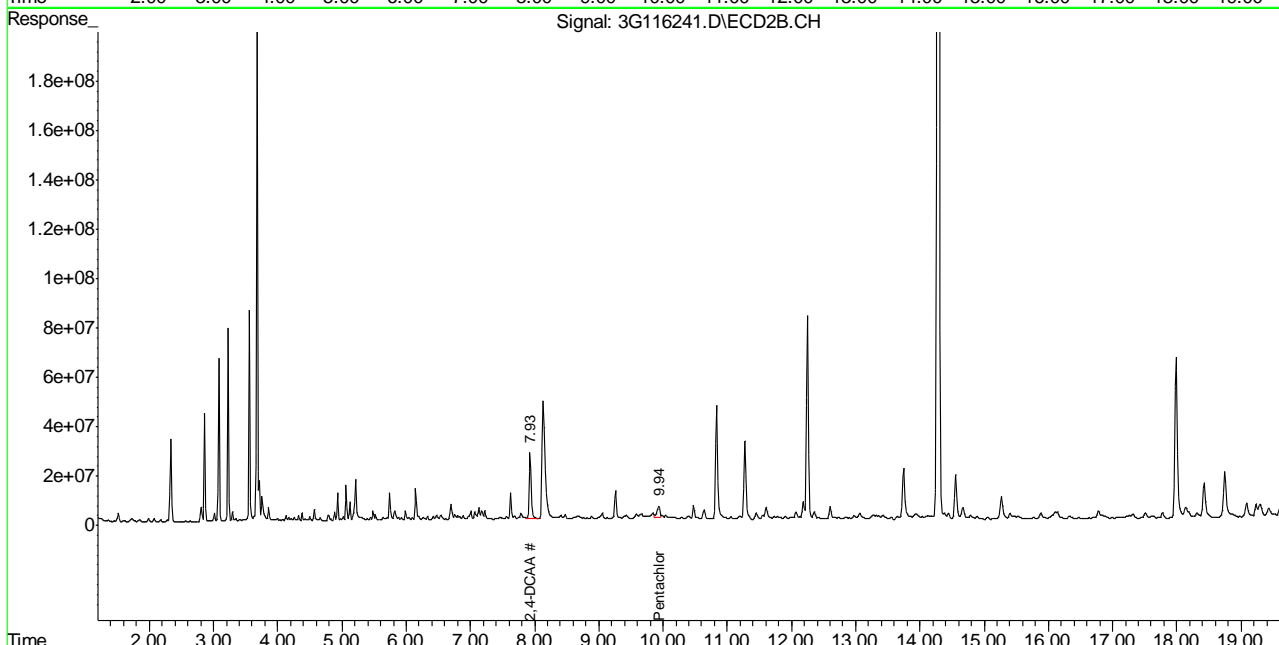
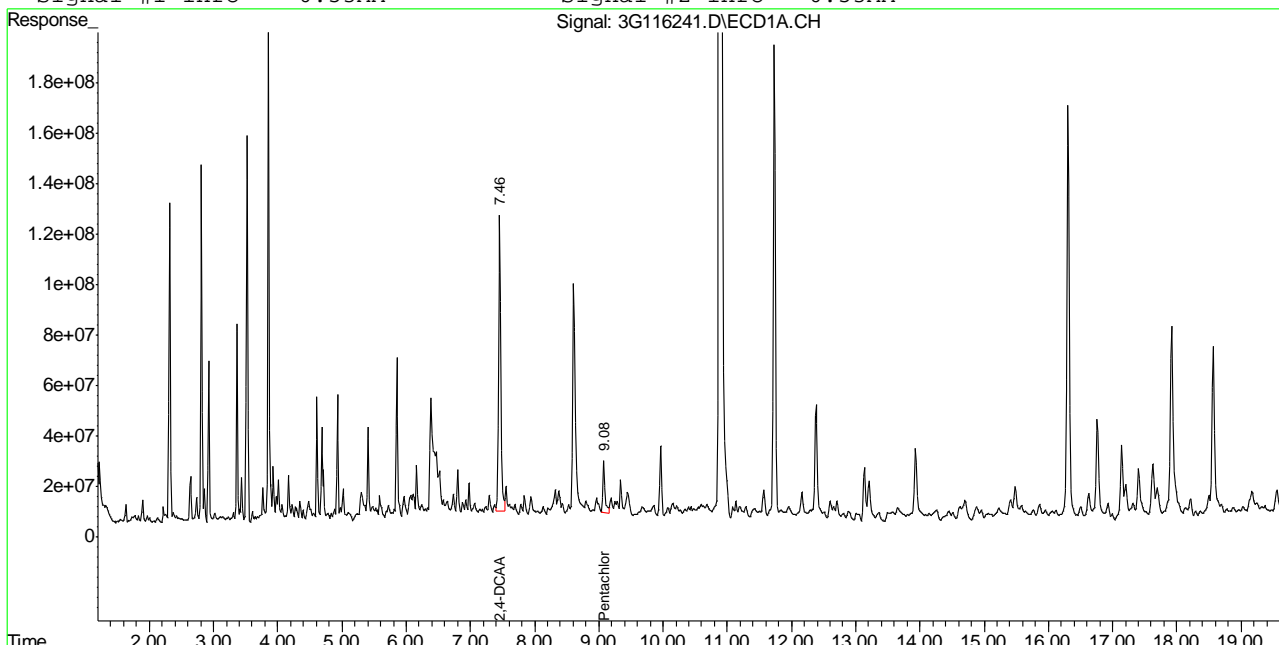
-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116241.D 3H4020.M Thu May 03 11:47:37 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4035\3G116241.D\ECD1A.CH Vial: 27  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4035\3G116241.D\ECD2B.CH  
 Acq On : 03 May 2018 12:22 am Operator: vinced  
 Sample : jc65058-15 Inst : GC3G  
 Misc : op11676,g3g4035,15.6,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 3 11:47 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 11:45:57 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.1.13  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56094.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 01:22:42  
 Operator : christp  
 Sample : jc65058-5  
 Misc : OP11917,g6g1681,15.9,,,10,1  
 ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:52:36 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB      |
|-----------------------------|--------|----------------|------------|---------|---------|----------|
| Internal Standards          |        |                |            |         |         |          |
| 1) I 1-bromo-2...           | 1.960  | 2.158          | 379.4E6    | 244.6E6 | 50.000  | 50.000   |
| 27) I 1-bromo-2...          | 1.960  | 2.158          | 379.4E6    | 244.6E6 | 50.000  | 50.000   |
| 33) I 1-bromo-2...          | 1.960  | 2.158          | 379.4E6    | 244.6E6 | 50.000  | 50.000   |
| System Monitoring Compounds |        |                |            |         |         |          |
| 2) SAB Tetrachlo...         | 2.545  | 2.939          | 171.0E6    | 131.9E6 | 23.189  | 28.943   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 57.97%  | 72.36%  |          |
| 26) SA Decachlor...         | 9.840  | 11.740         | 205.4E6    | 156.3E6 | 27.321m | 34.398 # |
| Spiked Amount               | 40.000 |                | Recovery = | 68.30%  | 86.00%  |          |
| Target Compounds            |        |                |            |         |         |          |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.     |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000    |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

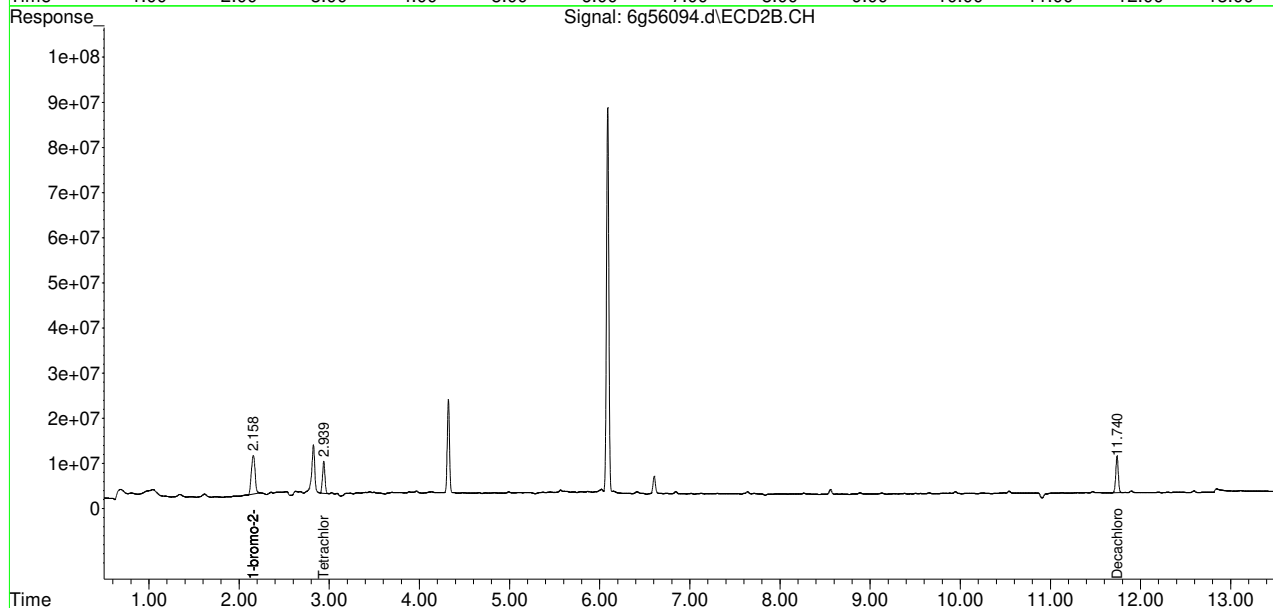
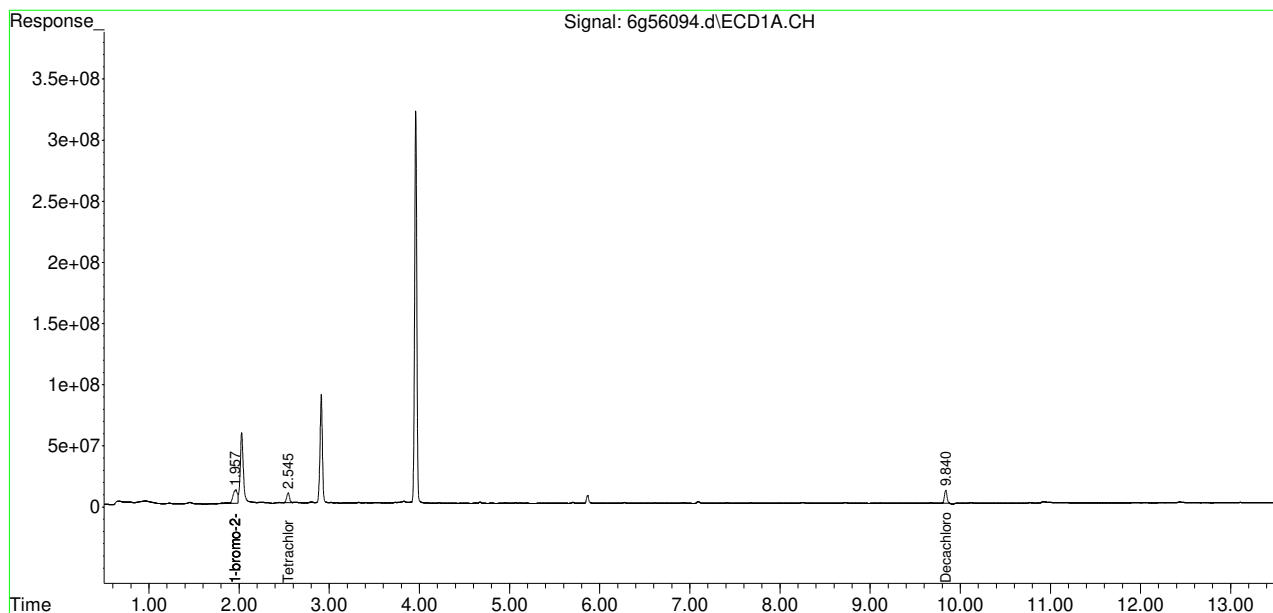
13.1.14  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56094.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 01:22:42  
 Operator : christp  
 Sample : jc65058-5  
 Misc : OP11917,g6g1681,15.9,,,10,1  
 ALS Vial : 33 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:52:36 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.1.14  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56097.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:16:17  
 Operator : christp  
 Sample : jc65058-6  
 Misc : OP11917,g6g1681,15.3,,,10,1  
 ALS Vial : 36 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:31:09 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB     | PPB       |
|-----------------------------|--------|----------------|------------|----------|---------|-----------|
| Internal Standards          |        |                |            |          |         |           |
| 1) I 1-bromo-2...           | 1.968  | 2.172          | 365.0E6    | 640.9E6  | 50.000m | 50.000    |
| 27) I 1-bromo-2...          | 1.969  | 2.172          | 338.6E6    | 640.9E6  | 50.000m | 50.000    |
| 33) I 1-bromo-2...          | 1.993  | 2.172          | 371.0E6    | 640.9E6  | 50.000m | 50.000    |
| System Monitoring Compounds |        |                |            |          |         |           |
| 2) SAB Tetrachlo...         | 2.549  | 2.943          | 227.2E6    | 155.8E6  | 32.023  | 13.051m#  |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 80.06%   | 32.63%  |           |
| 26) SA Decachlor...         | 9.842  | 11.716f        | 124.2E6    | 1407.2E6 | 17.171m | 118.178m# |
| Spiked Amount               | 40.000 |                | Recovery = | 42.93%   | 295.44% |           |
| Target Compounds            |        |                |            |          |         |           |
| Sum Toxaphene               |        |                | 0          | 0        | N.D.    | N.D.      |
| Average Toxaphene           |        |                |            |          | 0.000   | 0.000     |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

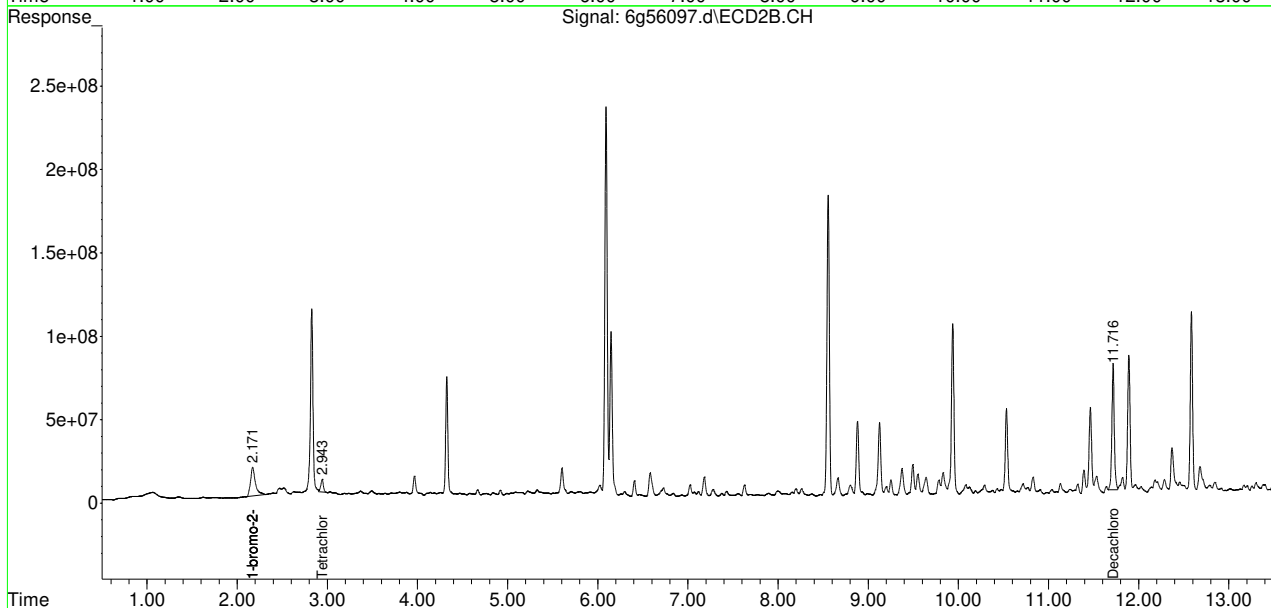
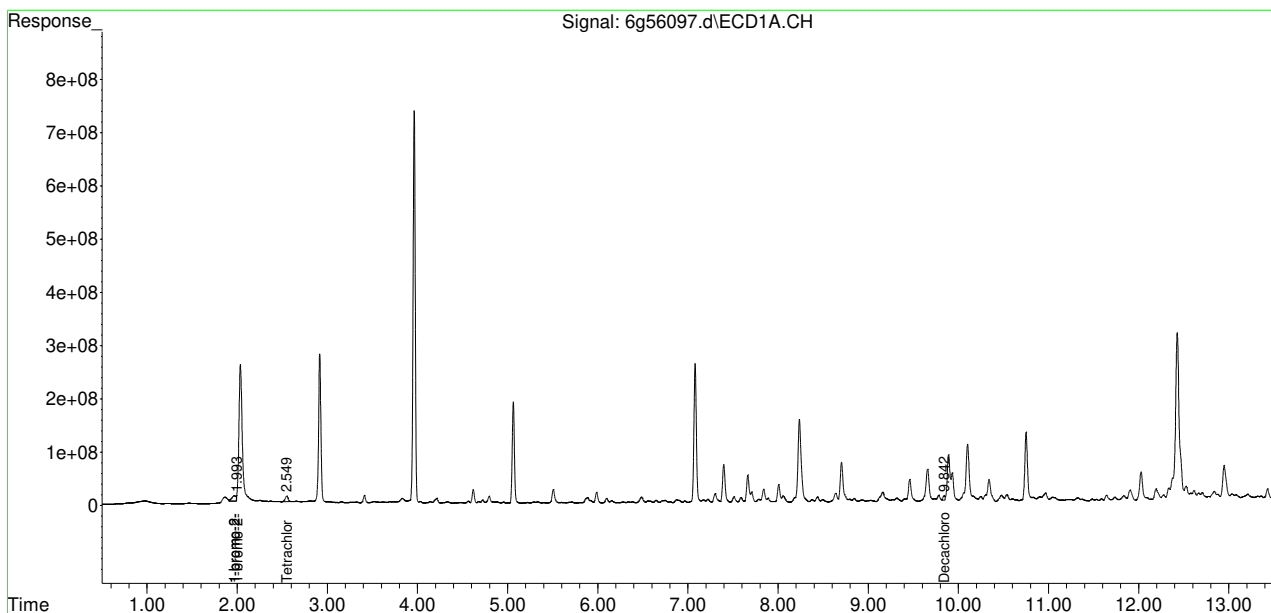
13.1.15  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56097.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:16:17  
 Operator : christp  
 Sample : jc65058-6  
 Misc : OP11917,g6g1681,15.3,,,10,1  
 ALS Vial : 36 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:31:09 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15032.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:58 am  
 Operator : mailisih  
 Sample : jc65058-6  
 Misc : op11917,g8g489,15.3,,,10,5  
 ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:31:18 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2   | Resp#1   | Resp#2   | PPB    | PPB             |
|-----------------------------|------------------|--------|--------|----------|----------|--------|-----------------|
| -----                       |                  |        |        |          |          |        |                 |
| Internal Standards          |                  |        |        |          |          |        |                 |
| 1)                          | I 1-bromo-2...   | 1.926  | 2.401  | 217.9E6  | 599.1E6  | 50.000 | 50.000          |
| 27)                         | I 1-bromo-2...   | 1.926  | 2.401  | 217.9E6  | 599.1E6  | 50.000 | 50.000          |
| 33)                         | I 1-bromo-2...   | 1.926  | 2.401  | 217.9E6  | 599.1E6  | 50.000 | 50.000          |
| System Monitoring Compounds |                  |        |        |          |          |        |                 |
| 2)                          | SAB Tetrachlo... | 2.686  | 3.446  | 22438549 | 57008017 | 5.445  | 5.812           |
|                             | Spiked Amount    | 40.000 | Range  | 30 - 150 | Recovery | =      | 13.61%# 14.53%# |
| 26)                         | SA Decachlor...  | 10.865 | 13.491 | 21626413 | 87934535 | 4.681m | 8.311 #         |
|                             | Spiked Amount    | 40.000 |        | Recovery | =        | 11.70% | 20.78%          |

## Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

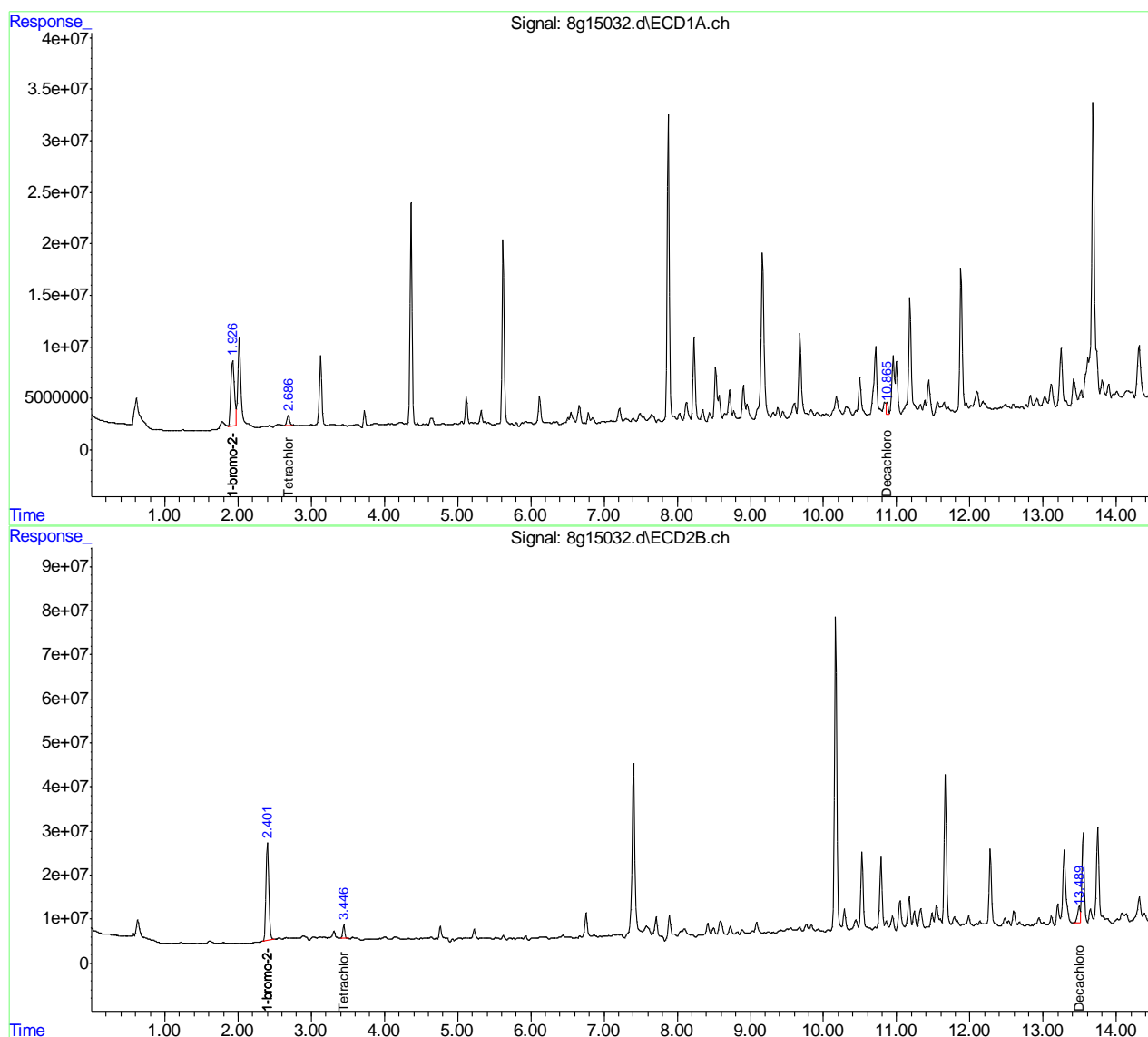


## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15032.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:58 am  
 Operator : mailisih  
 Sample : jc65058-6  
 Misc : op11917,g8g489,15.3,,,10,5  
 ALS Vial : 47 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:31:18 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

13.1.16  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56098.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:34:06  
 Operator : christp  
 Sample : jc65058-7  
 Misc : OP11917,g6g1681,16.2,,,10,1  
 ALS Vial : 37 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:11:04 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB      |
|-----------------------------|--------|----------------|------------|---------|---------|----------|
| Internal Standards          |        |                |            |         |         |          |
| 1) I 1-bromo-2...           | 1.962  | 2.162          | 343.2E6    | 230.9E6 | 50.000  | 50.000   |
| 27) I 1-bromo-2...          | 1.962  | 2.162          | 343.2E6    | 230.9E6 | 50.000  | 50.000   |
| 33) I 1-bromo-2...          | 1.962  | 2.162          | 343.2E6    | 230.9E6 | 50.000  | 50.000   |
| System Monitoring Compounds |        |                |            |         |         |          |
| 2) SAB Tetrachlo...         | 2.547  | 2.942          | 173.8E6    | 129.6E6 | 26.055  | 30.144   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 65.14%  | 75.36%  |          |
| 26) SA Decachlor...         | 9.840  | 11.740         | 183.1E6    | 172.0E6 | 26.924  | 40.088m# |
| Spiked Amount               | 40.000 |                | Recovery = | 67.31%  | 100.22% |          |
| Target Compounds            |        |                |            |         |         |          |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.     |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000    |

SemiQuant Compounds - Not Calibrated on this Instrument

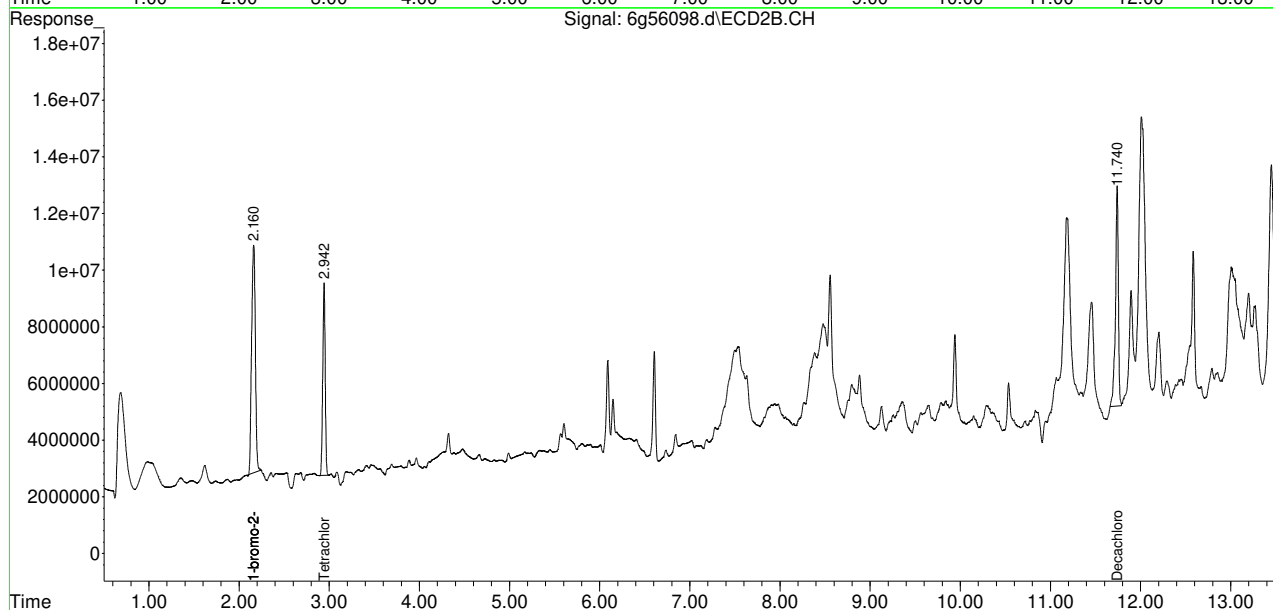
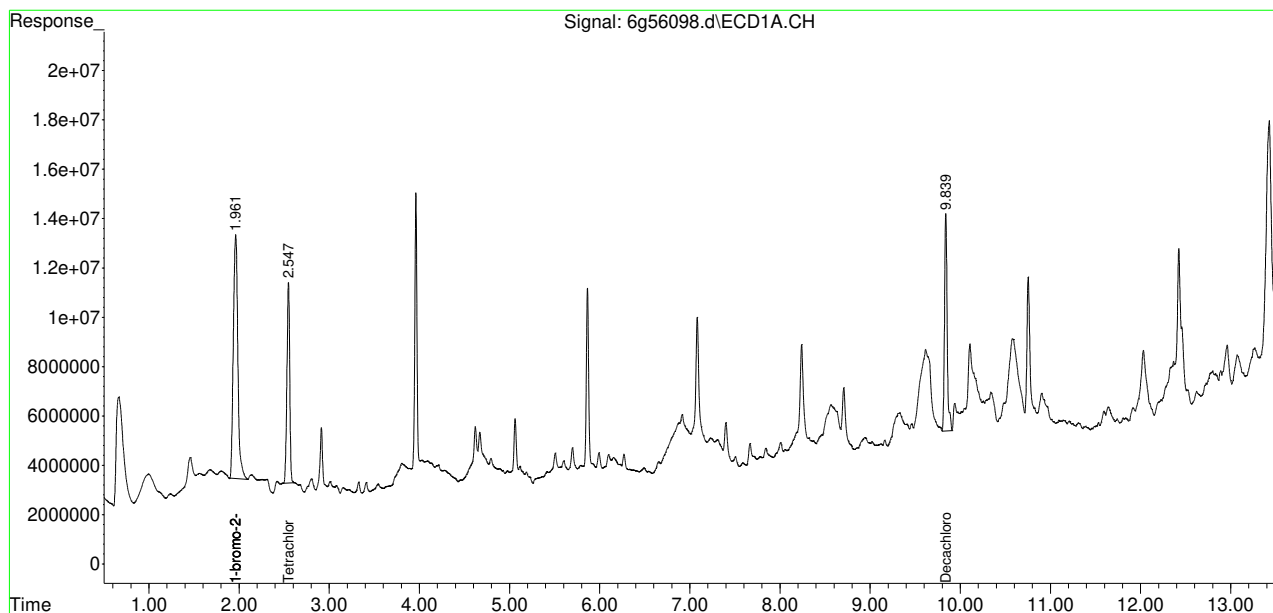
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56098.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:34:06  
 Operator : christp  
 Sample : jc65058-7  
 Misc : OP11917,g6g1681,16.2,,,10,1  
 ALS Vial : 37 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:11:04 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56099.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:51:53 (#1); 11-May-18, 02:51:54 (#2)  
 Operator : christp  
 Sample : jc65058-8  
 Misc : OP11917,g6g1681,15.8,,,10,1  
 ALS Vial : 38 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:12:59 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB      |
|-----------------------------|--------|----------------|------------|---------|---------|----------|
| -----                       |        |                |            |         |         |          |
| Internal Standards          |        |                |            |         |         |          |
| 1) I 1-bromo-2...           | 1.960  | 2.161          | 337.8E6    | 239.5E6 | 50.000  | 50.000   |
| 27) I 1-bromo-2...          | 1.960  | 2.161          | 337.8E6    | 239.5E6 | 50.000  | 50.000   |
| 33) I 1-bromo-2...          | 1.960  | 2.161          | 337.8E6    | 239.5E6 | 50.000  | 50.000   |
| System Monitoring Compounds |        |                |            |         |         |          |
| 2) SAB Tetrachlo...         | 2.546  | 2.941          | 187.5E6    | 137.4E6 | 28.559m | 30.806   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = |         | 71.40%  | 77.02%   |
| 26) SA Decachlor...         | 9.838  | 11.739         | 183.1E6    | 186.0E6 | 27.351m | 41.794m# |
| Spiked Amount               | 40.000 |                | Recovery = |         | 68.38%  | 104.48%  |
| Target Compounds            |        |                |            |         |         |          |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.     |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000    |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

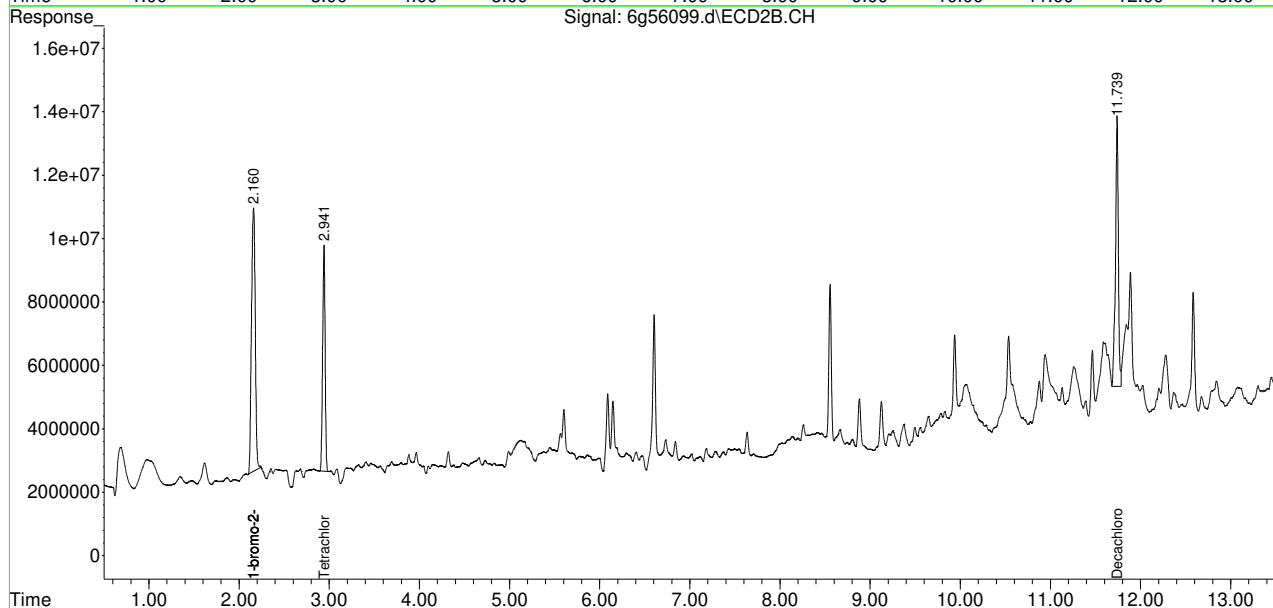
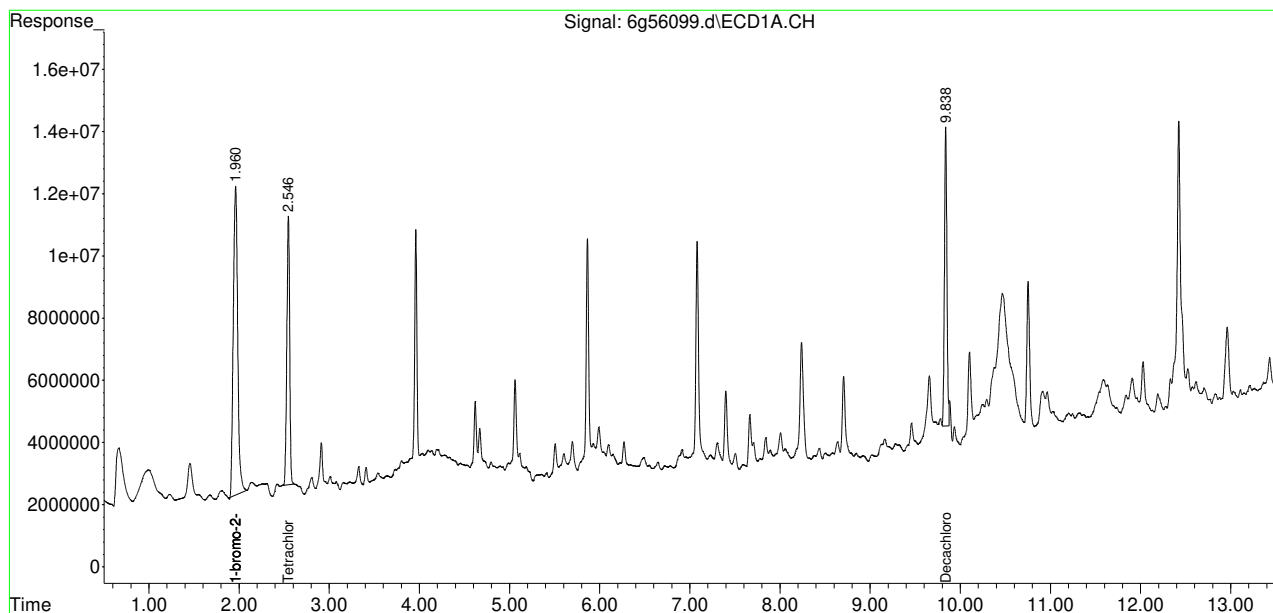
13.1.18  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56099.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 02:51:53 (#1); 11-May-18, 02:51:54 (#2)  
 Operator : christp  
 Sample : jc65058-8  
 Misc : OP11917,g6g1681,15.8,,,10,1  
 ALS Vial : 38 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:12:59 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56100.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 03:09:42  
 Operator : christp  
 Sample : jc65058-10  
 Misc : OP11917,g6g1681,15.5,,,10,1  
 ALS Vial : 39 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:10:28 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB       |
|-----------------------------|--------|----------------|------------|---------|---------|-----------|
| -----                       |        |                |            |         |         |           |
| Internal Standards          |        |                |            |         |         |           |
| 1) I 1-bromo-2...           | 1.960  | 2.160          | 348.5E6    | 242.3E6 | 50.000  | 50.000    |
| 27) I 1-bromo-2...          | 1.960  | 2.160          | 348.5E6    | 242.3E6 | 50.000  | 50.000    |
| 33) I 1-bromo-2...          | 1.960  | 2.160          | 348.5E6    | 242.3E6 | 50.000  | 50.000    |
| System Monitoring Compounds |        |                |            |         |         |           |
| 2) SAB Tetrachlo...         | 2.546  | 2.941          | 204.5E6    | 148.6E6 | 30.186m | 32.932    |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 75.47%  | 82.33%  |           |
| 26) SA Decachlor...         | 9.839  | 11.738         | 204.1E6    | 459.8E6 | 29.557m | 102.157m# |
| Spiked Amount               | 40.000 |                | Recovery = | 73.89%  | 255.39% |           |
| Target Compounds            |        |                |            |         |         |           |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.      |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000     |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

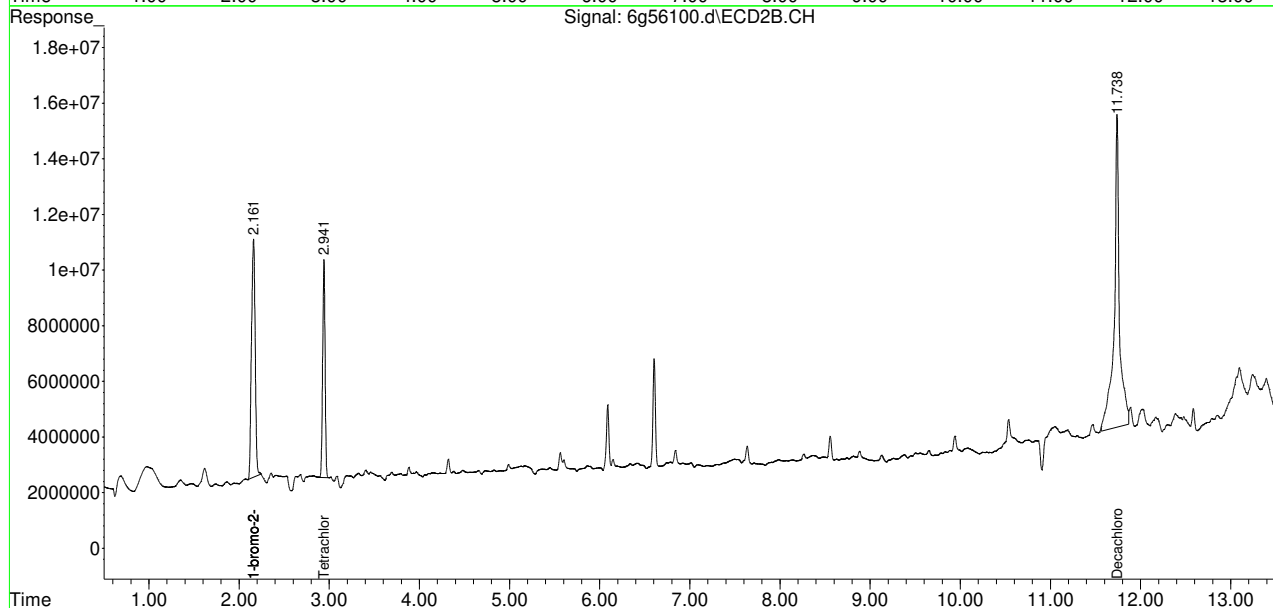
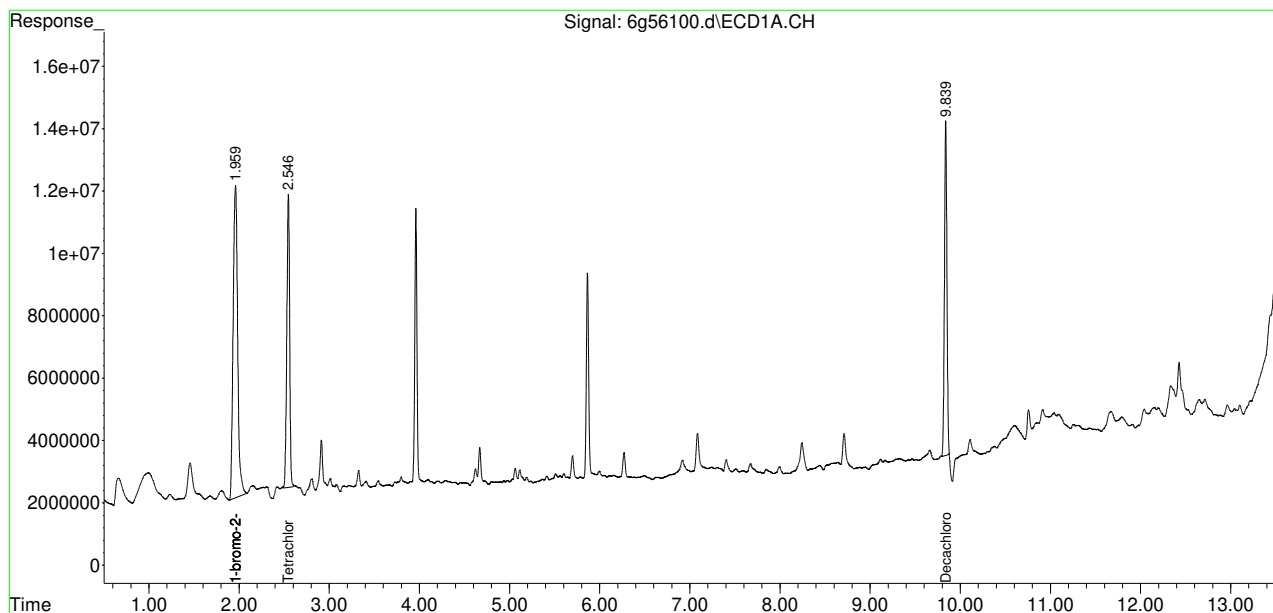
13.1.19  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56100.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 03:09:42  
 Operator : christp  
 Sample : jc65058-10  
 Misc : OP11917,g6g1681,15.5,,,10,1  
 ALS Vial : 39 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:10:28 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56101.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 03:27:38  
 Operator : christp  
 Sample : jc65058-11  
 Misc : OP11917,g6g1681,15.5,,,10,1  
 ALS Vial : 40 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:17:38 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB      |
|-----------------------------|--------|----------------|------------|---------|---------|----------|
| Internal Standards          |        |                |            |         |         |          |
| 1) I 1-bromo-2...           | 1.958  | 2.159          | 340.2E6    | 215.0E6 | 50.000  | 50.000m  |
| 27) I 1-bromo-2...          | 1.958  | 2.159          | 340.2E6    | 218.0E6 | 50.000  | 50.000m  |
| 33) I 1-bromo-2...          | 1.958  | 2.159          | 340.2E6    | 219.4E6 | 50.000  | 50.000m  |
| System Monitoring Compounds |        |                |            |         |         |          |
| 2) SAB Tetrachlo...         | 2.546  | 2.941          | 184.9E6    | 134.9E6 | 27.960m | 33.682   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 69.90%  | 84.21%  |          |
| 26) SA Decachlor...         | 9.838  | 11.739         | 189.1E6    | 167.8E6 | 28.060m | 41.996m# |
| Spiked Amount               | 40.000 |                | Recovery = | 70.15%  | 104.99% |          |
| Target Compounds            |        |                |            |         |         |          |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.     |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000    |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

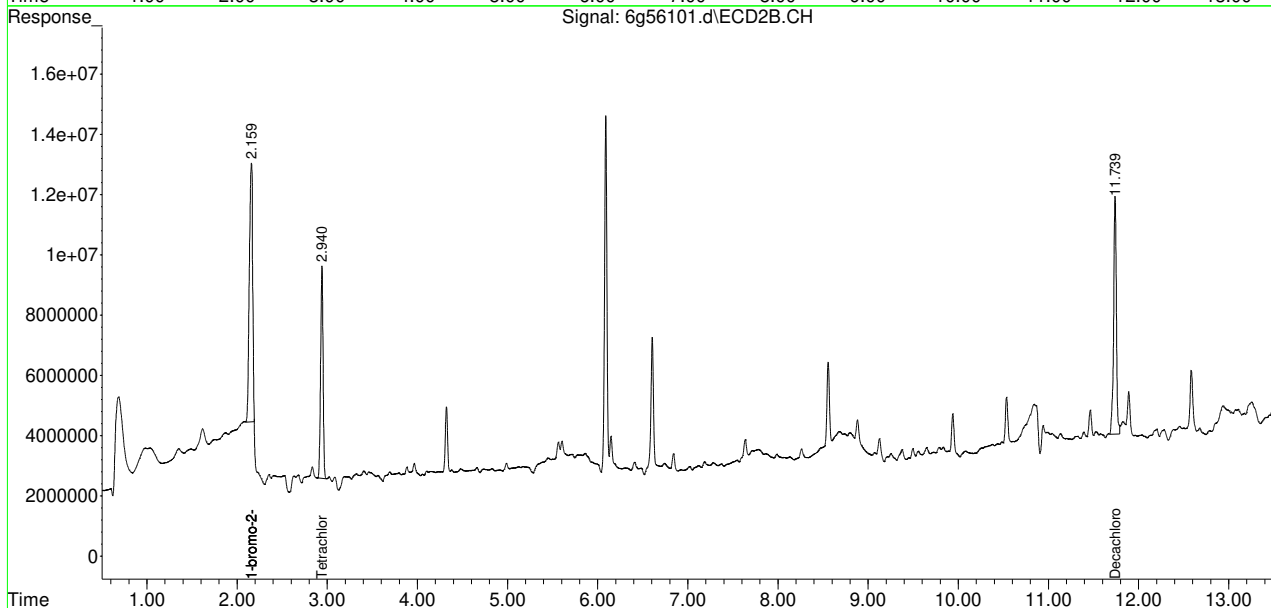
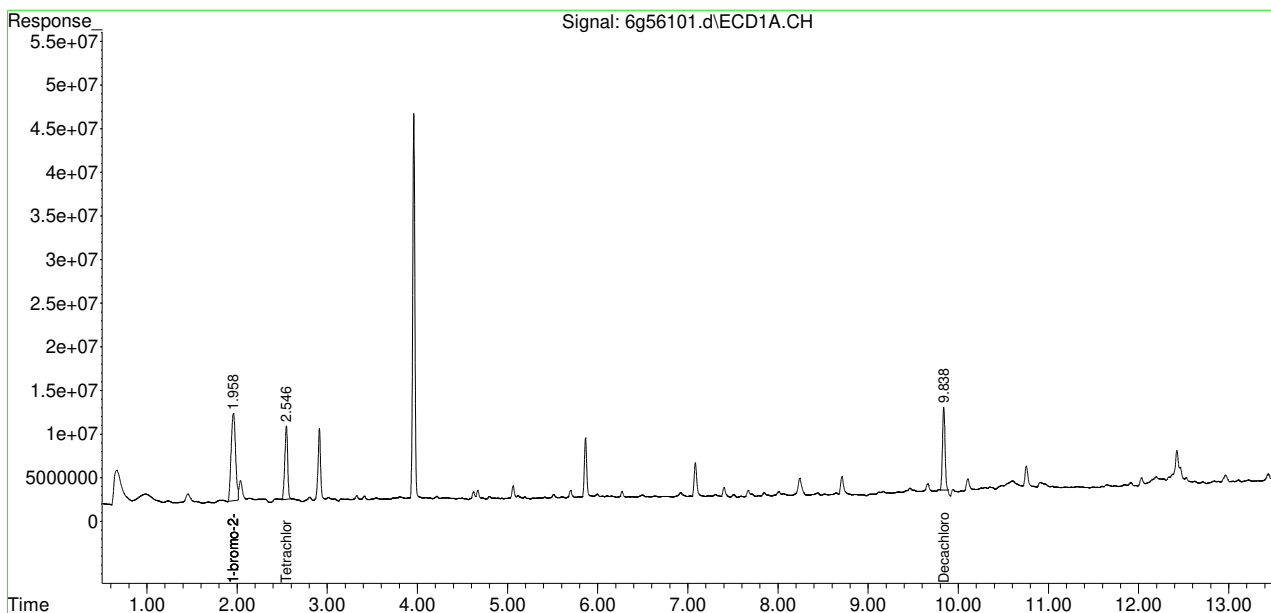


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56101.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 03:27:38  
 Operator : christp  
 Sample : jc65058-11  
 Misc : OP11917,g6g1681,15.5,,,10,1  
 ALS Vial : 40 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 09:17:38 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Manual Integrations  
**APPROVED**  
 (compounds with "m" flag)  
**Gwendolyn Burns**  
 05/03/18 12:10

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145824.D\ECD1A.CH Vial: 47  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145824.D\ECD2B.CH  
 Acq On : 5-2-18 07:02:21 AM Operator: christp  
 Sample : jc65058-12 Inst : GC1G  
 Misc : op11667,glg4635,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:12 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB    |
|-----------------------------|--------|-------|----------|----------|-----------|--------|
| Internal Standards          |        |       |          |          |           |        |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.29  | 565.1E6  | 92201022 | 50.000    | 50.000 |
| 27) I 1-bromo-2-nitrob      | 1.98   | 2.29  | 565.1E6  | 92201022 | 50.000    | 50.000 |
| 33) I 1-bromo-2-nitrob      | 1.98   | 2.29  | 565.1E6  | 92201022 | 50.000    | 50.000 |
| System Monitoring Compounds |        |       |          |          |           |        |
| 2) SAB Tetrachloro-m-xy     | 2.55   | 3.13  | 355.5E6  | 58963543 | 33.359m   | 30.947 |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 83.40%  | 77.37% |
| 26) SA Decachlorobiphen     | 9.81   | 11.69 | 594.4E6  | 61927206 | 54.250m   | 36.258 |
| Spiked Amount               | 40.000 |       |          | Recovery | = 135.63% | 90.65% |

Target Compounds

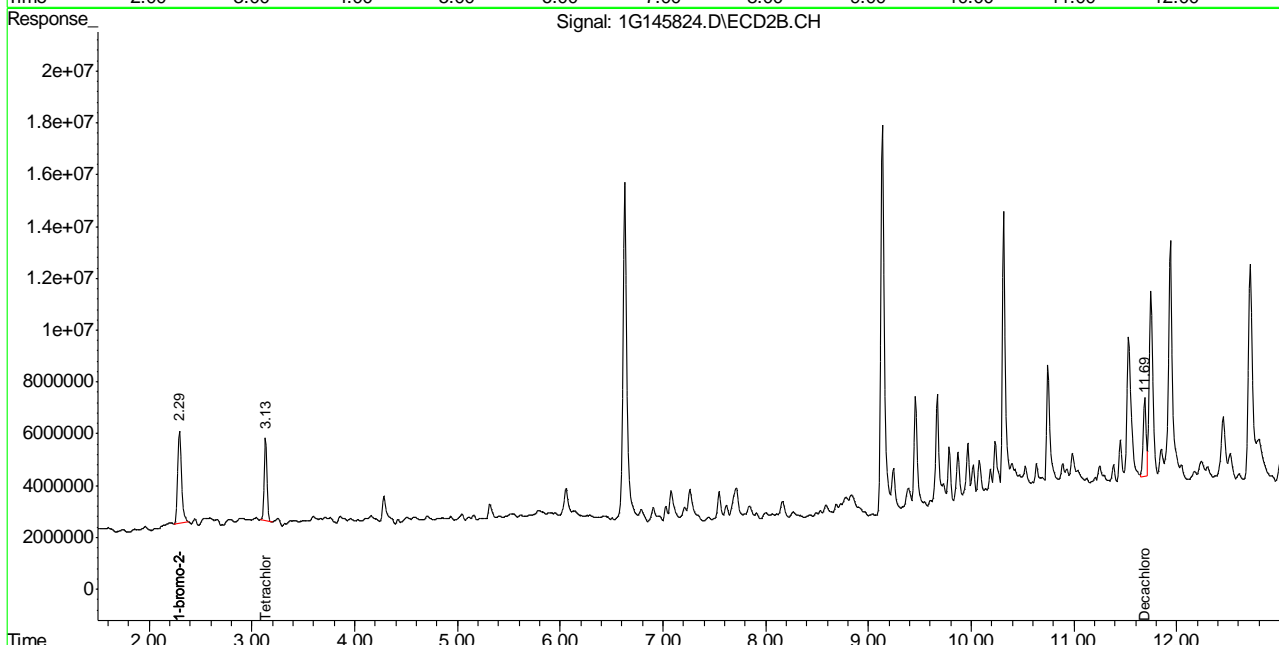
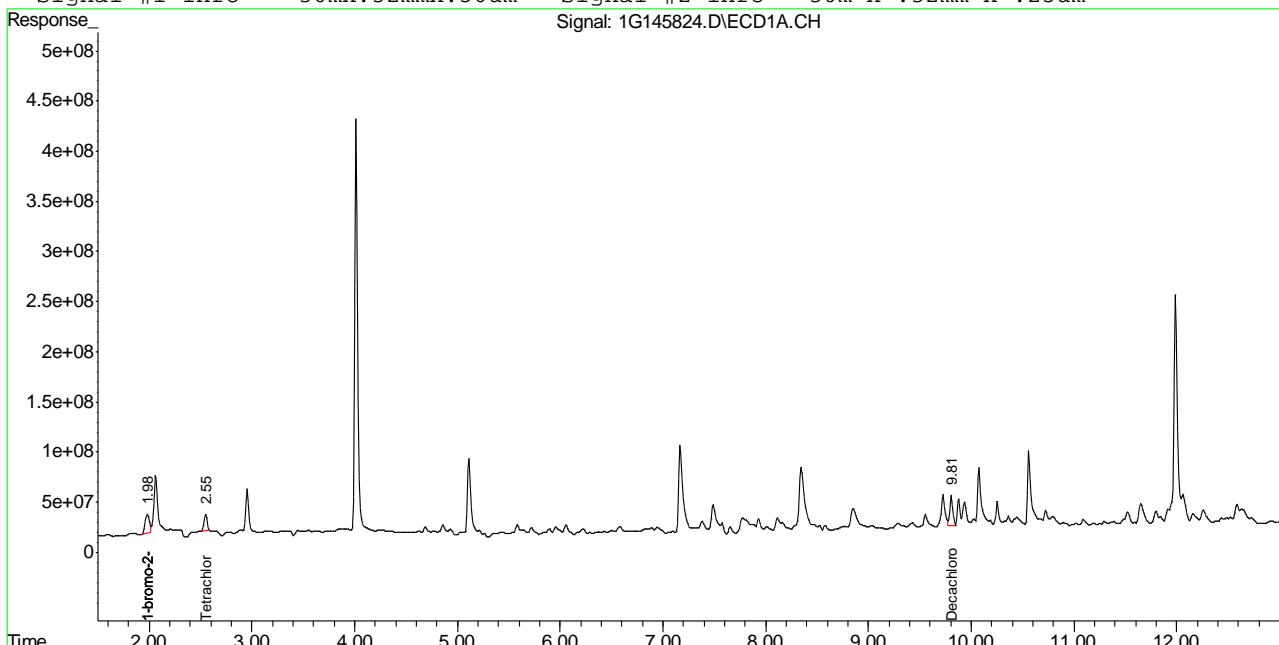
13.1.21  
 13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145824.D\ECD1A.CH Vial: 47  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145824.D\ECD2B.CH  
 Acq On : 5-2-18 07:02:21 AM Operator: christp  
 Sample : jc65058-12 Inst : GC1G  
 Misc : op11667,g1g4635,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:12 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.1.21  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145825.D\ECD1A.CH Vial: 48  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145825.D\ECD2B.CH  
 Acq On : 5-2-18 07:20:12 AM Operator: christp  
 Sample : jc65058-13 Inst : GC1G  
 Misc : op11667,glg4635,16.3,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:14 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB     |
|-----------------------------|--------|-------|----------|----------|-----------|---------|
| Internal Standards          |        |       |          |          |           |         |
| 1) I 1-bromo-2-nitrob       | 1.97   | 2.29  | 684.8E6  | 103.5E6  | 50.000    | 50.000  |
| 27) I 1-bromo-2-nitrob      | 1.97   | 2.29  | 684.8E6  | 103.5E6  | 50.000    | 50.000  |
| 33) I 1-bromo-2-nitrob      | 1.97   | 2.29  | 684.8E6  | 103.5E6  | 50.000    | 50.000  |
| System Monitoring Compounds |        |       |          |          |           |         |
| 2) SAB Tetrachloro-m-xy     | 2.54   | 3.13  | 488.7E6  | 73893970 | 37.843m   | 34.542  |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 94.61%  | 86.36%  |
| 26) SA Decachlorobiphen     | 9.80   | 11.69 | 693.2E6  | 66199387 | 52.208m   | 34.521m |
| Spiked Amount               | 40.000 |       |          | Recovery | = 130.52% | 86.30%  |

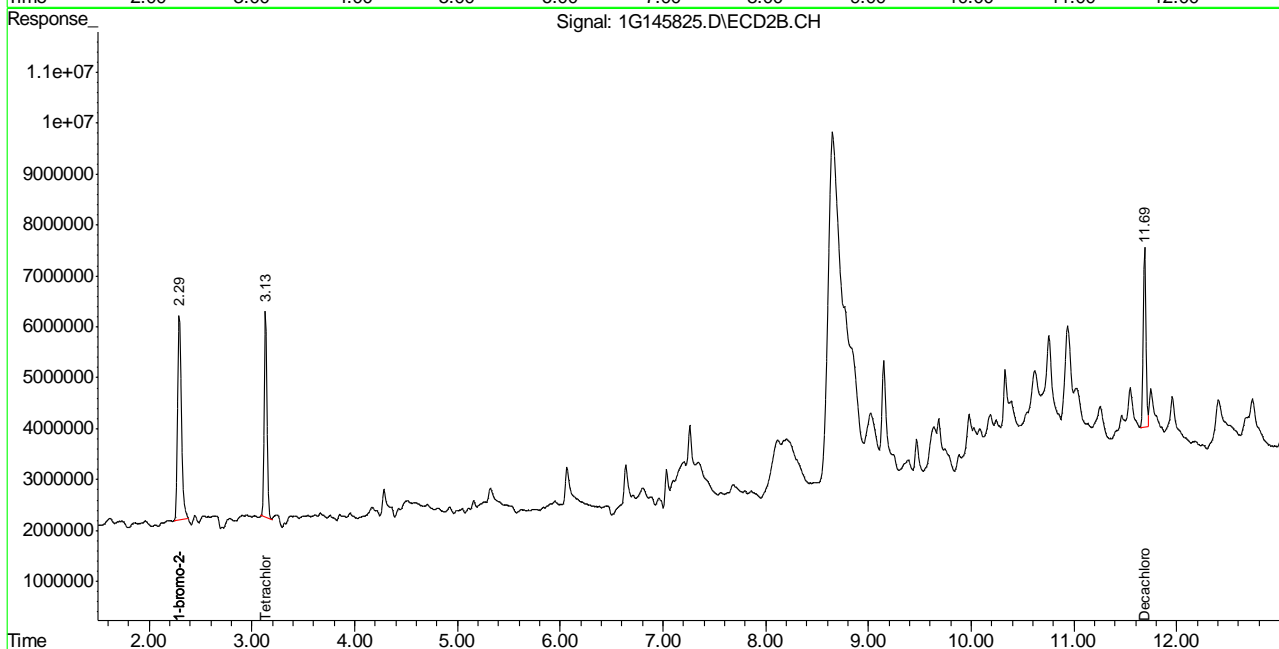
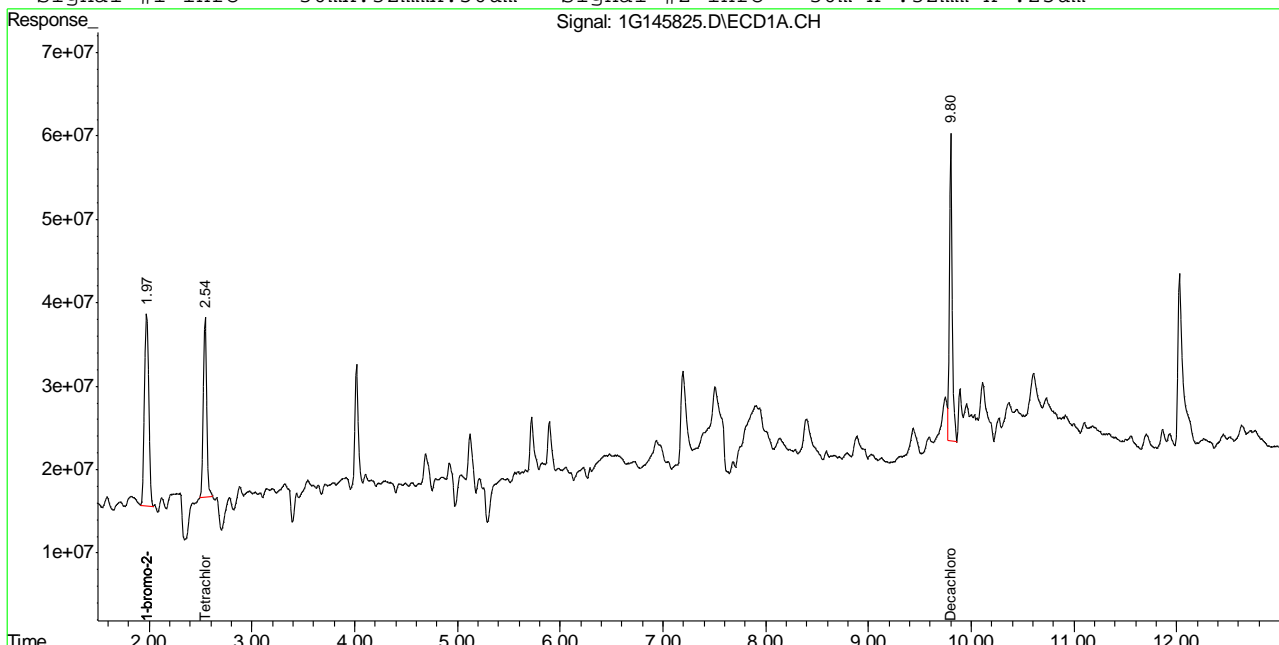
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145825.D\ECD1A.CH Vial: 48  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145825.D\ECD2B.CH  
 Acq On : 5-2-18 07:20:12 AM Operator: christp  
 Sample : jc65058-13 Inst : GC1G  
 Misc : op11667,glg4635,16.3,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:14 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.1.22  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14793.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 7:01 pm  
 Operator : dharas  
 Sample : jc65058-13a  
 Misc : op11692,g8g483,30,,,2,1  
 ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:28:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB    |
|-----------------------------|------------------|--------|----------------|------------|---------|--------|--------|
| -----                       |                  |        |                |            |         |        |        |
| Internal Standards          |                  |        |                |            |         |        |        |
| 1)                          | I 1-bromo-2...   | 1.940  | 2.412          | 209.8E6    | 480.3E6 | 50.000 | 50.000 |
| 27)                         | I 1-bromo-2...   | 1.940  | 2.412          | 209.8E6    | 480.3E6 | 50.000 | 50.000 |
| 33)                         | I 1-bromo-2...   | 1.940  | 2.412          | 209.8E6    | 480.3E6 | 50.000 | 50.000 |
| System Monitoring Compounds |                  |        |                |            |         |        |        |
| 2)                          | SAB Tetrachlo... | 2.692  | 3.451          | 126.4E6    | 299.1E6 | 31.838 | 38.033 |
|                             | Spiked Amount    | 40.000 | Range 30 - 150 | Recovery = |         | 79.59% | 95.08% |
| 26)                         | SA Decachlor...  | 10.877 | 13.503         | 135.0E6    | 291.8E6 | 30.343 | 34.397 |
|                             | Spiked Amount    | 40.000 |                | Recovery = |         | 75.86% | 85.99% |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

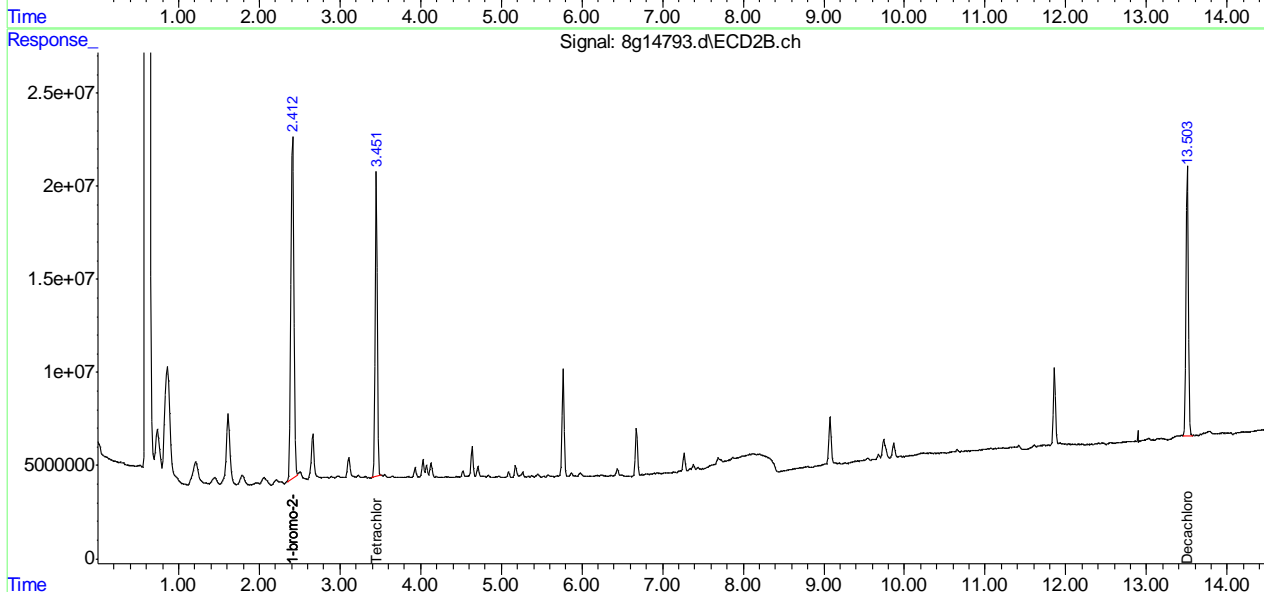
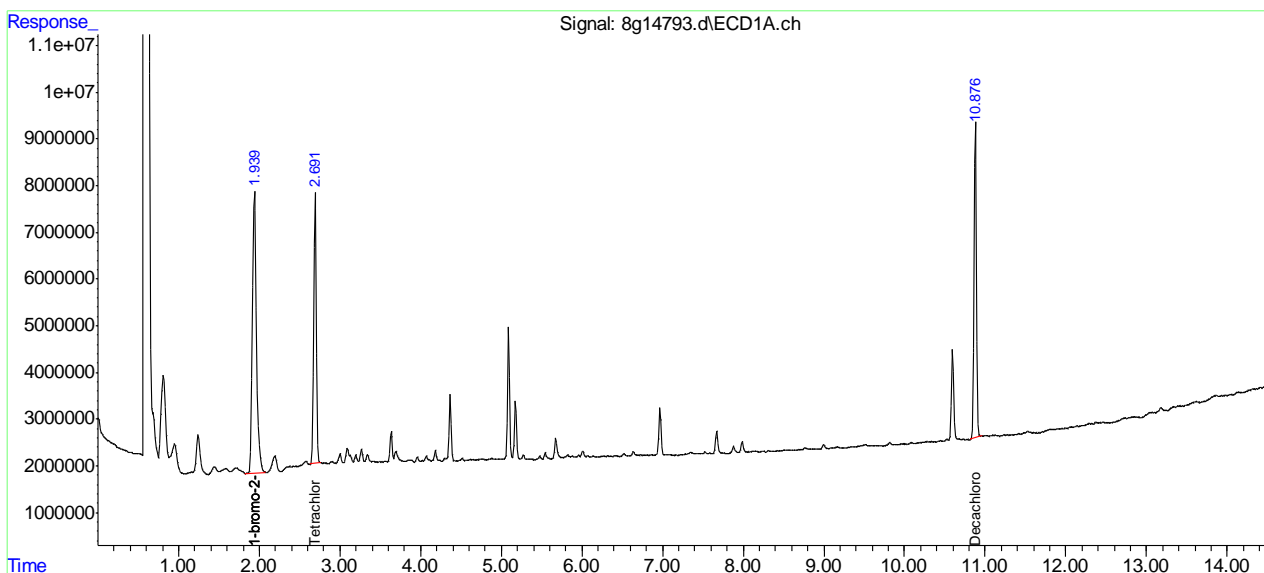
13.1.23  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14793.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 7:01 pm  
 Operator : dharas  
 Sample : jc65058-13a  
 Misc : op11692,g8g483,30,,,2,1  
 ALS Vial : 39 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:28:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145826.D\ECD1A.CH Vial: 49  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145826.D\ECD2B.CH  
 Acq On : 5-2-18 07:38:05 AM Operator: christp  
 Sample : jc65058-15 Inst : GC1G  
 Misc : op11667,glg4635,15.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:17 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB     |
|-----------------------------|--------|-------|----------|----------|-----------|---------|
| Internal Standards          |        |       |          |          |           |         |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 676.3E6  | 105.2E6  | 50.000    | 50.000  |
| 27) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 676.3E6  | 105.2E6  | 50.000    | 50.000  |
| 33) I 1-bromo-2-nitrob      | 1.98   | 2.30  | 676.3E6  | 105.2E6  | 50.000    | 50.000  |
| System Monitoring Compounds |        |       |          |          |           |         |
| 2) SAB Tetrachloro-m-xy     | 2.54   | 3.13  | 421.4E6  | 69856432 | 33.041m   | 32.146  |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 82.60%  | 80.36%  |
| 26) SA Decachlorobiphen     | 9.80   | 11.68 | 633.3E6  | 83029847 | 48.295m   | 42.624  |
| Spiked Amount               | 40.000 |       |          | Recovery | = 120.74% | 106.56% |

Target Compounds

13.1.24  
 13

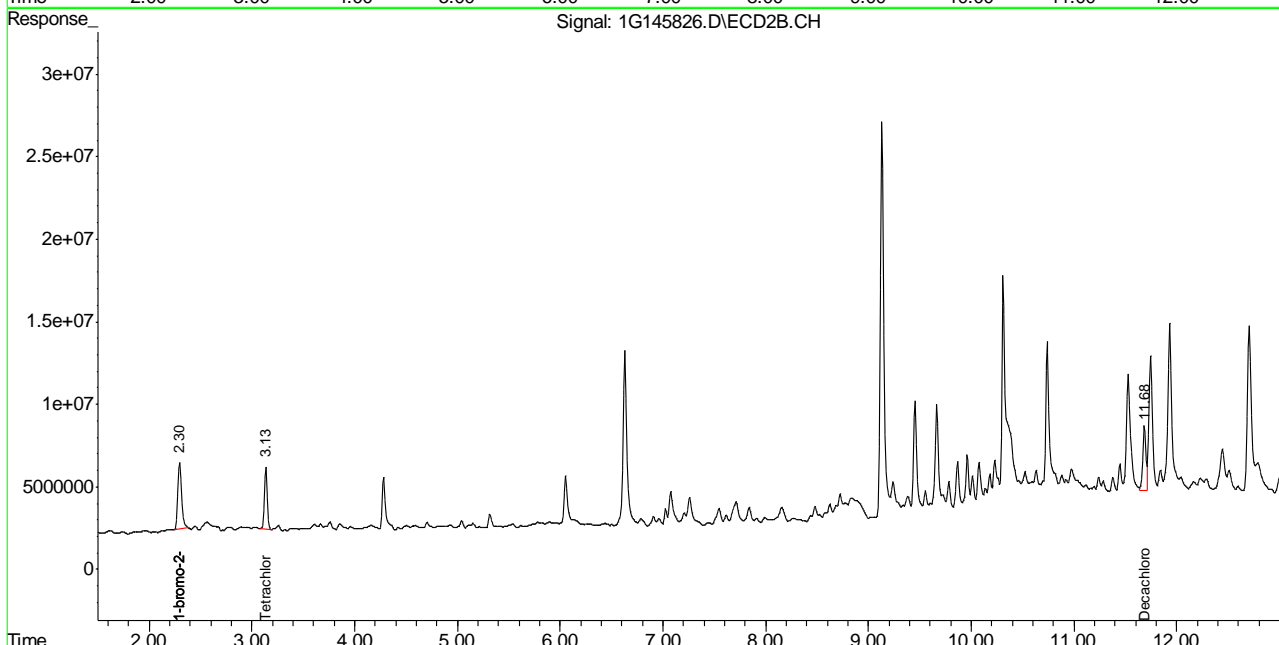
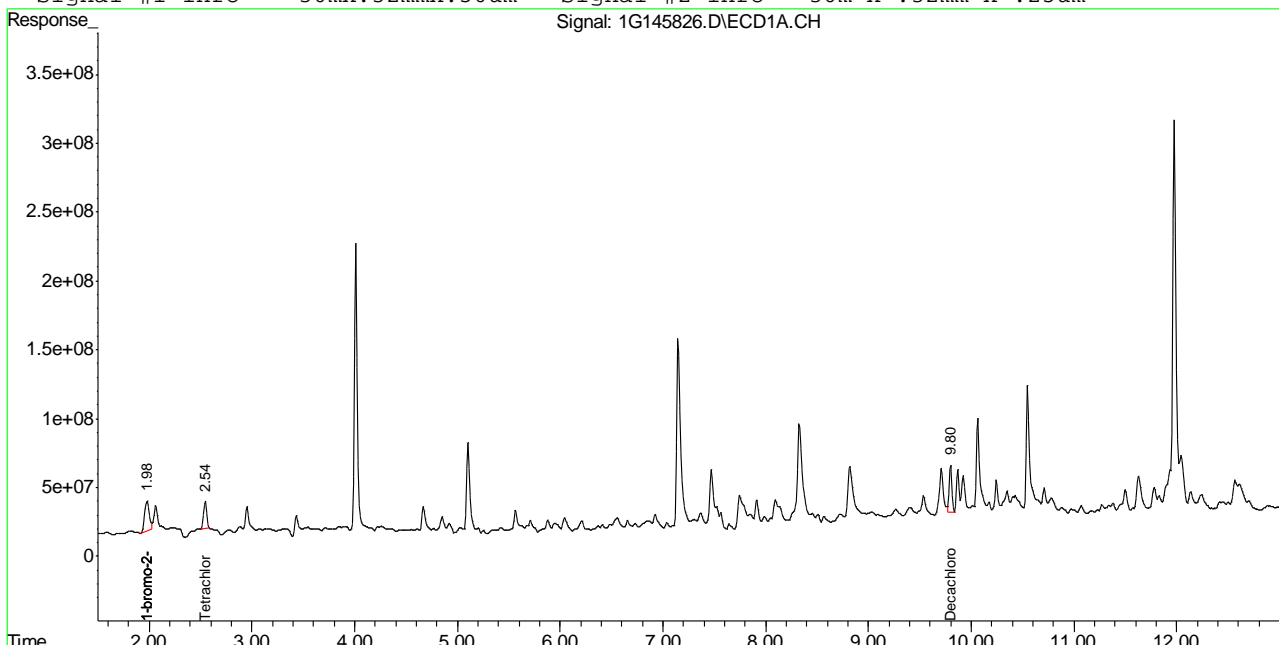


Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145826.D\ECD1A.CH Vial: 49  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145826.D\ECD2B.CH  
 Acq On : 5-2-18 07:38:05 AM Operator: christp  
 Sample : jc65058-15 Inst : GC1G  
 Misc : op11667,glg4635,15.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 11:17 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.1.24  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227808.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 9:12 pm  
 Operator : tianweir  
 Sample : jc65058-5  
 Misc : op11668,GXX6332,16.5,,,10.0,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:28:54 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb    | ppb      |
|-----------------------------|--------|---------|----------|---------|--------|----------|
| -----                       |        |         |          |         |        |          |
| System Monitoring Compounds |        |         |          |         |        |          |
| 1) S Tetrachlo...           | 2.810  | 3.552   | 300.6E6  | 334.2E6 | 36.388 | 41.095   |
| Spiked Amount               | 40.000 |         | Recovery | =       | 90.97% | 102.74%  |
| 51) S Decachlor...          | 9.965f | 11.970f | 305.8E6  | 366.4E6 | 30.684 | 40.116 # |
| Spiked Amount               | 40.000 |         | Recovery | =       | 76.71% | 100.29%  |

## Target Compounds

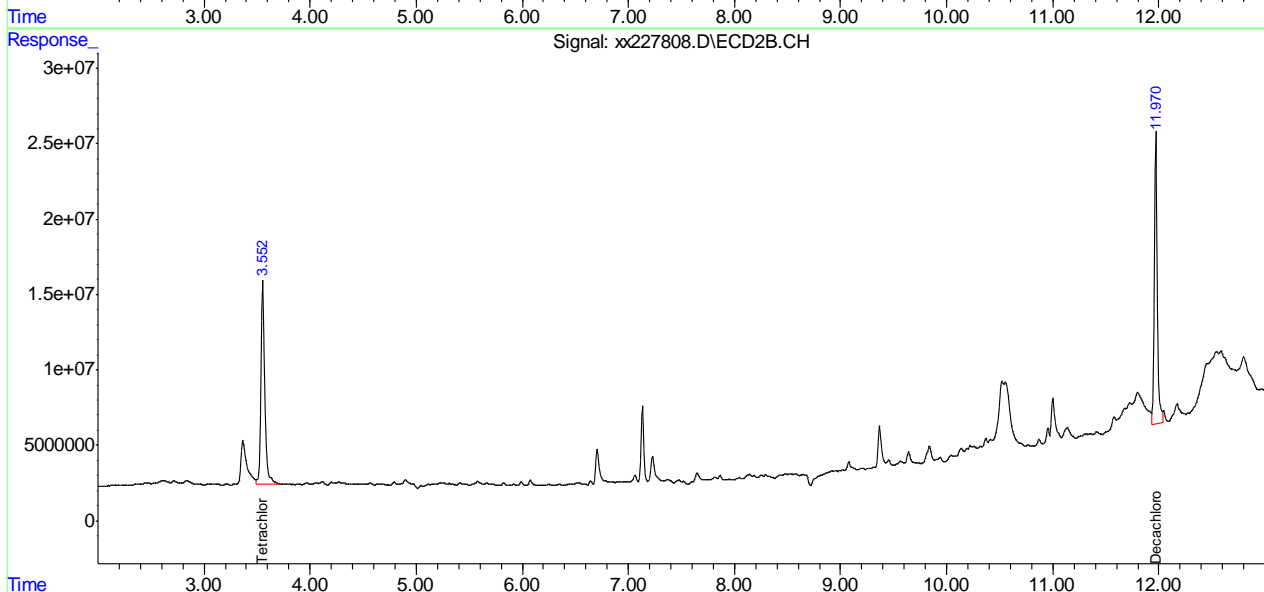
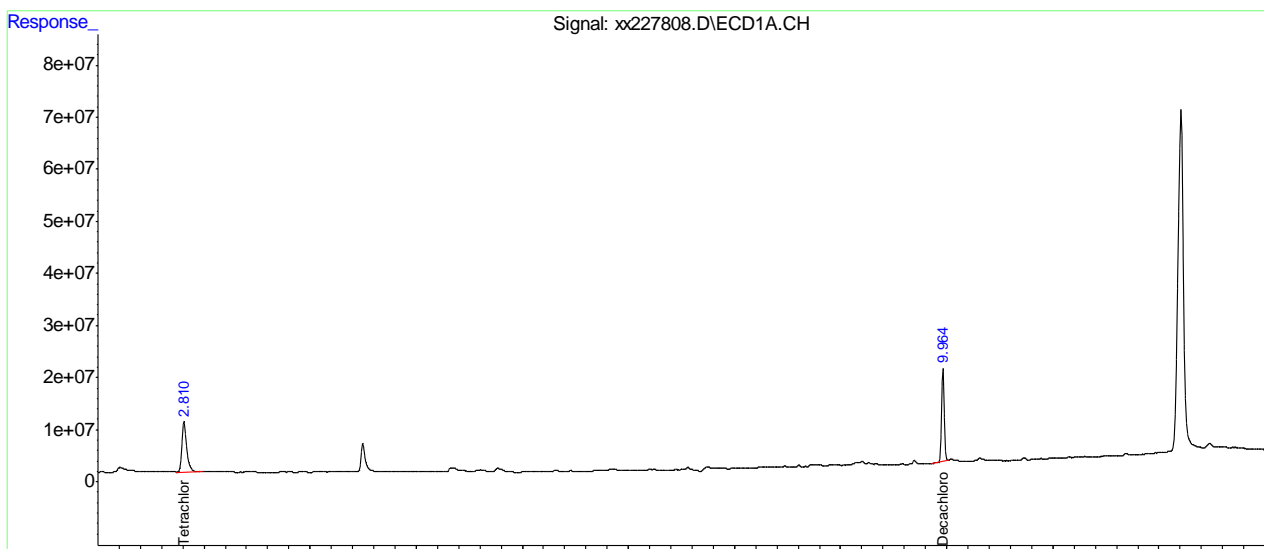
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227808.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 9:12 pm  
 Operator : tianweir  
 Sample : jc65058-5  
 Misc : op11668,GXX6332,16.5,,,10.0,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:28:54 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.25  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227820.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:29 am  
 Operator : tianweir  
 Sample : jc65058-6  
 Misc : op11668,GXX6332,15.7,,,10.0,1  
 ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:32:31 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb       |
|-----------------------------|--------|--------|----------|----------|---------|-----------|
| -----                       |        |        |          |          |         |           |
| System Monitoring Compounds |        |        |          |          |         |           |
| 1) S Tetrachlo...           | 2.807  | 3.548  | 341.3E6  | 260.6E6  | 41.312  | 32.036m   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 103.28% | 80.09%    |
| 51) S Decachlor...          | 9.967f | 11.992 | 923.2E6  | 7077.2E6 | 92.629  | 774.903 # |
| Spiked Amount               | 40.000 |        | Recovery | =        | 231.57% | 1937.26%  |

## Target Compounds

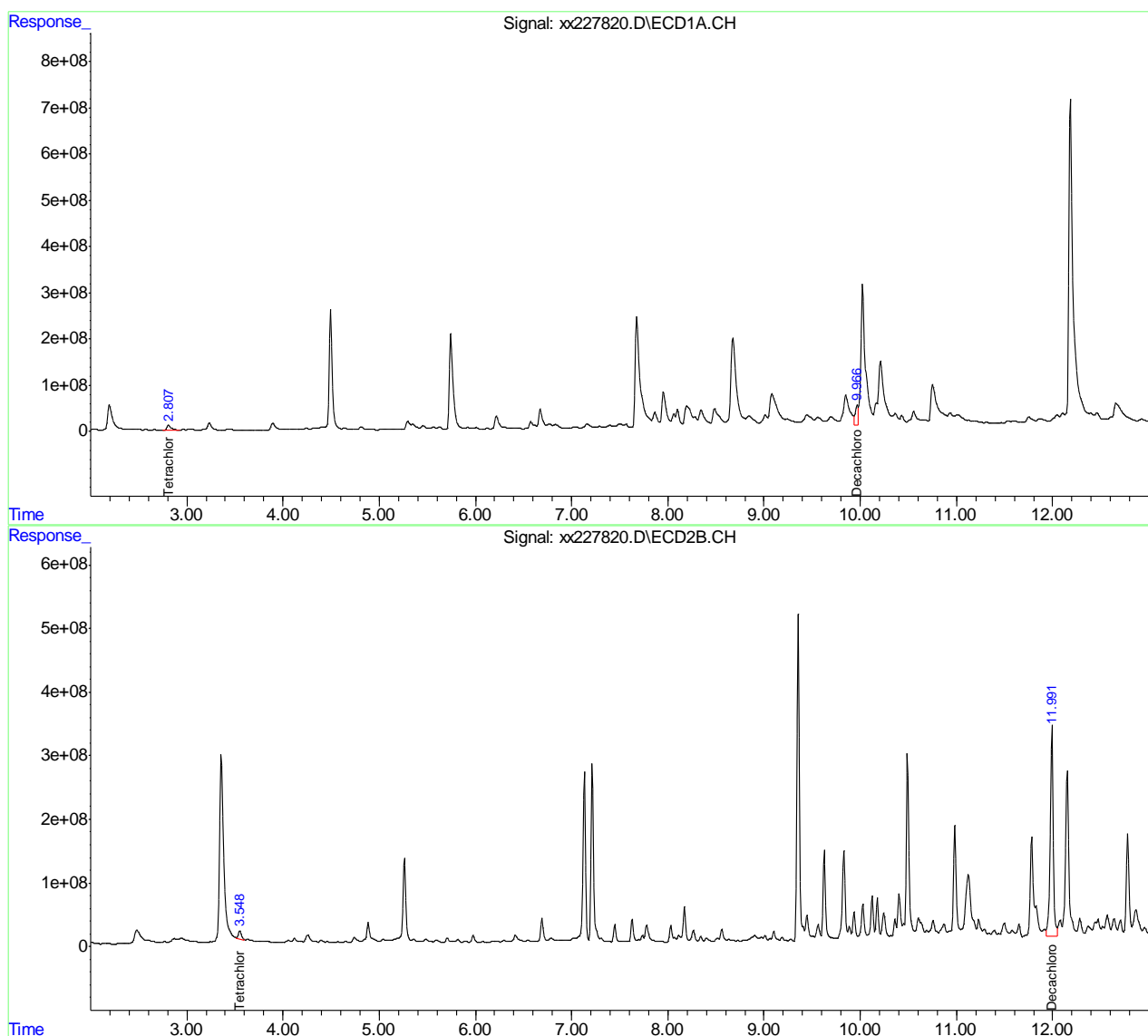
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
Data File : xx227820.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 12:29 am  
Operator : tianweir  
Sample : jc65058-6  
Misc : op11668,GXX6332,15.7,,,10.0,1  
ALS Vial : 22 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 02 11:32:31 2018  
Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 15:50:14 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227821.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:46 am  
 Operator : tianweir  
 Sample : jc65058-7  
 Misc : op11668,GXX6332,16.2,,,10.0,1  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:33:09 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb     | ppb      |
|-----------------------------|--------|---------|----------|---------|---------|----------|
| -----                       |        |         |          |         |         |          |
| System Monitoring Compounds |        |         |          |         |         |          |
| 1) S Tetrachlo...           | 2.808  | 3.551   | 284.3E6  | 288.0E6 | 34.410  | 35.410   |
| Spiked Amount               | 40.000 |         | Recovery | =       | 86.02%  | 88.52%   |
| 51) S Decachlor...          | 9.964f | 11.968f | 281.5E6  | 471.0E6 | 28.249m | 51.574 # |
| Spiked Amount               | 40.000 |         | Recovery | =       | 70.62%  | 128.94%  |

## Target Compounds

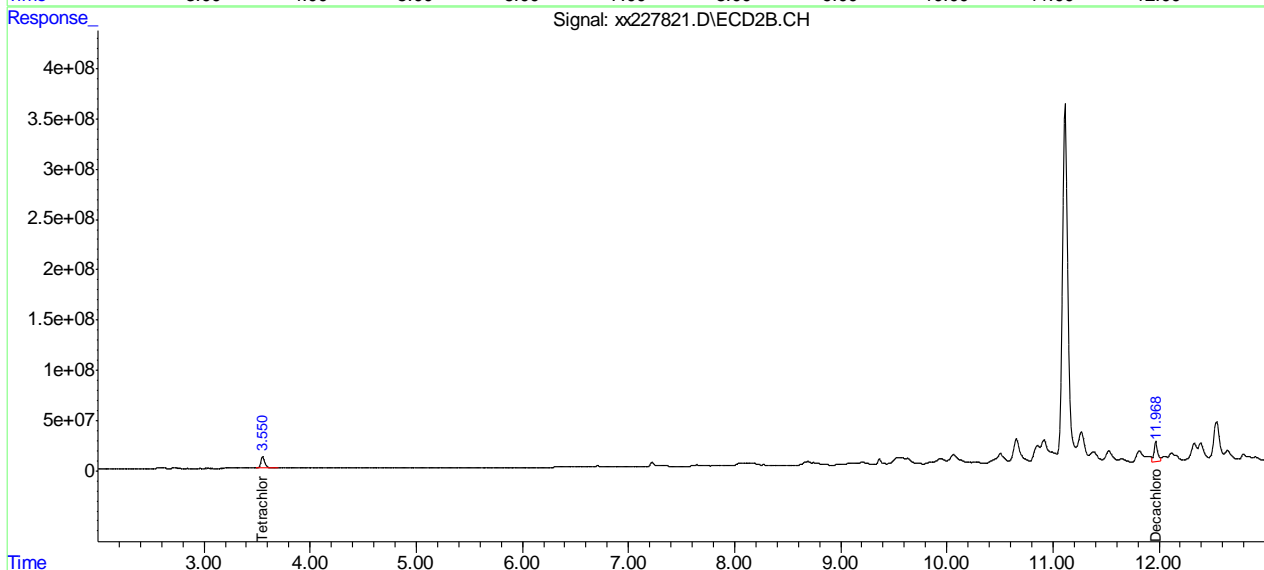
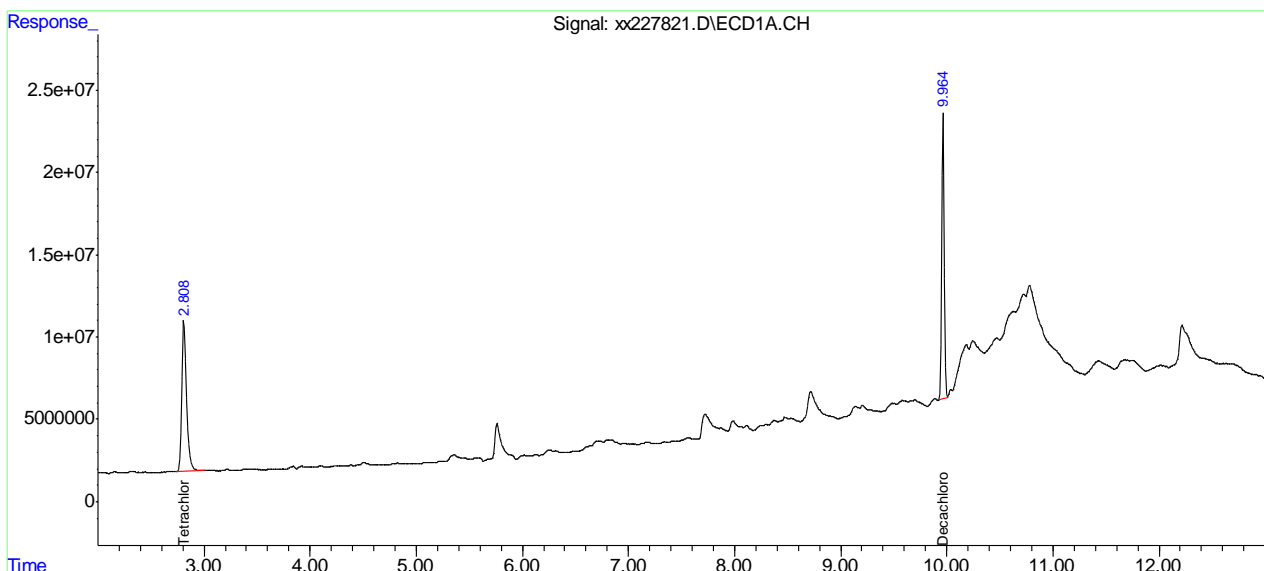
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227821.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:46 am  
 Operator : tianweir  
 Sample : jc65058-7  
 Misc : op11668,GXX6332,16.2,,,10.0,1  
 ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:33:09 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227822.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 1:02 am  
 Operator : tianweir  
 Sample : jc65058-8  
 Misc : op11668,GXX6332,16.1,,,10.0,1  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:33:34 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb      |
|-----------------------------|--------|--------|----------|---------|--------|----------|
| -----                       |        |        |          |         |        |          |
| System Monitoring Compounds |        |        |          |         |        |          |
| 1) S Tetrachlo...           | 2.808  | 3.550  | 277.3E6  | 301.0E6 | 33.562 | 37.008   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 83.91% | 92.52%   |
| 51) S Decachlor...          | 9.962f | 11.976 | 351.2E6  | 850.0E6 | 35.237 | 93.071 # |
| Spiked Amount               | 40.000 |        | Recovery | =       | 88.09% | 232.68%  |

## Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

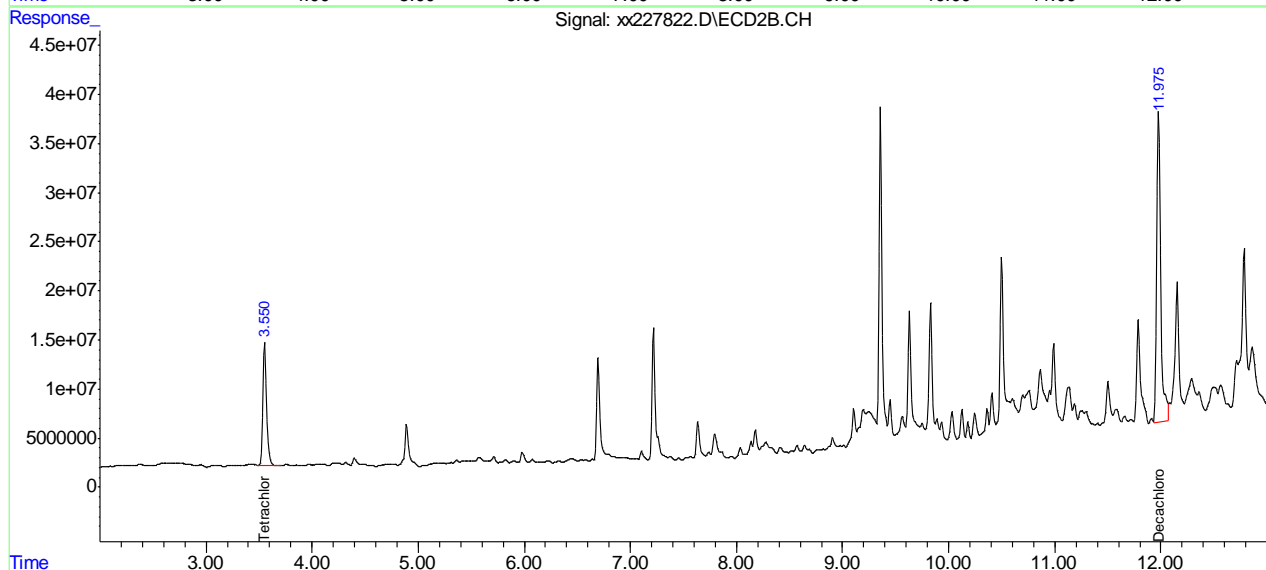
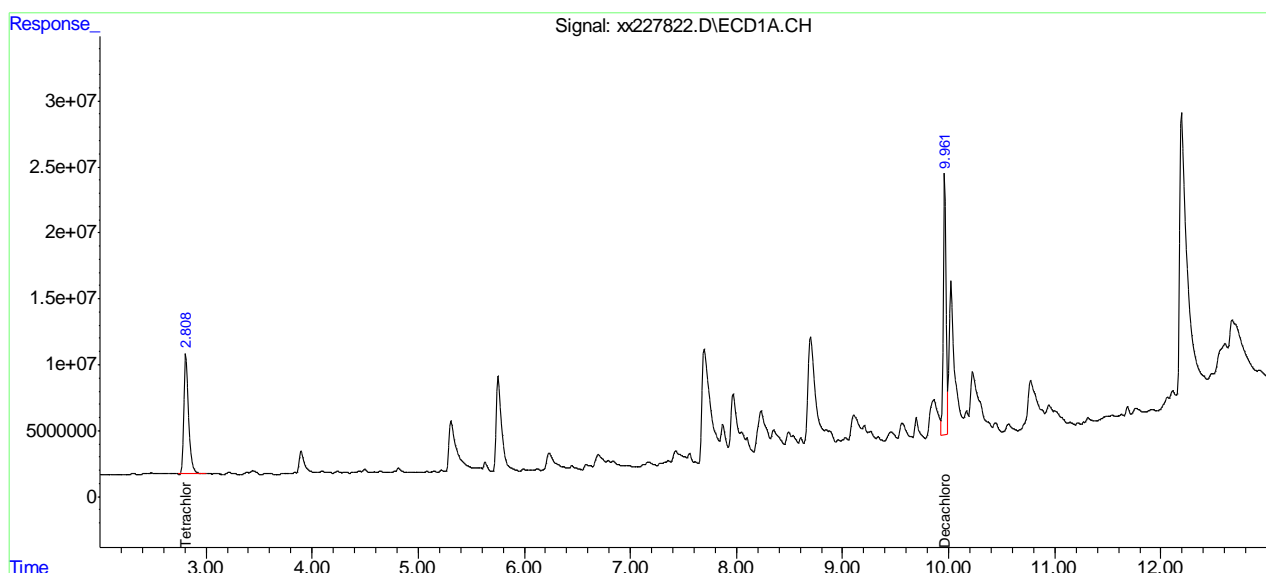


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227822.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 1:02 am  
 Operator : tianweir  
 Sample : jc65058-8  
 Misc : op11668,GXX6332,16.1,,,10.0,1  
 ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:33:34 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.28  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227823.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 1:19 am  
 Operator : tianweir  
 Sample : jc65058-10  
 Misc : op11668,GXX6332,15.2,,,10.0,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:34:01 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb     | ppb      |
|-----------------------------|--------|---------|----------|---------|---------|----------|
| -----                       |        |         |          |         |         |          |
| System Monitoring Compounds |        |         |          |         |         |          |
| 1) S Tetrachlo...           | 2.809  | 3.551   | 357.4E6  | 368.5E6 | 43.256  | 45.308   |
| Spiked Amount               | 40.000 |         | Recovery | =       | 108.14% | 113.27%  |
| 51) S Decachlor...          | 9.965f | 11.971f | 391.5E6  | 493.1E6 | 39.283  | 53.990 # |
| Spiked Amount               | 40.000 |         | Recovery | =       | 98.21%  | 134.97%  |

## Target Compounds

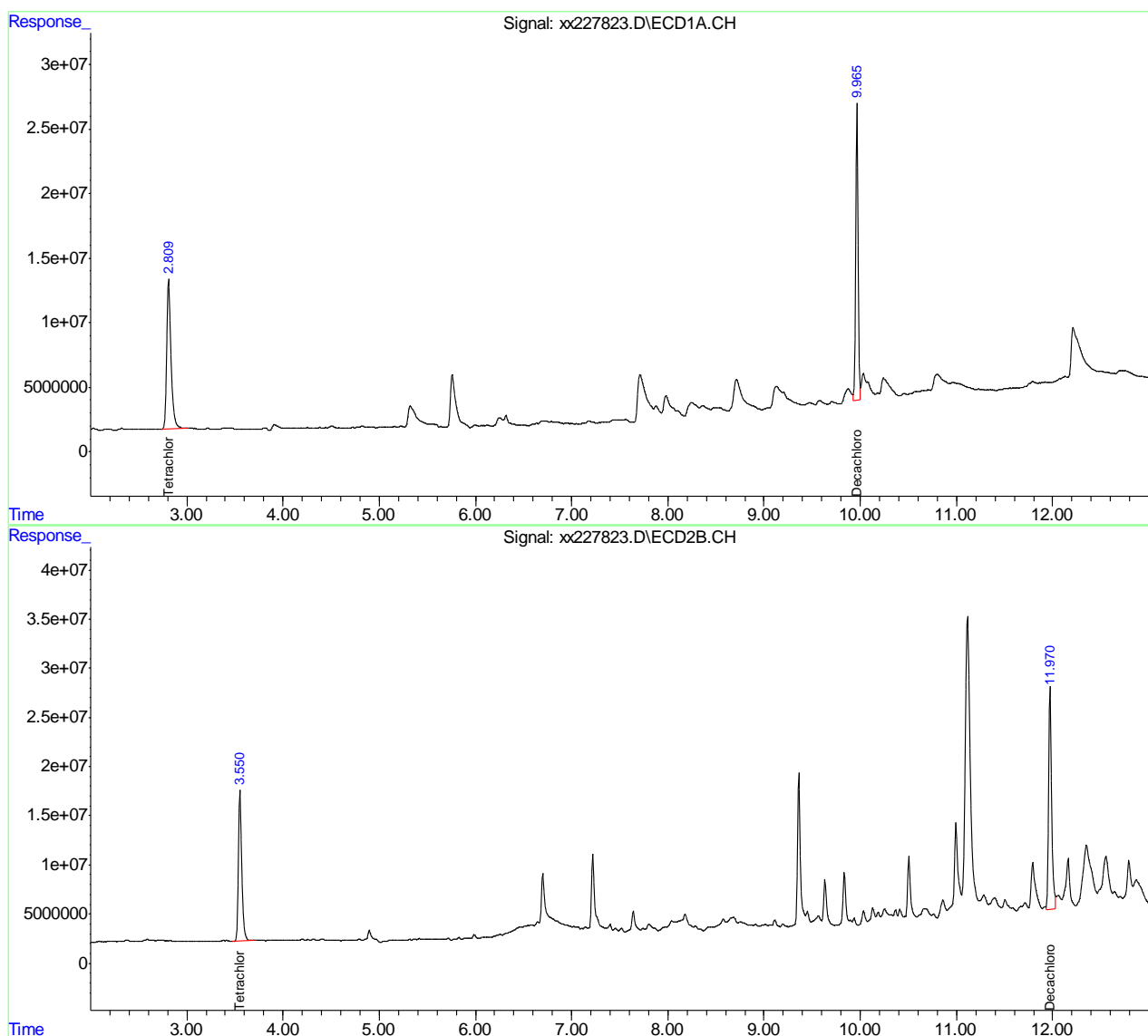
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
Data File : xx227823.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 1:19 am  
Operator : tianweir  
Sample : jc65058-10  
Misc : op11668,GXX6332,15.2,,,10.0,1  
ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 02 11:34:01 2018  
Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 15:50:14 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227828.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 2:41 am  
 Operator : tianweir  
 Sample : jc65058-11  
 Misc : op11668,GXX6332,15.8,,,10.0,1  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:34:45 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb     | ppb      |
|-----------------------------|--------|---------|----------|---------|---------|----------|
| -----                       |        |         |          |         |         |          |
| System Monitoring Compounds |        |         |          |         |         |          |
| 1) S Tetrachlo...           | 2.810  | 3.552   | 334.9E6  | 365.4E6 | 40.542  | 44.927   |
| Spiked Amount               | 40.000 |         | Recovery | =       | 101.35% | 112.32%  |
| 51) S Decachlor...          | 9.964f | 11.972f | 398.4E6  | 464.6E6 | 39.978m | 50.871 # |
| Spiked Amount               | 40.000 |         | Recovery | =       | 99.95%  | 127.18%  |

## Target Compounds

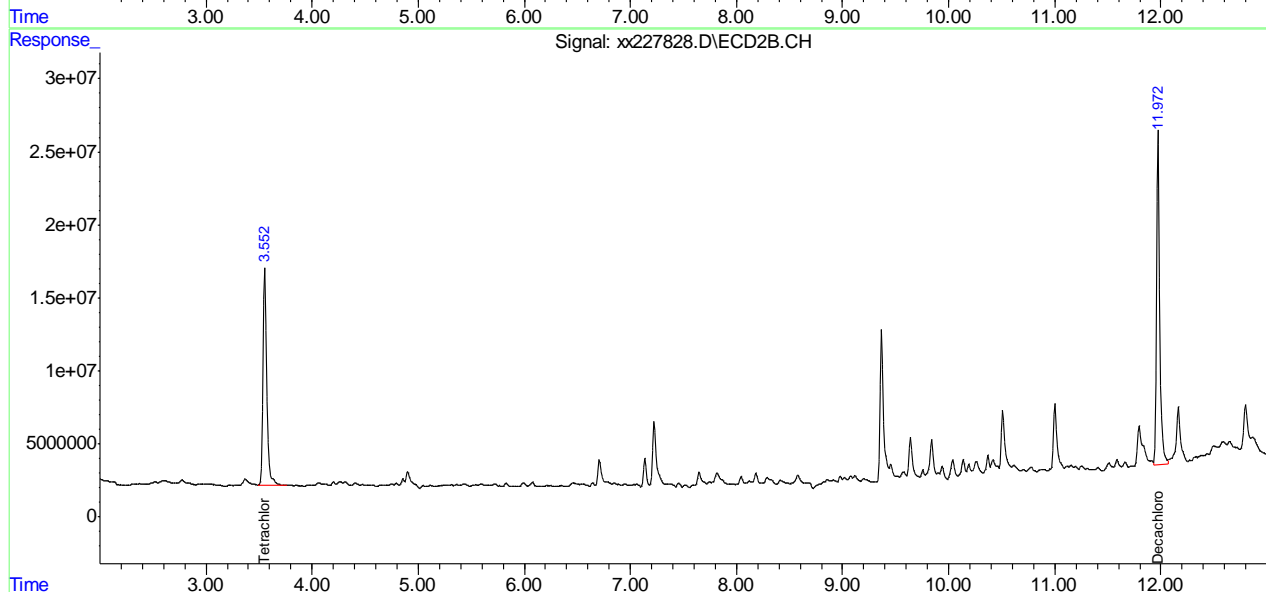
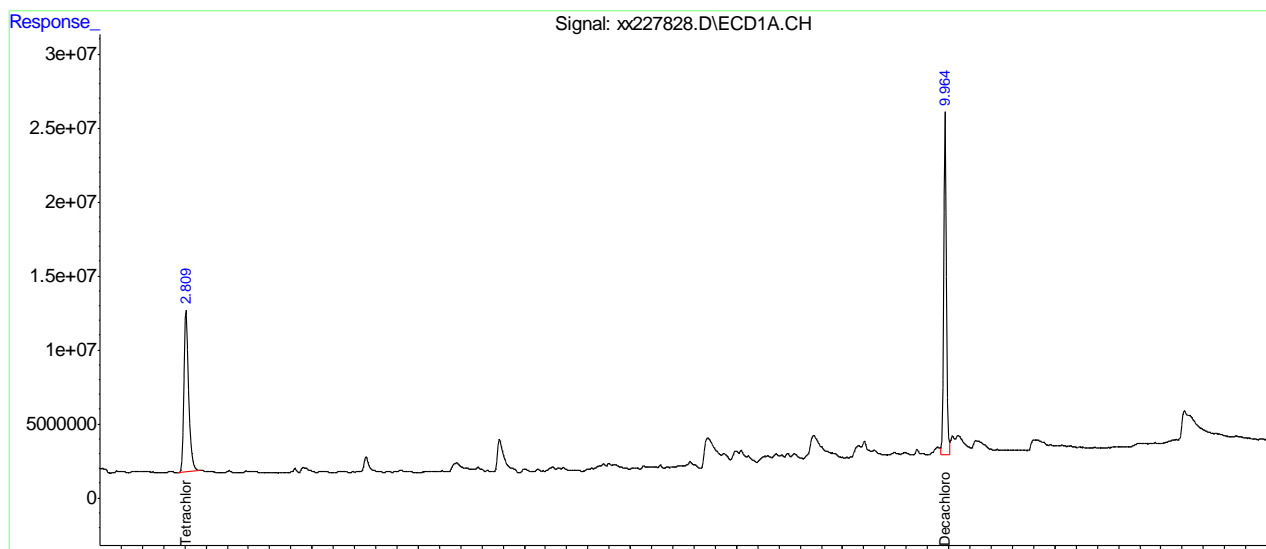
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227828.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 2:41 am  
 Operator : tianweir  
 Sample : jc65058-11  
 Misc : op11668,GXX6332,15.8,,,10.0,1  
 ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:34:45 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\  
 Data File : 2G163181.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 09 May 2018 11:09 pm  
 Operator : tianweir  
 Sample : jc65058-12  
 Misc : OP11775,G2G4328,16.3,,,10,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 10 09:30:26 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2   | ppb    | ppb      |
|-----------------------------|--------|---------|----------|----------|--------|----------|
| -----                       |        |         |          |          |        |          |
| System Monitoring Compounds |        |         |          |          |        |          |
| 1) S Tetrachlo...           | 2.781  | 3.427   | 144.6E6  | 869.7E6  | 39.388 | 38.006   |
| Spiked Amount               | 40.000 |         | Recovery | =        | 98.47% | 95.02%   |
| 51) S Decachlor...          | 9.968  | 11.781f | 120.4E6  | 1541.0E6 | 29.681 | 80.682 # |
| Spiked Amount               | 40.000 |         | Recovery | =        | 74.20% | 201.71%  |

## Target Compounds

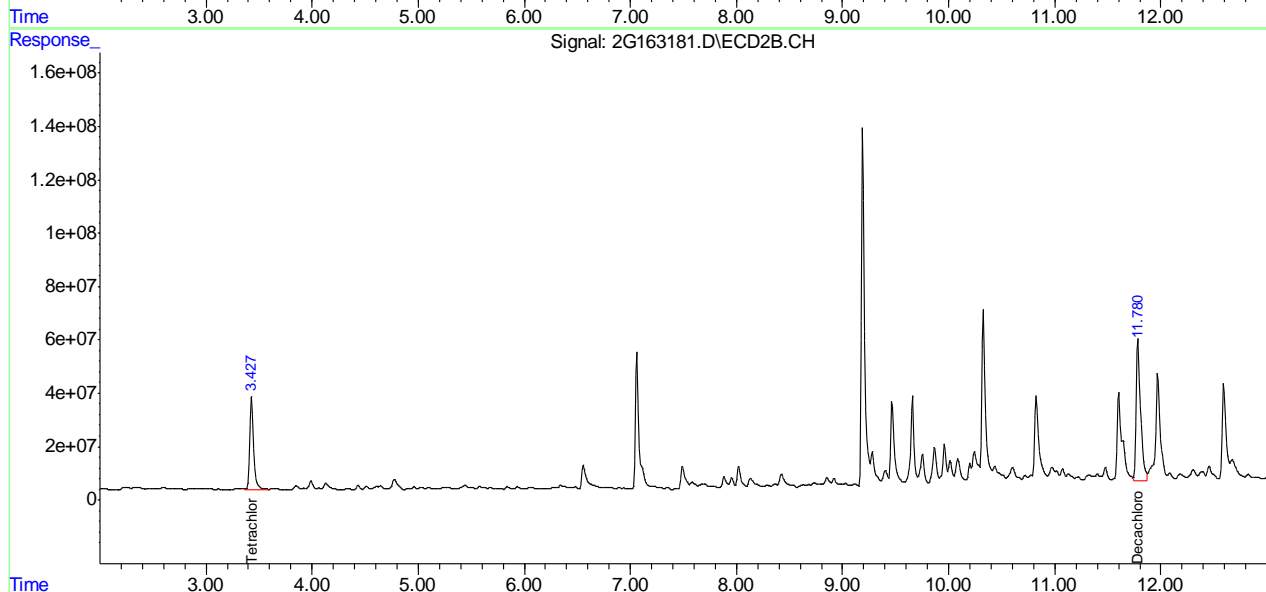
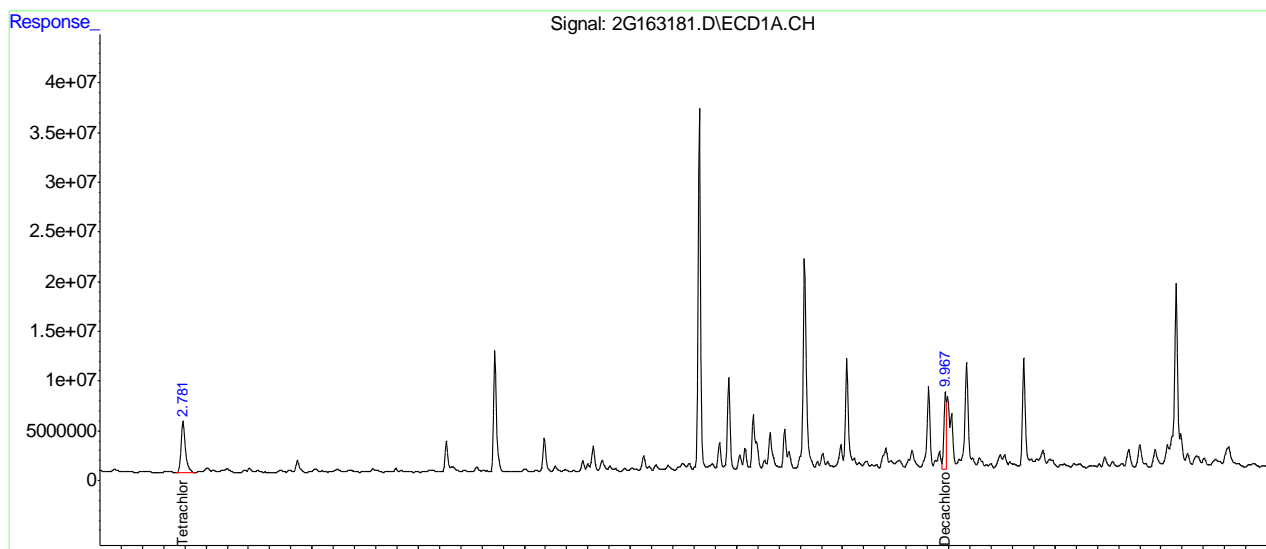
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4328\  
 Data File : 2G163181.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 09 May 2018 11:09 pm  
 Operator : tianweir  
 Sample : jc65058-12  
 Misc : OP11775,G2G4328,16.3,,,10,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 10 09:30:26 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.31  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162968.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 5:29 pm  
 Operator : rebeccak  
 Sample : jc65058-13  
 Misc : OP11775,G2G4326,15.0,,,10,1  
 ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 08 17:26:16 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|---------|----------|---------|--------|--------|
| -----                       |        |         |          |         |        |        |
| System Monitoring Compounds |        |         |          |         |        |        |
| 1) S Tetrachlo...           | 2.781  | 3.427   | 125.9E6  | 831.1E6 | 34.297 | 36.323 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 85.74% | 90.81% |
| 51) S Decachlor...          | 9.970  | 11.778f | 143.1E6  | 699.8E6 | 35.277 | 36.640 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 88.19% | 91.60% |

## Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

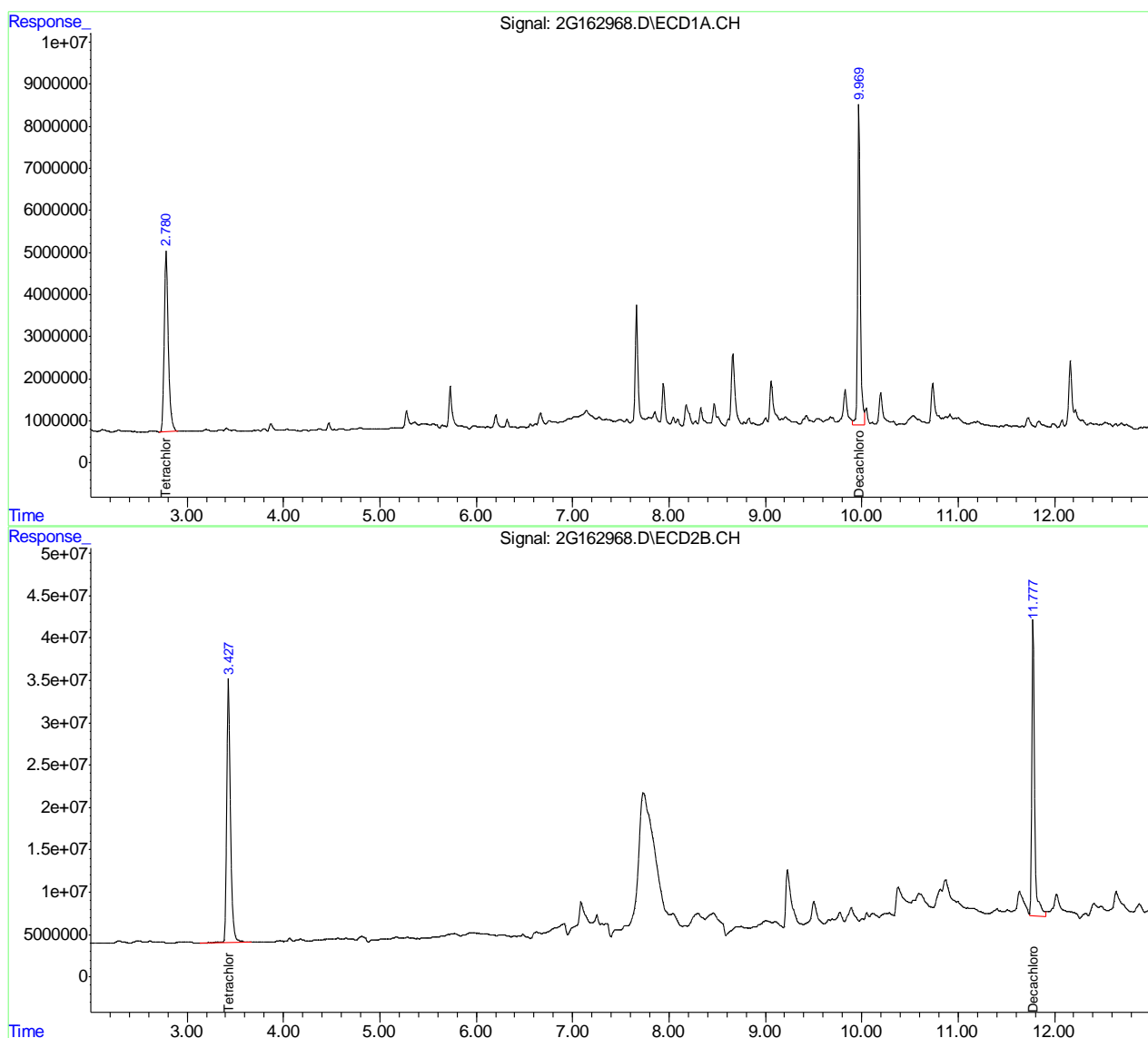


## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
Data File : 2G162968.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 07 May 2018 5:29 pm  
Operator : rebeccak  
Sample : jc65058-13  
Misc : OP11775,G2G4326,15.0,,,10,1  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 08 17:26:16 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Thu May 03 08:38:56 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

13.1.32  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162969.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 5:46 pm  
 Operator : rebeccak  
 Sample : jc65058-15  
 Misc : OP11775,G2G4326,16.6,,,10,1  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 09 14:43:15 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2   | ppb     | ppb      |
|-----------------------------|--------|---------|----------|----------|---------|----------|
| -----                       |        |         |          |          |         |          |
| System Monitoring Compounds |        |         |          |          |         |          |
| 1) S Tetrachlo...           | 2.781  | 3.426   | 100.8E6  | 645.6E6  | 27.457  | 28.215m  |
| Spiked Amount               | 40.000 |         | Recovery | =        | 68.64%  | 70.54%   |
| 51) S Decachlor...          | 9.980  | 11.786f | 96363954 | 1721.4E6 | 23.760m | 90.126 # |
| Spiked Amount               | 40.000 |         | Recovery | =        | 59.40%  | 225.32%  |

## Target Compounds

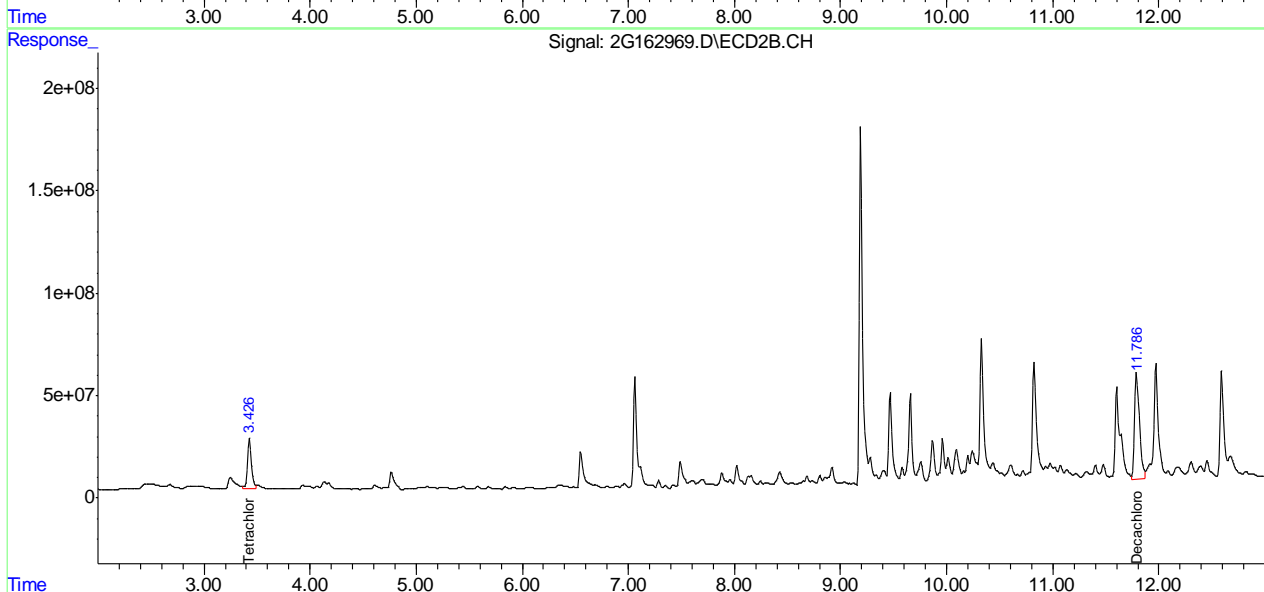
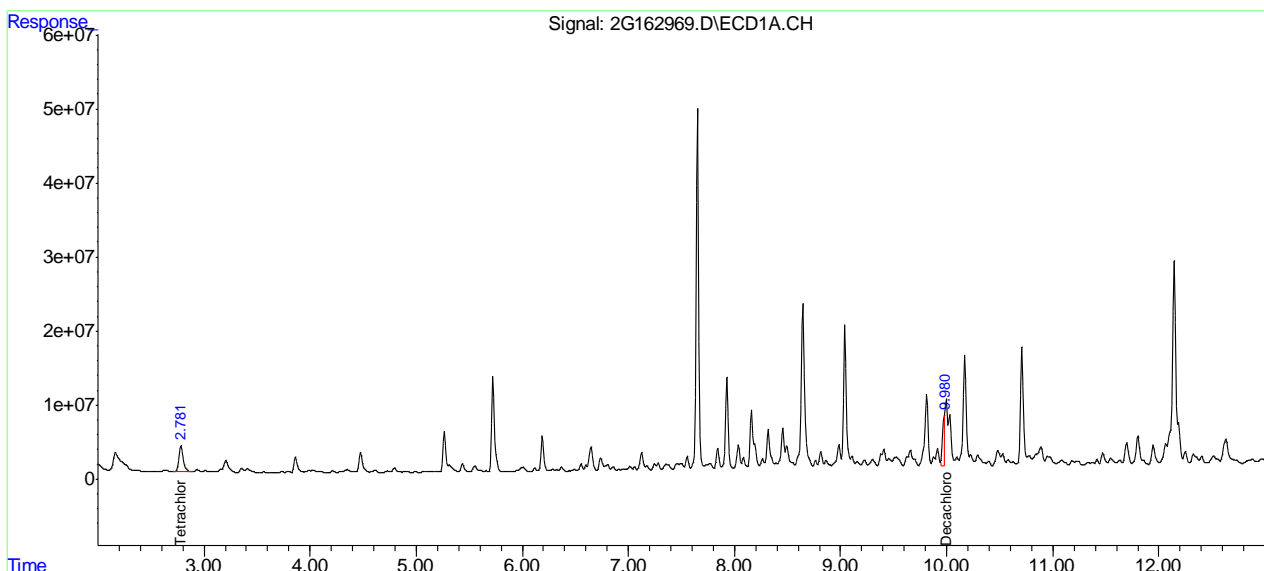
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162969.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 5:46 pm  
 Operator : rebeccak  
 Sample : jc65058-15  
 Misc : OP11775,G2G4326,16.6,,,10,1  
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 09 14:43:15 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88780.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 2:04 pm  
 Operator : christp  
 Sample : jc65058-5  
 Misc : op11656,gzz3198,10.0,,,1,1  
 ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:40:05 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response  | Conc        | Units |
|-----------------------------|--------|-----------|-------------|-------|
| -----                       |        |           |             |       |
| System Monitoring Compounds |        |           |             |       |
| 6) S o-TERPHENYL            | 8.614  | 83596964  | 32.267 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 64.53%    |       |
| 7) S 5a-ANDROSTANE          | 9.078  | 78992934  | 39.800 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 79.60%    |       |
| 8) S TETRACOSANE-d50        | 9.998  | 68800746  | 44.144 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 88.29%    |       |
| Target Compounds            |        |           |             |       |
| 1) H TPH-DRO                | 7.785  | 281057012 | 171.195 PPM |       |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 354829605 | 216.131 ppm |       |
| -----                       |        |           |             |       |

(f)=RT Delta > 1/2 Window

(m)=manual int.

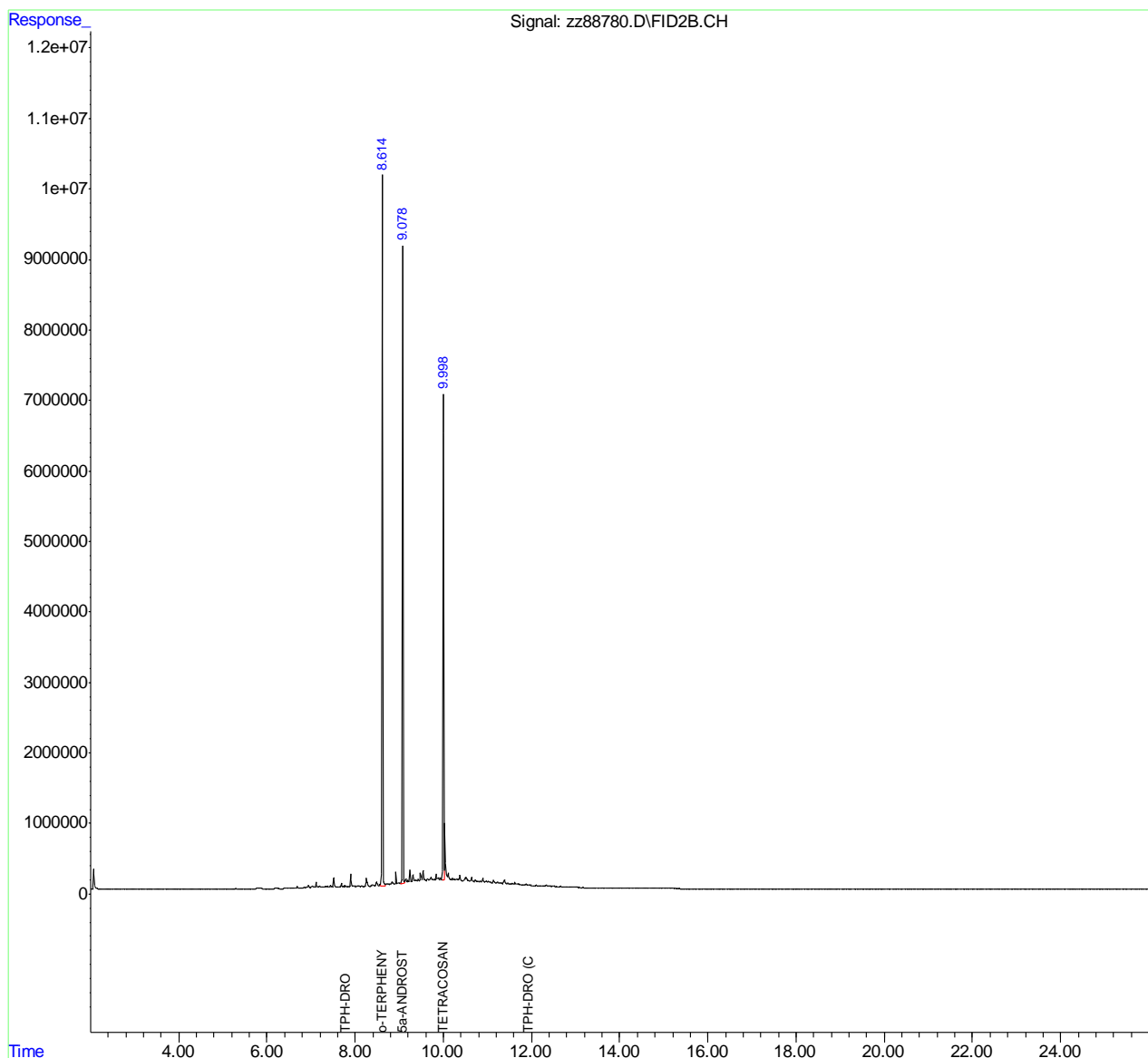
13.1.34  
 13

Quantitation Report (QT Reviewed)

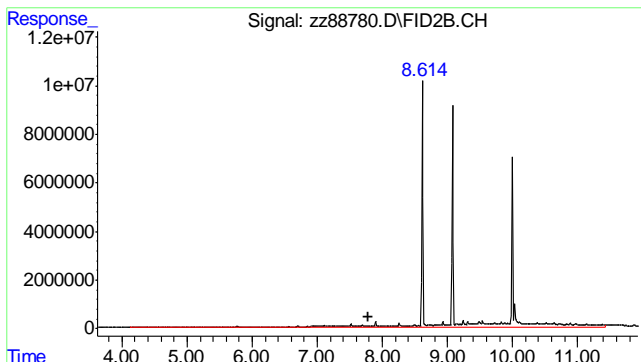
Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88780.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 2:04 pm  
Operator : christp  
Sample : jc65058-5  
Misc : op11656,gzz3198,10.0,,,1,1  
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:40:05 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID

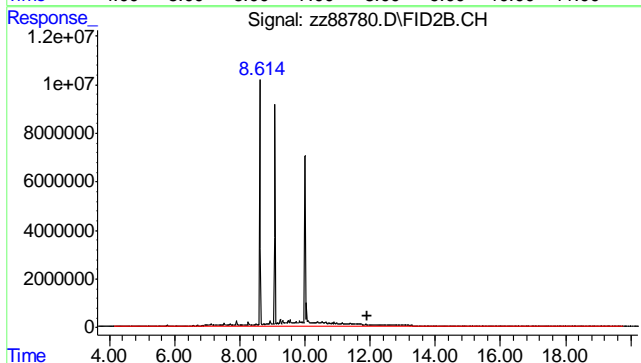


13.1.34  
13



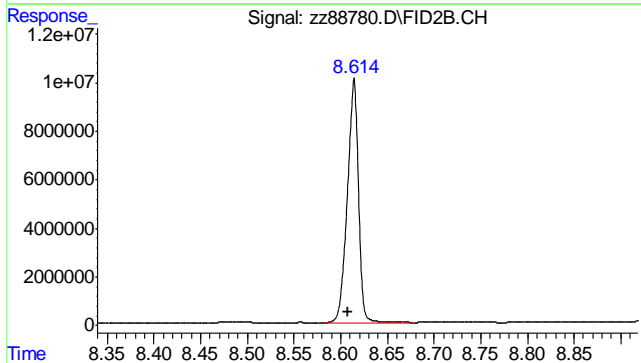
#1 TPH-DRO

R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 281057012  
 Conc: 171.20 PPM m



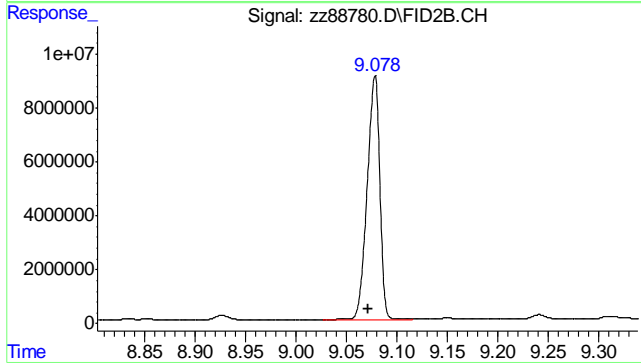
#2 TPH-DRO (C10-C44)

R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 354829605  
 Conc: 216.13 ppm m



#6 o-TERPHENYL

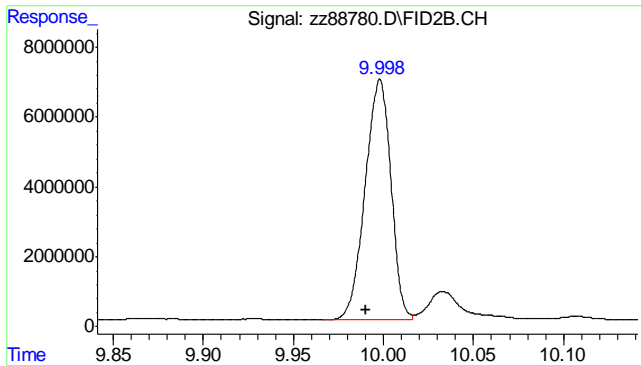
R.T.: 8.614 min  
 Delta R.T.: 0.006 min  
 Response: 83596964  
 Conc: 32.27 PPM m



#7 5a-ANDROSTANE

R.T.: 9.078 min  
 Delta R.T.: 0.008 min  
 Response: 78992934  
 Conc: 39.80 PPM m

13.1.34  
 13



#8 TETRACOSANE-d50  
R.T.: 9.998 min  
Delta R.T.: 0.007 min  
Response: 68800746  
Conc: 44.14 PPM m

13.1.34  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88781.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 2:38 pm  
Operator : christp  
Sample : jc65058-6  
Misc : op11656,gzz3198,10.3,,,1,1  
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:40:58 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID

| Compound                    | R.T.   | Response   | Conc         | Units |
|-----------------------------|--------|------------|--------------|-------|
| -----                       |        |            |              |       |
| System Monitoring Compounds |        |            |              |       |
| 6) S o-TERPHENYL            | 8.615  | 87829395   | 33.901 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 67.80%     |       |
| 7) S 5a-ANDROSTANE          | 9.079  | 85368055   | 43.012 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 86.02%     |       |
| 8) S TETRACOSANE-d50        | 10.000 | 75955894   | 48.735 PPM   | m     |
| Spiked Amount               | 50.000 | Recovery   | = 97.47%     |       |
| Target Compounds            |        |            |              |       |
| 1) H TPH-DRO                | 7.785  | 4371976385 | 2663.021 PPM |       |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 5995755413 | 3652.084 ppm |       |
| -----                       |        |            |              |       |

(f)=RT Delta > 1/2 Window (m)=manual int.

13.1.35  
13

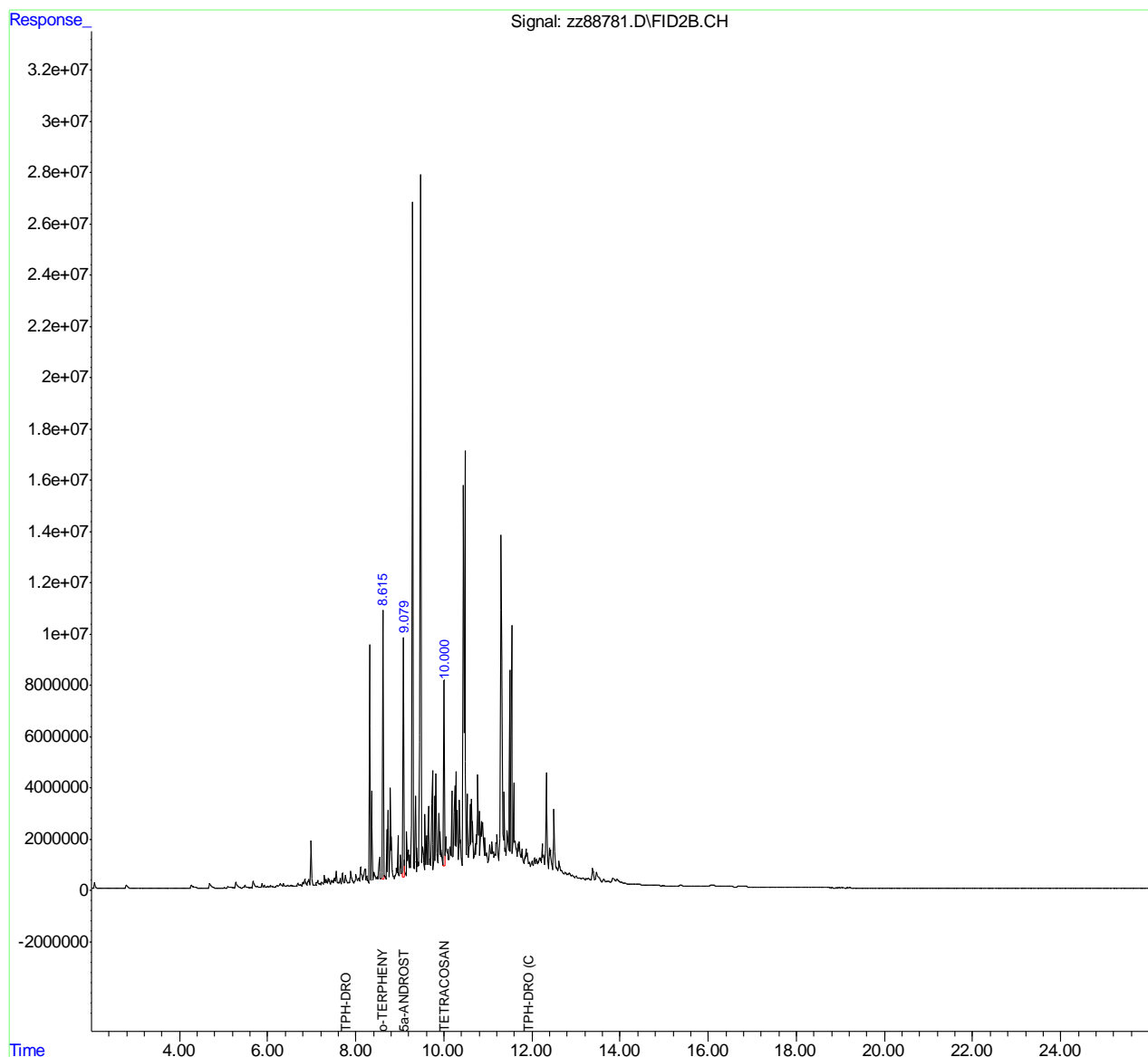


Quantitation Report (QT Reviewed)

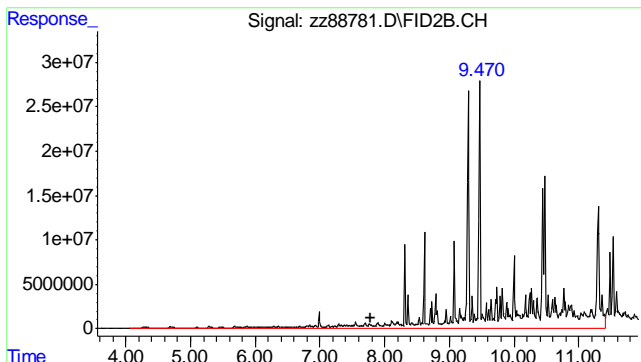
Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88781.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 2:38 pm  
 Operator : christp  
 Sample : jc65058-6  
 Misc : op11656,gzz3198,10.3,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:40:58 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

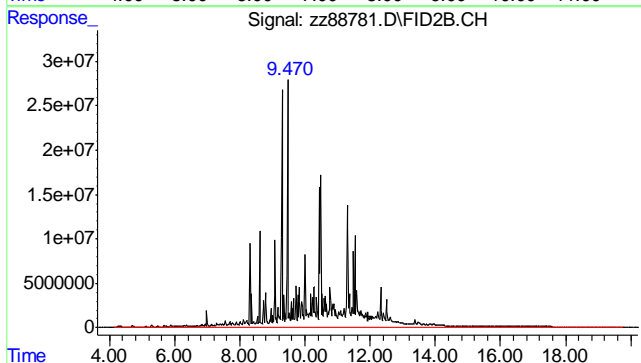
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



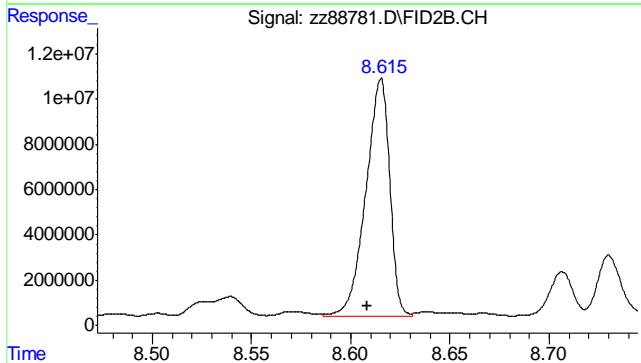
13.1.35  
13



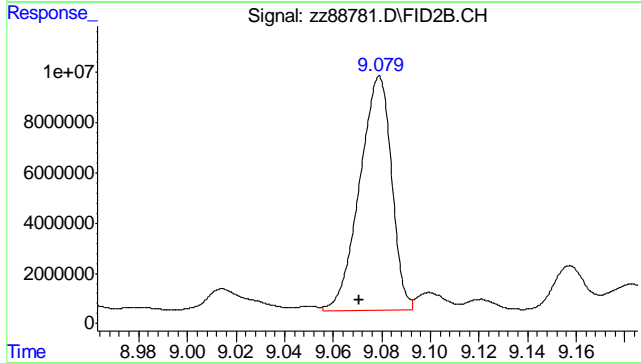
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 4371976385  
 Conc: 2663.02 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 5995755413  
 Conc: 3652.08 ppm m

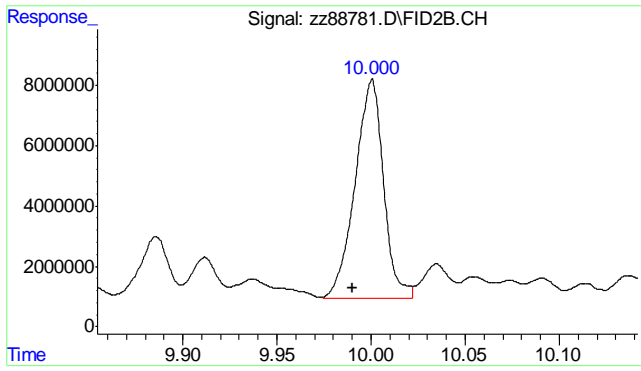


#6 o-TERPHENYL  
 R.T.: 8.615 min  
 Delta R.T.: 0.007 min  
 Response: 87829395  
 Conc: 33.90 PPM m



#7 5a-ANDROSTANE  
 R.T.: 9.079 min  
 Delta R.T.: 0.008 min  
 Response: 85368055  
 Conc: 43.01 PPM m

13.1.35  
 13



#8 TETRACOSANE-d50  
R.T.: 10.000 min  
Delta R.T.: 0.010 min  
Response: 75955894  
Conc: 48.74 PPM m

13.1.35  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88782.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 3:11 pm  
Operator : christp  
Sample : jc65058-7  
Misc : op11656,gzz3198,10.7,,,1,1  
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:41:33 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID

| Compound                    | R.T.   | Response  | Conc Units   |
|-----------------------------|--------|-----------|--------------|
| -----                       |        |           |              |
| System Monitoring Compounds |        |           |              |
| 6) S o-TERPHENYL            | 8.614  | 79447941  | 30.666 PPM   |
| Spiked Amount               | 50.000 | Recovery  | = 61.33%     |
| 7) S 5a-ANDROSTANE          | 9.078  | 75673086  | 38.127 PPM   |
| Spiked Amount               | 50.000 | Recovery  | = 76.25%     |
| 8) S TETRACOSANE-d50        | 9.998  | 64908426  | 41.647 PPM m |
| Spiked Amount               | 50.000 | Recovery  | = 83.29%     |
| Target Compounds            |        |           |              |
| 1) H TPH-DRO                | 7.785  | 208099960 | 126.756 PPM  |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 320627514 | 195.298 ppm  |
| -----                       |        |           |              |

(f)=RT Delta > 1/2 Window (m)=manual int.

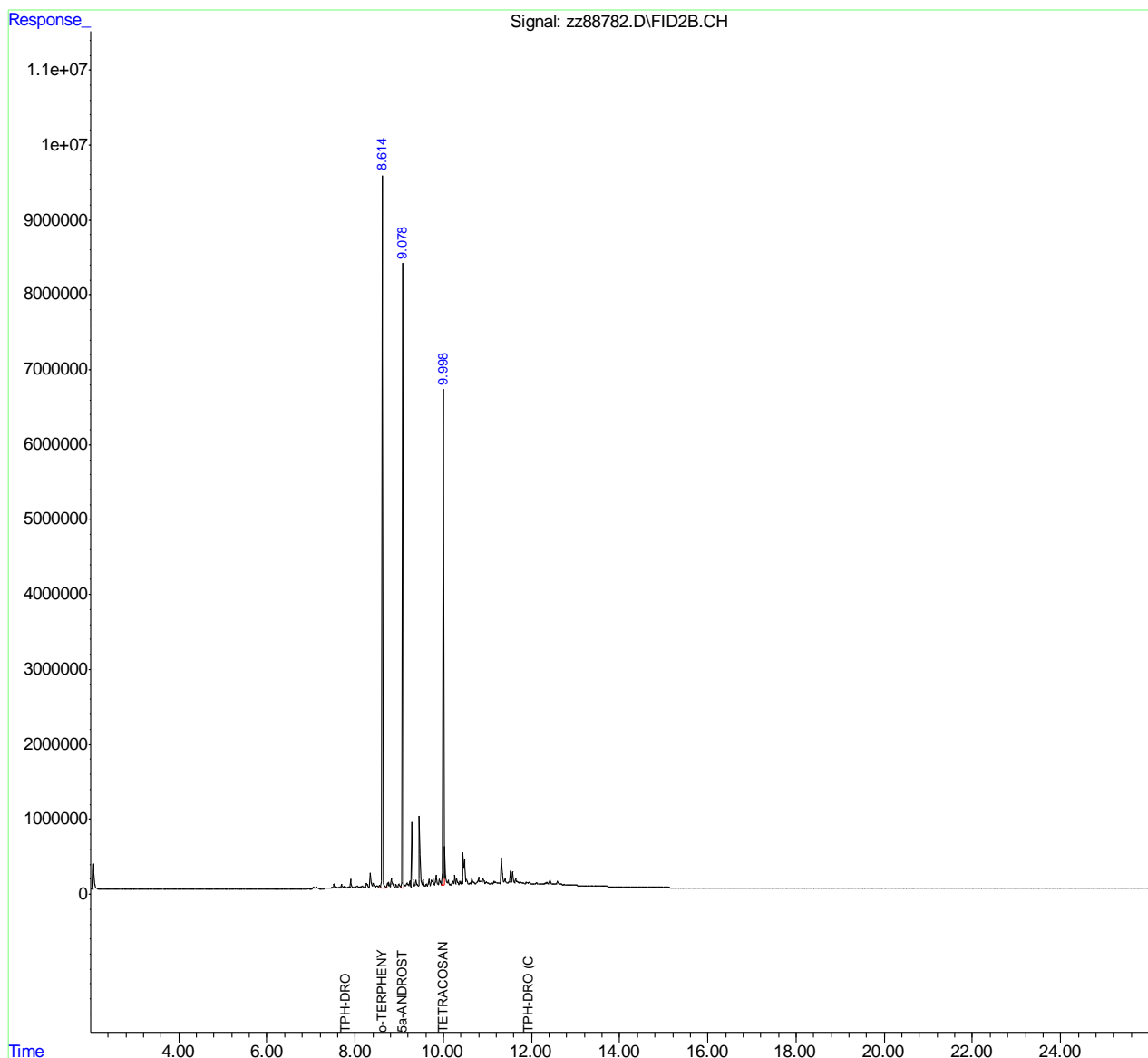
13.1.36  
13

Quantitation Report (QT Reviewed)

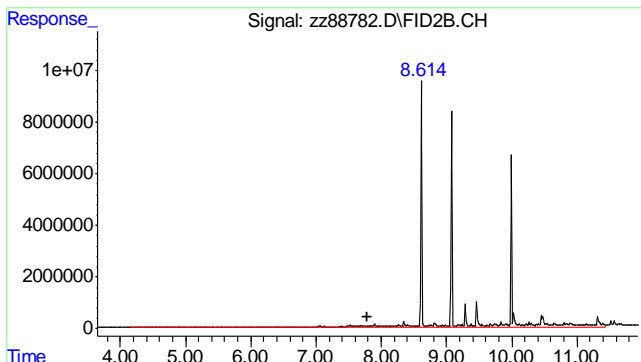
Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88782.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 3:11 pm  
 Operator : christp  
 Sample : jc65058-7  
 Misc : op11656,gzz3198,10.7,,,1,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:41:33 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

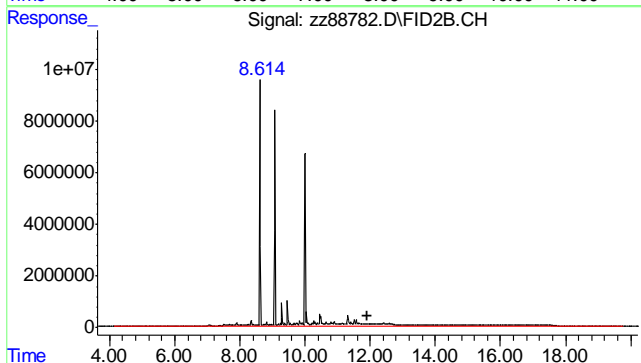
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



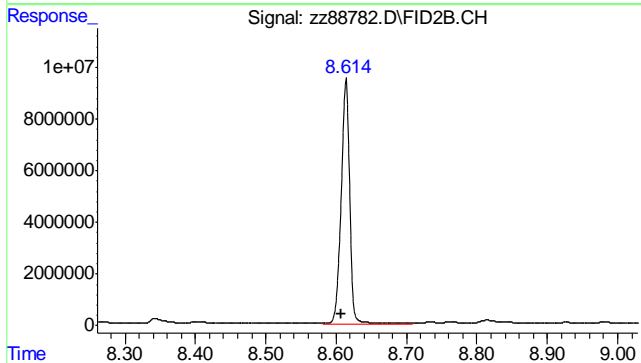
13.1.36  
13



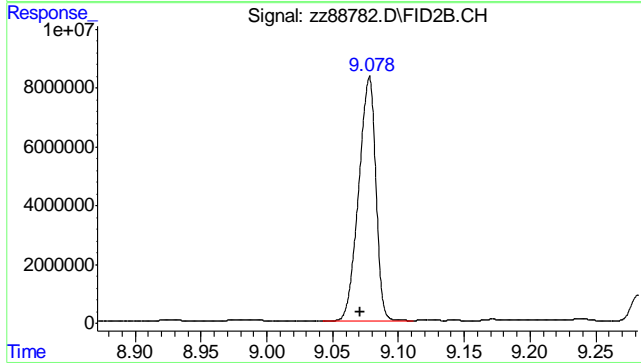
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 208099960  
 Conc: 126.76 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 320627514  
 Conc: 195.30 ppm m

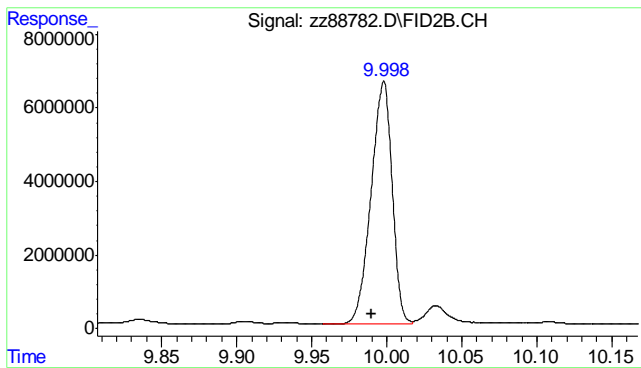


#6 o-TERPHENYL  
 R.T.: 8.614 min  
 Delta R.T.: 0.006 min  
 Response: 79447941  
 Conc: 30.67 PPM



#7 5a-ANDROSTANE  
 R.T.: 9.078 min  
 Delta R.T.: 0.007 min  
 Response: 75673086  
 Conc: 38.13 PPM

13.1.36  
 13



#8 TETRACOSANE-d50  
R.T.: 9.998 min  
Delta R.T.: 0.008 min  
Response: 64908426  
Conc: 41.65 PPM m

13.1.36  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88783.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 4:16 pm  
Operator : christp  
Sample : jc65058-8  
Misc : op11656,gzz3198,10.1,,,1,1  
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:42:21 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID

| Compound                    | R.T.   | Response   | Conc        | Units |
|-----------------------------|--------|------------|-------------|-------|
| -----                       |        |            |             |       |
| System Monitoring Compounds |        |            |             |       |
| 6) S o-TERPHENYL            | 8.616  | 79157372   | 30.554 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery   | = 61.11%    |       |
| 7) S 5a-ANDROSTANE          | 9.080  | 76027662   | 38.306 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery   | = 76.61%    |       |
| 8) S TETRACOSANE-d50        | 10.002 | 65599847   | 42.091 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery   | = 84.18%    |       |
| Target Compounds            |        |            |             |       |
| 1) H TPH-DRO                | 7.785  | 1062999252 | 647.485 PPM |       |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 1297030334 | 790.036 ppm |       |
| -----                       |        |            |             |       |

(f)=RT Delta > 1/2 Window (m)=manual int.

13.1.37  
13

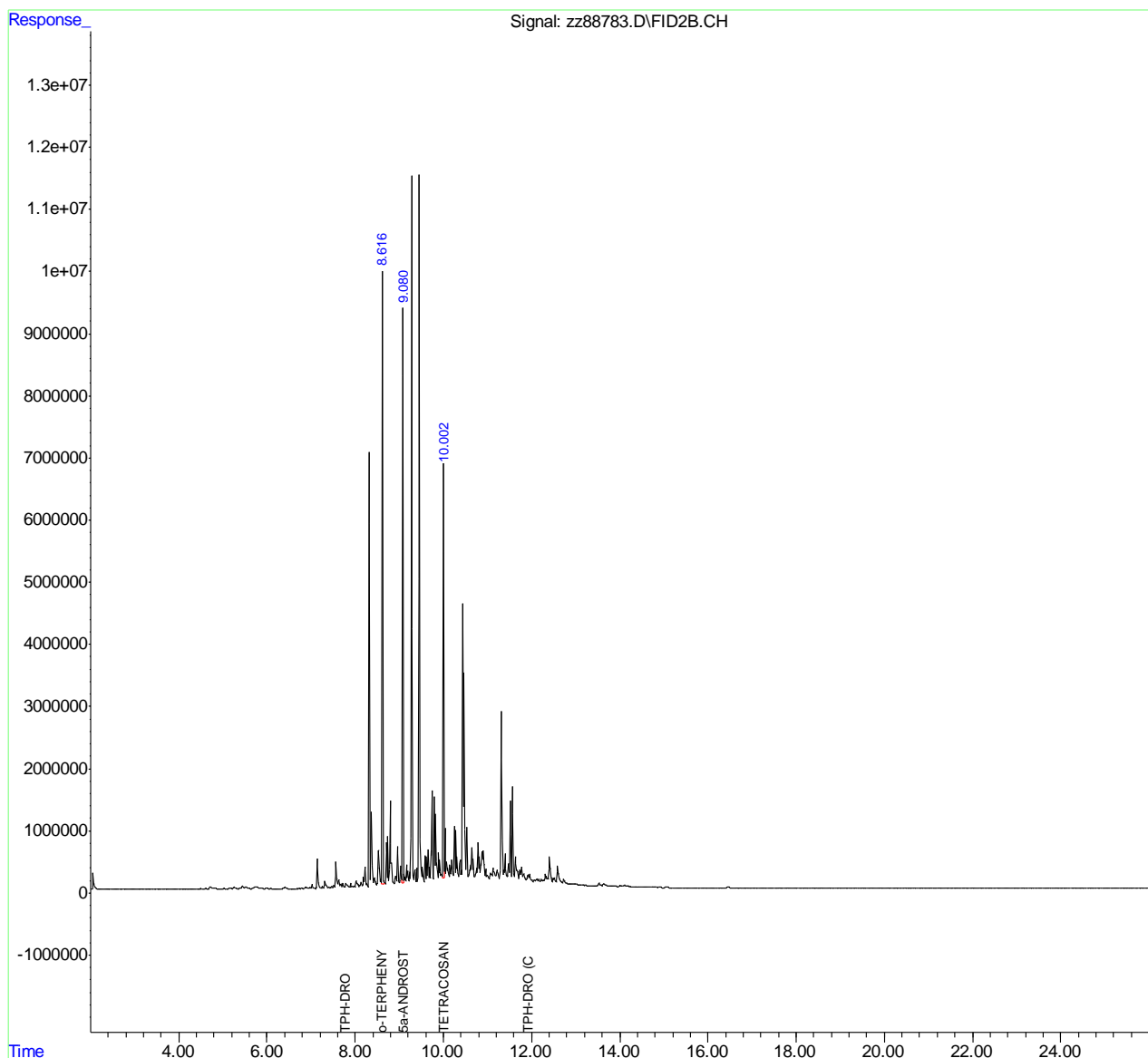


Quantitation Report (QT Reviewed)

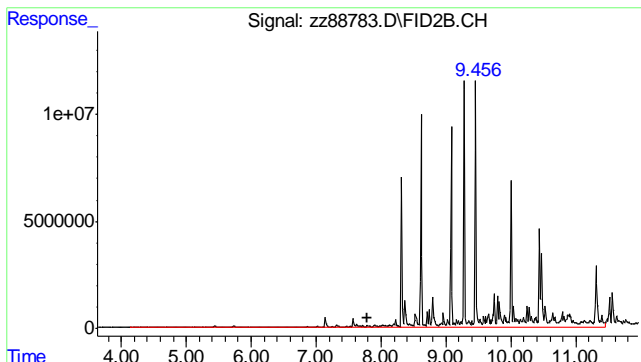
Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88783.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 4:16 pm  
Operator : christp  
Sample : jc65058-8  
Misc : op11656,gzz3198,10.1,,,1,1  
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:42:21 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

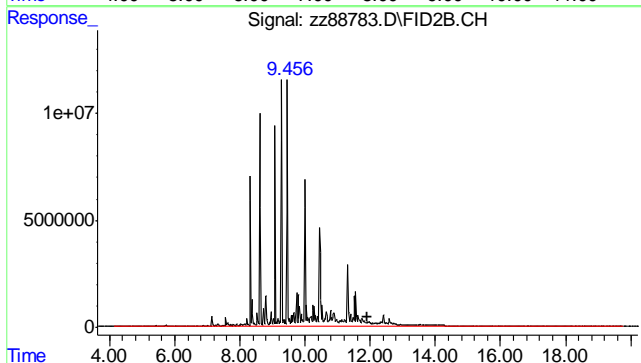
Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID



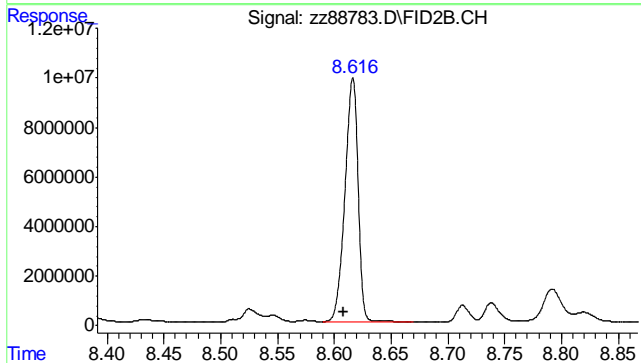
13.1.37  
13



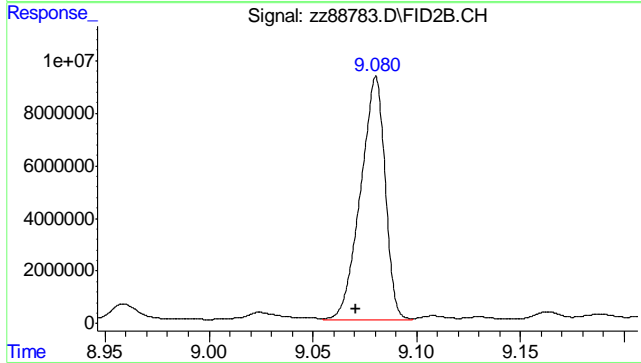
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 106299252  
 Conc: 647.49 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 1297030334  
 Conc: 790.04 ppm m

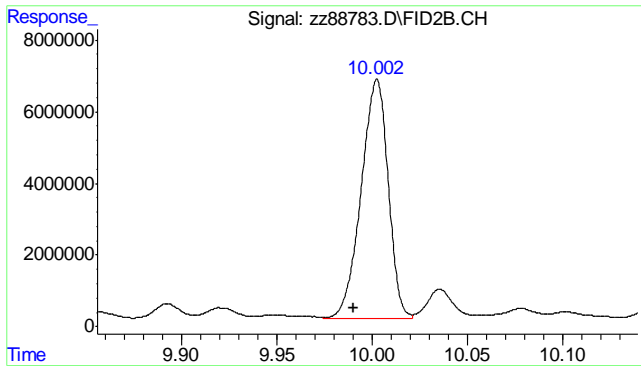


#6 o-TERPHENYL  
 R.T.: 8.616 min  
 Delta R.T.: 0.008 min  
 Response: 79157372  
 Conc: 30.55 PPM m



#7 5a-ANDROSTANE  
 R.T.: 9.080 min  
 Delta R.T.: 0.009 min  
 Response: 76027662  
 Conc: 38.31 PPM m

13.1.37  
 13



#8 TETRACOSANE-d50

R.T.: 10.002 min  
Delta R.T.: 0.012 min  
Response: 65599847  
Conc: 42.09 PPM m

13.1.37  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88784.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 4:49 pm  
 Operator : christp  
 Sample : jc65058-10  
 Misc : op11656,gzz3198,10.9,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:42:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response  | Conc Units   |
|-----------------------------|--------|-----------|--------------|
| -----                       |        |           |              |
| System Monitoring Compounds |        |           |              |
| 6) S o-TERPHENYL            | 8.614  | 82022896  | 31.660 PPM   |
| Spiked Amount               | 50.000 | Recovery  | = 63.32%     |
| 7) S 5a-ANDROSTANE          | 9.077  | 78679243  | 39.642 PPM   |
| Spiked Amount               | 50.000 | Recovery  | = 79.28%     |
| 8) S TETRACOSANE-d50        | 9.998  | 67031431  | 43.009 PPM m |
| Spiked Amount               | 50.000 | Recovery  | = 86.02%     |
| Target Compounds            |        |           |              |
| 1) H TPH-DRO                | 7.785  | 173417732 | 105.631 PPM  |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 308983270 | 188.205 ppm  |
| -----                       |        |           |              |

(f)=RT Delta > 1/2 Window

(m)=manual int.

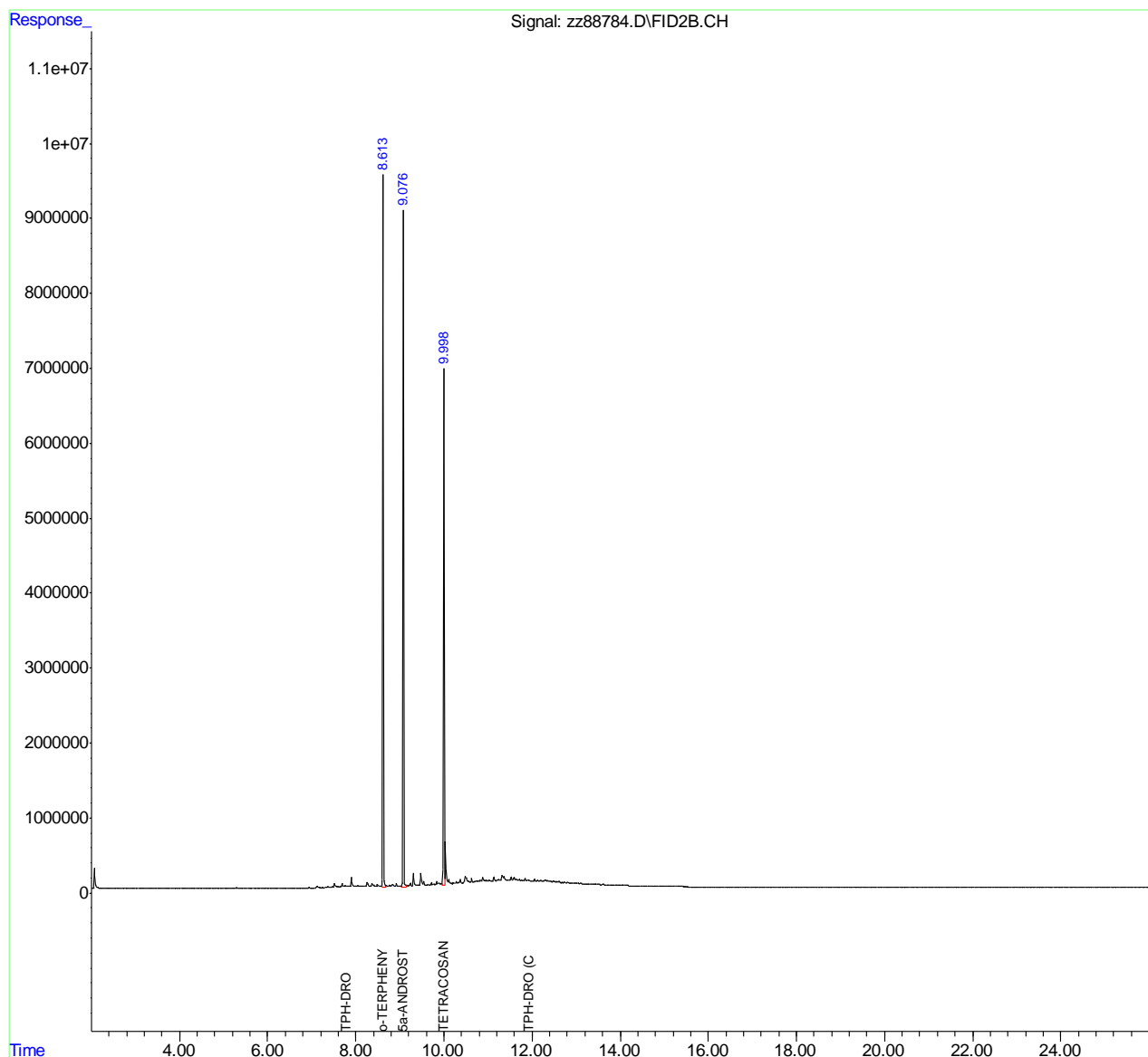
13.138  
 13

Quantitation Report (QT Reviewed)

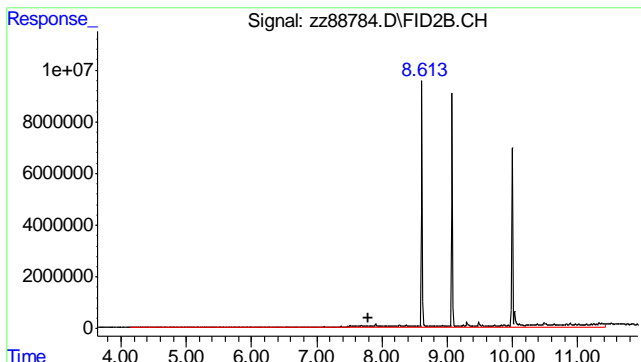
Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88784.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 4:49 pm  
 Operator : christp  
 Sample : jc65058-10  
 Misc : op11656,gzz3198,10.9,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:42:53 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

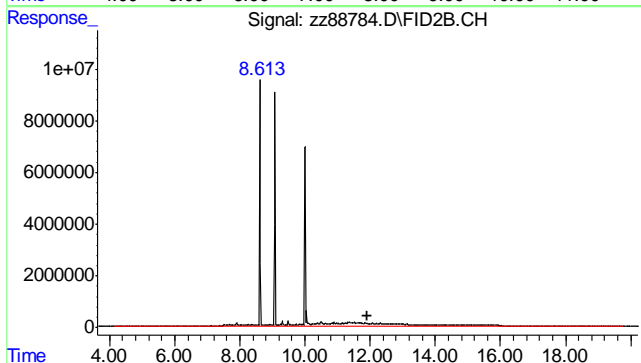
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



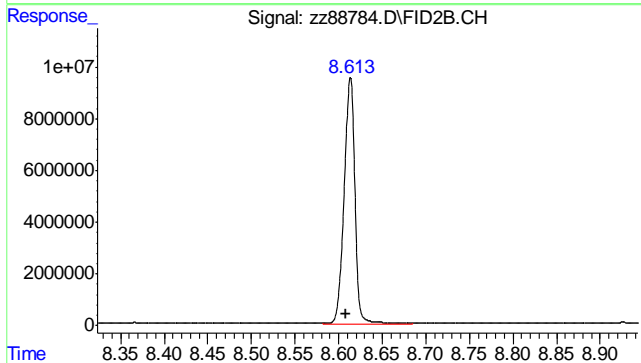
13.1.38  
13



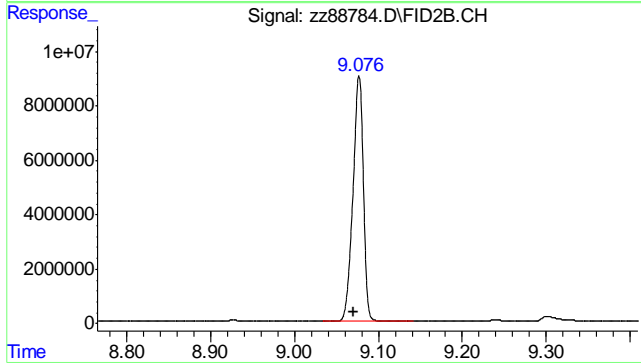
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 173417732  
 Conc: 105.63 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 308983270  
 Conc: 188.21 ppm m

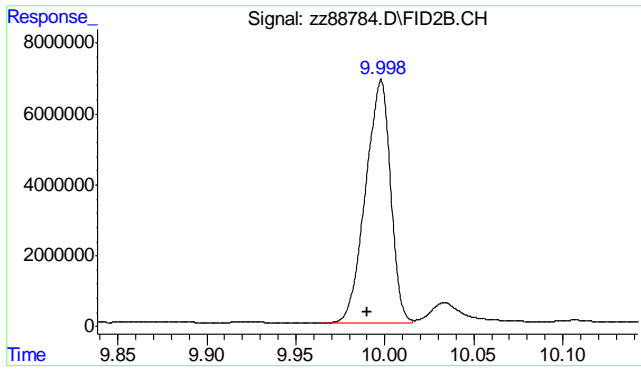


#6 o-TERPHENYL  
 R.T.: 8.614 min  
 Delta R.T.: 0.006 min  
 Response: 82022896  
 Conc: 31.66 PPM



#7 5a-ANDROSTANE  
 R.T.: 9.077 min  
 Delta R.T.: 0.006 min  
 Response: 78679243  
 Conc: 39.64 PPM

13.1.38  
 13



#8 TETRACOSANE-d50  
R.T.: 9.998 min  
Delta R.T.: 0.007 min  
Response: 67031431  
Conc: 43.01 PPM m

13.1.38  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88785.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 5:23 pm  
 Operator : christp  
 Sample : jc65058-11  
 Misc : op11656,gzz3198,10.3,,,1,1  
 ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:43:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Thu May 03 09:25:20 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response  | Conc        | Units |
|-----------------------------|--------|-----------|-------------|-------|
| -----                       |        |           |             |       |
| System Monitoring Compounds |        |           |             |       |
| 6) S o-TERPHENYL            | 8.614  | 77278994  | 29.829 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 59.66%    |       |
| 7) S 5a-ANDROSTANE          | 9.076  | 74012246  | 37.290 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 74.58%    |       |
| 8) S TETRACOSANE-d50        | 9.996  | 63898524  | 40.999 PPM  | m     |
| Spiked Amount               | 50.000 | Recovery  | = 82.00%    |       |
| Target Compounds            |        |           |             |       |
| 1) H TPH-DRO                | 7.785  | 185264739 | 112.847 PPM |       |
| 2) H TPH-DRO (C10-C44)      | 11.925 | 267109256 | 162.699 ppm |       |
| -----                       |        |           |             |       |

(f)=RT Delta > 1/2 Window

(m)=manual int.

13.1.39  
 13

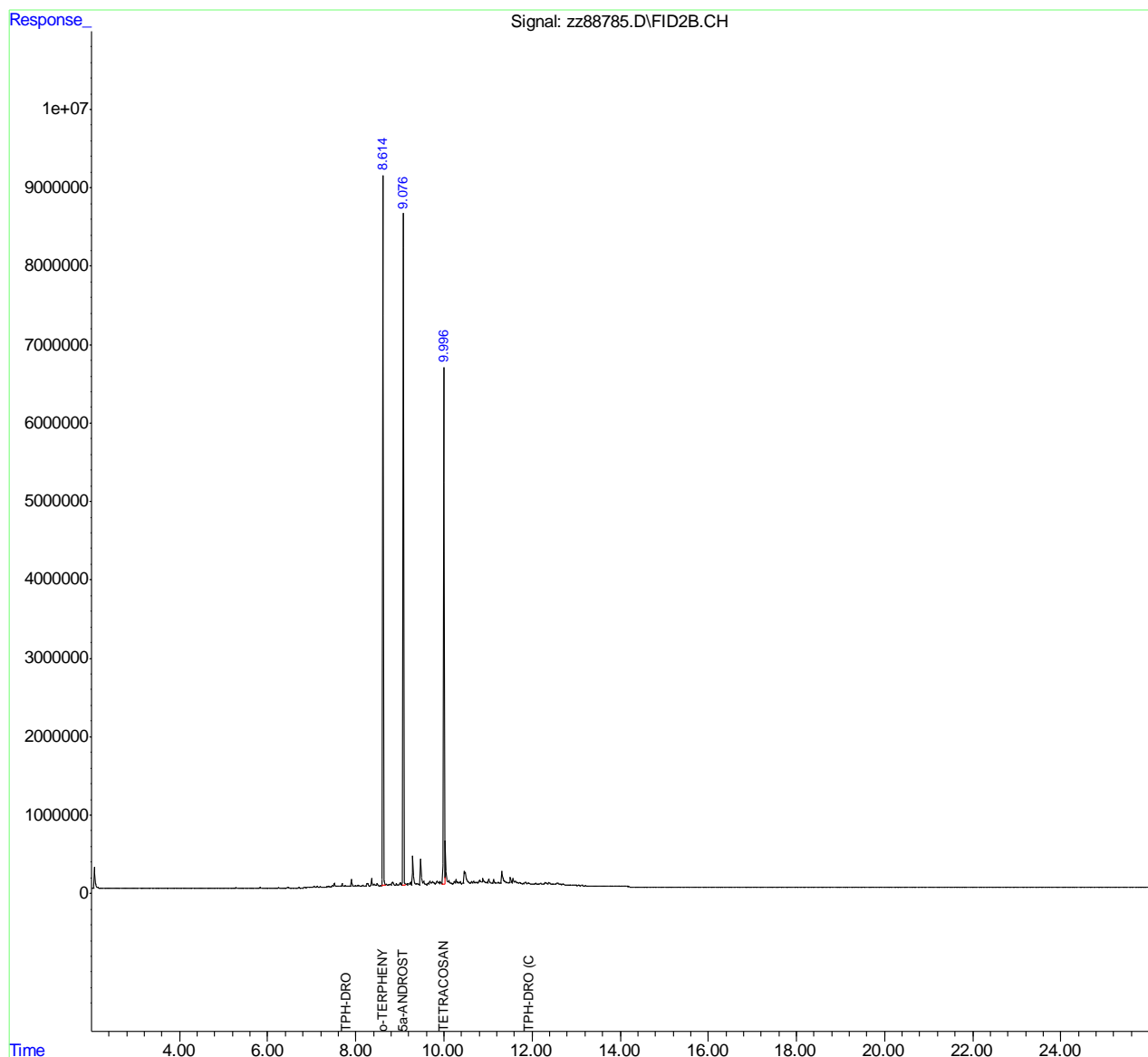


Quantitation Report (QT Reviewed)

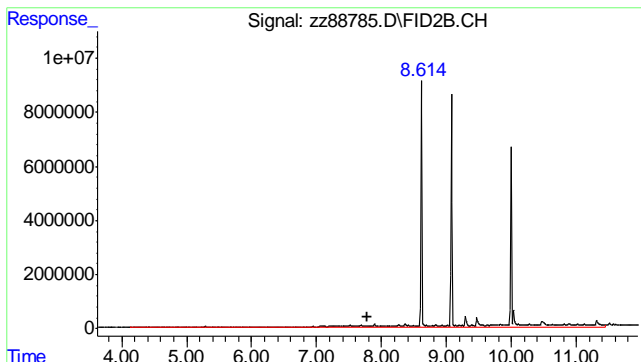
Data Path : C:\msdchem\2\DATA\GZZ3198\  
Data File : zz88785.D  
Signal(s) : FID2B.CH  
Acq On : 01 May 2018 5:23 pm  
Operator : christp  
Sample : jc65058-11  
Misc : op11656,gzz3198,10.3,,,1,1  
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:43:40 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
Quant Title : GCTPHS  
QLast Update : Thu May 03 09:25:20 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

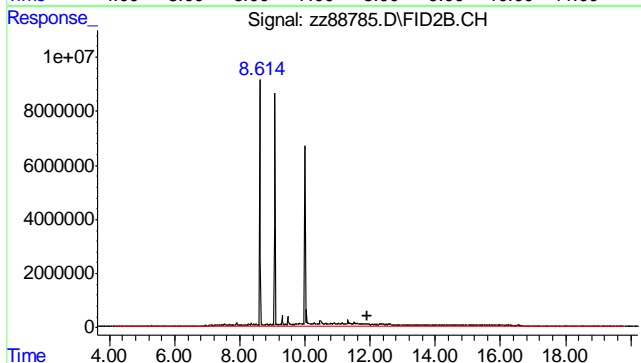
Volume Inj. : 1 ul  
Signal Phase : ZB-5  
Signal Info : .25 mm ID



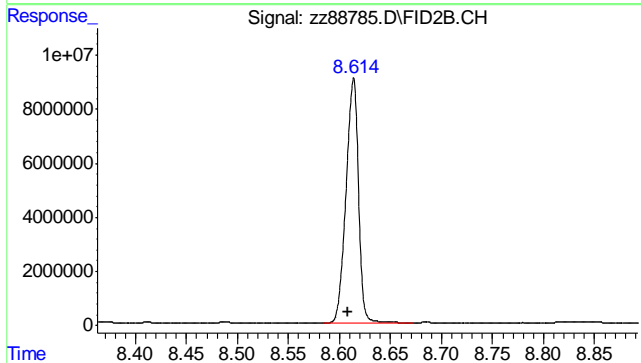
13.1.39  
13



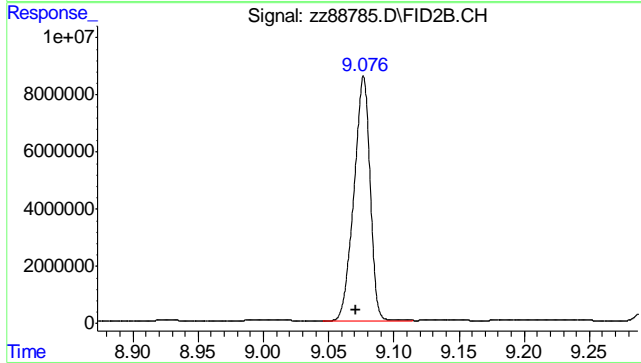
#1 TPH-DRO  
 R.T.: 7.785 min  
 Delta R.T.: 0.000 min  
 Response: 185264739  
 Conc: 112.85 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 11.925 min  
 Delta R.T.: 0.000 min  
 Response: 267109256  
 Conc: 162.70 ppm m

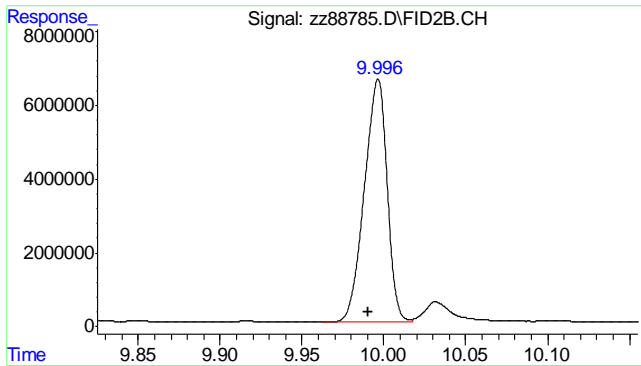


#6 o-TERPHENYL  
 R.T.: 8.614 min  
 Delta R.T.: 0.006 min  
 Response: 77278994  
 Conc: 29.83 PPM m



#7 5a-ANDROSTANE  
 R.T.: 9.076 min  
 Delta R.T.: 0.006 min  
 Response: 74012246  
 Conc: 37.29 PPM m

13.1.39  
 13



#8 TETRACOSANE-d50  
R.T.: 9.996 min  
Delta R.T.: 0.006 min  
Response: 63898524  
Conc: 41.00 PPM m

13.1.39  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145800.D\ECD1A.CH Vial: 27  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145800.D\ECD2B.CH  
 Acq On : 01 May 2018 11:54 pm Operator: christp  
 Sample : opl1667-mb1 Inst : GC1G  
 Misc : opl1667,glg4635,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 9:37 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB       | PPB    |
|-----------------------------|--------|-------|----------|----------|-----------|--------|
| Internal Standards          |        |       |          |          |           |        |
| 1) I 1-bromo-2-nitrob       | 1.97   | 2.29  | 641.7E6  | 99091804 | 50.000    | 50.000 |
| 27) I 1-bromo-2-nitrob      | 1.97   | 2.29  | 641.7E6  | 99091804 | 50.000    | 50.000 |
| 33) I 1-bromo-2-nitrob      | 1.97   | 2.29  | 641.7E6  | 99091804 | 50.000    | 50.000 |
| System Monitoring Compounds |        |       |          |          |           |        |
| 2) SAB Tetrachloro-m-xy     | 2.54   | 3.13  | 379.7E6  | 55915260 | 31.382m   | 27.306 |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | = 78.46%  | 68.27% |
| 26) SA Decachlorobiphen     | 9.80   | 11.68 | 547.1E6  | 61566436 | 43.972m   | 33.540 |
| Spiked Amount               | 40.000 |       |          | Recovery | = 109.93% | 83.85% |

Target Compounds

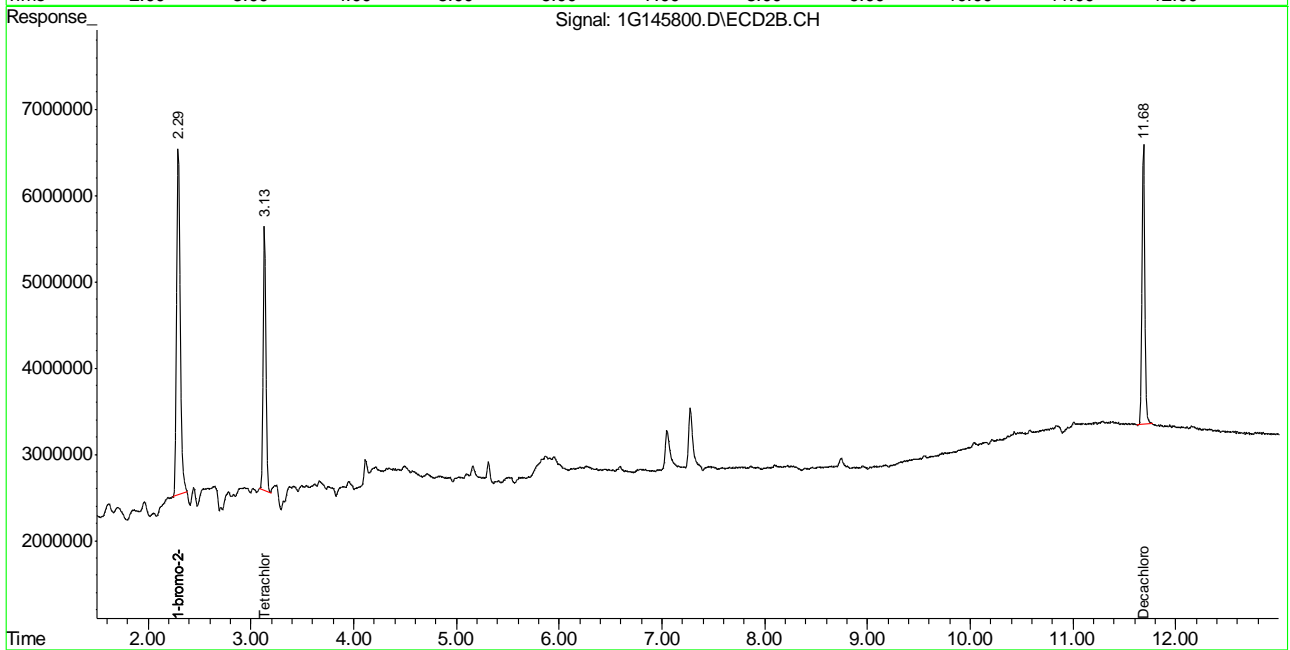
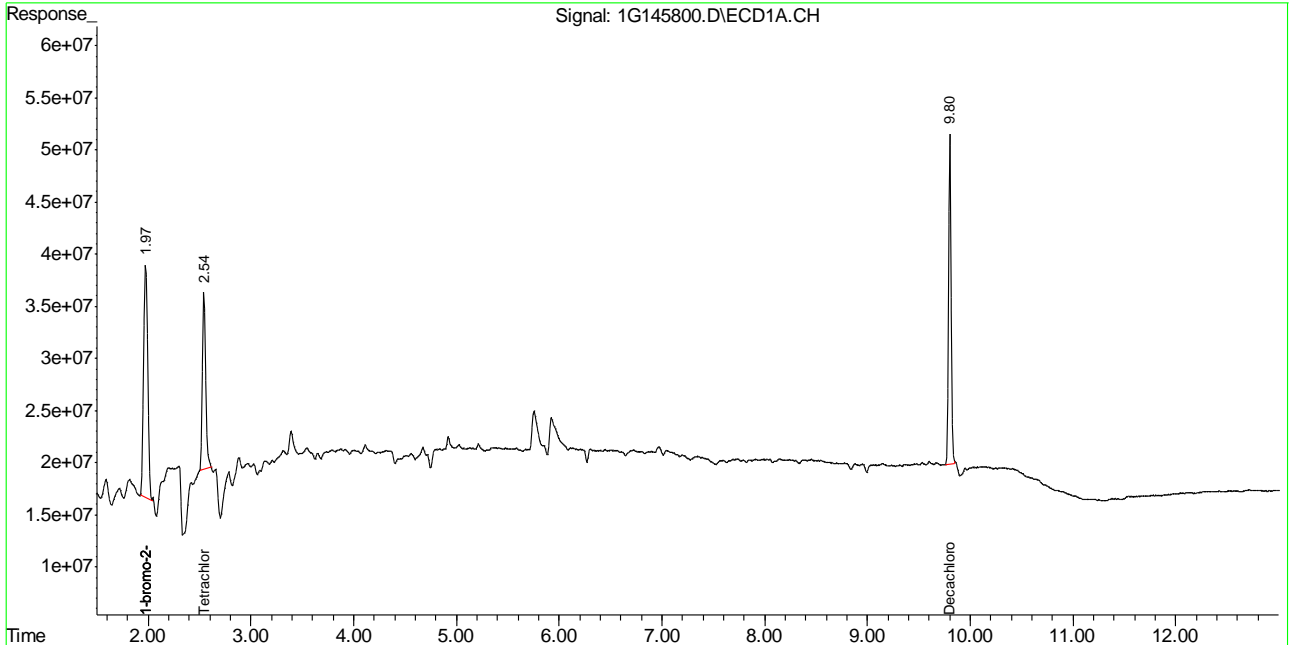
13.21  
 13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4635\1G145800.D\ECD1A.CH Vial: 27  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4635\1G145800.D\ECD2B.CH  
 Acq On : 01 May 2018 11:54 pm Operator: christp  
 Sample : opl1667-mb1 Inst : GC1G  
 Misc : opl1667,glg4635,15.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: May 3 9:37 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Sat Apr 28 13:25:50 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162946.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 9:45 am  
 Operator : tianweir  
 Sample : op11775-mb1  
 Misc : OP11775,G2G4326,15.0,,,10,1  
 ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 07 14:48:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|---------|----------|---------|--------|--------|
| -----                       |        |         |          |         |        |        |
| System Monitoring Compounds |        |         |          |         |        |        |
| 1) S Tetrachlo...           | 2.782  | 3.430   | 132.7E6  | 896.8E6 | 36.166 | 39.192 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 90.41% | 97.98% |
| 51) S Decachlor...          | 9.974  | 11.781f | 152.0E6  | 762.1E6 | 37.484 | 39.903 |
| Spiked Amount               | 40.000 |         | Recovery | =       | 93.71% | 99.76% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

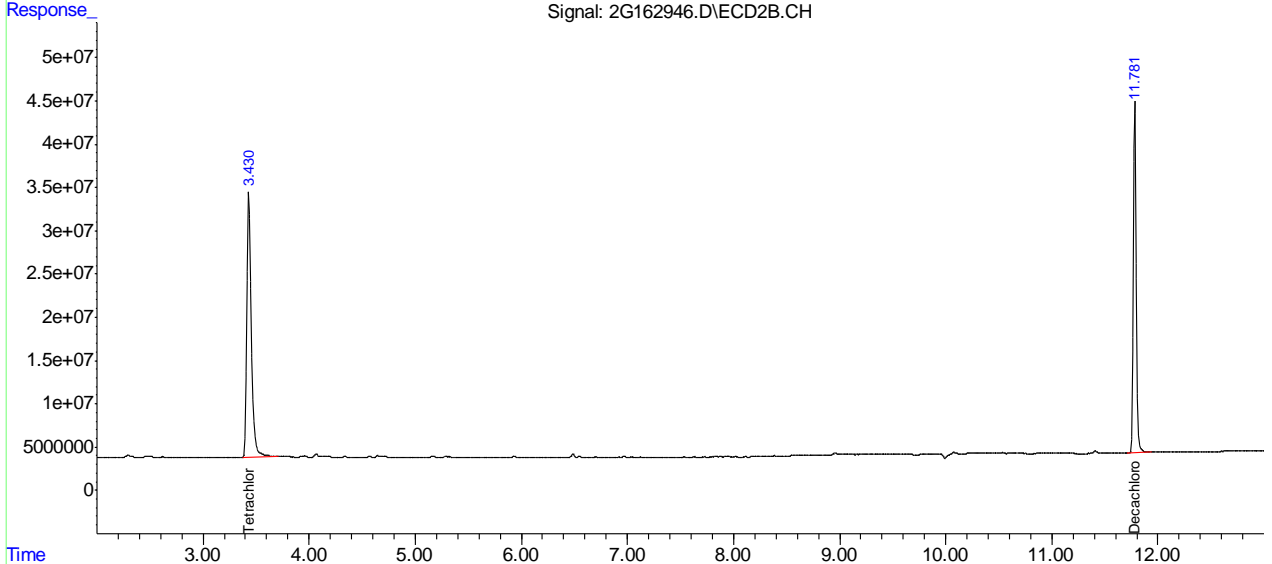
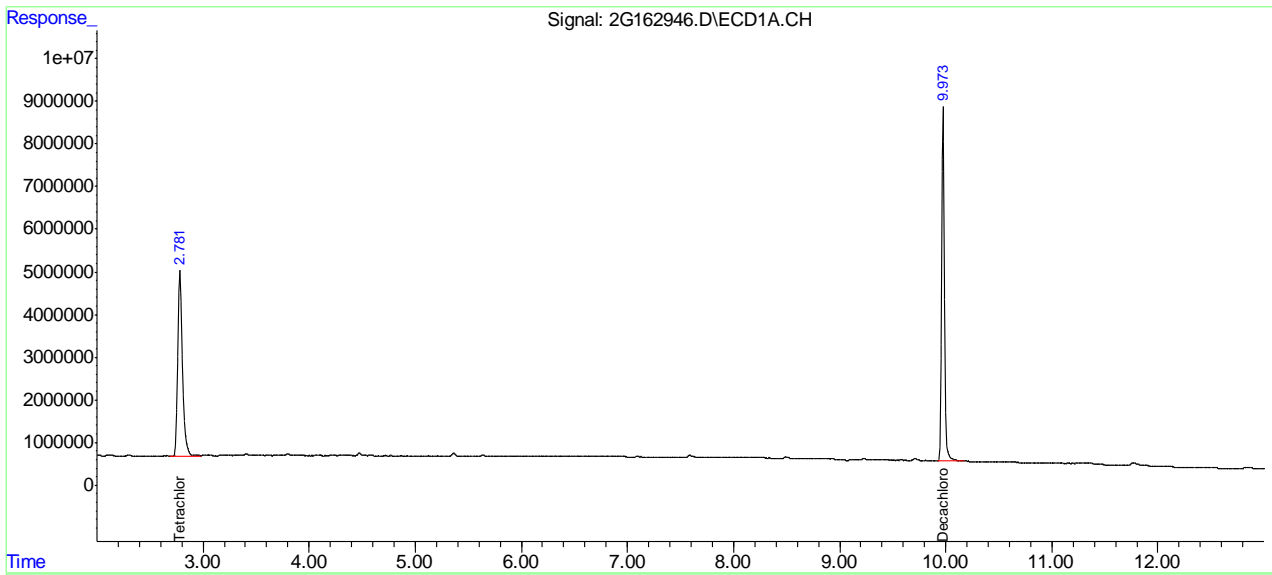
13.22  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4326\  
 Data File : 2G162946.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 07 May 2018 9:45 am  
 Operator : tianweir  
 Sample : op11775-mb1  
 Misc : OP11775,G2G4326,15.0,,,10,1  
 ALS Vial : 62 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 07 14:48:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu May 03 08:38:56 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116199.D\ECD1A.CH Vial: 19  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116199.D\ECD2B.CH  
 Acq On : 5-1-2018 08:03:15 PM Operator: vinced  
 Sample : opl1676-mb1 Inst : GC3G  
 Misc : opl1676,g3g4034,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 01 20:26:27 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

|                             |               |         |      |          |         |                 |
|-----------------------------|---------------|---------|------|----------|---------|-----------------|
| System Monitoring Compounds |               |         |      |          |         |                 |
| 2) S                        | 2,4-DCAA      | 7.47    | 7.94 | 2768.7E6 | 602.2E6 | 709.158 700.386 |
|                             | Spiked Amount | 500.000 |      | Recovery | =       | 141.83% 140.08% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116199.D 3H4020.M Wed May 02 09:56:03 2018 GC3G

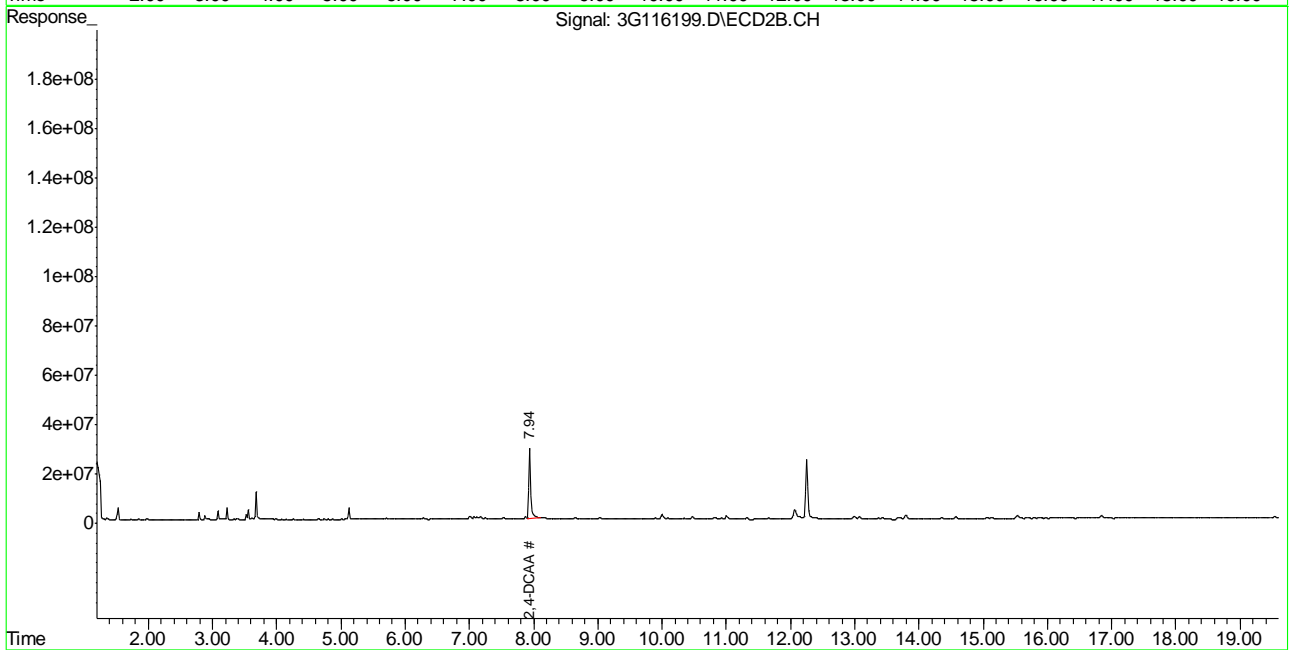
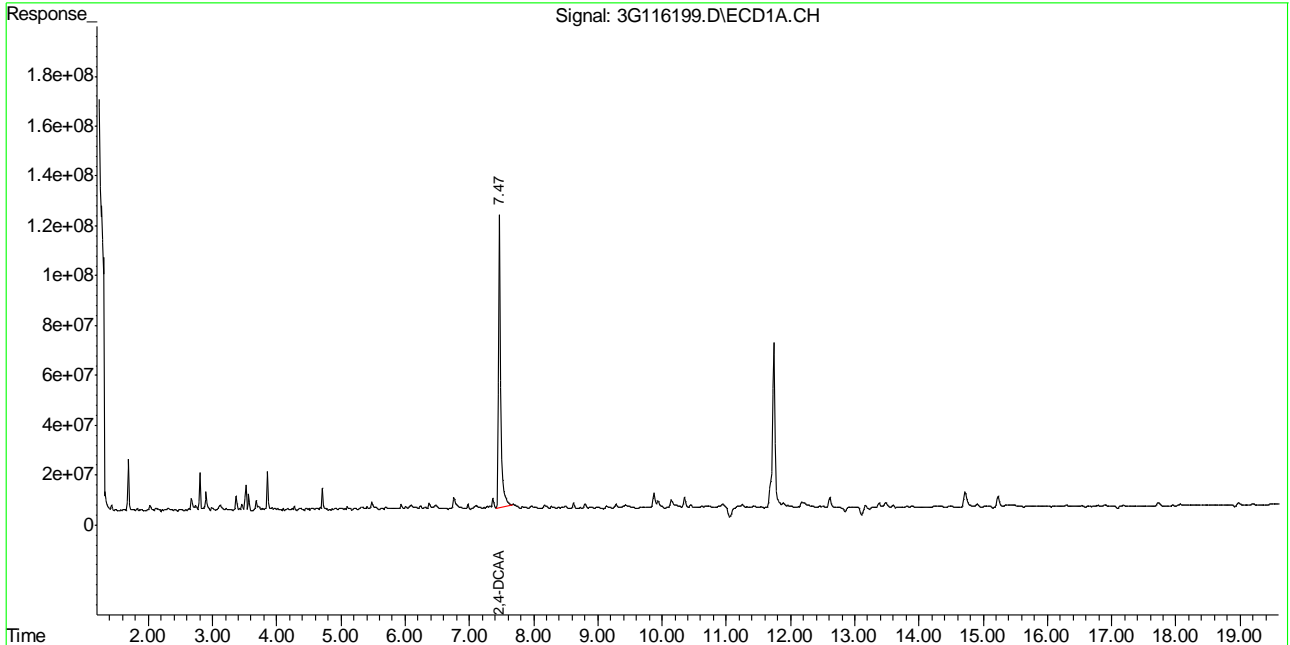


Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4034\3G116199.D\ECD1A.CH Vial: 19  
Signal #2 : C:\MSDCHEM\1\DATA\3G4034\3G116199.D\ECD2B.CH  
Acq On : 5-1-2018 08:03:15 PM Operator: vinced  
Sample : opl1676-mb1 Inst : GC3G  
Misc : opl1676,g3g4034,15.0,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 2 9:55 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.23  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD2B.CH  
 Acq On : 5-4-2018 05:10:27 PM Operator: vinned  
 Sample : opl1687-mb2 Inst : GC3G  
 Misc : opl1687,g3g4037,300,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 04 17:33:38 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2 | Resp#1   | Resp#2  | Conc#1  | Conc#2   |
|-----------------------------|---------|------|----------|---------|---------|----------|
| -----                       |         |      |          |         |         |          |
| System Monitoring Compounds |         |      |          |         |         |          |
| 2) S 2,4-DCAA               | 7.46    | 7.92 | 2047.5E6 | 396.7E6 | 524.422 | 461.325m |
| Spiked Amount               | 500.000 |      | Recovery | =       | 104.88% | 92.27%   |

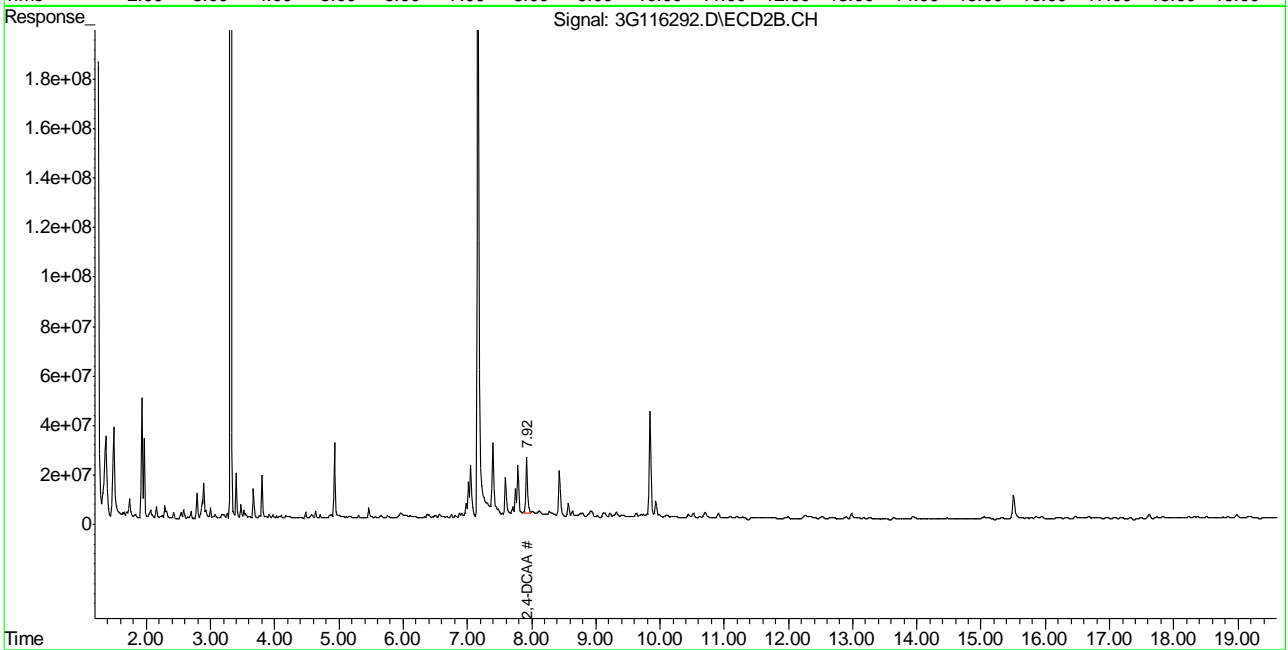
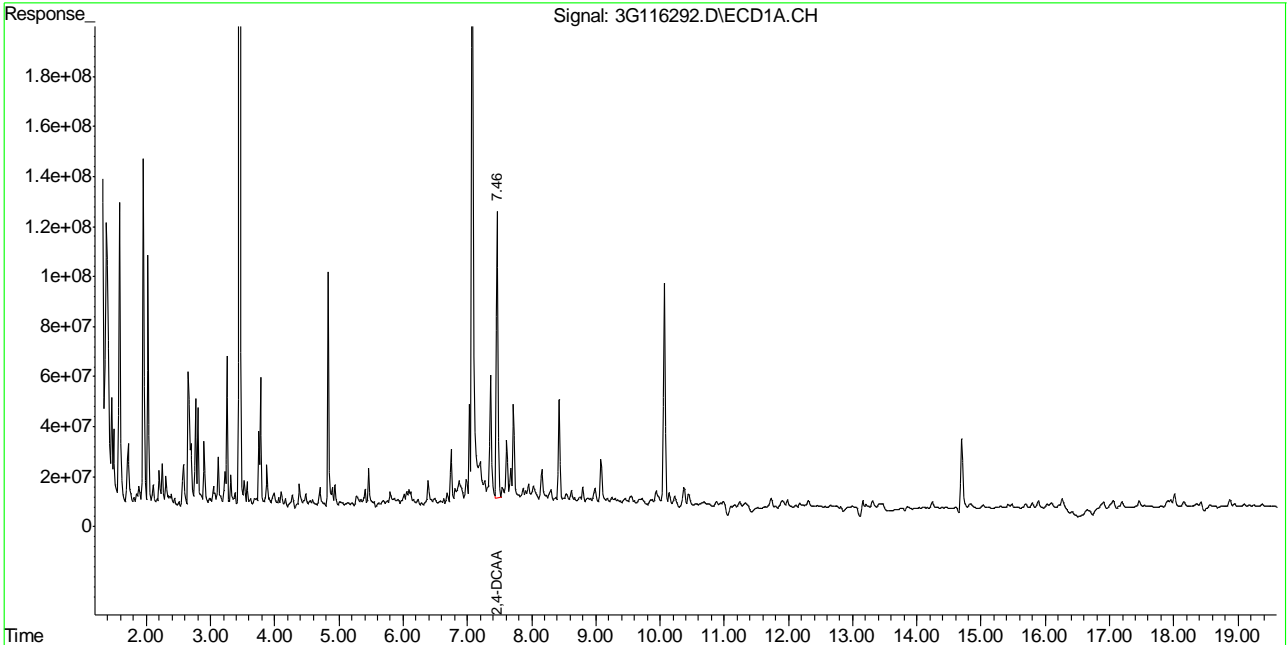
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD1A.CH Vial: 7  
Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD2B.CH  
Acq On : 5-4-2018 05:10:27 PM Operator: vined  
Sample : opl1687-mb2 Inst : GC3G  
Misc : opl1687,g3g4037,300,,,2.5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 7 10:57 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116435.D\ECD1A.CH Vial: 5  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116435.D\ECD2B.CH  
 Acq On : 14 May 2018 10:27 am Operator: vinned  
 Sample : opl1920-mb1 Inst : GC3G  
 Misc : opl1920,g3g4043,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 14 10:50:27 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound | RT#1 | RT#2 | Resp#1 | Resp#2 | Conc#1 | Conc#2 |
|----------|------|------|--------|--------|--------|--------|
|----------|------|------|--------|--------|--------|--------|

System Monitoring Compounds

|      |               |         |      |          |          |           |          |
|------|---------------|---------|------|----------|----------|-----------|----------|
| 2) S | 2,4-DCAA      | 7.47    | 7.93 | 4942.3E6 | 1081.5E6 | 1265.862m | 1257.808 |
|      | Spiked Amount | 500.000 |      | Recovery | =        | 253.17%   | 251.56%  |

Target Compounds

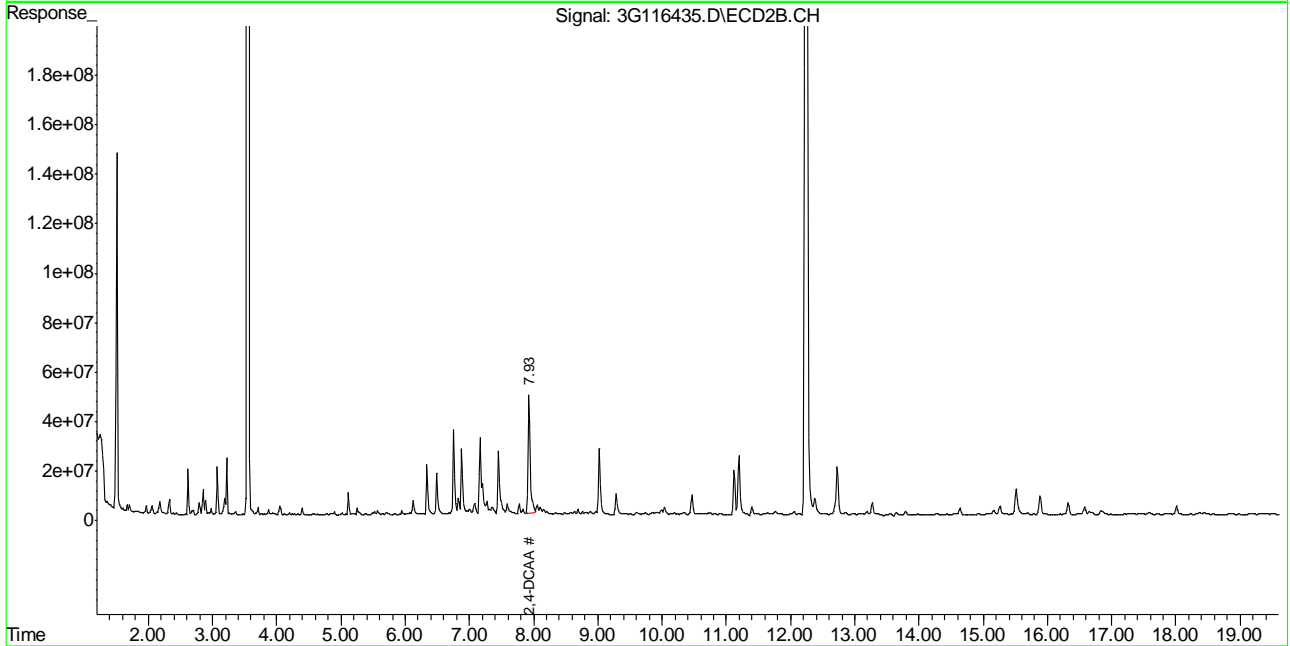
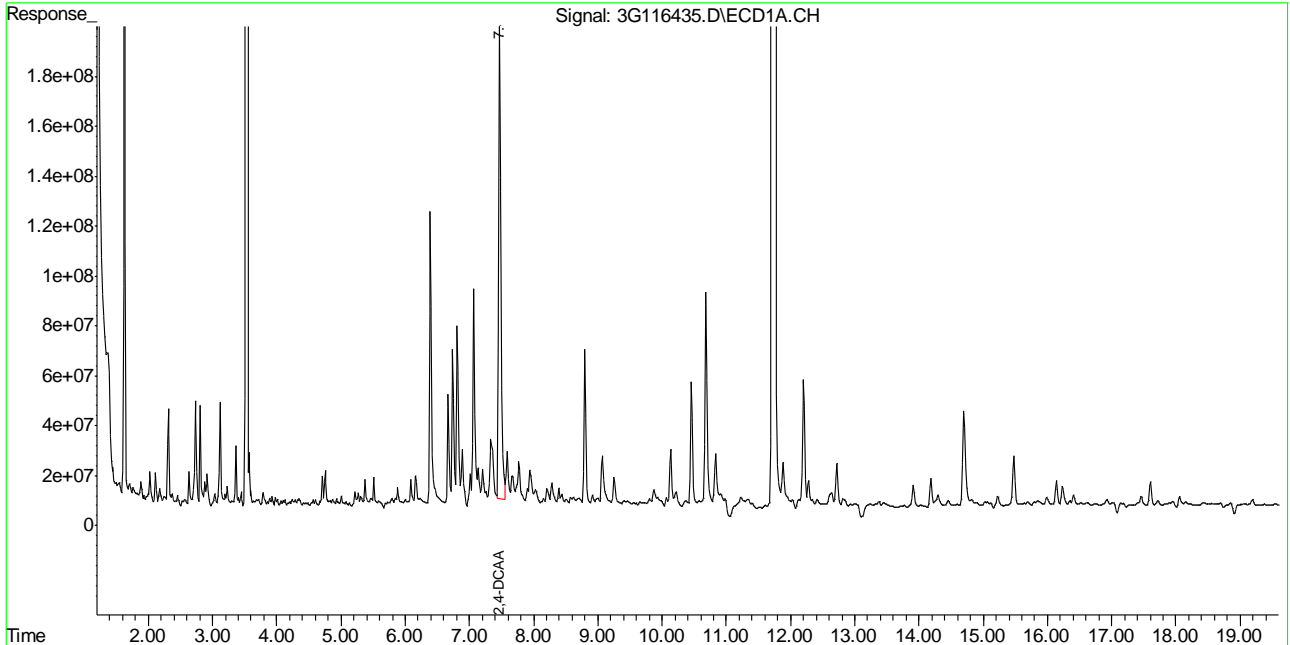
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.  
 3G116435.D 3H4020.M Mon May 14 10:57:09 2018 GC3G

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4043\3G116435.D\ECD1A.CH Vial: 5  
Signal #2 : C:\MSDCHEM\1\DATA\3G4043\3G116435.D\ECD2B.CH  
Acq On : 14 May 2018 10:27 am Operator: vinned  
Sample : opl1920-mb1 Inst : GC3G  
Misc : opl1920,g3g4043,15.0,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 14 10:56 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56092.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 00:46:59  
 Operator : christp  
 Sample : op11917-mb1  
 Misc : OP11917,g6g1681,15.0,,,10,1  
 ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:46:19 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB     |
|-----------------------------|--------|----------------|------------|---------|---------|---------|
| Internal Standards          |        |                |            |         |         |         |
| 1) I 1-bromo-2...           | 1.960  | 2.160          | 338.4E6    | 241.8E6 | 50.000  | 50.000m |
| 27) I 1-bromo-2...          | 1.960  | 2.160          | 338.4E6    | 238.9E6 | 50.000  | 50.000m |
| 33) I 1-bromo-2...          | 1.960  | 2.160          | 338.4E6    | 239.8E6 | 50.000  | 50.000m |
| System Monitoring Compounds |        |                |            |         |         |         |
| 2) SAB Tetrachlo...         | 2.544  | 2.940          | 192.3E6    | 141.1E6 | 29.230m | 31.318  |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 73.08%  | 78.30%  |         |
| 26) SA Decachlor...         | 9.839  | 11.741         | 216.0E6    | 155.4E6 | 32.211m | 34.592  |
| Spiked Amount               | 40.000 |                | Recovery = | 80.53%  | 86.48%  |         |
| Target Compounds            |        |                |            |         |         |         |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.    |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000   |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

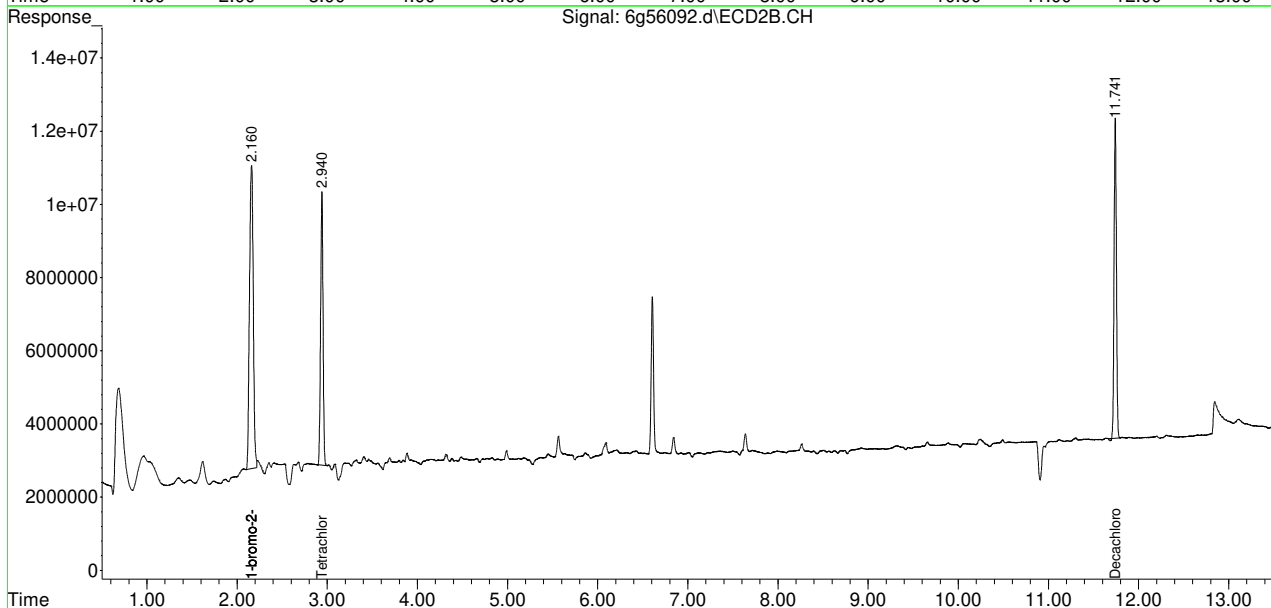
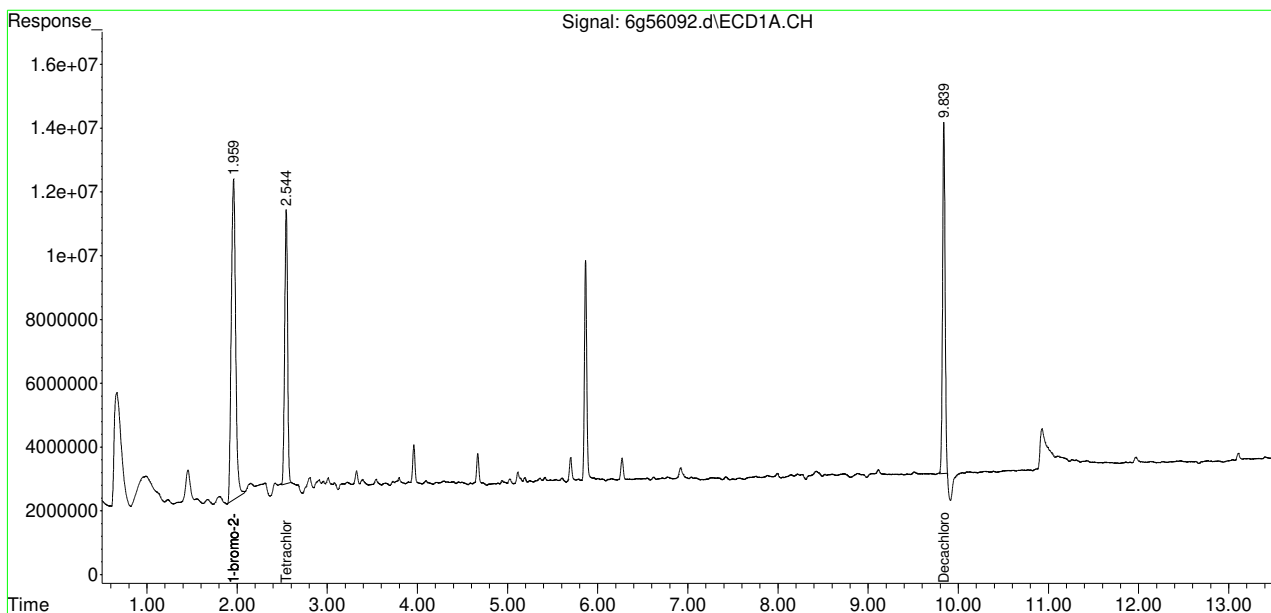
13.2.6  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56092.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 00:46:59  
 Operator : christp  
 Sample : op11917-mb1  
 Misc : OP11917,g6g1681,15.0,,,10,1  
 ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:46:19 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.2.6  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14785.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 4:51 pm  
 Operator : dharas  
 Sample : op11691-mb2  
 Misc : op11691,g8g483,300,,,2,1  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:09:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB    |
|-----------------------------|--------|----------------|------------|---------|--------|--------|
| -----                       |        |                |            |         |        |        |
| Internal Standards          |        |                |            |         |        |        |
| 1) I 1-bromo-2...           | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| 27) I 1-bromo-2...          | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| 33) I 1-bromo-2...          | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| System Monitoring Compounds |        |                |            |         |        |        |
| 2) SAB Tetrachlo...         | 2.692  | 3.451          | 111.9E6    | 266.2E6 | 29.021 | 33.726 |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 72.55%  | 84.31% |        |
| 26) SA Decachlor...         | 10.877 | 13.503         | 72546177   | 157.7E6 | 16.777 | 18.527 |
| Spiked Amount               | 40.000 |                | Recovery = | 41.94%  | 46.32% |        |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.27  
13

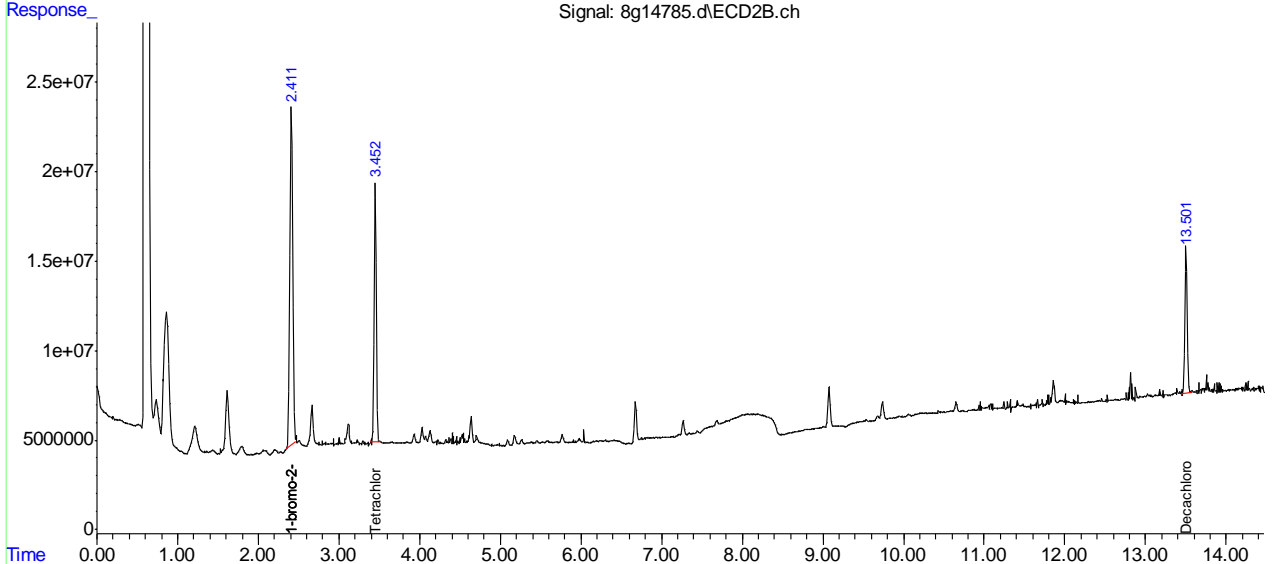
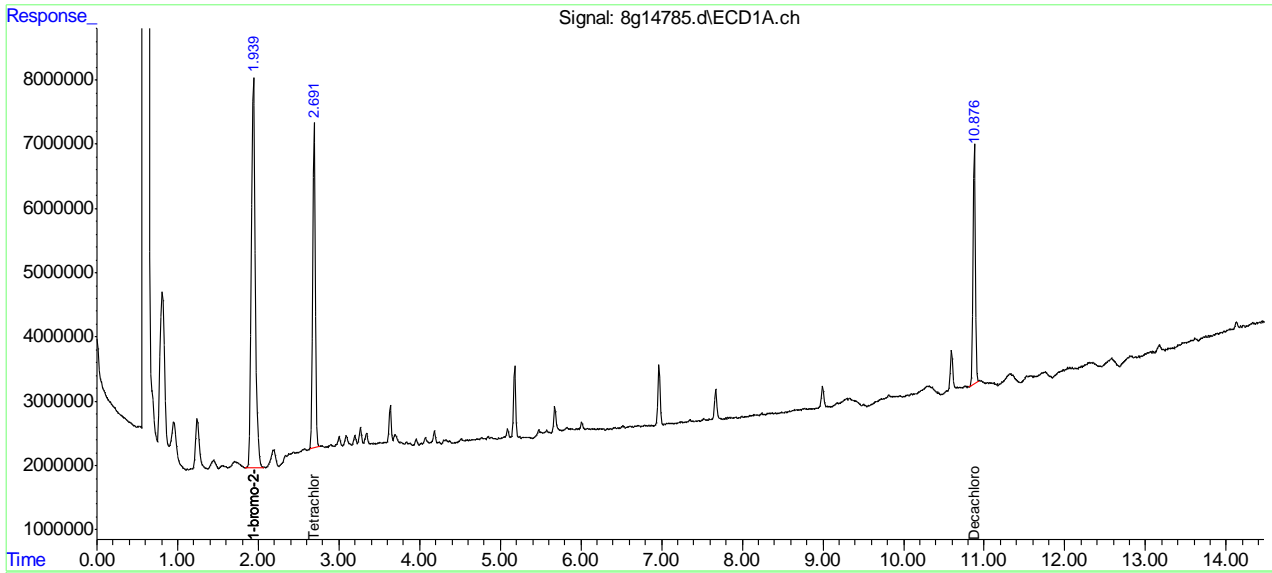


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14785.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 4:51 pm  
 Operator : dharas  
 Sample : op11691-mb2  
 Misc : op11691,g8g483,300,,,2,1  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:09:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15031.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:41 am  
 Operator : mailisih  
 Sample : op11917-mb1  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:29:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB    |
|-----------------------------|------------------|--------|----------------|------------|---------|---------|--------|
| -----                       |                  |        |                |            |         |         |        |
| Internal Standards          |                  |        |                |            |         |         |        |
| 1)                          | I 1-bromo-2...   | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| 27)                         | I 1-bromo-2...   | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| 33)                         | I 1-bromo-2...   | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| System Monitoring Compounds |                  |        |                |            |         |         |        |
| 2)                          | SAB Tetrachlo... | 2.688  | 3.447          | 108.9E6    | 289.8E6 | 31.005  | 34.941 |
|                             | Spiked Amount    | 40.000 | Range 30 - 150 | Recovery = |         | 77.51%  | 87.35% |
| 26)                         | SA Decachlor...  | 10.869 | 13.494         | 99908331   | 274.9E6 | 25.367m | 30.733 |
|                             | Spiked Amount    | 40.000 |                | Recovery = |         | 63.42%  | 76.83% |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

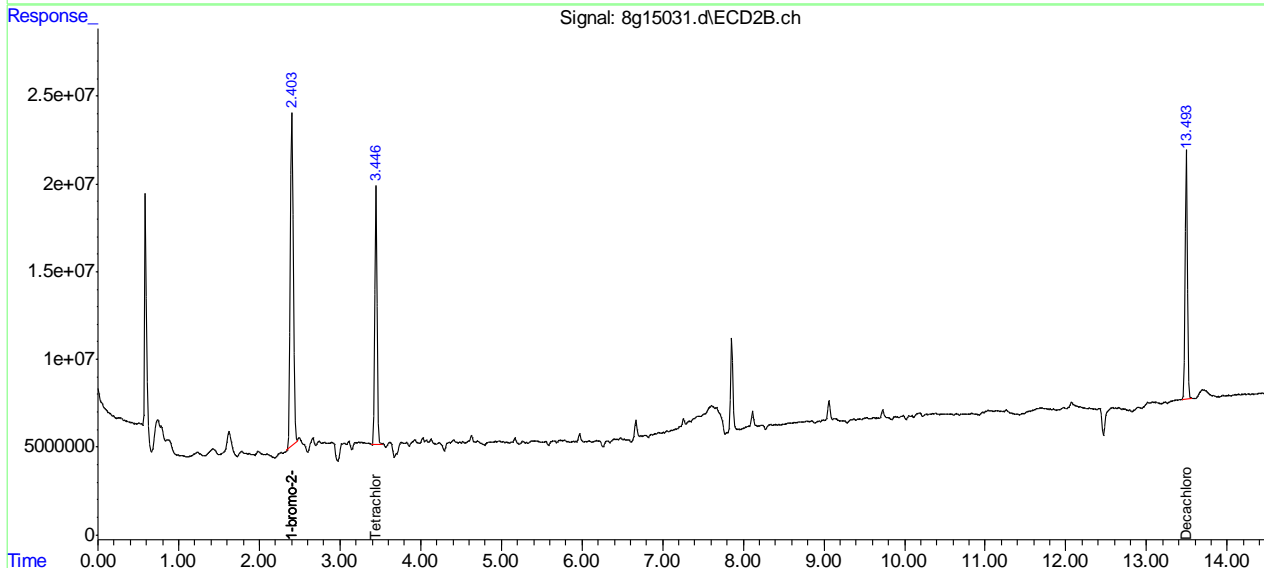
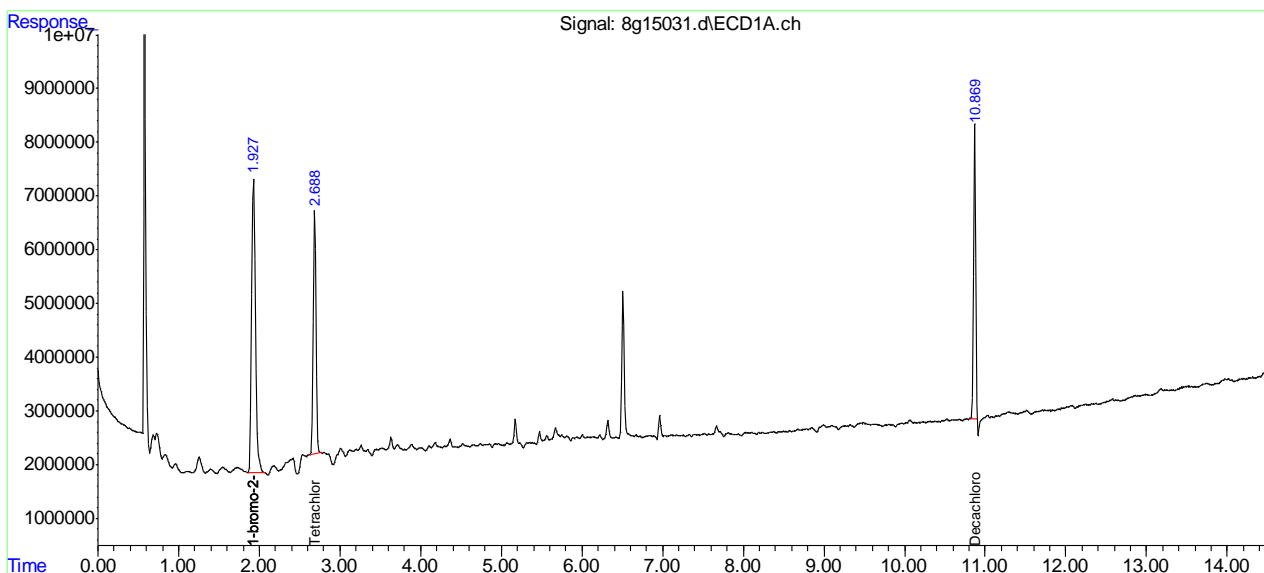
13.28  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15031.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:41 am  
 Operator : mailisih  
 Sample : op11917-mb1  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:29:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.28  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227795.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 5:38 pm  
 Operator : tianweir  
 Sample : op11668-mb1  
 Misc : op11668,GXX6332,15.0,,,10.0,1  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:23:47 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2    | Resp#1   | Resp#2  | ppb     | ppb     |
|-----------------------------|--------|---------|----------|---------|---------|---------|
| -----                       |        |         |          |         |         |         |
| System Monitoring Compounds |        |         |          |         |         |         |
| 1) S Tetrachlo...           | 2.809  | 3.551   | 331.3E6  | 332.4E6 | 40.096  | 40.864  |
| Spiked Amount               | 40.000 |         | Recovery | =       | 100.24% | 102.16% |
| 51) S Decachlor...          | 9.964f | 11.969f | 407.3E6  | 386.2E6 | 40.866  | 42.286  |
| Spiked Amount               | 40.000 |         | Recovery | =       | 102.16% | 105.72% |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

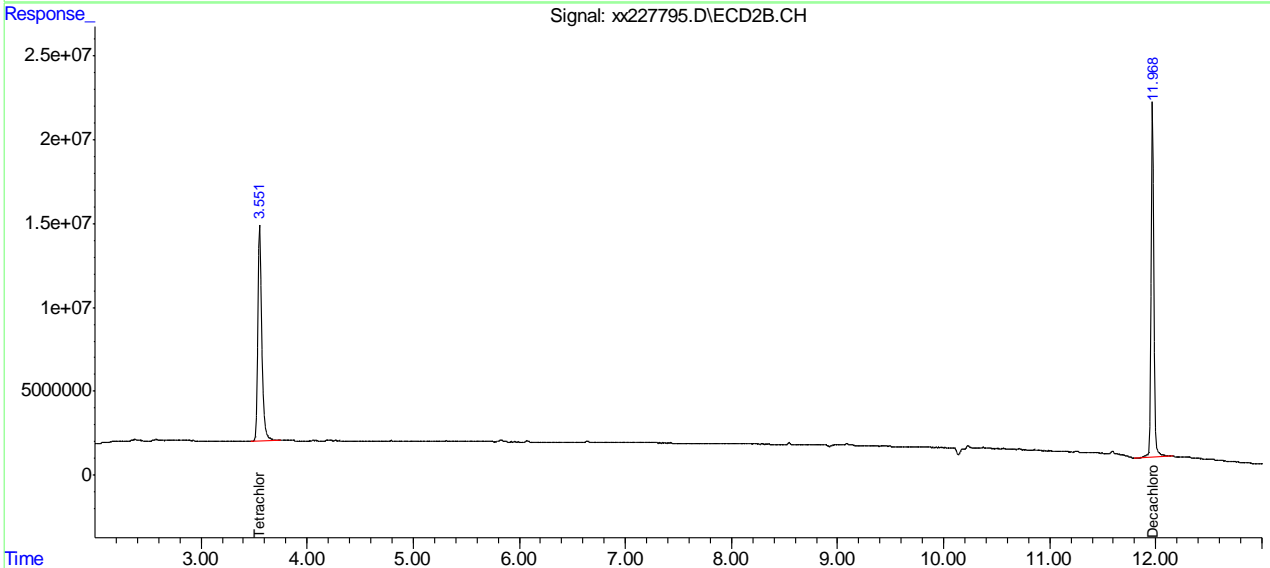
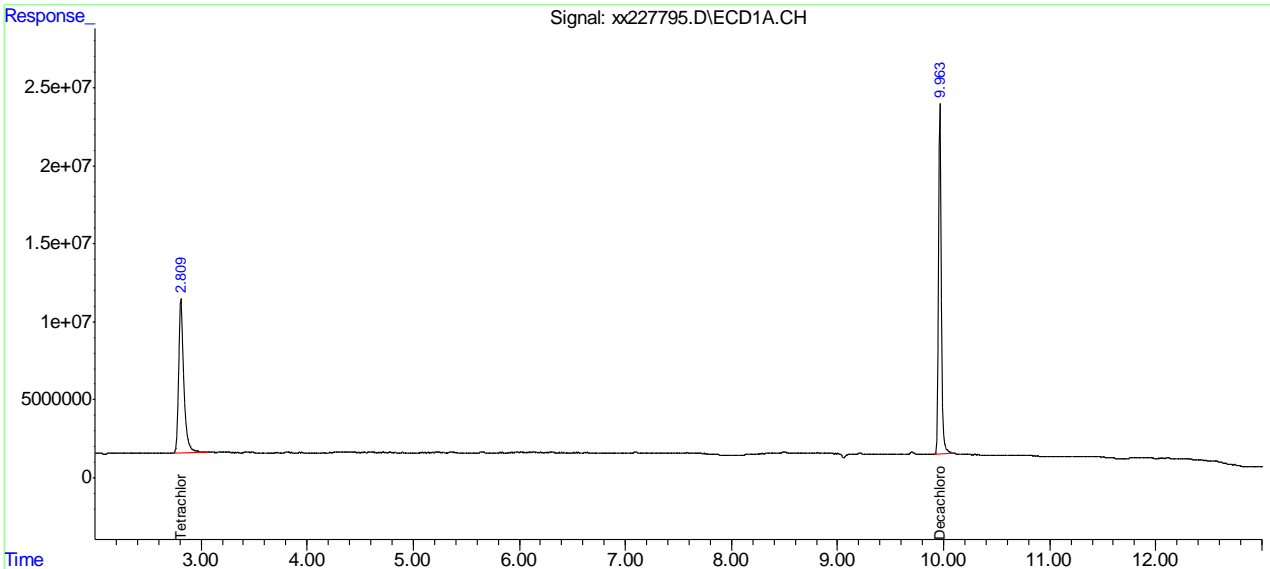
13.29  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6332\  
 Data File : xx227795.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 01 May 2018 5:38 pm  
 Operator : tianweir  
 Sample : op11668-mb1  
 Misc : op11668,GXX6332,15.0,,,10.0,1  
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 11:23:47 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:50:14 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88758.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 1:55 am  
 Operator : christp  
 Sample : op11656-mb1  
 Misc : op11656,gzz3198,10.0,,,1,1  
 ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 13:36:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Tue May 01 08:14:43 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 6) S o-TERPHENYL            | 8.614  | 84745330 | 32.711 PPM |
| Spiked Amount               | 50.000 | Recovery | = 65.42%   |
| 7) S 5a-ANDROSTANE          | 9.077  | 81204727 | 40.914 PPM |
| Spiked Amount               | 50.000 | Recovery | = 81.83%   |
| 8) S TETRACOSANE-d50        | 9.996  | 70193141 | 45.038 PPM |
| Spiked Amount               | 50.000 | Recovery | = 90.08%   |
| Target Compounds            |        |          |            |
| -----                       |        |          |            |

(f)=RT Delta > 1/2 Window

(m)=manual int.

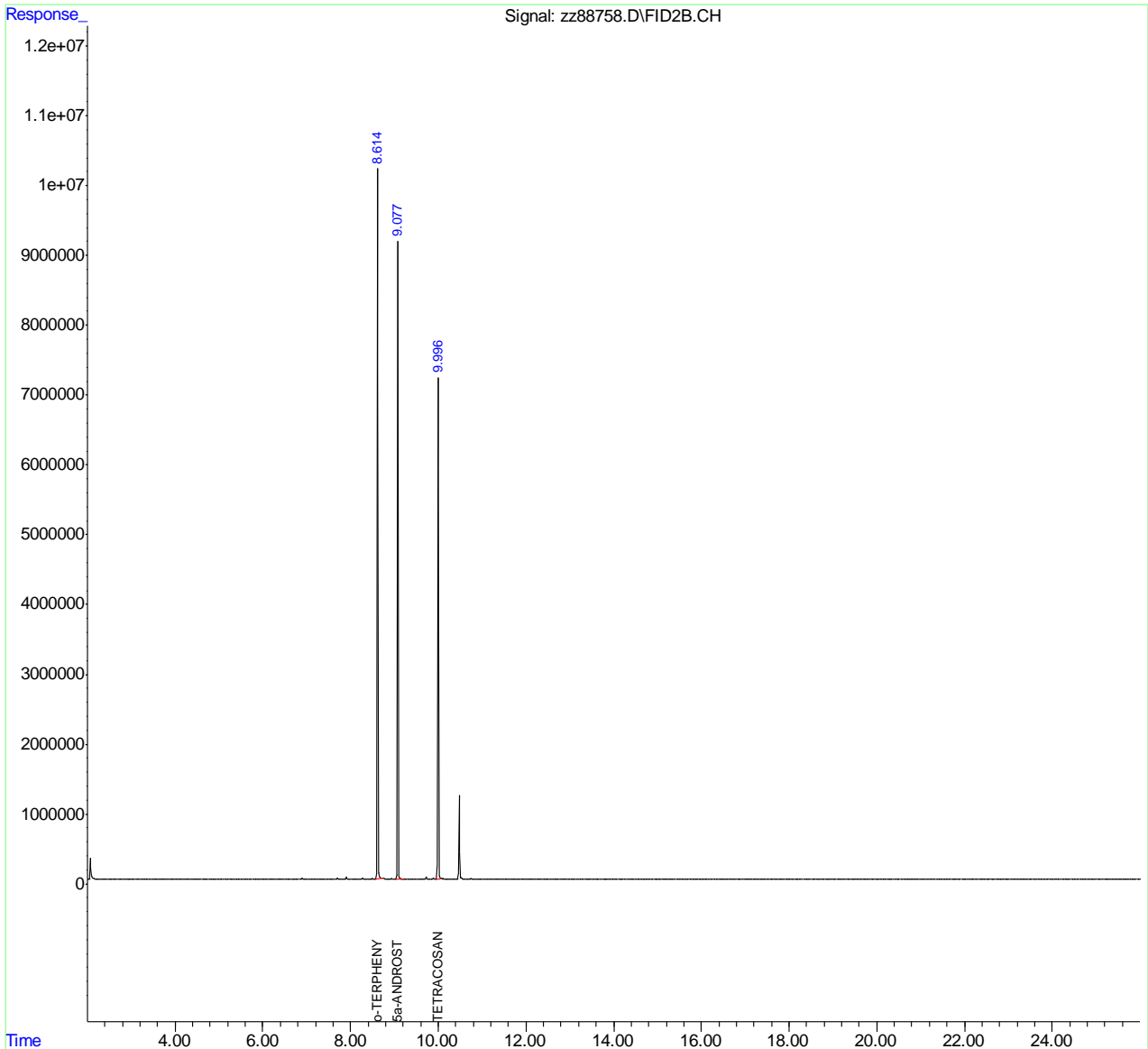
13.2.10  
13

Quantitation Report (QT Reviewed)

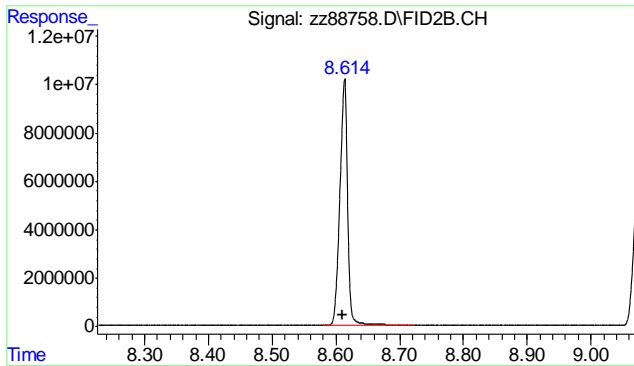
Data Path : C:\msdchem\2\DATA\GZZ3198\  
 Data File : zz88758.D  
 Signal(s) : FID2B.CH  
 Acq On : 01 May 2018 1:55 am  
 Operator : christp  
 Sample : op11656-mb1  
 Misc : op11656,gzz3198,10.0,,,1,1  
 ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 13:36:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DROZZ3143.M  
 Quant Title : GCTPHS  
 QLast Update : Tue May 01 08:14:43 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

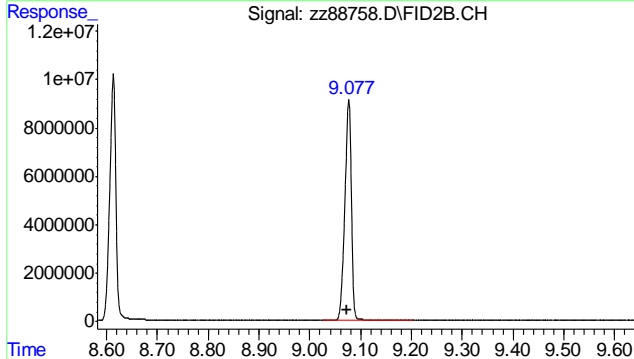
Volume Inj. : 1 ul  
 Signal Phase : ZB-5  
 Signal Info : .25 mm ID



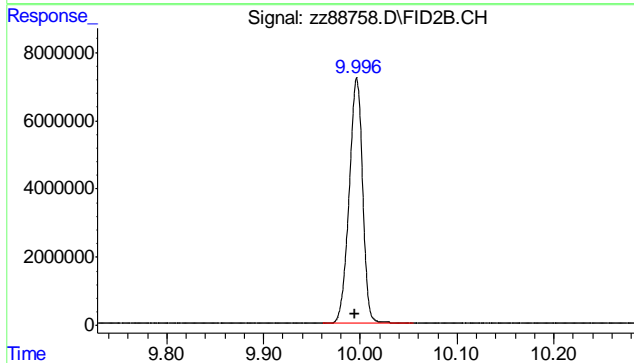
13.2.10 13



#6 o-TERPHENYL  
 R.T.: 8.614 min  
 Delta R.T.: 0.004 min  
 Response: 84745330  
 Conc: 32.71 PPM



#7 5a-ANDROSTANE  
 R.T.: 9.077 min  
 Delta R.T.: 0.003 min  
 Response: 81204727  
 Conc: 40.91 PPM



#8 TETRACOSANE-d50  
 R.T.: 9.996 min  
 Delta R.T.: 0.002 min  
 Response: 70193141  
 Conc: 45.04 PPM

13.2.10  
 13



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH  
 Acq On : 4-25-18 01:38:34 PM Operator: dharas  
 Sample : icc4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2  | Resp#1   | Resp#2   | PPB    | PPB           |
|-----------------------------|--------|-------|----------|----------|--------|---------------|
| -----                       |        |       |          |          |        |               |
| Internal Standards          |        |       |          |          |        |               |
| 1) I 1-bromo-2-nitrob       | 1.98   | 2.30  | 860.1E6  | 103.4E6  | 50.000 | 50.000        |
| System Monitoring Compounds |        |       |          |          |        |               |
| 2) SAB Tetrachloro-m-xy     | 2.55   | 3.14  | 406.0E6  | 52192360 | 26.606 | 25.907        |
| Spiked Amount               | 40.000 | Range | 30 - 150 | Recovery | =      | 66.52% 64.77% |
| 26) SA Decachlorobiphen     | 9.82   | 11.72 | 408.9E6  | 47393412 | 23.716 | 26.094        |
| Spiked Amount               | 40.000 |       |          | Recovery | =      | 59.29% 65.23% |
| Target Compounds            |        |       |          |          |        |               |
| 3) Hexachlorobenzen         | 2.88   | 3.68  | 702.4E6  | 65723200 | 25.472 | 25.228        |
| 4) A alpha-BHC              | 3.01   | 3.83  | 571.5E6  | 71631347 | 26.510 | 26.252        |
| 5) MA gamma-BHC             | 3.30   | 4.28  | 513.0E6  | 65977455 | 27.041 | 27.277        |
| 6) MA Heptachlor            | 3.80   | 4.89  | 539.2E6  | 66105692 | 29.274 | 31.002        |
| 7) B beta-BHC               | 3.38   | 4.37  | 241.9E6  | 30096828 | 27.697 | 26.347        |
| 8) B delta-BHC              | 3.58   | 4.79  | 495.1E6  | 59824637 | 34.266 | 31.595        |
| 9) MB Aldrin                | 4.14   | 5.36  | 495.8E6  | 65543121 | 26.150 | 25.737        |
| 10) Alachlor                | 4.26   | 5.13  | 54523812 | 8465608  | 22.957 | 25.881        |
| 11) B Heptachlor Epoxi      | 4.85   | 6.21  | 469.6E6  | 61191522 | 26.465 | 26.309        |
| 12) B gamma-Chlordane       | 5.01   | 6.50  | 473.4E6  | 61010414 | 28.641 | 25.881        |
| 13) B alpha-Chlordane       | 5.18   | 6.73  | 457.1E6  | 59465944 | 27.214 | 25.827        |
| 14) A Endosulfan I          | 5.36   | 6.84  | 495.2E6  | 56135065 | 27.162 | 25.910        |
| 15) B 4,4'-DDE              | 5.30   | 6.99  | 398.0E6  | 54337344 | 25.480 | 23.673        |
| 16) MA Dieldrin             | 5.69   | 7.29  | 470.0E6  | 61481129 | 26.546 | 23.991        |
| 17) MA Endrin               | 6.01   | 7.81  | 438.0E6  | 53980507 | 27.337 | 26.565        |
| 18) A 4,4'-DDD              | 6.14   | 7.96  | 332.0E6  | 40904245 | 26.764 | 23.437        |
| 19) B Endosulfan II         | 6.34   | 8.16  | 418.1E6  | 53225896 | 26.949 | 25.102        |
| 20) MA 4,4'-DDT             | 6.55   | 8.50  | 328.7E6  | 34574376 | 32.182 | 31.015        |
| 21) B Endrin Aldehyde       | 6.96   | 8.74  | 347.7E6  | 42575401 | 26.732 | 24.835        |
| 22) B Endosulfan Sulfa      | 7.64   | 9.22  | 344.9E6  | 41812774 | 38.068 | 36.459        |
| 23) A Methoxychlor          | 7.34   | 9.70  | 142.7E6  | 18015010 | 30.137 | 34.433        |
| 24) Mirex                   | 7.51   | 10.02 | 346.4E6  | 38119902 | 26.191 | 25.728        |
| 25) B Endrin Ketone         | 8.09   | 10.06 | 400.8E6  | 44391954 | 34.975 | 31.169        |

(f)=RT Delta > 1/2 Window  
 1G145471.D 1PST4628.M

Wed Apr 25 15:26:16 2018

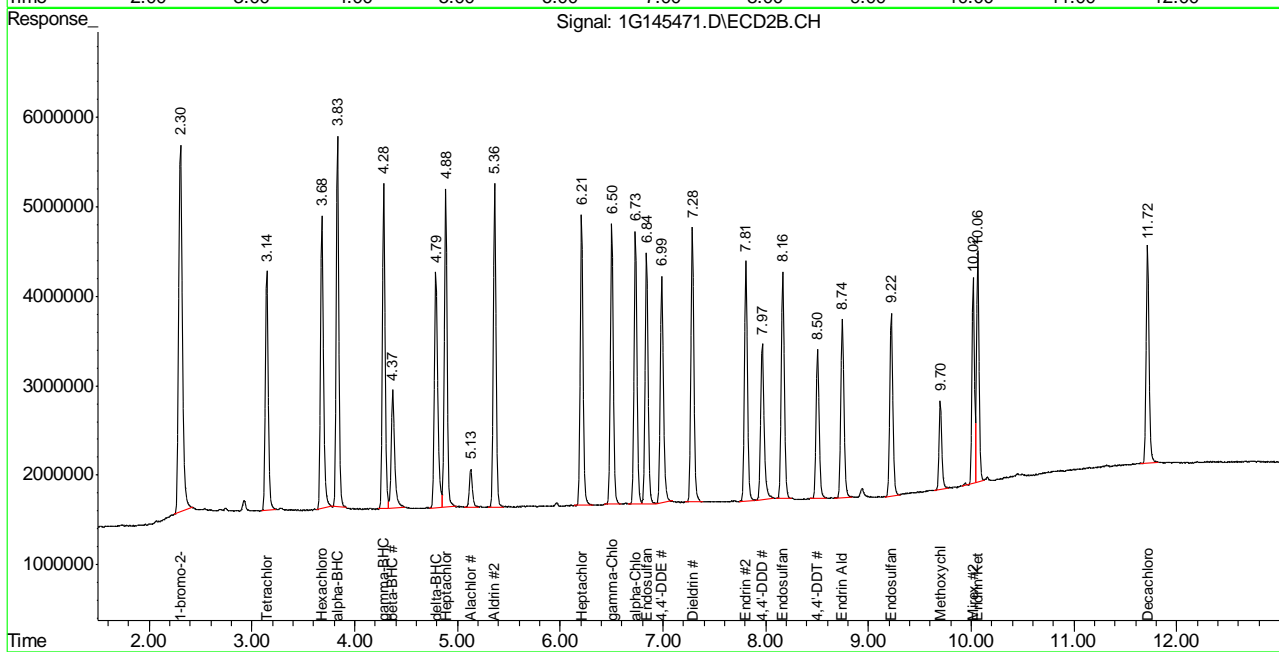
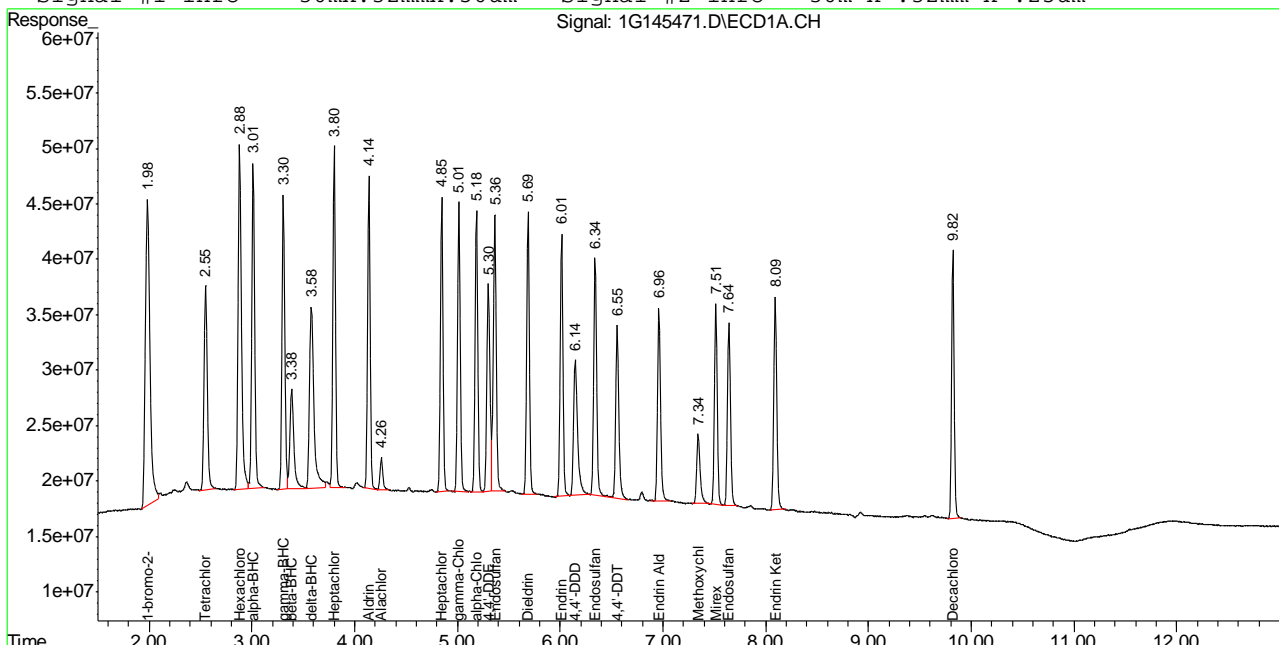
(m)=manual int.  
 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145471.D\ECD2B.CH  
 Acq On : 4-25-18 01:38:34 PM Operator: dharas  
 Sample : icc4628-25 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:26 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Multiple Level Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.31  
13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH  
 Acq On : 4-25-18 02:47:49 PM Operator: dharas  
 Sample : ic4628-500 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

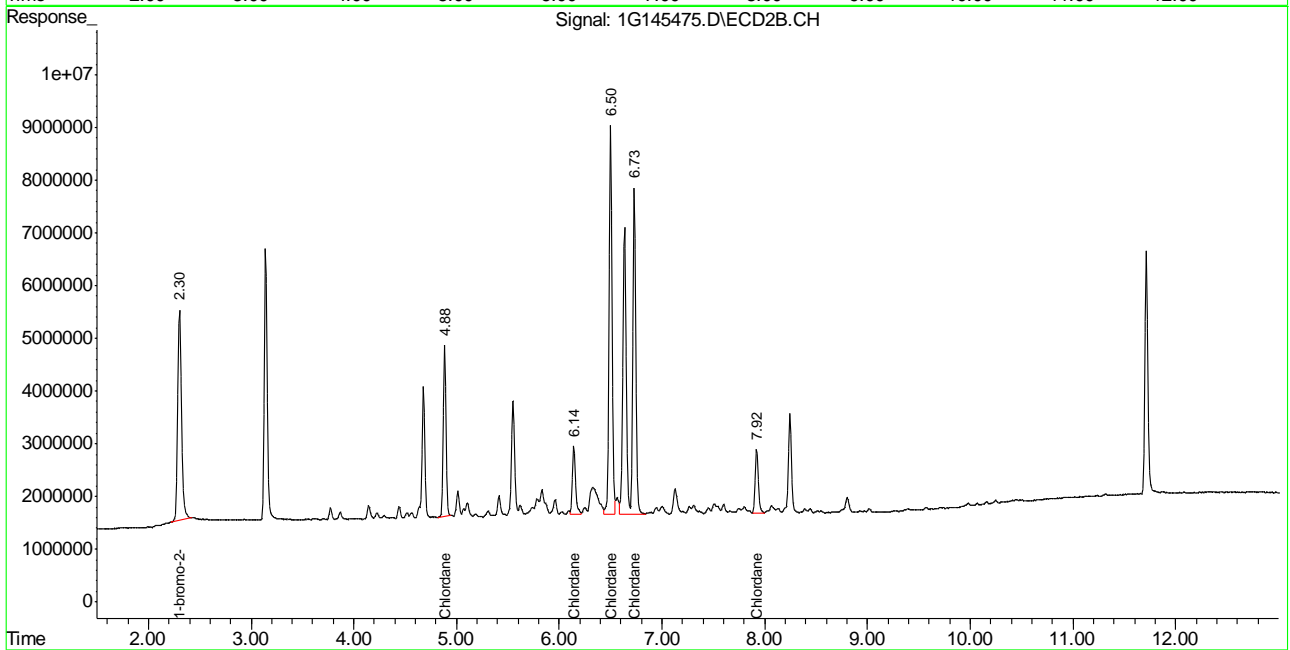
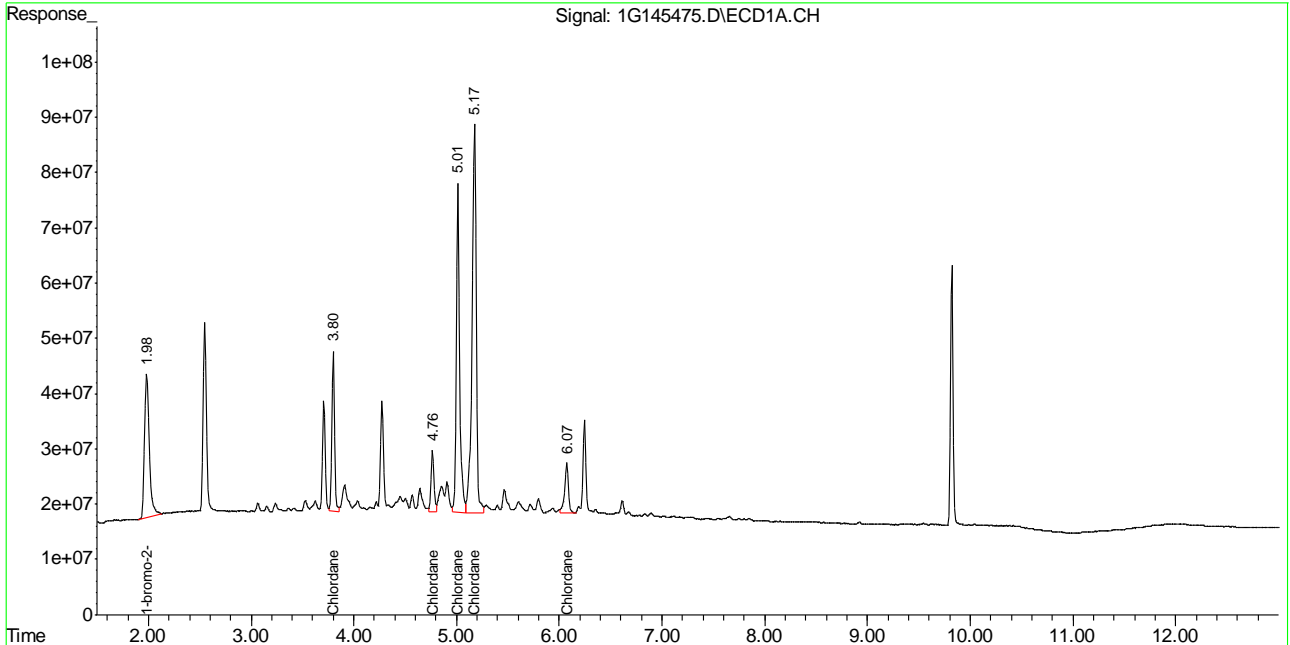
| Compound                    | RT#1 | RT#2 | Resp#1   | Resp#2   | PPB     | PPB      |
|-----------------------------|------|------|----------|----------|---------|----------|
| -----                       |      |      |          |          |         |          |
| Internal Standards          |      |      |          |          |         |          |
| 33) I 1-bromo-2-nitrob      | 1.98 | 2.30 | 850.1E6  | 104.6E6  | 50.000  | 50.000   |
| System Monitoring Compounds |      |      |          |          |         |          |
| Target Compounds            |      |      |          |          |         |          |
| 34) Chlordane {A}           | 3.80 | 4.88 | 524.1E6  | 59928280 | 547.216 | 576.893  |
| 35) Chlordane {B}           | 4.77 | 6.14 | 223.4E6  | 27657469 | 494.863 | 490.580  |
| 36) Chlordane {C}           | 5.01 | 6.50 | 1298.6E6 | 149.6E6  | 502.977 | 494.596  |
| 37) Chlordane {D}           | 5.18 | 6.73 | 2029.7E6 | 248.6E6  | 510.600 | 501.440m |
| 38) Chlordane {E}           | 6.07 | 7.92 | 228.2E6  | 26069213 | 416.633 | 518.173  |

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD1A.CH Vial: 11  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145475.D\ECD2B.CH  
Acq On : 4-25-18 02:47:49 PM Operator: dharas  
Sample : ic4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
Quant Time: Apr 25 15:27 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Tue Apr 24 23:40:36 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12  
 Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH  
 Acq On : 4-25-18 03:05:01 PM Operator: dharas  
 Sample : ic4628-500 Inst : GC1G  
 Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
 Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue Apr 24 23:40:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1 | RT#2 | Resp#1  | Resp#2   | PPB     | PPB     |
|-----------------------------|------|------|---------|----------|---------|---------|
| -----                       |      |      |         |          |         |         |
| Internal Standards          |      |      |         |          |         |         |
| 27) I 1-bromo-2-nitrob      | 1.98 | 2.30 | 862.1E6 | 103.2E6  | 50.000  | 50.000  |
| System Monitoring Compounds |      |      |         |          |         |         |
| Target Compounds            |      |      |         |          |         |         |
| 28) L8 Toxaphene{A}         | 5.69 | 7.24 | 153.8E6 | 20270542 | 577.408 | 525.969 |
| 29) L8 Toxaphene{B}         | 6.32 | 8.13 | 383.2E6 | 26247910 | 599.927 | 540.966 |
| 30) L8 Toxaphene{C}         | 6.49 | 8.29 | 321.3E6 | 43664106 | 365.074 | 546.359 |
| 31) L8 Toxaphene{D}         | 6.84 | 8.74 | 212.6E6 | 26124172 | 448.709 | 556.126 |
| 32) L8 Toxaphene{E}         | 7.49 | 9.63 | 228.5E6 | 21820223 | 604.167 | 645.918 |

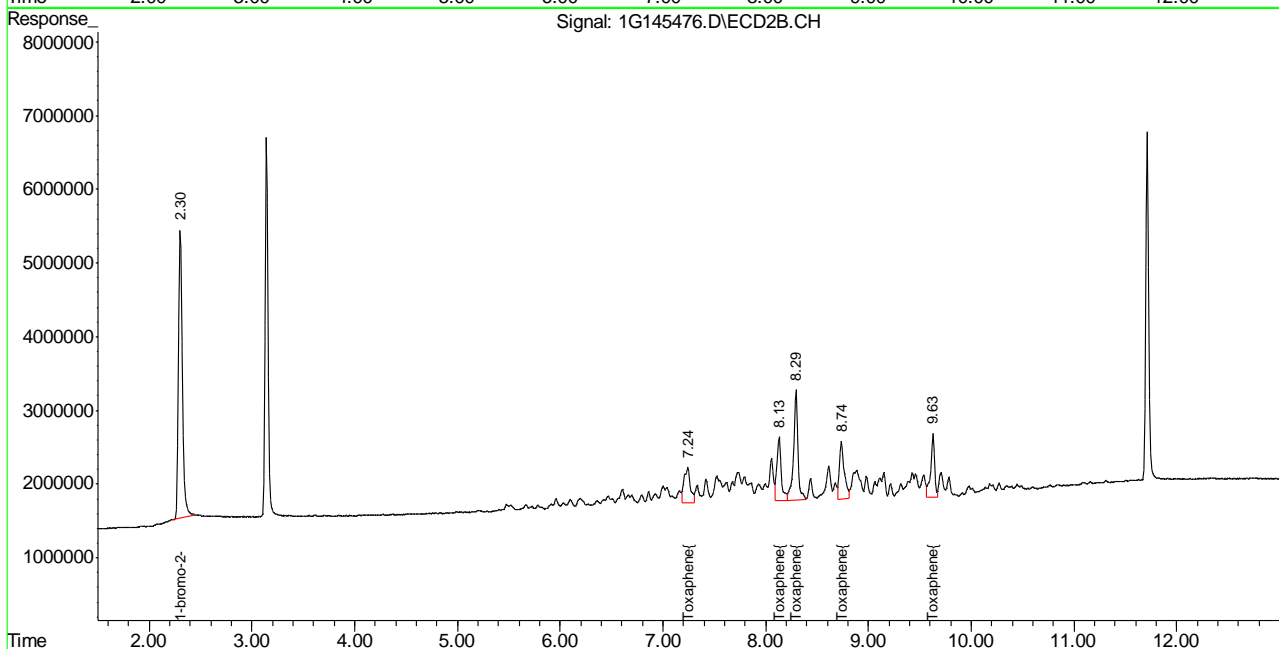
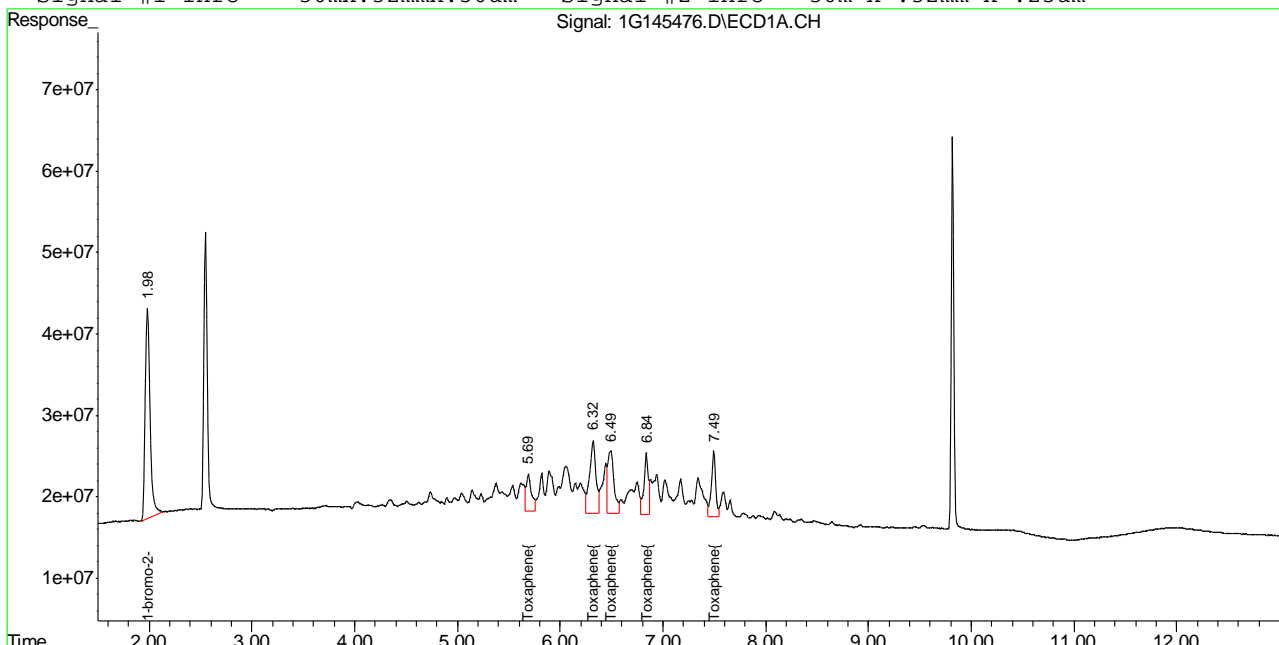
(f)=RT Delta > 1/2 Window (m)=manual int.  
 1G145476.D 1PST4628.M Wed Apr 25 15:28:28 2018 RPT1

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD1A.CH Vial: 12  
Signal #2 : C:\MSDCHEM\1\DATA\1G4628\1G145476.D\ECD2B.CH  
Acq On : 4-25-18 03:05:01 PM Operator: dharas  
Sample : ic4628-500 Inst : GC1G  
Misc : op11423,glg4628,15.5,,,10,1 Multiplr: 1.00  
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: AUTOINT2.E  
Quant Time: Apr 25 15:28 2018 Quant Results File: 1PST4628.RES

Quant Method : C:\MSDCHEM\1\METHODS\1PST4628.M (Chemstation Integrator)  
Title : PEST/PCB  
Last Update : Tue Apr 24 23:40:36 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 1PST4628.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.50um Signal #2 Info : 30m x .32mm x .25um



13.3.3  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55784.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 12:36:33  
 Operator : dharas  
 Sample : icc1671-25  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 12:52:37 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB    | PPB    |
|-----------------------------|--------|----------------|------------|----------|--------|--------|
| Internal Standards          |        |                |            |          |        |        |
| 1) I 1-bromo-2...           | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| 27) I 1-bromo-2...          | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| 33) I 1-bromo-2...          | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| System Monitoring Compounds |        |                |            |          |        |        |
| 2) SAB Tetrachlo...         | 2.530  | 2.932          | 189.1E6    | 114.8E6  | 23.658 | 23.388 |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = |          | 59.15% | 58.47% |
| 26) SA Decachlor...         | 9.838  | 11.722         | 184.6E6    | 109.7E6  | 24.257 | 25.672 |
| Spiked Amount               | 40.000 |                | Recovery = |          | 60.64% | 64.18% |
| Target Compounds            |        |                |            |          |        |        |
| 3) hexachlor...             | 2.857  | 3.415          | 210.3E6    | 141.6E6  | 21.917 | 22.707 |
| 4) A alpha-BHC              | 2.996  | 3.563          | 270.6E6    | 157.3E6  | 22.926 | 22.462 |
| 5) MA gamma-BHC             | 3.287  | 3.971          | 249.6E6    | 145.6E6  | 23.359 | 22.563 |
| 6) MA Heptachlor            | 3.776  | 4.526          | 236.7E6    | 146.0E6  | 25.037 | 24.415 |
| 7) B beta-BHC               | 3.359  | 4.051          | 109.6E6    | 65204342 | 24.369 | 24.037 |
| 8) B delta-BHC              | 3.542  | 4.431          | 226.7E6    | 133.1E6  | 23.687 | 22.873 |
| 9) MB Aldrin                | 4.107  | 4.962          | 232.3E6    | 129.4E6  | 24.904 | 22.686 |
| 10) alachlor                | 4.246  | 4.780          | 28340673   | 17039946 | 23.696 | 23.431 |
| 11) B Heptachlo...          | 4.813  | 5.760          | 214.1E6    | 124.0E6  | 25.673 | 24.804 |
| 12) B gamma-Chl...          | 4.975  | 6.037          | 212.2E6    | 123.6E6  | 25.903 | 25.235 |
| 13) B alpha-Chl...          | 5.145  | 6.257          | 210.1E6    | 122.8E6  | 25.048 | 25.615 |
| 14) A Endosulfan I          | 5.322  | 6.349          | 197.6E6    | 111.7E6  | 24.765 | 24.460 |
| 15) B 4,4'-DDE              | 5.256  | 6.521          | 203.7E6    | 116.9E6  | 24.678 | 22.598 |
| 16) MA Dieldrin             | 5.642  | 6.775          | 217.8E6    | 121.4E6  | 23.209 | 22.770 |
| 17) MA Endrin               | 5.964  | 7.268          | 194.6E6    | 115.1E6  | 25.344 | 24.911 |
| 18) A 4,4'-DDD              | 6.085  | 7.452          | 168.7E6    | 96890160 | 24.374 | 24.290 |
| 19) B Endosulfa...          | 6.283  | 7.612          | 194.5E6    | 112.1E6  | 25.092 | 24.729 |
| 20) MA 4,4'-DDT             | 6.503  | 7.980          | 162.0E6    | 96232017 | 24.375 | 23.954 |
| 21) B Endrin Al...          | 6.907  | 8.177          | 160.7E6    | 89850605 | 25.017 | 24.937 |
| 22) B Endosulfa...          | 7.588  | 8.641          | 159.9E6    | 90465081 | 25.757 | 25.546 |
| 23) A Methoxychlor          | 7.285  | 9.213          | 94604672   | 55394201 | 26.255 | 27.313 |
| 24) Mirex                   | 7.436  | 9.520          | 156.3E6    | 89970523 | 24.892 | 24.562 |
| 25) B Endrin Ke...          | 8.028  | 9.587          | 193.0E6    | 111.2E6  | 25.635 | 23.298 |
| Sum Toxaphene               |        |                | 0          | 0        | N.D.   | N.D.   |
| Average Toxaphene           |        |                |            |          | 0.000  | 0.000  |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

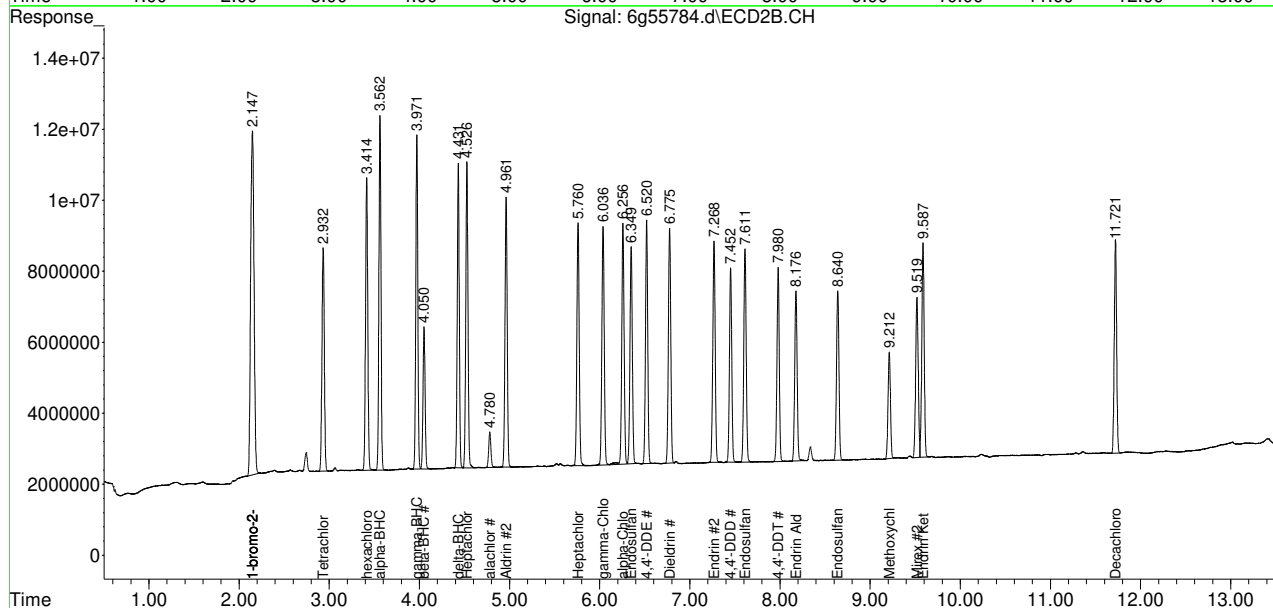
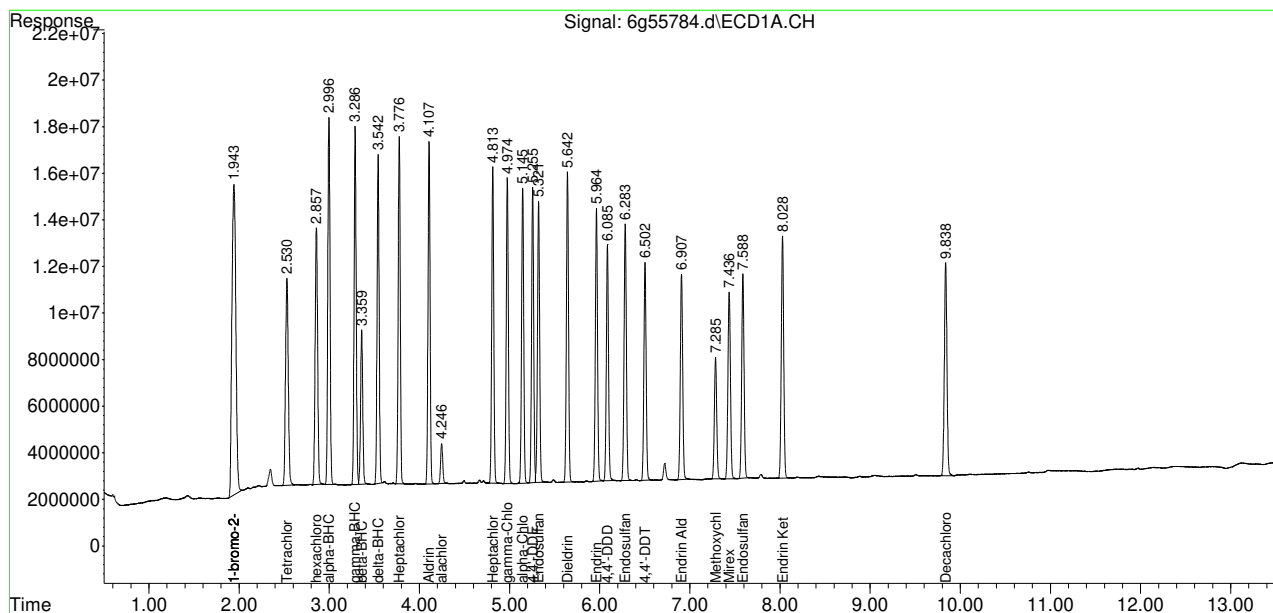
13.34  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55784.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 12:36:33  
 Operator : dharas  
 Sample : icc1671-25  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 12:52:37 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.4  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55788.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)  
 Operator : dharas  
 Sample : ic1671-500  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 17:25:49 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound          | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB     | PPB      |
|-----------------------------|-------------------|--------|----------------|------------|----------|---------|----------|
| -----                       |                   |        |                |            |          |         |          |
| Internal Standards          |                   |        |                |            |          |         |          |
| 1)                          | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6    | 252.6E6  | 50.000  | 50.000   |
| 27)                         | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6    | 252.6E6  | 50.000  | 50.000   |
| 33)                         | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6    | 252.6E6  | 50.000  | 50.000   |
| System Monitoring Compounds |                   |        |                |            |          |         |          |
| 2)                          | SAB Tetrachlo...  | 2.531f | 2.933          | 389.1E6    | 228.0E6  | 47.992  | 46.540   |
|                             | Spiked Amount     | 40.000 | Range 30 - 150 | Recovery = | 119.98%  | 116.35% |          |
| 26)                         | SA Decachlor...   | 9.838  | 11.722f        | 351.2E6    | 206.2E6  | 45.509  | 48.373   |
|                             | Spiked Amount     | 40.000 |                | Recovery = | 113.77%  | 120.93% |          |
| Target Compounds            |                   |        |                |            |          |         |          |
|                             | Sum Toxaphene     |        |                | 0          | 0        | N.D.    | N.D.     |
|                             | Average Toxaphene |        |                |            |          | 0.000   | 0.000    |
| 34)                         | Chlordane...      | 3.776  | 4.526          | 220.7E6    | 136.8E6  | 497.720 | 487.961  |
| 35)                         | Chlordane...      | 4.250  | 5.150          | 183.3E6    | 100.4E6  | 481.316 | 486.126  |
| 36)                         | Chlordane...      | 4.975  | 6.037          | 592.7E6    | 319.3E6  | 506.778 | 487.790  |
| 37)                         | Chlordane...      | 5.139  | 6.258          | 932.0E6    | 520.1E6  | 496.185 | 488.099m |
| 38)                         | Chlordane...      | 6.024  | 7.396          | 105.2E6    | 54285316 | 450.659 | 528.699  |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

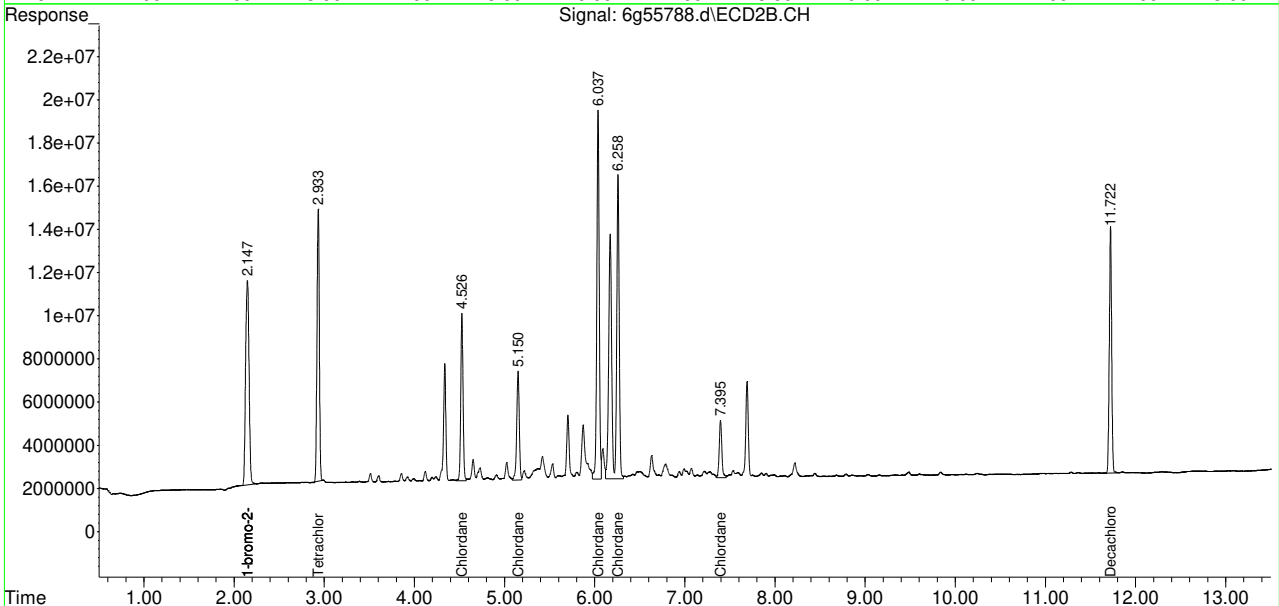
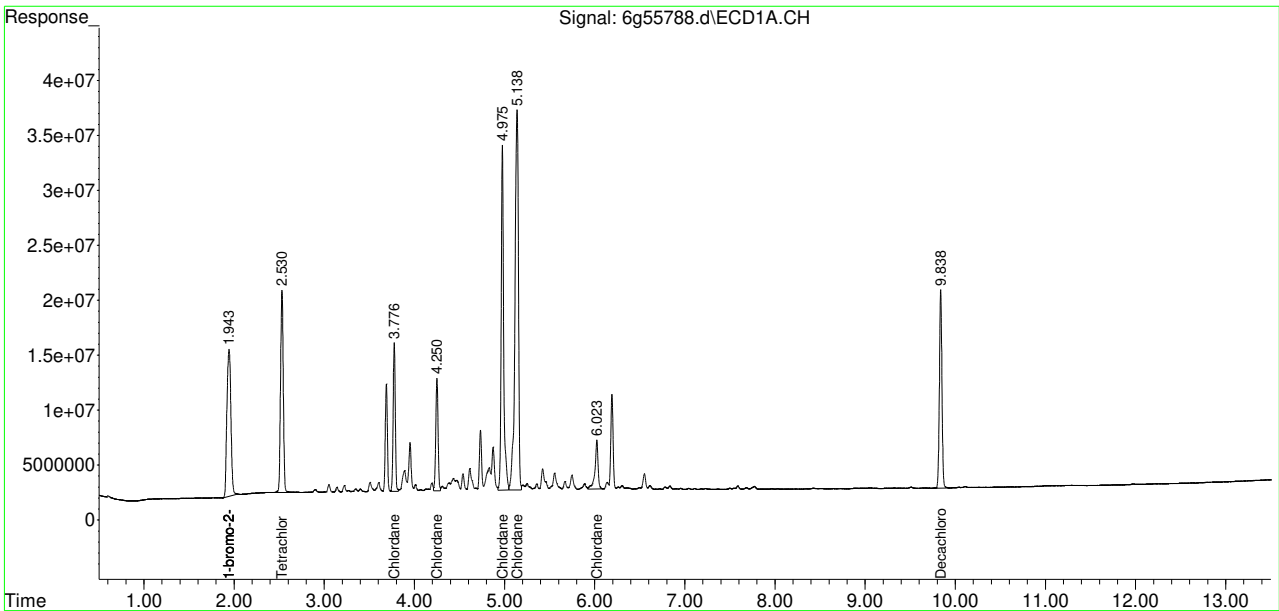
13.35  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
Data File : 6g55788.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)  
Operator : dharas  
Sample : ic1671-500  
Misc : OP11619,g6g1671,1000,,,5,1  
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 30 17:25:49 2018  
Quant Method : C:\msdchem\1\methods\6PST1671.M  
Quant Title : PEST/PCB  
QLast Update : Mon Apr 30 12:31:07 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55789.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 14:05:32  
 Operator : dharas  
 Sample : ic1671-500  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 17:26:17 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB      | PPB      |
|-----------------------------|--------|----------------|------------|----------|----------|----------|
| -----                       |        |                |            |          |          |          |
| Internal Standards          |        |                |            |          |          |          |
| 1) I 1-bromo-2...           | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| 27) I 1-bromo-2...          | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| 33) I 1-bromo-2...          | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| System Monitoring Compounds |        |                |            |          |          |          |
| 2) SAB Tetrachlo...         | 2.528f | 2.931          | 385.1E6    | 233.3E6  | 48.334   | 48.108   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 120.84%  | 120.27%  |          |
| 26) SA Decachlor...         | 9.837  | 11.722f        | 358.9E6    | 213.2E6  | 47.319   | 50.528   |
| Spiked Amount               | 40.000 |                | Recovery = | 118.30%  | 126.32%  |          |
| Target Compounds            |        |                |            |          |          |          |
| 28) L8 Toxaphene{A}         | 5.652  | 6.741          | 63726000   | 48141894 | 470.271  | 486.445  |
| 29) L8 Toxaphene{B}         | 6.272  | 7.583          | 164.9E6    | 62990732 | 478.558  | 515.469  |
| 30) L8 Toxaphene{C}         | 6.447  | 7.744          | 133.5E6    | 117.7E6  | 480.051  | 512.531  |
| 31) L8 Toxaphene{D}         | 6.787  | 8.178          | 104.7E6    | 65399372 | 492.281  | 529.767  |
| 32) L8 Toxaphene{E}         | 7.434  | 9.066          | 107.3E6    | 58569705 | 475.346  | 551.126  |
| Sum Toxaphene               |        |                | 574.1E6    | 352.8E6  | 2396.507 | 2595.337 |
| Average Toxaphene           |        |                |            |          | 479.301  | 519.067  |

SemiQuant Compounds - Not Calibrated on this Instrument

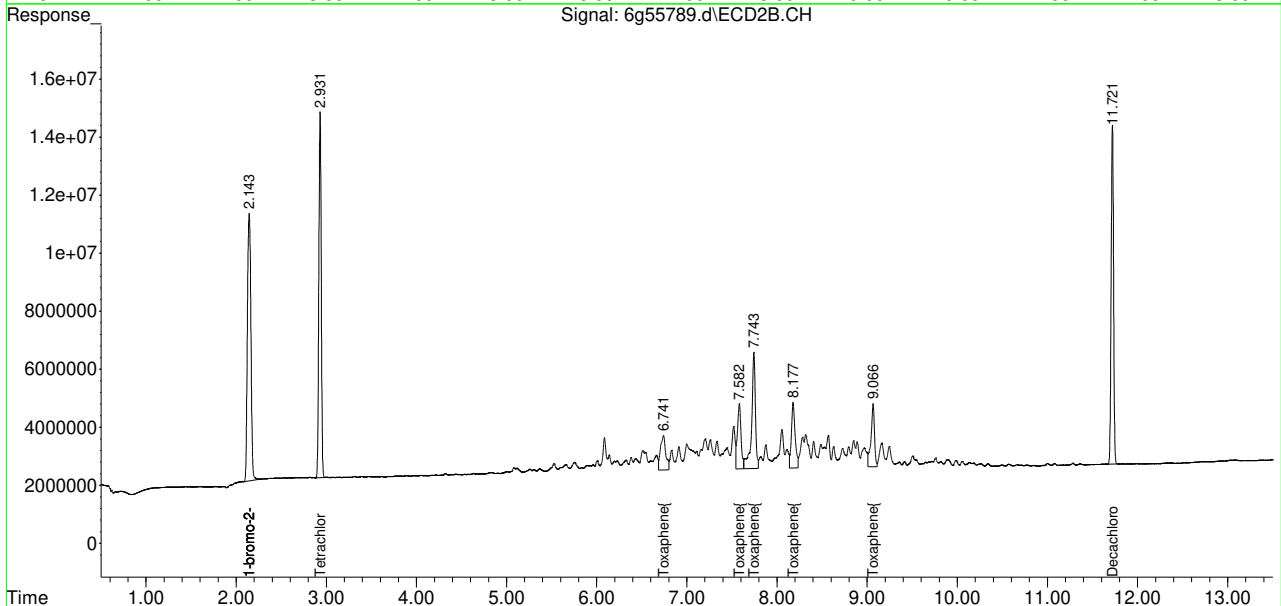
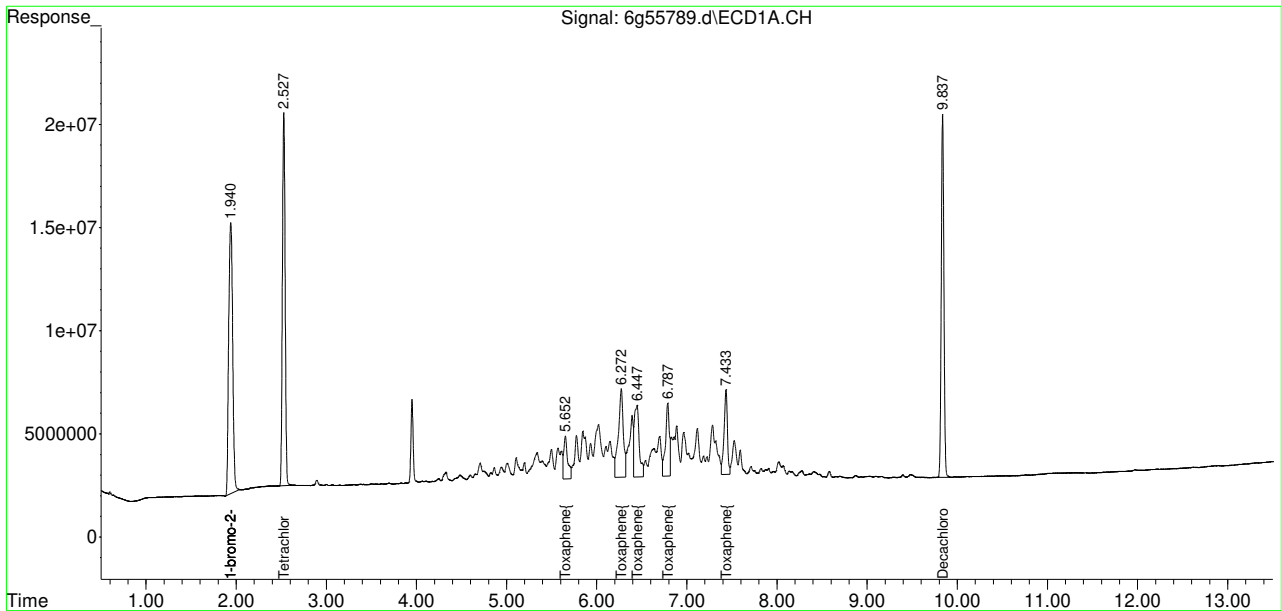
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55789.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 14:05:32  
 Operator : dharas  
 Sample : ic1671-500  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 17:26:17 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14666.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 11:19 am  
 Operator : rebeccak  
 Sample : icc480-25  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:42:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | PPB      | PPB      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| Internal Standards          |        |        |          |          |          |          |
| 1) I 1-bromo-2...           | 1.933  | 2.406  | 198.1E6  | 484.5E6  | 50.000   | 50.000   |
| System Monitoring Compounds |        |        |          |          |          |          |
| 2) SAB Tetrachlo...         | 2.687  | 3.449  | 90814326 | 189.9E6  | 22.554   | 18.522   |
| Spiked Amount               | 40.000 | Range  | 30 - 150 | Recovery | = 56.38% | 46.30%   |
| 26) SA Decachlor...         | 10.885 | 13.510 | 94653378 | 200.1E6  | 12.704   | 18.885 # |
| Spiked Amount               | 40.000 |        | Recovery | = 31.76% | 47.21%   |          |
| Target Compounds            |        |        |          |          |          |          |
| 3) hexachlor...             | 3.085  | 4.072  | 131.5E6  | 244.2E6  | 23.930   | 17.667 # |
| 4) A alpha-BHC              | 3.255  | 4.259  | 114.2E6  | 249.4E6  | 22.050   | 17.706   |
| 5) MA gamma-BHC             | 3.600  | 4.771  | 108.9E6  | 235.9E6  | 21.777   | 18.540   |
| 6) MA Heptachlor            | 4.168  | 5.457  | 109.0E6  | 240.0E6  | 20.696   | 17.985   |
| 7) B beta-BHC               | 3.688  | 4.868  | 51771376 | 109.9E6  | 20.415   | 19.490   |
| 8) B delta-BHC              | 3.899  | 5.339  | 89006176 | 207.5E6  | 20.925   | 17.800   |
| 9) MB Aldrin                | 4.549  | 5.990  | 98856823 | 230.9E6  | 19.324   | 18.479   |
| 10)alachlor                 | 4.706  | 5.743  | 14005173 | 31677821 | 17.316   | 17.766   |
| 11) B Heptachlo...          | 5.351  | 6.938  | 95829910 | 185.3E6  | 20.307   | 15.033 # |
| 12) B gamma-Chl...          | 5.534  | 7.264  | 92021995 | 228.4E6  | 18.820   | 18.203   |
| 13) B alpha-Chl...          | 5.726  | 7.521  | 93334086 | 235.5E6  | 17.315   | 17.821   |
| 14) A Endosulfan I          | 5.926  | 7.639  | 86686649 | 222.9E6  | 17.088   | 19.551   |
| 15) B 4,4'-DDE              | 5.844  | 7.798  | 94646226 | 245.0E6  | 17.656   | 20.467   |
| 16) MA Dieldrin             | 6.285  | 8.134  | 94494339 | 252.9E6  | 17.443   | 21.047   |
| 17) MA Endrin               | 6.646  | 8.711  | 85347605 | 220.7E6  | 16.595   | 22.229 # |
| 18) A 4,4'-DDD              | 6.769  | 8.870  | 72001019 | 195.7E6  | 16.226   | 22.209 # |
| 19) B Endosulfa...          | 7.003  | 9.102  | 85678296 | 223.1E6  | 15.114   | 22.910 # |
| 20) MA 4,4'-DDT             | 7.233  | 9.474  | 71395105 | 181.9E6  | 17.127   | 26.676 # |
| 21) B Endrin Al...          | 7.697  | 9.742  | 73336013 | 179.4E6  | 14.939   | 28.046 # |
| 22) B Endosulfa...          | 8.454  | 10.261 | 64423396 | 165.0E6  | 12.981   | 28.479 # |
| 23) A Methoxychlor          | 8.090  | 10.810 | 44702611 | 100.8E6  | 15.797   | 31.974 # |
| 24) Mirex                   | 8.293  | 11.264 | 75749242 | 161.1E6  | 14.955   | 25.838 # |
| 25) B Endrin Ke...          | 8.947  | 11.311 | 81698675 | 193.3E6  | 15.012   | 24.579 # |

SemiQuant Compounds - Not Calibrated on this Instrument

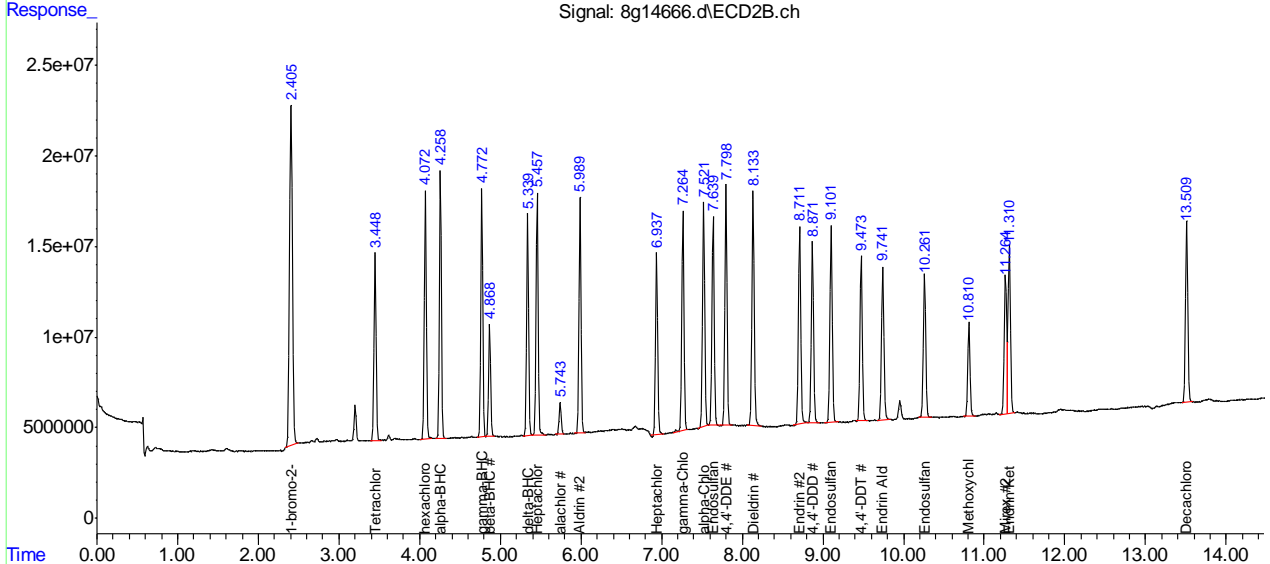
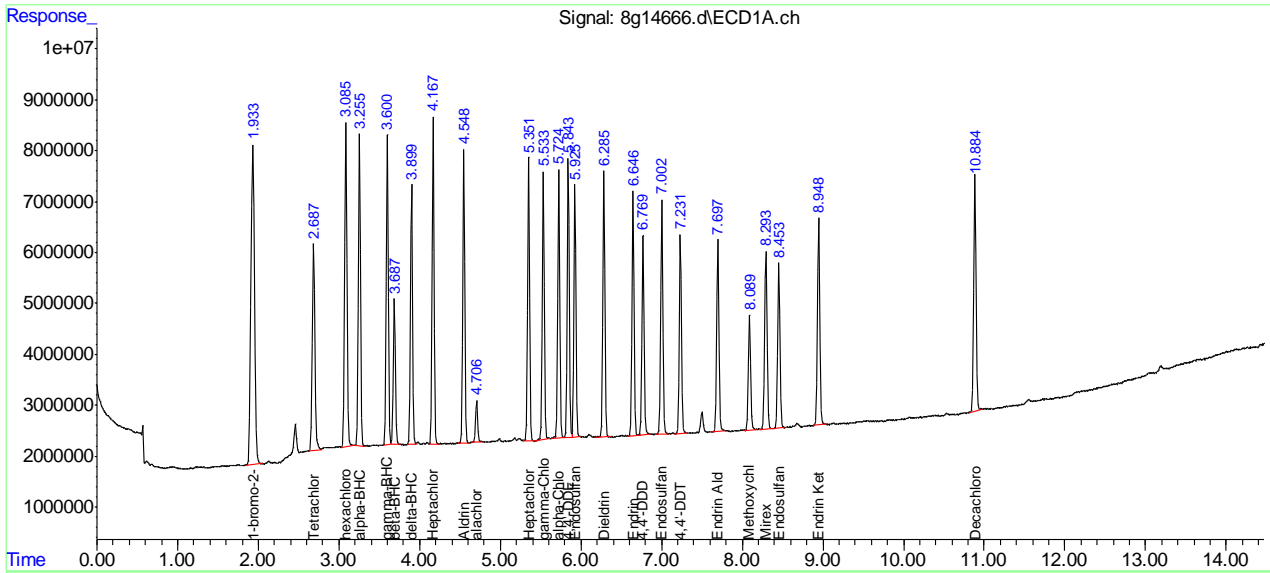
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14666.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 11:19 am  
 Operator : rebeccak  
 Sample : icc480-25  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:42:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14670.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:24 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1  | RT#2  | Resp#1   | Resp#2  | PPB     | PPB       |
|-----------------------------|-------|-------|----------|---------|---------|-----------|
| -----                       |       |       |          |         |         |           |
| Internal Standards          |       |       |          |         |         |           |
| 33) I 1-bromo-2...          | 1.933 | 2.405 | 194.1E6  | 477.9E6 | 50.000  | 50.000    |
| System Monitoring Compounds |       |       |          |         |         |           |
| Target Compounds            |       |       |          |         |         |           |
| 34) Chlordane...            | 4.166 | 5.458 | 98687449 | 212.8E6 | 407.476 | 331.472   |
| 35) Chlordane...            | 4.710 | 6.207 | 82743880 | 175.2E6 | 353.319 | 353.917   |
| 36) Chlordane...            | 5.533 | 7.265 | 249.3E6  | 535.2E6 | 363.047 | 327.884   |
| 37) Chlordane...            | 5.719 | 7.523 | 403.0E6  | 950.2E6 | 346.204 | 353.021m  |
| 38) Chlordane...            | 6.899 | 9.198 | 65855686 | 169.8E6 | 305.905 | 474.945 # |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

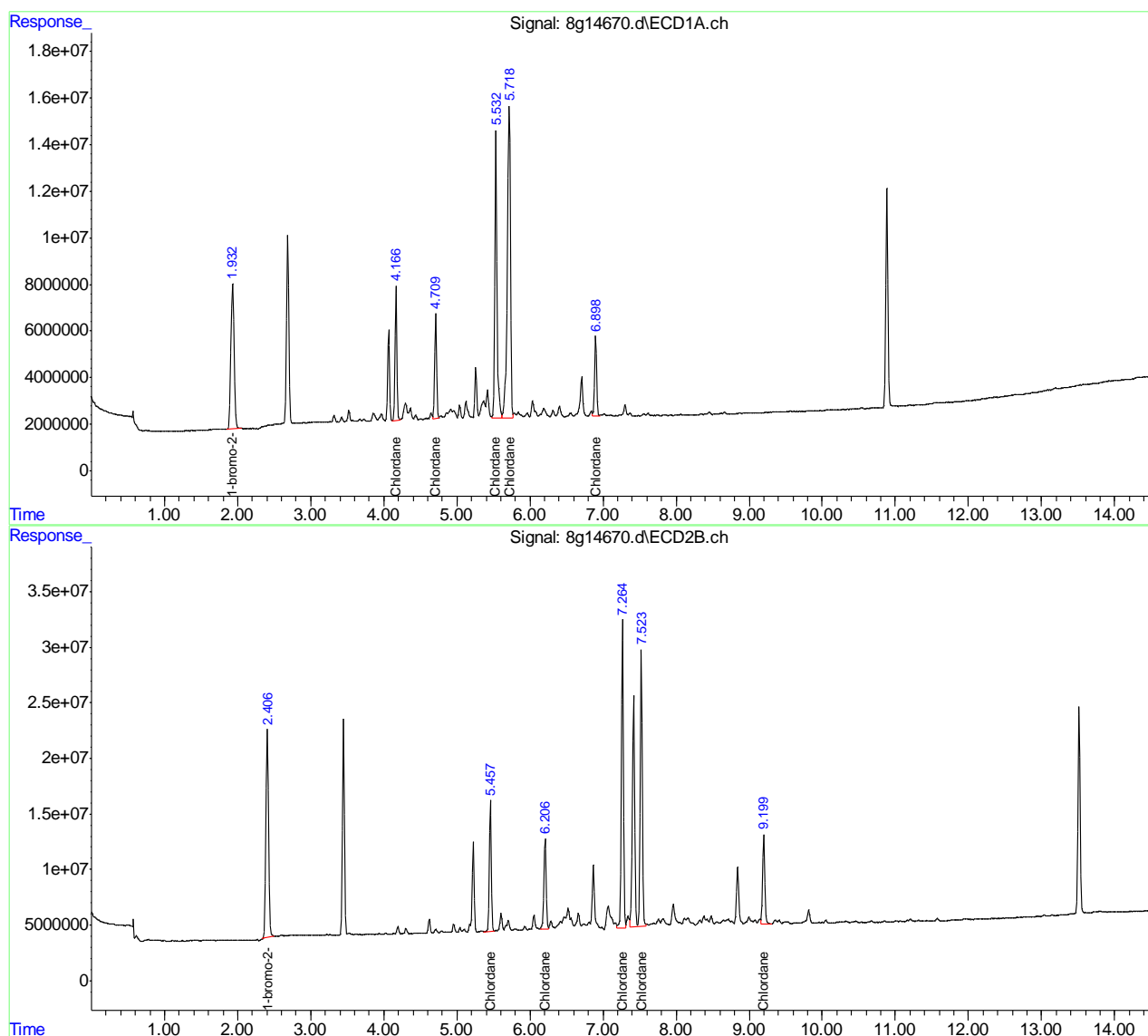
13.38  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14670.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:24 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.8  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14671.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:40 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1  | RT#2   | Resp#1   | Resp#2  | PPB     | PPB       |
|-----------------------------|-------|--------|----------|---------|---------|-----------|
| -----                       |       |        |          |         |         |           |
| Internal Standards          |       |        |          |         |         |           |
| 27) I 1-bromo-2...          | 1.933 | 2.406  | 192.4E6  | 469.5E6 | 50.000  | 50.000    |
| System Monitoring Compounds |       |        |          |         |         |           |
| Target Compounds            |       |        |          |         |         |           |
| 28) L8 Toxaphene{A}         | 6.293 | 8.091  | 29531996 | 121.1E6 | 299.375 | 453.378 # |
| 29) L8 Toxaphene{B}         | 6.990 | 9.070  | 73714114 | 125.6E6 | 285.923 | 535.974 # |
| 30) L8 Toxaphene{C}         | 7.184 | 9.251  | 57118205 | 242.2E6 | 288.682 | 611.901 # |
| 31) L8 Toxaphene{D}         | 7.561 | 9.736  | 54619676 | 142.9E6 | 355.089 | 645.593 # |
| 32) L8 Toxaphene{E}         | 8.286 | 10.745 | 47183630 | 103.7E6 | 258.621 | 686.157 # |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

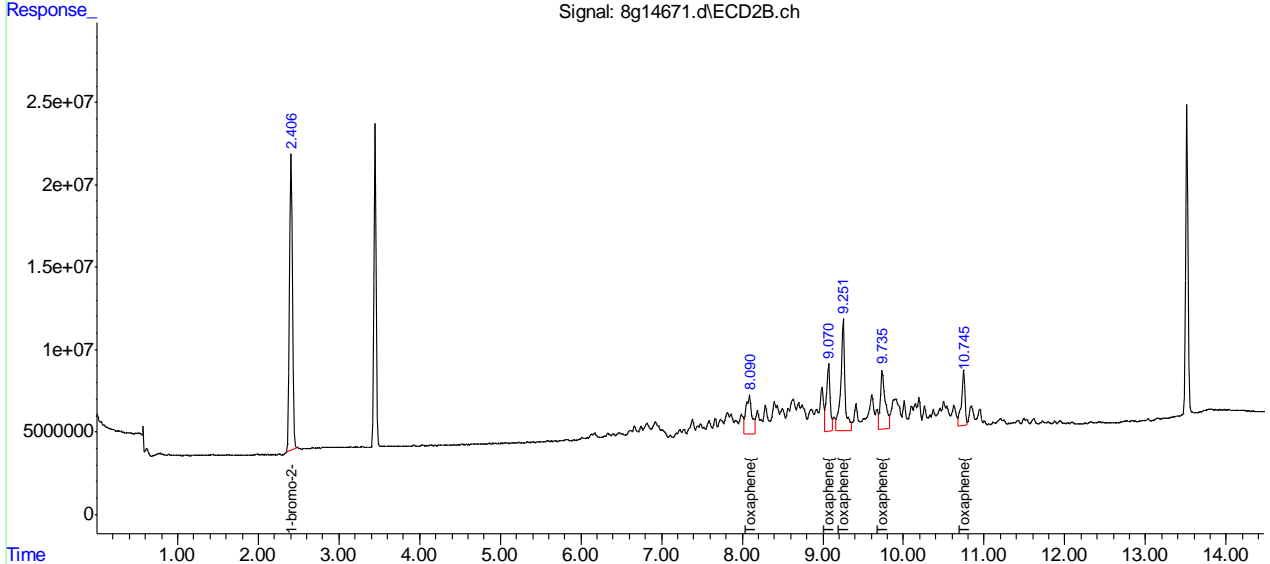
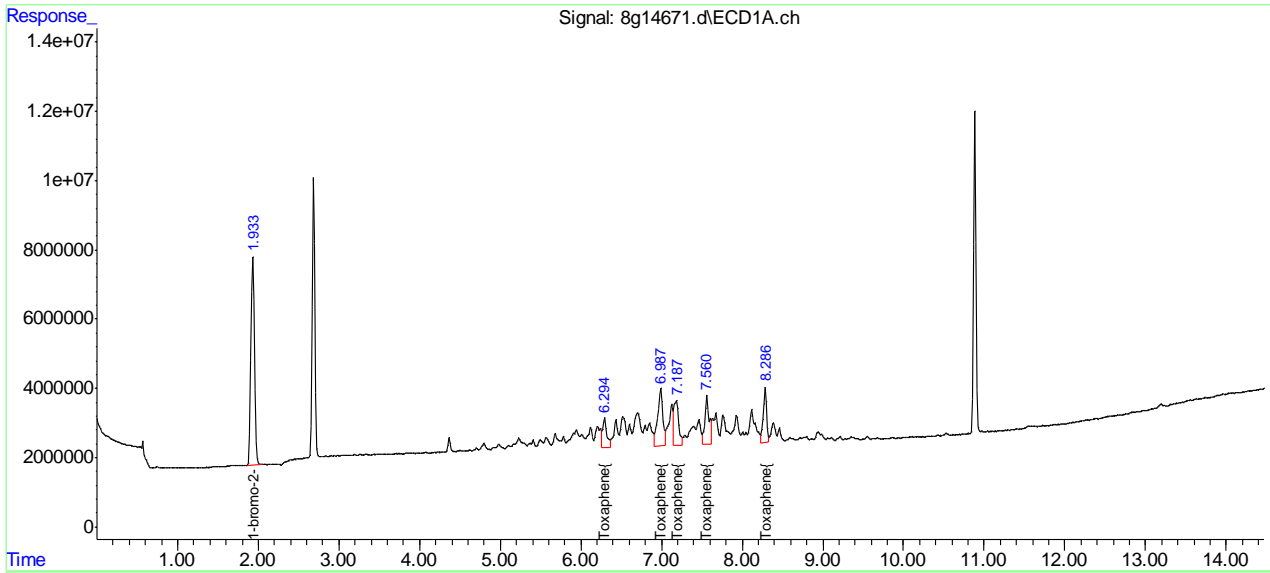
13.3.9  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
Data File : 8g14671.d  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 1 May 2018 12:40 pm  
Operator : rebeccak  
Sample : ic480-500  
Misc : op11561,g8g480,1000,,,5,1  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: May 01 14:44:38 2018  
Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
Quant Title : PEST/PCB  
QLast Update : Tue May 01 12:33:12 2018  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 1ul/column  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 147.7E6  | 928.7E6  | 33.797   | 30.364    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 84.49%   | 75.91%    |
| 51) S Decachlor...          | 10.013 | 11.809 | 157.2E6  | 749.6E6  | 34.886   | 39.555    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 87.22%   | 98.89%    |
| Target Compounds            |        |        |          |          |          |           |
| 31) AR1016-A                | 3.155  | 4.092  | 75576037 | 366.7E6  | 827.627  | 761.652   |
| 32) AR1016-B                | 3.557  | 4.630  | 130.4E6  | 777.2E6  | 1133.202 | 804.122 # |
| 33) AR1016-C                | 4.107  | 5.275  | 285.4E6  | 1744.2E6 | 773.001  | 833.586   |
| 34) AR1016-D                | 4.268  | 5.461  | 115.7E6  | 737.8E6  | 860.556  | 953.596   |
| 35) AR1016-E                | 4.782  | 6.112  | 117.6E6  | 502.9E6  | 835.629m | 883.134   |
| 36) AR1260-A                | 7.151  | 8.712  | 317.8E6  | 1882.4E6 | 835.813  | 1010.865m |
| 37) AR1260-B                | 7.312  | 8.828  | 153.0E6  | 917.3E6  | 895.825  | 941.444   |
| 38) AR1260-C                | 7.650  | 9.260  | 169.0E6  | 1051.3E6 | 1020.047 | 1122.233  |
| 39) AR1260-D                | 8.080  | 9.610  | 395.3E6  | 2256.3E6 | 855.811  | 959.373   |
| 40) AR1260-E                | 8.472  | 10.153 | 402.6E6  | 2144.0E6 | 925.282m | 1047.495m |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

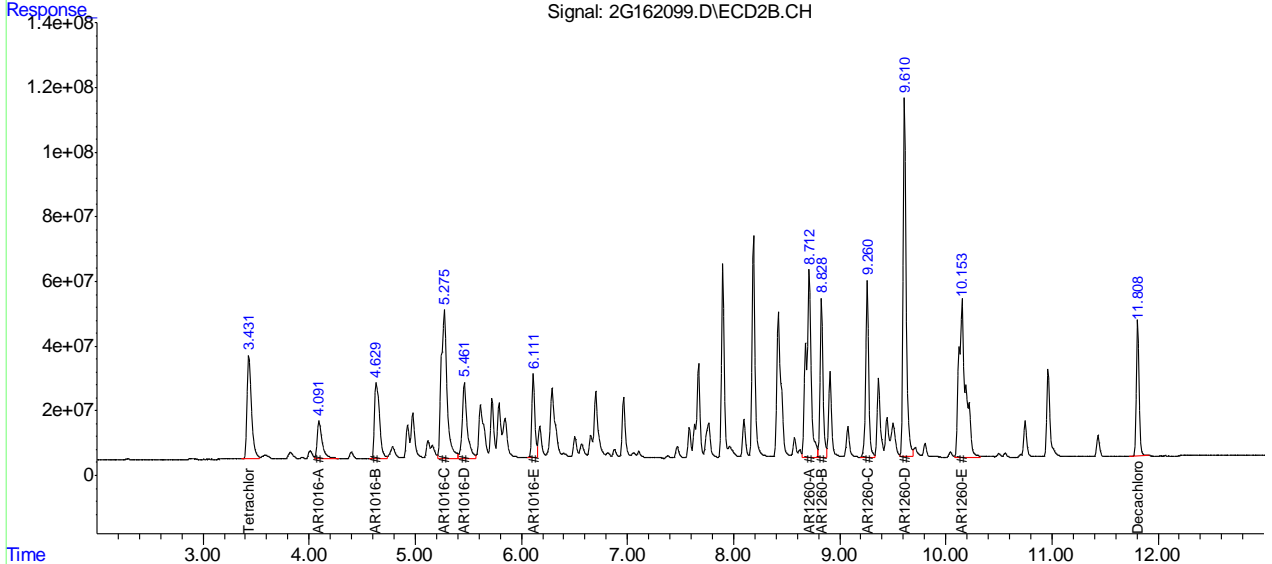
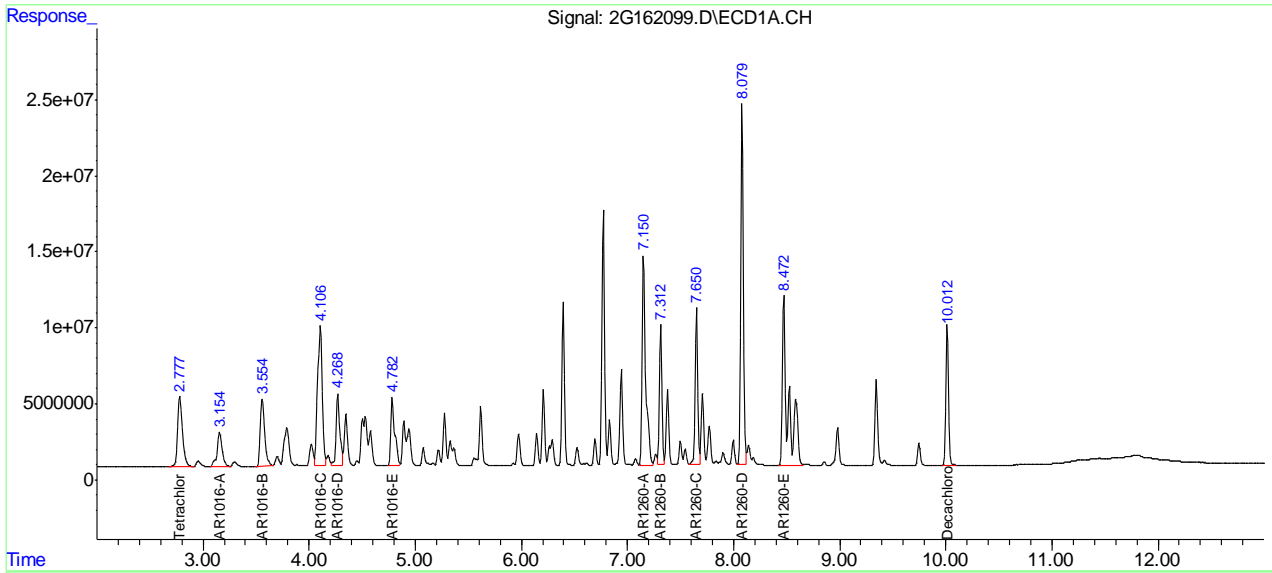
13.3.10  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.3.10 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb       | ppb       |
|-----------------------------|--------|--------|----------|----------|-----------|-----------|
| -----                       |        |        |          |          |           |           |
| System Monitoring Compounds |        |        |          |          |           |           |
| 1) S Tetrachlo...           | 2.779  | 3.431  | 163.8E6  | 987.2E6  | 47.199    | 46.623    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 118.00%   | 116.56%   |
| 51) S Decachlor...          | 10.013 | 11.809 | 165.0E6  | 806.7E6  | 44.682    | 46.281    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 111.71%   | 115.70%   |
| Target Compounds            |        |        |          |          |           |           |
| 2) AR1221-A                 | 2.282  | 2.875  | 28967496 | 140.9E6  | 1023.276  | 1085.901  |
| 3) AR1221-B                 | 2.954  | 3.821  | 42022816 | 250.7E6  | 983.648   | 970.364   |
| 4) AR1221-C                 | 3.153  | 4.091  | 128.8E6  | 655.8E6  | 950.947m  | 1092.099  |
| 5) AR1221-D                 | 3.558  | 4.650  | 14656903 | 122.2E6  | 1190.489  | 1041.062  |
| 6) AR1221-E                 | 3.699  | 4.770  | 14363624 | 88492068 | 1222.278  | 1236.269  |
| 24) AR1254-A                | 5.275  | 6.700  | 123.4E6  | 992.5E6  | 961.679   | 1070.842  |
| 25) AR1254-B                | 5.616  | 6.960  | 258.8E6  | 983.9E6  | 1032.998m | 1051.674  |
| 26) AR1254-C                | 5.981  | 7.464  | 137.0E6  | 797.7E6  | 999.447   | 1078.993  |
| 27) AR1254-D                | 6.143  | 7.630  | 245.9E6  | 1634.3E6 | 996.318   | 1197.753  |
| 28) AR1254-E                | 6.519  | 7.955  | 182.5E6  | 1088.9E6 | 1178.826  | 1169.607  |
| 29) AR1254-F                | 6.772  | 8.419  | 171.2E6  | 1181.2E6 | 1099.087  | 1059.697m |
| 30) AR1254-G                | 7.152  | 8.714  | 251.8E6  | 1510.8E6 | 1013.161  | 1105.727  |
| -----                       |        |        |          |          |           |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

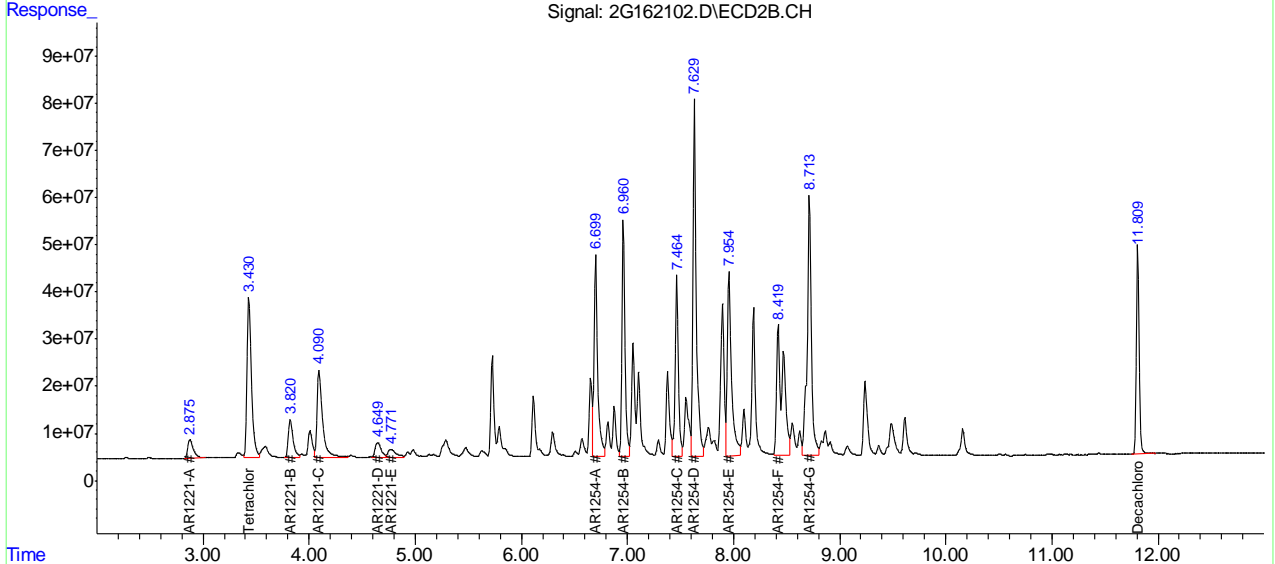
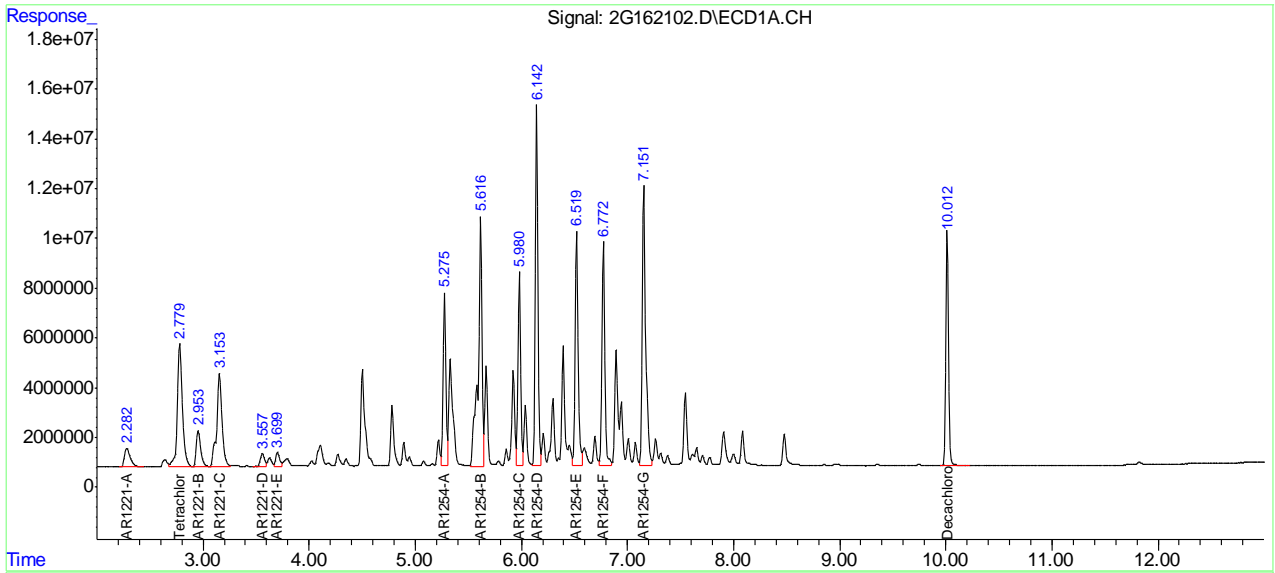
13.3.11  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.780  | 3.431  | 169.1E6  | 1049.9E6 | 9.839    | 9.841     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.60%   | 24.60%    |
| 51) S Decachlor...          | 10.014 | 11.809 | 173.1E6  | 864.6E6  | 9.763    | 9.860     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.41%   | 24.65%    |
| Target Compounds            |        |        |          |          |          |           |
| 7) AR1232-A                 | 3.155  | 4.093  | 97343092 | 502.0E6  | 807.139m | 801.687   |
| 8) AR1232-B                 | 3.559  | 4.634  | 66842636 | 393.5E6  | 814.432  | 795.791   |
| 9) AR1232-C                 | 4.109  | 5.281  | 130.5E6  | 815.2E6  | 748.996  | 817.807   |
| 10) AR1232-D                | 4.271  | 5.467  | 54473697 | 361.5E6  | 844.210  | 954.940   |
| 11) AR1232-E                | 4.785  | 6.115  | 51489431 | 217.3E6  | 836.532  | 879.986   |
| 41) AR1262-A                | 6.772  | 8.187  | 193.5E6  | 1044.2E6 | 608.178  | 987.107 # |
| 42) AR1262-B                | 7.314  | 8.828  | 242.4E6  | 1428.2E6 | 818.303  | 912.354   |
| 43) AR1262-C                | 7.651  | 9.260  | 227.0E6  | 1336.0E6 | 936.108  | 1081.334  |
| 44) AR1262-D                | 8.081  | 9.610  | 485.4E6  | 2732.2E6 | 759.581  | 918.956   |
| 45) AR1262-E                | 8.525  | 10.123 | 558.8E6  | 3034.4E6 | 795.650m | 942.420m  |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

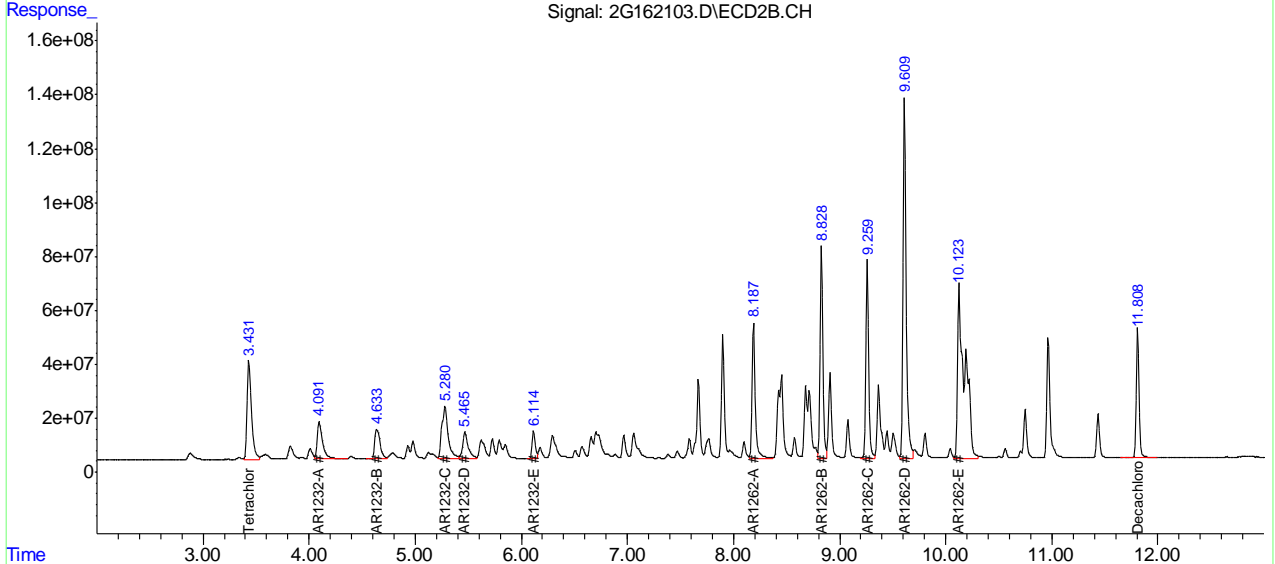
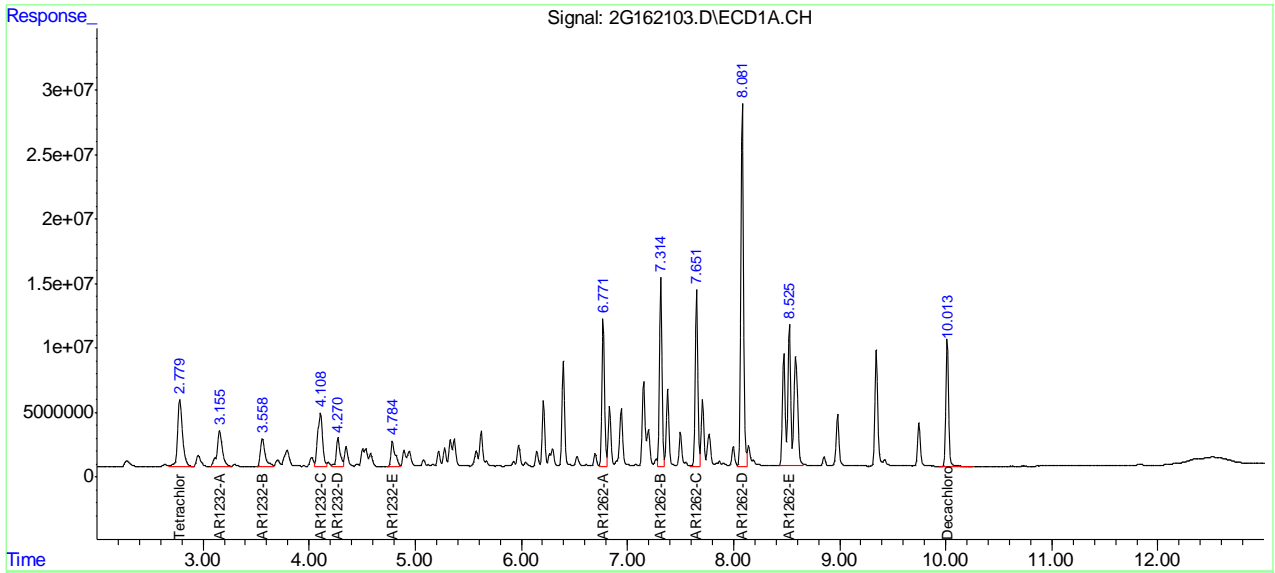
13.3.12  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162104.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:44 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:35:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:34:50 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb        |
|-----------------------------|--------|--------|----------|----------|---------|------------|
| -----                       |        |        |          |          |         |            |
| System Monitoring Compounds |        |        |          |          |         |            |
| 1) S Tetrachlo...           | 2.779  | 3.432  | 164.4E6  | 1042.8E6 | 9.788   | 9.829      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.47%  | 24.57%     |
| 51) S Decachlor...          | 10.010 | 11.807 | 482.0E6  | 2362.8E6 | 11.088  | 11.117     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 27.72%  | 27.79%     |
| Target Compounds            |        |        |          |          |         |            |
| 12) AR1242-A                | 3.557  | 4.630  | 119.8E6  | 705.4E6  | 833.841 | 769.896    |
| 13) AR1242-B                | 4.106  | 5.276  | 252.5E6  | 1547.7E6 | 766.774 | 823.562    |
| 14) AR1242-C                | 4.268  | 5.463  | 105.4E6  | 666.8E6  | 881.574 | 956.816    |
| 15) AR1242-D                | 4.782  | 6.113  | 109.0E6  | 456.4E6  | 869.789 | 894.747    |
| 16) AR1242-E                | 5.364  | 6.725  | 92980758 | 634.3E6  | 872.039 | 977.929    |
| 46) AR1268-A                | 8.523  | 10.121 | 575.4E6  | 3085.9E6 | 840.878 | 938.864    |
| 47) AR1268-B                | 8.578  | 10.189 | 567.3E6  | 3099.0E6 | 712.876 | 817.926    |
| 48) AR1268-C                | 8.851  | 10.557 | 473.0E6  | 2498.5E6 | 752.872 | 873.269    |
| 49) AR1268-D                | 9.340  | 10.962 | 199.2E6  | 1037.7E6 | 826.458 | 946.346    |
| 50) AR1268-E                | 9.742  | 11.430 | 1615.1E6 | 8238.1E6 | 809.035 | 1044.134 # |
| -----                       |        |        |          |          |         |            |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

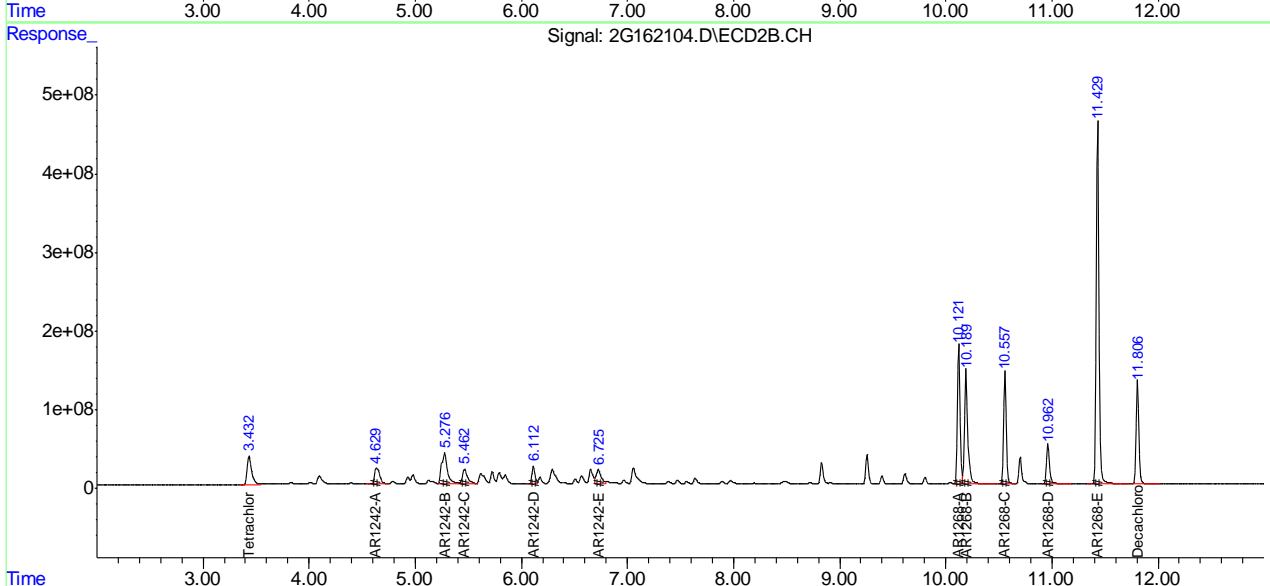
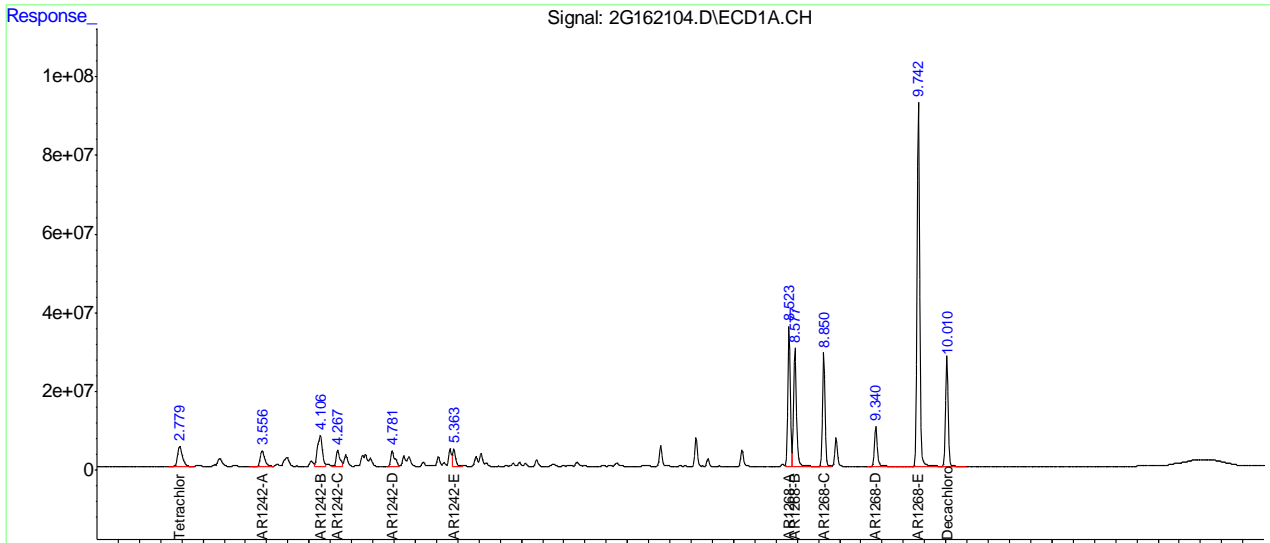
13.3.13  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162104.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:44 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:35:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:34:50 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162105.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:00 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:38:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:36:57 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb        |
|-----------------------------|--------|--------|----------|----------|----------|------------|
| -----                       |        |        |          |          |          |            |
| System Monitoring Compounds |        |        |          |          |          |            |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 160.3E6  | 1054.2E6 | 9.743    | 9.848      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.36%   | 24.62%     |
| 51) S Decachlor...          | 10.014 | 11.810 | 174.1E6  | 851.3E6  | 9.773    | 9.833      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.43%   | 24.58%     |
| Target Compounds            |        |        |          |          |          |            |
| 17) AR1248-A                | 3.555  | 4.632  | 59173660 | 362.7E6  | 826.748  | 812.103    |
| 18) AR1248-B                | 4.105  | 5.281  | 154.4E6  | 954.8E6  | 820.696  | 837.930m   |
| 19) AR1248-C                | 4.501  | 5.724  | 165.2E6  | 569.7E6  | 812.299m | 907.464    |
| 20) AR1248-D                | 4.782  | 6.112  | 159.8E6  | 727.1E6  | 860.353  | 930.188    |
| 21) AR1248-E                | 4.892  | 6.291  | 142.1E6  | 879.9E6  | 855.462m | 1021.118   |
| 22) AR1248-F                | 5.364  | 6.722  | 140.2E6  | 1097.1E6 | 782.480  | 1016.890 # |
| 23) AR1248-G                | 5.620  | 7.053  | 157.2E6  | 1220.2E6 | 600.449m | 1102.458m# |
| -----                       |        |        |          |          |          |            |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

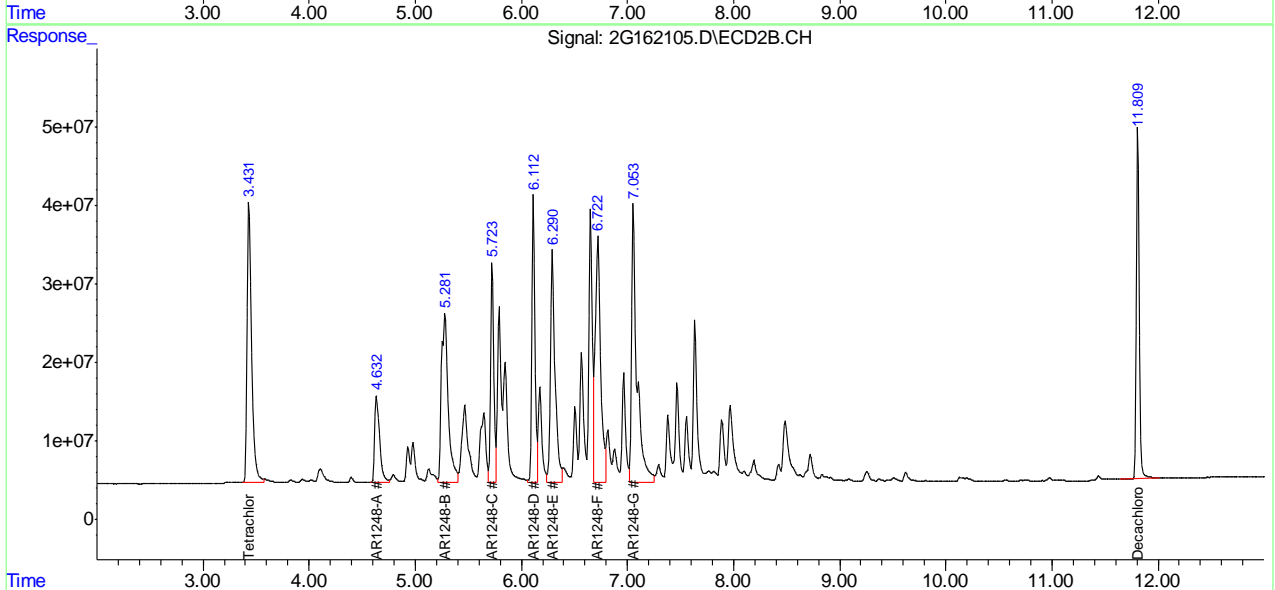
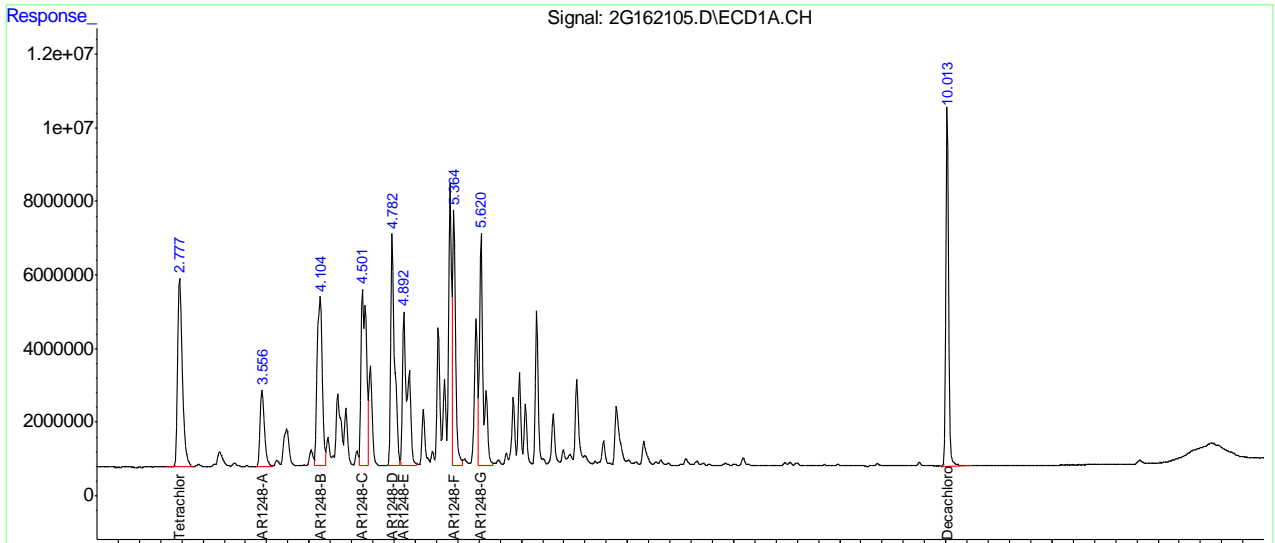
13.3.14  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162105.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:00 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:38:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:36:57 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227130.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:40 pm  
 Operator : tianweir  
 Sample : icc6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:14:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:50:28 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.808  | 3.556  | 325.3E6  | 322.7E6  | 35.988   | 36.348   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 89.97%   | 90.87%   |
| 51) S Decachlor...          | 9.982  | 11.987 | 390.4E6  | 346.9E6  | 35.562   | 34.651m  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 88.90%   | 86.63%   |
| Target Compounds            |        |        |          |          |          |          |
| 41) AR1016-A                | 3.184  | 4.218  | 175.0E6  | 130.3E6  | 922.626m | 909.387  |
| 42) AR1016-B                | 3.575  | 4.772  | 261.8E6  | 250.6E6  | 890.339  | 896.857  |
| 43) AR1016-C                | 4.127  | 5.414  | 603.3E6  | 581.6E6  | 953.124  | 899.202  |
| 44) AR1016-D                | 4.290  | 5.601  | 230.6E6  | 245.5E6  | 898.099  | 910.888m |
| 45) AR1016-E                | 4.786  | 6.262  | 242.7E6  | 177.2E6  | 896.127  | 925.445  |
| 46) AR1260-A                | 7.138  | 8.869  | 672.3E6  | 711.9E6  | 803.724  | 817.569m |
| 47) AR1260-B                | 7.294  | 8.991  | 337.9E6  | 449.8E6  | 930.683  | 990.801  |
| 48) AR1260-C                | 7.629  | 9.424  | 360.1E6  | 421.3E6  | 1020.473 | 942.851  |
| 49) AR1260-D                | 8.059  | 9.772  | 1028.6E6 | 1121.2E6 | 960.075m | 985.013  |
| 50) AR1260-E                | 8.450  | 10.313 | 976.7E6  | 1030.2E6 | 989.138m | 980.642m |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

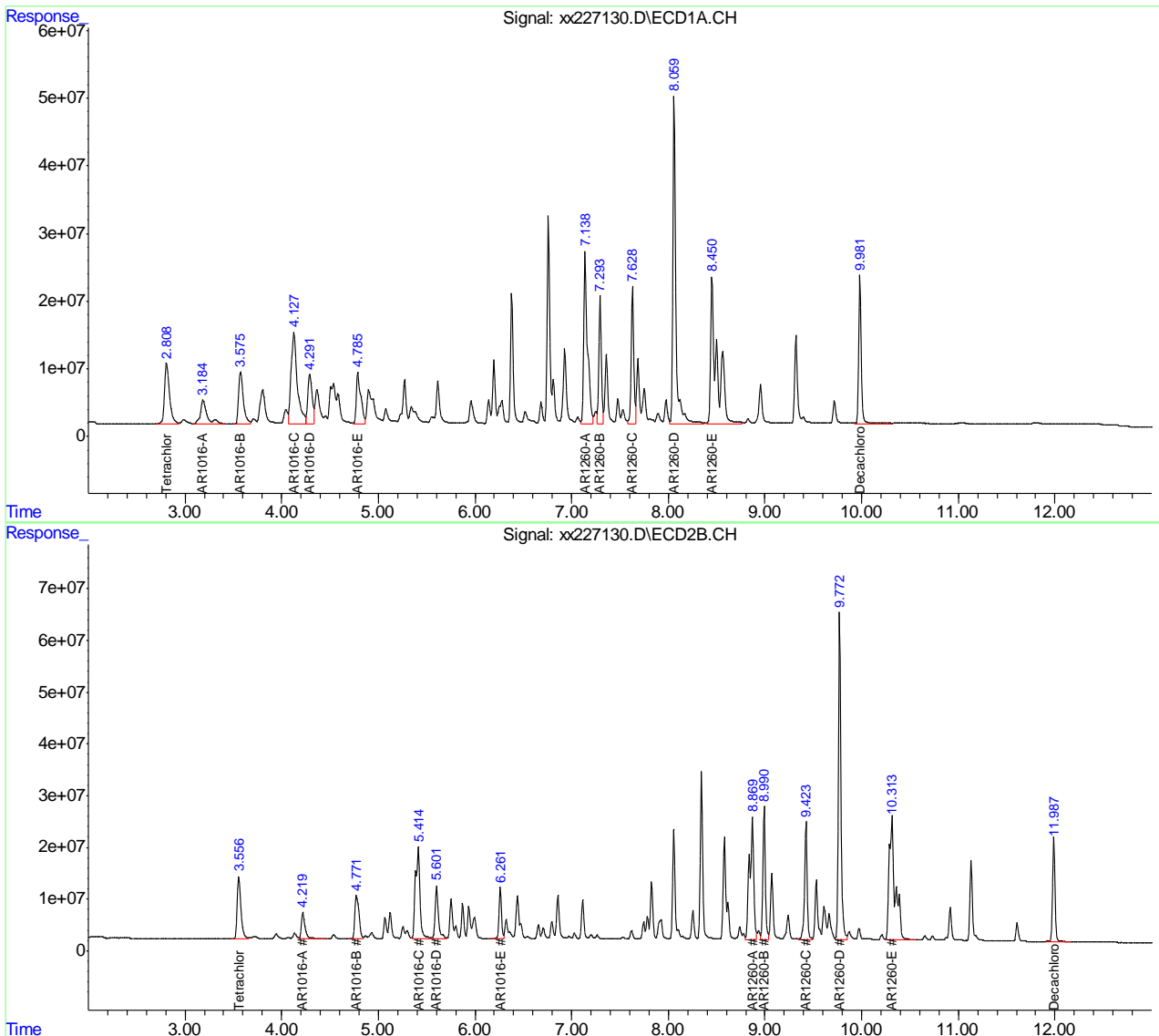
13.3.15  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
Data File : xx227130.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 1:40 pm  
Operator : tianweir  
Sample : icc6321-1000  
Misc : op11391,GXX6321,1000,,,5,1  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 19 15:14:01 2018  
Quant Method : C:\MSDCHEM\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 14:50:28 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.3.15  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:30 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:20:35 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb       | ppb       |
|-----------------------------|--------|--------|----------|----------|-----------|-----------|
| -----                       |        |        |          |          |           |           |
| System Monitoring Compounds |        |        |          |          |           |           |
| 1) S Tetrachlo...           | 2.809  | 3.556  | 355.0E6  | 335.6E6  | 43.568    | 41.886    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 108.92%   | 104.72%   |
| 51) S Decachlor...          | 9.981  | 11.987 | 407.4E6  | 362.1E6  | 41.493    | 40.274m   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 103.73%   | 100.69%   |
| Target Compounds            |        |        |          |          |           |           |
| 2) AR1221-A                 | 2.319  | 2.982  | 51737568 | 46798022 | 881.299   | 912.375   |
| 3) AR1221-B                 | 2.985  | 3.942  | 88418556 | 84478533 | 923.483   | 910.056   |
| 4) AR1221-C                 | 3.184  | 4.219  | 270.9E6  | 212.0E6  | 933.057   | 924.518   |
| 5) AR1221-D                 | 3.578  | 4.769  | 32050833 | 40253817 | 1105.000  | 935.683   |
| 6) AR1221-E                 | 3.804  | 4.862  | 39629778 | 26153288 | 1479.032m | 892.743m# |
| 24) AR1254-A                | 5.271  | 6.857  | 274.4E6  | 290.4E6  | 993.579   | 897.230   |
| 25) AR1254-B                | 5.612  | 7.113  | 488.9E6  | 322.8E6  | 976.142m  | 917.138   |
| 26) AR1254-C                | 5.976  | 7.617  | 278.2E6  | 265.9E6  | 990.795   | 911.972   |
| 27) AR1254-D                | 6.137  | 7.783  | 546.7E6  | 539.6E6  | 957.829m  | 913.611m  |
| 28) AR1254-E                | 6.520  | 8.100  | 414.4E6  | 422.0E6  | 988.958   | 913.010   |
| 29) AR1254-F                | 6.760  | 8.577  | 361.1E6  | 435.4E6  | 874.449   | 917.907m  |
| 30) AR1254-G                | 7.139  | 8.871  | 530.7E6  | 552.0E6  | 937.494   | 907.247m  |
| -----                       |        |        |          |          |           |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

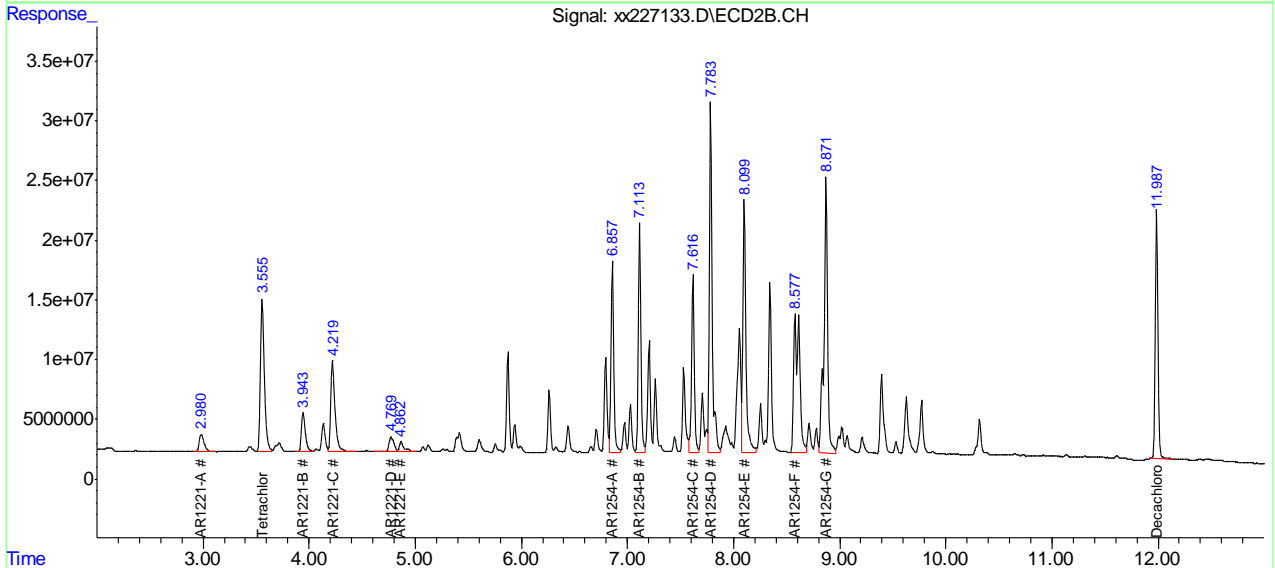
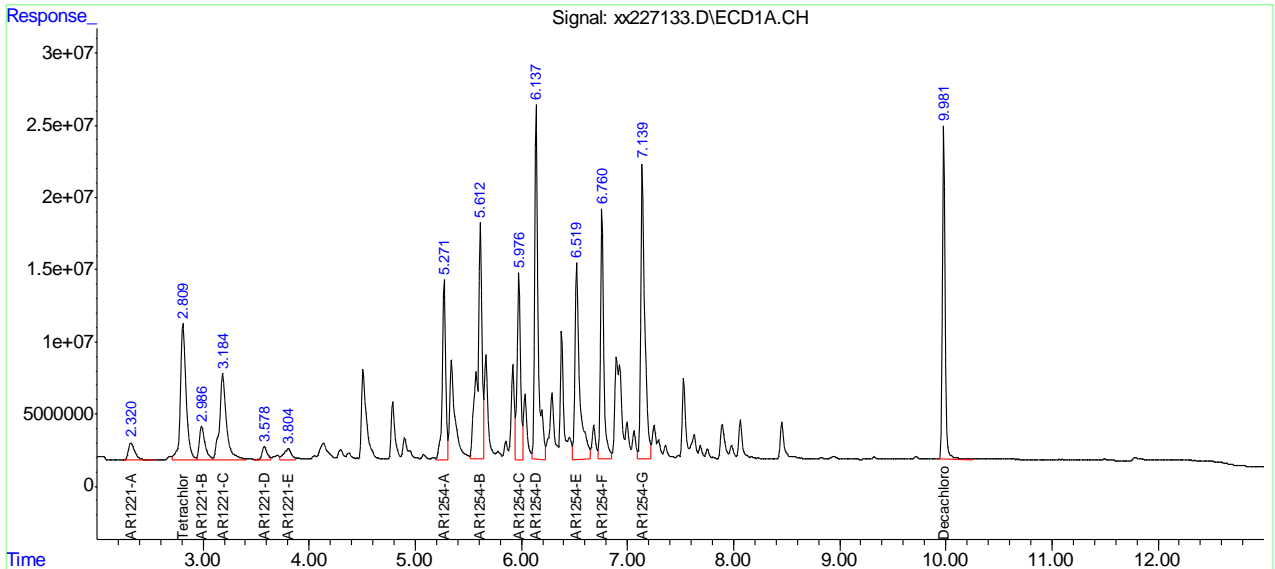
13.3.16  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227133.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:30 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:20:35 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.3.16  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227134.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:46 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:23:20 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.809  | 3.554  | 380.3E6  | 365.3E6  | 46.669   | 45.597   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 116.67%  | 113.99%  |
| 51) S Decachlor...          | 9.981  | 11.989 | 434.7E6  | 390.3E6  | 44.269   | 43.417m  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 110.67%  | 108.54%  |
| Target Compounds            |        |        |          |          |          |          |
| 7) AR1232-A                 | 3.184  | 4.217  | 215.7E6  | 162.9E6  | 861.196m | 915.717  |
| 8) AR1232-B                 | 3.574  | 4.770  | 132.3E6  | 127.2E6  | 897.402  | 916.807  |
| 9) AR1232-C                 | 4.130  | 5.414  | 286.5E6  | 277.4E6  | 951.895  | 910.644m |
| 10) AR1232-D                | 4.292  | 5.602  | 110.7E6  | 115.5E6  | 924.392  | 896.768m |
| 11) AR1232-E                | 4.787  | 6.261  | 107.8E6  | 75544055 | 875.277  | 914.468  |
| 31) AR1262-A                | 6.759  | 8.343  | 375.5E6  | 427.2E6  | 987.450  | 904.326  |
| 32) AR1262-B                | 7.293  | 8.990  | 529.3E6  | 698.3E6  | 887.219  | 918.682  |
| 33) AR1262-C                | 7.628  | 9.423  | 478.0E6  | 533.5E6  | 929.978  | 915.709  |
| 34) AR1262-D                | 8.059  | 9.772  | 1221.3E6 | 1356.1E6 | 867.899m | 929.122  |
| 35) AR1262-E                | 8.499  | 10.291 | 1384.2E6 | 1472.0E6 | 909.570m | 921.483m |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

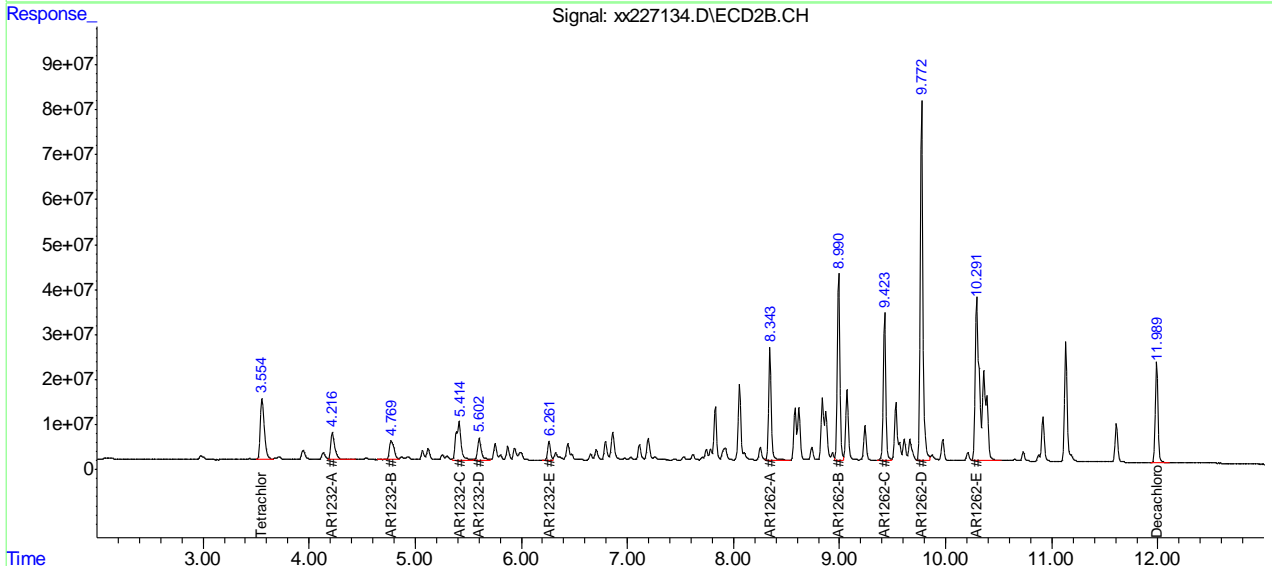
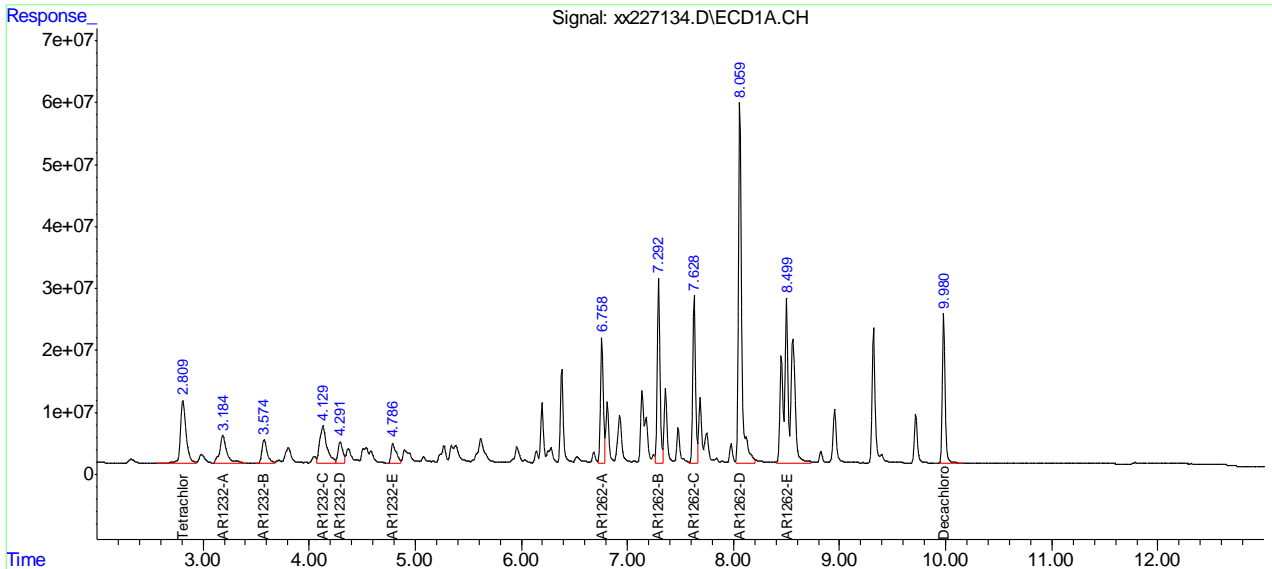
13.3.17  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
Data File : xx227134.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 2:46 pm  
Operator : tianweir  
Sample : ic6321-1000  
Misc : op11391,GXX6321,1000,,,5,1  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 19 15:23:20 2018  
Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
Quant Title :  
QLast Update : Thu Apr 19 15:14:10 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:09 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:25:23 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| System Monitoring Compounds |        |        |          |          |          |          |
| 1) S Tetrachlo...           | 2.813  | 3.553  | 359.8E6  | 361.0E6  | 44.158   | 45.067   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 110.40%  | 112.67%  |
| 51) S Decachlor...          | 9.986  | 11.990 | 1249.4E6 | 1079.6E6 | 127.238  | 120.082  |
| Spiked Amount               | 40.000 |        | Recovery | =        | 318.10%  | 300.20%  |
| Target Compounds            |        |        |          |          |          |          |
| 12) AR1242-A                | 3.580  | 4.769  | 236.0E6  | 225.3E6  | 954.356  | 922.853  |
| 13) AR1242-B                | 4.132  | 5.410  | 538.8E6  | 516.3E6  | 1006.228 | 931.788m |
| 14) AR1242-C                | 4.295  | 5.599  | 206.7E6  | 216.0E6  | 964.947  | 914.071m |
| 15) AR1242-D                | 4.792  | 6.260  | 224.9E6  | 155.8E6  | 961.105  | 935.072  |
| 16) AR1242-E                | 5.381  | 6.862  | 240.5E6  | 204.3E6  | 922.522  | 902.160  |
| 36) AR1268-A                | 8.504  | 10.291 | 1394.9E6 | 1675.5E6 | 942.361  | 953.410  |
| 37) AR1268-B                | 8.559  | 10.359 | 1519.4E6 | 1504.4E6 | 900.744  | 918.086  |
| 38) AR1268-C                | 8.827  | 10.732 | 1270.4E6 | 1298.3E6 | 927.629  | 927.744  |
| 39) AR1268-D                | 9.322  | 11.130 | 519.3E6  | 515.2E6  | 959.012m | 926.766m |
| 40) AR1268-E                | 9.721  | 11.609 | 4274.1E6 | 3844.6E6 | 957.463  | 940.638  |
| -----                       |        |        |          |          |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

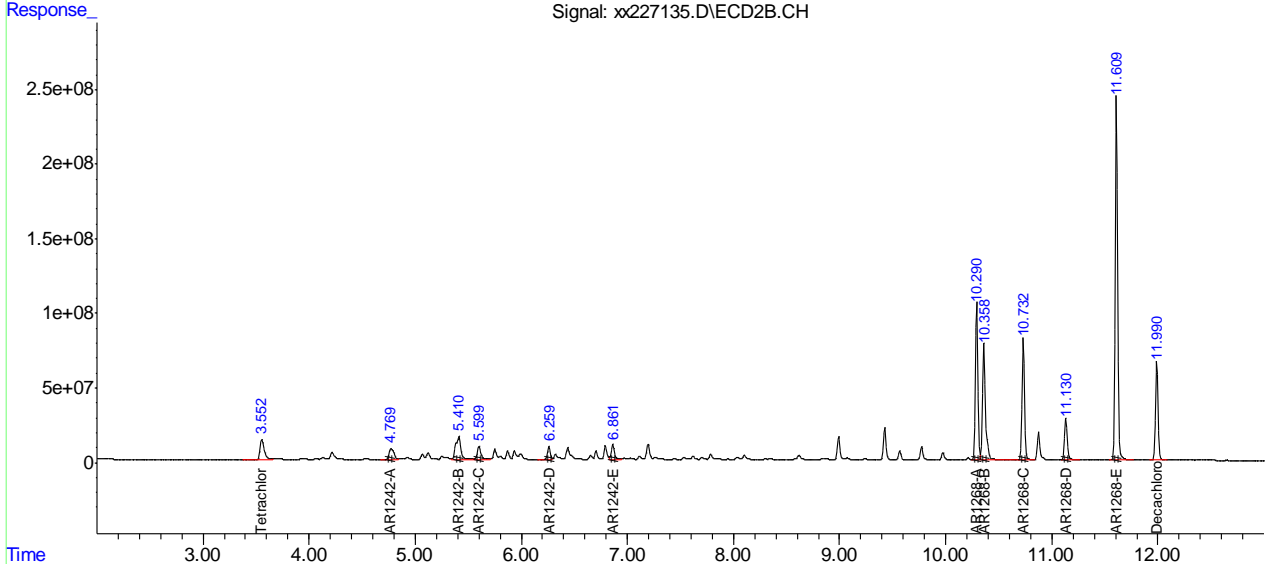
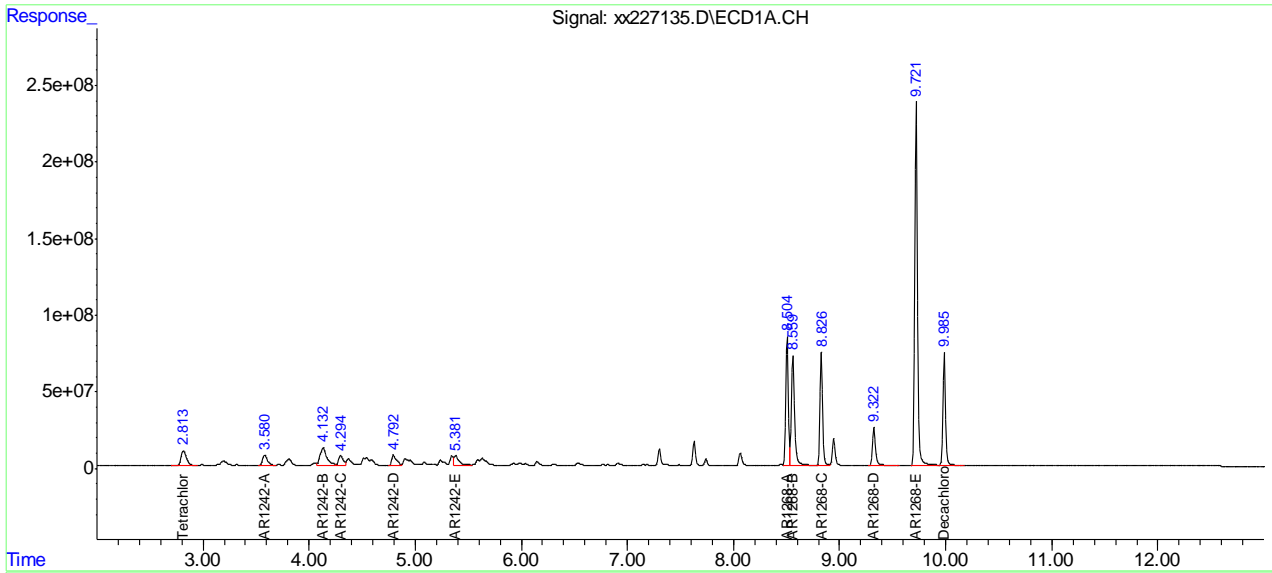
13.3.18  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227135.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:09 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:25:23 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:26 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:48:10 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb      | ppb      |
|-----------------------------|--------|--------|----------|---------|----------|----------|
| -----                       |        |        |          |         |          |          |
| System Monitoring Compounds |        |        |          |         |          |          |
| 1) S Tetrachlo...           | 2.809  | 3.556  | 352.5E6  | 352.0E6 | 43.256   | 43.940   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 108.14%  | 109.85%  |
| 51) S Decachlor...          | 9.983  | 11.989 | 425.8E6  | 381.0E6 | 43.361   | 42.376m  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 108.40%  | 105.94%  |
| Target Compounds            |        |        |          |         |          |          |
| 17) AR1248-A                | 3.575  | 4.771  | 119.3E6  | 114.9E6 | 944.635  | 932.025  |
| 18) AR1248-B                | 4.129  | 5.413  | 347.7E6  | 321.9E6 | 1012.471 | 909.484m |
| 19) AR1248-C                | 4.508  | 5.871  | 318.3E6  | 176.5E6 | 946.717m | 907.609  |
| 20) AR1248-D                | 4.787  | 6.260  | 325.1E6  | 235.6E6 | 932.529  | 913.755  |
| 21) AR1248-E                | 4.898  | 6.438  | 302.0E6  | 273.9E6 | 903.847m | 896.445  |
| 22) AR1248-F                | 5.375  | 6.861  | 343.8E6  | 333.1E6 | 895.306  | 893.047  |
| 23) AR1248-G                | 5.620  | 7.195  | 526.2E6  | 308.6E6 | 870.091m | 930.083  |
| -----                       |        |        |          |         |          |          |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

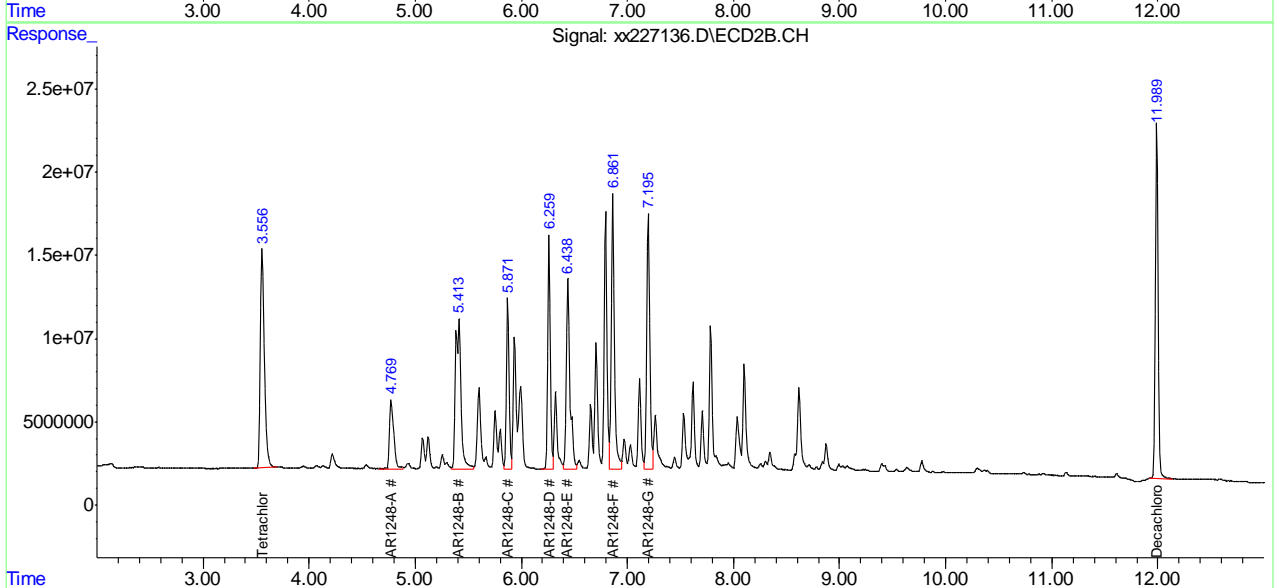
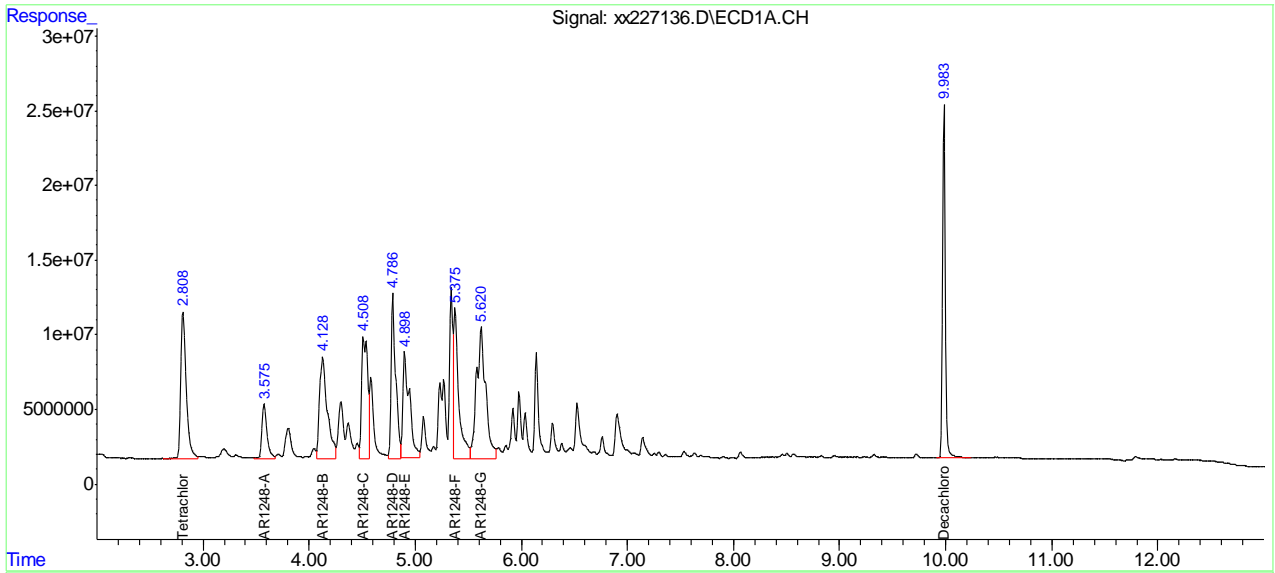
13.3.19  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\gxx6321\  
 Data File : xx227136.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:26 pm  
 Operator : tianweir  
 Sample : ic6321-1000  
 Misc : op11391,GXX6321,1000,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 19 15:48:10 2018  
 Quant Method : C:\msdchem\1\METHODS\PCB6321.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:14:10 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZB-CLP1 Signal #2 Phase: ZB-CLP2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44302  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 09:58 | MA44302-STD1       | 1               |          | B=2.0345E-004, C=-4.0037E-003, R=0.9998702           |
| 09:59 | MA44302-STD2       | 1               |          | STDB   |
| 10:01 | MA44302-STD3       | 1               |          | STDC   |
| 10:02 | MA44302-STD4       | 1               |          | STDD   |
| 10:03 | MA44302-STD5       | 1               |          | STDE   |
| 10:05 | MA44302-STD6       | 1               |          | STDF   |
| 10:15 | MA44302-STD7       | 1               |          | STDE   |
| 10:17 | MA44302-STD8       | 1               |          | STDD   |
| 10:20 | MA44302-ICV1       | 1               |          |  |
| 10:22 | MA44302-ICB1       | 1               |          |  |
| 10:23 | MA44302-CCV1       | 1               |          |  |
| 10:25 | MA44302-CCB1       | 1               |          |  |
| 10:26 | MA44302-CRI1       | 1               |          |  |
| 10:34 | MP6908-MB1         | 1               |          |  |
| 10:35 | MP6908-B1          | 1               |          |  |
| 10:36 | MP6908-S1          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:38 | MP6908-S2          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:40 | MP6908-D1          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:41 | JC64956-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 10:42 | ZZZZZZ             | 1               |          |  |
| 10:44 | ZZZZZZ             | 1               |          |  |
| 10:45 | MA44302-CCV2       | 1               |          |  |
| 10:46 | MA44302-CCB2       | 1               |          |  |
| 10:48 | ZZZZZZ             | 1               |          |  |
| 10:49 | ZZZZZZ             | 1               |          |  |
| 10:50 | ZZZZZZ             | 1               |          |  |
| 10:52 | ZZZZZZ             | 1               |          |  |
| 10:53 | ZZZZZZ             | 1               |          |  |
| 10:54 | ZZZZZZ             | 1               |          |  |
| 10:56 | ZZZZZZ             | 1               |          |  |
| 10:57 | ZZZZZZ             | 1               |          |  |
| 10:58 | ZZZZZZ             | 1               |          |  |
| 10:59 | MA44302-CCV3       | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44302  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:01 | MA44302-CCB3       | 1               |          |  |
| 11:02 | ZZZZZZ             | 1               |          |  |
| 11:04 | ZZZZZZ             | 1               |          |  |
| 11:05 | MP6909-MB1         | 1               |          |  |
| 11:06 | MP6909-B1          | 1               |          |  |
| 11:07 | MP6909-S1          | 1               |          | Foamy  |
| 11:09 | MP6909-S2          | 1               |          | Foamy  |
| 11:11 | JC64994-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 11:14 | MA44302-CCV4       | 1               |          |  |
| 11:15 | MA44302-CCB4       | 1               |          |  |
| 11:30 | MP6910-MB1         | 1               |          |  |
| 11:32 | MP6910-B1          | 1               |          |  |
| 11:33 | MP6910-S1          | 1               |          |  |
| 11:34 | MP6910-S2          | 1               |          |  |
| 11:36 | JC65050-2          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 11:38 | ZZZZZZ             | 1               |          |  |
| 11:39 | ZZZZZZ             | 1               |          |  |
| 11:40 | ZZZZZZ             | 1               |          |  |
| 11:41 | ZZZZZZ             | 1               |          |  |
| 11:43 | MA44302-CCV5       | 1               |          |  |
| 11:44 | MA44302-CCB5       | 1               |          |  |
| 11:46 | ZZZZZZ             | 1               |          |  |
| 11:47 | ZZZZZZ             | 1               |          |  |
| 11:48 | ZZZZZZ             | 1               |          |  |
| 11:50 | ZZZZZZ             | 1               |          |  |
| 11:51 | ZZZZZZ             | 1               |          |  |
| 11:52 | ZZZZZZ             | 1               |          |  |
| 11:53 | ZZZZZZ             | 1               |          |  |
| 11:55 | ZZZZZZ             | 1               |          |  |
| 11:56 | ZZZZZZ             | 1               |          |  |
| 11:57 | MA44302-CCV6       | 1               |          |  |
| 11:58 | MA44302-CCB6       | 1               |          |  |
| 12:00 | ZZZZZZ             | 1               |          |  |

14.1  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
Analyst: JA      Run ID: MA44302  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 12:01  | ZZZZZZ                                      | 1               |          |  |
| 12:03  | ZZZZZZ                                      | 1               |          |  |
| 12:04  | ZZZZZZ                                      | 1               |          |  |
| 12:05  | ZZZZZZ                                      | 1               |          |  |
| 12:07  | ZZZZZZ                                      | 1               |          |  |
| 12:08  | MP6911-MB1                                  | 1               |          |  |
| 12:09  | MA44302-CCV7                                | 1               |          |  |
| 12:10  | MA44302-CCB7                                | 1               |          |  |
| 12:12  | MP6911-B1                                   | 1               |          |  |
| 12:13  | MP6911-S1                                   | 1               |          |  |
| 12:15  | MP6911-S2                                   | 1               |          |  |
| 12:16  | JC65070-1A                                  | 1               |          | (sample used for QC only; not part of login JC65058) |
| 12:18  | ZZZZZZ                                      | 1               |          |  |
| 12:19  | ZZZZZZ                                      | 1               |          |  |
| 12:21  | ZZZZZZ                                      | 1               |          |  |
| 12:22  | ZZZZZZ                                      | 1               |          |  |
| 12:23  | JC65058-13A                                 | 1               |          |  |
| -----> | Last reportable sample/prep for job JC65058 |                 |          |  |
| 12:24  | MA44302-CCV8                                | 1               |          |  |
| 12:26  | MA44302-CCB8                                | 1               |          |  |
| 12:27  | ZZZZZZ                                      | 1               |          |  |
| 12:29  | ZZZZZZ                                      | 1               |          |  |
| 12:30  | ZZZZZZ                                      | 1               |          |  |
| 12:31  | ZZZZZZ                                      | 1               |          |  |
| 12:32  | ZZZZZZ                                      | 1               |          |  |
| 12:34  | ZZZZZZ                                      | 1               |          |  |
| 12:35  | ZZZZZZ                                      | 1               |          |  |
| 12:36  | ZZZZZZ                                      | 1               |          |  |
| 12:38  | MP6912-MB1                                  | 1               |          |  |
| 12:39  | MA44302-CCV9                                | 1               |          |  |
| 12:40  | MA44302-CCB9                                | 1               |          |  |
| 12:42  | MP6912-B1                                   | 1               |          |  |
| 12:43  | MP6912-S1                                   | 1               |          | Foamy green  |
| 12:45  | MP6912-S2                                   | 1               |          | Foamy green  |

14.1  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
Analyst: JA      Run ID: MA44302  
Parameters: Hg

| Time   | Sample Description  | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 12:46  | TD20224-1   | 1               |          | (sample used for QC only; not part of login JC65058) |
| 12:48  | ZZZZZZ  | 2               |          |  |
| 12:49  | ZZZZZZ  | 1               |          |  |
| 12:51  | ZZZZZZ  | 1               |          |  |
| 12:52  | ZZZZZZ  | 1               |          |  |
| 12:53  | ZZZZZZ  | 1               |          |  |
| 12:55  | MA44302-CCV10   | 1               |          |  |
| 12:56  | MA44302-CCB10   | 1               |          |  |
| 12:57  | ZZZZZZ  | 1               |          |  |
| 12:59  | ZZZZZZ  | 1               |          |  |
| 13:00  | ZZZZZZ  | 1               |          |  |
| 13:01  | MP6913-MB1  | 1               |          |  |
| 13:03  | MP6913-B1   | 1               |          | Deval Patel DOC                                      |
| 13:04  | MP6913-B2   | 1               |          | Deval Patel DOC                                      |
| 13:06  | MP6913-B3   | 1               |          | Deval Patel DOC                                      |
| 13:07  | MP6913-B4   | 1               |          | Deval Patel DOC                                      |
| 13:09  | MA44302-CCV11   | 1               |          |  |
| 13:10  | MA44302-CCB11   | 1               |          |  |
| 13:12  | ZZZZZZ  | 1               |          |  |
| 13:13  | ZZZZZZ  | 1               |          |  |
| 13:14  | MA44302-CRI2  | 1               |          |  |
| 13:16  | MA44302-CCV12   | 1               |          |  |
| 13:17  | MA44302-CCB12   | 1               |          |  |
| -----> | Last reportable CCB for job JC65058<br>Refer to raw data for calibration curve and standards. |                 |          |  |

14.1  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

| Time:      |      |      | 10:22   |       | 10:25   |       | 10:46   |       | 11:01   |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | ICB1    |       | CCB1    |       | CCB2    |       | CCB3    |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .059 | -0.0622 | <0.20 | -0.0246 | <0.20 | -0.0219 | <0.20 | -0.0138 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

|         | Time:      |      | 11:15   |       | 11:44   |       | 11:58   |       | 12:10   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .059 | -0.0256 | <0.20 | -0.0197 | <0.20 | -0.0260 | <0.20 | -0.0168 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

| Time:      |      |      | 12:26   | 12:40 | 12:56   | 13:10 |         |       |         |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | CCB8    | CCB9  | CCB10   | CCB11 |         |       |         |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .059 | -0.0270 | <0.20 | -0.0351 | <0.20 | -0.0300 | <0.20 | -0.0333 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: result < RL      Run ID: MA44302      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 13:17 |       |
| Sample ID: |    |     | CCB12 |       |
| Metal      | RL | IDL | raw   | final |

Mercury      0.20      .059      -0.0355      <0.20

(\*) Outside of QC limits  
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: |         | 10:20 |      | 10:23   |       | 10:45 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   |         | ICV1  | CCV  | CCV1    | CCV   | CCV2  |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 2.96    | 98.7  | 2.5  | 2.47    | 98.8  | 2.5   | 2.49    | 99.6  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: | 10:59   |       | 11:14 |         | 11:43 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.45    | 98.0  | 2.5   | 2.45    | 98.0  | 2.5  | 2.40    | 96.0  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: | 11:57   |       | 12:09 |         | 12:24 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7  | CCV     | CCV8  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.37    | 94.8  | 2.5   | 2.41    | 96.4  | 2.5  | 2.41    | 96.4  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: |               |       |      |                |       |      |                |       |  |
|------------|-------|---------------|-------|------|----------------|-------|------|----------------|-------|--|
| Sample ID: | CCV   | 12:39<br>CCV9 |       | CCV  | 12:55<br>CCV10 |       | CCV  | 13:09<br>CCV11 |       |  |
| Metal      | True  | Results       | % Rec | True | Results        | % Rec | True | Results        | % Rec |  |
| Mercury    | 2.5   | 2.35          | 94.0  | 2.5  | 2.43           | 97.2  | 2.5  | 2.40           | 96.0  |  |

(\*) Outside of QC limits  
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            |      |         |       |
|------------|------|---------|-------|
| Time:      |      | 13:16   |       |
| Sample ID: | CCV  | CCV12   |       |
| Metal      | True | Results | % Rec |

Mercury      2.5      2.44      97.6

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: 70 to 130 % Recovery Run ID: MA44302 Units: ug/l

|            | Time: |      | 10:26   |       | 13:14   |       |
|------------|-------|------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRI1    |       | CRI2    |       |
| Metal      | True  | True | Results | % Rec | Results | % Rec |
| Mercury    | 0.20  |      | 0.185   | 92.5  | 0.152   | 76.0  |

(\*) Outside of QC limits  
 (anr) Analyte not requested

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
Analyst: DP Run ID: MA44305  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:48 | MA44305-STD1       | 1               |          | B=1.1672E-004, C=-1.6062E-002, R=0.9999112           |
| 11:49 | MA44305-STD2       | 1               |          | STDB   |
| 11:51 | MA44305-STD3       | 1               |          | STDC   |
| 11:52 | MA44305-STD4       | 1               |          | STDD   |
| 11:53 | MA44305-STD5       | 1               |          | STDE   |
| 11:55 | MA44305-STD6       | 1               |          | STDF   |
| 12:01 | MA44305-STD7       | 1               |          | STDA   |
| 12:02 | MA44305-STD8       | 1               |          | STDB   |
| 12:03 | MA44305-STD9       | 1               |          | STDC   |
| 12:05 | MA44305-STD10      | 1               |          | STDD   |
| 12:08 | MA44305-STD11      | 1               |          | STDB   |
| 12:10 | MA44305-STD12      | 1               |          | STDC   |
| 12:14 | MA44305-ICV1       | 1               |          |  |
| 12:17 | MA44305-ICB1       | 1               |          |  |
| 12:18 | MA44305-CCV1       | 1               |          |  |
| 12:19 | MA44305-CCB1       | 1               |          |  |
| 12:21 | MA44305-CRI1       | 1               |          |  |
| 12:25 | MP6890-MB1         | 1               |          |  |
| 12:27 | MP6890-B1          | 1               |          |  |
| 12:28 | MP6890-S1          | 1               |          |  |
| 12:30 | MP6890-S2          | 1               |          |  |
| 12:31 | JC65018-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 12:33 | ZZZZZZ             | 1               |          |  |
| 12:34 | ZZZZZZ             | 1               |          |  |
| 12:36 | ZZZZZZ             | 1               |          |  |
| 12:37 | MA44305-CCV2       | 1               |          |  |
| 12:39 | MA44305-CCB2       | 1               |          |  |
| 12:40 | ZZZZZZ             | 1               |          |  |
| 12:42 | ZZZZZZ             | 1               |          |  |
| 12:43 | ZZZZZZ             | 1               |          |  |
| 12:44 | ZZZZZZ             | 1               |          |  |
| 12:46 | ZZZZZZ             | 1               |          |  |
| 12:47 | ZZZZZZ             | 1               |          |  |

14.2  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
Analyst: DP Run ID: MA44305  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:48 | ZZZZZZ             | 1               |          |  |
| 12:50 | ZZZZZZ             | 1               |          |  |
| 12:51 | ZZZZZZ             | 1               |          |  |
| 12:52 | MA44305-CCV3       | 1               |          |  |
| 12:54 | MA44305-CCB3       | 1               |          |  |
| 12:55 | ZZZZZZ             | 1               |          |  |
| 12:57 | ZZZZZZ             | 1               |          |  |
| 12:58 | ZZZZZZ             | 1               |          |  |
| 13:00 | ZZZZZZ             | 1               |          |  |
| 13:01 | ZZZZZZ             | 1               |          |  |
| 13:03 | ZZZZZZ             | 1               |          |  |
| 13:04 | ZZZZZZ             | 1               |          |  |
| 13:05 | MP6891-MB1         | 1               |          |  |
| 13:07 | MA44305-CCV4       | 1               |          |  |
| 13:08 | MA44305-CCB4       | 1               |          |  |
| 13:10 | MP6891-B1          | 1               |          |  |
| 13:11 | MP6891-S1          | 1               |          |  |
| 13:13 | MP6891-S2          | 1               |          |  |
| 13:14 | JC65141-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 13:16 | ZZZZZZ             | 1               |          |  |
| 13:17 | ZZZZZZ             | 1               |          |  |
| 13:19 | ZZZZZZ             | 1               |          |  |
| 13:20 | ZZZZZZ             | 1               |          |  |
| 13:21 | ZZZZZZ             | 1               |          |  |
| 13:23 | MA44305-CCV5       | 1               |          |  |
| 13:24 | MA44305-CCB5       | 1               |          |  |
| 13:26 | ZZZZZZ             | 1               |          |  |
| 13:27 | ZZZZZZ             | 1               |          |  |
| 13:28 | JC65058-5          | 1               |          | %Sol   |
| 13:30 | JC65058-6          | 1               |          | %Sol   |
| 13:31 | JC65058-7          | 1               |          | %Sol   |
| 13:33 | JC65058-8          | 1               |          | %Sol   |
| 13:34 | JC65058-10         | 1               |          | %Sol   |

14.2  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
Analyst: DP      Run ID: MA44305  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments |
|--------|---|-----------------|----------|----------|
| 13:35  | JC65058-11                                  | 1               |          | %Sol     |
| 13:37  | JC65058-12                                  | 1               |          | %Sol     |
| 13:38  | MA44305-CCV6                                | 1               |          |          |
| 13:40  | MA44305-CCB6                                | 1               |          |          |
| 13:41  | JC65058-13                                  | 1               |          | %Sol     |
| 13:43  | JC65058-15                                  | 1               |          | %Sol     |
| -----> | Last reportable sample/prep for job JC65058 |                 |          |          |
| 13:44  | ZZZZZZ                                      | 1               |          |          |
| 13:46  | ZZZZZZ                                      | 1               |          |          |
| 13:48  | ZZZZZZ                                      | 1               |          |          |
| 13:50  | ZZZZZZ                                      | 2               |          |          |
| 13:51  | MA44305-CCV7                                | 1               |          |          |
| 13:53  | MA44305-CCB7                                | 1               |          |          |
| -----> | Last reportable CCB for job JC65058         |                 |          |          |
| 14:48  | MA44305-CCV8                                | 1               |          |          |
| 14:49  | MA44305-CCB8                                | 1               |          |          |
| 14:56  | ZZZZZZ                                      | 1               |          |          |
| 14:57  | ZZZZZZ                                      | 10              |          |          |
| 15:03  | ZZZZZZ                                      | 10              |          |          |
| 15:15  | MA44305-CCV9                                | 1               |          |          |
| 15:17  | MA44305-CCB9                                | 1               |          |          |

Refer to raw data for calibration curve and standards.

14.2  
14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44305 Units: ug/l

| Time:      |      |      | 12:17   |       |         | 12:19 |         |       | 12:39   |       |       | 12:54 |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|-------|-------|
| Sample ID: | RL   | IDL  | ICB1    | final | CCB1    | final | CCB2    | final | CCB3    | final | final |       |
| Metal      |      |      | raw     |       | raw     |       | raw     |       | raw     |       | raw   |       |
| Mercury    | 0.20 | .025 | -0.0173 | <0.20 | 0.00270 | <0.20 | -0.0113 | <0.20 | -0.0207 | <0.20 |       |       |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.2.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV Date Analyzed: 04/30/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44305 Units: ug/l

|         | Time:      |      | 13:08   |       | 13:24   |       | 13:40   |       | 13:53   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .025 | -0.0151 | <0.20 | -0.0142 | <0.20 | -0.0203 | <0.20 | -0.0158 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.2.1  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|            | Time: |         | 12:14 |      | 12:18   |       | 12:37 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   |         | ICV1  | CCV  | CCV1    | CCV   | CCV2  |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 3.29    | 109.7 | 2.5  | 2.51    | 100.4 | 2.5   | 2.52    | 100.8 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|            | Time: | 12:52   |       | 13:07 |         | 13:23 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.51    | 100.4 | 2.5   | 2.52    | 100.8 | 2.5  | 2.54    | 101.6 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44305      Units: ug/l

|         | Time:      |         | 13:38 |      | 13:51   |       |
|---------|------------|---------|-------|------|---------|-------|
|         | Sample ID: | CCV     | CCV6  | CCV  | CCV7    |       |
| Metal   | True       | Results | % Rec | True | Results | % Rec |
| Mercury | 2.5        | 2.58    | 103.2 | 2.5  | 2.58    | 103.2 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.2  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8043018S2.CSV      Date Analyzed: 04/30/18      Methods: SW846 7471B  
QC Limits: 70 to 130 % Recovery      Run ID: MA44305      Units: ug/l

|            |      |      |         |       |
|------------|------|------|---------|-------|
| Time:      |      |      | 12:21   |       |
| Sample ID: | CRI  | CRIA | CRI1    |       |
| Metal      | True | True | Results | % Rec |

Mercury      0.20      0.161      80.5

(\*) Outside of QC limits  
(anr) Analyte not requested

14.2.3

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:48 | MA44316-STD1       | 1               |          | STDA   |
| 15:51 | MA44316-STD2       | 1               |          | STDB   |
| 15:54 | ZZZZZZ             | 1               |          |  |
| 15:57 | ZZZZZZ             | 1               |          |  |
| 16:00 | MA44316-ICV1       | 1               |          |  |
| 16:03 | MA44316-ICB1       | 1               |          |  |
| 16:06 | MA44316-CCV1       | 1               |          |  |
| 16:09 | MA44316-CCB1       | 1               |          |  |
| 16:12 | MA44316-CRI1       | 1               |          |  |
| 16:15 | MA44316-CRID1      | 1               |          |  |
| 16:17 | MA44316-ICSA1      | 1               |          |  |
| 16:20 | MA44316-ICSAB1     | 1               |          |  |
| 16:23 | MA44316-HSTD1      | 1               |          |  |
| 16:26 | MA44316-HSTD2      | 1               |          | Minerals   |
| 16:29 | ZZZZZZ             | 1               |          |  |
| 16:32 | ZZZZZZ             | 1               |          |  |
| 16:35 | ZZZZZZ             | 1               |          |  |
| 16:37 | MA44316-CCV2       | 1               |          |  |
| 16:40 | MA44316-CCB2       | 1               |          |  |
| 16:43 | MP6883-MB1         | 1               |          |  |
| 16:46 | MP6883-B1          | 1               |          |  |
| 16:48 | MP6883-S1          | 1               |          | Need PS  |
| 16:51 | MP6883-S2          | 1               |          | Need PS  |
| 16:54 | MP6883-D1          | 1               |          |  |
| 16:57 | TD20148-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 17:00 | MP6883-SD1         | 5               |          |  |
| 17:03 | JC65058-5          | 1               |          | Ca and Mn high                                       |
| 17:06 | JC65058-6          | 1               |          |  |
| 17:10 | MA44316-CCV3       | 1               |          |  |
| 17:14 | MA44316-CCB3       | 1               |          |  |
| 17:16 | JC65058-7          | 1               |          |  |
| 17:19 | JC65058-8          | 1               |          |  |
| 17:22 | JC65058-10         | 1               |          |  |

14.3  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 17:25 | JC65058-11         | 1               |          |  |
| 17:28 | JC65058-12         | 1               |          | Ca=500ppm, Mn=15ppm                                  |
| 17:31 | JC65058-13         | 1               |          | Ca=850ppm  |
| 17:34 | JC65058-15         | 1               |          | Ca=500ppm  |
| 17:37 | ZZZZZ              | 1               |          |  |
| 17:40 | ZZZZZ              | 1               |          |  |
| 17:43 | MA44316-CCV4       | 1               |          |  |
| 17:45 | MA44316-CCB4       | 1               |          |  |
| 17:48 | ZZZZZ              | 1               |          |  |
| 17:51 | ZZZZZ              | 1               |          |  |
| 17:54 | ZZZZZ              | 1               |          |  |
| 17:57 | ZZZZZ              | 1               |          |  |
| 18:00 | ZZZZZ              | 1               |          |  |
| 18:03 | MP6857-B2          | 1               |          |  |
| 18:05 | MP6857-MB2         | 1               |          |  |
| 18:08 | ZZZZZ              | 1               |          |  |
| 18:11 | MP6897-MB1         | 5               |          |  |
| 18:14 | MA44316-CCV5       | 1               |          |  |
| 18:16 | MA44316-CCB5       | 1               |          |  |
| 18:19 | MP6897-B1          | 5               |          |  |
| 18:22 | MP6897-S1          | 5               |          |  |
| 18:24 | MP6897-S2          | 5               |          |  |
| 18:27 | JC65070-1A         | 5               |          | (sample used for QC only; not part of login JC65058) |
| 18:30 | MP6897-SD1         | 25              |          | Saturation   |
| 18:33 | JC65058-13A        | 5               |          |  |
| 18:36 | ZZZZZ              | 5               |          |  |
| 18:39 | ZZZZZ              | 5               |          |  |
| 18:42 | ZZZZZ              | 5               |          |  |
| 18:45 | MA44316-CCV6       | 1               |          |  |
| 18:47 | MA44316-CCB6       | 1               |          |  |
| 18:54 | ZZZZZ              | 2               |          |  |
| 18:57 | ZZZZZ              | 5               |          |  |
| 19:00 | ZZZZZ              | 5               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments |
|--------|---|-----------------|----------|----------|
| 19:02  | ZZZZZZ                                      | 5               |          |          |
| 19:05  | ZZZZZZ                                      | 5               |          |          |
| 19:08  | ZZZZZZ                                      | 5               |          |          |
| 19:11  | ZZZZZZ                                      | 5               |          |          |
| 19:14  | ZZZZZZ                                      | 5               |          |          |
| 19:17  | ZZZZZZ                                      | 5               |          |          |
| 19:20  | MP6897-SD1                                  | 25              |          |          |
| -----> | Last reportable sample/prep for job JC65058 |                 |          |          |
| 19:23  | MA44316-CCV7                                | 1               |          |          |
| 19:25  | MA44316-CCB7                                | 1               |          |          |
| 19:28  | ZZZZZZ                                      | 1               |          |          |
| 19:31  | ZZZZZZ                                      | 1               |          |          |
| 19:34  | ZZZZZZ                                      | 1               |          |          |
| 19:37  | ZZZZZZ                                      | 1               |          |          |
| 19:40  | ZZZZZZ                                      | 1               |          |          |
| 19:43  | ZZZZZZ                                      | 1               |          |          |
| 19:47  | MA44316-CCV8                                | 1               |          |          |
| 19:49  | MA44316-CCB8                                | 1               |          |          |
| 19:55  | MA44316-CRI2                                | 1               |          |          |
| 19:58  | MA44316-CRID2                               | 1               |          |          |
| 20:01  | MA44316-ICSA2                               | 1               |          |          |
| 20:04  | MA44316-ICSAB2                              | 1               |          |          |
| 20:07  | MA44316-CCV9                                | 1               |          |          |
| 20:09  | MA44316-CCB9                                | 1               |          |          |
| -----> | Last reportable CCB for job JC65058         |                 |          |          |
| 20:12  | ZZZZZZ                                      | 1               |          |          |
| 20:15  | ZZZZZZ                                      | 1               |          |          |
| 20:18  | ZZZZZZ                                      | 1               |          |          |
| 20:21  | ZZZZZZ                                      | 1               |          |          |
| 20:23  | ZZZZZZ                                      | 1               |          |          |
| 20:26  | ZZZZZZ                                      | 1               |          |          |
| 20:31  | ZZZZZZ                                      | 1               |          |          |
| 20:33  | ZZZZZZ                                      | 1               |          |          |
| 20:36  | ZZZZZZ                                      | 1               |          |          |
| 20:39  | ZZZZZZ                                      | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
Analyst: ND      Run ID: MA44316  
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 20:42 | ZZZZZZ             | 1               |          |          |
| 20:45 | ZZZZZZ             | 1               |          |          |
| 20:48 | ZZZZZZ             | 1               |          |          |
| 20:51 | ZZZZZZ             | 1               |          |          |
| 20:55 | MA44316-CCV10      | 1               |          |          |
| 20:58 | MA44316-CCB10      | 1               |          |          |

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 15:48 | MA44316-STD1       | 5553 R | 136360 R | 24795 R | 9374 R |
| 15:51 | MA44316-STD2       | 5286   | 131520   | 24532   | 8645   |
| 15:54 | ZZZZZZ             | 5493   | 132910   | 24781   | 8975   |
| 15:57 | ZZZZZZ             | 5588   | 137440   | 25256   | 9445   |
| 16:00 | MA44316-ICV1       | 5440   | 134540   | 24832   | 8894   |
| 16:03 | MA44316-ICB1       | 5580   | 137200   | 25001   | 9441   |
| 16:06 | MA44316-CCV1       | 5396   | 133910   | 24765   | 8828   |
| 16:09 | MA44316-CCB1       | 5482   | 135380   | 24866   | 9259   |
| 16:12 | MA44316-CRI1       | 5523   | 135770   | 24926   | 9281   |
| 16:15 | MA44316-CRID1      | 5573   | 138180   | 24869   | 9396   |
| 16:17 | MA44316-ICSA1      | 4987   | 125100   | 23762   | 8110   |
| 16:20 | MA44316-ICSAB1     | 5001   | 126020   | 24038   | 8134   |
| 16:23 | MA44316-HSTD1      | 5497   | 136670   | 24844   | 9341   |
| 16:26 | MA44316-HSTD2      | 5153   | 128780   | 24217   | 8247   |
| 16:29 | ZZZZZZ             | 5518   | 137050   | 25159   | 9470   |
| 16:32 | ZZZZZZ             | 5494   | 137360   | 24933   | 9419   |
| 16:35 | ZZZZZZ             | 5579   | 138040   | 25237   | 9433   |
| 16:37 | MA44316-CCV2       | 5392   | 134190   | 24597   | 8837   |
| 16:40 | MA44316-CCB2       | 5565   | 138180   | 24910   | 9424   |
| 16:43 | MP6883-MB1         | 5661   | 141500   | 25687   | 9568   |
| 16:46 | MP6883-B1          | 5342   | 137080   | 25187   | 8843   |
| 16:48 | MP6883-S1          | 5270   | 136370   | 25504   | 9779   |
| 16:51 | MP6883-S2          | 5285   | 136990   | 25777   | 9876   |
| 16:54 | MP6883-D1          | 5390   | 137910   | 25705   | 9965   |
| 16:57 | TD20148-1          | 5350   | 136400   | 25723   | 9949   |
| 17:00 | MP6883-SD1         | 5655   | 139890   | 25622   | 9688   |
| 17:03 | JC65058-5          | 5372   | 135760   | 25797   | 8134   |
| 17:06 | JC65058-6          | 5422   | 135830   | 25552   | 8555   |
| 17:10 | MA44316-CCV3       | 5413   | 133520   | 24441   | 8870   |
| 17:14 | MA44316-CCB3       | 5543   | 136800   | 24744   | 9380   |
| 17:16 | JC65058-7          | 5157   | 131270   | 24786   | 7966   |
| 17:19 | JC65058-8          | 5196   | 133120   | 25078   | 7934   |
| 17:22 | JC65058-10         | 5360   | 135610   | 25362   | 8231   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 17:25 | JC65058-11         | 5279   | 134660 | 24873  | 8247   |
| 17:28 | JC65058-12         | 5350   | 135630 | 25362  | 8309   |
| 17:31 | JC65058-13         | 5211   | 132860 | 24977  | 8011   |
| 17:34 | JC65058-15         | 5397   | 135530 | 25467  | 8368   |
| 17:37 | ZZZZZ              | 5892   | 145070 | 27326  | 9120   |
| 17:40 | ZZZZZ              | 6131   | 154290 | 28888  | 8807   |
| 17:43 | MA44316-CCV4       | 5432   | 135040 | 24580  | 8889   |
| 17:45 | MA44316-CCB4       | 5583   | 138320 | 24951  | 9468   |
| 17:48 | ZZZZZ              | 5697   | 140470 | 26619  | 8988   |
| 17:51 | ZZZZZ              | 5656   | 137710 | 25764  | 9286   |
| 17:54 | ZZZZZ              | 5453   | 137080 | 25650  | 8668   |
| 17:57 | ZZZZZ              | 5548   | 139300 | 26126  | 8621   |
| 18:00 | ZZZZZ              | 5560   | 138960 | 25887  | 8780   |
| 18:03 | MP6857-B2          | 5537   | 138580 | 25406  | 9120   |
| 18:05 | MP6857-MB2         | 5637   | 140860 | 25435  | 9536   |
| 18:08 | ZZZZZ              | 5594   | 138250 | 25259  | 9388   |
| 18:11 | MP6897-MB1         | 5369   | 134970 | 24452  | 8710   |
| 18:14 | MA44316-CCV5       | 5411   | 134090 | 24291  | 8873   |
| 18:16 | MA44316-CCB5       | 5590   | 137710 | 24651  | 9461   |
| 18:19 | MP6897-B1          | 5426   | 135090 | 24949  | 8774   |
| 18:22 | MP6897-S1          | 5396   | 135130 | 24884  | 8698   |
| 18:24 | MP6897-S2          | 5394   | 134820 | 24749  | 8705   |
| 18:27 | JC65070-1A         | 5327   | 134920 | 24650  | 8656   |
| 18:30 | MP6897-SD1         | No results reported for the elements associated with this internal standard. |        |        |        |
| 18:33 | JC65058-13A        | 5277   | 133100 | 24473  | 8492   |
| 18:36 | ZZZZZ              | 5408   | 135060 | 24546  | 8727   |
| 18:39 | ZZZZZ              | 5390   | 134490 | 24494  | 8726   |
| 18:42 | ZZZZZ              | 5382   | 135260 | 24600  | 8713   |
| 18:45 | MA44316-CCV6       | 5403   | 133800 | 24267  | 8865   |
| 18:47 | MA44316-CCB6       | 5569   | 137090 | 24742  | 9443   |
| 18:54 | ZZZZZ              | 5434   | 135150 | 25052  | 8705   |
| 18:57 | ZZZZZ              | 5392   | 135020 | 24719  | 8735   |
| 19:00 | ZZZZZ              | 5371   | 134200 | 24686  | 8679   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3   | Istd#4 |
|-------|--------------------|--------|----------|----------|--------|
| 19:02 | ZZZZZZ             | 5425   | 135310   | 24837    | 8753   |
| 19:05 | ZZZZZZ             | 5403   | 135500   | 24585    | 8740   |
| 19:08 | ZZZZZZ             | 6081   | 163290   | 32058    | 9806   |
| 19:11 | ZZZZZZ             | 6057   | 161690   | 31732    | 9776   |
| 19:14 | ZZZZZZ             | 5959   | 160140   | 31569    | 9629   |
| 19:17 | ZZZZZZ             | 6136   | 164450   | 32516 !a | 9948   |
| 19:20 | MP6897-SD1         | 6259   | 166550   | 31991    | 10367  |
| 19:23 | MA44316-CCV7       | 6173   | 164340   | 31590    | 9997   |
| 19:25 | MA44316-CCB7       | 6344   | 142160   | 31911    | 10782  |
| 19:28 | ZZZZZZ             | 6561   | 174840   | 33561 !  | 11122  |
| 19:31 | ZZZZZZ             | 6879   | 183340 ! | 35592 !  | 11154  |
| 19:34 | ZZZZZZ             | 6712   | 178550 ! | 34583 !  | 10710  |
| 19:37 | ZZZZZZ             | 6758   | 180470 ! | 34994 !  | 11135  |
| 19:40 | ZZZZZZ             | 6832   | 180230 ! | 35044 !  | 10960  |
| 19:43 | ZZZZZZ             | 6383   | 168950   | 33040 !  | 10383  |
| 19:47 | MA44316-CCV8       | 5924   | 148440   | 27588    | 9553   |
| 19:49 | MA44316-CCB8       | 6096   | 152010   | 27961    | 10136  |
| 19:55 | MA44316-CRI2       | 6044   | 150630   | 27640    | 9987   |
| 19:58 | MA44316-CRID2      | 6119   | 151860   | 24870    | 10155  |
| 20:01 | MA44316-ICSA2      | 5557   | 140710   | 27003    | 8846   |
| 20:04 | MA44316-ICSAB2     | 5522   | 141210   | 26963    | 8821   |
| 20:07 | MA44316-CCV9       | 5893   | 147950   | 27381    | 9501   |
| 20:09 | MA44316-CCB9       | 6072   | 151460   | 27498    | 10122  |
| 20:12 | ZZZZZZ             | 6057   | 152090   | 27238    | 10090  |
| 20:15 | ZZZZZZ             | 6068   | 151550   | 27846    | 10089  |
| 20:18 | ZZZZZZ             | 6065   | 999999 ! | 27359    | 10153  |
| 20:21 | ZZZZZZ             | 6105   | 151700   | 27901    | 10196  |
| 20:23 | ZZZZZZ             | 6153   | 151260   | 999999 ! | 10195  |
| 20:26 | ZZZZZZ             | 6052   | 151080   | 27912    | 10038  |
| 20:31 | ZZZZZZ             | 6056   | 146180   | 28347    | 9559   |
| 20:33 | ZZZZZZ             | 6125   | 151940   | 27513    | 10224  |
| 20:36 | ZZZZZZ             | 5657   | 145760   | 26888    | 9120   |
| 20:39 | ZZZZZZ             | 5748   | 145670   | 27022    | 9199   |

14.3.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 20:42 | ZZZZZZ             | 6094   | 152320 | 28007  | 10141  |
| 20:45 | ZZZZZZ             | 6240   | 151430 | 28001  | 10431  |
| 20:48 | ZZZZZZ             | 6013   | 151300 | 27655  | 10064  |
| 20:51 | ZZZZZZ             | 6081   | 152020 | 27785  | 10098  |
| 20:55 | MA44316-CCV10      | 5894   | 147360 | 27116  | 9509   |
| 20:58 | MA44316-CCB10      | 6072   | 151480 | 27612  | 10101  |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Time:<br>Sample ID: | RL    | IDL | 16:03<br>ICB1<br>raw | final  | 16:09<br>CCB1<br>raw | final  | 16:40<br>CCB2<br>raw | final  | 17:14<br>CCB3<br>raw | final  |
|---------------------|-------|-----|----------------------|--------|----------------------|--------|----------------------|--------|----------------------|--------|
| Aluminum            | 200   | 19  | 6.10                 | <200   | -11.1                | <200   | -14.9                | <200   | -3.10                | <200   |
| Antimony            | 6.0   | 2.4 | 1.60                 | <6.0   | 0.700                | <6.0   | -1.40                | <6.0   | 1.30                 | <6.0   |
| Arsenic             | 3.0   | 1.2 | 1.40                 | <3.0   | 1.80                 | <3.0   | 2.30                 | <3.0   | -0.500               | <3.0   |
| Barium              | 200   | .6  | -0.400               | <200   | -0.300               | <200   | 0.00                 | <200   | 0.300                | <200   |
| Beryllium           | 1.0   | .2  | 0.100                | <1.0   | 0.100                | <1.0   | 0.200                | <1.0   | 0.300                | <1.0   |
| Bismuth             | 20    | 3.2 |                      |        |                      |        |                      |        |                      |        |
| Boron               | 100   | 1.5 |                      |        |                      |        |                      |        |                      |        |
| Cadmium             | 3.0   | .4  | 0.400                | <3.0   | 0.200                | <3.0   | 0.200                | <3.0   | 0.00                 | <3.0   |
| Calcium             | 5000  | 5.5 | -0.500               | <5000  | 2.60                 | <5000  | -1.50                | <5000  | 3.80                 | <5000  |
| Chromium            | 10    | .7  | 0.500                | <10    | 0.400                | <10    | 0.200                | <10    | 0.400                | <10    |
| Cobalt              | 50    | .4  | -0.100               | <50    | 0.00                 | <50    | -0.100               | <50    | 0.100                | <50    |
| Copper              | 10    | 1.1 | -0.400               | <10    | 0.00                 | <10    | -0.100               | <10    | -0.400               | <10    |
| Iron                | 100   | 3.5 | 4.40                 | <100   | 3.70                 | <100   | 5.40                 | <100   | 8.80                 | <100   |
| Lead                | 3.0   | 2.2 | 1.20                 | <3.0   | -0.600               | <3.0   | 0.100                | <3.0   | 1.00                 | <3.0   |
| Lithium             | 50    | 3.4 |                      |        |                      |        |                      |        |                      |        |
| Magnesium           | 5000  | 25  | 2.30                 | <5000  | -1.30                | <5000  | -5.10                | <5000  | -1.10                | <5000  |
| Manganese           | 15    | .14 | 0.100                | <15    | 0.100                | <15    | 0.100                | <15    | 0.00                 | <15    |
| Molybdenum          | 20    | .4  |                      |        |                      |        |                      |        |                      |        |
| Nickel              | 10    | .5  | -0.400               | <10    | 0.00                 | <10    | -0.600               | <10    | 0.00                 | <10    |
| Phosphorus          | 50    | 2   |                      |        |                      |        |                      |        |                      |        |
| Potassium           | 10000 | 60  | 8.20                 | <10000 | 13.8                 | <10000 | -17.4                | <10000 | -7.70                | <10000 |
| Selenium            | 10    | 3.7 | 2.50                 | <10    | 0.600                | <10    | -1.80                | <10    | -0.700               | <10    |
| Silicon             | 200   | 1.8 |                      |        |                      |        |                      |        |                      |        |
| Silver              | 10    | .7  | 0.700                | <10    | 0.600                | <10    | 0.00                 | <10    | 0.100                | <10    |
| Sodium              | 10000 | 35  | 13.9                 | <10000 | 18.4                 | <10000 | 22.0                 | <10000 | 5.40                 | <10000 |
| Strontium           | 10    | .2  |                      |        |                      |        |                      |        |                      |        |
| Sulfur              | 50    | 3.1 | anr                  |        |                      |        |                      |        |                      |        |
| Thallium            | 2.0   | 1.8 | 1.10                 | <2.0   | 0.700                | <2.0   | 0.600                | <2.0   | 0.200                | <2.0   |
| Tin                 | 10    | .9  |                      |        |                      |        |                      |        |                      |        |
| Titanium            | 10    | .7  |                      |        |                      |        |                      |        |                      |        |
| Tungsten            | 50    | 2.2 |                      |        |                      |        |                      |        |                      |        |
| Vanadium            | 50    | .8  | -0.100               | <50    | 0.500                | <50    | -0.200               | <50    | -0.300               | <50    |
| Zinc                | 20    | .2  | -0.100               | <20    | -0.200               | <20    | -0.200               | <20    | -0.300               | <20    |

14.3.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Time:      | 16:03 | 16:09 | 16:40 | 17:14 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | ICB1  | CCB1  | CCB2  | CCB3  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.2  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Metal      | RL    | IDL | 17:45<br>CCB4 |        | 18:16<br>CCB5 |        | 18:47<br>CCB6 |        | 19:25<br>CCB7 |        |
|------------|-------|-----|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
|            |       |     | raw           | final  | raw           | final  | raw           | final  | raw           | final  |
| Aluminum   | 200   | 19  | -8.60         | <200   | -1.70         | <200   | 2.80          | <200   | 2.80          | <200   |
| Antimony   | 6.0   | 2.4 | -0.100        | <6.0   | 0.400         | <6.0   | 1.20          | <6.0   | 0.200         | <6.0   |
| Arsenic    | 3.0   | 1.2 | 1.20          | <3.0   | -1.10         | <3.0   | -0.700        | <3.0   | 0.00          | <3.0   |
| Barium     | 200   | .6  | 0.300         | <200   | -0.100        | <200   | -0.100        | <200   | 0.00          | <200   |
| Beryllium  | 1.0   | .2  | 0.300         | <1.0   | 0.200         | <1.0   | 0.300         | <1.0   | 0.200         | <1.0   |
| Bismuth    | 20    | 3.2 |               |        |               |        |               |        |               |        |
| Boron      | 100   | 1.5 |               |        |               |        |               |        |               |        |
| Cadmium    | 3.0   | .4  | 0.200         | <3.0   | 0.300         | <3.0   | 0.300         | <3.0   | 0.200         | <3.0   |
| Calcium    | 5000  | 5.5 | 3.60          | <5000  | 5.50          | <5000  | 0.200         | <5000  | 0.500         | <5000  |
| Chromium   | 10    | .7  | -0.100        | <10    | 0.200         | <10    | 0.00          | <10    | 0.100         | <10    |
| Cobalt     | 50    | .4  | 0.100         | <50    | 0.200         | <50    | 0.100         | <50    | 0.100         | <50    |
| Copper     | 10    | 1.1 | -0.200        | <10    | -0.300        | <10    | -0.100        | <10    | 0.800         | <10    |
| Iron       | 100   | 3.5 | 9.10          | <100   | 5.00          | <100   | 8.30          | <100   | 5.70          | <100   |
| Lead       | 3.0   | 2.2 | 0.200         | <3.0   | 0.800         | <3.0   | 0.700         | <3.0   | 0.200         | <3.0   |
| Lithium    | 50    | 3.4 |               |        |               |        |               |        |               |        |
| Magnesium  | 5000  | 25  | 7.50          | <5000  | -28.6         | <5000  | 8.90          | <5000  | 4.50          | <5000  |
| Manganese  | 15    | .14 | 0.100         | <15    | 0.100         | <15    | 0.100         | <15    | 0.200         | <15    |
| Molybdenum | 20    | .4  |               |        |               |        |               |        |               |        |
| Nickel     | 10    | .5  | -0.300        | <10    | 0.00          | <10    | -0.200        | <10    | -0.300        | <10    |
| Phosphorus | 50    | 2   |               |        |               |        |               |        |               |        |
| Potassium  | 10000 | 60  | 63.8          | <10000 | -39.0         | <10000 | -1.80         | <10000 | 59.0          | <10000 |
| Selenium   | 10    | 3.7 | -0.600        | <10    | 1.30          | <10    | 0.500         | <10    | 2.30          | <10    |
| Silicon    | 200   | 1.8 |               |        |               |        |               |        |               |        |
| Silver     | 10    | .7  | -0.100        | <10    | -0.100        | <10    | 0.100         | <10    | 0.200         | <10    |
| Sodium     | 10000 | 35  | 29.0          | <10000 | 23.8          | <10000 | 71.9          | <10000 | 158           | <10000 |
| Strontium  | 10    | .2  |               |        |               |        |               |        |               |        |
| Sulfur     | 50    | 3.1 | anr           |        |               |        |               |        |               |        |
| Thallium   | 2.0   | 1.8 | -0.700        | <2.0   | -0.700        | <2.0   | 0.300         | <2.0   | -0.400        | <2.0   |
| Tin        | 10    | .9  |               |        |               |        |               |        |               |        |
| Titanium   | 10    | .7  |               |        |               |        |               |        |               |        |
| Tungsten   | 50    | 2.2 |               |        |               |        |               |        |               |        |
| Vanadium   | 50    | .8  | 0.00          | <50    | -0.100        | <50    | -0.200        | <50    | 0.00          | <50    |
| Zinc       | 20    | .2  | -0.200        | <20    | -0.200        | <20    | -0.200        | <20    | 0.200         | <20    |

14.3.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Time:      |    |     | 17:45 |       | 18:16 |       | 18:47 |       | 19:25 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | CCB4  |       | CCB5  |       | CCB6  |       | CCB7  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Metal      | RL    | IDL | 19:49  | final  | 20:09  | final  |
|------------|-------|-----|--------|--------|--------|--------|
|            |       |     | CCB8   |        | CCB9   |        |
| Aluminum   | 200   | 19  | -3.90  | <200   | -1.60  | <200   |
| Antimony   | 6.0   | 2.4 | 0.300  | <6.0   | 1.20   | <6.0   |
| Arsenic    | 3.0   | 1.2 | 0.700  | <3.0   | 0.200  | <3.0   |
| Barium     | 200   | .6  | -0.300 | <200   | 0.100  | <200   |
| Beryllium  | 1.0   | .2  | 0.200  | <1.0   | 0.300  | <1.0   |
| Bismuth    | 20    | 3.2 |        |        |        |        |
| Boron      | 100   | 1.5 |        |        |        |        |
| Cadmium    | 3.0   | .4  | 0.400  | <3.0   | 0.400  | <3.0   |
| Calcium    | 5000  | 5.5 | -1.10  | <5000  | 5.60   | <5000  |
| Chromium   | 10    | .7  | 0.200  | <10    | 0.200  | <10    |
| Cobalt     | 50    | .4  | 0.300  | <50    | 0.00   | <50    |
| Copper     | 10    | 1.1 | -1.10  | <10    | -0.600 | <10    |
| Iron       | 100   | 3.5 | 7.70   | <100   | 10.2   | <100   |
| Lead       | 3.0   | 2.2 | 0.200  | <3.0   | -0.400 | <3.0   |
| Lithium    | 50    | 3.4 |        |        |        |        |
| Magnesium  | 5000  | 25  | 9.50   | <5000  | 6.70   | <5000  |
| Manganese  | 15    | .14 | 0.100  | <15    | 0.100  | <15    |
| Molybdenum | 20    | .4  |        |        |        |        |
| Nickel     | 10    | .5  | -0.200 | <10    | 0.100  | <10    |
| Phosphorus | 50    | 2   |        |        |        |        |
| Potassium  | 10000 | 60  | -4.80  | <10000 | -40.4  | <10000 |
| Selenium   | 10    | 3.7 | 0.600  | <10    | -0.300 | <10    |
| Silicon    | 200   | 1.8 |        |        |        |        |
| Silver     | 10    | .7  | 0.500  | <10    | 0.600  | <10    |
| Sodium     | 10000 | 35  | 69.1   | <10000 | 67.1   | <10000 |
| Strontium  | 10    | .2  |        |        |        |        |
| Sulfur     | 50    | 3.1 | anr    |        |        |        |
| Thallium   | 2.0   | 1.8 | 0.400  | <2.0   | 1.40   | <2.0   |
| Tin        | 10    | .9  |        |        |        |        |
| Titanium   | 10    | .7  |        |        |        |        |
| Tungsten   | 50    | 2.2 |        |        |        |        |
| Vanadium   | 50    | .8  | 0.00   | <50    | 0.100  | <50    |
| Zinc       | 20    | .2  | 0.00   | <20    | -0.100 | <20    |

14.3.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
 QC Limits: result < RL      Run ID: MA44316      Units: ug/l

| Time:      | 19:49 | 20:09 |       |       |
|------------|-------|-------|-------|-------|
| Sample ID: | CCB8  | CCB9  |       |       |
| Metal      | raw   | raw   | final | final |

Zirconium      10      .3

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.3.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      | 16:00   |       |       | 16:06   |       |       | 16:37   |       |     |
|------------|------------|---------|-------|-------|---------|-------|-------|---------|-------|-----|
|            | Sample ID: | ICV     | ICV1  | CCV   | CCV1    | CCV   | CCV2  | ICV     | ICV1  | CCV |
|            | True       | Results | % Rec | True  | Results | % Rec | True  | Results | % Rec |     |
| Aluminum   | 40000      | 39700   | 99.3  | 40000 | 39800   | 99.5  | 40000 | 40000   | 100.0 |     |
| Antimony   | 2000       | 1990    | 99.5  | 2000  | 2020    | 101.0 | 2000  | 2010    | 100.5 |     |
| Arsenic    | 2000       | 1980    | 99.0  | 2000  | 2000    | 100.0 | 2000  | 1990    | 99.5  |     |
| Barium     | 2000       | 2000    | 100.0 | 2000  | 2020    | 101.0 | 2000  | 2030    | 101.5 |     |
| Beryllium  | 2000       | 2010    | 100.5 | 2000  | 2030    | 101.5 | 2000  | 2040    | 102.0 |     |
| Bismuth    |            |         |       |       |         |       |       |         |       |     |
| Boron      |            |         |       |       |         |       |       |         |       |     |
| Cadmium    | 2000       | 1990    | 99.5  | 2000  | 2010    | 100.5 | 2000  | 1990    | 99.5  |     |
| Calcium    | 40000      | 40200   | 100.5 | 40000 | 40200   | 100.5 | 40000 | 40300   | 100.8 |     |
| Chromium   | 2000       | 2000    | 100.0 | 2000  | 2030    | 101.5 | 2000  | 2010    | 100.5 |     |
| Cobalt     | 2000       | 2020    | 101.0 | 2000  | 2040    | 102.0 | 2000  | 2020    | 101.0 |     |
| Copper     | 2000       | 1960    | 98.0  | 2000  | 1980    | 99.0  | 2000  | 1950    | 97.5  |     |
| Iron       | 40000      | 40100   | 100.3 | 40000 | 40300   | 100.8 | 40000 | 40600   | 101.5 |     |
| Lead       | 2000       | 2030    | 101.5 | 2000  | 2040    | 102.0 | 2000  | 2030    | 101.5 |     |
| Lithium    |            |         |       |       |         |       |       |         |       |     |
| Magnesium  | 40000      | 40200   | 100.5 | 40000 | 40400   | 101.0 | 40000 | 40600   | 101.5 |     |
| Manganese  | 2000       | 2050    | 102.5 | 2000  | 2070    | 103.5 | 2000  | 2060    | 103.0 |     |
| Molybdenum |            |         |       |       |         |       |       |         |       |     |
| Nickel     | 2000       | 2020    | 101.0 | 2000  | 2040    | 102.0 | 2000  | 2030    | 101.5 |     |
| Phosphorus |            |         |       |       |         |       |       |         |       |     |
| Potassium  | 40000      | 40200   | 100.5 | 40000 | 39800   | 99.5  | 40000 | 39500   | 98.8  |     |
| Selenium   | 2000       | 1980    | 99.0  | 2000  | 2000    | 100.0 | 2000  | 1980    | 99.0  |     |
| Silicon    |            |         |       |       |         |       |       |         |       |     |
| Silver     | 250        | 259     | 103.6 | 250   | 251     | 100.4 | 250   | 249     | 99.6  |     |
| Sodium     | 40000      | 40300   | 100.8 | 40000 | 40300   | 100.8 | 40000 | 40400   | 101.0 |     |
| Strontium  |            |         |       |       |         |       |       |         |       |     |
| Sulfur     | anr        |         |       |       |         |       |       |         |       |     |
| Thallium   | 2000       | 2020    | 101.0 | 2000  | 2050    | 102.5 | 2000  | 2040    | 102.0 |     |
| Tin        |            |         |       |       |         |       |       |         |       |     |
| Titanium   |            |         |       |       |         |       |       |         |       |     |
| Tungsten   |            |         |       |       |         |       |       |         |       |     |
| Vanadium   | 2000       | 2000    | 100.0 | 2000  | 2020    | 101.0 | 2000  | 2000    | 100.0 |     |
| Zinc       | 2000       | 2010    | 100.5 | 2000  | 2040    | 102.0 | 2000  | 2030    | 101.5 |     |

14.3.3  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: |         | 16:00 |      | 16:06   |       | 16:37 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | ICV1  | CCV  | CCV1    | CCV1  | CCV2  | CCV2    | CCV2  |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      | 17:10 |       |       | 17:43 |       |       | 18:14 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV3  | % Rec | CCV   | CCV4  | % Rec | CCV   | CCV5  | % Rec |
| Aluminum   | 40000      | 39700 | 99.3  | 40000 | 39900 | 99.8  | 40000 | 40000 | 100.0 |       |
| Antimony   | 2000       | 1990  | 99.5  | 2000  | 1990  | 99.5  | 2000  | 1990  | 99.5  |       |
| Arsenic    | 2000       | 1970  | 98.5  | 2000  | 1970  | 98.5  | 2000  | 1970  | 98.5  |       |
| Barium     | 2000       | 2010  | 100.5 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Beryllium  | 2000       | 2010  | 100.5 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 1970  | 98.5  | 2000  | 1980  | 99.0  | 2000  | 1980  | 99.0  |       |
| Calcium    | 40000      | 39900 | 99.8  | 40000 | 40200 | 100.5 | 40000 | 40300 | 100.8 |       |
| Chromium   | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Cobalt     | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2000  | 100.0 |       |
| Copper     | 2000       | 1930  | 96.5  | 2000  | 1940  | 97.0  | 2000  | 1940  | 97.0  |       |
| Iron       | 40000      | 40100 | 100.3 | 40000 | 40400 | 101.0 | 40000 | 40500 | 101.3 |       |
| Lead       | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 40100 | 100.3 | 40000 | 40300 | 100.8 | 40000 | 40600 | 101.5 |       |
| Manganese  | 2000       | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2050  | 102.5 |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 39100 | 97.8  | 40000 | 39500 | 98.8  | 40000 | 39700 | 99.3  |       |
| Selenium   | 2000       | 1950  | 97.5  | 2000  | 1960  | 98.0  | 2000  | 1960  | 98.0  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 246   | 98.4  | 250   | 247   | 98.8  | 250   | 248   | 99.2  |       |
| Sodium     | 40000      | 39900 | 99.8  | 40000 | 40000 | 100.0 | 40000 | 40300 | 100.8 |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     | anr        |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2010  | 100.5 | 2000  | 2020  | 101.0 | 2000  | 2010  | 100.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1990  | 99.5  | 2000  | 2000  | 100.0 | 2000  | 1990  | 99.5  |       |
| Zinc       | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |

14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: |         |       |      | 17:43   |       |      | 18:14   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 17:10   | CCV3  | CCV  | CCV4    | CCV   | CCV5 |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.3  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      | 18:45 |       |       | 19:23 |       |       | 19:47 |      |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|------|-------|
|            | Sample ID: | CCV   | CCV6  | % Rec | CCV   | CCV7  | % Rec | CCV   | CCV8 | % Rec |
| Aluminum   | 40000      | 39800 | 99.5  | 40000 | 39300 | 98.3  | 40000 | 38000 | 95.0 |       |
| Antimony   | 2000       | 1980  | 99.0  | 2000  | 2080  | 104.0 | 2000  | 1920  | 96.0 |       |
| Arsenic    | 2000       | 1950  | 97.5  | 2000  | 1970  | 98.5  | 2000  | 1910  | 95.5 |       |
| Barium     | 2000       | 2020  | 101.0 | 2000  | 2080  | 104.0 | 2000  | 1940  | 97.0 |       |
| Beryllium  | 2000       | 2020  | 101.0 | 2000  | 2000  | 100.0 | 2000  | 1930  | 96.5 |       |
| Bismuth    |            |       |       |       |       |       |       |       |      |       |
| Boron      |            |       |       |       |       |       |       |       |      |       |
| Cadmium    | 2000       | 1960  | 98.0  | 2000  | 2010  | 100.5 | 2000  | 1900  | 95.0 |       |
| Calcium    | 40000      | 40000 | 100.0 | 40000 | 38900 | 97.3  | 40000 | 38300 | 95.8 |       |
| Chromium   | 2000       | 2000  | 100.0 | 2000  | 1880  | 94.0  | 2000  | 1910  | 95.5 |       |
| Cobalt     | 2000       | 1990  | 99.5  | 2000  | 2020  | 101.0 | 2000  | 1960  | 98.0 |       |
| Copper     | 2000       | 1930  | 96.5  | 2000  | 1970  | 98.5  | 2000  | 1880  | 94.0 |       |
| Iron       | 40000      | 40300 | 100.8 | 40000 | 39600 | 99.0  | 40000 | 38300 | 95.8 |       |
| Lead       | 2000       | 1990  | 99.5  | 2000  | 1990  | 99.5  | 2000  | 1960  | 98.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |      |       |
| Magnesium  | 40000      | 40200 | 100.5 | 40000 | 37700 | 94.3  | 40000 | 38200 | 95.5 |       |
| Manganese  | 2000       | 2040  | 102.0 | 2000  | 1930  | 96.5  | 2000  | 1960  | 98.0 |       |
| Molybdenum |            |       |       |       |       |       |       |       |      |       |
| Nickel     | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 1960  | 98.0 |       |
| Phosphorus |            |       |       |       |       |       |       |       |      |       |
| Potassium  | 40000      | 39100 | 97.8  | 40000 | 38800 | 97.0  | 40000 | 38100 | 95.3 |       |
| Selenium   | 2000       | 1950  | 97.5  | 2000  | 1990  | 99.5  | 2000  | 1900  | 95.0 |       |
| Silicon    |            |       |       |       |       |       |       |       |      |       |
| Silver     | 250        | 247   | 98.8  | 250   | 243   | 97.2  | 250   | 237   | 94.8 |       |
| Sodium     | 40000      | 39800 | 99.5  | 40000 | 39500 | 98.8  | 40000 | 38700 | 96.8 |       |
| Strontium  |            |       |       |       |       |       |       |       |      |       |
| Sulfur     | anr        |       |       |       |       |       |       |       |      |       |
| Thallium   | 2000       | 2000  | 100.0 | 2000  | 2060  | 103.0 | 2000  | 1960  | 98.0 |       |
| Tin        |            |       |       |       |       |       |       |       |      |       |
| Titanium   |            |       |       |       |       |       |       |       |      |       |
| Tungsten   |            |       |       |       |       |       |       |       |      |       |
| Vanadium   | 2000       | 1980  | 99.0  | 2000  | 1910  | 95.5  | 2000  | 1910  | 95.5 |       |
| Zinc       | 2000       | 2000  | 100.0 | 2000  | 1870  | 93.5  | 2000  | 1920  | 96.0 |       |

14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

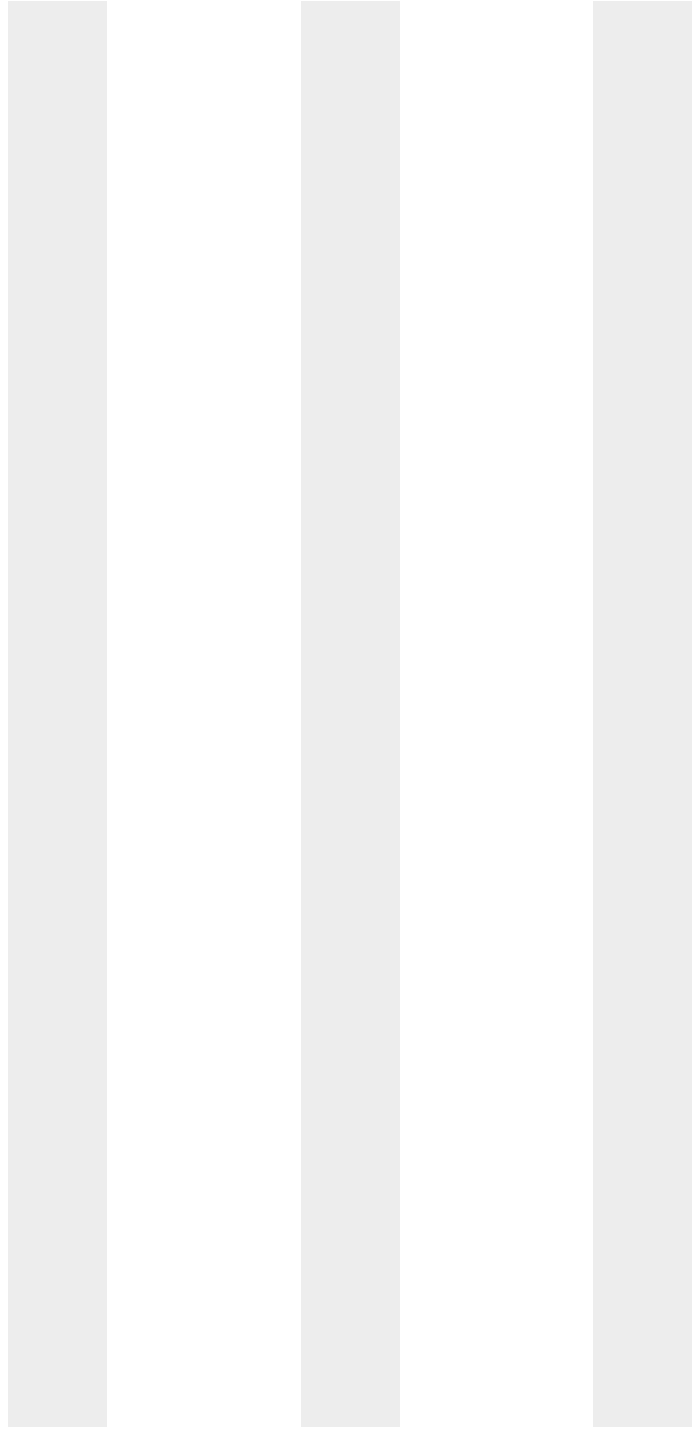
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: | 18:45   |       | 19:23 |         | 19:47 |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7  | CCV     | CCV8  |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Time:      | 20:07 |         |       |
|------------|-------|---------|-------|
| Sample ID: | CCV   | CCV9    |       |
| Metal      | True  | Results | % Rec |
| Aluminum   | 40000 | 38000   | 95.0  |
| Antimony   | 2000  | 1910    | 95.5  |
| Arsenic    | 2000  | 1900    | 95.0  |
| Barium     | 2000  | 1940    | 97.0  |
| Beryllium  | 2000  | 1930    | 96.5  |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | 2000  | 1880    | 94.0  |
| Calcium    | 40000 | 38400   | 96.0  |
| Chromium   | 2000  | 1900    | 95.0  |
| Cobalt     | 2000  | 1950    | 97.5  |
| Copper     | 2000  | 1860    | 93.0  |
| Iron       | 40000 | 38400   | 96.0  |
| Lead       | 2000  | 1950    | 97.5  |
| Lithium    |       |         |       |
| Magnesium  | 40000 | 38300   | 95.8  |
| Manganese  | 2000  | 1950    | 97.5  |
| Molybdenum |       |         |       |
| Nickel     | 2000  | 1960    | 98.0  |
| Phosphorus |       |         |       |
| Potassium  | 40000 | 38100   | 95.3  |
| Selenium   | 2000  | 1900    | 95.0  |
| Silicon    |       |         |       |
| Silver     | 250   | 236     | 94.4  |
| Sodium     | 40000 | 38500   | 96.3  |
| Strontium  |       |         |       |
| Sulfur     | anr   |         |       |
| Thallium   | 2000  | 1950    | 97.5  |
| Tin        |       |         |       |
| Titanium   |       |         |       |
| Tungsten   |       |         |       |
| Vanadium   | 2000  | 1900    | 95.0  |
| Zinc       | 2000  | 1910    | 95.5  |

14.3.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 20:07 |         |       |
| Sample ID: CCV | CCV9  |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested

14.3.3  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44316 Units: ug/l

| Metal      | Time:      |      | 16:23 |       | 16:26  |        |       |
|------------|------------|------|-------|-------|--------|--------|-------|
|            | Sample ID: | HSTD | HSTD1 | % Rec | HSTD   | HSTD2  | % Rec |
| Aluminum   |            |      |       |       | 300000 | 297000 | 99.0  |
| Antimony   | 5000       |      | 5030  | 100.6 |        |        |       |
| Arsenic    | 5000       |      | 4930  | 98.6  |        |        |       |
| Barium     | 5000       |      | 5110  | 102.2 |        |        |       |
| Beryllium  | 5000       |      | 5110  | 102.2 |        |        |       |
| Bismuth    |            |      |       |       |        |        |       |
| Boron      |            |      |       |       |        |        |       |
| Cadmium    | 5000       |      | 5020  | 100.4 |        |        |       |
| Calcium    |            |      |       |       | 150000 | 147000 | 98.0  |
| Chromium   | 5000       |      | 5130  | 102.6 |        |        |       |
| Cobalt     | 5000       |      | 5060  | 101.2 |        |        |       |
| Copper     | 5000       |      | 4980  | 99.6  |        |        |       |
| Iron       |            |      |       |       | 150000 | 150000 | 100.0 |
| Lead       | 5000       |      | 5110  | 102.2 |        |        |       |
| Lithium    |            |      |       |       |        |        |       |
| Magnesium  |            |      |       |       | 300000 | 297000 | 99.0  |
| Manganese  | 5000       |      | 5130  | 102.6 |        |        |       |
| Molybdenum |            |      |       |       |        |        |       |
| Nickel     | 5000       |      | 5080  | 101.6 |        |        |       |
| Phosphorus |            |      |       |       |        |        |       |
| Potassium  |            |      |       |       | 150000 | 143000 | 95.3  |
| Selenium   | 5000       |      | 4940  | 98.8  |        |        |       |
| Silicon    |            |      |       |       |        |        |       |
| Silver     | 625        |      | 651   | 104.2 |        |        |       |
| Sodium     |            |      |       |       | 150000 | 151000 | 100.7 |
| Strontium  |            |      |       |       |        |        |       |
| Sulfur     |            | anr  |       |       |        |        |       |
| Thallium   | 5000       |      | 5110  | 102.2 |        |        |       |
| Tin        |            |      |       |       |        |        |       |
| Titanium   |            |      |       |       |        |        |       |
| Tungsten   |            |      |       |       |        |        |       |
| Vanadium   | 5000       |      | 5030  | 100.6 |        |        |       |
| Zinc       | 5000       |      | 5190  | 103.8 |        |        |       |

14.3.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44316 Units: ug/l

| Time:      |      | 16:23   |       | 16:26 |               |
|------------|------|---------|-------|-------|---------------|
| Sample ID: | HSTD | HSTD1   | HSTD  | HSTD2 |               |
| Metal      | True | Results | % Rec | True  | Results % Rec |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.3.4  
**14**

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      | 16:12 | 16:15 | 19:55 |         |       |         |          |         |       |
|------------|-------|-------|-------|---------|-------|---------|----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 | Results | % Rec | Results | % Rec    | Results | % Rec |
| Metal      | True  | True  | True  |         |       |         |          |         |       |
| Aluminum   | 200   | 500   | 100   | 189     | 94.5  | 90.6    | 90.6     | 190     | 95.0  |
| Antimony   | 6.0   | 20    | 3.0   | 6.30    | 105.0 | 0.800U  | 0.0* (a) | 5.50    | 91.7  |
| Arsenic    | 8.0   | 20    | 3.0   | 8.60    | 107.5 | 3.00    | 100.0    | 8.50    | 106.3 |
| Barium     | 200   |       | 4.0   | 197     | 98.5  | 3.60    | 90.0     | 187     | 93.5  |
| Beryllium  | 2.0   |       | 1.0   | 2.00    | 100.0 | 1.00    | 100.0    | 1.80    | 90.0  |
| Bismuth    | 20    |       |       |         |       |         |          |         |       |
| Boron      | 100   |       | 10    |         |       |         |          |         |       |
| Cadmium    | 3.0   |       | 1.0   | 3.50    | 116.7 | 1.10    | 110.0    | 3.00    | 100.0 |
| Calcium    | 5000  | 2000  | 1000  | 5100    | 102.0 | 1060    | 106.0    | 4800    | 96.0  |
| Chromium   | 10    |       | 2.0   | 10.2    | 102.0 | 2.50    | 125.0    | 9.30    | 93.0  |
| Cobalt     | 50    |       | 3.0   | 50.2    | 100.4 | 3.00    | 100.0    | 48.1    | 96.2  |
| Copper     | 10    |       | 2.0   | 9.00    | 90.0  | -0.600U | 0.0* (a) | 8.60    | 86.0  |
| Iron       | 100   | 500   |       | 102     | 102.0 |         |          | 95.7    | 95.7  |
| Lead       | 3.0   | 20    | 2.5   | 3.10    | 103.3 | -1.20U  | 0.0* (a) | 3.00    | 100.0 |
| Lithium    | 50    |       |       |         |       |         |          |         |       |
| Magnesium  | 5000  | 2000  | 100   | 5180    | 103.6 | 99.2    | 99.2     | 4850    | 97.0  |
| Manganese  | 15    |       | 3.0   | 16.0    | 106.7 | 3.20    | 106.7    | 14.9    | 99.3  |
| Molybdenum | 20    |       |       |         |       |         |          |         |       |
| Nickel     | 10    |       | 4.0   | 9.90    | 99.0  | 4.20    | 105.0    | 9.50    | 95.0  |
| Phosphorus | 50    |       |       |         |       |         |          |         |       |
| Potassium  | 5000  |       | 2000  | 4990    | 99.8  | 2000    | 100.0    | 4640    | 92.8  |
| Selenium   | 10    | 20    | 5.0   | 10.6    | 106.0 | 6.30    | 126.0    | 8.50    | 85.0  |
| Silicon    | 200   |       |       |         |       |         |          |         |       |
| Silver     | 5.0   |       | 2.0   | 4.30    | 86.0  | 0.600U  | 0.0* (a) | 4.20    | 84.0  |
| Sodium     | 5000  |       | 1000  | 5130    | 102.6 | 1070    | 107.0    | 4860    | 97.2  |
| Strontium  | 10    |       |       |         |       |         |          |         |       |
| Sulfur     | 50    |       |       | anr     |       |         |          |         |       |
| Thallium   | 10    |       | 2.0   | 10.5    | 105.0 | 1.80    | 90.0     | 10.0    | 100.0 |
| Tin        | 10    |       |       |         |       |         |          |         |       |
| Titanium   | 10    |       |       |         |       |         |          |         |       |
| Tungsten   | 50    |       |       |         |       |         |          |         |       |
| Vanadium   | 50    |       | 2.0   | 50.4    | 100.8 | 2.10    | 105.0    | 47.0    | 94.0  |
| Zinc       | 20    |       | 10    | 20.5    | 102.5 | 10.6    | 106.0    | 19.3    | 96.5  |

14.3.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

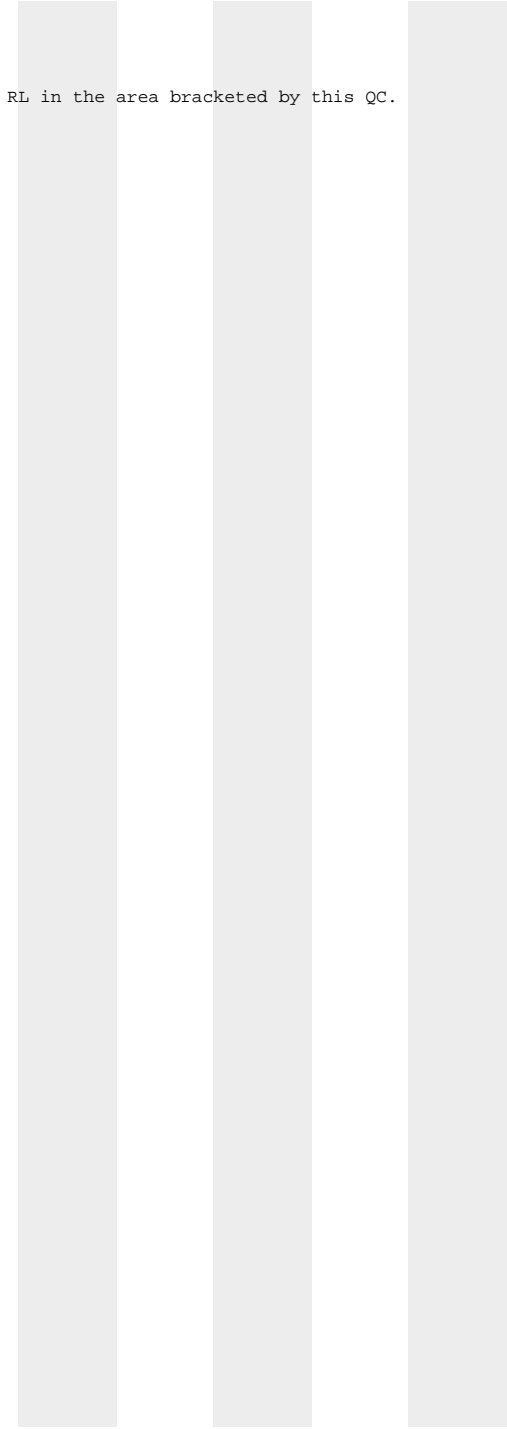
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      |      |      |      | 16:12   |       |         | 16:15 |         |       | 19:55 |
|------------|------|------|------|---------|-------|---------|-------|---------|-------|-------|
| Sample ID: | CRI  | CRIA | CRID | CRID1   |       |         | CRID1 |         |       | CRID2 |
| Metal      | True | True | True | Results | % Rec | Results | % Rec | Results | % Rec |       |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.



14.3.5  
14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 19:58<br>CRID2 | Results | % Rec |
|------------|------------|------|------|---------|----------------|---------|-------|
| Metal      | True       | True | True | True    | Results        | % Rec   |       |
| Aluminum   | 200        | 500  | 100  | 109     | 109.0          |         |       |
| Antimony   | 6.0        | 20   | 3.0  | 0.500U  | 0.0*           | (a)     |       |
| Arsenic    | 8.0        | 20   | 3.0  | 2.60    | 86.7           |         |       |
| Barium     | 200        |      | 4.0  | 4.20    | 105.0          |         |       |
| Beryllium  | 2.0        |      | 1.0  | 1.10    | 110.0          |         |       |
| Bismuth    | 20         |      |      |         |                |         |       |
| Boron      | 100        |      | 10   |         |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | 1.00    | 100.0          |         |       |
| Calcium    | 5000       | 2000 | 1000 | 1150    | 115.0          |         |       |
| Chromium   | 10         |      | 2.0  | 2.10    | 105.0          |         |       |
| Cobalt     | 50         |      | 3.0  | 2.90    | 96.7           |         |       |
| Copper     | 10         |      | 2.0  | -0.600U | 0.0*           | (a)     |       |
| Iron       | 100        | 500  |      |         |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | -0.600U | 0.0*           | (a)     |       |
| Lithium    | 50         |      |      |         |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | 102     | 102.0          |         |       |
| Manganese  | 15         |      | 3.0  | 3.00    | 100.0          |         |       |
| Molybdenum | 20         |      |      |         |                |         |       |
| Nickel     | 10         |      | 4.0  | 3.60    | 90.0           |         |       |
| Phosphorus | 50         |      |      |         |                |         |       |
| Potassium  | 5000       |      | 2000 | 2200    | 110.0          |         |       |
| Selenium   | 10         | 20   | 5.0  | 4.00    | 80.0           |         |       |
| Silicon    | 200        |      |      |         |                |         |       |
| Silver     | 5.0        |      | 2.0  | 0.600U  | 0.0*           | (a)     |       |
| Sodium     | 5000       |      | 1000 | 1180    | 118.0          |         |       |
| Strontium  | 10         |      |      |         |                |         |       |
| Sulfur     | 50         |      |      |         |                |         |       |
| Thallium   | 10         |      | 2.0  | 2.50    | 125.0          |         |       |
| Tin        | 10         |      |      |         |                |         |       |
| Titanium   | 10         |      |      |         |                |         |       |
| Tungsten   | 50         |      |      |         |                |         |       |
| Vanadium   | 50         |      | 2.0  | 2.00    | 100.0          |         |       |
| Zinc       | 20         |      | 10   | 9.70    | 97.0           |         |       |

14.3.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      |      |      |      |         | 19:58 |     |
|------------|------|------|------|---------|-------|-----|
| Sample ID: | CRI  | CRIA | CRID | CRID2   |       |     |
| Metal      | True | True | True | Results | %     | Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      |        | 16:17  |       | 16:20  |        | 20:01  |       | 20:04  |        |
|------------|------------|--------|--------|-------|--------|--------|--------|-------|--------|--------|
|            | Sample ID: | ICSA   | ICSAB  | ICSAL | % Rec  | ICSAB1 | % Rec  | ICSA2 | % Rec  | ICSAB2 |
| Aluminum   | 500000     | 500000 | 528000 | 105.6 | 512000 | 102.4  | 488000 | 97.6  | 477000 | 95.4   |
| Antimony   |            | 1000   | -2.70  |       | 1070   | 107.0  | -2.90  |       | 996    | 99.6   |
| Arsenic    |            | 1000   | 1.90   |       | 1030   | 103.0  | 0.500  |       | 965    | 96.5   |
| Barium     |            | 500    | 0.900  |       | 510    | 102.0  | 1.00   |       | 475    | 95.0   |
| Beryllium  |            | 500    | 0.100  |       | 502    | 100.4  | 0.100  |       | 463    | 92.6   |
| Bismuth    |            | 500    | -13.3  |       | 547    | 109.4  | -10.3  |       | 512    | 102.4  |
| Boron      |            | 500    | 1.90   |       | 514    | 102.8  | -1.70  |       | 479    | 95.8   |
| Cadmium    |            | 1000   | 0.700  |       | 1040   | 104.0  | 0.700  |       | 959    | 95.9   |
| Calcium    | 400000     | 400000 | 401000 | 100.3 | 396000 | 99.0   | 367000 | 91.8  | 368000 | 92.0   |
| Chromium   |            | 500    | 0.600  |       | 494    | 98.8   | 0.900  |       | 453    | 90.6   |
| Cobalt     |            | 500    | -0.500 |       | 500    | 100.0  | -0.200 |       | 473    | 94.6   |
| Copper     |            | 500    | -0.300 |       | 518    | 103.6  | -0.700 |       | 478    | 95.6   |
| Iron       | 200000     | 200000 | 196000 | 98.0  | 190000 | 95.0   | 180000 | 90.0  | 176000 | 88.0   |
| Lead       |            | 1000   | 3.00   |       | 987    | 98.7   | 1.10   |       | 926    | 92.6   |
| Lithium    |            | 500    | 0.400  |       | 536    | 107.2  | 1.90   |       | 499    | 99.8   |
| Magnesium  | 500000     | 500000 | 521000 | 104.2 | 514000 | 102.8  | 477000 | 95.4  | 473000 | 94.6   |
| Manganese  |            | 500    | -0.200 |       | 513    | 102.6  | -0.300 |       | 472    | 94.4   |
| Molybdenum |            | 500    | 1.20   |       | 498    | 99.6   | 0.800  |       | 464    | 92.8   |
| Nickel     |            | 1000   | -1.20  |       | 988    | 98.8   | -0.400 |       | 933    | 93.3   |
| Phosphorus |            | 500    | 8.90   |       | 524    | 104.8  | 7.60   |       | 488    | 97.6   |
| Potassium  |            |        | 62.0   |       | -24.8  |        | 24.5   |       | 34.3   |        |
| Selenium   |            | 1000   | 2.20   |       | 997    | 99.7   | 2.00   |       | 932    | 93.2   |
| Silicon    |            | 500    | 11.6   |       | 578    | 115.6  | 7.20   |       | 537    | 107.4  |
| Silver     |            | 1000   | 0.300  |       | 992    | 99.2   | 0.400  |       | 911    | 91.1   |
| Sodium     |            |        | 10.7   |       | 28.9   |        | 78.2   |       | 84.3   |        |
| Strontium  |            | 500    | -3.00  |       | 544    | 108.8  | -2.40  |       | 508    | 101.6  |
| Sulfur     |            | 500    | 3.00   |       | 515    | 103.0  | 6.10   |       | 487    | 97.4   |
| Thallium   |            | 1000   | -1.00  |       | 1080   | 108.0  | -0.900 |       | 1020   | 102.0  |
| Tin        |            | 500    | -2.80  |       | 481    | 96.2   | -2.30  |       | 444    | 88.8   |
| Titanium   |            | 500    | -3.00  |       | 501    | 100.2  | -2.00  |       | 461    | 92.2   |
| Tungsten   |            | 500    | 1.20   |       | 496    | 99.2   | -1.60  |       | 458    | 91.6   |
| Vanadium   |            | 500    | 0.900  |       | 506    | 101.2  | 0.800  |       | 466    | 93.2   |
| Zinc       |            | 1000   | 4.70   |       | 985    | 98.5   | 4.60   |       | 908    | 90.8   |

14.3.6 14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44316 Units: ug/l

| Time:      |      |       | 16:17   |       |         | 16:20 |         |       | 20:01   |       |  | 20:04 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |  |       |

|           |  |     |       |  |     |      |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|
| Zirconium |  | 500 | -3.00 |  | 493 | 98.6 | -2.40 |  | 458 | 91.6 |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.3.6  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 10:02 | MA44327-STD1       | 1               |          | STDA   |
| 10:06 | MA44327-STD2       | 1               |          | STDB   |
| 10:10 | ZZZZZZ             | 1               |          |  |
| 10:14 | ZZZZZZ             | 1               |          |  |
| 10:19 | MA44327-ICV1       | 1               |          |  |
| 10:29 | MA44327-ICB1       | 1               |          |  |
| 10:33 | MA44327-ICCV1      | 1               |          |  |
| 10:39 | MA44327-CCB1       | 1               |          |  |
| 10:42 | MA44327-CRI1       | 1               |          |  |
| 10:47 | MA44327-CRID1      | 1               |          |  |
| 10:51 | MA44327-ICSA1      | 1               |          |  |
| 10:55 | MA44327-ICSAB1     | 1               |          |  |
| 11:00 | MA44327-HSTD1      | 1               |          |  |
| 11:04 | MA44327-HSTD2      | 1               |          |  |
| 11:08 | ZZZZZZ             | 1               |          |  |
| 11:12 | ZZZZZZ             | 1               |          |  |
| 11:17 | ZZZZZZ             | 1               |          |  |
| 11:21 | ZZZZZZ             | 1               |          |  |
| 11:25 | MA44327-CCV1       | 1               |          |  |
| 11:29 | MA44327-CCB2       | 1               |          |  |
| 11:34 | ZZZZZZ             | 1               |          |  |
| 11:38 | ZZZZZZ             | 1               |          |  |
| 11:42 | MP6894-S1          | 2               |          |  |
| 11:46 | MP6894-S2          | 2               |          |  |
| 11:50 | JC64986-7          | 2               |          | (sample used for QC only; not part of login JC65058) |
| 11:54 | MP6894-SD1         | 10              |          |  |
| 11:59 | ZZZZZZ             | 1               |          |  |
| 12:03 | ZZZZZZ             | 2               |          |  |
| 12:07 | ZZZZZZ             | 2               |          |  |
| 12:12 | MA44327-CCV2       | 1               |          |  |
| 12:16 | MA44327-CCB3       | 1               |          |  |
| 12:20 | ZZZZZZ             | 1               |          |  |
| 12:24 | ZZZZZZ             | 5               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 12:29  | ZZZZZZ                                      | 1               |          |  |
| 12:33  | ZZZZZZ                                      | 1               |          |  |
| 12:37  | ZZZZZZ                                      | 1               |          |  |
| 12:41  | ZZZZZZ                                      | 1               |          |  |
| 12:45  | MP6883-S1                                   | 5               |          |  |
| 12:50  | MP6883-S2                                   | 5               |          |  |
| 12:54  | MP6883-D1                                   | 5               |          |  |
| 12:58  | MA44327-CCV3                                | 1               |          |  |
| 13:02  | MA44327-CCB4                                | 1               |          |  |
| 13:06  | TD20148-1                                   | 5               |          | (sample used for QC only; not part of login JC65058) |
| 13:10  | MP6883-SD1                                  | 25              |          |  |
| 13:15  | MP6883-PS1                                  | 1               |          |  |
| 13:19  | MP6883-S1                                   | 25              |          | S  |
| 13:23  | MP6883-S2                                   | 25              |          | S  |
| 13:27  | MP6883-D1                                   | 25              |          | S  |
| 13:32  | TD20148-1                                   | 25              |          | (sample used for QC only; not part of login JC65058) |
| 13:36  | MP6883-SD1                                  | 125             |          | S  |
| 13:40  | MP6883-PS1                                  | 5               |          |  |
| 13:44  | MA44327-CCV4                                | 1               |          |  |
| 13:48  | MA44327-CCB5                                | 1               |          |  |
| 13:53  | JC65058-5                                   | 5               |          |  |
| 13:57  | JC65058-12                                  | 3               |          |  |
| 14:01  | JC65058-15                                  | 3               |          |  |
| -----> | Last reportable sample/prep for job JC65058 |                 |          |  |
| 14:06  | ZZZZZZ                                      | 2               |          |  |
| 14:10  | ZZZZZZ                                      | 2               |          |  |
| 14:14  | ZZZZZZ                                      | 2               |          |  |
| 14:18  | MP6916-B1                                   | 1               |          |  |
| 14:22  | MP6916-B2                                   | 1               |          |  |
| 14:26  | MP6916-MB1                                  | 1               |          |  |
| 14:31  | MA44327-CCV5                                | 1               |          |  |
| 14:35  | MA44327-CCB6                                | 1               |          |  |
| 14:39  | ZZZZZZ                                      | 1               |          |  |
| 14:43  | MP6916-MB2                                  | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:48 | MP6916-S1          | 1               |          |  |
| 14:52 | MP6916-S2          | 1               |          |  |
| 14:56 | JC64995-2          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 15:00 | MP6916-SD1         | 5               |          |  |
| 15:05 | ZZZZZZ             | 1               |          |  |
| 15:09 | ZZZZZZ             | 1               |          |  |
| 15:13 | MA44327-CCV6       | 1               |          |  |
| 15:17 | MA44327-CCB7       | 1               |          |  |
| 15:22 | ZZZZZZ             | 1               |          |  |
| 15:26 | ZZZZZZ             | 1               |          |  |
| 15:30 | ZZZZZZ             | 1               |          |  |
| 15:35 | ZZZZZZ             | 1               |          |  |
| 15:39 | ZZZZZZ             | 1               |          |  |
| 15:43 | ZZZZZZ             | 1               |          |  |
| 15:47 | ZZZZZZ             | 1               |          |  |
| 15:52 | ZZZZZZ             | 1               |          |  |
| 15:56 | ZZZZZZ             | 1               |          |  |
| 16:00 | MA44327-CCV7       | 1               |          |  |
| 16:04 | MA44327-CCB8       | 1               |          |  |
| 16:09 | ZZZZZZ             | 1               |          |  |
| 16:13 | ZZZZZZ             | 1               |          |  |
| 16:17 | ZZZZZZ             | 1               |          |  |
| 16:22 | ZZZZZZ             | 1               |          |  |
| 16:26 | ZZZZZZ             | 1               |          |  |
| 16:30 | ZZZZZZ             | 1               |          |  |
| 16:35 | ZZZZZZ             | 1               |          |  |
| 16:39 | ZZZZZZ             | 1               |          |  |
| 16:43 | MP6917-B1          | 1               |          |  |
| 16:47 | MA44327-CCV8       | 1               |          |  |
| 16:51 | MA44327-CCB9       | 1               |          |  |
| 16:56 | MP6917-MB1         | 1               |          |  |
| 17:00 | MP6917-S1          | 1               |          |  |
| 17:04 | MP6917-S2          | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 17:08  | JC64925-7                           | 1               |          | (sample used for QC only; not part of login JC65058) |
| 17:12  | MP6917-SD1                          | 5               |          |  |
| 17:17  | MP6917-S3                           | 1               |          |  |
| 17:21  | MP6917-S4                           | 1               |          |  |
| 17:25  | JC64925-7F                          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 17:29  | MP6917-SD2                          | 5               |          |  |
| 17:34  | MA44327-CCV9                        | 1               |          |  |
| 17:38  | MA44327-CCB10                       | 1               |          |  |
| 17:42  | ZZZZZZ                              | 1               |          |  |
| 17:46  | ZZZZZZ                              | 1               |          |  |
| 17:51  | ZZZZZZ                              | 1               |          |  |
| 17:55  | ZZZZZZ                              | 1               |          |  |
| 17:59  | ZZZZZZ                              | 1               |          |  |
| 18:03  | ZZZZZZ                              | 1               |          |  |
| 18:08  | ZZZZZZ                              | 1               |          |  |
| 18:12  | ZZZZZZ                              | 1               |          |  |
| 18:16  | ZZZZZZ                              | 1               |          |  |
| 18:21  | MA44327-CCV10                       | 1               |          |  |
| 18:25  | MA44327-CCB11                       | 1               |          |  |
| 18:29  | MA44327-CRI2                        | 1               |          |  |
| 18:33  | MA44327-CRID2                       | 1               |          |  |
| 18:38  | MA44327-ICSA2                       | 1               |          |  |
| 18:42  | MA44327-ICSAB2                      | 1               |          |  |
| 18:46  | ZZZZZZ                              | 10              |          |  |
| 18:51  | MA44327-CCV11                       | 1               |          |  |
| 18:55  | MA44327-CCB12                       | 1               |          |  |
| -----> | Last reportable CCB for job JC65058 |                 |          |  |
| 18:59  | ZZZZZZ                              | 1               |          |  |
| 19:04  | ZZZZZZ                              | 1               |          |  |
| 19:08  | ZZZZZZ                              | 1               |          |  |
| 19:12  | ZZZZZZ                              | 1               |          |  |
| 19:17  | ZZZZZZ                              | 1               |          |  |
| 19:21  | ZZZZZZ                              | 1               |          |  |
| 19:26  | ZZZZZZ                              | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 19:30 | ZZZZZZ             | 1               |          |  |
| 19:34 | ZZZZZZ             | 1               |          |  |
| 19:39 | ZZZZZZ             | 1               |          |  |
| 19:43 | ZZZZZZ             | 1               |          |  |
| 19:47 | ZZZZZZ             | 1               |          |  |
| 19:52 | MA44327-CCV12      | 1               |          |  |
| 19:56 | MA44327-CCB13      | 1               |          |  |
| 20:00 | ZZZZZZ             | 1               |          |  |
| 20:04 | ZZZZZZ             | 1               |          |  |
| 20:09 | ZZZZZZ             | 1               |          |  |
| 20:13 | ZZZZZZ             | 1               |          |  |
| 20:17 | ZZZZZZ             | 1               |          |  |
| 20:22 | ZZZZZZ             | 1               |          |  |
| 20:26 | ZZZZZZ             | 1               |          |  |
| 20:30 | ZZZZZZ             | 1               |          |  |
| 20:34 | ZZZZZZ             | 1               |          |  |
| 20:39 | MA44327-CCV13      | 1               |          |  |
| 20:43 | MA44327-CCB14      | 1               |          |  |
| 20:47 | MP6922-MB1         | 1               |          |  |
| 20:51 | MP6922-MB2         | 1               |          |  |
| 20:56 | MP6922-B1          | 1               |          |  |
| 21:00 | MP6922-B3          | 1               |          |  |
| 21:04 | MP6922-S1          | 1               |          |  |
| 21:08 | MP6922-S2          | 1               |          |  |
| 21:12 | JC64986-4          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 21:16 | MP6922-SD1         | 5               |          |  |
| 21:21 | ZZZZZZ             | 1               |          |  |
| 21:25 | MA44327-CCV14      | 1               |          |  |
| 21:29 | MA44327-CCB15      | 1               |          |  |
| 21:34 | ZZZZZZ             | 1               |          |  |
| 21:38 | ZZZZZZ             | 1               |          |  |
| 21:42 | ZZZZZZ             | 1               |          |  |
| 21:47 | ZZZZZZ             | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 21:51 | ZZZZZZ             | 1               |          |  |
| 21:55 | ZZZZZZ             | 1               |          |  |
| 22:00 | ZZZZZZ             | 1               |          |  |
| 22:04 | ZZZZZZ             | 1               |          |  |
| 22:08 | ZZZZZZ             | 1               |          |  |
| 22:13 | MA44327-CCV15      | 1               |          |  |
| 22:17 | MA44327-CCB16      | 1               |          |  |
| 22:21 | ZZZZZZ             | 1               |          |  |
| 22:25 | ZZZZZZ             | 1               |          |  |
| 22:30 | ZZZZZZ             | 1               |          |  |
| 22:34 | ZZZZZZ             | 1               |          |  |
| 22:39 | MP6924-B1          | 1               |          |  |
| 22:43 | MP6924-MB1         | 1               |          |  |
| 22:47 | MP6924-S1          | 1               |          |  |
| 22:51 | MP6924-S2          | 1               |          |  |
| 22:55 | JC64991-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 22:59 | MP6924-SD1         | 5               |          |  |
| 23:04 | MA44327-CCV16      | 1               |          |  |
| 23:08 | MA44327-CCB17      | 1               |          |  |
| 23:12 | ZZZZZZ             | 1               |          |  |
| 23:16 | ZZZZZZ             | 1               |          |  |
| 23:21 | ZZZZZZ             | 1               |          |  |
| 23:25 | ZZZZZZ             | 1               |          |  |
| 23:29 | ZZZZZZ             | 1               |          |  |
| 23:34 | ZZZZZZ             | 1               |          |  |
| 23:38 | ZZZZZZ             | 1               |          |  |
| 23:42 | ZZZZZZ             | 1               |          |  |
| 23:46 | ZZZZZZ             | 1               |          |  |
| 23:51 | ZZZZZZ             | 1               |          |  |
| 23:55 | MA44327-CCV17      | 1               |          |  |
| 23:59 | MA44327-CCB18      | 1               |          |  |
| 00:03 | ZZZZZZ             | 1               |          |  |
| 00:08 | ZZZZZZ             | 1               |          |  |

14.4  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44327  
Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 00:12 | ZZZZZZ             | 1               |          |  |
| 00:16 | ZZZZZZ             | 1               |          |  |
| 00:21 | ZZZZZZ             | 1               |          |  |
| 00:25 | ZZZZZZ             | 1               |          |  |
| 00:29 | ZZZZZZ             | 1               |          |  |
| 00:34 | ZZZZZZ             | 1               |          |  |
| 00:38 | ZZZZZZ             | 1               |          |  |
| 00:43 | MA44327-CCV18      | 1               |          |  |
| 00:47 | MA44327-CCB19      | 1               |          |  |
| 00:51 | MA44327-CRI3       | 1               |          |  |
| 00:55 | MA44327-CRID3      | 1               |          |  |
| 01:00 | MA44327-CCV19      | 1               |          |  |
| 01:04 | MA44327-CCB20      | 1               |          |  |
| 01:08 | MP6931-MB1         | 1               |          |  |
| 01:12 | MP6931-B1          | 1               |          |  |
| 01:17 | MP6931-S1          | 1               |          |  |
| 01:21 | MP6931-S2          | 1               |          |  |
| 01:25 | JC65230-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 01:29 | MP6931-SD1         | 5               |          |  |
| 01:33 | ZZZZZZ             | 1               |          |  |
| 01:37 | ZZZZZZ             | 1               |          |  |
| 01:42 | MA44327-CCV20      | 1               |          |  |
| 01:46 | MA44327-CCB21      | 1               |          |  |
| 01:50 | ZZZZZZ             | 1               |          |  |
| 01:55 | ZZZZZZ             | 1               |          |  |
| 01:59 | ZZZZZZ             | 1               |          |  |
| 02:03 | ZZZZZZ             | 1               |          |  |
| 02:07 | ZZZZZZ             | 1               |          |  |
| 02:12 | ZZZZZZ             | 1               |          |  |
| 02:16 | ZZZZZZ             | 1               |          |  |
| 02:20 | MA44327-CCV21      | 1               |          |  |
| 02:24 | MA44327-CCB23      | 1               |          |  |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 10:02 | MA44327-STD1       | 3770 R | 100900 R | 12383 R | 8913 R |
| 10:06 | MA44327-STD2       | 3524   | 93828    | 12336   | 7621   |
| 10:10 | ZZZZZZ             | 3624   | 96454    | 12304   | 7955   |
| 10:14 | ZZZZZZ             | 3777   | 101160   | 12532   | 8945   |
| 10:19 | MA44327-ICV1       | 3626   | 96411    | 12429   | 7968   |
| 10:29 | MA44327-ICB1       | 3771   | 101280   | 12590   | 8955   |
| 10:33 | MA44327-ICCV1      | 3619   | 97277    | 12415   | 7968   |
| 10:39 | MA44327-CCB1       | 3771   | 101760   | 12648   | 8945   |
| 10:42 | MA44327-CRI1       | 3697   | 100210   | 12531   | 8652   |
| 10:47 | MA44327-CRID1      | 3736   | 101420   | 12461   | 8825   |
| 10:51 | MA44327-ICSA1      | 3326   | 87904    | 11929   | 6926   |
| 10:55 | MA44327-ICSAB1     | 3319   | 87875    | 11919   | 6920   |
| 11:00 | MA44327-HSTD1      | 3699   | 99728    | 12475   | 8603   |
| 11:04 | MA44327-HSTD2      | 3395   | 89907    | 12047   | 7062   |
| 11:08 | ZZZZZZ             | 3684   | 99581    | 12421   | 8721   |
| 11:12 | ZZZZZZ             | 3678   | 101660   | 12409   | 8860   |
| 11:17 | ZZZZZZ             | 3411   | 93501    | 12225   | 8138   |
| 11:21 | ZZZZZZ             | 3771   | 102250   | 12431   | 8924   |
| 11:25 | MA44327-CCV1       | 3663   | 96731    | 12331   | 8030   |
| 11:29 | MA44327-CCB2       | 3753   | 101700   | 12474   | 8885   |
| 11:34 | ZZZZZZ             | 3738   | 101490   | 12493   | 8856   |
| 11:38 | ZZZZZZ             | 3623   | 97534    | 12483   | 8090   |
| 11:42 | MP6894-S1          | 3559   | 95912    | 12257   | 7832   |
| 11:46 | MP6894-S2          | 3571   | 95788    | 12358   | 7850   |
| 11:50 | JC64986-7          | 3561   | 96058    | 12335   | 7989   |
| 11:54 | MP6894-SD1         | 3698   | 99469    | 12397   | 8588   |
| 11:59 | ZZZZZZ             | 3743   | 101730   | 12477   | 8841   |
| 12:03 | ZZZZZZ             | 3473   | 94045    | 12303   | 7579   |
| 12:07 | ZZZZZZ             | 3443   | 93062    | 12272   | 7527   |
| 12:12 | MA44327-CCV2       | 3608   | 96482    | 12361   | 7914   |
| 12:16 | MA44327-CCB3       | 3763   | 101910   | 12408   | 8888   |
| 12:20 | ZZZZZZ             | 3519   | 94110    | 12449   | 7736   |
| 12:24 | ZZZZZZ             | 3582   | 96115    | 12529   | 7976   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 12:29 | ZZZZZZ             | 3765   | 102090 | 12580  | 8885   |
| 12:33 | ZZZZZZ             | 3547   | 96124  | 12390  | 7890   |
| 12:37 | ZZZZZZ             | 3720   | 101190 | 12456  | 8793   |
| 12:41 | ZZZZZZ             | 3584   | 95903  | 12112  | 7980   |
| 12:45 | MP6883-S1          | 3609   | 97998  | 12467  | 8435   |
| 12:50 | MP6883-S2          | 3600   | 97717  | 12397  | 8447   |
| 12:54 | MP6883-D1          | 3629   | 98399  | 12393  | 8549   |
| 12:58 | MA44327-CCV3       | 3591   | 95747  | 12409  | 7890   |
| 13:02 | MA44327-CCB4       | 3743   | 100790 | 12479  | 8870   |
| 13:06 | TD20148-1          | 3653   | 98617  | 12425  | 8564   |
| 13:10 | MP6883-SD1         | 3741   | 100330 | 12525  | 8756   |
| 13:15 | MP6883-PS1         | 3149   | 87123  | 11833  | 7654   |
| 13:19 | MP6883-S1          | 3721   | 100070 | 12409  | 8698   |
| 13:23 | MP6883-S2          | 3713   | 100360 | 12459  | 8694   |
| 13:27 | MP6883-D1          | 3727   | 100780 | 12410  | 8728   |
| 13:32 | TD20148-1          | 3747   | 100810 | 12517  | 8769   |
| 13:36 | MP6883-SD1         | 3726   | 100690 | 12410  | 8783   |
| 13:40 | MP6883-PS1         | 3528   | 95516  | 12243  | 8159   |
| 13:44 | MA44327-CCV4       | 3594   | 95800  | 12302  | 7884   |
| 13:48 | MA44327-CCB5       | 3724   | 100730 | 12381  | 8810   |
| 13:53 | JC65058-5          | 3557   | 95445  | 12364  | 7693   |
| 13:57 | JC65058-12         | 3579   | 96152  | 12437  | 7721   |
| 14:01 | JC65058-15         | 3576   | 95962  | 12332  | 7702   |
| 14:06 | ZZZZZZ             | 3837   | 100890 | 13017  | 8139   |
| 14:10 | ZZZZZZ             | 3809   | 102350 | 13385  | 7755   |
| 14:14 | ZZZZZZ             | 3714   | 98721  | 12700  | 7874   |
| 14:18 | MP6916-B1          | 3607   | 97055  | 12367  | 8034   |
| 14:22 | MP6916-B2          | 3607   | 97119  | 12376  | 8036   |
| 14:26 | MP6916-MB1         | 3720   | 101290 | 12472  | 8809   |
| 14:31 | MA44327-CCV5       | 3601   | 96136  | 12289  | 7874   |
| 14:35 | MA44327-CCB6       | 3747   | 101080 | 12377  | 8842   |
| 14:39 | ZZZZZZ             | 3739   | 100790 | 12322  | 8827   |
| 14:43 | MP6916-MB2         | 3700   | 100810 | 12432  | 8749   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 14:48 | MP6916-S1          | 3527   | 95127  | 12233  | 7703   |
| 14:52 | MP6916-S2          | 3533   | 94732  | 12284  | 7715   |
| 14:56 | JC64995-2          | 3567   | 96621  | 12349  | 8003   |
| 15:00 | MP6916-SD1         | 3670   | 98912  | 12352  | 8500   |
| 15:05 | ZZZZZ              | 3587   | 96634  | 12264  | 8006   |
| 15:09 | ZZZZZ              | 3569   | 95977  | 12337  | 7970   |
| 15:13 | MA44327-CCV6       | 3570   | 95030  | 12167  | 7808   |
| 15:17 | MA44327-CCB7       | 3725   | 100630 | 12304  | 8789   |
| 15:22 | ZZZZZ              | 3538   | 94762  | 12301  | 7855   |
| 15:26 | ZZZZZ              | 3222   | 86187  | 11823  | 6868   |
| 15:30 | ZZZZZ              | 3576   | 97195  | 12304  | 8205   |
| 15:35 | ZZZZZ              | 3473   | 93987  | 12091  | 7743   |
| 15:39 | ZZZZZ              | 3412   | 92475  | 12028  | 7518   |
| 15:43 | ZZZZZ              | 3344   | 90473  | 11899  | 7284   |
| 15:47 | ZZZZZ              | 3324   | 90329  | 11772  | 7257   |
| 15:52 | ZZZZZ              | 3542   | 96162  | 12175  | 7991   |
| 15:56 | ZZZZZ              | 3560   | 96741  | 12266  | 8008   |
| 16:00 | MA44327-CCV7       | 3565   | 95316  | 12096  | 7791   |
| 16:04 | MA44327-CCB8       | 3731   | 100500 | 12335  | 8788   |
| 16:09 | ZZZZZ              | 3441   | 92516  | 12134  | 7580   |
| 16:13 | ZZZZZ              | 3454   | 92901  | 12215  | 7625   |
| 16:17 | ZZZZZ              | 3647   | 98443  | 12383  | 8412   |
| 16:22 | ZZZZZ              | 3630   | 97568  | 12441  | 8066   |
| 16:26 | ZZZZZ              | 3276   | 88666  | 12006  | 7013   |
| 16:30 | ZZZZZ              | 3697   | 100800 | 12392  | 8739   |
| 16:35 | ZZZZZ              | 3546   | 96426  | 12351  | 7961   |
| 16:39 | ZZZZZ              | 3458   | 93120  | 12129  | 7608   |
| 16:43 | MP6917-B1          | 3587   | 96075  | 12298  | 7969   |
| 16:47 | MA44327-CCV8       | 3581   | 95462  | 12192  | 7826   |
| 16:51 | MA44327-CCB9       | 3771   | 101540 | 12508  | 8876   |
| 16:56 | MP6917-MB1         | 3742   | 101540 | 12522  | 8828   |
| 17:00 | MP6917-S1          | 3280   | 89851  | 11982  | 7181   |
| 17:04 | MP6917-S2          | 3322   | 90888  | 12101  | 7257   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 17:08 | JC64925-7          | 3324   | 90789  | 11924  | 7340   |
| 17:12 | MP6917-SD1         | 3576   | 96892  | 12230  | 8182   |
| 17:17 | MP6917-S3          | 3276   | 90023  | 11908  | 7177   |
| 17:21 | MP6917-S4          | 3283   | 90030  | 12049  | 7171   |
| 17:25 | JC64925-7F         | 3327   | 90453  | 11897  | 7331   |
| 17:29 | MP6917-SD2         | 3611   | 97173  | 12222  | 8245   |
| 17:34 | MA44327-CCV9       | 3587   | 95652  | 12234  | 7828   |
| 17:38 | MA44327-CCB10      | 3725   | 100070 | 12328  | 8773   |
| 17:42 | ZZZZZZ             | 3606   | 97492  | 12285  | 8193   |
| 17:46 | ZZZZZZ             | 3695   | 99414  | 12410  | 8525   |
| 17:51 | ZZZZZZ             | 3594   | 97215  | 12291  | 8117   |
| 17:55 | ZZZZZZ             | 3693   | 99874  | 12449  | 8481   |
| 17:59 | ZZZZZZ             | 3503   | 94838  | 12167  | 7814   |
| 18:03 | ZZZZZZ             | 3497   | 94618  | 12112  | 7803   |
| 18:08 | ZZZZZZ             | 3715   | 100870 | 12427  | 8762   |
| 18:12 | ZZZZZZ             | 3628   | 98009  | 12418  | 8245   |
| 18:16 | ZZZZZZ             | 3661   | 99658  | 12399  | 8531   |
| 18:21 | MA44327-CCV10      | 3609   | 96253  | 12292  | 7882   |
| 18:25 | MA44327-CCB11      | 3754   | 100990 | 12399  | 8827   |
| 18:29 | MA44327-CRI2       | 3678   | 99346  | 12242  | 8521   |
| 18:33 | MA44327-CRID2      | 3713   | 100140 | 12253  | 8698   |
| 18:38 | MA44327-ICSA2      | 3291   | 87013  | 11745  | 6803   |
| 18:42 | MA44327-ICSAB2     | 3289   | 87005  | 11550  | 6812   |
| 18:46 | ZZZZZZ             | 3748   | 101050 | 12354  | 8798   |
| 18:51 | MA44327-CCV11      | 3600   | 95902  | 12098  | 7842   |
| 18:55 | MA44327-CCB12      | 3746   | 101110 | 12388  | 8802   |
| 18:59 | ZZZZZZ             | 3365   | 90436  | 11715  | 7387   |
| 19:04 | ZZZZZZ             | 3834   | 95293  | 12724  | 7749   |
| 19:08 | ZZZZZZ             | 3407   | 91809  | 11896  | 7484   |
| 19:12 | ZZZZZZ             | 3778   | 101890 | 12438  | 8876   |
| 19:17 | ZZZZZZ             | 3775   | 101960 | 12441  | 8847   |
| 19:21 | ZZZZZZ             | 3756   | 101480 | 12400  | 8798   |
| 19:26 | ZZZZZZ             | 3763   | 101380 | 12369  | 8864   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 19:30 | ZZZZZZ             | 3761   | 101400 | 12371  | 8808   |
| 19:34 | ZZZZZZ             | 3759   | 101260 | 12372  | 8790   |
| 19:39 | ZZZZZZ             | 3759   | 101560 | 12280  | 8809   |
| 19:43 | ZZZZZZ             | 3761   | 101700 | 12438  | 8871   |
| 19:47 | ZZZZZZ             | 3751   | 101610 | 12416  | 8830   |
| 19:52 | MA44327-CCV12      | 3617   | 96393  | 12162  | 7876   |
| 19:56 | MA44327-CCB13      | 3764   | 101750 | 12345  | 8845   |
| 20:00 | ZZZZZZ             | 3597   | 97304  | 999999 | 8158   |
| 20:04 | ZZZZZZ             | 3664   | 98682  | 12311  | 8382   |
| 20:09 | ZZZZZZ             | 3576   | 96255  | 12349  | 7948   |
| 20:13 | ZZZZZZ             | 3530   | 95436  | 12186  | 7857   |
| 20:17 | ZZZZZZ             | 3529   | 95180  | 12164  | 7853   |
| 20:22 | ZZZZZZ             | 3652   | 98290  | 12403  | 8195   |
| 20:26 | ZZZZZZ             | 3679   | 99057  | 12454  | 8320   |
| 20:30 | ZZZZZZ             | 3569   | 96556  | 12300  | 7939   |
| 20:34 | ZZZZZZ             | 3622   | 97720  | 12337  | 8096   |
| 20:39 | MA44327-CCV13      | 3629   | 96669  | 12286  | 7898   |
| 20:43 | MA44327-CCB14      | 3768   | 101970 | 12347  | 8844   |
| 20:47 | MP6922-MB1         | 3747   | 101270 | 12390  | 8818   |
| 20:51 | MP6922-MB2         | 3739   | 101950 | 12352  | 8800   |
| 20:56 | MP6922-B1          | 3643   | 98082  | 12351  | 8057   |
| 21:00 | MP6922-B3          | 3648   | 98024  | 12336  | 8081   |
| 21:04 | MP6922-S1          | 3421   | 90930  | 11961  | 7150   |
| 21:08 | MP6922-S2          | 3403   | 90637  | 12038  | 7110   |
| 21:12 | JC64986-4          | 3412   | 91134  | 12029  | 7272   |
| 21:16 | MP6922-SD1         | 3643   | 97530  | 12204  | 8129   |
| 21:21 | ZZZZZZ             | 3111   | 83935  | 11621  | 6530   |
| 21:25 | MA44327-CCV14      | 3643   | 97144  | 12288  | 7926   |
| 21:29 | MA44327-CCB15      | 3784   | 102070 | 12370  | 8875   |
| 21:34 | ZZZZZZ             | 3116   | 83776  | 11661  | 6528   |
| 21:38 | ZZZZZZ             | 3491   | 94473  | 12126  | 7792   |
| 21:42 | ZZZZZZ             | 3482   | 94324  | 12117  | 7771   |
| 21:47 | ZZZZZZ             | 3201   | 84697  | 11758  | 6620   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 21:51 | ZZZZZZ             | 3763   | 102250 | 12406  | 8851   |
| 21:55 | ZZZZZZ             | 3205   | 84965  | 11708  | 6628   |
| 22:00 | ZZZZZZ             | 3759   | 102150 | 12386  | 8829   |
| 22:04 | ZZZZZZ             | 3450   | 94879  | 12038  | 7782   |
| 22:08 | ZZZZZZ             | 3444   | 94987  | 12089  | 7776   |
| 22:13 | MA44327-CCV15      | 3649   | 97001  | 12282  | 7925   |
| 22:17 | MA44327-CCB16      | 3803   | 102530 | 12480  | 8914   |
| 22:21 | ZZZZZZ             | 3761   | 102330 | 12389  | 8840   |
| 22:25 | ZZZZZZ             | 3519   | 94296  | 12185  | 7664   |
| 22:30 | ZZZZZZ             | 3753   | 101740 | 12426  | 8826   |
| 22:34 | ZZZZZZ             | 3496   | 94169  | 12193  | 7621   |
| 22:39 | MP6924-B1          | 3656   | 98071  | 12332  | 8074   |
| 22:43 | MP6924-MB1         | 3762   | 101890 | 12392  | 8841   |
| 22:47 | MP6924-S1          | 3522   | 93291  | 12150  | 7521   |
| 22:51 | MP6924-S2          | 3525   | 94652  | 12235  | 7535   |
| 22:55 | JC64991-1          | 3503   | 94800  | 12106  | 7801   |
| 22:59 | MP6924-SD1         | 3706   | 99552  | 12329  | 8499   |
| 23:04 | MA44327-CCV16      | 3643   | 96693  | 12200  | 7905   |
| 23:08 | MA44327-CCB17      | 3794   | 102630 | 12386  | 8887   |
| 23:12 | ZZZZZZ             | 3760   | 101940 | 12404  | 8811   |
| 23:16 | ZZZZZZ             | 3663   | 99159  | 12296  | 8340   |
| 23:21 | ZZZZZZ             | 3564   | 96734  | 12173  | 8013   |
| 23:25 | ZZZZZZ             | 3757   | 101400 | 12495  | 8614   |
| 23:29 | ZZZZZZ             | 3717   | 99722  | 12503  | 8252   |
| 23:34 | ZZZZZZ             | 3649   | 98191  | 12277  | 8133   |
| 23:38 | ZZZZZZ             | 3756   | 101700 | 12361  | 8827   |
| 23:42 | ZZZZZZ             | 3496   | 94708  | 12079  | 7804   |
| 23:46 | ZZZZZZ             | 3657   | 98463  | 12378  | 8345   |
| 23:51 | ZZZZZZ             | 3583   | 96833  | 12151  | 8055   |
| 23:55 | MA44327-CCV17      | 3641   | 97145  | 12207  | 7907   |
| 23:59 | MA44327-CCB18      | 3795   | 102570 | 12433  | 8891   |
| 00:03 | ZZZZZZ             | 3714   | 100440 | 12356  | 8591   |
| 00:08 | ZZZZZZ             | 3613   | 97599  | 12278  | 8146   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 00:12 | ZZZZZZ             | 3625   | 97848  | 12271  | 8176   |
| 00:16 | ZZZZZZ             | 3397   | 91791  | 12036  | 7291   |
| 00:21 | ZZZZZZ             | 3482   | 94569  | 12115  | 7644   |
| 00:25 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 00:29 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 00:34 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 00:38 | ZZZZZZ             | No results reported for the elements associated with this internal standard. |        |        |        |
| 00:43 | MA44327-CCV18      | 3655   | 97225  | 12243  | 7933   |
| 00:47 | MA44327-CCB19      | 3811   | 102920 | 12420  | 8925   |
| 00:51 | MA44327-CRI3       | 3767   | 101100 | 12331  | 8680   |
| 00:55 | MA44327-CRID3      | 3775   | 101840 | 12267  | 8800   |
| 01:00 | MA44327-CCV19      | 3646   | 97035  | 12173  | 7903   |
| 01:04 | MA44327-CCB20      | 3794   | 102780 | 12372  | 8881   |
| 01:08 | MP6931-MB1         | 3775   | 102480 | 12498  | 8976   |
| 01:12 | MP6931-B1          | 3648   | 97781  | 12394  | 8117   |
| 01:17 | MP6931-S1          | 3588   | 96677  | 12571  | 7634   |
| 01:21 | MP6931-S2          | 3596   | 97031  | 12573  | 7647   |
| 01:25 | JC65230-1          | 3666   | 98496  | 12650  | 7914   |
| 01:29 | MP6931-SD1         | 3768   | 101980 | 12381  | 8530   |
| 01:33 | ZZZZZZ             | 3685   | 98763  | 12389  | 8280   |
| 01:37 | ZZZZZZ             | 3734   | 100390 | 12290  | 8476   |
| 01:42 | MA44327-CCV20      | 3627   | 96698  | 12018  | 7873   |
| 01:46 | MA44327-CCB21      | 3771   | 101980 | 12124  | 8842   |
| 01:50 | ZZZZZZ             | 3663   | 98954  | 12418  | 8312   |
| 01:55 | ZZZZZZ             | 3489   | 94751  | 12158  | 7730   |
| 01:59 | ZZZZZZ             | 3500   | 94407  | 11977  | 7764   |
| 02:03 | ZZZZZZ             | 3664   | 98567  | 12509  | 7894   |
| 02:07 | ZZZZZZ             | 3484   | 94449  | 11903  | 7726   |
| 02:12 | ZZZZZZ             | 3495   | 94550  | 11962  | 7747   |
| 02:16 | ZZZZZZ             | 3470   | 93432  | 11953  | 7470   |
| 02:20 | MA44327-CCV21      | 3626   | 96373  | 11900  | 7861   |
| 02:24 | MA44327-CCB23      | 3780   | 101930 | 12105  | 8847   |

R = Reference for ISTD limits. ! = Outside limits.

14.4.1  
14

INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44327  
 Parameters: Sb,As,Ba,Ca,Cr,Co,Cu,Fe,Pb,Mn,Ni,Se,Ag,Na,Tl,V,Zn

| Sample |             |        |        |        |        |
|--------|-------------|--------|--------|--------|--------|
| Time   | Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |

LEGEND:

| <u>Istd#</u> | <u>Parameter</u> | <u>Limits</u> |
|--------------|------------------|---------------|
| Istd#1       | Yttrium (2243)   | 70-130 %      |
| Istd#2       | Yttrium (3600)   | 70-130 %      |
| Istd#3       | Yttrium (3710)   | 70-130 %      |
| Istd#4       | Indium           | 70-130 %      |

(a) No samples reported for the elements associated with this internal standard.

14.4.1  
**14**

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Metal      | Time:      |     | 10:29  |        | 10:39  |        | 11:29  |        | 12:16  |        |       |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|-------|
|            | Sample ID: | RL  | IDL    | ICB1   | final  | CCB1   | final  | CCB2   | final  | CCB3   | final |
| Aluminum   | 200        | 34  | anr    |        |        |        |        |        |        |        |       |
| Antimony   | 6.0        | 1.4 | -0.900 | <6.0   | 1.30   | <6.0   | 0.300  | <6.0   | 0.600  | <6.0   |       |
| Arsenic    | 3.0        | 1.4 | -0.100 | <3.0   | 0.300  | <3.0   | 1.40   | <3.0   | 0.900  | <3.0   |       |
| Barium     | 200        | .5  | 0.00   | <200   | 0.200  | <200   | 0.00   | <200   | 0.200  | <200   |       |
| Beryllium  | 1.0        | .2  | anr    |        |        |        |        |        |        |        |       |
| Bismuth    | 20         | 2.5 |        |        |        |        |        |        |        |        |       |
| Boron      | 100        | 1.9 |        |        |        |        |        |        |        |        |       |
| Cadmium    | 3.0        | .3  | anr    |        |        |        |        |        |        |        |       |
| Calcium    | 5000       | 8.7 | 2.20   | <5000  | 2.10   | <5000  | 3.30   | <5000  | -3.50  | <5000  |       |
| Chromium   | 10         | .6  | -0.200 | <10    | 0.00   | <10    | 0.400  | <10    | -0.100 | <10    |       |
| Cobalt     | 50         | .5  | 0.200  | <50    | 0.100  | <50    | 0.00   | <50    | 0.100  | <50    |       |
| Copper     | 10         | 1.2 | 0.100  | <10    | 0.00   | <10    | -0.200 | <10    | 0.00   | <10    |       |
| Iron       | 100        | 4.6 | -0.100 | <100   | 1.30   | <100   | 1.90   | <100   | 2.00   | <100   |       |
| Lead       | 3.0        | 1.4 | 0.100  | <3.0   | 1.00   | <3.0   | 0.500  | <3.0   | 1.00   | <3.0   |       |
| Lithium    | 50         | 2.8 |        |        |        |        |        |        |        |        |       |
| Magnesium  | 5000       | 33  | anr    |        |        |        |        |        |        |        |       |
| Manganese  | 15         | .1  | 0.00   | <15    | 0.100  | <15    | 0.100  | <15    | 0.00   | <15    |       |
| Molybdenum | 20         | .4  | anr    |        |        |        |        |        |        |        |       |
| Nickel     | 10         | .5  | -0.200 | <10    | -0.100 | <10    | 0.00   | <10    | -0.300 | <10    |       |
| Phosphorus | 50         | 1.7 |        |        |        |        |        |        |        |        |       |
| Potassium  | 10000      | 68  | anr    |        |        |        |        |        |        |        |       |
| Selenium   | 10         | 3.8 | -0.100 | <10    | -0.500 | <10    | -2.00  | <10    | -0.700 | <10    |       |
| Silicon    | 200        | 2.1 |        |        |        |        |        |        |        |        |       |
| Silver     | 10         | .5  | 0.500  | <10    | 0.500  | <10    | 0.200  | <10    | 0.500  | <10    |       |
| Sodium     | 10000      | 15  | -3.60  | <10000 | 10.6   | <10000 | 8.30   | <10000 | 17.3   | <10000 |       |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |       |
| Sulfur     | 50         | 20  | anr    |        |        |        |        |        |        |        |       |
| Thallium   | 2.0        | 1.6 | 1.30   | <2.0   | -1.30  | <2.0   | 0.00   | <2.0   | -0.400 | <2.0   |       |
| Tin        | 10         | 1   |        |        |        |        |        |        |        |        |       |
| Titanium   | 10         | .7  |        |        |        |        |        |        |        |        |       |
| Tungsten   | 50         | 1.8 |        |        |        |        |        |        |        |        |       |
| Vanadium   | 50         | .4  | -0.300 | <50    | -0.500 | <50    | 0.00   | <50    | -0.200 | <50    |       |
| Zinc       | 20         | .3  | 0.00   | <20    | 0.300  | <20    | 0.200  | <20    | -0.100 | <20    |       |

14.4.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

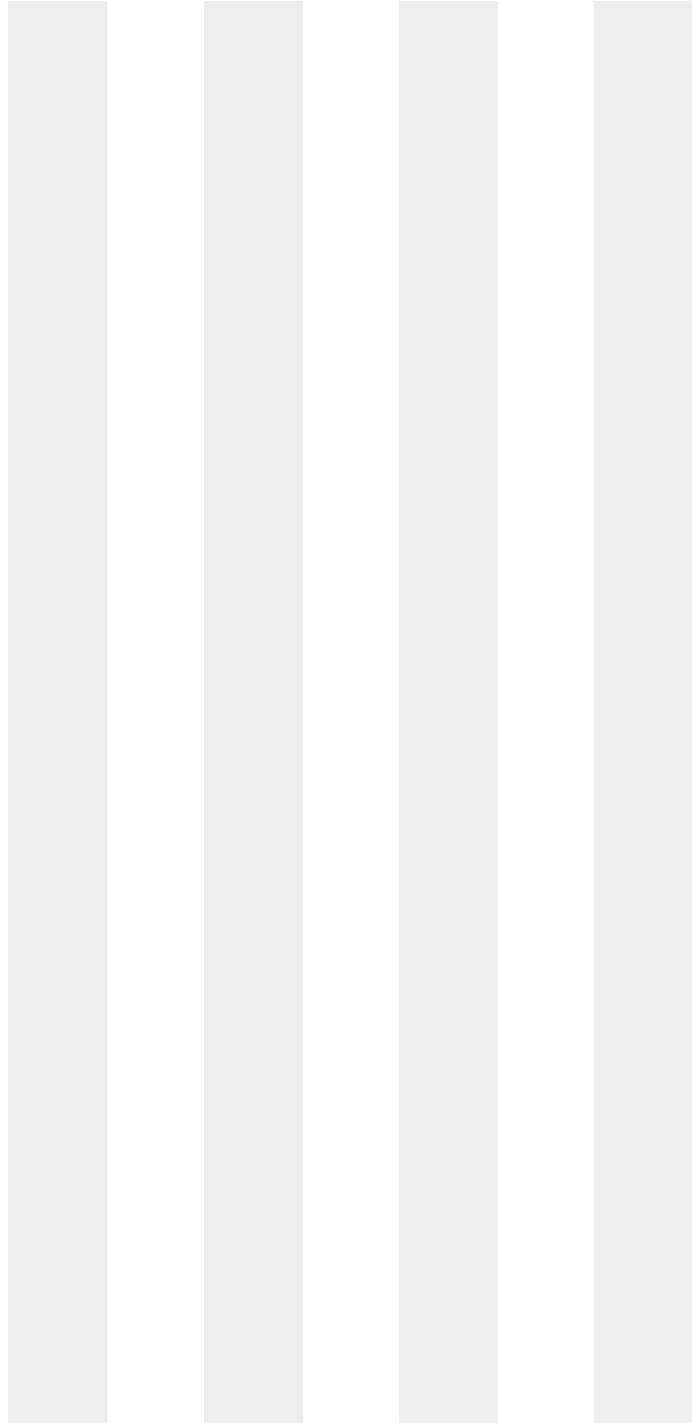
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Time:      |    |     | 10:29 |       | 10:39 |       | 11:29 |       | 12:16 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Metal      | RL    | IDL | 13:02 CCB4 |        | 13:48 CCB5 |        | 14:35 CCB6 |        | 15:17 CCB7 |        |
|------------|-------|-----|------------|--------|------------|--------|------------|--------|------------|--------|
|            |       |     | raw        | final  | raw        | final  | raw        | final  | raw        | final  |
| Aluminum   | 200   | 34  | anr        |        |            |        |            |        |            |        |
| Antimony   | 6.0   | 1.4 | -0.800     | <6.0   | 0.00       | <6.0   | -0.600     | <6.0   | -0.100     | <6.0   |
| Arsenic    | 3.0   | 1.4 | 0.200      | <3.0   | 1.00       | <3.0   | 0.200      | <3.0   | -0.200     | <3.0   |
| Barium     | 200   | .5  | 0.200      | <200   | 0.300      | <200   | 0.200      | <200   | 0.300      | <200   |
| Beryllium  | 1.0   | .2  | anr        |        |            |        |            |        |            |        |
| Bismuth    | 20    | 2.5 |            |        |            |        |            |        |            |        |
| Boron      | 100   | 1.9 |            |        |            |        |            |        |            |        |
| Cadmium    | 3.0   | .3  | anr        |        |            |        |            |        |            |        |
| Calcium    | 5000  | 8.7 | 3.00       | <5000  | 0.900      | <5000  | -0.500     | <5000  | -1.40      | <5000  |
| Chromium   | 10    | .6  | 0.300      | <10    | 0.700      | <10    | 0.100      | <10    | 0.100      | <10    |
| Cobalt     | 50    | .5  | 0.100      | <50    | -0.100     | <50    | -0.100     | <50    | 0.100      | <50    |
| Copper     | 10    | 1.2 | 0.00       | <10    | 0.00       | <10    | 0.00       | <10    | -0.100     | <10    |
| Iron       | 100   | 4.6 | 6.30       | <100   | 0.500      | <100   | 2.40       | <100   | -0.400     | <100   |
| Lead       | 3.0   | 1.4 | 1.00       | <3.0   | 0.00       | <3.0   | -0.100     | <3.0   | -0.600     | <3.0   |
| Lithium    | 50    | 2.8 |            |        |            |        |            |        |            |        |
| Magnesium  | 5000  | 33  | anr        |        |            |        |            |        |            |        |
| Manganese  | 15    | .1  | 0.100      | <15    | 0.100      | <15    | 0.00       | <15    | 0.00       | <15    |
| Molybdenum | 20    | .4  | anr        |        |            |        |            |        |            |        |
| Nickel     | 10    | .5  | -0.100     | <10    | -0.300     | <10    | -0.400     | <10    | -0.500     | <10    |
| Phosphorus | 50    | 1.7 |            |        |            |        |            |        |            |        |
| Potassium  | 10000 | 68  | anr        |        |            |        |            |        |            |        |
| Selenium   | 10    | 3.8 | -1.20      | <10    | -0.100     | <10    | -1.00      | <10    | 0.100      | <10    |
| Silicon    | 200   | 2.1 |            |        |            |        |            |        |            |        |
| Silver     | 10    | .5  | 0.400      | <10    | 0.100      | <10    | 0.00       | <10    | 0.200      | <10    |
| Sodium     | 10000 | 15  | 8.40       | <10000 | 7.50       | <10000 | -0.100     | <10000 | 13.8       | <10000 |
| Strontium  | 10    | .2  |            |        |            |        |            |        |            |        |
| Sulfur     | 50    | 20  | anr        |        |            |        |            |        |            |        |
| Thallium   | 2.0   | 1.6 | 1.20       | <2.0   | 0.00       | <2.0   | 0.300      | <2.0   | -0.400     | <2.0   |
| Tin        | 10    | 1   |            |        |            |        |            |        |            |        |
| Titanium   | 10    | .7  |            |        |            |        |            |        |            |        |
| Tungsten   | 50    | 1.8 |            |        |            |        |            |        |            |        |
| Vanadium   | 50    | .4  | -0.400     | <50    | -0.200     | <50    | -0.300     | <50    | -0.300     | <50    |
| Zinc       | 20    | .3  | 0.200      | <20    | 0.100      | <20    | 0.100      | <20    | 0.100      | <20    |

14.4.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

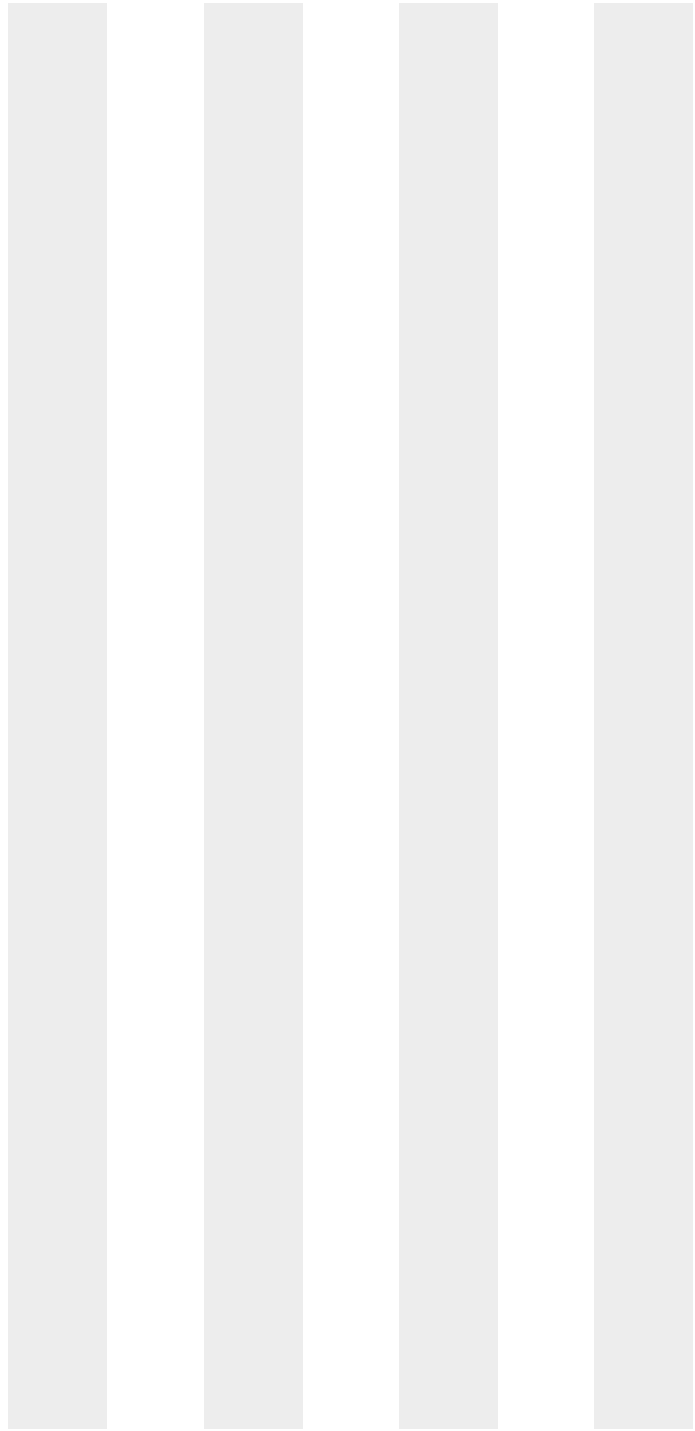
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Time:      |    |     | 13:02 |       | 13:48 |       | 14:35 |       | 15:17 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | CCB4  |       | CCB5  |       | CCB6  |       | CCB7  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Metal      | RL    | IDL | 16:04 CCB8 |        | 16:51 CCB9 |        | 17:38 CCB10 |        | 18:25 CCB11 |        |
|------------|-------|-----|------------|--------|------------|--------|-------------|--------|-------------|--------|
|            |       |     | raw        | final  | raw        | final  | raw         | final  | raw         | final  |
| Aluminum   | 200   | 34  | anr        |        |            |        |             |        |             |        |
| Antimony   | 6.0   | 1.4 | -0.400     | <6.0   | 0.800      | <6.0   | -0.100      | <6.0   | -1.10       | <6.0   |
| Arsenic    | 3.0   | 1.4 | -0.100     | <3.0   | 0.500      | <3.0   | 0.300       | <3.0   | 0.400       | <3.0   |
| Barium     | 200   | .5  | 0.200      | <200   | 0.200      | <200   | 0.200       | <200   | 0.500       | <200   |
| Beryllium  | 1.0   | .2  | anr        |        |            |        |             |        |             |        |
| Bismuth    | 20    | 2.5 |            |        |            |        |             |        |             |        |
| Boron      | 100   | 1.9 |            |        |            |        |             |        |             |        |
| Cadmium    | 3.0   | .3  | anr        |        |            |        |             |        |             |        |
| Calcium    | 5000  | 8.7 | -4.20      | <5000  | -4.00      | <5000  | -3.90       | <5000  | -6.00       | <5000  |
| Chromium   | 10    | .6  | 0.400      | <10    | -0.100     | <10    | 0.200       | <10    | 0.100       | <10    |
| Cobalt     | 50    | .5  | 0.00       | <50    | 0.100      | <50    | -0.200      | <50    | 0.00        | <50    |
| Copper     | 10    | 1.2 | -0.200     | <10    | 0.100      | <10    | -0.200      | <10    | -0.100      | <10    |
| Iron       | 100   | 4.6 | 2.20       | <100   | 0.800      | <100   | 1.90        | <100   | 1.40        | <100   |
| Lead       | 3.0   | 1.4 | 0.400      | <3.0   | 0.300      | <3.0   | 0.400       | <3.0   | 0.300       | <3.0   |
| Lithium    | 50    | 2.8 |            |        |            |        |             |        |             |        |
| Magnesium  | 5000  | 33  | anr        |        |            |        |             |        |             |        |
| Manganese  | 15    | .1  | 0.00       | <15    | 0.100      | <15    | 0.100       | <15    | 0.100       | <15    |
| Molybdenum | 20    | .4  | anr        |        |            |        |             |        |             |        |
| Nickel     | 10    | .5  | 0.00       | <10    | -0.100     | <10    | 0.00        | <10    | -0.500      | <10    |
| Phosphorus | 50    | 1.7 |            |        |            |        |             |        |             |        |
| Potassium  | 10000 | 68  | anr        |        |            |        |             |        |             |        |
| Selenium   | 10    | 3.8 | 1.30       | <10    | 0.100      | <10    | 0.900       | <10    | -0.300      | <10    |
| Silicon    | 200   | 2.1 |            |        |            |        |             |        |             |        |
| Silver     | 10    | .5  | -0.300     | <10    | 0.300      | <10    | 0.200       | <10    | 0.400       | <10    |
| Sodium     | 10000 | 15  | 28.3       | <10000 | 23.4       | <10000 | 12.5        | <10000 | 5.90        | <10000 |
| Strontium  | 10    | .2  |            |        |            |        |             |        |             |        |
| Sulfur     | 50    | 20  | anr        |        |            |        |             |        |             |        |
| Thallium   | 2.0   | 1.6 | 0.200      | <2.0   | 0.300      | <2.0   | -0.800      | <2.0   | 1.20        | <2.0   |
| Tin        | 10    | 1   |            |        |            |        |             |        |             |        |
| Titanium   | 10    | .7  |            |        |            |        |             |        |             |        |
| Tungsten   | 50    | 1.8 |            |        |            |        |             |        |             |        |
| Vanadium   | 50    | .4  | -0.300     | <50    | -0.300     | <50    | -0.400      | <50    | -0.500      | <50    |
| Zinc       | 20    | .3  | 0.00       | <20    | -0.100     | <20    | -0.100      | <20    | 0.00        | <20    |

14.4.2  
14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

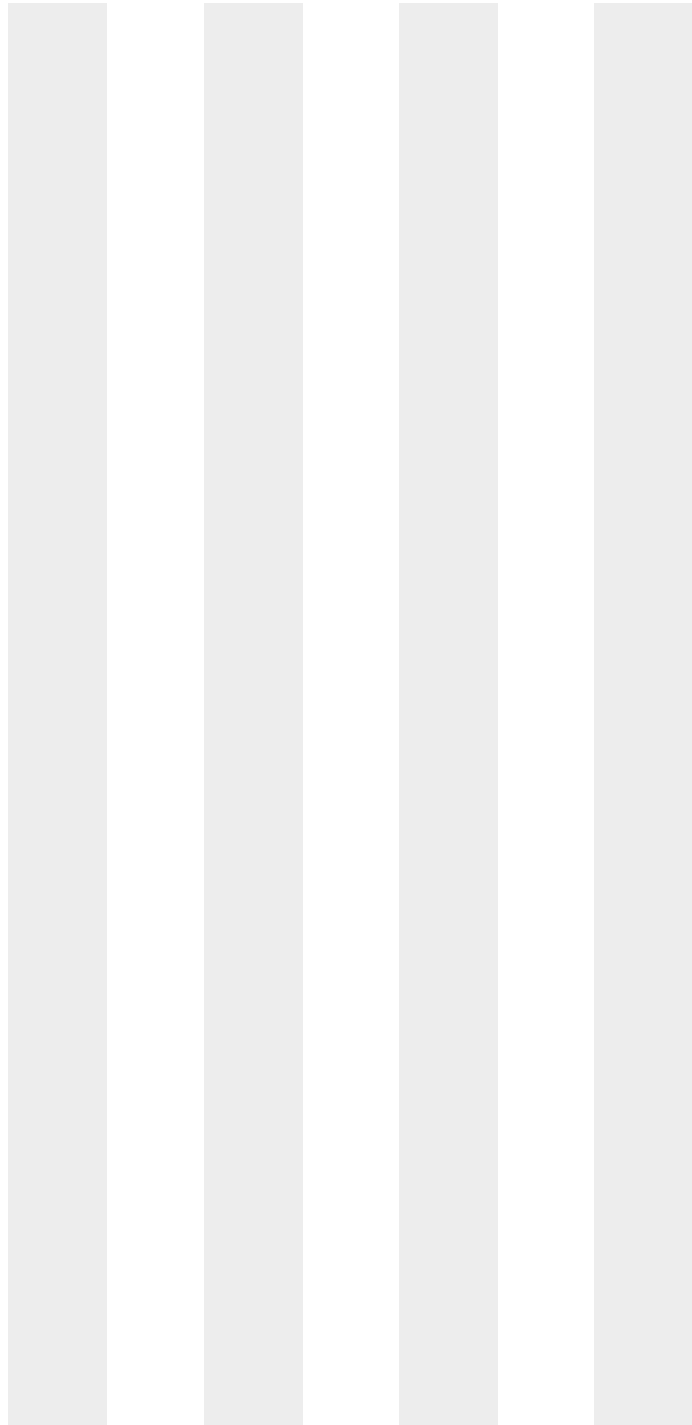
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Time:      | 16:04 | 16:51 | 17:38 | 18:25 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44327 Units: ug/l

| Metal      | RL    | IDL | 18:55<br>CCB12<br>raw | final  |
|------------|-------|-----|-----------------------|--------|
| Aluminum   | 200   | 34  | anr                   |        |
| Antimony   | 6.0   | 1.4 | 1.20                  | <6.0   |
| Arsenic    | 3.0   | 1.4 | 1.10                  | <3.0   |
| Barium     | 200   | .5  | 0.400                 | <200   |
| Beryllium  | 1.0   | .2  | anr                   |        |
| Bismuth    | 20    | 2.5 |                       |        |
| Boron      | 100   | 1.9 |                       |        |
| Cadmium    | 3.0   | .3  | anr                   |        |
| Calcium    | 5000  | 8.7 | -4.30                 | <5000  |
| Chromium   | 10    | .6  | 0.300                 | <10    |
| Cobalt     | 50    | .5  | 0.00                  | <50    |
| Copper     | 10    | 1.2 | 0.100                 | <10    |
| Iron       | 100   | 4.6 | 8.20                  | <100   |
| Lead       | 3.0   | 1.4 | 0.800                 | <3.0   |
| Lithium    | 50    | 2.8 |                       |        |
| Magnesium  | 5000  | 33  | anr                   |        |
| Manganese  | 15    | .1  | 0.200                 | <15    |
| Molybdenum | 20    | .4  | anr                   |        |
| Nickel     | 10    | .5  | -0.100                | <10    |
| Phosphorus | 50    | 1.7 |                       |        |
| Potassium  | 10000 | 68  | anr                   |        |
| Selenium   | 10    | 3.8 | 0.300                 | <10    |
| Silicon    | 200   | 2.1 |                       |        |
| Silver     | 10    | .5  | 0.100                 | <10    |
| Sodium     | 10000 | 15  | 10.3                  | <10000 |
| Strontium  | 10    | .2  |                       |        |
| Sulfur     | 50    | 20  | anr                   |        |
| Thallium   | 2.0   | 1.6 | 0.300                 | <2.0   |
| Tin        | 10    | 1   |                       |        |
| Titanium   | 10    | .7  |                       |        |
| Tungsten   | 50    | 1.8 |                       |        |
| Vanadium   | 50    | .4  | -0.400                | <50    |
| Zinc       | 20    | .3  | 0.100                 | <20    |

14.4.2  
14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL      Run ID: MA44327      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 18:55 |       |
| Sample ID: |    |     | CCB12 |       |
| Metal      | RL | IDL | raw   | final |

Zirconium      10      .3

(\*) Outside of QC limits  
(anr) Analyte not requested

14.4.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | 10:33 |         |       |
|------------|-------|---------|-------|
| Sample ID: | ICCV  | ICCV1   |       |
| Metal      | True  | Results | % Rec |
| Aluminum   | anr   |         |       |
| Antimony   | 2000  | 2020    | 101.0 |
| Arsenic    | 2000  | 2000    | 100.0 |
| Barium     | 2000  | 2000    | 100.0 |
| Beryllium  | anr   |         |       |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | anr   |         |       |
| Calcium    | 40000 | 39900   | 99.8  |
| Chromium   | 2000  | 2020    | 101.0 |
| Cobalt     | 2000  | 2000    | 100.0 |
| Copper     | 2000  | 1980    | 99.0  |
| Iron       | 40000 | 40500   | 101.3 |
| Lead       | 2000  | 2040    | 102.0 |
| Lithium    |       |         |       |
| Magnesium  | anr   |         |       |
| Manganese  | 2000  | 2040    | 102.0 |
| Molybdenum | anr   |         |       |
| Nickel     | 2000  | 2010    | 100.5 |
| Phosphorus |       |         |       |
| Potassium  | anr   |         |       |
| Selenium   | 2000  | 2010    | 100.5 |
| Silicon    |       |         |       |
| Silver     | 250   | 247     | 98.8  |
| Sodium     | 40000 | 39800   | 99.5  |
| Strontium  |       |         |       |
| Sulfur     | anr   |         |       |
| Thallium   | 2000  | 2040    | 102.0 |
| Tin        |       |         |       |
| Titanium   |       |         |       |
| Tungsten   |       |         |       |
| Vanadium   | 2000  | 1990    | 99.5  |
| Zinc       | 2000  | 2050    | 102.5 |

14.4.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

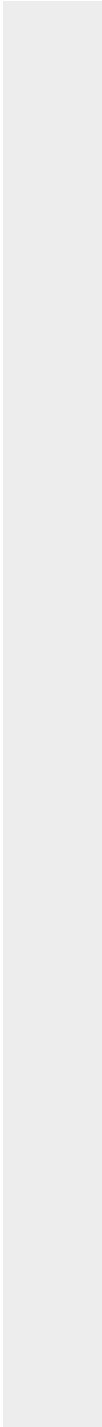
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

|                 |       |         |       |
|-----------------|-------|---------|-------|
| Time:           | 10:33 |         |       |
| Sample ID: ICCV | ICCV1 |         |       |
| Metal           | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.3

14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

| Metal      | Time:      | 10:19 |       |       | 11:25 |       |       | 12:12   |       |  |
|------------|------------|-------|-------|-------|-------|-------|-------|---------|-------|--|
|            | Sample ID: | ICV   | ICV1  | CCV   | CCV1  | CCV   | CCV2  | Results | % Rec |  |
| Aluminum   | anr        |       |       |       |       |       |       |         |       |  |
| Antimony   | 2000       | 2000  | 100.0 | 2000  | 1990  | 99.5  | 2000  | 2070    | 103.5 |  |
| Arsenic    | 2000       | 1980  | 99.0  | 2000  | 1970  | 98.5  | 2000  | 2050    | 102.5 |  |
| Barium     | 2000       | 2000  | 100.0 | 2000  | 2020  | 101.0 | 2000  | 2080    | 104.0 |  |
| Beryllium  | anr        |       |       |       |       |       |       |         |       |  |
| Bismuth    |            |       |       |       |       |       |       |         |       |  |
| Boron      |            |       |       |       |       |       |       |         |       |  |
| Cadmium    | anr        |       |       |       |       |       |       |         |       |  |
| Calcium    | 40000      | 40100 | 100.3 | 40000 | 40000 | 100.0 | 40000 | 40700   | 101.8 |  |
| Chromium   | 2000       | 2030  | 101.5 | 2000  | 2030  | 101.5 | 2000  | 2080    | 104.0 |  |
| Cobalt     | 2000       | 1990  | 99.5  | 2000  | 1970  | 98.5  | 2000  | 2050    | 102.5 |  |
| Copper     | 2000       | 1970  | 98.5  | 2000  | 1970  | 98.5  | 2000  | 2030    | 101.5 |  |
| Iron       | 40000      | 40400 | 101.0 | 40000 | 40400 | 101.0 | 40000 | 40900   | 102.3 |  |
| Lead       | 2000       | 2030  | 101.5 | 2000  | 2010  | 100.5 | 2000  | 2090    | 104.5 |  |
| Lithium    |            |       |       |       |       |       |       |         |       |  |
| Magnesium  | anr        |       |       |       |       |       |       |         |       |  |
| Manganese  | 2000       | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2090    | 104.5 |  |
| Molybdenum | anr        |       |       |       |       |       |       |         |       |  |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2000  | 100.0 | 2000  | 2080    | 104.0 |  |
| Phosphorus |            |       |       |       |       |       |       |         |       |  |
| Potassium  | anr        |       |       |       |       |       |       |         |       |  |
| Selenium   | 2000       | 1990  | 99.5  | 2000  | 1960  | 98.0  | 2000  | 2060    | 103.0 |  |
| Silicon    |            |       |       |       |       |       |       |         |       |  |
| Silver     | 250        | 258   | 103.2 | 250   | 249   | 99.6  | 250   | 257     | 102.8 |  |
| Sodium     | 40000      | 39900 | 99.8  | 40000 | 39800 | 99.5  | 40000 | 40400   | 101.0 |  |
| Strontium  |            |       |       |       |       |       |       |         |       |  |
| Sulfur     | anr        |       |       |       |       |       |       |         |       |  |
| Thallium   | 2000       | 2050  | 102.5 | 2000  | 2030  | 101.5 | 2000  | 2120    | 106.0 |  |
| Tin        |            |       |       |       |       |       |       |         |       |  |
| Titanium   |            |       |       |       |       |       |       |         |       |  |
| Tungsten   |            |       |       |       |       |       |       |         |       |  |
| Vanadium   | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2070    | 103.5 |  |
| Zinc       | 2000       | 2040  | 102.0 | 2000  | 2010  | 100.5 | 2000  | 2090    | 104.5 |  |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

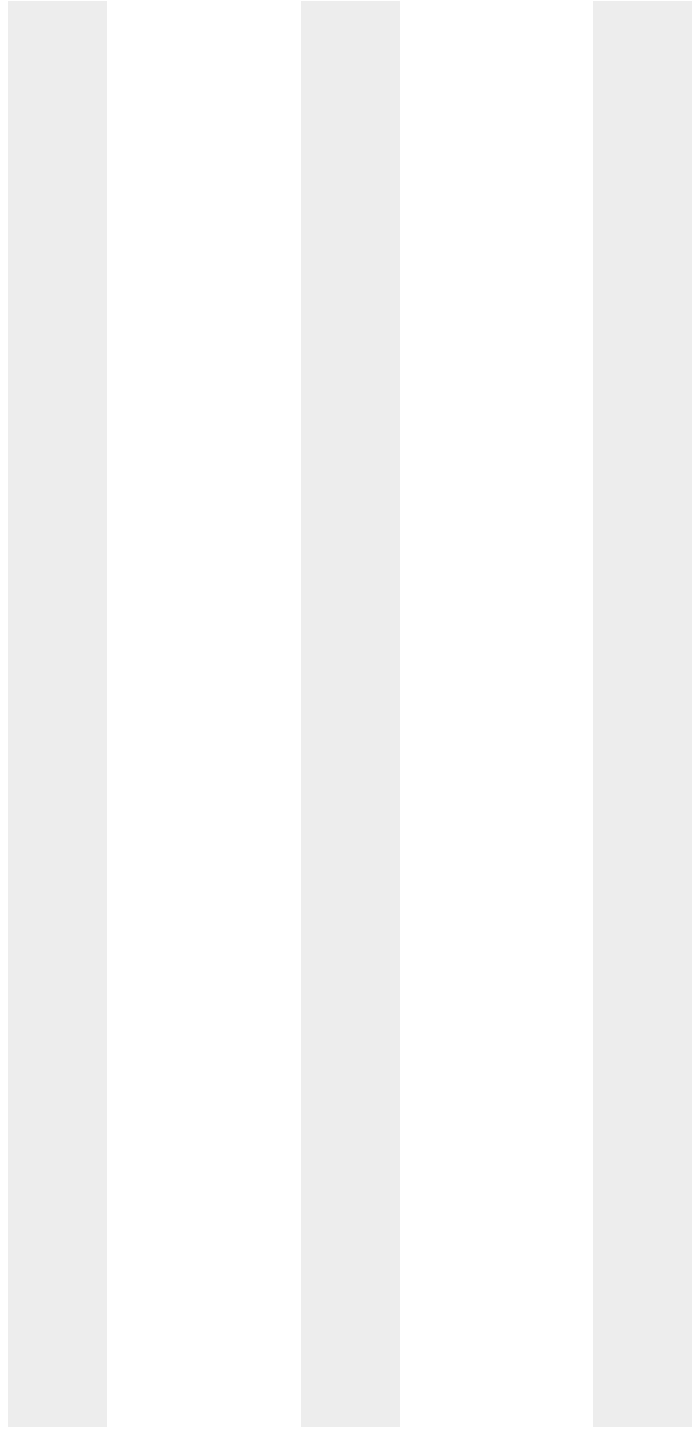
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

|            | Time: |         | 10:19 |      | 11:25   |       | 12:12 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

| Metal      | Time:      | 12:58 |       |         | 13:44 |       |       | 14:31   |       |     |      |         |       |
|------------|------------|-------|-------|---------|-------|-------|-------|---------|-------|-----|------|---------|-------|
|            | Sample ID: | CCV   | CCV3  | Results | % Rec | CCV   | CCV4  | Results | % Rec | CCV | CCV5 | Results | % Rec |
| Aluminum   | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Antimony   | 2000       | 2050  | 102.5 | 2000    | 2050  | 102.5 | 2000  | 2050    | 102.5 |     |      |         |       |
| Arsenic    | 2000       | 2020  | 101.0 | 2000    | 2020  | 101.0 | 2000  | 2020    | 101.0 |     |      |         |       |
| Barium     | 2000       | 2020  | 101.0 | 2000    | 2070  | 103.5 | 2000  | 2080    | 104.0 |     |      |         |       |
| Beryllium  | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Bismuth    |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Boron      |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Cadmium    | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Calcium    | 40000      | 39800 | 99.5  | 40000   | 40300 | 100.8 | 40000 | 40100   | 100.3 |     |      |         |       |
| Chromium   | 2000       | 2060  | 103.0 | 2000    | 2070  | 103.5 | 2000  | 2040    | 102.0 |     |      |         |       |
| Cobalt     | 2000       | 2020  | 101.0 | 2000    | 2030  | 101.5 | 2000  | 2020    | 101.0 |     |      |         |       |
| Copper     | 2000       | 2000  | 100.0 | 2000    | 2000  | 100.0 | 2000  | 1990    | 99.5  |     |      |         |       |
| Iron       | 40000      | 40000 | 100.0 | 40000   | 40500 | 101.3 | 40000 | 40100   | 100.3 |     |      |         |       |
| Lead       | 2000       | 2060  | 103.0 | 2000    | 2060  | 103.0 | 2000  | 2040    | 102.0 |     |      |         |       |
| Lithium    |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Magnesium  | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Manganese  | 2000       | 2070  | 103.5 | 2000    | 2070  | 103.5 | 2000  | 2050    | 102.5 |     |      |         |       |
| Molybdenum | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Nickel     | 2000       | 2040  | 102.0 | 2000    | 2060  | 103.0 | 2000  | 2050    | 102.5 |     |      |         |       |
| Phosphorus |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Potassium  | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Selenium   | 2000       | 2020  | 101.0 | 2000    | 2020  | 101.0 | 2000  | 2010    | 100.5 |     |      |         |       |
| Silicon    |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Silver     | 250        | 251   | 100.4 | 250     | 254   | 101.6 | 250   | 251     | 100.4 |     |      |         |       |
| Sodium     | 40000      | 39700 | 99.3  | 40000   | 40400 | 101.0 | 40000 | 40200   | 100.5 |     |      |         |       |
| Strontium  |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Sulfur     | anr        |       |       |         |       |       |       |         |       |     |      |         |       |
| Thallium   | 2000       | 2080  | 104.0 | 2000    | 2100  | 105.0 | 2000  | 2110    | 105.5 |     |      |         |       |
| Tin        |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Titanium   |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Tungsten   |            |       |       |         |       |       |       |         |       |     |      |         |       |
| Vanadium   | 2000       | 2030  | 101.5 | 2000    | 2050  | 102.5 | 2000  | 2030    | 101.5 |     |      |         |       |
| Zinc       | 2000       | 2060  | 103.0 | 2000    | 2050  | 102.5 | 2000  | 2030    | 101.5 |     |      |         |       |

14.4.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

|       | Time:      |         |               |      |               |       |               |         |       |
|-------|------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|       | Sample ID: | CCV     | 12:58<br>CCV3 | CCV  | 13:44<br>CCV4 | CCV   | 14:31<br>CCV5 | CCV     | CCV5  |
| Metal | True       | Results | % Rec         | True | Results       | % Rec | True          | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

| Metal      | Sample ID: | 15:13 |       |       | 16:00 |       |       | 16:47 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |            | CCV   | CCV6  | % Rec | CCV   | CCV7  | % Rec | CCV   | CCV8  | % Rec |
| Aluminum   | anr        |       |       |       |       |       |       |       |       |       |
| Antimony   | 2000       | 2060  | 103.0 | 2000  | 2070  | 103.5 | 2000  | 2030  | 101.5 |       |
| Arsenic    | 2000       | 2030  | 101.5 | 2000  | 2030  | 101.5 | 2000  | 2000  | 100.0 |       |
| Barium     | 2000       | 2090  | 104.5 | 2000  | 2100  | 105.0 | 2000  | 2070  | 103.5 |       |
| Beryllium  | anr        |       |       |       |       |       |       |       |       |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | anr        |       |       |       |       |       |       |       |       |       |
| Calcium    | 40000      | 40500 | 101.3 | 40000 | 40600 | 101.5 | 40000 | 39700 | 99.3  |       |
| Chromium   | 2000       | 2070  | 103.5 | 2000  | 2070  | 103.5 | 2000  | 2030  | 101.5 |       |
| Cobalt     | 2000       | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2000  | 100.0 |       |
| Copper     | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 1970  | 98.5  |       |
| Iron       | 40000      | 40300 | 100.8 | 40000 | 40300 | 100.8 | 40000 | 39200 | 98.0  |       |
| Lead       | 2000       | 2060  | 103.0 | 2000  | 2060  | 103.0 | 2000  | 2020  | 101.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr        |       |       |       |       |       |       |       |       |       |
| Manganese  | 2000       | 2070  | 103.5 | 2000  | 2070  | 103.5 | 2000  | 2030  | 101.5 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2070  | 103.5 | 2000  | 2080  | 104.0 | 2000  | 2040  | 102.0 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | anr        |       |       |       |       |       |       |       |       |       |
| Selenium   | 2000       | 2020  | 101.0 | 2000  | 2020  | 101.0 | 2000  | 1980  | 99.0  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 255   | 102.0 | 250   | 255   | 102.0 | 250   | 252   | 100.8 |       |
| Sodium     | 40000      | 40400 | 101.0 | 40000 | 40300 | 100.8 | 40000 | 39600 | 99.0  |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     | anr        |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2130  | 106.5 | 2000  | 2130  | 106.5 | 2000  | 2100  | 105.0 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 2070  | 103.5 | 2000  | 2070  | 103.5 | 2000  | 2040  | 102.0 |       |
| Zinc       | 2000       | 2050  | 102.5 | 2000  | 2050  | 102.5 | 2000  | 2000  | 100.0 |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

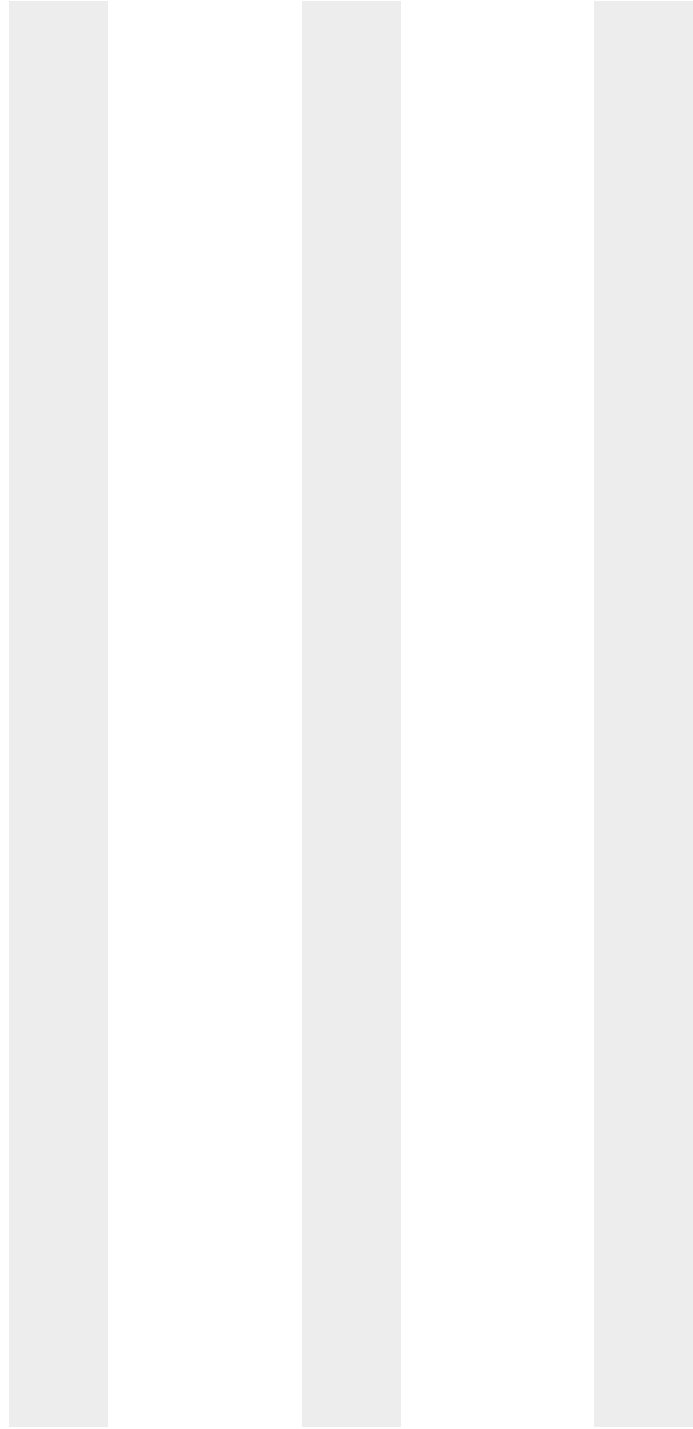
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

|       | Time:      |         |               |      |               |       |               |         |       |
|-------|------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|       | Sample ID: | CCV     | 15:13<br>CCV6 | CCV  | 16:00<br>CCV7 | CCV   | 16:47<br>CCV8 | CCV     |       |
| Metal | True       | Results | % Rec         | True | Results       | % Rec | True          | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

| Metal      | Sample ID: | 17:34 |       |       | 18:21 |       |       | 18:51 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |            | CCV   | CCV9  | % Rec | CCV   | CCV10 | % Rec | CCV   | CCV11 | % Rec |
| Aluminum   | anr        |       |       |       |       |       |       |       |       |       |
| Antimony   | 2000       | 2020  | 101.0 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Arsenic    | 2000       | 1990  | 99.5  | 2000  | 1980  | 99.0  | 2000  | 1980  | 99.0  |       |
| Barium     | 2000       | 2060  | 103.0 | 2000  | 2060  | 103.0 | 2000  | 2070  | 103.5 |       |
| Beryllium  | anr        |       |       |       |       |       |       |       |       |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | anr        |       |       |       |       |       |       |       |       |       |
| Calcium    | 40000      | 39600 | 99.0  | 40000 | 39300 | 98.3  | 40000 | 39600 | 99.0  |       |
| Chromium   | 2000       | 2030  | 101.5 | 2000  | 2000  | 100.0 | 2000  | 2010  | 100.5 |       |
| Cobalt     | 2000       | 1990  | 99.5  | 2000  | 1980  | 99.0  | 2000  | 1990  | 99.5  |       |
| Copper     | 2000       | 1970  | 98.5  | 2000  | 1950  | 97.5  | 2000  | 1960  | 98.0  |       |
| Iron       | 40000      | 39100 | 97.8  | 40000 | 38800 | 97.0  | 40000 | 39200 | 98.0  |       |
| Lead       | 2000       | 2010  | 100.5 | 2000  | 1990  | 99.5  | 2000  | 2000  | 100.0 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr        |       |       |       |       |       |       |       |       |       |
| Manganese  | 2000       | 2020  | 101.0 | 2000  | 2000  | 100.0 | 2000  | 2020  | 101.0 |       |
| Molybdenum | anr        |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2040  | 102.0 | 2000  | 2020  | 101.0 | 2000  | 2030  | 101.5 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | anr        |       |       |       |       |       |       |       |       |       |
| Selenium   | 2000       | 1970  | 98.5  | 2000  | 1960  | 98.0  | 2000  | 1960  | 98.0  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 252   | 100.8 | 250   | 250   | 100.0 | 250   | 250   | 100.0 |       |
| Sodium     | 40000      | 39400 | 98.5  | 40000 | 39200 | 98.0  | 40000 | 39400 | 98.5  |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     | anr        |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2090  | 104.5 | 2000  | 2090  | 104.5 | 2000  | 2090  | 104.5 |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 2040  | 102.0 | 2000  | 2010  | 100.5 | 2000  | 2020  | 101.0 |       |
| Zinc       | 2000       | 1990  | 99.5  | 2000  | 1970  | 98.5  | 2000  | 1980  | 99.0  |       |

14.4.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

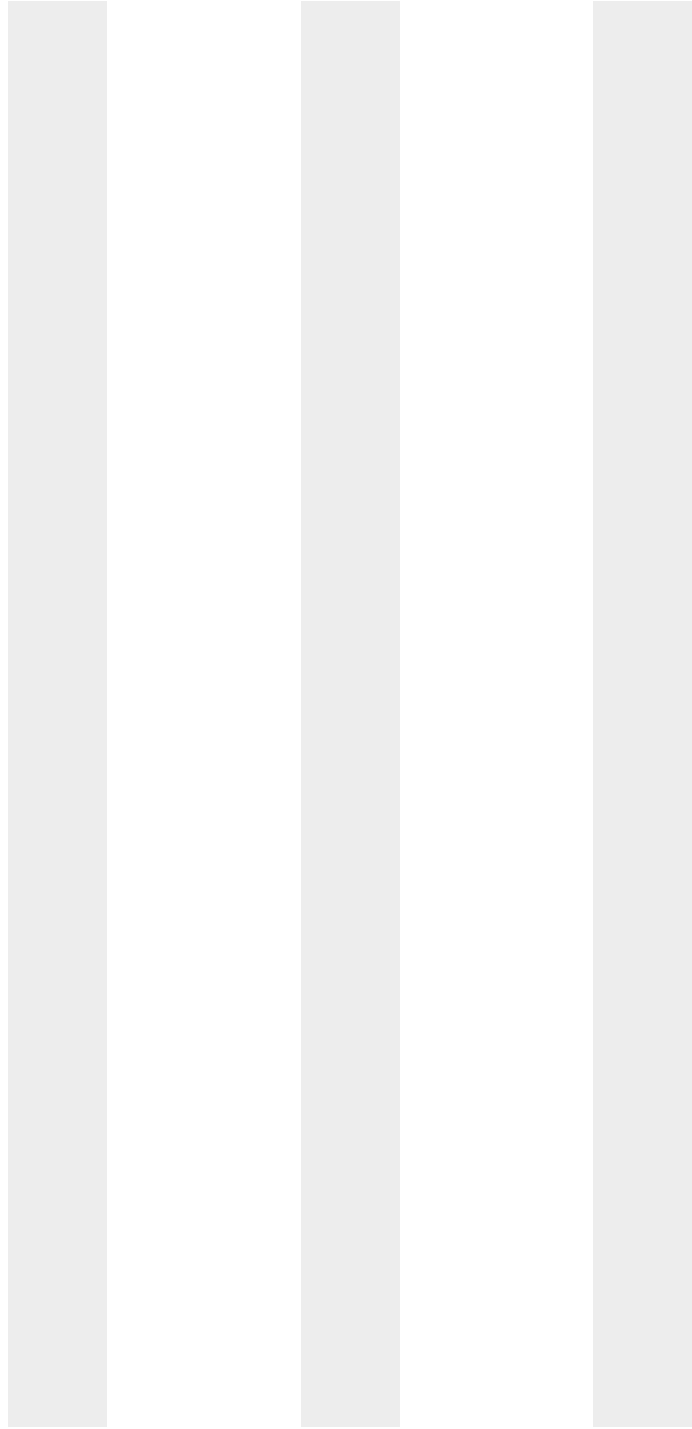
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44327      Units: ug/l

|            | Time: |         |       |      | 18:21   |       |      | 18:51   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 17:34   |       | CCV  | CCV10   |       | CCV  | CCV11   |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.4.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | 11:00 | 11:04   |       |        |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   | % Rec | HSTD   | HSTD2   | % Rec |
| Metal      | True  | Results |       | True   | Results |       |
| Aluminum   |       |         |       |        |         |       |
| Antimony   | 5000  | 5150    | 103.0 |        |         |       |
| Arsenic    | 5000  | 5010    | 100.2 |        |         |       |
| Barium     | 5000  | 5170    | 103.4 |        |         |       |
| Beryllium  | anr   |         |       |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      |       |         |       |        |         |       |
| Cadmium    | anr   |         |       |        |         |       |
| Calcium    |       |         |       | 150000 | 148000  | 98.7  |
| Chromium   | 5000  | 5240    | 104.8 |        |         |       |
| Cobalt     | 5000  | 5060    | 101.2 |        |         |       |
| Copper     | 5000  | 5190    | 103.8 |        |         |       |
| Iron       |       |         |       | 150000 | 150000  | 100.0 |
| Lead       | 5000  | 5130    | 102.6 |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       |        |         |       |
| Manganese  | 5000  | 5230    | 104.6 |        |         |       |
| Molybdenum | anr   |         |       |        |         |       |
| Nickel     | 5000  | 5060    | 101.2 |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       |        |         |       |
| Selenium   | 5000  | 5050    | 101.0 |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | 625   | 651     | 104.2 |        |         |       |
| Sodium     |       |         |       | 150000 | 151000  | 100.7 |
| Strontium  |       |         |       |        |         |       |
| Sulfur     | anr   |         |       |        |         |       |
| Thallium   | 5000  | 5280    | 105.6 |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   |       |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | 5000  | 5160    | 103.2 |        |         |       |
| Zinc       | 5000  | 5260    | 105.2 |        |         |       |

14.4.5  
14

HIGH STANDARD CHECK SUMMARY

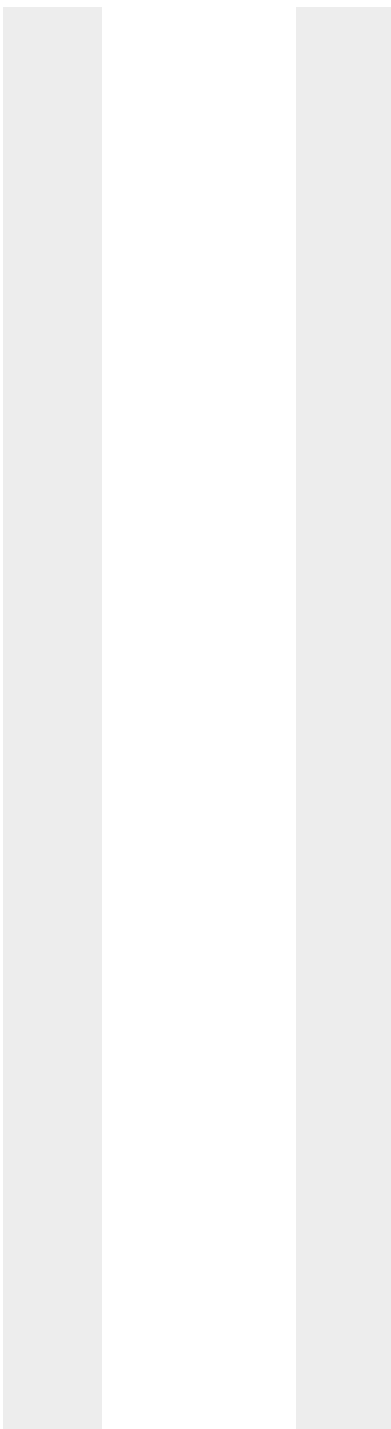
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44327 Units: ug/l

|            | Time: | 11:00   |       | 11:04 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.4.5  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | 10:42 | 10:47 | 18:29 |         |       |         |          |         |       |
|------------|-------|-------|-------|---------|-------|---------|----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 | Results | % Rec | Results | % Rec    | Results | % Rec |
| Metal      | True  | True  | True  |         |       |         |          |         |       |
| Aluminum   | 200   | 500   | 100   | anr     |       |         |          |         |       |
| Antimony   | 6.0   | 20    | 3.0   | 6.00    | 100.0 | -0.200U | 0.0* (a) | 5.50    | 91.7  |
| Arsenic    | 8.0   | 20    | 3.0   | 8.50    | 106.3 | 2.80    | 93.3     | 9.50    | 118.8 |
| Barium     | 200   |       | 4.0   | 206     | 103.0 | 4.20    | 105.0    | 216     | 108.0 |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |          |         |       |
| Bismuth    | 20    |       |       |         |       |         |          |         |       |
| Boron      | 100   |       | 10    |         |       |         |          |         |       |
| Cadmium    | 3.0   |       | 1.0   | anr     |       |         |          |         |       |
| Calcium    | 5000  | 2000  | 1000  | 5270    | 105.4 | 1080    | 108.0    | 5310    | 106.2 |
| Chromium   | 10    |       | 2.0   | 10.8    | 108.0 | 2.30    | 115.0    | 10.6    | 106.0 |
| Cobalt     | 50    |       | 3.0   | 50.3    | 100.6 | 3.00    | 100.0    | 50.6    | 101.2 |
| Copper     | 10    |       | 2.0   | 10.7    | 107.0 | 0.300U  | 0.0* (a) | 9.80    | 98.0  |
| Iron       | 100   | 500   |       | 110     | 110.0 |         |          | 107     | 107.0 |
| Lead       | 3.0   | 20    | 2.5   | 2.80    | 93.3  | 0.300U  | 0.0* (a) | 2.80    | 93.3  |
| Lithium    | 50    |       |       |         |       |         |          |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |       |         |          |         |       |
| Manganese  | 15    |       | 3.0   | 16.4    | 109.3 | 3.30    | 110.0    | 16.4    | 109.3 |
| Molybdenum | 20    |       |       | anr     |       |         |          |         |       |
| Nickel     | 10    |       | 4.0   | 10.2    | 102.0 | 3.90    | 97.5     | 10.3    | 103.0 |
| Phosphorus | 50    |       |       |         |       |         |          |         |       |
| Potassium  | 5000  |       | 2000  | anr     |       |         |          |         |       |
| Selenium   | 10    | 20    | 5.0   | 11.0    | 110.0 | 5.10    | 102.0    | 12.9    | 129.0 |
| Silicon    | 200   |       |       |         |       |         |          |         |       |
| Silver     | 5.0   |       | 2.0   | 4.40    | 88.0  | 0.200U  | 0.0* (a) | 4.00    | 80.0  |
| Sodium     | 5000  |       | 1000  | 5180    | 103.6 | 1060    | 106.0    | 5230    | 104.6 |
| Strontium  | 10    |       |       |         |       |         |          |         |       |
| Sulfur     | 50    |       |       | anr     |       |         |          |         |       |
| Thallium   | 10    |       | 2.0   | 10.2    | 102.0 | 1.80    | 90.0     | 12.0    | 120.0 |
| Tin        | 10    |       |       |         |       |         |          |         |       |
| Titanium   | 10    |       |       |         |       |         |          |         |       |
| Tungsten   | 50    |       |       |         |       |         |          |         |       |
| Vanadium   | 50    |       | 2.0   | 51.1    | 102.2 | 2.20    | 110.0    | 52.3    | 104.6 |
| Zinc       | 20    |       | 10    | 22.1    | 110.5 | 11.1    | 111.0    | 21.8    | 109.0 |

14.4.6  
14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | 10:42   | 10:47 | 18:29   |
|------------|---------|-------|---------|
| Sample ID: | CRI     | CRID1 | CRI2    |
| Metal      | True    | True  | True    |
|            | Results | % Rec | Results |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

14.4.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 18:33<br>CRID2 | Results | % Rec |
|------------|------------|------|------|---------|----------------|---------|-------|
| Metal      | True       | True | True | True    | Results        | % Rec   |       |
| Aluminum   | 200        | 500  | 100  | anr     |                |         |       |
| Antimony   | 6.0        | 20   | 3.0  | 0.600U  | 0.0*           | (a)     |       |
| Arsenic    | 8.0        | 20   | 3.0  | 3.70    | 123.3          |         |       |
| Barium     | 200        |      | 4.0  | 4.80    | 120.0          |         |       |
| Beryllium  | 2.0        |      | 1.0  | anr     |                |         |       |
| Bismuth    | 20         |      |      |         |                |         |       |
| Boron      | 100        |      | 10   |         |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | anr     |                |         |       |
| Calcium    | 5000       | 2000 | 1000 | 1070    | 107.0          |         |       |
| Chromium   | 10         |      | 2.0  | 2.60    | 130.0          |         |       |
| Cobalt     | 50         |      | 3.0  | 3.10    | 103.3          |         |       |
| Copper     | 10         |      | 2.0  | -0.400U | 0.0*           | (a)     |       |
| Iron       | 100        | 500  |      |         |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | 0.400U  | 0.0*           | (a)     |       |
| Lithium    | 50         |      |      |         |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | anr     |                |         |       |
| Manganese  | 15         |      | 3.0  | 3.30    | 110.0          |         |       |
| Molybdenum | 20         |      |      |         |                |         |       |
| Nickel     | 10         |      | 4.0  | 4.00    | 100.0          |         |       |
| Phosphorus | 50         |      |      |         |                |         |       |
| Potassium  | 5000       |      | 2000 | anr     |                |         |       |
| Selenium   | 10         | 20   | 5.0  | 3.70U   | 0.0*           | (a)     |       |
| Silicon    | 200        |      |      |         |                |         |       |
| Silver     | 5.0        |      | 2.0  | 0.200U  | 0.0*           | (a)     |       |
| Sodium     | 5000       |      | 1000 | 1080    | 108.0          |         |       |
| Strontium  | 10         |      |      |         |                |         |       |
| Sulfur     | 50         |      |      |         |                |         |       |
| Thallium   | 10         |      | 2.0  | 2.20    | 110.0          |         |       |
| Tin        | 10         |      |      |         |                |         |       |
| Titanium   | 10         |      |      |         |                |         |       |
| Tungsten   | 50         |      |      |         |                |         |       |
| Vanadium   | 50         |      | 2.0  | 2.10    | 105.0          |         |       |
| Zinc       | 20         |      | 10   | 10.8    | 108.0          |         |       |

14.4.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44327 Units: ug/l

|            |      |      |      |         |       |
|------------|------|------|------|---------|-------|
| Time:      |      |      |      | 18:33   |       |
| Sample ID: | CRI  | CRIA | CRID | CRID2   |       |
| Metal      | True | True | True | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44327      Units: ug/l

| Time:      |        |        | 10:51   |       |         | 10:55 |         |       | 18:38   |       |  | 18:42 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 523000  | 104.6 | 524000  | 104.8 | 533000  | 106.6 | 540000  | 108.0 |  |       |
| Antimony   |        | 1000   | -1.70   |       | 1040    | 104.0 | -2.50   |       | 1050    | 105.0 |  |       |
| Arsenic    |        | 1000   | 0.800   |       | 1050    | 105.0 | 3.00    |       | 1050    | 105.0 |  |       |
| Barium     |        | 500    | 0.00    |       | 522     | 104.4 | 0.400   |       | 548     | 109.6 |  |       |
| Beryllium  |        | 500    | 0.300   |       | 510     | 102.0 | 0.200   |       | 514     | 102.8 |  |       |
| Bismuth    |        | 500    | -3.50   |       | 524     | 104.8 | -4.00   |       | 531     | 106.2 |  |       |
| Boron      |        | 500    | -1.20   |       | 501     | 100.2 | 0.900   |       | 500     | 100.0 |  |       |
| Cadmium    |        | 1000   | 0.200   |       | 1040    | 104.0 | 0.200   |       | 1050    | 105.0 |  |       |
| Calcium    | 400000 | 400000 | 403000  | 100.8 | 392000  | 98.0  | 398000  | 99.5  | 400000  | 100.0 |  |       |
| Chromium   |        | 500    | 2.10    |       | 497     | 99.4  | 2.50    |       | 499     | 99.8  |  |       |
| Cobalt     |        | 500    | 0.400   |       | 496     | 99.2  | 0.900   |       | 499     | 99.8  |  |       |
| Copper     |        | 500    | 0.200   |       | 514     | 102.8 | 1.00    |       | 516     | 103.2 |  |       |
| Iron       | 200000 | 200000 | 196000  | 98.0  | 195000  | 97.5  | 190000  | 95.0  | 193000  | 96.5  |  |       |
| Lead       |        | 1000   | 2.60    |       | 985     | 98.5  | 3.40    |       | 981     | 98.1  |  |       |
| Lithium    |        | 500    | 6.60    |       | 546     | 109.2 | 5.50    |       | 560     | 112.0 |  |       |
| Magnesium  | 500000 | 500000 | 515000  | 103.0 | 512000  | 102.4 | 506000  | 101.2 | 512000  | 102.4 |  |       |
| Manganese  |        | 500    | 0.700   |       | 508     | 101.6 | -0.700  |       | 507     | 101.4 |  |       |
| Molybdenum |        | 500    | -1.20   |       | 489     | 97.8  | -1.70   |       | 499     | 99.8  |  |       |
| Nickel     |        | 1000   | -1.40   |       | 992     | 99.2  | -1.20   |       | 1010    | 101.0 |  |       |
| Phosphorus |        | 500    | -7.20   |       | 493     | 98.6  | -3.40   |       | 507     | 101.4 |  |       |
| Potassium  |        |        | -339    |       | -445    |       | -466    |       | -449    |       |  |       |
| Selenium   |        | 1000   | 3.20    |       | 988     | 98.8  | -6.70   |       | 981     | 98.1  |  |       |
| Silicon    |        | 500    | -6.30   |       | 519     | 103.8 | -6.00   |       | 521     | 104.2 |  |       |
| Silver     |        | 1000   | 4.50    |       | 1070    | 107.0 | -1.80   |       | 1100    | 110.0 |  |       |
| Sodium     |        |        | 11.1    |       | 12.0    |       | 39.6    |       | 66.8    |       |  |       |
| Strontium  |        | 500    | 4.90    |       | 541     | 108.2 | 5.40    |       | 563     | 112.6 |  |       |
| Sulfur     |        | 500    | 77.6    |       | 576     | 115.2 | 99.8    |       | 600     | 120.0 |  |       |
| Thallium   |        | 1000   | 1.20    |       | 1020    | 102.0 | -1.10   |       | 1050    | 105.0 |  |       |
| Tin        |        | 500    | -3.50   |       | 463     | 92.6  | -1.90   |       | 463     | 92.6  |  |       |
| Titanium   |        | 500    | -0.600  |       | 508     | 101.6 | -0.700  |       | 518     | 103.6 |  |       |
| Tungsten   |        | 500    | 9.10    |       | 484     | 96.8  | 7.40    |       | 493     | 98.6  |  |       |
| Vanadium   |        | 500    | -1.90   |       | 494     | 98.8  | -1.20   |       | 506     | 101.2 |  |       |
| Zinc       |        | 1000   | 2.50    |       | 966     | 96.6  | 2.10    |       | 953     | 95.3  |  |       |

14.4.7  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SE050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44327 Units: ug/l

| Time:      | 10:51   | 10:55  | 18:38   | 18:42  |
|------------|---------|--------|---------|--------|
| Sample ID: | ICSAB   | ICSAB1 | ICSAB2  | ICSAB2 |
| Metal      | True    | True   | True    | True   |
|            | Results | % Rec  | Results | % Rec  |

Zirconium 500 3.50 479 95.8 2.30 494 98.8

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.4.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44334  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 11:15 | MA44334-STD1       | 1               |          | STDA     |
| 11:18 | MA44334-STD2       | 1               |          | STDB     |
| 11:21 | ZZZZZZ             | 1               |          |          |
| 11:24 | ZZZZZZ             | 1               |          |          |
| 11:27 | MA44334-ICV1       | 1               |          |          |
| 11:33 | MA44334-ICB1       | 1               |          |          |
| 11:36 | MA44334-ICCV1      | 1               |          |          |
| 11:42 | MA44334-CCB1       | 1               |          |          |
| 11:45 | MA44334-CRI1       | 1               |          |          |
| 11:48 | MA44334-CRID1      | 1               |          |          |
| 11:51 | ZZZZZZ             | 1               |          |          |
| 11:54 | ZZZZZZ             | 1               |          |          |
| 11:57 | MA44334-HSTD1      | 1               |          |          |
| 12:00 | MA44334-HSTD2      | 1               |          |          |
| 12:04 | ZZZZZZ             | 1               |          |          |
| 12:07 | ZZZZZZ             | 1               |          |          |
| 12:10 | ZZZZZZ             | 1               |          |          |
| 12:13 | ZZZZZZ             | 1               |          |          |
| 12:16 | MA44334-CCV1       | 1               |          |          |
| 12:19 | MA44334-CCB2       | 1               |          |          |
| 12:22 | MA44334-ICSA1      | 1               |          |          |
| 12:25 | MA44334-ICSAB1     | 1               |          |          |
| 12:28 | ZZZZZZ             | 1               |          |          |
| 12:31 | ZZZZZZ             | 1               |          |          |
| 12:34 | ZZZZZZ             | 2               |          |          |
| 12:37 | ZZZZZZ             | 2               |          |          |
| 12:40 | ZZZZZZ             | 10              |          |          |
| 12:43 | ZZZZZZ             | 1               |          |          |
| 12:46 | ZZZZZZ             | 2               |          |          |
| 12:49 | MA44334-CCV2       | 1               |          |          |
| 12:52 | MA44334-CCB3       | 1               |          |          |
| 12:55 | ZZZZZZ             | 2               |          |          |
| 12:58 | ZZZZZZ             | 1               |          |          |

14.5  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44334  
Parameters: Ca

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 13:01  | ZZZZZZ                                      | 1               |          |  |
| 13:04  | ZZZZZZ                                      | 10              |          |  |
| 13:07  | ZZZZZZ                                      | 25              |          |  |
| 13:11  | ZZZZZZ                                      | 1               |          |  |
| 13:14  | ZZZZZZ                                      | 1               |          |  |
| 13:17  | ZZZZZZ                                      | 1               |          |  |
| 13:20  | ZZZZZZ                                      | 5               |          |  |
| 13:23  | ZZZZZZ                                      | 1               |          |  |
| 13:27  | MA44334-CCV3                                | 1               |          |  |
| 13:30  | MA44334-CCB4                                | 1               |          |  |
| 13:33  | ZZZZZZ                                      | 5               |          |  |
| 13:36  | ZZZZZZ                                      | 1               |          |  |
| 13:39  | ZZZZZZ                                      | 1               |          |  |
| 13:42  | ZZZZZZ                                      | 1               |          |  |
| 13:45  | ZZZZZZ                                      | 1               |          |  |
| 13:48  | ZZZZZZ                                      | 50              |          |  |
| 13:51  | ZZZZZZ                                      | 1               |          |  |
| 13:54  | JC65058-13                                  | 5               |          |  |
| -----> | Last reportable sample/prep for job JC65058 |                 |          |  |
| 13:58  | MA44334-CCV4                                | 1               |          |  |
| 14:00  | MA44334-CCB5                                | 1               |          |  |
| 14:04  | MA44334-CRI2                                | 1               |          |  |
| 14:07  | MA44334-CRID2                               | 1               |          |  |
| 14:11  | ZZZZZZ                                      | 1               |          |  |
| 14:14  | ZZZZZZ                                      | 1               |          |  |
| 14:17  | MA44334-CCV5                                | 1               |          |  |
| 14:20  | MA44334-CCB6                                | 1               |          |  |
| -----> | Last reportable CCB for job JC65058         |                 |          |  |
| 14:23  | MP6944-MB1                                  | 1               |          |  |
| 14:26  | MP6944-B1                                   | 1               |          |  |
| 14:29  | ZZZZZZ                                      | 1               |          |  |
| 14:32  | MP6944-S1                                   | 1               |          |  |
| 14:35  | MP6944-S2                                   | 1               |          |  |
| 14:38  | JC65168-1                                   | 1               |          | (sample used for QC only; not part of login JC65058) |
| 14:41  | MP6944-SD1                                  | 5               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44334  
Parameters: Ca

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 14:44 | ZZZZZZ             | 1               |          |          |
| 14:47 | ZZZZZZ             | 1               |          |          |
| 14:50 | MA44334-CCV6       | 1               |          |          |
| 14:53 | MA44334-CCB7       | 1               |          |          |
| 14:56 | ZZZZZZ             | 1               |          |          |
| 14:59 | ZZZZZZ             | 1               |          |          |
| 15:02 | ZZZZZZ             | 1               |          |          |
| 15:05 | ZZZZZZ             | 1               |          |          |
| 15:08 | ZZZZZZ             | 1               |          |          |
| 15:11 | ZZZZZZ             | 1               |          |          |
| 15:14 | ZZZZZZ             | 1               |          |          |
| 15:17 | ZZZZZZ             | 1               |          |          |
| 15:20 | MA44334-CCV7       | 1               |          |          |
| 15:23 | MA44334-CCB8       | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44334  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 11:15 | MA44334-STD1       | 5962 R | 133640 R | 23830 R | 9327 R |
| 11:18 | MA44334-STD2       | 5673   | 128700   | 23659   | 8616   |
| 11:21 | ZZZZZZ             | 5795   | 131870   | 23580   | 8799   |
| 11:24 | ZZZZZZ             | 5967   | 134310   | 23745   | 9335   |
| 11:27 | MA44334-ICV1       | 5821   | 131650   | 23581   | 8826   |
| 11:33 | MA44334-ICB1       | 6028   | 133310   | 23830   | 9413   |
| 11:36 | MA44334-ICCV1      | 5839   | 131650   | 23677   | 8852   |
| 11:42 | MA44334-CCB1       | 5993   | 134370   | 24007   | 9342   |
| 11:45 | MA44334-CRI1       | 5931   | 133230   | 23553   | 9186   |
| 11:48 | MA44334-CRID1      | 5988   | 134520   | 23988   | 9314   |
| 11:51 | ZZZZZZ             | 5497   | 124700   | 23008   | 8233   |
| 11:54 | ZZZZZZ             | 5493   | 124410   | 23024   | 8240   |
| 11:57 | MA44334-HSTD1      | 5998   | 133810   | 24107   | 9359   |
| 12:00 | MA44334-HSTD2      | 5638   | 127420   | 23161   | 8310   |
| 12:04 | ZZZZZZ             | 5559   | 125750   | 23083   | 8285   |
| 12:07 | ZZZZZZ             | 5540   | 999999 ! | 23138   | 8281   |
| 12:10 | ZZZZZZ             | 6024   | 134780   | 23671   | 9515   |
| 12:13 | ZZZZZZ             | 5972   | 135660   | 24089   | 9450   |
| 12:16 | MA44334-CCV1       | 5937   | 132910   | 23752   | 8949   |
| 12:19 | MA44334-CCB2       | 6088   | 135690   | 23769   | 9458   |
| 12:22 | MA44334-ICSA1      | 5538   | 126130   | 23034   | 8278   |
| 12:25 | MA44334-ICSAB1     | 5550   | 126090   | 23193   | 8318   |
| 12:28 | ZZZZZZ             | 6106   | 136050   | 23919   | 9506   |
| 12:31 | ZZZZZZ             | 6137   | 137040   | 24430   | 9544   |
| 12:34 | ZZZZZZ             | 6061   | 136340   | 24278   | 9403   |
| 12:37 | ZZZZZZ             | 6221   | 137810   | 24911   | 9284   |
| 12:40 | ZZZZZZ             | 6060   | 136500   | 24359   | 9580   |
| 12:43 | ZZZZZZ             | 6146   | 137760   | 24761   | 9566   |
| 12:46 | ZZZZZZ             | 5857   | 133740   | 24049   | 9031   |
| 12:49 | MA44334-CCV2       | 5921   | 132970   | 23708   | 8959   |
| 12:52 | MA44334-CCB3       | 6083   | 136050   | 24165   | 9473   |
| 12:55 | ZZZZZZ             | 5859   | 134100   | 24026   | 9024   |
| 12:58 | ZZZZZZ             | 5707   | 130740   | 23831   | 8482   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44334  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3   | Istd#4 |
|-------|--------------------|--------|--------|----------|--------|
| 13:01 | ZZZZZZ             | 6154   | 137240 | 24573    | 9579   |
| 13:04 | ZZZZZZ             | 5645   | 127870 | 23406    | 8262   |
| 13:07 | ZZZZZZ             | 5808   | 131460 | 23896    | 8634   |
| 13:11 | ZZZZZZ             | 6176   | 138330 | 24679    | 9568   |
| 13:14 | ZZZZZZ             | 5873   | 133250 | 24074    | 8695   |
| 13:17 | ZZZZZZ             | 6154   | 137330 | 24445    | 9547   |
| 13:20 | ZZZZZZ             | 6036   | 135600 | 24212    | 9161   |
| 13:23 | ZZZZZZ             | 5925   | 133170 | 999999 ! | 8948   |
| 13:27 | MA44334-CCV3       | 5921   | 133670 | 23944    | 8945   |
| 13:30 | MA44334-CCB4       | 6103   | 136350 | 23992    | 9498   |
| 13:33 | ZZZZZZ             | 6035   | 135920 | 24312    | 9159   |
| 13:36 | ZZZZZZ             | 6217   | 138490 | 24995    | 9348   |
| 13:39 | ZZZZZZ             | 6268   | 140290 | 25234    | 9329   |
| 13:42 | ZZZZZZ             | 6461   | 144530 | 25874    | 9375   |
| 13:45 | ZZZZZZ             | 6285   | 140420 | 25153    | 9368   |
| 13:48 | ZZZZZZ             | 5953   | 135010 | 24080    | 8960   |
| 13:51 | ZZZZZZ             | 6194   | 138780 | 24968    | 9638   |
| 13:54 | JC65058-13         | 5897   | 133380 | 24083    | 8842   |
| 13:58 | MA44334-CCV4       | 6012   | 134170 | 24117    | 9089   |
| 14:00 | MA44334-CCB5       | 6151   | 136990 | 24166    | 9582   |
| 14:04 | MA44334-CRI2       | 6094   | 136170 | 24293    | 9451   |
| 14:07 | MA44334-CRID2      | 6137   | 136400 | 24430    | 9552   |
| 14:11 | ZZZZZZ             | 6135   | 137130 | 24451    | 9519   |
| 14:14 | ZZZZZZ             | 6134   | 136730 | 24348    | 9541   |
| 14:17 | MA44334-CCV5       | 5959   | 134290 | 23989    | 9005   |
| 14:20 | MA44334-CCB6       | 6140   | 136390 | 24217    | 9555   |
| 14:23 | MP6944-MB1         | 6253   | 139970 | 24896    | 9753   |
| 14:26 | MP6944-B1          | 6149   | 137900 | 25159    | 9356   |
| 14:29 | ZZZZZZ             | 6100   | 136770 | 24402    | 9484   |
| 14:32 | MP6944-S1          | 5902   | 136290 | 24842    | 8950   |
| 14:35 | MP6944-S2          | 6011   | 135650 | 24826    | 9099   |
| 14:38 | JC65168-1          | 6138   | 138320 | 25062    | 9359   |
| 14:41 | MP6944-SD1         | 6156   | 139400 | 24907    | 9545   |

14.5.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
 Analyst: ND      Run ID: MA44334  
 Parameters: Ca

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 14:44 | ZZZZZZ             | 6145   | 138050 | 24936  | 9241   |
| 14:47 | ZZZZZZ             | 6154   | 137960 | 25157  | 9135   |
| 14:50 | MA44334-CCV6       | 5965   | 134210 | 24097  | 8990   |
| 14:53 | MA44334-CCB7       | 6173   | 137180 | 24530  | 9557   |
| 14:56 | ZZZZZZ             | 6148   | 138270 | 24888  | 9325   |
| 14:59 | ZZZZZZ             | 5991   | 135850 | 24664  | 8825   |
| 15:02 | ZZZZZZ             | 6068   | 136490 | 24808  | 9051   |
| 15:05 | ZZZZZZ             | 6074   | 137920 | 24821  | 9193   |
| 15:08 | ZZZZZZ             | 6136   | 137830 | 25064  | 9456   |
| 15:11 | ZZZZZZ             | 6149   | 136750 | 24833  | 9383   |
| 15:14 | ZZZZZZ             | 6024   | 135520 | 24573  | 9134   |
| 15:17 | ZZZZZZ             | 6039   | 138150 | 24838  | 9187   |
| 15:20 | MA44334-CCV7       | 5925   | 133030 | 23850  | 8928   |
| 15:23 | MA44334-CCB8       | 6104   | 136040 | 24330  | 9444   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

14.5.1  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44334 Units: ug/l

| Metal      | Time:      |     | 11:33  |       | 11:42 |       | 12:19 |       | 12:52 |       |       |
|------------|------------|-----|--------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | RL  | IDL    | ICB1  | final | CCB1  | final | CCB2  | final | CCB3  | final |
| Aluminum   | 200        | 19  |        |       |       |       |       |       |       |       |       |
| Antimony   | 6.0        | 2.4 | anr    |       |       |       |       |       |       |       |       |
| Arsenic    | 3.0        | 1.2 | anr    |       |       |       |       |       |       |       |       |
| Barium     | 200        | .6  |        |       |       |       |       |       |       |       |       |
| Beryllium  | 1.0        | .2  | anr    |       |       |       |       |       |       |       |       |
| Bismuth    | 20         | 3.2 |        |       |       |       |       |       |       |       |       |
| Boron      | 100        | 1.5 |        |       |       |       |       |       |       |       |       |
| Cadmium    | 3.0        | .4  | anr    |       |       |       |       |       |       |       |       |
| Calcium    | 5000       | 5.5 | -0.900 | <5000 | 5.00  | <5000 | 4.50  | <5000 | 4.20  | <5000 |       |
| Chromium   | 10         | .7  | anr    |       |       |       |       |       |       |       |       |
| Cobalt     | 50         | .4  | anr    |       |       |       |       |       |       |       |       |
| Copper     | 10         | 1.1 | anr    |       |       |       |       |       |       |       |       |
| Iron       | 100        | 3.5 | anr    |       |       |       |       |       |       |       |       |
| Lead       | 3.0        | 2.2 | anr    |       |       |       |       |       |       |       |       |
| Lithium    | 50         | 3.4 |        |       |       |       |       |       |       |       |       |
| Magnesium  | 5000       | 25  |        |       |       |       |       |       |       |       |       |
| Manganese  | 15         | .14 | anr    |       |       |       |       |       |       |       |       |
| Molybdenum | 20         | .4  |        |       |       |       |       |       |       |       |       |
| Nickel     | 10         | .5  | anr    |       |       |       |       |       |       |       |       |
| Phosphorus | 50         | 2   |        |       |       |       |       |       |       |       |       |
| Potassium  | 10000      | 60  |        |       |       |       |       |       |       |       |       |
| Selenium   | 10         | 3.7 | anr    |       |       |       |       |       |       |       |       |
| Silicon    | 200        | 1.8 |        |       |       |       |       |       |       |       |       |
| Silver     | 10         | .7  | anr    |       |       |       |       |       |       |       |       |
| Sodium     | 10000      | 35  | anr    |       |       |       |       |       |       |       |       |
| Strontium  | 10         | .2  |        |       |       |       |       |       |       |       |       |
| Sulfur     | 50         | 3.1 |        |       |       |       |       |       |       |       |       |
| Thallium   | 2.0        | 1.8 | anr    |       |       |       |       |       |       |       |       |
| Tin        | 10         | .9  |        |       |       |       |       |       |       |       |       |
| Titanium   | 10         | .7  |        |       |       |       |       |       |       |       |       |
| Tungsten   | 50         | 2.2 |        |       |       |       |       |       |       |       |       |
| Vanadium   | 50         | .8  | anr    |       |       |       |       |       |       |       |       |
| Zinc       | 20         | .2  | anr    |       |       |       |       |       |       |       |       |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL      Run ID: MA44334      Units: ug/l

| Time:      |    |     | 11:33 |       | 11:42 |       | 12:19 |       | 12:52 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium      10      .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44334 Units: ug/l

| Metal      | Time:      |       | 13:30 |      | 14:00 |      | 14:20 |      |
|------------|------------|-------|-------|------|-------|------|-------|------|
|            | Sample ID: | RL    | IDL   | CCB4 | final | CCB5 | final | CCB6 |
| Aluminum   |            | 200   | 19    |      |       |      |       |      |
| Antimony   |            | 6.0   | 2.4   | anr  |       |      |       |      |
| Arsenic    |            | 3.0   | 1.2   | anr  |       |      |       |      |
| Barium     |            | 200   | .6    |      |       |      |       |      |
| Beryllium  |            | 1.0   | .2    | anr  |       |      |       |      |
| Bismuth    |            | 20    | 3.2   |      |       |      |       |      |
| Boron      |            | 100   | 1.5   |      |       |      |       |      |
| Cadmium    |            | 3.0   | .4    | anr  |       |      |       |      |
| Calcium    |            | 5000  | 5.5   | 2.50 | <5000 | 4.60 | <5000 | 3.50 |
| Chromium   |            | 10    | .7    | anr  |       |      |       |      |
| Cobalt     |            | 50    | .4    | anr  |       |      |       |      |
| Copper     |            | 10    | 1.1   | anr  |       |      |       |      |
| Iron       |            | 100   | 3.5   | anr  |       |      |       |      |
| Lead       |            | 3.0   | 2.2   | anr  |       |      |       |      |
| Lithium    |            | 50    | 3.4   |      |       |      |       |      |
| Magnesium  |            | 5000  | 25    |      |       |      |       |      |
| Manganese  |            | 15    | .14   | anr  |       |      |       |      |
| Molybdenum |            | 20    | .4    |      |       |      |       |      |
| Nickel     |            | 10    | .5    | anr  |       |      |       |      |
| Phosphorus |            | 50    | 2     |      |       |      |       |      |
| Potassium  |            | 10000 | 60    |      |       |      |       |      |
| Selenium   |            | 10    | 3.7   | anr  |       |      |       |      |
| Silicon    |            | 200   | 1.8   |      |       |      |       |      |
| Silver     |            | 10    | .7    | anr  |       |      |       |      |
| Sodium     |            | 10000 | 35    | anr  |       |      |       |      |
| Strontium  |            | 10    | .2    |      |       |      |       |      |
| Sulfur     |            | 50    | 3.1   |      |       |      |       |      |
| Thallium   |            | 2.0   | 1.8   | anr  |       |      |       |      |
| Tin        |            | 10    | .9    |      |       |      |       |      |
| Titanium   |            | 10    | .7    |      |       |      |       |      |
| Tungsten   |            | 50    | 2.2   |      |       |      |       |      |
| Vanadium   |            | 50    | .8    | anr  |       |      |       |      |
| Zinc       |            | 20    | .2    | anr  |       |      |       |      |

14.5.2  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44334 Units: ug/l

| Time:      | 13:30 | 14:00 | 14:20 |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44334 Units: ug/l

|                 |       |
|-----------------|-------|
| Time:           | 11:36 |
| Sample ID: ICCV | ICCV1 |
| Metal           | True  |
| Results         | % Rec |

|            |       |       |       |
|------------|-------|-------|-------|
| Aluminum   |       |       |       |
| Antimony   | anr   |       |       |
| Arsenic    | anr   |       |       |
| Barium     |       |       |       |
| Beryllium  | anr   |       |       |
| Bismuth    |       |       |       |
| Boron      |       |       |       |
| Cadmium    | anr   |       |       |
| Calcium    | 40000 | 40700 | 101.8 |
| Chromium   | anr   |       |       |
| Cobalt     | anr   |       |       |
| Copper     | anr   |       |       |
| Iron       | anr   |       |       |
| Lead       | anr   |       |       |
| Lithium    |       |       |       |
| Magnesium  |       |       |       |
| Manganese  | anr   |       |       |
| Molybdenum |       |       |       |
| Nickel     | anr   |       |       |
| Phosphorus |       |       |       |
| Potassium  |       |       |       |
| Selenium   | anr   |       |       |
| Silicon    |       |       |       |
| Silver     | anr   |       |       |
| Sodium     | anr   |       |       |
| Strontium  |       |       |       |
| Sulfur     |       |       |       |
| Thallium   | anr   |       |       |
| Tin        |       |       |       |
| Titanium   |       |       |       |
| Tungsten   |       |       |       |
| Vanadium   | anr   |       |       |
| Zinc       | anr   |       |       |

14.5.3  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

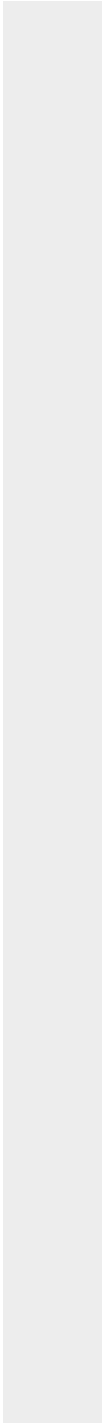
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery Run ID: MA44334 Units: ug/l

|                 |               |
|-----------------|---------------|
| Time:           | 11:36         |
| Sample ID: ICCV | ICCV1         |
| Metal True      | Results % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44334      Units: ug/l

| Metal      | Sample ID: ICV | 11:27 |               | CCV   | 12:16 |               | CCV   | 12:49 |               |
|------------|----------------|-------|---------------|-------|-------|---------------|-------|-------|---------------|
|            |                | ICV1  | Results % Rec |       | CCV1  | Results % Rec |       | CCV2  | Results % Rec |
| Aluminum   | True           |       |               | True  |       |               | True  |       |               |
| Antimony   | anr            |       |               |       |       |               |       |       |               |
| Arsenic    | anr            |       |               |       |       |               |       |       |               |
| Barium     |                |       |               |       |       |               |       |       |               |
| Beryllium  | anr            |       |               |       |       |               |       |       |               |
| Bismuth    |                |       |               |       |       |               |       |       |               |
| Boron      |                |       |               |       |       |               |       |       |               |
| Cadmium    | anr            |       |               |       |       |               |       |       |               |
| Calcium    | 40000          | 40500 | 101.3         | 40000 | 40300 | 100.8         | 40000 | 40100 | 100.3         |
| Chromium   | anr            |       |               |       |       |               |       |       |               |
| Cobalt     | anr            |       |               |       |       |               |       |       |               |
| Copper     | anr            |       |               |       |       |               |       |       |               |
| Iron       | anr            |       |               |       |       |               |       |       |               |
| Lead       | anr            |       |               |       |       |               |       |       |               |
| Lithium    |                |       |               |       |       |               |       |       |               |
| Magnesium  |                |       |               |       |       |               |       |       |               |
| Manganese  | anr            |       |               |       |       |               |       |       |               |
| Molybdenum |                |       |               |       |       |               |       |       |               |
| Nickel     | anr            |       |               |       |       |               |       |       |               |
| Phosphorus |                |       |               |       |       |               |       |       |               |
| Potassium  |                |       |               |       |       |               |       |       |               |
| Selenium   | anr            |       |               |       |       |               |       |       |               |
| Silicon    |                |       |               |       |       |               |       |       |               |
| Silver     | anr            |       |               |       |       |               |       |       |               |
| Sodium     | anr            |       |               |       |       |               |       |       |               |
| Strontium  |                |       |               |       |       |               |       |       |               |
| Sulfur     |                |       |               |       |       |               |       |       |               |
| Thallium   | anr            |       |               |       |       |               |       |       |               |
| Tin        |                |       |               |       |       |               |       |       |               |
| Titanium   |                |       |               |       |       |               |       |       |               |
| Tungsten   |                |       |               |       |       |               |       |       |               |
| Vanadium   | anr            |       |               |       |       |               |       |       |               |
| Zinc       | anr            |       |               |       |       |               |       |       |               |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44334      Units: ug/l

|            | Time: |         | 11:27 |      | 12:16   |       | 12:49 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | ICV1  | CCV  | CCV1    | CCV1  | CCV2  | CCV2    | CCV2  |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44334      Units: ug/l

| Metal      | Sample ID: CCV | 13:27 |         | CCV   | 13:58 |         | CCV   | 14:17 |         |
|------------|----------------|-------|---------|-------|-------|---------|-------|-------|---------|
|            |                | CCV3  | Results |       | CCV4  | Results |       | CCV5  | Results |
|            | True           |       | % Rec   | True  |       | % Rec   | True  |       | % Rec   |
| Aluminum   |                |       |         |       |       |         |       |       |         |
| Antimony   | anr            |       |         |       |       |         |       |       |         |
| Arsenic    | anr            |       |         |       |       |         |       |       |         |
| Barium     |                |       |         |       |       |         |       |       |         |
| Beryllium  | anr            |       |         |       |       |         |       |       |         |
| Bismuth    |                |       |         |       |       |         |       |       |         |
| Boron      |                |       |         |       |       |         |       |       |         |
| Cadmium    | anr            |       |         |       |       |         |       |       |         |
| Calcium    | 40000          | 40500 | 101.3   | 40000 | 39900 | 99.8    | 40000 | 40000 | 100.0   |
| Chromium   | anr            |       |         |       |       |         |       |       |         |
| Cobalt     | anr            |       |         |       |       |         |       |       |         |
| Copper     | anr            |       |         |       |       |         |       |       |         |
| Iron       | anr            |       |         |       |       |         |       |       |         |
| Lead       | anr            |       |         |       |       |         |       |       |         |
| Lithium    |                |       |         |       |       |         |       |       |         |
| Magnesium  |                |       |         |       |       |         |       |       |         |
| Manganese  | anr            |       |         |       |       |         |       |       |         |
| Molybdenum |                |       |         |       |       |         |       |       |         |
| Nickel     | anr            |       |         |       |       |         |       |       |         |
| Phosphorus |                |       |         |       |       |         |       |       |         |
| Potassium  |                |       |         |       |       |         |       |       |         |
| Selenium   | anr            |       |         |       |       |         |       |       |         |
| Silicon    |                |       |         |       |       |         |       |       |         |
| Silver     | anr            |       |         |       |       |         |       |       |         |
| Sodium     | anr            |       |         |       |       |         |       |       |         |
| Strontium  |                |       |         |       |       |         |       |       |         |
| Sulfur     |                |       |         |       |       |         |       |       |         |
| Thallium   | anr            |       |         |       |       |         |       |       |         |
| Tin        |                |       |         |       |       |         |       |       |         |
| Titanium   |                |       |         |       |       |         |       |       |         |
| Tungsten   |                |       |         |       |       |         |       |       |         |
| Vanadium   | anr            |       |         |       |       |         |       |       |         |
| Zinc       | anr            |       |         |       |       |         |       |       |         |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

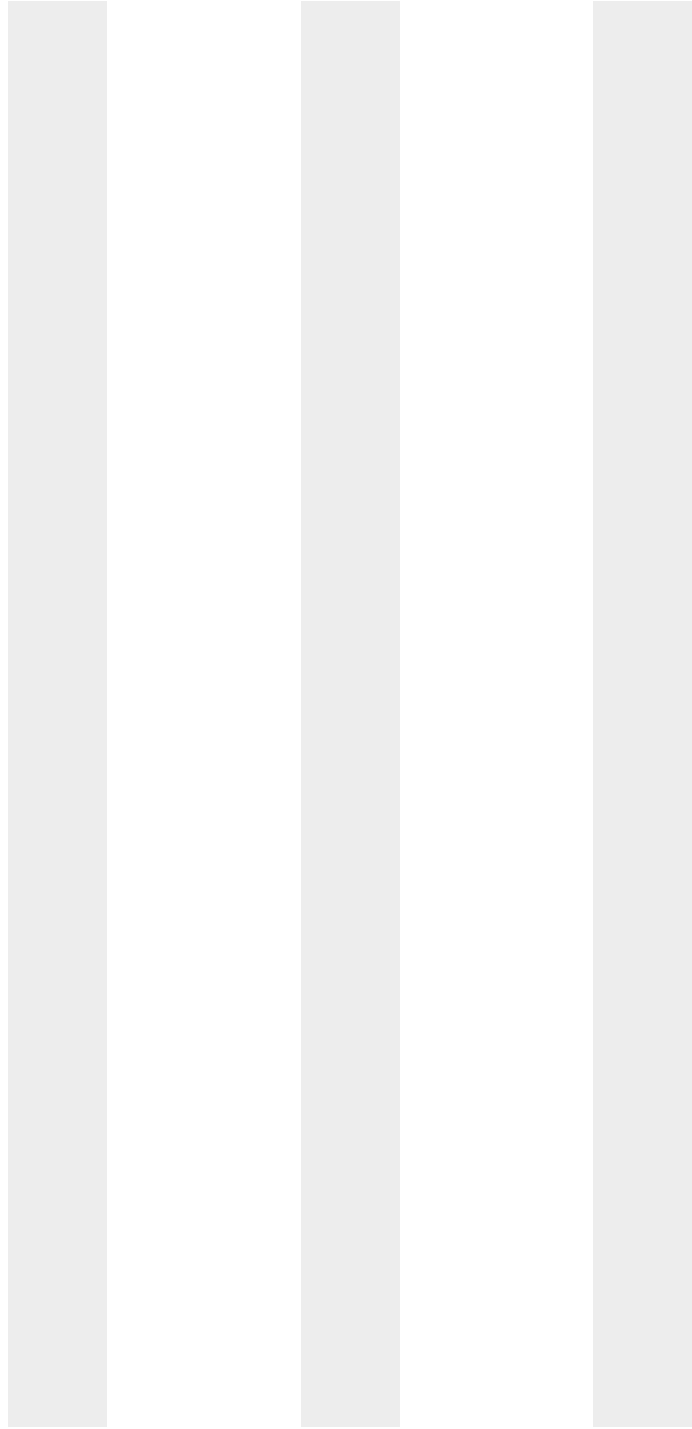
Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP      Date Analyzed: 05/03/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44334      Units: ug/l

|            | Time: |         |       |      | 13:58   |       |      | 14:17   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 13:27   | CCV3  | CCV  | CCV4    | CCV   | CCV5 |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44334 Units: ug/l

|            | Time: | 11:57   |       | 12:00  |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD   | HSTD2   |       |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       |        |         |       |
| Antimony   | anr   |         |       |        |         |       |
| Arsenic    | anr   |         |       |        |         |       |
| Barium     |       |         |       |        |         |       |
| Beryllium  | anr   |         |       |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      |       |         |       |        |         |       |
| Cadmium    | anr   |         |       |        |         |       |
| Calcium    |       |         |       | 150000 | 148000  | 98.7  |
| Chromium   | anr   |         |       |        |         |       |
| Cobalt     | anr   |         |       |        |         |       |
| Copper     | anr   |         |       |        |         |       |
| Iron       |       |         |       |        |         |       |
| Lead       | anr   |         |       |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       |        |         |       |
| Manganese  | anr   |         |       |        |         |       |
| Molybdenum |       |         |       |        |         |       |
| Nickel     | anr   |         |       |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       |        |         |       |
| Selenium   | anr   |         |       |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | anr   |         |       |        |         |       |
| Sodium     |       |         |       |        |         |       |
| Strontium  |       |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | anr   |         |       |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   |       |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | anr   |         |       |        |         |       |
| Zinc       | anr   |         |       |        |         |       |

14.5.5  
14

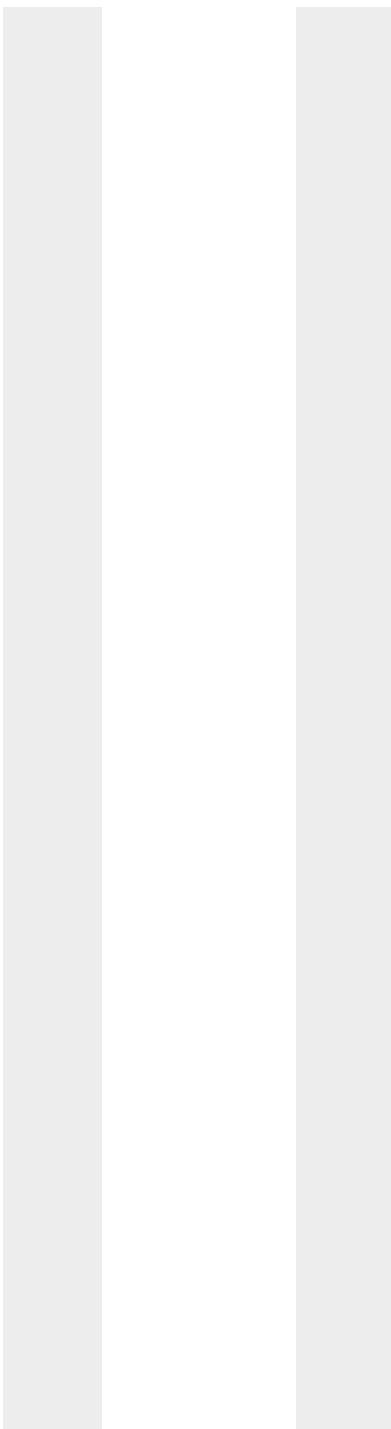
HIGH STANDARD CHECK SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44334 Units: ug/l

|            | Time: | 11:57   |       | 12:00 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium  
 (\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.5  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44334 Units: ug/l

| Time:      | 11:45 | 11:48 | 14:04 |         |       |         |       |         |       |
|------------|-------|-------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA  | CRID  | CR11    | % Rec | CRID1   | % Rec | CR12    | % Rec |
| Metal      | True  | True  | True  | Results |       | Results |       | Results |       |
| Aluminum   | 200   | 500   | 100   |         |       |         |       |         |       |
| Antimony   | 6.0   | 20    | 3.0   | anr     |       |         |       |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | anr     |       |         |       |         |       |
| Barium     | 200   |       | 4.0   |         |       |         |       |         |       |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |       |         |       |
| Bismuth    | 20    |       |       |         |       |         |       |         |       |
| Boron      | 100   |       | 10    |         |       |         |       |         |       |
| Cadmium    | 3.0   |       | 1.0   | anr     |       |         |       |         |       |
| Calcium    | 5000  | 2000  | 1000  | 5230    | 104.6 | 1050    | 105.0 | 5250    | 105.0 |
| Chromium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Cobalt     | 50    |       | 3.0   | anr     |       |         |       |         |       |
| Copper     | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Iron       | 100   | 500   |       | anr     |       |         |       |         |       |
| Lead       | 3.0   | 20    | 2.5   | anr     |       |         |       |         |       |
| Lithium    | 50    |       |       |         |       |         |       |         |       |
| Magnesium  | 5000  | 2000  | 100   |         |       |         |       |         |       |
| Manganese  | 15    |       | 3.0   | anr     |       |         |       |         |       |
| Molybdenum | 20    |       |       |         |       |         |       |         |       |
| Nickel     | 10    |       | 4.0   | anr     |       |         |       |         |       |
| Phosphorus | 50    |       |       |         |       |         |       |         |       |
| Potassium  | 5000  |       | 2000  |         |       |         |       |         |       |
| Selenium   | 10    | 20    | 5.0   | anr     |       |         |       |         |       |
| Silicon    | 200   |       |       |         |       |         |       |         |       |
| Silver     | 5.0   |       | 2.0   | anr     |       |         |       |         |       |
| Sodium     | 5000  |       | 1000  | anr     |       |         |       |         |       |
| Strontium  | 10    |       |       |         |       |         |       |         |       |
| Sulfur     | 50    |       |       |         |       |         |       |         |       |
| Thallium   | 10    |       | 2.0   | anr     |       |         |       |         |       |
| Tin        | 10    |       |       |         |       |         |       |         |       |
| Titanium   | 10    |       |       |         |       |         |       |         |       |
| Tungsten   | 50    |       |       |         |       |         |       |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |       |         |       |         |       |
| Zinc       | 20    |       | 10    | anr     |       |         |       |         |       |

14.5.6  
14



LOW CALIBRATION CHECK STANDARDS SUMMARY

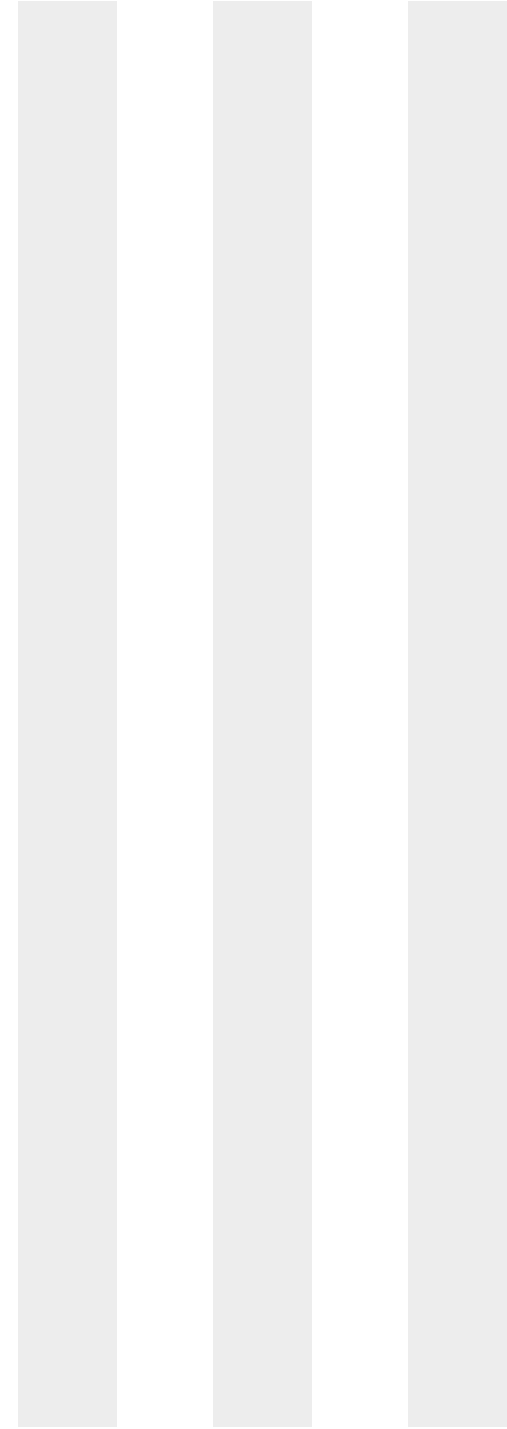
Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44334 Units: ug/l

| Time:      | 11:45   | 11:48 | 14:04   |
|------------|---------|-------|---------|
| Sample ID: | CRI     | CRID1 | CRI2    |
| Metal      | True    | True  | True    |
|            | Results | % Rec | Results |

Zirconium 10

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.6  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44334 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 14:07<br>CRID2 |  |
|------------|------------|------|------|---------|----------------|--|
| Metal      | True       | True | True | Results | % Rec          |  |
| Aluminum   | 200        | 500  | 100  |         |                |  |
| Antimony   | 6.0        | 20   | 3.0  | anr     |                |  |
| Arsenic    | 8.0        | 20   | 3.0  | anr     |                |  |
| Barium     | 200        |      | 4.0  |         |                |  |
| Beryllium  | 2.0        |      | 1.0  | anr     |                |  |
| Bismuth    | 20         |      |      |         |                |  |
| Boron      | 100        |      | 10   |         |                |  |
| Cadmium    | 3.0        |      | 1.0  | anr     |                |  |
| Calcium    | 5000       | 2000 | 1000 | 1040    | 104.0          |  |
| Chromium   | 10         |      | 2.0  | anr     |                |  |
| Cobalt     | 50         |      | 3.0  | anr     |                |  |
| Copper     | 10         |      | 2.0  | anr     |                |  |
| Iron       | 100        | 500  |      |         |                |  |
| Lead       | 3.0        | 20   | 2.5  | anr     |                |  |
| Lithium    | 50         |      |      |         |                |  |
| Magnesium  | 5000       | 2000 | 100  |         |                |  |
| Manganese  | 15         |      | 3.0  | anr     |                |  |
| Molybdenum | 20         |      |      |         |                |  |
| Nickel     | 10         |      | 4.0  | anr     |                |  |
| Phosphorus | 50         |      |      |         |                |  |
| Potassium  | 5000       |      | 2000 |         |                |  |
| Selenium   | 10         | 20   | 5.0  | anr     |                |  |
| Silicon    | 200        |      |      |         |                |  |
| Silver     | 5.0        |      | 2.0  | anr     |                |  |
| Sodium     | 5000       |      | 1000 | anr     |                |  |
| Strontium  | 10         |      |      |         |                |  |
| Sulfur     | 50         |      |      |         |                |  |
| Thallium   | 10         |      | 2.0  | anr     |                |  |
| Tin        | 10         |      |      |         |                |  |
| Titanium   | 10         |      |      |         |                |  |
| Tungsten   | 50         |      |      |         |                |  |
| Vanadium   | 50         |      | 2.0  | anr     |                |  |
| Zinc       | 20         |      | 10   | anr     |                |  |

14.5.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 70 to 130 % Recovery Run ID: MA44334 Units: ug/l

| Time:      | 14:07 |      |      |         |       |
|------------|-------|------|------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID | CRID2   |       |
| Metal      | True  | True | True | Results | % Rec |

Zirconium 10

(\*) Outside of QC limits  
(anr) Analyte not requested

14.5.6

14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44334 Units: ug/l

| Time:      |        |        | 12:22   |       |         | 12:25 |
|------------|--------|--------|---------|-------|---------|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec |
| Metal      | True   | True   | Results |       | Results |       |
| Aluminum   | 500000 | 500000 | 478000  | 95.6  | 492000  | 98.4  |
| Antimony   |        | 1000   | -2.90   |       | 1020    | 102.0 |
| Arsenic    |        | 1000   | 2.00    |       | 1020    | 102.0 |
| Barium     |        | 500    | 1.60    |       | 497     | 99.4  |
| Beryllium  |        | 500    | 0.00    |       | 481     | 96.2  |
| Bismuth    |        | 500    | 7.30    |       | 533     | 106.6 |
| Boron      |        | 500    | 3.40    |       | 499     | 99.8  |
| Cadmium    |        | 1000   | 0.200   |       | 994     | 99.4  |
| Calcium    | 400000 | 400000 | 370000  | 92.5  | 379000  | 94.8  |
| Chromium   |        | 500    | 0.700   |       | 475     | 95.0  |
| Cobalt     |        | 500    | 0.200   |       | 485     | 97.0  |
| Copper     |        | 500    | -1.60   |       | 493     | 98.6  |
| Iron       | 200000 | 200000 | 182000  | 91.0  | 188000  | 94.0  |
| Lead       |        | 1000   | 2.70    |       | 963     | 96.3  |
| Lithium    |        | 500    | 2.00    |       | 511     | 102.2 |
| Magnesium  | 500000 | 500000 | 476000  | 95.2  | 496000  | 99.2  |
| Manganese  |        | 500    | -0.400  |       | 497     | 99.4  |
| Molybdenum |        | 500    | 0.00    |       | 476     | 95.2  |
| Nickel     |        | 1000   | -0.400  |       | 958     | 95.8  |
| Phosphorus |        | 500    | 8.40    |       | 503     | 100.6 |
| Potassium  |        |        | 78.4    |       | 76.4    |       |
| Selenium   |        | 1000   | 0.500   |       | 968     | 96.8  |
| Silicon    |        | 500    | 16.2    |       | 530     | 106.0 |
| Silver     |        | 1000   | -0.400  |       | 969     | 96.9  |
| Sodium     |        |        | -92.3   |       | -78.4   |       |
| Strontium  |        | 500    | -2.70   |       | 513     | 102.6 |
| Sulfur     |        | 500    | 1.50    |       | 504     | 100.8 |
| Thallium   |        | 1000   | -2.70   |       | 1040    | 104.0 |
| Tin        |        | 500    | -3.20   |       | 463     | 92.6  |
| Titanium   |        | 500    | -1.60   |       | 487     | 97.4  |
| Tungsten   |        | 500    | 0.800   |       | 474     | 94.8  |
| Vanadium   |        | 500    | 1.50    |       | 485     | 97.0  |
| Zinc       |        | 1000   | 5.30    |       | 955     | 95.5  |

14.5.7  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050318M1.ICP Date Analyzed: 05/03/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44334 Units: ug/l

| Time:      |       | 12:22 |         | 12:25  |         |       |
|------------|-------|-------|---------|--------|---------|-------|
| Sample ID: | ICSAB | ICSAB | ICSAB1  | ICSAB1 | ICSAB1  |       |
| Metal      | True  | True  | Results | % Rec  | Results | % Rec |

|           |  |     |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|
| Zirconium |  | 500 | -2.30 |  | 477 | 95.4 |
|-----------|--|-----|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.5.7  
 14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/30/18

| Metal      | RL   | IDL  | MDL  | MB<br>raw | final |
|------------|------|------|------|-----------|-------|
| Aluminum   | 49   | 1.9  | 5.1  | 0.26      | <49   |
| Antimony   | 2.0  | .24  | .37  | 0.059     | <2.0  |
| Arsenic    | 2.0  | .12  | .25  | 0.0       | <2.0  |
| Barium     | 20   | .059 | .17  | 0.0098    | <20   |
| Beryllium  | 0.20 | .02  | .048 | 0.0098    | <0.20 |
| Bismuth    | 2.0  | .31  | .48  |           |       |
| Boron      | 9.8  | .15  | 1.3  |           |       |
| Cadmium    | 0.49 | .039 | .056 | 0.020     | <0.49 |
| Calcium    | 490  | .54  | 41   | 10.8      | <490  |
| Chromium   | 0.98 | .069 | .17  | 0.098     | <0.98 |
| Cobalt     | 4.9  | .039 | .069 | -0.0098   | <4.9  |
| Copper     | 2.5  | .11  | .39  | 0.020     | <2.5  |
| Iron       | 49   | .34  | 4.5  | 2.5       | <49   |
| Lead       | 2.0  | .22  | .34  | -0.029    | <2.0  |
| Lithium    | 4.9  | .33  | 1.1  |           |       |
| Magnesium  | 490  | 2.4  | 13   | 2.5       | <490  |
| Manganese  | 1.5  | .014 | .085 | 0.039     | <1.5  |
| Molybdenum | 2.0  | .039 | .15  |           |       |
| Nickel     | 3.9  | .049 | .24  | -0.020    | <3.9  |
| Phosphorus | 9.8  | .2   | 4    |           |       |
| Potassium  | 980  | 5.8  | 30   | 0.34      | <980  |
| Selenium   | 2.0  | .36  | .63  | 0.059     | <2.0  |
| Silicon    | 20   | .18  | 2.5  |           |       |
| Silver     | 0.49 | .069 | .28  | 0.0098    | <0.49 |
| Sodium     | 980  | 3.4  | 13   | 12.1      | <980  |
| Strontium  | 4.9  | .02  | .94  |           |       |
| Sulfur     | 9.8  | .3   | 2.9  |           |       |
| Thallium   | 0.98 | .18  | .4   | 0.029     | <0.98 |
| Tin        | 9.8  | .088 | 2.5  |           |       |
| Titanium   | 0.98 | .069 | .26  |           |       |
| Tungsten   | 4.9  | .22  | 1.1  |           |       |
| Vanadium   | 4.9  | .078 | .086 | 0.0098    | <4.9  |
| Zinc       | 4.9  | .02  | 3.7  | 0.22      | <4.9  |

14.6.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/30/18

| Metal | RL | IDL | MDL | MB  |       |
|-------|----|-----|-----|-----|-------|
|       |    |     |     | raw | final |

Zirconium 2.0 .029 .24

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.6.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/30/18

| Metal      | TD20148-1<br>Original MS |        | SpikeLot<br>MPSPK2 | % Rec     | QC<br>Limits |
|------------|--------------------------|--------|--------------------|-----------|--------------|
| Aluminum   | 254                      | 2600   | 2480               | 94.8      | 75-125       |
| Antimony   | 4.4                      | 202    | 198                | 99.8      | 75-125       |
| Arsenic    | 36.1                     | 241    | 198                | 103.5     | 75-125       |
| Barium     | 795                      | 1240   | 198                | 224.7(a)  | 75-125       |
| Beryllium  | 0.0                      | 182    | 198                | 91.9      | 75-125       |
| Bismuth    |                          |        |                    |           |              |
| Boron      |                          |        |                    |           |              |
| Cadmium    | 1.6                      | 188    | 198                | 94.1      | 75-125       |
| Calcium    | 4450                     | 5950   | 2480               | 60.6N(b)  | 75-125       |
| Chromium   | 87.3                     | 298    | 198                | 106.4     | 75-125       |
| Cobalt     | 8.3                      | 167    | 198                | 80.1      | 75-125       |
| Copper     | 171                      | 420    | 198                | 125.7N(b) | 75-125       |
| Iron       | 96100                    | 113000 | 2480               | 682.8(a)  | 75-125       |
| Lead       | 225                      | 468    | 198                | 122.7     | 75-125       |
| Lithium    |                          |        |                    |           |              |
| Magnesium  | 493                      | 2620   | 2480               | 85.9      | 75-125       |
| Manganese  | 1520                     | 2030   | 198                | 257.6(a)  | 75-125       |
| Molybdenum |                          |        |                    |           |              |
| Nickel     | 79.5                     | 286    | 198                | 104.3     | 75-125       |
| Phosphorus |                          |        |                    |           |              |
| Potassium  | 432                      | 2650   | 2480               | 89.6      | 75-125       |
| Selenium   | 0.0                      | 202    | 198                | 102.0     | 75-125       |
| Silicon    |                          |        |                    |           |              |
| Silver     | 1.7                      | 25.2   | 24.8               | 94.9      | 75-125       |
| Sodium     | 5990                     | 7290   | 2480               | 52.5N(b)  | 75-125       |
| Strontium  |                          |        |                    |           |              |
| Sulfur     | anr                      |        |                    |           |              |
| Thallium   | 0.0                      | 202    | 198                | 102.0     | 75-125       |
| Tin        |                          |        |                    |           |              |
| Titanium   |                          |        |                    |           |              |
| Tungsten   |                          |        |                    |           |              |
| Vanadium   | 27.5                     | 236    | 198                | 105.3     | 75-125       |
| Zinc       | 208                      | 375    | 198                | 84.3      | 75-125       |



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/30/18

| Metal | TD20148-1<br>Original MS | Spike lot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|--------------------------|---------------------|-------|--------------|
|-------|--------------------------|---------------------|-------|--------------|

Zirconium

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.6.2 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/30/18 04/30/18

| Metal      | TD20148-1 |        | Spike lot<br>MPSPK2 | % Rec    | MSD<br>RPD | QC<br>Limit | TD20148-1 |        | RPD      | QC<br>Limits |
|------------|-----------|--------|---------------------|----------|------------|-------------|-----------|--------|----------|--------------|
|            | Original  | MSD    |                     |          |            |             | Original  | DUP    |          |              |
| Aluminum   | 254       | 2540   | 2430                | 94.2     | 2.3        | 20          | 254       | 249    | 2.0      | 0-20         |
| Antimony   | 4.4       | 192    | 194                 | 96.6     | 5.1        | 20          | 4.4       | 4.5    | 2.2      | 0-20         |
| Arsenic    | 36.1      | 230    | 194                 | 99.9     | 4.7        | 20          | 36.1      | 44.3   | 20.4 (d) | 0-20         |
| Barium     | 795       | 1000   | 194                 | 105.6    | 21.4 (a)   | 20          | 795       | 1260   | 45.3*(a) | 0-20         |
| Beryllium  | 0.0       | 175    | 194                 | 90.1     | 3.9        | 20          | 0.0       | 0.0    | NC       | 0-20         |
| Bismuth    |           |        |                     |          |            |             |           |        |          |              |
| Boron      |           |        |                     |          |            |             |           |        |          |              |
| Cadmium    | 1.6       | 182    | 194                 | 92.9     | 3.2        | 20          | 1.6       | 1.6    | 0.0      | 0-20         |
| Calcium    | 4450      | 5530   | 2430                | 44.5N(b) | 7.3        | 20          | 4450      | 3800   | 15.8     | 0-20         |
| Chromium   | 87.3      | 279    | 194                 | 98.7     | 6.6        | 20          | 87.3      | 87.8   | 0.6      | 0-20         |
| Cobalt     | 8.3       | 161    | 194                 | 78.6     | 3.7        | 20          | 8.3       | 8.0    | 3.7      | 0-20         |
| Copper     | 171       | 408    | 194                 | 122.1    | 2.9        | 20          | 171       | 204    | 17.6     | 0-20         |
| Iron       | 96100     | 115000 | 2430                | 778.7(c) | 1.8        | 20          | 96100     | 112000 | 15.3     | 0-20         |
| Lead       | 225       | 444    | 194                 | 112.8    | 5.3        | 20          | 225       | 262    | 15.2     | 0-20         |
| Lithium    |           |        |                     |          |            |             |           |        |          |              |
| Magnesium  | 493       | 2470   | 2430                | 81.5     | 5.9        | 20          | 493       | 379    | 26.1 (d) | 0-20         |
| Manganese  | 1520      | 2040   | 194                 | 267.8(c) | 0.5        | 20          | 1520      | 1850   | 19.6     | 0-20         |
| Molybdenum |           |        |                     |          |            |             |           |        |          |              |
| Nickel     | 79.5      | 293    | 194                 | 110.0    | 2.4        | 20          | 79.5      | 96.5   | 19.3     | 0-20         |
| Phosphorus |           |        |                     |          |            |             |           |        |          |              |
| Potassium  | 432       | 2510   | 2430                | 85.6     | 5.4        | 20          | 432       | 293    | 38.3 (d) | 0-20         |
| Selenium   | 0.0       | 193    | 194                 | 99.4     | 4.6        | 20          | 0.0       | 0.0    | NC       | 0-20         |
| Silicon    |           |        |                     |          |            |             |           |        |          |              |
| Silver     | 1.7       | 23.8   | 24.3                | 91.1     | 5.7        | 20          | 1.7       | 2.1    | 21.1 (d) | 0-20         |
| Sodium     | 5990      | 5930   | 2430                | -2.5N(b) | 20.6 (a)   | 20          | 5990      | 4530   | 27.8*(a) | 0-20         |
| Strontium  |           |        |                     |          |            |             |           |        |          |              |
| Sulfur     | anr       |        |                     |          |            |             |           |        |          |              |
| Thallium   | 0.0       | 191    | 194                 | 98.4     | 5.6        | 20          | 0.0       | 0.0    | NC       | 0-20         |
| Tin        |           |        |                     |          |            |             |           |        |          |              |
| Titanium   |           |        |                     |          |            |             |           |        |          |              |
| Tungsten   |           |        |                     |          |            |             |           |        |          |              |
| Vanadium   | 27.5      | 225    | 194                 | 101.7    | 4.8        | 20          | 27.5      | 33.4   | 19.4     | 0-20         |
| Zinc       | 208       | 361    | 194                 | 78.8     | 3.8        | 20          | 208       | 194    | 7.0      | 0-20         |

14.6.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/30/18 04/30/18

| Metal | TD20148-1<br>Original MSD | Spike lot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit | TD20148-1<br>Original DUP | RPD | QC<br>Limits |
|-------|---------------------------|---------------------|-------|------------|-------------|---------------------------|-----|--------------|
|-------|---------------------------|---------------------|-------|------------|-------------|---------------------------|-----|--------------|

Zirconium

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) High rpd due to possible sample nonhomogeneity.
- (b) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- (c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- (d) RPD acceptable due to low duplicate and sample concentrations.

14.6.2 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 04/30/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   | 2550       | 2530            | 101.0 | 80-120    |
| Antimony   | 204        | 202             | 101.0 | 80-120    |
| Arsenic    | 201        | 202             | 99.5  | 80-120    |
| Barium     | 205        | 202             | 101.5 | 80-120    |
| Beryllium  | 206        | 202             | 102.0 | 80-120    |
| Bismuth    |            |                 |       |           |
| Boron      |            |                 |       |           |
| Cadmium    | 208        | 202             | 103.0 | 80-120    |
| Calcium    | 2580       | 2530            | 102.2 | 80-120    |
| Chromium   | 206        | 202             | 102.0 | 80-120    |
| Cobalt     | 211        | 202             | 104.4 | 80-120    |
| Copper     | 201        | 202             | 99.5  | 80-120    |
| Iron       | 2590       | 2530            | 102.6 | 80-120    |
| Lead       | 211        | 202             | 104.4 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  | 2590       | 2530            | 102.6 | 80-120    |
| Manganese  | 210        | 202             | 104.0 | 80-120    |
| Molybdenum |            |                 |       |           |
| Nickel     | 212        | 202             | 104.9 | 80-120    |
| Phosphorus |            |                 |       |           |
| Potassium  | 2510       | 2530            | 99.4  | 80-120    |
| Selenium   | 202        | 202             | 100.0 | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 24.8       | 25.3            | 98.2  | 80-120    |
| Sodium     | 2580       | 2530            | 102.2 | 80-120    |
| Strontium  |            |                 |       |           |
| Sulfur     | anr        |                 |       |           |
| Thallium   | 212        | 202             | 104.9 | 80-120    |
| Tin        |            |                 |       |           |
| Titanium   |            |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   | 205        | 202             | 101.5 | 80-120    |
| Zinc       | 213        | 202             | 105.4 | 80-120    |

14.6.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 04/30/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.6.3  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/30/18

| Metal      | TD20148-1<br>Original | SDL 1:5 | %DIF     | QC<br>Limits |
|------------|-----------------------|---------|----------|--------------|
| Aluminum   | 2520                  | 2700    | 7.0      | 0-10         |
| Antimony   | 43.2                  | 56.9    | 31.7 (a) | 0-10         |
| Arsenic    | 358                   | 369     | 3.2      | 0-10         |
| Barium     | 7880                  | 9130    | 15.9*(b) | 0-10         |
| Beryllium  | 0.00                  | 0.00    | NC       | 0-10         |
| Bismuth    |                       |         |          |              |
| Boron      |                       |         |          |              |
| Cadmium    | 16.2                  | 7.70    | 52.5 (a) | 0-10         |
| Calcium    | 44000                 | 47500   | 7.9      | 0-10         |
| Chromium   | 864                   | 879     | 1.7      | 0-10         |
| Cobalt     | 82.6                  | 67.0    | 18.9*(b) | 0-10         |
| Copper     | 1700                  | 1700    | 0.4      | 0-10         |
| Iron       | 952000                | 966000  | 1.5      | 0-10         |
| Lead       | 2220                  | 2350    | 5.6      | 0-10         |
| Lithium    |                       |         |          |              |
| Magnesium  | 4880                  | 5530    | 13.4*(b) | 0-10         |
| Manganese  | 15100                 | 15300   | 1.5      | 0-10         |
| Molybdenum |                       |         |          |              |
| Nickel     | 787                   | 818     | 4.0      | 0-10         |
| Phosphorus |                       |         |          |              |
| Potassium  | 4280                  | 5480    | 28.0*(b) | 0-10         |
| Selenium   | 0.00                  | 0.00    | NC       | 0-10         |
| Silicon    |                       |         |          |              |
| Silver     | 16.7                  | 0.00    | 100.0(a) | 0-10         |
| Sodium     | 59300                 | 63700   | 7.5      | 0-10         |
| Strontium  |                       |         |          |              |
| Sulfur     | anr                   |         |          |              |
| Thallium   | 0.00                  | 0.00    | NC       | 0-10         |
| Tin        |                       |         |          |              |
| Titanium   |                       |         |          |              |
| Tungsten   |                       |         |          |              |
| Vanadium   | 272                   | 282     | 3.4      | 0-10         |
| Zinc       | 2060                  | 2260    | 10.2*(b) | 0-10         |

14.6.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/30/18

| Metal | TD20148-1        | QC          |
|-------|------------------|-------------|
|       | Original SDL 1:5 | %DIF Limits |

Zirconium

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

14.6.4  
14

POST DIGESTATE SPIKE SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6883  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date:

04/30/18

| Metal      | Sample ml | Final ml | TD20148-1 Raw | PS Corr.** ug/l | PS ug/l | Spike ml | Spike ug/ml | Spike ug/l | % Rec     | QC Limits |
|------------|-----------|----------|---------------|-----------------|---------|----------|-------------|------------|-----------|-----------|
| Bismuth    |           |          |               |                 |         |          |             |            |           |           |
| Boron      |           |          |               |                 |         |          |             |            |           |           |
| Calcium    | 9.0       | 10       | 44030         | 39627           | 139700  | 0.1      | 10000       | 100000     | 100.1     | 80-120    |
| Cobalt     | 9.0       | 10       | 82.6          | 74.34           | 534.3   | 0.5      | 10          | 500        | 92.0      | 80-120    |
| Copper     | 9.0       | 10       | 1695          | 1525.5          | 2368    | 0.5      | 10          | 500        | 168.5*(a) | 80-120    |
| Lead       | 9.0       | 10       | 2223          | 2000.7          | 2972    | 0.5      | 10          | 500        | 194.3*(a) | 80-120    |
| Lithium    |           |          |               |                 |         |          |             |            |           |           |
| Molybdenum |           |          |               |                 |         |          |             |            |           |           |
| Phosphorus |           |          |               |                 |         |          |             |            |           |           |
| Silicon    |           |          |               |                 |         |          |             |            |           |           |
| Sodium     | 9.0       | 10       | 59270         | 53343           | 159400  | 0.1      | 10000       | 100000     | 106.1     | 80-120    |
| Strontium  |           |          |               |                 |         |          |             |            |           |           |
| Tin        |           |          |               |                 |         |          |             |            |           |           |
| Titanium   |           |          |               |                 |         |          |             |            |           |           |
| Tungsten   |           |          |               |                 |         |          |             |            |           |           |
| Zinc       | 9.0       | 10       | 2055          | 1849.5          | 2400    | 0.5      | 10          | 500        | 110.1     | 80-120    |
| Zirconium  |           |          |               |                 |         |          |             |            |           |           |

Associated samples MP6883: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (\*\*) Corr. sample result = Raw \* (sample volume / final volume)  
 (anr) Analyte not requested  
 (a) Spike recovery indicates possible matrix interference.

14.6.5  
 14



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6891  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 04/30/18

| Metal   | RL    | IDL   | MDL  | MB     |        |
|---------|-------|-------|------|--------|--------|
|         |       |       |      | raw    | final  |
| Mercury | 0.033 | .0042 | .015 | 0.0097 | <0.033 |

Associated samples MP6891: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.7.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6891  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 04/30/18

| Metal | JC65141-1<br>Original MS | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

Mercury 0.0071 0.40 0.354 110.9 80-120

Associated samples MP6891: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.7.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6891  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 04/30/18

| Metal   | JC65141-1<br>Original MSD | Spike<br>lot | HGPWS1<br>% Rec | MSD<br>RPD | QC<br>Limit |
|---------|---------------------------|--------------|-----------------|------------|-------------|
| Mercury | 0.0071                    | 0.40         | 0.357           | 109.9      | 0.0 20      |

Associated samples MP6891: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.7.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6891  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 04/30/18

| Metal   | BSP<br>Result | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|---------|---------------|--------------------|-------|--------------|
| Mercury | 0.35          | 0.333              | 105.1 | 80-120       |

Associated samples MP6891: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11, JC65058-12, JC65058-13, JC65058-15

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

14.7.3  
 14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 04/30/18

| Metal      | RL    | IDL   | MDL   | MB<br>raw | final  |
|------------|-------|-------|-------|-----------|--------|
| Aluminum   | 1.0   | .095  | .17   |           |        |
| Antimony   | 0.50  | .012  | .022  |           |        |
| Arsenic    | 0.50  | .006  | .014  | 0.0013    | <0.50  |
| Barium     | 1.0   | .003  | .0063 | 0.0035    | <1.0   |
| Beryllium  | 0.025 | .001  | .002  |           |        |
| Bismuth    | 0.10  | .016  | .025  |           |        |
| Boron      | 0.50  | .0075 | .067  |           |        |
| Cadmium    | 0.025 | .002  | .0035 | 0.0020    | <0.025 |
| Calcium    | 10    | .028  | .14   |           |        |
| Chromium   | 0.050 | .0035 | .0043 | -0.0016   | <0.050 |
| Cobalt     | 0.25  | .002  | .0036 |           |        |
| Copper     | 0.050 | .0055 | .016  |           |        |
| Iron       | 0.50  | .018  | .16   |           |        |
| Lead       | 0.50  | .011  | .013  | 0.0072    | <0.50  |
| Lithium    | 0.25  | .017  | .076  |           |        |
| Magnesium  | 10    | .12   | .32   |           |        |
| Manganese  | 0.075 | .0007 | .0021 |           |        |
| Molybdenum | 0.10  | .002  | .007  |           |        |
| Nickel     | 0.050 | .0025 | .0067 |           |        |
| Potassium  | 10    | .3    | 1.2   |           |        |
| Selenium   | 0.50  | .019  | .033  | 0.0039    | <0.50  |
| Silicon    | 1.0   | .009  | .22   |           |        |
| Silver     | 0.050 | .0035 | .016  | 0.0013    | <0.050 |
| Sodium     | 10    | .17   | .64   |           |        |
| Strontium  | 0.050 | .001  | .0015 |           |        |
| Sulfur     | 0.25  | .016  | .075  |           |        |
| Thallium   | 0.50  | .009  | .0082 |           |        |
| Tin        | 0.050 | .0045 | .012  |           |        |
| Titanium   | 0.050 | .0035 | .0092 |           |        |
| Tungsten   | 0.25  | .011  | .071  |           |        |
| Vanadium   | 0.25  | .004  | .0064 |           |        |
| Zinc       | 0.10  | .001  | .002  |           |        |
| Zirconium  | 0.050 | .0015 | .01   |           |        |

14.8.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 04/30/18

| Metal | RL | IDL | MDL | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

Associated samples MP6897: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.8.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original MS | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |        |
|------------|---------------------------|--------------------|-------|--------------|--------|
| Aluminum   |                           |                    |       |              |        |
| Antimony   |                           |                    |       |              |        |
| Arsenic    | 0.0                       | 1.9                | 2.0   | 95.0         | 75-125 |
| Barium     | 0.061                     | 2.0                | 2.0   | 97.0         | 75-125 |
| Beryllium  |                           |                    |       |              |        |
| Bismuth    |                           |                    |       |              |        |
| Boron      |                           |                    |       |              |        |
| Cadmium    | 0.0                       | 1.9                | 2.0   | 95.0         | 75-125 |
| Calcium    |                           |                    |       |              |        |
| Chromium   | 0.0057                    | 2.0                | 2.0   | 99.7         | 75-125 |
| Cobalt     |                           |                    |       |              |        |
| Copper     |                           |                    |       |              |        |
| Iron       |                           |                    |       |              |        |
| Lead       | 0.0                       | 2.0                | 2.0   | 100.0        | 75-125 |
| Lithium    |                           |                    |       |              |        |
| Magnesium  |                           |                    |       |              |        |
| Manganese  |                           |                    |       |              |        |
| Molybdenum |                           |                    |       |              |        |
| Nickel     |                           |                    |       |              |        |
| Potassium  |                           |                    |       |              |        |
| Selenium   | 0.0                       | 2.0                | 2.0   | 100.0        | 75-125 |
| Silicon    |                           |                    |       |              |        |
| Silver     | 0.0                       | 0.24               | 0.25  | 96.0         | 75-125 |
| Sodium     |                           |                    |       |              |        |
| Strontium  |                           |                    |       |              |        |
| Sulfur     |                           |                    |       |              |        |
| Thallium   |                           |                    |       |              |        |
| Tin        |                           |                    |       |              |        |
| Titanium   |                           |                    |       |              |        |
| Tungsten   |                           |                    |       |              |        |
| Vanadium   |                           |                    |       |              |        |
| Zinc       |                           |                    |       |              |        |
| Zirconium  |                           |                    |       |              |        |

14.8.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 04/30/18

| Metal | JC65070-1A<br>Original MS | SpikeLot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------------------|--------------------|-------|--------------|
|-------|---------------------------|--------------------|-------|--------------|

Associated samples MP6897: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

14.8.2  
14



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original MSD |      | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|------------|----------------------------|------|--------------------|-------|------------|-------------|
| Aluminum   |                            |      |                    |       |            |             |
| Antimony   |                            |      |                    |       |            |             |
| Arsenic    | 0.0                        | 1.9  | 2.0                | 95.0  | 0.0        | 20          |
| Barium     | 0.061                      | 2.1  | 2.0                | 102.0 | 4.9        | 20          |
| Beryllium  |                            |      |                    |       |            |             |
| Bismuth    |                            |      |                    |       |            |             |
| Boron      |                            |      |                    |       |            |             |
| Cadmium    | 0.0                        | 2.0  | 2.0                | 100.0 | 5.1        | 20          |
| Calcium    |                            |      |                    |       |            |             |
| Chromium   | 0.0057                     | 2.0  | 2.0                | 99.7  | 0.0        | 20          |
| Cobalt     |                            |      |                    |       |            |             |
| Copper     |                            |      |                    |       |            |             |
| Iron       |                            |      |                    |       |            |             |
| Lead       | 0.0                        | 2.0  | 2.0                | 100.0 | 0.0        | 20          |
| Lithium    |                            |      |                    |       |            |             |
| Magnesium  |                            |      |                    |       |            |             |
| Manganese  |                            |      |                    |       |            |             |
| Molybdenum |                            |      |                    |       |            |             |
| Nickel     |                            |      |                    |       |            |             |
| Potassium  |                            |      |                    |       |            |             |
| Selenium   | 0.0                        | 2.0  | 2.0                | 100.0 | 0.0        | 20          |
| Silicon    |                            |      |                    |       |            |             |
| Silver     | 0.0                        | 0.24 | 0.25               | 96.0  | 0.0        | 20          |
| Sodium     |                            |      |                    |       |            |             |
| Strontium  |                            |      |                    |       |            |             |
| Sulfur     |                            |      |                    |       |            |             |
| Thallium   |                            |      |                    |       |            |             |
| Tin        |                            |      |                    |       |            |             |
| Titanium   |                            |      |                    |       |            |             |
| Tungsten   |                            |      |                    |       |            |             |
| Vanadium   |                            |      |                    |       |            |             |
| Zinc       |                            |      |                    |       |            |             |
| Zirconium  |                            |      |                    |       |            |             |

14.8.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

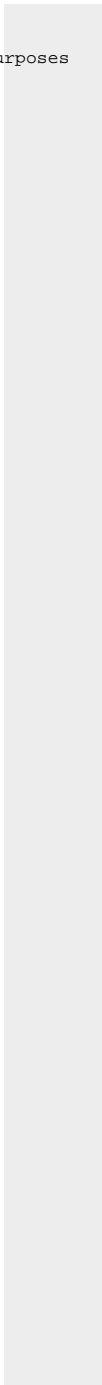
Prep Date: 04/30/18

| Metal | JC65070-1A<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|----------------------------|--------------------|-------|------------|-------------|
|-------|----------------------------|--------------------|-------|------------|-------------|

Associated samples MP6897: JC65058-13A

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested



14.8.2  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 04/30/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   |            |                 |       |           |
| Antimony   |            |                 |       |           |
| Arsenic    | 1.9        | 2.0             | 95.0  | 80-120    |
| Barium     | 2.0        | 2.0             | 100.0 | 80-120    |
| Beryllium  |            |                 |       |           |
| Bismuth    |            |                 |       |           |
| Boron      |            |                 |       |           |
| Cadmium    | 2.0        | 2.0             | 100.0 | 80-120    |
| Calcium    |            |                 |       |           |
| Chromium   | 2.0        | 2.0             | 100.0 | 80-120    |
| Cobalt     |            |                 |       |           |
| Copper     |            |                 |       |           |
| Iron       |            |                 |       |           |
| Lead       | 2.0        | 2.0             | 100.0 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  |            |                 |       |           |
| Manganese  |            |                 |       |           |
| Molybdenum |            |                 |       |           |
| Nickel     |            |                 |       |           |
| Potassium  |            |                 |       |           |
| Selenium   | 2.0        | 2.0             | 100.0 | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 0.24       | 0.25            | 96.0  | 80-120    |
| Sodium     |            |                 |       |           |
| Strontium  |            |                 |       |           |
| Sulfur     |            |                 |       |           |
| Thallium   |            |                 |       |           |
| Tin        |            |                 |       |           |
| Titanium   |            |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   |            |                 |       |           |
| Zinc       |            |                 |       |           |
| Zirconium  |            |                 |       |           |

14.8.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 04/30/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Associated samples MP6897: JC65058-13A

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

14.8.3  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original | SDL 5:25 | %DIF     | QC<br>Limits |
|------------|------------------------|----------|----------|--------------|
| Aluminum   |                        |          |          |              |
| Antimony   |                        |          |          |              |
| Arsenic    | 0.00                   | 30.6     | NC       | 0-10         |
| Barium     | 61.0                   | 53.1     | 13.0 (a) | 0-10         |
| Beryllium  |                        |          |          |              |
| Bismuth    |                        |          |          |              |
| Boron      |                        |          |          |              |
| Cadmium    | 0.00                   | 0.00     | NC       | 0-10         |
| Calcium    |                        |          |          |              |
| Chromium   | 5.70                   | 0.00     | 100.0(a) | 0-10         |
| Cobalt     |                        |          |          |              |
| Copper     |                        |          |          |              |
| Iron       |                        |          |          |              |
| Lead       | 0.00                   | 0.00     | NC       | 0-10         |
| Lithium    |                        |          |          |              |
| Magnesium  |                        |          |          |              |
| Manganese  |                        |          |          |              |
| Molybdenum |                        |          |          |              |
| Nickel     |                        |          |          |              |
| Potassium  |                        |          |          |              |
| Selenium   | 0.00                   | 0.00     | NC       | 0-10         |
| Silicon    |                        |          |          |              |
| Silver     | 0.00                   | 0.00     | NC       | 0-10         |
| Sodium     |                        |          |          |              |
| Strontium  |                        |          |          |              |
| Sulfur     |                        |          |          |              |
| Thallium   |                        |          |          |              |
| Tin        |                        |          |          |              |
| Titanium   |                        |          |          |              |
| Tungsten   |                        |          |          |              |
| Vanadium   |                        |          |          |              |
| Zinc       |                        |          |          |              |
| Zirconium  |                        |          |          |              |

14.8.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/30/18

|       |                                      |              |
|-------|--------------------------------------|--------------|
| Metal | JC65070-1A<br>Original SDL 5:25 %DIF | QC<br>Limits |
|-------|--------------------------------------|--------------|

Associated samples MP6897: JC65058-13A

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

14.8.4

14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
Matrix Type: LEACHATE

Methods: SW846 7470A  
Units: mg/l

Prep Date: 05/01/18

| Metal   | RL      | IDL     | MDL    | MB        |          |
|---------|---------|---------|--------|-----------|----------|
|         |         |         |        | raw       | final    |
| Mercury | 0.00020 | .000059 | .00013 | 0.0000015 | <0.00020 |

Associated samples MP6911: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.9.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
Matrix Type: LEACHATE

Methods: SW846 7470A  
Units: mg/l

Prep Date: 05/01/18

| Metal | JC65070-1A<br>Original MS | Spike<br>HGPW3 | lot<br>% Rec | QC<br>Limits |
|-------|---------------------------|----------------|--------------|--------------|
|-------|---------------------------|----------------|--------------|--------------|

Mercury 0.0 0.0021 0.0020 105.0 75-125

Associated samples MP6911: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

14.9.2  
14



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65058  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
 Matrix Type: LEACHATE

Methods: SW846 7470A  
 Units: mg/l

Prep Date: 05/01/18

| Metal   | JC65070-1A<br>Original MSD | SpikeLot<br>HGPW3 | % Rec  | MSD<br>RPD | QC<br>Limit |
|---------|----------------------------|-------------------|--------|------------|-------------|
| Mercury | 0.0                        | 0.0021            | 0.0020 | 105.0      | 0.0 20      |

Associated samples MP6911: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.9.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
Matrix Type: LEACHATE

Methods: SW846 7470A  
Units: mg/l

Prep Date: 05/01/18

| Metal   | BSP<br>Result | Spikelot<br>HGPW3 | % Rec | QC<br>Limits |
|---------|---------------|-------------------|-------|--------------|
| Mercury | 0.0020        | 0.0020            | 100.0 | 80-120       |

Associated samples MP6911: JC65058-13A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.9.3  
14

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte            | Batch ID        | RL   | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|--------------------|-----------------|------|-----------|-------|--------------|------------|------------|-----------|
| Cyanide            | GP12788/GN79494 | 0.12 | 0.0       | mg/kg | 1            | 1.05       | 105.0      | 90-110%   |
| Cyanide Reactivity | GP12792/GN79494 | 10   | 0.0       | mg/kg | 100          | 5.10       | 5.1        | .25-27%   |
| Percent Sulfur     | GP13111/GN80090 | 0.10 | 0.0       | %     | 0.667        | 0.68       | 101.7      | 80-120%   |
| Sulfide Reactivity | GP12791/GN79486 | 100  | 0.0       | mg/kg | 500          | 340        | 68.0       | 42-107%   |

Associated Samples:

Batch GP12788: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

Batch GP12791: JC65058-13A

Batch GP12792: JC65058-13A

Batch GP13111: JC65058-5R, JC65058-6R, JC65058-7R, JC65058-8R, JC65058-10R, JC65058-11R, JC65058-12R, JC65058-13R, JC65058-15R

(\* ) Outside of QC limits

15.1  
15

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                   | Batch ID        | QC Sample  | Units  | Original Result | DUP Result | RPD | QC Limits |
|---------------------------|-----------------|------------|--------|-----------------|------------|-----|-----------|
| Corrosivity as pH         | GN79703         | JC65069-1  | su     | 7.4             | 7.47       | 0.9 | 0-5%      |
| Cyanide                   | GP12788/GN79494 | JC64440-1R | mg/kg  | 0.0             | 0.0        | 0.0 | 0-49%     |
| Cyanide Reactivity        | GP12792/GN79494 | JC64656-1  | mg/kg  | 0.0             | 0.0        | 0.0 | 0-20%     |
| Heat Content, BTU         | GP12970/GN79831 | JC65058-11 | BTU/lb | 170             | 382        | 9.6 | 0-32%     |
| Ignitability (Flashpoint) | GN79680         | JC65068-1  | Deg. F | >200            | >200       | 0.0 | 0-10%     |
| Percent Sulfur            | GP13111/GN80090 | JC65058-5R | %      | 0.80            | 0.83       | 3.7 | 0-20%     |
| Sulfide Reactivity        | GP12791/GN79486 | JC64656-1  | mg/kg  | 0.0             | 0.0        | 0.0 | 0-20%     |

Associated Samples:

Batch GN79680: JC65058-13A

Batch GN79703: JC65058-13A

Batch GP12788: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

Batch GP12791: JC65058-13A

Batch GP12792: JC65058-13A

Batch GP12970: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

Batch GP13111: JC65058-5R, JC65058-6R, JC65058-7R, JC65058-8R, JC65058-10R, JC65058-11R, JC65058-12R, JC65058-13R, JC65058-15R

(\* ) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte            | Batch ID        | QC Sample  | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|--------------------|-----------------|------------|-------|-----------------|--------------|-----------|-------|-----------|
| Cyanide            | GP12788/GN79494 | JC64440-1R | mg/kg | 0.0             | 2.24         | 2.4       | 107.1 | 75-125%   |
| Sulfide Reactivity | GP12791/GN79486 | JC64656-1  | mg/kg | 0.0             | 543          | 130       | 23.9  | 20-82%    |

Associated Samples:

Batch GP12788: JC65058-5, JC65058-6, JC65058-7, JC65058-8, JC65058-10, JC65058-11

Batch GP12791: JC65058-13A

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050218W1.CN Date Analyzed: 05/02/18 Methods: EPA 335.4, EPA 335.4/LACHAT, SM4500CN I-2011, SW  
Analyst: BM Run ID: GN79494  
Parameters: Cyanide,Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:28 | GN79494-STD1       | 1               |          | STDA   |
| 14:29 | GN79494-STD2       | 1               |          | STDB   |
| 14:30 | GN79494-STD3       | 1               |          | STDC   |
| 14:32 | GN79494-STD4       | 1               |          | STDD   |
| 14:33 | GN79494-STD5       | 1               |          | STDE   |
| 14:34 | GN79494-STD6       | 1               |          | STDF   |
| 14:36 | GN79494-STD7       | 1               |          | STDG   |
| 14:37 | GN79494-ICV1       | 1               |          |  |
| 14:39 | GN79494-ICB1       | 1               |          |  |
| 14:40 | GN79494-CCV1       | 1               |          |  |
| 14:41 | GN79494-CCB1       | 1               |          |  |
| 14:43 | GP12789-MB1        | 1               |          |  |
| 14:44 | GP12789-B1         | 1               |          |  |
| 14:45 | GP12789-B2         | 1               |          |  |
| 14:47 | GP12789-S1         | 1               |          | back to need.  |
| 14:48 | GP12789-D1         | 1               |          |  |
| 14:49 | JC64595-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 14:51 | GP12790-MB1        | 1               |          |  |
| 14:52 | GP12790-B1         | 1               |          |  |
| 14:53 | GP12790-S1         | 1               |          |  |
| 14:55 | GP12790-D1         | 1               |          |  |
| 14:56 | GN79494-CCV2       | 1               |          |  |
| 14:58 | GN79494-CCB2       | 1               |          |  |
| 14:59 | JC65062-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 15:00 | ZZZZZZ             | 1               |          |  |
| 15:02 | ZZZZZZ             | 1               |          |  |
| 15:03 | ZZZZZZ             | 1               |          |  |
| 15:04 | ZZZZZZ             | 1               |          |  |
| 15:06 | ZZZZZZ             | 1               |          |  |
| 15:07 | ZZZZZZ             | 1               |          |  |
| 15:08 | ZZZZZZ             | 1               |          |  |
| 15:10 | ZZZZZZ             | 1               |          |  |
| 15:11 | GP12694-MB2        | 1               |          |  |

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050218W1.CN Date Analyzed: 05/02/18 Methods: EPA 335.4, EPA 335.4/LACHAT, SM4500CN I-2011, SW  
Analyst: BM Run ID: GN79494  
Parameters: Cyanide,Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:13 | GN79494-CCV3       | 1               |          |  |
| 15:14 | GN79494-CCB3       | 1               |          |  |
| 15:15 | GP12694-B2         | 1               |          |  |
| 15:17 | ZZZZZZ             | 1               |          |  |
| 15:18 | ZZZZZZ             | 1               |          |  |
| 15:19 | ZZZZZZ             | 1               |          |  |
| 15:21 | ZZZZZZ             | 1               |          |  |
| 15:22 | GP12792-MB1        | 1               |          |  |
| 15:23 | GP12792-B1         | 1               |          |  |
| 15:25 | GP12792-D1         | 1               |          |  |
| 15:26 | JC64656-1          | 1               |          | (sample used for QC only; not part of login JC65058) |
| 15:28 | JC65058-13A        | 1               |          |  |
| 15:29 | GN79494-CCV4       | 1               |          |  |
| 15:30 | GN79494-CCB4       | 1               |          |  |
| 15:32 | ZZZZZZ             | 1               |          |  |
| 15:33 | ZZZZZZ             | 1               |          |  |
| 15:34 | ZZZZZZ             | 1               |          |  |
| 15:36 | ZZZZZZ             | 1               |          |  |
| 15:37 | ZZZZZZ             | 1               |          |  |
| 15:38 | ZZZZZZ             | 1               |          |  |
| 15:40 | ZZZZZZ             | 1               |          |  |
| 15:41 | ZZZZZZ             | 1               |          |  |
| 15:42 | ZZZZZZ             | 1               |          |  |
| 15:44 | ZZZZZZ             | 1               |          |  |
| 15:45 | GN79494-CCV5       | 1               |          |  |
| 15:47 | GN79494-CCB5       | 1               |          |  |
| 15:48 | ZZZZZZ             | 1               |          |  |
| 15:49 | ZZZZZZ             | 1               |          |  |
| 15:51 | ZZZZZZ             | 1               |          |  |
| 15:52 | ZZZZZZ             | 1               |          |  |
| 15:53 | ZZZZZZ             | 1               |          |  |
| 15:55 | ZZZZZZ             | 1               |          |  |
| 15:56 | ZZZZZZ             | 1               |          |  |

15.4  
15



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050218W1.CN Date Analyzed: 05/02/18 Methods: EPA 335.4, EPA 335.4/LACHAT, SM4500CN I-2011, SW  
Analyst: BM Run ID: GN79494  
Parameters: Cyanide,Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:57 | GP12788-MB1        | 1               |          |  |
| 15:59 | GP12788-B1         | 1               |          |  |
| 16:00 | GP12788-S1         | 1               |          |  |
| 16:02 | GN79494-CCV6       | 1               |          |  |
| 16:03 | GN79494-CCB6       | 1               |          |  |
| 16:04 | GP12788-S2         | 1               |          |  |
| 16:06 | GP12788-D1         | 1               |          |  |
| 16:07 | JC64440-1R         | 1               |          | (sample used for QC only; not part of login JC65058) |
| 16:08 | JC64440-2R         | 1               |          | (sample used for QC only; not part of login JC65058) |
| 16:10 | ZZZZZZ             | 1               |          |  |
| 16:11 | ZZZZZZ             | 1               |          |  |
| 16:12 | ZZZZZZ             | 1               |          |  |
| 16:14 | ZZZZZZ             | 1               |          |  |
| 16:15 | ZZZZZZ             | 1               |          |  |
| 16:17 | ZZZZZZ             | 1               |          |  |
| 16:18 | GN79494-CCV7       | 1               |          |  |
| 16:19 | GN79494-CCB7       | 1               |          |  |
| 16:21 | ZZZZZZ             | 1               |          |  |
| 16:22 | ZZZZZZ             | 1               |          |  |
| 16:23 | ZZZZZZ             | 1               |          |  |
| 16:25 | ZZZZZZ             | 1               |          |  |
| 16:26 | ZZZZZZ             | 1               |          |  |
| 16:27 | ZZZZZZ             | 1               |          |  |
| 16:29 | JC65058-5          | 1               |          |  |
| 16:30 | JC65058-6          | 1               |          | Over calibration curve. See rerun at dilution.       |
| 16:31 | JC65058-7          | 1               |          |  |
| 16:33 | JC65058-8          | 1               |          |  |
| 16:34 | GN79494-CCV8       | 1               |          |  |
| 16:36 | GN79494-CCB8       | 1               |          |  |
| 16:37 | JC65058-10         | 1               |          |  |
| 16:38 | JC65058-11         | 1               |          |  |
| 16:41 | ZZZZZZ             | 1               |          |  |
| 16:43 | JC65058-6          | 3               |          | 1:3 dilution.  |

15.4  
15

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050218W1.CN      Date Analyzed: 05/02/18      Methods: EPA 335.4, EPA 335.4/LACHAT, SM4500CN I-2011, SW  
Analyst: BM      Run ID: GN79494  
Parameters: Cyanide,Cyanide Reactivity

| Time | Sample Description | Dilution PS |       | Comments |
|------|--------------------|-------------|-------|----------|
|      |                    | Factor      | Recov |          |

16:44 GN79494-CCV9 1

16:45 GN79494-CCB9 1

Refer to raw data for calibration curve and standards.

Instrument QC Summary  
Inorganics Analyses

Login Number: JC65058  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050218W1.CN

Date Analyzed: 05/02/18  
Run ID: GN79494

Methods: EPA 335.4, EPA 335.4/LACHAT, SM4500CN I-2011, SW  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79494-ICV1  | Cyanide   | 0.289    | 0.010 | 0.0058  | .3         | 96.3     | 90-110    |
| GN79494-ICB1  | Cyanide   | -0.00786 | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV1  | Cyanide   | 0.419    | 0.010 | 0.0058  | .4         | 104.8    | 90-110    |
| GN79494-CCB1  | Cyanide   | -0.00861 | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV2  | Cyanide   | 0.418    | 0.010 | 0.0058  | .4         | 104.5    | 90-110    |
| GN79494-CCB2  | Cyanide   | -0.00682 | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV3  | Cyanide   | 0.419    | 0.010 | 0.0058  | .4         | 104.8    | 90-110    |
| GN79494-CCB3  | Cyanide   | -0.00799 | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV4  | Cyanide   | 0.420    | 0.010 | 0.0058  | .4         | 105.0    | 90-110    |
| GN79494-CCB4  | Cyanide   | -0.00718 | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV5  | Cyanide   | 0.421    | 0.010 | 0.0058  | .4         | 105.3    | 90-110    |
| GN79494-CCB5  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV6  | Cyanide   | 0.419    | 0.010 | 0.0058  | .4         | 104.8    | 90-110    |
| GN79494-CCB6  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV7  | Cyanide   | 0.416    | 0.010 | 0.0058  | .4         | 104.0    | 90-110    |
| GN79494-CCB7  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV8  | Cyanide   | 0.416    | 0.010 | 0.0058  | .4         | 104.0    | 90-110    |
| GN79494-CCB8  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79494-CCV9  | Cyanide   | 0.416    | 0.010 | 0.0058  | .4         | 104.0    | 90-110    |
| GN79494-CCB9  | Cyanide   | -0.00609 | 0.010 | 0.0058  |            |          |           |

(!) Outside of QC limits

15.4

15

# Percent Solids Raw Data Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

---

**Sample:** JC65058-1      **Analyzed:** 30-APR-18 by JV      **Method:** SM2540 G-97  
**ClientID:** TP-100 (8-10)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 30.52 | g |
| Tare Weight        | 21.33 | g |
| Dry Weight (Total) | 29.75 | g |
| Solids, Percent    | 91.6  | % |

---

**Sample:** JC65058-2      **Analyzed:** 30-APR-18 by JV      **Method:** SM2540 G-97  
**ClientID:** DUP-042518

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 31.19 | g |
| Tare Weight        | 25.1  | g |
| Dry Weight (Total) | 30.69 | g |
| Solids, Percent    | 91.8  | % |

---

**Sample:** JC65058-3      **Analyzed:** 30-APR-18 by JV      **Method:** SM2540 G-97  
**ClientID:** SB-108 (15-17)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 31.29 | g |
| Tare Weight        | 21.43 | g |
| Dry Weight (Total) | 29.74 | g |
| Solids, Percent    | 84.3  | % |

---

**Sample:** JC65058-4      **Analyzed:** 30-APR-18 by JV      **Method:** SM2540 G-97  
**ClientID:** SB-105 (13-15)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 35.89 | g |
| Tare Weight        | 26.34 | g |
| Dry Weight (Total) | 34.66 | g |
| Solids, Percent    | 87.1  | % |

---

**Sample:** JC65058-5      **Analyzed:** 30-APR-18 by JV      **Method:** SM2540 G-97  
**ClientID:** SB-104 (13-17)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 31.56 | g |
| Tare Weight        | 24.48 | g |
| Dry Weight (Total) | 30.72 | g |
| Solids, Percent    | 88.1  | % |

---

**Sample:** JC65058-6      **Analyzed:** 01-MAY-18 by LV      **Method:** SM2540 G-97  
**ClientID:** SB-104 (5-9)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 26.39 | g |
| Tare Weight        | 19.09 | g |
| Dry Weight (Total) | 25.1  | g |
| Solids, Percent    | 82.3  | % |

---

15.5  
15

# Percent Solids Raw Data Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-7<br><b>ClientID:</b> TP-100 (6-8) | <b>Analyzed:</b> 01-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 36.95 g                          |                            |
| Tare Weight   | 27.53 g                          |                            |
| Dry Weight (Total)  | 36.23 g                          |                            |
| Solids, Percent   | 92.4 %                           |                            |

---

|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-8<br><b>ClientID:</b> TP-100 (8-10) | <b>Analyzed:</b> 01-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 24.16 g                          |                            |
| Tare Weight  | 15.7 g                           |                            |
| Dry Weight (Total)   | 23.56 g                          |                            |
| Solids, Percent  | 92.9 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-9<br><b>ClientID:</b> SB-108 (15-25) | <b>Analyzed:</b> 10-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 25.18 g                          |                            |
| Tare Weight   | 18.27 g                          |                            |
| Dry Weight (Total)  | 24.25 g                          |                            |
| Solids, Percent   | 86.5 %                           |                            |

---

|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-10<br><b>ClientID:</b> TP-100 (2-6) | <b>Analyzed:</b> 01-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 34.52 g                          |                            |
| Tare Weight  | 26.67 g                          |                            |
| Dry Weight (Total)   | 33.89 g                          |                            |
| Solids, Percent  | 92 %                             |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-11<br><b>ClientID:</b> SB-105 (8-15) | <b>Analyzed:</b> 01-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 31.52 g                          |                            |
| Tare Weight   | 24.87 g                          |                            |
| Dry Weight (Total)  | 30.85 g                          |                            |
| Solids, Percent   | 89.9 %                           |                            |

---

|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65058-12<br><b>ClientID:</b> SB-104 (2-5) (9-13) | <b>Analyzed:</b> 02-MAY-18 by LV | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 35.18 g                          |                            |
| Tare Weight   | 27.11 g                          |                            |
| Dry Weight (Total)  | 34.13 g                          |                            |
| Solids, Percent   | 87 %                             |                            |

---

15.5  
15

# Percent Solids Raw Data Summary

**Job Number:** JC65058  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

---

**Sample:** JC65058-13      **Analyzed:** 02-MAY-18 by LV      **Method:** SM2540 G-97  
**ClientID:** TP-100 (2-6)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 30.5  | g |
| Tare Weight        | 21.09 | g |
| Dry Weight (Total) | 29.82 | g |
| Solids, Percent    | 92.8  | % |

---

**Sample:** JC65058-15      **Analyzed:** 02-MAY-18 by LV      **Method:** SM2540 G-97  
**ClientID:** SB-105 (0-5)

|                    |       |   |
|--------------------|-------|---|
| Wet Weight (Total) | 36.79 | g |
| Tare Weight        | 29.54 | g |
| Dry Weight (Total) | 35.98 | g |
| Solids, Percent    | 88.8  | % |

---

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Arcadis

NYSEG - Newark Former MGP Site, Newark, NY

B0013094.0006

SGS Job Number: JC65157

Sampling Dates: 04/26/18 - 04/27/18

Report to:

Arcadis  
295 Woodcliff Drive Suite 301  
Fairport, NY 14450  
Jason.Golubski@arcadis.com; Nicholas.Beyrle@arcadis.com  
  
ATTN: Jason Golubski

Total number of pages in report: **1070**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Nancy F. Cole".

Nancy Cole  
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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## Sample Summary

Arcadis

**Job No:** JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Collected |          | Received | Matrix |                   | Client Sample ID |
|---------------|-----------|----------|----------|--------|-------------------|------------------|
|               | Date      | Time By  |          | Code   | Type              |                  |
| JC65157-1     | 04/26/18  | 16:00 RC | 04/28/18 | SO     | Soil              | SB-103 (7-9)     |
| JC65157-2     | 04/27/18  | 10:00 RC | 04/28/18 | SO     | Soil              | SB-109 (7-9)     |
| JC65157-3     | 04/27/18  | 10:15 RC | 04/28/18 | SO     | Soil              | SB-109 (15-17)   |
| JC65157-4     | 04/27/18  | 15:00 RC | 04/28/18 | SO     | Soil              | SB-101 (7-9)     |
| JC65157-4D    | 04/27/18  | 15:00 RC | 04/28/18 | SO     | Soil Dup/MSD      | SB-101 (7-9) MSD |
| JC65157-4S    | 04/27/18  | 15:00 RC | 04/28/18 | SO     | Soil Matrix Spike | SB-101 (7-9) MS  |
| JC65157-5     | 04/27/18  | 16:00 RC | 04/28/18 | SO     | Soil              | SB-110 (7-9)     |
| JC65157-6     | 04/26/18  | 16:05 RC | 04/28/18 | SO     | Soil              | SB-103 (9-19)    |
| JC65157-7     | 04/27/18  | 15:05 RC | 04/28/18 | SO     | Soil              | SB-101 (0-9)     |
| JC65157-8     | 04/27/18  | 15:20 RC | 04/28/18 | SO     | Soil              | SB-100 (0-8)     |
| JC65157-9     | 04/27/18  | 15:25 RC | 04/28/18 | SO     | Soil              | SB-100 (8-11)    |
| JC65157-10    | 04/26/18  | 16:10 RC | 04/28/18 | SO     | Soil              | SB-103 (0-5)     |
| JC65157-11    | 04/27/18  | 15:10 RC | 04/28/18 | SO     | Soil              | SB-101 (0-9)     |

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## Sample Summary

(continued)

Arcadis

**Job No:** JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
Project No: B0013094.0006

| Sample Number | Collected |          | Received | Matrix |      | Client Sample ID |
|---------------|-----------|----------|----------|--------|------|------------------|
|               | Date      | Time By  |          | Code   | Type |                  |
| JC65157-12    | 04/27/18  | 15:30 RC | 04/28/18 | SO     | Soil | SB-100 (0-8)     |
| JC65157-12A   | 04/27/18  | 15:30 RC | 04/28/18 | SO     | Soil | SB-100 (0-8)     |

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Arcadis

**Job No** JC65157

**Site:** NYSEG - Newark Former MGP Site, Newark, NY

**Report Date** 5/17/2018 3:01:50 PM

On 04/28/2018, 11 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC65157 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### MS Volatiles By Method SW846 8260C

**Matrix:** LEACHATE

**Batch ID:** V2V2004

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65070-1ALS, JC65070-1AMS, JC65070-1AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VE10829

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65555-1MS, JC65555-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65157-6: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

**Matrix:** SO

**Batch ID:** VY7767

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC65157-8MS, JC65157-9DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Carbon disulfide, Chlorobenzene, cis-1,2-Dichloroethene, Styrene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene are outside control limits. Outside control limits due to matrix interference.
- JC65157-8: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-10: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-7: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-11: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-9: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-12: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- JC65157-10 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-10 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-10 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for Acetone: Associated CCV outside of control limits low.
- JC65157-12 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-10 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

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## MS Volatiles By Method SW846 8260C

**Matrix:** SO

**Batch ID:** VY7767

- JC65157-11 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-10 for Acetone: Associated CCV outside of control limits low.
- JC65157-9 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for Acetone: Associated CCV outside of control limits low.
- JC65157-7 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-7 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-7 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for Chloroethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-7 for Acetone: Associated CCV outside of control limits low.
- JC65157-8 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for Acetone: Associated CCV outside of control limits low.
- JC65157-9 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for Acetone: Associated CCV outside of control limits low.
- JC65157-12 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

## MS Semi-volatiles By Method SW846 8270D

**Matrix:** LEACHATE

**Batch ID:** OP11697

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65130-2LS, JC65130-2MS, JC65130-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** OP11665

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65157-4MS, JC65157-4MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 3,3'-Dichlorobenzidine are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,1'-Biphenyl, 2,4-Dinitrophenol, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Carbazole, Chrysene, Dibenzo(a,h)anthracene, Dibenzofuran, Fluoranthene, Fluorene, Hexachlorocyclopentadiene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Pyrene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MS/MSD for 1,1'-Biphenyl, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2-Methylnaphthalene, 3&4-Methylphenol, 3,3'-Dichlorobenzidine, 4,6-Dinitro-o-cresol, 4-Nitroaniline, 4-Nitrophenol, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Carbazole, Chrysene, Dibenzo(a,h)anthracene, Dibenzofuran, Fluoranthene, Fluorene, Hexachlorocyclopentadiene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, Pyrene are outside control limits. Outside control limits due to possible sample nonhomogeneity.
- JC65157-1 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-12 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-10 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-8 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-3 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-8 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-8 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-11 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-8 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-10 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-1 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-1 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-1 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-1 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-1 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-1 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-8 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-12 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-10 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-1 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.

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## MS Semi-volatiles By Method SW846 8270D

**Matrix:** SO

**Batch ID:** OP11665

- JC65157-2 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-3 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-2 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-12 for Butyl benzyl phthalate: Associated CCV outside of control limits high.
- JC65157-2 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-12 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-3 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-2 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-3 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-11 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-10 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-3 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-11 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-11 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-10 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-10 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-10 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-10 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-11 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-10 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-1 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-6 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-3 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-3 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-9 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-6 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-7 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-7 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-7 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-7 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-7 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-3 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-4 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-7 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-8 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-6 for 4-Nitroaniline: Associated CCV outside of control limits low.

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## MS Semi-volatiles By Method SW846 8270D

**Matrix:** SO

**Batch ID:** OP11665

- JC65157-6 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-6 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-6 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-6 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-6 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-7 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-7 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-8 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-11 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-7 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-3 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-11 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-9 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-11 for Hexachlorobutadiene: Associated CCV outside of control limits low.
- JC65157-4 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-4 for 2,4-Dinitrophenol: Associated CCV outside of control limits low.
- JC65157-4 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-4 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-4 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-6 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-12 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-4 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for Di-n-octyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for 1,2,4,5-Tetrachlorobenzene: Associated CCV outside of control limits low.
- JC65157-9 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits low.
- JC65157-9 for Butyl benzyl phthalate: Associated CCV outside of control limits high, sample was ND.
- JC65157-9 for 4-Nitroaniline: Associated CCV outside of control limits low.
- JC65157-4 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-9 for Hexachlorocyclopentadiene: Associated CCV outside of control limits low.
- JC65157-4 for bis(2-Ethylhexyl)phthalate: Associated CCV outside of control limits high, sample was ND.

## GC Volatiles By Method SW846 8015C

**Matrix:** SO

**Batch ID:** GPF4599

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC64996-5QMS, JC64996-5QMSD were used as the QC samples indicated.

### GC/LC Semi-volatiles By Method SW846 8015C

**Matrix:** SO**Batch ID:** OP11675

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65157-6MS, JC65157-6MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for TPH-DRO (C10-C28) are outside control limits. Outside control limits due to matrix interference.

### GC/LC Semi-volatiles By Method SW846 8081B

**Matrix:** LEACHATE**Batch ID:** OP11692

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1ALS, JC65070-1AMS, JC65070-1AMSD were used as the QC samples indicated.

**Matrix:** SO**Batch ID:** OP11678

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65157-11MS, JC65157-11MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Endrin ketone are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Endrin ketone are outside control limits. Outside control limits due to matrix interference.

**Matrix:** SO**Batch ID:** OP11917

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65058-5MS, JC65058-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC65157-6 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC65157-7 for 4,4'-DDT: More than 40 % RPD for detected concentrations between the two GC columns.
- JC65157-7 for 4,4'-DDE: More than 40 % RPD for detected concentrations between the two GC columns.

### GC/LC Semi-volatiles By Method SW846 8082A

**Matrix:** SO**Batch ID:** OP11677

- All samples were extracted within the recommended method holding time.
- Sample(s) JC65157-10MS, JC65157-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8151A

**Matrix:** LEACHATE**Batch ID:** OP11688

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65130-4LS, JC65130-4MS, JC65130-4MSD were used as the QC samples indicated.

## Metals Analysis By Method SW846 6010C

**Matrix:** LEACHATE      **Batch ID:** MP6897

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1AMS, JC65070-1AMSD, JC65070-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Barium, Chromium are outside control limits for sample MP6897-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Samples(s) JC65157-12A: New York does not offer 3010A certification for antimony and silver. The laboratory is certified for method 3010A (Acid Digestion for Total Metals) for all other metals and is certified for the associated analytical methods of 6010C (ICP Analysis) and 6020A (ICP-MS Analysis). New York does certify for method 3005A (Acid Digestion for Total Recoverable or Dissolved Metals) for antimony and silver and the laboratory holds that certification, but that provides total recoverable rather than total metals results.

**Matrix:** SO      **Batch ID:** MP6898

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65119-8MS, JC65119-8MSD, JC65119-8SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum, Antimony, Calcium, Manganese, Potassium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Aluminum, Antimony, Calcium, Iron, Manganese, Potassium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- RPD(s) for Serial Dilution for Beryllium, Silver, Thallium are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP6898-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- JC65157-9 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC65157-9 for Thallium: Elevated detection limit due to dilution required for high interfering element.

## Metals Analysis By Method SW846 7470A

**Matrix:** LEACHATE      **Batch ID:** MP6911

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65070-1AMS, JC65070-1AMSD were used as the QC samples for metals.

## Metals Analysis By Method SW846 7471B

**Matrix:** SO      **Batch ID:** MP6935

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65119-8MS, JC65119-8MSD were used as the QC samples for metals.

## General Chemistry By Method ASTM D240-92

**Matrix:** SO      **Batch ID:** GP13019

- Sample(s) JC65157-6DUP were used as the QC samples for Heat Content, BTU.
- RPD(s) for Duplicate for Heat Content, BTU are outside control limits. High RPD due to possible sample nonhomogeneity.

### General Chemistry By Method SM2540 G-97

**Matrix:** SO                      **Batch ID:** GN79473

- The data for SM2540 G-97 meets quality control requirements.

**Matrix:** SO                      **Batch ID:** GN79476

- The data for SM2540 G-97 meets quality control requirements.

### General Chemistry By Method SW846 1010A/ASTM D93

**Matrix:** SO                      **Batch ID:** GN79680

- Sample(s) JC65068-1DUP were used as the QC samples for Ignitability (Flashpoint).

### General Chemistry By Method SW846 9012B/LACHAT

**Matrix:** SO                      **Batch ID:** GP12794

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65068-1DUP, JC65068-1MS were used as the QC samples for Cyanide.
- Blank Spike Recovery(s) for Cyanide are outside control limits.

### General Chemistry By Method SW846 9045D

**Matrix:** SO                      **Batch ID:** GN79703

- Sample(s) JC65069-1DUP were used as the QC samples for Corrosivity as pH.

### General Chemistry By Method SW846 CHAP7/9012 B

**Matrix:** SO                      **Batch ID:** GP12852

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65071-1DUP were used as the QC samples for Cyanide Reactivity.

### General Chemistry By Method SW846 CHAP7/9034

**Matrix:** SO                      **Batch ID:** GP12853

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC65071-1DUP, JC65071-1MS were used as the QC samples for Sulfide Reactivity.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

### JC65157-1 SB-103 (7-9)

|                        |       |      |     |       |             |
|------------------------|-------|------|-----|-------|-------------|
| 3&4-Methylphenol       | 176   | 77   | 32  | ug/kg | SW846 8270D |
| Phenol                 | 107   | 77   | 20  | ug/kg | SW846 8270D |
| Acenaphthene           | 1220  | 39   | 13  | ug/kg | SW846 8270D |
| Acenaphthylene         | 2490  | 39   | 20  | ug/kg | SW846 8270D |
| Anthracene             | 12100 | 390  | 240 | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 9910  | 390  | 110 | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 7970  | 390  | 180 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 10200 | 390  | 170 | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 5680  | 390  | 190 | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 3970  | 390  | 180 | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          | 2240  | 77   | 5.3 | ug/kg | SW846 8270D |
| Carbazole              | 4030  | 770  | 56  | ug/kg | SW846 8270D |
| Chrysene               | 9650  | 390  | 120 | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 1570  | 39   | 17  | ug/kg | SW846 8270D |
| Dibenzofuran           | 9650  | 770  | 160 | ug/kg | SW846 8270D |
| Fluoranthene           | 30000 | 390  | 170 | ug/kg | SW846 8270D |
| Fluorene               | 4330  | 390  | 180 | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 5180  | 390  | 180 | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    | 9440  | 390  | 87  | ug/kg | SW846 8270D |
| Naphthalene            | 52600 | 1900 | 540 | ug/kg | SW846 8270D |
| Phenanthrene           | 42700 | 1900 | 650 | ug/kg | SW846 8270D |
| Pyrene                 | 24500 | 390  | 120 | ug/kg | SW846 8270D |

### JC65157-2 SB-109 (7-9)

|                        |        |    |    |       |             |
|------------------------|--------|----|----|-------|-------------|
| Anthracene             | 39.4 J | 41 | 25 | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 148    | 41 | 12 | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 147    | 41 | 19 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 178    | 41 | 18 | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 99.3   | 41 | 21 | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 77.6   | 41 | 19 | ug/kg | SW846 8270D |
| Chrysene               | 149    | 41 | 13 | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 18.1 J | 41 | 18 | ug/kg | SW846 8270D |
| Fluoranthene           | 285    | 41 | 18 | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 86.7   | 41 | 19 | ug/kg | SW846 8270D |
| Phenanthrene           | 111    | 41 | 14 | ug/kg | SW846 8270D |
| Pyrene                 | 273    | 41 | 13 | ug/kg | SW846 8270D |

### JC65157-3 SB-109 (15-17)

No hits reported in this sample.

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**JC65157-4 SB-101 (7-9)**

|                        |        |    |     |       |             |
|------------------------|--------|----|-----|-------|-------------|
| Acenaphthene           | 112    | 40 | 14  | ug/kg | SW846 8270D |
| Acenaphthylene         | 501    | 40 | 20  | ug/kg | SW846 8270D |
| Anthracene             | 647    | 40 | 25  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     | 986    | 40 | 11  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         | 1020   | 40 | 18  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   | 1170   | 40 | 18  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   | 763    | 40 | 20  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   | 474    | 40 | 19  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          | 69.4 J | 81 | 5.5 | ug/kg | SW846 8270D |
| Carbazole              | 171    | 81 | 5.9 | ug/kg | SW846 8270D |
| Chrysene               | 964    | 40 | 13  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene | 131    | 40 | 18  | ug/kg | SW846 8270D |
| Dibenzofuran           | 376    | 81 | 16  | ug/kg | SW846 8270D |
| Fluoranthene           | 2530   | 40 | 18  | ug/kg | SW846 8270D |
| Fluorene               | 364    | 40 | 19  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene | 613    | 40 | 19  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    | 308    | 40 | 9.1 | ug/kg | SW846 8270D |
| Naphthalene            | 589    | 40 | 11  | ug/kg | SW846 8270D |
| Phenanthrene           | 2570   | 40 | 14  | ug/kg | SW846 8270D |
| Pyrene                 | 2320   | 40 | 13  | ug/kg | SW846 8270D |

**JC65157-6 SB-103 (9-19)**

|                             |        |     |     |       |             |
|-----------------------------|--------|-----|-----|-------|-------------|
| Benzene <sup>a</sup>        | 54.0   | 34  | 7.4 | ug/kg | SW846 8260C |
| Ethylbenzene <sup>a</sup>   | 33.9 J | 69  | 20  | ug/kg | SW846 8260C |
| Toluene <sup>a</sup>        | 81.9   | 69  | 38  | ug/kg | SW846 8260C |
| m,p-Xylene <sup>a</sup>     | 307    | 69  | 38  | ug/kg | SW846 8260C |
| o-Xylene <sup>a</sup>       | 80.6   | 69  | 17  | ug/kg | SW846 8260C |
| Xylene (total) <sup>a</sup> | 388    | 69  | 17  | ug/kg | SW846 8260C |
| Acenaphthene                | 329    | 38  | 13  | ug/kg | SW846 8270D |
| Acenaphthylene              | 588    | 38  | 19  | ug/kg | SW846 8270D |
| Anthracene                  | 2270   | 38  | 23  | ug/kg | SW846 8270D |
| Benzo(a)anthracene          | 2360   | 38  | 11  | ug/kg | SW846 8270D |
| Benzo(a)pyrene              | 2090   | 38  | 17  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene        | 2690   | 38  | 17  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene        | 1600   | 38  | 19  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene        | 1020   | 38  | 18  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl               | 600    | 76  | 5.2 | ug/kg | SW846 8270D |
| Carbazole                   | 1130   | 76  | 5.5 | ug/kg | SW846 8270D |
| Chrysene                    | 2060   | 38  | 12  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene      | 308    | 38  | 17  | ug/kg | SW846 8270D |
| Dibenzofuran                | 2340   | 76  | 15  | ug/kg | SW846 8270D |
| Fluoranthene                | 7470   | 190 | 85  | ug/kg | SW846 8270D |

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units  | Method             |
|--------------------------|------------------|-----------------|-------|-----|--------|--------------------|
| Fluorene                 |                  | 1090            | 38    | 17  | ug/kg  | SW846 8270D        |
| Indeno(1,2,3-cd)pyrene   |                  | 1410            | 38    | 18  | ug/kg  | SW846 8270D        |
| 2-Methylnaphthalene      |                  | 2480            | 38    | 8.6 | ug/kg  | SW846 8270D        |
| Naphthalene              |                  | 14100           | 190   | 54  | ug/kg  | SW846 8270D        |
| Phenanthrene             |                  | 10400           | 190   | 64  | ug/kg  | SW846 8270D        |
| Pyrene                   |                  | 6290            | 190   | 61  | ug/kg  | SW846 8270D        |
| TPH-GRO (C6-C10)         |                  | 28.3            | 13    | 6.6 | mg/kg  | SW846 8015C        |
| TPH-DRO (C10-C28)        |                  | 125             | 11    | 2.7 | mg/kg  | SW846 8015C        |
| Arsenic                  |                  | 5.5             | 2.3   |     | mg/kg  | SW846 6010C        |
| Barium                   |                  | 82.6            | 23    |     | mg/kg  | SW846 6010C        |
| Chromium                 |                  | 7.7             | 1.2   |     | mg/kg  | SW846 6010C        |
| Lead                     |                  | 17.1            | 2.3   |     | mg/kg  | SW846 6010C        |
| Mercury                  |                  | 0.052           | 0.035 |     | mg/kg  | SW846 7471B        |
| Nickel                   |                  | 9.9             | 4.6   |     | mg/kg  | SW846 6010C        |
| Vanadium                 |                  | 11.4            | 5.8   |     | mg/kg  | SW846 6010C        |
| Zinc                     |                  | 43.8            | 5.8   |     | mg/kg  | SW846 6010C        |
| Cyanide                  |                  | 6.2             | 0.23  |     | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU        |                  | 642             | 100   |     | BTU/lb | ASTM D240-92       |

**JC65157-7 SB-101 (0-9)**

|                        |  |        |      |      |       |             |
|------------------------|--|--------|------|------|-------|-------------|
| Acenaphthene           |  | 39.0   | 39   | 13   | ug/kg | SW846 8270D |
| Acenaphthylene         |  | 170    | 39   | 20   | ug/kg | SW846 8270D |
| Acetophenone           |  | 42.4 J | 190  | 8.4  | ug/kg | SW846 8270D |
| Anthracene             |  | 384    | 39   | 24   | ug/kg | SW846 8270D |
| Benzo(a)anthracene     |  | 1220   | 39   | 11   | ug/kg | SW846 8270D |
| Benzo(a)pyrene         |  | 1310   | 39   | 18   | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   |  | 1640   | 39   | 17   | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   |  | 771    | 39   | 19   | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   |  | 651    | 39   | 18   | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          |  | 57.3 J | 78   | 5.3  | ug/kg | SW846 8270D |
| Carbazole              |  | 60.9 J | 78   | 5.7  | ug/kg | SW846 8270D |
| Chrysene               |  | 1410   | 39   | 12   | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene |  | 192    | 39   | 17   | ug/kg | SW846 8270D |
| Dibenzofuran           |  | 205    | 78   | 16   | ug/kg | SW846 8270D |
| Fluoranthene           |  | 2120   | 39   | 17   | ug/kg | SW846 8270D |
| Fluorene               |  | 88.5   | 39   | 18   | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene |  | 712    | 39   | 18   | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    |  | 261    | 39   | 8.8  | ug/kg | SW846 8270D |
| Naphthalene            |  | 322    | 39   | 11   | ug/kg | SW846 8270D |
| Phenanthrene           |  | 1240   | 39   | 13   | ug/kg | SW846 8270D |
| Pyrene                 |  | 2080   | 39   | 12   | ug/kg | SW846 8270D |
| TPH-DRO (C10-C28)      |  | 168    | 11   | 2.6  | mg/kg | SW846 8015C |
| 4,4'-DDE <sup>b</sup>  |  | 3.7    | 0.78 | 0.68 | ug/kg | SW846 8081B |
| 4,4'-DDT <sup>b</sup>  |  | 7.7    | 0.78 | 0.69 | ug/kg | SW846 8081B |

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | RL    | MDL | Units  | Method             |
|--------------------------|------------------|-----------------|-------|-----|--------|--------------------|
| Arsenic                  |                  | 30.4            | 2.3   |     | mg/kg  | SW846 6010C        |
| Barium                   |                  | 62.7            | 23    |     | mg/kg  | SW846 6010C        |
| Chromium                 |                  | 8.3             | 1.2   |     | mg/kg  | SW846 6010C        |
| Lead                     |                  | 110             | 2.3   |     | mg/kg  | SW846 6010C        |
| Mercury                  |                  | 0.20            | 0.037 |     | mg/kg  | SW846 7471B        |
| Nickel                   |                  | 14.7            | 4.6   |     | mg/kg  | SW846 6010C        |
| Vanadium                 |                  | 12.2            | 5.8   |     | mg/kg  | SW846 6010C        |
| Zinc                     |                  | 84.7            | 5.8   |     | mg/kg  | SW846 6010C        |
| Cyanide                  |                  | 0.52            | 0.24  |     | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU        |                  | 4360            | 100   |     | BTU/lb | ASTM D240-92       |

**JC65157-8 SB-100 (0-8)**

|                        |  |        |       |     |       |             |
|------------------------|--|--------|-------|-----|-------|-------------|
| 2,4-Dimethylphenol     |  | 88.2 J | 210   | 73  | ug/kg | SW846 8270D |
| 3&4-Methylphenol       |  | 143    | 82    | 34  | ug/kg | SW846 8270D |
| Phenol                 |  | 87.9   | 82    | 21  | ug/kg | SW846 8270D |
| Acenaphthene           |  | 814    | 41    | 14  | ug/kg | SW846 8270D |
| Acenaphthylene         |  | 950    | 41    | 21  | ug/kg | SW846 8270D |
| Anthracene             |  | 6490   | 410   | 250 | ug/kg | SW846 8270D |
| Benzo(a)anthracene     |  | 12500  | 410   | 120 | ug/kg | SW846 8270D |
| Benzo(a)pyrene         |  | 11800  | 410   | 190 | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   |  | 13700  | 410   | 180 | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   |  | 7850   | 410   | 210 | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   |  | 4800   | 410   | 190 | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          |  | 220    | 82    | 5.6 | ug/kg | SW846 8270D |
| Benzaldehyde           |  | 36.5 J | 210   | 10  | ug/kg | SW846 8270D |
| Carbazole              |  | 2520   | 82    | 5.9 | ug/kg | SW846 8270D |
| Chrysene               |  | 11600  | 410   | 130 | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene |  | 1760   | 41    | 18  | ug/kg | SW846 8270D |
| Dibenzofuran           |  | 1610   | 82    | 17  | ug/kg | SW846 8270D |
| Fluoranthene           |  | 35700  | 410   | 180 | ug/kg | SW846 8270D |
| Fluorene               |  | 1570   | 41    | 19  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene |  | 6510   | 410   | 190 | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    |  | 642    | 41    | 9.3 | ug/kg | SW846 8270D |
| Naphthalene            |  | 2640   | 41    | 12  | ug/kg | SW846 8270D |
| Phenanthrene           |  | 26600  | 410   | 140 | ug/kg | SW846 8270D |
| Pyrene                 |  | 470    | 41    | 13  | ug/kg | SW846 8270D |
| TPH-DRO (C10-C28)      |  | 117    | 11    | 2.7 | mg/kg | SW846 8015C |
| Arsenic                |  | 15.4   | 2.5   |     | mg/kg | SW846 6010C |
| Barium                 |  | 50.0   | 25    |     | mg/kg | SW846 6010C |
| Chromium               |  | 7.9    | 1.2   |     | mg/kg | SW846 6010C |
| Lead                   |  | 81.4   | 2.5   |     | mg/kg | SW846 6010C |
| Mercury                |  | 0.096  | 0.037 |     | mg/kg | SW846 7471B |
| Nickel                 |  | 13.7   | 4.9   |     | mg/kg | SW846 6010C |
| Vanadium               |  | 13.9   | 6.2   |     | mg/kg | SW846 6010C |



## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID | Client Sample ID | Result/Qual | RL | MDL | Units | Method |
|---------------|------------------|-------------|----|-----|-------|--------|
|---------------|------------------|-------------|----|-----|-------|--------|

|                   |  |      |      |  |        |                    |
|-------------------|--|------|------|--|--------|--------------------|
| Zinc              |  | 86.1 | 6.2  |  | mg/kg  | SW846 6010C        |
| Cyanide           |  | 0.28 | 0.22 |  | mg/kg  | SW846 9012B/LACHAT |
| Heat Content, BTU |  | 4630 | 100  |  | BTU/lb | ASTM D240-92       |
| Percent Sulfur    |  | 0.19 | 0.10 |  | %      | ASTM D129-95       |

**JC65157-9 SB-100 (8-11)**

|                   |  |      |     |  |        |              |
|-------------------|--|------|-----|--|--------|--------------|
| Arsenic           |  | 7.8  | 2.4 |  | mg/kg  | SW846 6010C  |
| Barium            |  | 235  | 24  |  | mg/kg  | SW846 6010C  |
| Chromium          |  | 16.9 | 1.2 |  | mg/kg  | SW846 6010C  |
| Lead              |  | 21.7 | 2.4 |  | mg/kg  | SW846 6010C  |
| Nickel            |  | 24.6 | 4.8 |  | mg/kg  | SW846 6010C  |
| Vanadium          |  | 22.4 | 5.9 |  | mg/kg  | SW846 6010C  |
| Zinc              |  | 103  | 5.9 |  | mg/kg  | SW846 6010C  |
| Heat Content, BTU |  | 207  | 100 |  | BTU/lb | ASTM D240-92 |

**JC65157-10 SB-103 (0-5)**

|                        |  |        |      |     |       |             |
|------------------------|--|--------|------|-----|-------|-------------|
| Acenaphthene           |  | 28.9 J | 36   | 12  | ug/kg | SW846 8270D |
| Acenaphthylene         |  | 231    | 36   | 18  | ug/kg | SW846 8270D |
| Anthracene             |  | 213    | 36   | 22  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     |  | 1250   | 36   | 10  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         |  | 1400   | 36   | 16  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   |  | 1650   | 36   | 16  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   |  | 1150   | 36   | 18  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   |  | 752    | 36   | 17  | ug/kg | SW846 8270D |
| Carbazole              |  | 64.4 J | 72   | 5.3 | ug/kg | SW846 8270D |
| Chrysene               |  | 1120   | 36   | 11  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene |  | 221    | 36   | 16  | ug/kg | SW846 8270D |
| Dibenzofuran           |  | 41.3 J | 72   | 15  | ug/kg | SW846 8270D |
| Fluoranthene           |  | 1900   | 36   | 16  | ug/kg | SW846 8270D |
| Fluorene               |  | 42.0   | 36   | 17  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene |  | 1040   | 36   | 17  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    |  | 34.6 J | 36   | 8.2 | ug/kg | SW846 8270D |
| Naphthalene            |  | 123    | 36   | 10  | ug/kg | SW846 8270D |
| Phenanthrene           |  | 538    | 36   | 12  | ug/kg | SW846 8270D |
| Pyrene                 |  | 1950   | 36   | 12  | ug/kg | SW846 8270D |
| Aluminum               |  | 5340   | 56   |     | mg/kg | SW846 6010C |
| Arsenic                |  | 4.6    | 2.2  |     | mg/kg | SW846 6010C |
| Barium                 |  | 30.8   | 22   |     | mg/kg | SW846 6010C |
| Beryllium              |  | 0.28   | 0.22 |     | mg/kg | SW846 6010C |
| Calcium                |  | 132000 | 2800 |     | mg/kg | SW846 6010C |
| Chromium               |  | 7.8    | 1.1  |     | mg/kg | SW846 6010C |
| Copper                 |  | 22.9   | 2.8  |     | mg/kg | SW846 6010C |
| Iron                   |  | 11100  | 56   |     | mg/kg | SW846 6010C |

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL    | MDL | Units | Method      |
|---------------|------------------|-----------------|-------|-----|-------|-------------|
| Lead          |                  | 53.9            | 2.2   |     | mg/kg | SW846 6010C |
| Magnesium     |                  | 18700           | 560   |     | mg/kg | SW846 6010C |
| Manganese     |                  | 462             | 1.7   |     | mg/kg | SW846 6010C |
| Mercury       |                  | 0.27            | 0.035 |     | mg/kg | SW846 7471B |
| Nickel        |                  | 10.9            | 4.5   |     | mg/kg | SW846 6010C |
| Potassium     |                  | 1420            | 1100  |     | mg/kg | SW846 6010C |
| Vanadium      |                  | 12.6            | 5.6   |     | mg/kg | SW846 6010C |
| Zinc          |                  | 59.7            | 5.6   |     | mg/kg | SW846 6010C |

### JC65157-11 SB-101 (0-9)

|                        |  |        |       |     |       |             |
|------------------------|--|--------|-------|-----|-------|-------------|
| Acenaphthene           |  | 17.8 J | 41    | 14  | ug/kg | SW846 8270D |
| Acenaphthylene         |  | 140    | 41    | 21  | ug/kg | SW846 8270D |
| Anthracene             |  | 161    | 41    | 25  | ug/kg | SW846 8270D |
| Benzo(a)anthracene     |  | 629    | 41    | 12  | ug/kg | SW846 8270D |
| Benzo(a)pyrene         |  | 674    | 41    | 19  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene   |  | 926    | 41    | 18  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene   |  | 446    | 41    | 21  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene   |  | 289    | 41    | 19  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl          |  | 44.3 J | 82    | 5.6 | ug/kg | SW846 8270D |
| Carbazole              |  | 35.5 J | 82    | 6.0 | ug/kg | SW846 8270D |
| Chrysene               |  | 714    | 41    | 13  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene |  | 105    | 41    | 18  | ug/kg | SW846 8270D |
| Dibenzofuran           |  | 134    | 82    | 17  | ug/kg | SW846 8270D |
| Fluoranthene           |  | 1020   | 41    | 18  | ug/kg | SW846 8270D |
| Fluorene               |  | 26.4 J | 41    | 19  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene |  | 411    | 41    | 19  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene    |  | 194    | 41    | 9.3 | ug/kg | SW846 8270D |
| Naphthalene            |  | 246    | 41    | 12  | ug/kg | SW846 8270D |
| Phenanthrene           |  | 538    | 41    | 14  | ug/kg | SW846 8270D |
| Pyrene                 |  | 1050   | 41    | 13  | ug/kg | SW846 8270D |
| Aluminum               |  | 9650   | 62    |     | mg/kg | SW846 6010C |
| Arsenic                |  | 20.9   | 2.5   |     | mg/kg | SW846 6010C |
| Barium                 |  | 110    | 25    |     | mg/kg | SW846 6010C |
| Beryllium              |  | 0.94   | 0.25  |     | mg/kg | SW846 6010C |
| Calcium                |  | 32600  | 620   |     | mg/kg | SW846 6010C |
| Chromium               |  | 12.0   | 1.2   |     | mg/kg | SW846 6010C |
| Cobalt                 |  | 9.1    | 6.2   |     | mg/kg | SW846 6010C |
| Copper                 |  | 52.9   | 3.1   |     | mg/kg | SW846 6010C |
| Iron                   |  | 23000  | 62    |     | mg/kg | SW846 6010C |
| Lead                   |  | 101    | 2.5   |     | mg/kg | SW846 6010C |
| Magnesium              |  | 10400  | 620   |     | mg/kg | SW846 6010C |
| Manganese              |  | 478    | 1.9   |     | mg/kg | SW846 6010C |
| Mercury                |  | 0.22   | 0.040 |     | mg/kg | SW846 7471B |
| Nickel                 |  | 22.7   | 5.0   |     | mg/kg | SW846 6010C |

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

|          |  |      |     |  |       |             |
|----------|--|------|-----|--|-------|-------------|
| Vanadium |  | 19.9 | 6.2 |  | mg/kg | SW846 6010C |
| Zinc     |  | 93.4 | 6.2 |  | mg/kg | SW846 6010C |

**JC65157-12 SB-100 (0-8)**

|                                     |  |        |       |     |       |             |
|-------------------------------------|--|--------|-------|-----|-------|-------------|
| Acenaphthene                        |  | 160    | 42    | 15  | ug/kg | SW846 8270D |
| Acenaphthylene                      |  | 585    | 42    | 21  | ug/kg | SW846 8270D |
| Acetophenone                        |  | 17.0 J | 210   | 9.0 | ug/kg | SW846 8270D |
| Anthracene                          |  | 880    | 42    | 26  | ug/kg | SW846 8270D |
| Benzo(a)anthracene                  |  | 2120   | 42    | 12  | ug/kg | SW846 8270D |
| Benzo(a)pyrene                      |  | 3110   | 42    | 19  | ug/kg | SW846 8270D |
| Benzo(b)fluoranthene                |  | 3400   | 42    | 19  | ug/kg | SW846 8270D |
| Benzo(g,h,i)perylene                |  | 2560   | 42    | 21  | ug/kg | SW846 8270D |
| Benzo(k)fluoranthene                |  | 1040   | 42    | 20  | ug/kg | SW846 8270D |
| Butyl benzyl phthalate <sup>c</sup> |  | 43.3 J | 84    | 10  | ug/kg | SW846 8270D |
| 1,1'-Biphenyl                       |  | 47.0 J | 84    | 5.8 | ug/kg | SW846 8270D |
| Carbazole                           |  | 289    | 84    | 6.1 | ug/kg | SW846 8270D |
| Chrysene                            |  | 2060   | 42    | 13  | ug/kg | SW846 8270D |
| Dibenzo(a,h)anthracene              |  | 478    | 42    | 19  | ug/kg | SW846 8270D |
| Dibenzofuran                        |  | 275    | 84    | 17  | ug/kg | SW846 8270D |
| Fluoranthene                        |  | 4630   | 84    | 38  | ug/kg | SW846 8270D |
| Fluorene                            |  | 372    | 42    | 19  | ug/kg | SW846 8270D |
| Indeno(1,2,3-cd)pyrene              |  | 2220   | 42    | 20  | ug/kg | SW846 8270D |
| 2-Methylnaphthalene                 |  | 165    | 42    | 9.5 | ug/kg | SW846 8270D |
| Naphthalene                         |  | 267    | 42    | 12  | ug/kg | SW846 8270D |
| Phenanthrene                        |  | 3670   | 42    | 14  | ug/kg | SW846 8270D |
| Pyrene                              |  | 4510   | 84    | 27  | ug/kg | SW846 8270D |
| Aluminum                            |  | 3520   | 64    |     | mg/kg | SW846 6010C |
| Arsenic                             |  | 11.7   | 2.6   |     | mg/kg | SW846 6010C |
| Barium                              |  | 87.8   | 26    |     | mg/kg | SW846 6010C |
| Beryllium                           |  | 0.35   | 0.26  |     | mg/kg | SW846 6010C |
| Calcium                             |  | 10400  | 640   |     | mg/kg | SW846 6010C |
| Chromium                            |  | 5.6    | 1.3   |     | mg/kg | SW846 6010C |
| Copper                              |  | 41.9   | 3.2   |     | mg/kg | SW846 6010C |
| Iron                                |  | 10600  | 64    |     | mg/kg | SW846 6010C |
| Lead                                |  | 111    | 2.6   |     | mg/kg | SW846 6010C |
| Magnesium                           |  | 2680   | 640   |     | mg/kg | SW846 6010C |
| Manganese                           |  | 203    | 1.9   |     | mg/kg | SW846 6010C |
| Mercury                             |  | 0.16   | 0.041 |     | mg/kg | SW846 7471B |
| Nickel                              |  | 9.3    | 5.2   |     | mg/kg | SW846 6010C |
| Vanadium                            |  | 10.2   | 6.4   |     | mg/kg | SW846 6010C |
| Zinc                                |  | 40.9   | 6.4   |     | mg/kg | SW846 6010C |

## Summary of Hits

**Job Number:** JC65157  
**Account:** Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Collected:** 04/26/18 thru 04/27/18

| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

JC65157-12A SB-100 (0-8)

|                           |         |  |  |  |        |                      |
|---------------------------|---------|--|--|--|--------|----------------------|
| Corrosivity as pH         | 7.44 NC |  |  |  | su     | SW846 9045D          |
| Ignitability (Flashpoint) | > 200   |  |  |  | Deg. F | SW846 1010A/ASTM D93 |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) More than 40 % RPD for detected concentrations between the two GC columns.
- (c) Associated CCV outside of control limits high.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (7-9)                      |                                |
| <b>Lab Sample ID:</b> JC65157-1                            | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472436.D | 1  | 05/02/18 10:57 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472785.D | 10 | 05/10/18 07:54 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |
| Run #3 | 6P472783.D | 50 | 05/10/18 07:05 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 | 30.5 g         | 1.0 ml       |
| Run #3 | 30.5 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND                 | 77  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                 | 190 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                 | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND                 | 190 | 69  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND                 | 190 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                 | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND                 | 77  | 25  | ug/kg |   |
|           | 3&4-Methylphenol                       | 176                | 77  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND                 | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND                 | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND                 | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                                 | 107                | 77  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                 | 190 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                 | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                 | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 1220               | 39  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 2490               | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND                 | 190 | 8.3 | ug/kg |   |
| 120-12-7  | Anthracene                             | 12100 <sup>b</sup> | 390 | 240 | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND                 | 77  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 9910 <sup>b</sup>  | 390 | 110 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 7970 <sup>b</sup>  | 390 | 180 | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 10200 <sup>b</sup> | 390 | 170 | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 5680 <sup>b</sup>  | 390 | 190 | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 3970 <sup>b</sup>  | 390 | 180 | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                 | 77  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>c</sup>    | ND                 | 77  | 9.4 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 2240               | 77  | 5.3 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND                 | 190 | 9.6 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND                 | 77  | 9.2 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-103 (7-9)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65157-1                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 85.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result             | RL   | MDL | Units | Q |
|-----------|---|--------------------|------|-----|-------|---|
| 106-47-8  | 4-Chloroaniline                         | ND                 | 190  | 14  | ug/kg |   |
| 86-74-8   | Carbazole                               | 4030 <sup>b</sup>  | 770  | 56  | ug/kg |   |
| 105-60-2  | Caprolactam                             | ND                 | 77   | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 9650 <sup>b</sup>  | 390  | 120 | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                 | 77   | 8.3 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                 | 77   | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                 | 77   | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                 | 77   | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                 | 39   | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                 | 39   | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                 | 77   | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND                 | 39   | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 1570               | 39   | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 9650 <sup>b</sup>  | 770  | 160 | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND                 | 77   | 6.3 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                 | 77   | 9.6 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND                 | 77   | 8.2 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND                 | 77   | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                 | 77   | 9.0 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 30000 <sup>b</sup> | 390  | 170 | ug/kg |   |
| 86-73-7   | Fluorene                                | 4330 <sup>b</sup>  | 390  | 180 | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND                 | 77   | 9.8 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                 | 39   | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                 | 390  | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND                 | 190  | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 5180 <sup>b</sup>  | 390  | 180 | ug/kg |   |
| 78-59-1   | Isophorone                              | ND                 | 77   | 8.3 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 9440 <sup>b</sup>  | 390  | 87  | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND                 | 190  | 9.1 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND                 | 190  | 9.6 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                 | 190  | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 52600 <sup>d</sup> | 1900 | 540 | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND                 | 77   | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                 | 77   | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                 | 190  | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 42700 <sup>d</sup> | 1900 | 650 | ug/kg |   |
| 129-00-0  | Pyrene                                  | 24500 <sup>b</sup> | 390  | 120 | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                 | 190  | 9.8 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (7-9)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-1                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits  |
|-----------|----------------------|--------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 59%    | 55%    | 47%    | 23-115% |
| 4165-62-2 | Phenol-d5            | 56%    | 50%    | 48%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 44%    | 45%    | 35%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 58%    | 53%    | 38%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 56%    | 61%    | 57%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 45%    | 55%    | 58%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high, sample was ND.
- (d) Result is from Run# 3

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (7-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-2                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472424.D | 1  | 05/02/18 06:00 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 82  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 25  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 35  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 73  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 44  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 82  | 26  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 82  | 34  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 27  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 410 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 39  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 82  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 27  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 31  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 24  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 41  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 41  | 21  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 210 | 8.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 39.4   | 41  | 25  | ug/kg | J |
| 1912-24-9 | Atrazine                               | ND     | 82  | 18  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 148    | 41  | 12  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 147    | 41  | 19  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 178    | 41  | 18  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 99.3   | 41  | 21  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 77.6   | 41  | 19  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 82  | 16  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 82  | 10  | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 82  | 5.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 82  | 9.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 82  | 6.0 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-109 (7-9)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-2                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 80.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 82  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                                | 149    | 41  | 13  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 82  | 8.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 82  | 18  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 82  | 15  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 82  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 41  | 13  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 41  | 21  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 82  | 34  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 41  | 27  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 18.1   | 41  | 18  | ug/kg | J |
| 132-64-9  | Dibenzofuran                            | ND     | 82  | 17  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 82  | 6.7 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 82  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 82  | 8.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 82  | 7.3 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 82  | 9.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 285    | 41  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                                | ND     | 41  | 19  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 82  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 41  | 17  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 410 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 210 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 86.7   | 41  | 19  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 82  | 8.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 41  | 9.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 210 | 9.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 210 | 10  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 210 | 11  | ug/kg |   |
| 91-20-3   | Naphthalene                             | ND     | 41  | 12  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 82  | 16  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 82  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 210 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 111    | 41  | 14  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 273    | 41  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 210 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 72%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-109 (7-9)<br><b>Lab Sample ID:</b> JC65157-2<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 80.6 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 70%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 57%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 72%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 69%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

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|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (15-17)                    |                                |
| <b>Lab Sample ID:</b> JC65157-3                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472425.D | 1  | 05/02/18 06:24 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 74  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 370 | 98  | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.9 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | ND     | 37  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | ND     | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | ND     | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | ND     | 37  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 74  | 9.0 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 74  | 5.0 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.1 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 74  | 8.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 74  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-109 (15-17)                             | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-3                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | ND     | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 74  | 6.0 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 74  | 7.9 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 74  | 8.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | ND     | 37  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                                | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 74  | 9.3 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 37  | 8.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 180 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.2 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 180 | 9.5 | ug/kg |   |
| 91-20-3   | Naphthalene                             | ND     | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | ND     | 37  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                  | ND     | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 180 | 9.4 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 74%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-109 (15-17)<br><b>Lab Sample ID:</b> JC65157-3<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 87.8 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 74%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 58%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 78%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 70%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (7-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-4                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 81.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472429.D | 1  | 05/02/18 08:03 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.6 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 81  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 25  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 34  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 72  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 43  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 81  | 26  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 81  | 33  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 27  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 400 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 38  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 81  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 27  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 30  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 24  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 112    | 40  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 501    | 40  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.7 | ug/kg |   |
| 120-12-7  | Anthracene                             | 647    | 40  | 25  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 81  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 986    | 40  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 1020   | 40  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 1170   | 40  | 18  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 763    | 40  | 20  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 474    | 40  | 19  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 81  | 16  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 81  | 9.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 69.4   | 81  | 5.5 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 10  | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 81  | 9.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 15  | ug/kg |   |
| 86-74-8   | Carbazole                              | 171    | 81  | 5.9 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-101 (7-9)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-4                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 81.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 81  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                                | 964    | 40  | 13  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 81  | 8.6 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 81  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 81  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 81  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 40  | 13  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 40  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 81  | 34  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 40  | 27  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 131    | 40  | 18  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 376    | 81  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 81  | 6.6 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 81  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 81  | 8.6 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 81  | 7.2 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 81  | 9.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 2530   | 40  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                                | 364    | 40  | 19  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 81  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 40  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 400 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 200 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 613    | 40  | 19  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 81  | 8.6 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 308    | 40  | 9.1 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 200 | 9.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 200 | 10  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 589    | 40  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 81  | 16  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 81  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 200 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 2570   | 40  | 14  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 2320   | 40  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 43%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-101 (7-9)<br><b>Lab Sample ID:</b> JC65157-4<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 81.0 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 44%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 34%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 46%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 46%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 37%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|-----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | E252279.D | 1  | 05/07/18 15:27 | TDN | 04/28/18 15:00 | n/a        | VE10829          |
| Run #2              |           |    |                |     |                |            |                  |

| Run #  | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.8 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL  | MDL | Units | Q |
|------------|-----------------------------|--------|-----|-----|-------|---|
| 67-64-1    | Acetone                     | ND     | 690 | 440 | ug/kg |   |
| 71-43-2    | Benzene                     | 54.0   | 34  | 7.4 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 340 | 30  | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 140 | 17  | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 340 | 21  | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 340 | 48  | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 690 | 360 | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 140 | 42  | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 140 | 45  | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 140 | 20  | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 340 | 62  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 140 | 22  | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 340 | 68  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 140 | 24  | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 140 | 46  | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 140 | 26  | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 69  | 17  | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 69  | 36  | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 69  | 20  | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 69  | 33  | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 340 | 42  | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 69  | 18  | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 69  | 12  | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 69  | 49  | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 69  | 28  | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 69  | 40  | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 140 | 27  | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 140 | 26  | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 140 | 16  | ug/kg |   |
| 100-41-4   | Ethylbenzene                | 33.9   | 69  | 20  | ug/kg | J |
| 76-13-1    | Freon 113                   | ND     | 340 | 46  | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 340 | 190 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.0    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### VOA TCL List

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 98-82-8   | Isopropylbenzene           | ND     | 140 | 17  | ug/kg |   |
| 79-20-9   | Methyl Acetate             | ND     | 340 | 170 | ug/kg |   |
| 108-87-2  | Methylcyclohexane          | ND     | 140 | 38  | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether    | ND     | 69  | 29  | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 340 | 120 | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 340 | 170 | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 140 | 34  | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 140 | 17  | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 140 | 44  | ug/kg |   |
| 108-88-3  | Toluene                    | 81.9   | 69  | 38  | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 340 | 69  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 340 | 69  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 140 | 40  | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 140 | 29  | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 69  | 38  | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 340 | 33  | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 140 | 53  | ug/kg |   |
|           | m,p-Xylene                 | 307    | 69  | 38  | ug/kg |   |
| 95-47-6   | o-Xylene                   | 80.6   | 69  | 17  | ug/kg |   |
| 1330-20-7 | Xylene (total)             | 388    | 69  | 17  | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 96%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%    |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472430.D | 1  | 05/02/18 08:27 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472786.D | 5  | 05/10/18 08:19 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 | 30.9 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 76  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 68  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 76  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 76  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 76  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 329    | 38  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 588    | 38  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.2 | ug/kg |   |
| 120-12-7  | Anthracene                             | 2270   | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 76  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2360   | 38  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 2090   | 38  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 2690   | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1600   | 38  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 1020   | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 76  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 76  | 9.3 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 600    | 76  | 5.2 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.4 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 76  | 9.1 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | 1130   | 76  | 5.5 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-103 (9-19)                              | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65157-6                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 85.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result             | RL  | MDL | Units | Q |
|-----------|---|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND                 | 76  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 2060               | 38  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                 | 76  | 8.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                 | 76  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                 | 76  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                 | 76  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                 | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                 | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                 | 76  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND                 | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 308                | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 2340               | 76  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND                 | 76  | 6.2 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND                 | 76  | 9.5 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND                 | 76  | 8.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND                 | 76  | 6.8 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND                 | 76  | 8.9 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 7470 <sup>c</sup>  | 190 | 85  | ug/kg |   |
| 86-73-7   | Fluorene                                | 1090               | 38  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND                 | 76  | 9.6 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                 | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                 | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND                 | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1410               | 38  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND                 | 76  | 8.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 2480               | 38  | 8.6 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND                 | 190 | 9.0 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND                 | 190 | 9.5 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                 | 190 | 9.9 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 14100 <sup>c</sup> | 190 | 54  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND                 | 76  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                 | 76  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                 | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 10400 <sup>c</sup> | 190 | 64  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 6290 <sup>c</sup>  | 190 | 61  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                 | 190 | 9.7 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 61%    | 56%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 58%    | 57%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 48%    | 54%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 62%    | 57%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 61%    | 65%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 54%    | 61%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145585.D | 1  | 04/30/18 15:03 | KC | 04/28/18 15:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 10.2 g         | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | 28.3   | 13     | 6.6     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 78%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G56189.D | 1  | 05/14/18 15:08 | DM | 05/10/18 08:00 | OP11917    | G6G1682          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.74 | 0.61 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.74 | 0.60 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.74 | 0.66 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.74 | 0.71 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.74 | 0.54 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.74 | 0.59 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.74 | 0.33 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.74 | 0.51 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.74 | 0.67 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.74 | 0.64 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.74 | 0.65 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.74 | 0.57 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.74 | 0.57 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.74 | 0.42 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.74 | 0.42 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.74 | 0.46 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.74 | 0.63 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.74 | 0.52 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.58 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.74 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1            | Run# 2 | Limits  |
|-----------|----------------------|-------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 76%               |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 69%               |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 52%               |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 377% <sup>a</sup> |        | 10-156% |

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162672.D | 1  | 05/02/18 10:11 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.7 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 37 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 37 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 37 | 10  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 37 | 6.0 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 37 | 22  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 37 | 9.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 37 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 37 | 5.6 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 37 | 2.9 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 54%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 106%   |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 118%   |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

SGS North America Inc.

# Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2Z68943.D | 1  | 05/02/18 11:51 | RK | 05/01/18 17:00 | OP11675    | G2Z2592          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.4 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 125    | 11     | 2.7     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 66%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 88%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 83%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-6                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte  | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|----------|--------|-------|-------|----|----------|-------------|--------|---|
| Antimony | < 2.3  | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Arsenic  | 5.5    | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Barium   | 82.6   | 23    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Cadmium  | < 0.58 | 0.58  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Chromium | 7.7    | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Lead     | 17.1   | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Mercury  | 0.052  | 0.035 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>4</sup> |
| Nickel   | 9.9    | 4.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Selenium | < 2.3  | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Silver   | < 0.58 | 0.58  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Thallium | < 1.2  | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Vanadium | 11.4   | 5.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Zinc     | 43.8   | 5.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA44318

(2) Instrument QC Batch: MA44326

(3) Prep QC Batch: MP6898

(4) Prep QC Batch: MP6935

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-6                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|-------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide           | 6.2    | 0.23 | mg/kg  | 1  | 05/04/18 15:35 | TG  | SW846 9012B/LACHAT |
| Heat Content, BTU | 642    | 100  | BTU/lb | 1  | 05/13/18 14:00 | JOO | ASTM D240-92       |
| Percent Sulfur    | < 0.10 | 0.10 | %      | 1  | 05/13/18       | JOO | ASTM D129-95       |
| Solids, Percent   | 85     |      | %      | 1  | 05/02/18 14:30 | SF  | SM2540 G-97        |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179624.D | 1  | 05/02/18 11:45 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 6.0 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 9.7  | 6.2  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.49 | 0.10 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 4.9  | 0.42 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 1.9  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 4.9  | 0.30 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 4.9  | 0.68 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 9.7  | 5.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 1.9  | 0.59 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 1.9  | 0.63 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 1.9  | 0.28 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 4.9  | 0.88 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 1.9  | 0.31 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 4.9  | 0.96 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 1.9  | 0.33 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 1.9  | 0.66 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 1.9  | 0.37 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.97 | 0.24 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.97 | 0.50 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.97 | 0.28 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.97 | 0.47 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 4.9  | 0.59 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.97 | 0.25 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.97 | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 0.97 | 0.69 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 0.97 | 0.39 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 0.97 | 0.57 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 1.9  | 0.39 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 1.9  | 0.37 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 1.9  | 0.23 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.97 | 0.28 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 4.9  | 0.66 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 4.9  | 2.7  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.5    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**VOA TCL List**

| CAS No.   | Compound                            | Result | RL   | MDL  | Units | Q |
|-----------|-------------------------------------|--------|------|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 1.9  | 0.24 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 4.9  | 2.5  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 1.9  | 0.53 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 0.97 | 0.42 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 4.9  | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 4.9  | 2.4  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 1.9  | 0.48 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 1.9  | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 1.9  | 0.62 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 0.97 | 0.53 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 4.9  | 0.97 | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 4.9  | 0.97 | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 1.9  | 0.57 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 1.9  | 0.41 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 0.97 | 0.53 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 4.9  | 0.47 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 1.9  | 0.75 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 0.97 | 0.53 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 0.97 | 0.24 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 0.97 | 0.24 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 114%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472431.D | 1  | 05/02/18 08:52 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 78  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 69  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 190 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 42  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 78  | 25  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 78  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 37  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 78  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 39.0   | 39  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 170    | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | 42.4   | 190 | 8.4 | ug/kg | J |
| 120-12-7  | Anthracene                             | 384    | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 78  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 1220   | 39  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 1310   | 39  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 1640   | 39  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 771    | 39  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 651    | 39  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 78  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 78  | 9.5 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 57.3   | 78  | 5.3 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.7 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 78  | 9.3 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | 60.9   | 78  | 5.7 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-101 (0-9)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-7                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 85.5     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 78  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1410   | 39  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 78  | 8.3 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 78  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 78  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 78  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 39  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 78  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 192    | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 205    | 78  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 78  | 6.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 78  | 9.7 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 78  | 8.3 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 78  | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 78  | 9.1 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 2120   | 39  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                                | 88.5   | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 78  | 9.9 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 390 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 712    | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 78  | 8.3 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 261    | 39  | 8.8 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 190 | 9.2 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 190 | 9.7 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 190 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 322    | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 78  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 78  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 1240   | 39  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 2080   | 39  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 190 | 9.9 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 48%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.5    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 51%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 44%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 56%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 55%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 48%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145586.D | 1  | 04/30/18 15:30 | KC | 04/28/18 15:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.4 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 14     | 7.0     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 84%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |                                |
| <b>Lab Sample ID:</b> JC65157-7                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 8G15033.D | 1  | 05/11/18 12:14 | MH | 05/10/18 08:00 | OP11917    | G8G489           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.0 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound              | Result | RL   | MDL  | Units | Q |
|------------|-----------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin                | ND     | 0.78 | 0.64 | ug/kg |   |
| 319-84-6   | alpha-BHC             | ND     | 0.78 | 0.63 | ug/kg |   |
| 319-85-7   | beta-BHC              | ND     | 0.78 | 0.70 | ug/kg |   |
| 319-86-8   | delta-BHC             | ND     | 0.78 | 0.75 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane)   | ND     | 0.78 | 0.57 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane       | ND     | 0.78 | 0.63 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane       | ND     | 0.78 | 0.35 | ug/kg |   |
| 60-57-1    | Dieldrin              | ND     | 0.78 | 0.54 | ug/kg |   |
| 72-54-8    | 4,4'-DDD              | ND     | 0.78 | 0.72 | ug/kg |   |
| 72-55-9    | 4,4'-DDE <sup>a</sup> | 3.7    | 0.78 | 0.68 | ug/kg |   |
| 50-29-3    | 4,4'-DDT <sup>a</sup> | 7.7    | 0.78 | 0.69 | ug/kg |   |
| 72-20-8    | Endrin                | ND     | 0.78 | 0.61 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate    | ND     | 0.78 | 0.61 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde       | ND     | 0.78 | 0.44 | ug/kg |   |
| 959-98-8   | Endosulfan-I          | ND     | 0.78 | 0.45 | ug/kg |   |
| 33213-65-9 | Endosulfan-II         | ND     | 0.78 | 0.49 | ug/kg |   |
| 76-44-8    | Heptachlor            | ND     | 0.78 | 0.67 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide    | ND     | 0.78 | 0.55 | ug/kg |   |
| 72-43-5    | Methoxychlor          | ND     | 1.6  | 0.62 | ug/kg |   |
| 53494-70-5 | Endrin ketone         | ND     | 0.78 | 0.56 | ug/kg |   |
| 8001-35-2  | Toxaphene             | ND     | 19   | 18   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 72%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 108%   |        | 10-156% |

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162673.D | 1  | 05/02/18 10:28 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.0 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 37 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 37 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 37 | 9.8 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 37 | 5.8 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 37 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 37 | 9.0 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 37 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 37 | 5.4 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 37 | 2.8 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 85%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 69%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 72%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.5    |
| <b>Method:</b> SW846 8015C SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2Z68946.D | 1  | 05/02/18 13:32 | RK | 05/01/18 17:00 | OP11675    | G2Z2592          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.8 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 168    | 11     | 2.6     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 63%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 81%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 81%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte  | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|----------|--------|-------|-------|----|----------|-------------|--------|---|
| Antimony | < 2.3  | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Arsenic  | 30.4   | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Barium   | 62.7   | 23    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Cadmium  | < 0.58 | 0.58  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Chromium | 8.3    | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Lead     | 110    | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Mercury  | 0.20   | 0.037 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>4</sup> |
| Nickel   | 14.7   | 4.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Selenium | < 2.3  | 2.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Silver   | < 0.58 | 0.58  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Thallium | < 1.2  | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Vanadium | 12.2   | 5.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Zinc     | 84.7   | 5.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA44318

(2) Instrument QC Batch: MA44326

(3) Prep QC Batch: MP6898

(4) Prep QC Batch: MP6935

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|-------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide           | 0.52   | 0.24 | mg/kg  | 1  | 05/04/18 15:36 | TG  | SW846 9012B/LACHAT |
| Heat Content, BTU | 4360   | 100  | BTU/lb | 1  | 05/13/18 14:00 | JOO | ASTM D240-92       |
| Percent Sulfur    | < 0.10 | 0.10 | %      | 1  | 05/13/18       | JOO | ASTM D129-95       |
| Solids, Percent   | 85.5   |      | %      | 1  | 05/02/18 14:30 | SF  | SM2540 G-97        |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-8                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179625.D | 1  | 05/02/18 12:13 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.4 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 11   | 7.3  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.57 | 0.12 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.7  | 0.50 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.7  | 0.36 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 5.7  | 0.80 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 11   | 6.0  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.3  | 0.69 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.3  | 0.74 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.3  | 0.33 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 5.7  | 1.0  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.3  | 0.37 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.7  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.3  | 0.39 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.3  | 0.77 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.3  | 0.43 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.1  | 0.28 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.1  | 0.59 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.1  | 0.33 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.1  | 0.55 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.7  | 0.69 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.1  | 0.29 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.1  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.1  | 0.81 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.1  | 0.46 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.1  | 0.67 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.3  | 0.45 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.3  | 0.44 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.3  | 0.27 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.1  | 0.33 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.7  | 0.77 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.7  | 3.2  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-8                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 81.3     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.28 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.7 | 2.9  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.3 | 0.62 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.1 | 0.49 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.7 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.7 | 2.8  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.3 | 0.56 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.29 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.73 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.1 | 0.62 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.7 | 1.1  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.7 | 1.1  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.66 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.48 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.1 | 0.62 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.7 | 0.55 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.3 | 0.87 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.1 | 0.62 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.1 | 0.29 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.1 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 116%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |                                |
| <b>Lab Sample ID:</b> JC65157-8                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472432.D | 1  | 05/02/18 09:17 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472784.D | 10 | 05/10/18 07:30 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 | 30.0 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND                 | 82  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                 | 210 | 25  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                 | 210 | 35  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | 88.2               | 210 | 73  | ug/kg | J |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND                 | 210 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                 | 210 | 44  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND                 | 82  | 26  | ug/kg |   |
|           | 3&4-Methylphenol                       | 143                | 82  | 34  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND                 | 210 | 27  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND                 | 410 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND                 | 160 | 38  | ug/kg |   |
| 108-95-2  | Phenol                                 | 87.9               | 82  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                 | 210 | 27  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                 | 210 | 31  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                 | 210 | 24  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 814                | 41  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 950                | 41  | 21  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND                 | 210 | 8.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 6490 <sup>b</sup>  | 410 | 250 | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND                 | 82  | 18  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 12500 <sup>b</sup> | 410 | 120 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 11800 <sup>b</sup> | 410 | 190 | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 13700 <sup>b</sup> | 410 | 180 | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 7850 <sup>b</sup>  | 410 | 210 | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 4800 <sup>b</sup>  | 410 | 190 | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                 | 82  | 16  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>c</sup>    | ND                 | 82  | 10  | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 220                | 82  | 5.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | 36.5               | 210 | 10  | ug/kg | J |
| 91-58-7   | 2-Chloronaphthalene                    | ND                 | 82  | 9.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND                 | 210 | 15  | ug/kg |   |
| 86-74-8   | Carbazole                              | 2520               | 82  | 5.9 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-8                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 81.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result             | RL  | MDL | Units | Q |
|-----------|---|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND                 | 82  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                                | 11600 <sup>b</sup> | 410 | 130 | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                 | 82  | 8.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                 | 82  | 18  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                 | 82  | 15  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                 | 82  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                 | 41  | 13  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                 | 41  | 21  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                 | 82  | 34  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND                 | 41  | 27  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 1760               | 41  | 18  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 1610               | 82  | 17  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND                 | 82  | 6.7 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                 | 82  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND                 | 82  | 8.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND                 | 82  | 7.3 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                 | 82  | 9.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 35700 <sup>b</sup> | 410 | 180 | ug/kg |   |
| 86-73-7   | Fluorene                                | 1570               | 41  | 19  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND                 | 82  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                 | 41  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                 | 410 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND                 | 210 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 6510 <sup>b</sup>  | 410 | 190 | ug/kg |   |
| 78-59-1   | Isophorone                              | ND                 | 82  | 8.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 642                | 41  | 9.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND                 | 210 | 9.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND                 | 210 | 10  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                 | 210 | 11  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 2640               | 41  | 12  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND                 | 82  | 16  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                 | 82  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                 | 210 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 26600 <sup>b</sup> | 410 | 140 | ug/kg |   |
| 129-00-0  | Pyrene                                  | 470                | 41  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                 | 210 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 58%    | 49%    | 23-115% |

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-8<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 81.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 57%    | 55%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 46%    | 47%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 61%    | 51%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 61%    | 59%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 48%    | 57%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-8                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145587.D | 1  | 04/30/18 15:56 | KC | 04/28/18 15:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.1 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 16     | 7.9     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 83%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-8                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 81.3    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 8G15034.D | 1  | 05/11/18 12:30 | MH | 05/10/18 08:00 | OP11917    | G8G489           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.1 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.76 | 0.63 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.76 | 0.62 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.76 | 0.69 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.76 | 0.73 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.76 | 0.56 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.76 | 0.62 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.76 | 0.35 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.76 | 0.52 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.76 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.76 | 0.67 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.76 | 0.68 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.76 | 0.59 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.76 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.76 | 0.43 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.76 | 0.44 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.76 | 0.48 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.76 | 0.66 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.76 | 0.54 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.61 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.76 | 0.55 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 19   | 18   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 81%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 70%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 79%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-8                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162678.D | 1  | 05/02/18 12:19 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.4 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 40 | 16  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 40 | 16  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 40 | 11  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 40 | 6.4 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 40 | 23  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 40 | 9.8 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 40 | 13  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 40 | 5.9 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 40 | 3.0 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 87%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 76%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 93%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 101%   |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-8                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 81.3    |
| <b>Method:</b> SW846 8015C SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2Y90946.D | 1  | 05/02/18 13:32 | RK | 05/01/18 17:00 | OP11675    | G2Y3464          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.9 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | 117    | 11     | 2.7     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 80%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 107%   |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 84%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-8<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 81.3 |
|--|--|

### Metals Analysis

| Analyte  | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|----------|--------|-------|-------|----|----------|-------------|--------|---|
| Antimony | < 2.5  | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Arsenic  | 15.4   | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Barium   | 50.0   | 25    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Cadmium  | < 0.62 | 0.62  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Chromium | 7.9    | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Lead     | 81.4   | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Mercury  | 0.096  | 0.037 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>4</sup> |
| Nickel   | 13.7   | 4.9   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Selenium | < 2.5  | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Silver   | < 0.62 | 0.62  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Thallium | < 1.2  | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Vanadium | 13.9   | 6.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Zinc     | 86.1   | 6.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |

- (1) Instrument QC Batch: MA44318
- (2) Instrument QC Batch: MA44326
- (3) Prep QC Batch: MP6898
- (4) Prep QC Batch: MP6935

RL = Reporting Limit

4.7  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-8                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|-------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide           | 0.28   | 0.22 | mg/kg  | 1  | 05/04/18 15:38 | TG  | SW846 9012B/LACHAT |
| Heat Content, BTU | 4630   | 100  | BTU/lb | 1  | 05/13/18 14:00 | JOO | ASTM D240-92       |
| Percent Sulfur    | 0.19   | 0.10 | %      | 1  | 05/13/18       | JOO | ASTM D129-95       |
| Solids, Percent   | 81.3   |      | %      | 1  | 05/02/18 14:30 | SF  | SM2540 G-97        |

RL = Reporting Limit

4.7  
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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179626.D | 1  | 05/02/18 12:41 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.2 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 12   | 7.5  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.58 | 0.12 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.8  | 0.51 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.8  | 0.36 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 5.8  | 0.82 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 12   | 6.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.3  | 0.71 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.3  | 0.76 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.3  | 0.34 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 5.8  | 1.1  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.3  | 0.38 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.8  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.3  | 0.40 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.3  | 0.78 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.3  | 0.44 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.2  | 0.29 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.2  | 0.60 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.2  | 0.33 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.2  | 0.56 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.8  | 0.71 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.2  | 0.30 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.2  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.2  | 0.82 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.2  | 0.47 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.2  | 0.68 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.3  | 0.46 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.3  | 0.45 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.3  | 0.28 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.2  | 0.34 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.8  | 0.79 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.8  | 3.3  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |                                |
| <b>Lab Sample ID:</b> JC65157-9                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.29 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.8 | 2.9  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.3 | 0.64 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.2 | 0.50 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.8 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.8 | 2.9  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.3 | 0.58 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.30 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.74 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.2 | 0.64 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.68 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.49 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.2 | 0.64 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.8 | 0.56 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.3 | 0.89 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.2 | 0.64 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.2 | 0.29 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.2 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 96%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 112%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472426.D | 1  | 05/02/18 06:49 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 78  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 70  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 42  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 78  | 25  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 78  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 37  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 78  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 39  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.4 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 78  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | ND     | 39  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | ND     | 39  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | ND     | 39  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | ND     | 39  | 20  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 39  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 78  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 78  | 9.6 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 78  | 5.4 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 9.7 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 78  | 9.3 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 78  | 5.7 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 82.5    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 78  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | ND     | 39  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 78  | 8.4 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 78  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 78  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 78  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 39  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 78  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | ND     | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | ND     | 78  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 78  | 6.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 78  | 9.8 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 78  | 8.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 78  | 7.0 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 78  | 9.2 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | ND     | 39  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                                | ND     | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 78  | 9.9 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 390 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 200 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | ND     | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 78  | 8.4 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 39  | 8.9 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 200 | 9.3 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 200 | 9.8 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                             | ND     | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 78  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 78  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 200 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | ND     | 39  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                  | ND     | 39  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 64%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |                                |
| <b>Lab Sample ID:</b> JC65157-9                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 64%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 47%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 65%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 60%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 5035                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | PF145588.D | 1  | 04/30/18 16:23 | KC | 04/28/18 15:00 | n/a        | GPF4599          |
| Run #2 |            |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume | Methanol Aliquot |
|--------|----------------|--------------|------------------|
| Run #1 | 9.6 g          | 10.0 ml      | 100 ul           |
| Run #2 |                |              |                  |

| CAS No. | Compound             | Result | RL     | MDL     | Units | Q |
|---------|----------------------|--------|--------|---------|-------|---|
|         | TPH-GRO (C6-C10)     | ND     | 15     | 7.4     | mg/kg |   |
| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 98-08-8 | aaa-Trifluorotoluene | 83%    |        | 70-116% |       |   |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 8G15035.D | 1  | 05/11/18 12:47 | MH | 05/10/18 08:00 | OP11917    | G8G489           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.9 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.76 | 0.63 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.76 | 0.62 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.76 | 0.69 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.76 | 0.73 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.76 | 0.56 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.76 | 0.62 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.76 | 0.35 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.76 | 0.52 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.76 | 0.70 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.76 | 0.67 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.76 | 0.68 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.76 | 0.59 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.76 | 0.60 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.76 | 0.43 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.76 | 0.44 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.76 | 0.48 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.76 | 0.66 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.76 | 0.53 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.61 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.76 | 0.55 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 19   | 18   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 62%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 74%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162679.D | 1  | 05/02/18 12:36 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 16.2 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 37 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 37 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 37 | 10  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 37 | 6.0 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 37 | 22  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 37 | 9.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 37 | 12  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 37 | 5.6 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 37 | 2.9 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 92%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 95%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 78%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 67%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

### Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8015C SW846 3546                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

|        | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2Y90947.D | 1  | 05/02/18 14:05 | RK | 05/01/18 17:00 | OP11675    | G2Y3464          |
| Run #2 |           |    |                |    |                |            |                  |

|        | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 10.4 g         | 1.0 ml       |
| Run #2 |                |              |

| CAS No.    | Compound             | Result | RL     | MDL     | Units | Q |
|------------|----------------------|--------|--------|---------|-------|---|
|            | TPH-DRO (C10-C28)    | ND     | 12     | 2.8     | mg/kg |   |
| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |       |   |
| 84-15-1    | o-Terphenyl          | 71%    |        | 18-132% |       |   |
| 16416-32-3 | Tetracosane-d50      | 94%    |        | 25-137% |       |   |
| 438-22-2   | 5a-Androstane        | 71%    |        | 22-134% |       |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.8  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-9                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte               | Result  | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------------------|---------|-------|-------|----|----------|-------------|--------|---|
| Antimony              | < 2.4   | 2.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Arsenic               | 7.8     | 2.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Barium                | 235     | 24    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cadmium               | < 0.59  | 0.59  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Chromium              | 16.9    | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Lead                  | 21.7    | 2.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Mercury               | < 0.038 | 0.038 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>5</sup> |
| Nickel                | 24.6    | 4.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Selenium              | < 2.4   | 2.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Silver <sup>a</sup>   | < 1.8   | 1.8   | mg/kg | 3  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Thallium <sup>a</sup> | < 3.6   | 3.6   | mg/kg | 3  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Vanadium              | 22.4    | 5.9   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Zinc                  | 103     | 5.9   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44318
- (2) Instrument QC Batch: MA44326
- (3) Instrument QC Batch: MA44328
- (4) Prep QC Batch: MP6898
- (5) Prep QC Batch: MP6935

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-9                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### General Chemistry

| Analyte           | Result | RL   | Units  | DF | Analyzed       | By  | Method             |
|-------------------|--------|------|--------|----|----------------|-----|--------------------|
| Cyanide           | < 0.24 | 0.24 | mg/kg  | 1  | 05/03/18 15:07 | BM  | SW846 9012B/LACHAT |
| Heat Content, BTU | 207    | 100  | BTU/lb | 1  | 05/13/18 14:00 | JOO | ASTM D240-92       |
| Percent Sulfur    | < 0.10 | 0.10 | %      | 1  | 05/13/18       | JOO | ASTM D129-95       |
| Solids, Percent   | 82.5   |      | %      | 1  | 05/02/18 14:30 | SF  | SM2540 G-97        |

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179627.D | 1  | 05/02/18 13:10 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.3 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 10   | 6.7  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.52 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.2  | 0.45 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.1  | 0.25 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.2  | 0.33 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 5.2  | 0.73 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.5  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.1  | 0.64 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.1  | 0.68 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.1  | 0.30 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 5.2  | 0.94 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.1  | 0.34 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.2  | 1.0  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.1  | 0.36 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.1  | 0.70 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.1  | 0.40 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.26 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.54 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.30 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.50 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.2  | 0.63 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.27 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.19 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.74 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.42 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.61 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.1  | 0.41 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.1  | 0.40 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.1  | 0.25 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.30 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.2  | 0.70 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.2  | 2.9  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 90.5    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.1 | 0.26 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.2 | 2.6  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.1 | 0.57 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.0 | 0.45 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.2 | 1.9  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.2 | 2.6  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.1 | 0.52 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.1 | 0.26 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.1 | 0.66 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.0 | 0.57 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.2 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.2 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.1 | 0.61 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.1 | 0.44 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.0 | 0.57 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.2 | 0.50 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.1 | 0.80 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.0 | 0.57 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.0 | 0.26 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.0 | 0.26 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 108%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472433.D | 1  | 05/02/18 09:42 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 28.9   | 36  | 12  | ug/kg | J |
| 208-96-8  | Acenaphthylene                         | 231    | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 213    | 36  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 72  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 1250   | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 1400   | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 1650   | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1150   | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 752    | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 72  | 5.0 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 64.4   | 72  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |                                |
| <b>Lab Sample ID:</b> JC65157-10                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1120   | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 72  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 72  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 221    | 36  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 41.3   | 72  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 72  | 8.5 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 1900   | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                                | 42.0   | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 72  | 9.2 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 36  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1040   | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 72  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 34.6   | 36  | 8.2 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                          | ND     | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.1 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 180 | 9.4 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 123    | 36  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 538    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 1950   | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 180 | 9.2 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 62%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |                                |
| <b>Lab Sample ID:</b> JC65157-10                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 60%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 51%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 65%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 62%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 56%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.9  
4

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 90.5    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G55896.D | 1  | 05/02/18 11:07 | RK | 05/01/18 17:40 | OP11678    | G6G1675          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.2 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.73 | 0.60 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.73 | 0.59 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.73 | 0.66 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.73 | 0.70 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.73 | 0.54 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.73 | 0.59 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.73 | 0.33 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.73 | 0.50 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.73 | 0.67 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.73 | 0.64 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.73 | 0.64 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.73 | 0.56 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.73 | 0.57 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.73 | 0.41 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.73 | 0.42 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.73 | 0.45 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.73 | 0.63 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.73 | 0.51 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.5  | 0.58 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.73 | 0.53 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 18   | 17   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 70%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 71%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 60%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 73%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162661.D | 1  | 05/02/18 07:04 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.2 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 36 | 15  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 36 | 15  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 36 | 9.7 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 36 | 5.8 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 36 | 21  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 36 | 8.9 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 36 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 36 | 5.4 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 36 | 2.8 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 94%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 91%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 109%   |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 144%   |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-103 (0-5)<br><b>Lab Sample ID:</b> JC65157-10<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/26/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 90.5 |
|---|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------|--------|-------|-------|----|----------|-------------|--------|---|
| Aluminum  | 5340   | 56    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Antimony  | < 2.2  | 2.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Arsenic   | 4.6    | 2.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Barium    | 30.8   | 22    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Beryllium | 0.28   | 0.22  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cadmium   | < 0.56 | 0.56  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Calcium   | 132000 | 2800  | mg/kg | 5  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>3</sup> SW846 3050B <sup>4</sup> |
| Chromium  | 7.8    | 1.1   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Cobalt    | < 5.6  | 5.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Copper    | 22.9   | 2.8   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Iron      | 11100  | 56    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Lead      | 53.9   | 2.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Magnesium | 18700  | 560   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Manganese | 462    | 1.7   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Mercury   | 0.27   | 0.035 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>5</sup> |
| Nickel    | 10.9   | 4.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Potassium | 1420   | 1100  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Selenium  | < 2.2  | 2.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Silver    | < 0.56 | 0.56  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Sodium    | < 1100 | 1100  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Thallium  | < 1.1  | 1.1   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Vanadium  | 12.6   | 5.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |
| Zinc      | 59.7   | 5.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>4</sup> |

- (1) Instrument QC Batch: MA44318
- (2) Instrument QC Batch: MA44326
- (3) Instrument QC Batch: MA44328
- (4) Prep QC Batch: MP6898
- (5) Prep QC Batch: MP6935

RL = Reporting Limit

4.9  
4

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179629.D | 1  | 05/02/18 14:07 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.4 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 12   | 7.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.58 | 0.12 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.8  | 0.50 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.8  | 0.36 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 5.8  | 0.81 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 12   | 6.0  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.3  | 0.70 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.3  | 0.75 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.3  | 0.33 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 5.8  | 1.0  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.3  | 0.37 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.8  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.3  | 0.40 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.3  | 0.78 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.3  | 0.44 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.2  | 0.28 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.2  | 0.60 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.2  | 0.33 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.2  | 0.55 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.8  | 0.70 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.2  | 0.30 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.2  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.2  | 0.82 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.2  | 0.46 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.2  | 0.67 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.3  | 0.46 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.3  | 0.44 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.3  | 0.27 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.2  | 0.33 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.8  | 0.78 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.8  | 3.2  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 80.2    |
| <b>Method:</b> SW846 8260C SW846 5035                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**VOA TCL List**

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.29 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.8 | 2.9  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.3 | 0.63 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.2 | 0.49 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.8 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.8 | 2.9  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.3 | 0.57 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.29 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.74 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.2 | 0.63 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.67 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.48 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.2 | 0.63 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.8 | 0.55 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.3 | 0.88 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.2 | 0.63 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.2 | 0.29 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.2 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 115%   |        | 79-127% |

- (a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.
- (b) Associated CCV outside of control limits low.
- (c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472434.D | 1  | 05/02/18 10:07 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 82  | 20  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 25  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 35  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 73  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 44  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 82  | 26  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 82  | 34  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 27  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 410 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 39  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 82  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 27  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 31  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 25  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 17.8   | 41  | 14  | ug/kg | J |
| 208-96-8  | Acenaphthylene                         | 140    | 41  | 21  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 210 | 8.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 161    | 41  | 25  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 82  | 18  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 629    | 41  | 12  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 674    | 41  | 19  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 926    | 41  | 18  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 446    | 41  | 21  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 289    | 41  | 19  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 82  | 16  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 82  | 10  | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 44.3   | 82  | 5.6 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 82  | 9.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |   |
| 86-74-8   | Carbazole                              | 35.5   | 82  | 6.0 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 80.2    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND     | 82  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                                | 714    | 41  | 13  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 82  | 8.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 82  | 18  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 82  | 15  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 82  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 41  | 13  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 41  | 21  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 82  | 34  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 41  | 27  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 105    | 41  | 18  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 134    | 82  | 17  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 82  | 6.7 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 82  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 82  | 8.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 82  | 7.3 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 82  | 9.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 1020   | 41  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                                | 26.4   | 41  | 19  | ug/kg | J |
| 118-74-1  | Hexachlorobenzene                       | ND     | 82  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 41  | 17  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 410 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 210 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 411    | 41  | 19  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 82  | 8.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 194    | 41  | 9.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND     | 210 | 9.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 210 | 10  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 210 | 11  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 246    | 41  | 12  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 82  | 16  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 82  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 210 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 538    | 41  | 14  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 1050   | 41  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 210 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 43%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.10  
 4

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-101 (0-9)<br><b>Lab Sample ID:</b> JC65157-11<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 80.2 |
|--|--|

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**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 43%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 37%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 46%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 45%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 41%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8081B SW846 3546                      |  | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G55897.D | 1  | 05/02/18 11:25 | RK | 05/01/18 17:40 | OP11678    | G6G1675          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.7 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.79 | 0.65 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.79 | 0.65 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.79 | 0.72 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.79 | 0.76 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.79 | 0.59 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.79 | 0.64 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.79 | 0.36 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.79 | 0.55 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.79 | 0.73 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.79 | 0.70 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.79 | 0.70 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.79 | 0.62 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.79 | 0.62 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.79 | 0.45 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.79 | 0.46 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.79 | 0.50 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.79 | 0.68 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.79 | 0.56 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.6  | 0.63 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.79 | 0.57 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 20   | 19   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 71%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 79%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 67%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 87%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8082A SW846 3546                      |  | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162680.D | 1  | 05/02/18 12:52 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.7 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 40 | 16  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 40 | 16  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 40 | 11  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 40 | 6.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 40 | 23  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 40 | 9.8 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 40 | 13  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 40 | 5.9 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 40 | 3.0 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 88%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 81%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 77%    |        | 10-166% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-11                           | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method                      | Prep Method              |
|-----------|--------|-------|-------|----|----------|-------------|-----------------------------|--------------------------|
| Aluminum  | 9650   | 62    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Antimony  | < 2.5  | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Arsenic   | 20.9   | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Barium    | 110    | 25    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Beryllium | 0.94   | 0.25  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.62 | 0.62  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Calcium   | 32600  | 620   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Chromium  | 12.0   | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Cobalt    | 9.1    | 6.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Copper    | 52.9   | 3.1   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Iron      | 23000  | 62    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Lead      | 101    | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Magnesium | 10400  | 620   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Manganese | 478    | 1.9   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Mercury   | 0.22   | 0.040 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA SW846 7471B <sup>1</sup> | SW846 7471B <sup>4</sup> |
| Nickel    | 22.7   | 5.0   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Potassium | < 1200 | 1200  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Selenium  | < 2.5  | 2.5   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Silver    | < 0.62 | 0.62  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Sodium    | < 1200 | 1200  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Thallium  | < 1.2  | 1.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Vanadium  | 19.9   | 6.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |
| Zinc      | 93.4   | 6.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND SW846 6010C <sup>2</sup> | SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA44318

(2) Instrument QC Batch: MA44326

(3) Prep QC Batch: MP6898

(4) Prep QC Batch: MP6935

RL = Reporting Limit

SGS North America Inc.

## Report of Analysis

Page 1 of 2

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8260C SW846 5035                      |  | <b>Percent Solids:</b> 76.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | Y179630.D | 1  | 05/02/18 14:36 | PS | 04/28/18 15:00 | n/a        | VY7767           |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight |
|--------|----------------|
| Run #1 | 5.6 g          |
| Run #2 |                |

## VOA TCL List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone <sup>b</sup>        | ND     | 12   | 7.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.58 | 0.12 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.8  | 0.51 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.3  | 0.28 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.8  | 0.36 | ug/kg |   |
| 74-83-9    | Bromomethane <sup>c</sup>   | ND     | 5.8  | 0.82 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 12   | 6.1  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.3  | 0.71 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.3  | 0.75 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.3  | 0.33 | ug/kg |   |
| 75-00-3    | Chloroethane <sup>c</sup>   | ND     | 5.8  | 1.0  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.3  | 0.38 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.8  | 1.1  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.3  | 0.40 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.3  | 0.78 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.3  | 0.44 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.2  | 0.28 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.2  | 0.60 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.2  | 0.33 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.2  | 0.56 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.8  | 0.71 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.2  | 0.30 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.2  | 0.21 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.2  | 0.82 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.2  | 0.47 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.2  | 0.68 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.3  | 0.46 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.3  | 0.45 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.3  | 0.28 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.2  | 0.34 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.8  | 0.78 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.8  | 3.2  | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-12                                 | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 76.9     |
| <b>Method:</b>           | SW846 8260C SW846 5035                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## VOA TCL List

| CAS No.   | Compound                            | Result | RL  | MDL  | Units | Q |
|-----------|-------------------------------------|--------|-----|------|-------|---|
| 98-82-8   | Isopropylbenzene                    | ND     | 2.3 | 0.29 | ug/kg |   |
| 79-20-9   | Methyl Acetate                      | ND     | 5.8 | 2.9  | ug/kg |   |
| 108-87-2  | Methylcyclohexane                   | ND     | 2.3 | 0.63 | ug/kg |   |
| 1634-04-4 | Methyl Tert Butyl Ether             | ND     | 1.2 | 0.50 | ug/kg |   |
| 108-10-1  | 4-Methyl-2-pentanone(MIBK)          | ND     | 5.8 | 2.1  | ug/kg |   |
| 75-09-2   | Methylene chloride                  | ND     | 5.8 | 2.9  | ug/kg |   |
| 100-42-5  | Styrene                             | ND     | 2.3 | 0.58 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane           | ND     | 2.3 | 0.29 | ug/kg |   |
| 127-18-4  | Tetrachloroethene                   | ND     | 2.3 | 0.74 | ug/kg |   |
| 108-88-3  | Toluene                             | ND     | 1.2 | 0.64 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene              | ND     | 5.8 | 1.2  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane               | ND     | 2.3 | 0.67 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane               | ND     | 2.3 | 0.49 | ug/kg |   |
| 79-01-6   | Trichloroethene                     | ND     | 1.2 | 0.64 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane <sup>c</sup> | ND     | 5.8 | 0.56 | ug/kg |   |
| 75-01-4   | Vinyl chloride <sup>c</sup>         | ND     | 2.3 | 0.89 | ug/kg |   |
|           | m,p-Xylene                          | ND     | 1.2 | 0.64 | ug/kg |   |
| 95-47-6   | o-Xylene                            | ND     | 1.2 | 0.29 | ug/kg |   |
| 1330-20-7 | Xylene (total)                      | ND     | 1.2 | 0.29 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%    |        | 75-130% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 117%   |        | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Associated CCV outside of control limits low.

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 76.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472435.D | 1  | 05/02/18 10:32 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P473005.D | 2  | 05/16/18 15:21 | CC | 05/01/18 18:15 | OP11665    | E6P2211          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 | 30.9 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 84  | 21  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 26  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 36  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 75  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 160 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 45  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 84  | 27  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 84  | 35  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 28  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol                          | ND     | 420 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol                      | ND     | 170 | 40  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 84  | 22  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 28  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 32  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 25  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 160    | 42  | 15  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 585    | 42  | 21  | ug/kg |   |
| 98-86-2   | Acetophenone                           | 17.0   | 210 | 9.0 | ug/kg | J |
| 120-12-7  | Anthracene                             | 880    | 42  | 26  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 84  | 18  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2120   | 42  | 12  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 3110   | 42  | 19  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 3400   | 42  | 19  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 2560   | 42  | 21  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 1040   | 42  | 20  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 84  | 16  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | 43.3   | 84  | 10  | ug/kg | J |
| 92-52-4   | 1,1'-Biphenyl                          | 47.0   | 84  | 5.8 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 84  | 10  | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |   |
| 86-74-8   | Carbazole                              | 289    | 84  | 6.1 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result            | RL  | MDL | Units | Q |
|-----------|---|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                             | ND                | 84  | 17  | ug/kg |   |
| 218-01-9  | Chrysene                                | 2060              | 42  | 13  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                | 84  | 9.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                | 84  | 18  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                | 84  | 15  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                | 84  | 14  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                | 42  | 13  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                | 42  | 21  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                | 84  | 35  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND                | 42  | 28  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 478               | 42  | 19  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 275               | 84  | 17  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                    | ND                | 84  | 6.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                | 84  | 10  | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND                | 84  | 9.0 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND                | 84  | 7.5 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                | 84  | 9.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 4630 <sup>d</sup> | 84  | 38  | ug/kg |   |
| 86-73-7   | Fluorene                                | 372               | 42  | 19  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND                | 84  | 11  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                | 42  | 17  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                | 420 | 17  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND                | 210 | 21  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 2220              | 42  | 20  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND                | 84  | 9.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 165               | 42  | 9.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                          | ND                | 210 | 9.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND                | 210 | 11  | ug/kg |   |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                | 210 | 11  | ug/kg |   |
| 91-20-3   | Naphthalene                             | 267               | 42  | 12  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND                | 84  | 16  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                | 84  | 12  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                | 210 | 15  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 3670              | 42  | 14  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 4510 <sup>d</sup> | 84  | 27  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                | 210 | 11  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 56%    | 53%    | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 54%    | 51%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 46%    | 50%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 58%    | 50%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 60%    | 59%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 53%    | 55%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high.
- (c) Associated CCV outside of control limits high, sample was ND.
- (d) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8081B SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6G55900.D | 1  | 05/02/18 12:18 | RK | 05/01/18 17:40 | OP11678    | G6G1675          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.3 g         | 10.0 ml      |
| Run #2 |                |              |

## Pesticide TCL List

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.85 | 0.70 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.85 | 0.69 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.85 | 0.77 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.85 | 0.82 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.85 | 0.63 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.85 | 0.69 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.85 | 0.39 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.85 | 0.58 | ug/kg |   |
| 72-54-8    | 4,4'-DDD            | ND     | 0.85 | 0.78 | ug/kg |   |
| 72-55-9    | 4,4'-DDE            | ND     | 0.85 | 0.75 | ug/kg |   |
| 50-29-3    | 4,4'-DDT            | ND     | 0.85 | 0.75 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.85 | 0.66 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.85 | 0.66 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.85 | 0.48 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.85 | 0.49 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.85 | 0.53 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.85 | 0.73 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.85 | 0.60 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.7  | 0.68 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.85 | 0.61 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 21   | 20   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 68%    |        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 71%    |        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 64%    |        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 76%    |        | 10-156% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-12                                 | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 76.9     |
| <b>Method:</b>           | SW846 8082A SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2G162681.D | 1  | 05/02/18 13:09 | TR | 05/01/18 14:40 | OP11677    | G2G4322          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 15.3 g         | 10.0 ml      |
| Run #2 |                |              |

## PCB List

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 42 | 17  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 42 | 17  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 42 | 11  | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 42 | 6.8 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 42 | 25  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 42 | 10  | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 42 | 13  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 42 | 6.3 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 42 | 3.2 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 83%    |        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 70%    |        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 70%    |        | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 136%   |        | 10-166% |

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-12<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 76.9 |
|---|--|

### Metals Analysis

| Analyte   | Result | RL    | Units | DF | Prep     | Analyzed By | Method | Prep Method                                       |
|-----------|--------|-------|-------|----|----------|-------------|--------|---|
| Aluminum  | 3520   | 64    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Antimony  | < 2.6  | 2.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Arsenic   | 11.7   | 2.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Barium    | 87.8   | 26    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Beryllium | 0.35   | 0.26  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Cadmium   | < 0.64 | 0.64  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Calcium   | 10400  | 640   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Chromium  | 5.6    | 1.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Cobalt    | < 6.4  | 6.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Copper    | 41.9   | 3.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Iron      | 10600  | 64    | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Lead      | 111    | 2.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Magnesium | 2680   | 640   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Manganese | 203    | 1.9   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Mercury   | 0.16   | 0.041 | mg/kg | 1  | 05/02/18 | 05/02/18    | JA     | SW846 7471B <sup>1</sup> SW846 7471B <sup>4</sup> |
| Nickel    | 9.3    | 5.2   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Potassium | < 1300 | 1300  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Selenium  | < 2.6  | 2.6   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Silver    | < 0.64 | 0.64  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Sodium    | < 1300 | 1300  | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Thallium  | < 1.3  | 1.3   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Vanadium  | 10.2   | 6.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |
| Zinc      | 40.9   | 6.4   | mg/kg | 1  | 05/01/18 | 05/02/18    | ND     | SW846 6010C <sup>2</sup> SW846 3050B <sup>3</sup> |

(1) Instrument QC Batch: MA44318

(2) Instrument QC Batch: MA44326

(3) Prep QC Batch: MP6898

(4) Prep QC Batch: MP6935

RL = Reporting Limit

4.11  
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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12A                          |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8260C SW846 1311                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2V50250.D | 5  | 05/01/18 13:58 | JP | 04/30/18 05:57 | GP12723    | V2V2004          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No.  | Compound             | Result | HW#  | MCL  | RL     | MDL     | Units | Q |
|----------|----------------------|--------|------|------|--------|---------|-------|---|
| 71-43-2  | Benzene              | ND     | D018 | 0.50 | 0.0025 | 0.00087 | mg/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | D035 | 200  | 0.10   | 0.024   | mg/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | D019 | 0.50 | 0.0050 | 0.0017  | mg/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | D021 | 100  | 0.0050 | 0.0012  | mg/l  |   |
| 67-66-3  | Chloroform           | ND     | D022 | 6.0  | 0.0050 | 0.0014  | mg/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | D027 | 7.5  | 0.0050 | 0.00087 | mg/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | D028 | 0.50 | 0.0050 | 0.0010  | mg/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | D029 | 0.70 | 0.0050 | 0.0024  | mg/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | D039 | 0.70 | 0.0050 | 0.0025  | mg/l  |   |
| 79-01-6  | Trichloroethene      | ND     | D040 | 0.50 | 0.0050 | 0.0013  | mg/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | D043 | 0.20 | 0.0050 | 0.0031  | mg/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109%   |        | 64-135% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 72-122% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 1

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12A                          |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8270D SW846 3510C                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 2P79179.D | 1  | 05/06/18 02:45 | SB | 05/02/18 04:25 | OP11697    | E2P3489          |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 100 ml         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No.  | Compound              | Result | HW#  | MCL  | RL    | MDL    | Units | Q |
|----------|-----------------------|--------|------|------|-------|--------|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | D023 | 200  | 0.020 | 0.0089 | mg/l  |   |
|          | 3&4-Methylphenol      | ND     | D024 | 200  | 0.020 | 0.0088 | mg/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | D037 | 100  | 0.10  | 0.014  | mg/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | D041 | 400  | 0.050 | 0.013  | mg/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | D042 | 2.0  | 0.050 | 0.0092 | mg/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | D027 | 7.5  | 0.020 | 0.0017 | mg/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | D030 | 0.13 | 0.020 | 0.0055 | mg/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | D032 | 0.13 | 0.020 | 0.0033 | mg/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | D033 | 0.50 | 0.010 | 0.0049 | mg/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | D034 | 3.0  | 0.050 | 0.0039 | mg/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | D036 | 2.0  | 0.020 | 0.0064 | mg/l  |   |
| 110-86-1 | Pyridine              | ND     | D038 | 5.0  | 0.020 | 0.0039 | mg/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 42%    |        | 14-88%  |
| 4165-62-2 | Phenol-d5            | 32%    |        | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 102%   |        | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%    |        | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 92%    |        | 10-126% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-12A                          |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8151A SW846 8151/3510C                |  | <b>Percent Solids:</b> 76.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By  | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|-----|----------------|------------|------------------|
| Run #1 | OA133178.D | 1  | 05/04/18 19:03 | VDT | 05/03/18 10:55 | OP11688    | GOA4562          |
| Run #2 |            |    |                |     |                |            |                  |

| Run #  | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 ml        | 2.5 ml       |
| Run #2 |                |              |

## Herbicide TCLP Leachate

## TCLP Leachate method SW846 1311

| CAS No. | Compound          | Result | HW#  | MCL | RL     | MDL     | Units | Q |
|---------|-------------------|--------|------|-----|--------|---------|-------|---|
| 94-75-7 | 2,4-D             | ND     | D016 | 10  | 0.0042 | 0.0012  | mg/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | D017 | 1.0 | 0.0012 | 0.00025 | mg/l  |   |

| CAS No.    | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|------------|----------------------|--------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 82%    |        | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 96%    |        | 50-142% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12A                          |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 76.9    |
| <b>Method:</b> SW846 8081B SW846 3510C                     |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 8G14792.D | 1  | 05/03/18 18:45 | CP | 05/03/18 05:30 | OP11692    | G8G483           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 ml        | 2.0 ml       |
| Run #2 |                |              |

## Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

| CAS No.    | Compound            | Result | HW#  | MCL    | RL       | MDL      | Units | Q |
|------------|---------------------|--------|------|--------|----------|----------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | D013 | 0.40   | 0.000067 | 0.000040 | mg/l  |   |
| 12789-03-6 | Chlordane           | ND     | D020 | 0.030  | 0.0033   | 0.0014   | mg/l  |   |
| 72-20-8    | Endrin              | ND     | D012 | 0.020  | 0.000067 | 0.000040 | mg/l  |   |
| 76-44-8    | Heptachlor          | ND     | D031 | 0.0080 | 0.000067 | 0.000030 | mg/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | D031 | 0.0080 | 0.000067 | 0.000040 | mg/l  |   |
| 72-43-5    | Methoxychlor        | ND     | D014 | 10     | 0.00013  | 0.000045 | mg/l  |   |
| 8001-35-2  | Toxaphene           | ND     | D015 | 0.50   | 0.0017   | 0.0011   | mg/l  |   |

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%    |        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 90%    |        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 79%    |        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 84%    |        | 10-137% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
MCL = Maximum Contamination Level (40 CFR 261 7/1/11)      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-12A<br><b>Matrix:</b> SO - Soil<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 76.9 |
|--|--|

4.12  
4

### Metals Analysis, TCLP Leachate SW846 1311

| Analyte  | Result    | HW#  | MCL  | RL      | Units | DF | Prep     | Analyzed By | Method                   | Prep Method              |
|----------|-----------|------|------|---------|-------|----|----------|-------------|--------------------------|--------------------------|
| Arsenic  | < 0.50    | D004 | 5.0  | 0.50    | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Barium   | < 1.0     | D005 | 100  | 1.0     | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Cadmium  | < 0.025   | D006 | 1.0  | 0.025   | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Chromium | < 0.050   | D007 | 5.0  | 0.050   | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Lead     | < 0.50    | D008 | 5.0  | 0.50    | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Mercury  | < 0.00020 | D009 | 0.20 | 0.00020 | mg/l  | 1  | 05/02/18 | 05/02/18 DP | SW846 7470A <sup>1</sup> | SW846 7470A <sup>4</sup> |
| Selenium | < 0.50    | D010 | 1.0  | 0.50    | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |
| Silver   | < 0.050   | D011 | 5.0  | 0.050   | mg/l  | 5  | 05/01/18 | 05/02/18 ND | SW846 6010C <sup>2</sup> | SW846 3010A <sup>3</sup> |

- (1) Instrument QC Batch: MA44324
- (2) Instrument QC Batch: MA44328
- (3) Prep QC Batch: MP6897
- (4) Prep QC Batch: MP6911

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RL = Reporting Limit  
 MCL = Maximum Contamination Level (40 CFR 261 7/1/11)

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-12A                          | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 76.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

4.12  
4

### General Chemistry

| Analyte                   | Result  | RL  | Units  | DF | Analyzed       | By | Method               |
|---------------------------|---------|-----|--------|----|----------------|----|----------------------|
| Corrosivity as pH         | 7.44 NC |     | su     | 1  | 05/08/18 12:33 | RB | SW846 9045D          |
| Cyanide Reactivity        | < 12    | 12  | mg/kg  | 1  | 05/07/18 17:20 | BM | SW846 CHAP7/9012 B   |
| Ignitability (Flashpoint) | > 200   |     | Deg. F | 1  | 05/07/18 14:55 | RB | SW846 1010A/ASTM D93 |
| Sulfide Reactivity        | < 120   | 120 | mg/kg  | 1  | 05/07/18 10:45 | ST | SW846 CHAP7/9034     |

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

# Parameter Certification Exceptions

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

The following parameters included in this report are exceptions to NELAC certification. The certification status of each is indicated below.

| Parameter          | CAS# | Method             | Mat | Certification Status                                  |
|--------------------|------|--------------------|-----|---|
| Cyanide Reactivity |      | SW846 CHAP7/9012 B | SO  | SGS is not certified for this parameter. <sup>a</sup> |
| Percent Sulfur     |      | ASTM D129-95       | SO  | SGS is not certified for this parameter. <sup>b</sup> |
| Sulfide Reactivity |      | SW846 CHAP7/9034   | SO  | SGS is not certified for this parameter. <sup>a</sup> |

- (a) Reactivity analyzed following SW846 Chapter 7 is no longer recognized by regulatory agencies. Use of results should be verified through the program to which the data is being submitted.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

5.1  
5



ACCUTEST

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

MJ-041318-147

PAGE 1 OF 3 L

730728873315 Bottle Order Control # DE-04118-07060
SGS Accutest Quote # JCG5157

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Collection table, Turnaround Time, Data Deliverable Information, Sample Custody, Relinquished/Received by, Date Time, etc.

5.2 5

Form:SM088-01CRev.Date:9/13/16

SGS North America Inc. - Dayton  
 2235 Route 130, Dayton, NJ 08810  
 TEL. 732-329-0200 FAX 732-329-3499  
 www.sgs.com/ehsus

|                   |                          |
|-------------------|--------------------------|
| FED-EX Tracking # | Bottle Order Control #   |
| SGS Quote #       | SGS Job # <b>JC65157</b> |

| Client / Reporting Information                        |  | Project Information                                  |  |                |         |  | Requested Analysis (see TEST CODE sheet)   |            |        |              |                             |  |  |  |  |  | Matrix Codes |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|----------------|---------|--|--|------------|--------|--------------|-----------------------------|--|--|--|--|--|--------------|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Company Name<br><b>Arcadis</b>                        |  | Project Name:<br><b>NYSEG - Newark Emr. MGP Site</b> |  |                |         |  | <table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED - Sediment<br>OL - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WP - Wipe<br>FB - Field Blank<br>EB - Equipment Blank<br>RB - Rinse Blank<br>TB - Trip Blank |
|   |  |  |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Street Address<br><b>295 Woodcliff Dr. Suite 301</b>  |  | Street<br><b>125 N. Main St</b>                      |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| City State Zip<br><b>Fairport NY 14450</b>            |  | City State<br><b>Newark NY</b>                       |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Contact<br><b>Jason Golubski</b>              |  | Project #<br><b>80013094.0006</b>                    |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Phone # Fax #<br><b>315-671-9437</b>                  |  | Client Purchase Order #                              |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sampler(s) Name(s)<br><b>Ryan Claire 515-880-7247</b> |  | Project Manager<br><b>Jason Golubski</b>             |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lab Sample #  |  | Field ID / Point of Collection                       |  | MEOH/DI Vial # | Date    |  | Time   | Sampled by | Matrix | # of bottles | Number of preserved bottles |  |  |  |  |  |              |  |  |  | LAB USE ONLY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |                |         |  |  |            |        |              |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6   |  | SB-103(A-19)   |  | -              | 4/26/18 |  | 1605   | RDC        | SO     | 3            |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7   |  | SB-101(O-9)  |  | -              | 4/27/18 |  | 1505   | RDC        | SO     | 3            |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8   |  | SB-100(O-8)  |  | -              | 4/27/18 |  | 1520   | RDC        | SO     | 3            |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9   |  | SB-100(8-11)   |  | -              | 4/27/18 |  | 1525   | RDC        | SO     | 3            |                             |  |  |  |  |  |              |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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|---|--|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Turnaround Time ( Business days)  |  | Data Deliverable Information                                |  |  |  |  | Comments / Special Instructions   |  |  |  |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other |  | Approved by (SGS Project Manager)/Date:<br>_____            |  |  |  |  | Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A<br>Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B<br>FULLT1 (Level 3+4) <input type="checkbox"/> State Forms<br>NJ Reduced <input type="checkbox"/> EDD Format<br>Commercial "C" <input type="checkbox"/> Other<br>NJ Data of Known Quality Protocol Reporting<br>Commercial "A" = Results Only; Commercial "B" = Results + QC Summary<br>NJ Reduced = Results + QC Summary + Partial Raw data |  |  |  |  |  |  |  |  |  |
| Emergency & Rush T/A data available via LabLink   |  | Sample inventory is verified upon receipt in the Laboratory |  |  |  |  |   |  |  |  |  |  |  |  |  |  |

|  |  |                          |  |                                 |  |                          |  |                                     |  |                    |  |
|--|--|--------------------------|--|---------------------------------|--|--------------------------|--|-------------------------------------|--|--------------------|--|
| Sample Custody must be documented below each time samples change possession, including courier delivery. |  |                          |  |                                 |  |                          |  |                                     |  |                    |  |
| Relinquished by: <i>[Signature]</i>  |  | Date Time: 4/27/18 16:00 |  | Received by: <i>[Signature]</i> |  | Date Time: 4/27/18 19:30 |  | Relinquished by: <i>[Signature]</i> |  | Date Time: 4/27/18 |  |
| Relinquished by: <i>[Signature]</i>  |  | Date Time: 4/28/18 10:10 |  | Received by: <i>[Signature]</i> |  | Date Time: 4/27/18       |  | Relinquished by: <i>[Signature]</i> |  | Date Time: 4/27/18 |  |
| Relinquished by: <i>[Signature]</i>  |  | Date Time: 4/28/18 10:10 |  | Received by: <i>[Signature]</i> |  | Date Time: 4/27/18       |  | Relinquished by: <i>[Signature]</i> |  | Date Time: 4/27/18 |  |
| Relinquished by: <i>[Signature]</i>  |  | Date Time: 4/28/18 10:10 |  | Received by: <i>[Signature]</i> |  | Date Time: 4/27/18       |  | Relinquished by: <i>[Signature]</i> |  | Date Time: 4/27/18 |  |

5.2 5

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC65157

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Collection table, Turnaround Time, Data Deliverable Information, Sample Custody, Relinquished/Received by, Date/Time, Signature, etc.

5.2
5

Form SM088-01C Rev. Date: 9/13/16



## SGS Sample Receipt Summary

Job Number: JC65157

Client: ARCADIS

Project: NYSEG - NEWARK FORMER MGP SITE, NEWA

Date / Time Received: 4/28/2018 10:10:00 AM

Delivery Method: FedEx

Airbill #'s: 7807 2887 3315

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9);

Cooler Temps (Corrected) °C: Cooler 1: (4.4);

| <u>Cooler Security</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |                       | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|---------------------------|-------------------------------------|-----------|--------------------------|-----------------------|-------------------------------------|-----------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

| <u>Cooler Temperature</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Cooler temp verification: | <u>IR Gun</u>                       |           |                          |
| 3. Cooler media:             | <u>Ice (Bag)</u>                    |           |                          |
| 4. No. Coolers:              | <u>1</u>                            |           |                          |

| <u>Quality Control Preservation</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|-------------------------------------|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler:     | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Trip Blank listed on COC:        | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Samples preserved properly:      | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. VOCs headspace free:             | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

| <u>Sample Integrity - Documentation</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|---|-------------------------------------|-----------|--------------------------|
| 1. Sample labels present on bottles:    | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Container labeling complete:         | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Sample container label / COC agree:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

| <u>Sample Integrity - Condition</u> | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|-------------------------------------|-------------------------------------|-----------|--------------------------|
| 1. Sample recvd within HT:          | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. All containers accounted for:    | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Condition of sample:             | <u>Intact</u>                       |           |                          |

| <u>Sample Integrity - Instructions</u>    | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

|                    |                        |                       |                        |
|--------------------|------------------------|-----------------------|------------------------|
| Test Strip Lot #s: | pH 1-12: <u>216017</u> | pH 12+: <u>208717</u> | Other: (Specify) _____ |
|--------------------|------------------------|-----------------------|------------------------|

Comments -6 thru -9: Lab to prep for low level and medium level analysis from intact soil volume.  
 -10 thru -12: Lab to prep for low level analysis from intact soil volume.

SM089-03  
Rev. Date 12/7/17

**JC65157: Chain of Custody**

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Responded to by: CSR: N/A

Response Date: Response Date: 4/28/2018

Response:

Response: Proceed with analysis

**JC65157: Chain of Custody**  
**Page 5 of 5**

## Internal Sample Tracking Chronicle

Arcadis

**Job No:** JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number  | Method             | Analyzed        | By  | Prepped      | By | Test Codes                             |
|--|--------------------|-----------------|-----|--------------|----|--|
| JC65157-1 Collected: 26-APR-18 16:00 By: RC Received: 28-APR-18 By: DG<br>SB-103 (7-9)   |                    |                 |     |              |    |  |
| JC65157-1  | SW846 8270D        | 02-MAY-18 10:57 | SA  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-1  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |              |    | SOL104                                 |
| JC65157-1  | SW846 8270D        | 10-MAY-18 07:05 | CS  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-1  | SW846 8270D        | 10-MAY-18 07:54 | CS  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-2 Collected: 27-APR-18 10:00 By: RC Received: 28-APR-18 By: DG<br>SB-109 (7-9)   |                    |                 |     |              |    |  |
| JC65157-2  | SW846 8270D        | 02-MAY-18 06:00 | SA  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-2  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |              |    | SOL104                                 |
| JC65157-3 Collected: 27-APR-18 10:15 By: RC Received: 28-APR-18 By: DG<br>SB-109 (15-17) |                    |                 |     |              |    |  |
| JC65157-3  | SW846 8270D        | 02-MAY-18 06:24 | SA  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-3  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |              |    | SOL104                                 |
| JC65157-4 Collected: 27-APR-18 15:00 By: RC Received: 28-APR-18 By: DG<br>SB-101 (7-9)   |                    |                 |     |              |    |  |
| JC65157-4  | SW846 8270D        | 02-MAY-18 08:03 | SA  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-4  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |              |    | SOL104                                 |
| JC65157-6 Collected: 26-APR-18 16:05 By: RC Received: 28-APR-18 By: DG<br>SB-103 (9-19)  |                    |                 |     |              |    |  |
| JC65157-6  | SW846 8015C        | 30-APR-18 15:03 | KC  |              |    | V8015GRO                               |
| JC65157-6  | SW846 8270D        | 02-MAY-18 08:27 | SA  | 01-MAY-18 RG |    | AB8270TCL20                            |
| JC65157-6  | SW846 7471B        | 02-MAY-18 09:54 | JA  | 02-MAY-18 JA |    | HG                                     |
| JC65157-6  | SW846 8082A        | 02-MAY-18 10:11 | TR  | 01-MAY-18 RG |    | P8082PCB11                             |
| JC65157-6  | SW846 8015C        | 02-MAY-18 11:51 | RK  | 01-MAY-18 NT |    | B8015DRO                               |
| JC65157-6  | SW846 6010C        | 02-MAY-18 12:28 | ND  | 01-MAY-18 RM |    | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65157-6  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |              |    | SOL104                                 |
| JC65157-6  | SW846 9012B/LACHAT | 04-MAY-18 15:35 | TG  | 02-MAY-18 RP |    | CN                                     |
| JC65157-6  | SW846 8260C        | 07-MAY-18 15:27 | TDN |              |    | V8260TCL20                             |
| JC65157-6  | SW846 8270D        | 10-MAY-18 08:19 | CS  | 01-MAY-18 RG |    | AB8270TCL20                            |

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## Internal Sample Tracking Chronicle

Arcadis

Job No: JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number  | Method             | Analyzed        | By  | Prepped   | By  | Test Codes                             |
|--|--------------------|-----------------|-----|-----------|-----|--|
| JC65157-6  | ASTM D129-95       | 13-MAY-18       | JOO | 13-MAY-18 | JOO | SULFUR                                 |
| JC65157-6  | ASTM D240-92       | 13-MAY-18 14:00 | JOO | 13-MAY-18 | JOO | BTU                                    |
| JC65157-6  | SW846 8081B        | 14-MAY-18 15:08 | DM  | 10-MAY-18 | SA  | P8081PESTTCL                           |
| JC65157-7 Collected: 27-APR-18 15:05 By: RC Received: 28-APR-18 By: DG<br>SB-101 (0-9) |                    |                 |     |           |     |  |
| JC65157-7  | SW846 8015C        | 30-APR-18 15:30 | KC  |           |     | V8015GRO                               |
| JC65157-7  | SW846 8270D        | 02-MAY-18 08:52 | SA  | 01-MAY-18 | RG  | AB8270TCL20                            |
| JC65157-7  | SW846 7471B        | 02-MAY-18 09:58 | JA  | 02-MAY-18 | JA  | HG                                     |
| JC65157-7  | SW846 8082A        | 02-MAY-18 10:28 | TR  | 01-MAY-18 | RG  | P8082PCB11                             |
| JC65157-7  | SW846 8260C        | 02-MAY-18 11:45 | PS  |           |     | V8260TCL20                             |
| JC65157-7  | SW846 6010C        | 02-MAY-18 12:31 | ND  | 01-MAY-18 | RM  | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65157-7  | SW846 8015C        | 02-MAY-18 13:32 | RK  | 01-MAY-18 | NT  | B8015DRO                               |
| JC65157-7  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |           |     | SOL104                                 |
| JC65157-7  | SW846 9012B/LACHAT | 04-MAY-18 15:36 | TG  | 02-MAY-18 | RP  | CN                                     |
| JC65157-7  | SW846 8081B        | 11-MAY-18 12:14 | MH  | 10-MAY-18 | SA  | P8081PESTTCL                           |
| JC65157-7  | ASTM D129-95       | 13-MAY-18       | JOO | 13-MAY-18 | JOO | SULFUR                                 |
| JC65157-7  | ASTM D240-92       | 13-MAY-18 14:00 | JOO | 13-MAY-18 | JOO | BTU                                    |
| JC65157-8 Collected: 27-APR-18 15:20 By: RC Received: 28-APR-18 By: DG<br>SB-100 (0-8) |                    |                 |     |           |     |  |
| JC65157-8  | SW846 8015C        | 30-APR-18 15:56 | KC  |           |     | V8015GRO                               |
| JC65157-8  | SW846 8270D        | 02-MAY-18 09:17 | SA  | 01-MAY-18 | RG  | AB8270TCL20                            |
| JC65157-8  | SW846 7471B        | 02-MAY-18 09:59 | JA  | 02-MAY-18 | JA  | HG                                     |
| JC65157-8  | SW846 8260C        | 02-MAY-18 12:13 | PS  |           |     | V8260TCL20                             |
| JC65157-8  | SW846 8082A        | 02-MAY-18 12:19 | TR  | 01-MAY-18 | RG  | P8082PCB11                             |
| JC65157-8  | SW846 6010C        | 02-MAY-18 12:40 | ND  | 01-MAY-18 | RM  | AG,AS,BA,CD,CR,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65157-8  | SW846 8015C        | 02-MAY-18 13:32 | RK  | 01-MAY-18 | NT  | B8015DRO                               |
| JC65157-8  | SM2540 G-97        | 02-MAY-18 14:30 | SF  |           |     | SOL104                                 |
| JC65157-8  | SW846 9012B/LACHAT | 04-MAY-18 15:38 | TG  | 02-MAY-18 | RP  | CN                                     |
| JC65157-8  | SW846 8270D        | 10-MAY-18 07:30 | CS  | 01-MAY-18 | RG  | AB8270TCL20                            |
| JC65157-8  | SW846 8081B        | 11-MAY-18 12:30 | MH  | 10-MAY-18 | SA  | P8081PESTTCL                           |
| JC65157-8  | ASTM D129-95       | 13-MAY-18       | JOO | 13-MAY-18 | JOO | SULFUR                                 |
| JC65157-8  | ASTM D240-92       | 13-MAY-18 14:00 | JOO | 13-MAY-18 | JOO | BTU                                    |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

| Sample Number | Method | Analyzed | By | Prepped | By | Test Codes |
|---------------|--------|----------|----|---------|----|------------|
|---------------|--------|----------|----|---------|----|------------|

JC65157-9 Collected: 27-APR-18 15:25 By: RC Received: 28-APR-18 By: DG  
 SB-100 (8-11)

|           |                    |                 |     |           |     |                                  |
|-----------|--------------------|-----------------|-----|-----------|-----|----------------------------------|
| JC65157-9 | SW846 8015C        | 30-APR-18 16:23 | KC  |           |     | V8015GRO                         |
| JC65157-9 | SW846 8270D        | 02-MAY-18 06:49 | SA  | 01-MAY-18 | RG  | AB8270TCL20                      |
| JC65157-9 | SW846 7471B        | 02-MAY-18 10:01 | JA  | 02-MAY-18 | JA  | HG                               |
| JC65157-9 | SW846 8082A        | 02-MAY-18 12:36 | TR  | 01-MAY-18 | RG  | P8082PCB11                       |
| JC65157-9 | SW846 8260C        | 02-MAY-18 12:41 | PS  |           |     | V8260TCL20                       |
| JC65157-9 | SW846 6010C        | 02-MAY-18 12:43 | ND  | 01-MAY-18 | RM  | AS,BA,CD,CR,NI,PB,SB,SE,V,<br>ZN |
| JC65157-9 | SW846 8015C        | 02-MAY-18 14:05 | RK  | 01-MAY-18 | NT  | B8015DRO                         |
| JC65157-9 | SM2540 G-97        | 02-MAY-18 14:30 | SF  |           |     | SOL104                           |
| JC65157-9 | SW846 6010C        | 02-MAY-18 22:29 | ND  | 01-MAY-18 | RM  | AG,TL                            |
| JC65157-9 | SW846 9012B/LACHAT | 03-MAY-18 15:07 | BM  | 02-MAY-18 | RP  | CN                               |
| JC65157-9 | SW846 8081B        | 11-MAY-18 12:47 | MH  | 10-MAY-18 | SA  | P8081PESTTCL                     |
| JC65157-9 | ASTM D129-95       | 13-MAY-18       | JOO | 13-MAY-18 | JOO | SULFUR                           |
| JC65157-9 | ASTM D240-92       | 13-MAY-18 14:00 | JOO | 13-MAY-18 | JOO | BTU                              |

JC65157-10 Collected: 26-APR-18 16:10 By: RC Received: 28-APR-18 By: DG  
 SB-103 (0-5)

|            |             |                 |    |           |    |  |
|------------|-------------|-----------------|----|-----------|----|--|
| JC65157-10 | SW846 8082A | 02-MAY-18 07:04 | TR | 01-MAY-18 | NS | P8082PCB11   |
| JC65157-10 | SW846 8270D | 02-MAY-18 09:42 | SA | 01-MAY-18 | RG | AB8270TCL20  |
| JC65157-10 | SW846 7471B | 02-MAY-18 10:02 | JA | 02-MAY-18 | JA | HG   |
| JC65157-10 | SW846 8081B | 02-MAY-18 11:07 | RK | 01-MAY-18 | NS | P8081PESTTCL   |
| JC65157-10 | SW846 6010C | 02-MAY-18 12:46 | ND | 01-MAY-18 | RM | AG,AL,AS,BA,BE,CD,CO,CR,CU,<br>FE,K,MG,MN,NA,NI,PB,SB,SE,<br>TL,V,ZN |
| JC65157-10 | SW846 8260C | 02-MAY-18 13:10 | PS |           |    | V8260TCL20   |
| JC65157-10 | SM2540 G-97 | 02-MAY-18 14:30 | SF |           |    | SOL104   |
| JC65157-10 | SW846 6010C | 02-MAY-18 22:32 | ND | 01-MAY-18 | RM | CA   |

JC65157-11 Collected: 27-APR-18 15:10 By: RC Received: 28-APR-18 By: DG  
 SB-101 (0-9)

|            |             |                 |    |           |    |              |
|------------|-------------|-----------------|----|-----------|----|--------------|
| JC65157-11 | SW846 7471B | 02-MAY-18 10:04 | JA | 02-MAY-18 | JA | HG           |
| JC65157-11 | SW846 8270D | 02-MAY-18 10:07 | SA | 01-MAY-18 | RG | AB8270TCL20  |
| JC65157-11 | SW846 8081B | 02-MAY-18 11:25 | RK | 01-MAY-18 | NS | P8081PESTTCL |

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC65157

NYSEG - Newark Former MGP Site, Newark, NY  
 Project No: B0013094.0006

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| Sample Number   | Method               | Analyzed        | By  | Prepped      | By | Test Codes  |
|---|----------------------|-----------------|-----|--------------|----|---|
| JC65157-11  | SW846 6010C          | 02-MAY-18 12:49 | ND  | 01-MAY-18 RM |    | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC65157-11  | SW846 8082A          | 02-MAY-18 12:52 | TR  | 01-MAY-18 NS |    | P8082PCB11  |
| JC65157-11  | SW846 8260C          | 02-MAY-18 14:07 | PS  |              |    | V8260TCL20  |
| JC65157-11  | SM2540 G-97          | 02-MAY-18 14:30 | SF  |              |    | SOL104  |
| JC65157-12 Collected: 27-APR-18 15:30 By: RC Received: 28-APR-18 By: DG<br>SB-100 (0-8) |                      |                 |     |              |    |   |
| JC65157-12  | SW846 7471B          | 02-MAY-18 10:05 | JA  | 02-MAY-18 JA |    | HG  |
| JC65157-12  | SW846 8270D          | 02-MAY-18 10:32 | SA  | 01-MAY-18 RG |    | AB8270TCL20   |
| JC65157-12  | SW846 8081B          | 02-MAY-18 12:18 | RK  | 01-MAY-18 NS |    | P8081PESTTCL  |
| JC65157-12  | SW846 6010C          | 02-MAY-18 12:53 | ND  | 01-MAY-18 RM |    | AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN |
| JC65157-12  | SW846 8082A          | 02-MAY-18 13:09 | TR  | 01-MAY-18 NS |    | P8082PCB11  |
| JC65157-12  | SM2540 G-97          | 02-MAY-18 14:30 | SF  |              |    | SOL104  |
| JC65157-12  | SW846 8260C          | 02-MAY-18 14:36 | PS  |              |    | V8260TCL20  |
| JC65157-12  | SW846 8270D          | 16-MAY-18 15:21 | CC  | 01-MAY-18 RG |    | AB8270TCL20   |
| JC65157-12 Collected: 27-APR-18 15:30 By: RC Received: 28-APR-18 By: DG<br>SB-100 (0-8) |                      |                 |     |              |    |   |
| JC65157-12  | SW846 8260C          | 01-MAY-18 13:58 | JP  | 30-APR-18 RB |    | V8260TCLP   |
| JC65157-12  | SW846 7470A          | 02-MAY-18 12:22 | DP  | 02-MAY-18 JA |    | EHG   |
| JC65157-12  | SW846 6010C          | 02-MAY-18 17:45 | ND  | 01-MAY-18 RM |    | EAG,EAS,EBA,ECD,ECR,EPB,ESE                                       |
| JC65157-12  | SW846 8081B          | 03-MAY-18 18:45 | CP  | 03-MAY-18 MA |    | P8081TCLP   |
| JC65157-12  | SW846 8151A          | 04-MAY-18 19:03 | VDT | 03-MAY-18 JS |    | H8151TCLP   |
| JC65157-12  | SW846 8270D          | 06-MAY-18 02:45 | SB  | 02-MAY-18 YB |    | AB8270TCLP  |
| JC65157-12  | SW846 CHAP7/9034     | 07-MAY-18 10:45 | ST  | 04-MAY-18 FO |    | SREAC   |
| JC65157-12  | SW846 1010A/ASTM D97 | 07-MAY-18 14:55 | RB  |              |    | IGN   |
| JC65157-12  | SW846 CHAP7/9012 B   | 07-MAY-18 17:20 | BM  | 04-MAY-18 FO |    | CREAC   |
| JC65157-12  | SW846 9045D          | 08-MAY-18 12:33 | RB  |              |    | CORR  |

# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC65157-1.1          | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-1.1          | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-1.1          | Secured Staging Area | Chatiah Canaday      | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-1.1          | Chatiah Canaday      | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-1.1          | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-1.1          | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage    |
| JC65157-1.1          | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage        |
| JC65157-1.1          | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage    |
| JC65157-1.1          | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage        |
| JC65157-1.1.1        | Chatiah Canaday      | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-1.1 |
| JC65157-1.1.1        | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-1.1 |
| JC65157-1.1.1        | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage        |
| JC65157-1.1.1        | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage    |
| JC65157-1.1.1        | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument       |
| JC65157-1.1.1        | GCMS6P               | John Boudreau        | 05/04/18 15:49 | Unload from Instrument   |
| JC65157-1.1.1        | John Boudreau        | Extract Storage      | 05/04/18 15:49 | Return to Storage        |
| JC65157-2.1          | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-2.1          | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-2.1          | Secured Staging Area | Chatiah Canaday      | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-2.1          | Chatiah Canaday      | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-2.1          | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-2.1          | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage    |
| JC65157-2.1          | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage        |
| JC65157-2.1          | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage    |
| JC65157-2.1          | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage        |
| JC65157-2.1.1        | Chatiah Canaday      | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-2.1 |
| JC65157-2.1.1        | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-2.1 |
| JC65157-2.1.1        | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage        |
| JC65157-2.1.1        | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage    |
| JC65157-2.1.1        | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument       |
| JC65157-2.1.1        | GCMS6P               | John Boudreau        | 05/03/18 16:49 | Unload from Instrument   |
| JC65157-2.1.1        | John Boudreau        | Extract Storage      | 05/03/18 16:49 | Return to Storage        |
| JC65157-3.1          | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-3.1          | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-3.1          | Secured Staging Area | Chatiah Canaday      | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-3.1          | Chatiah Canaday      | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-3.1          | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-3.1          | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage    |
| JC65157-3.1          | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage        |
| JC65157-3.1          | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage    |

# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|----------------------|----------------------|----------------------|----------------|--------------------------|
| JC65157-3.1          | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage        |
| JC65157-3.1.1        | Chadiyah Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-3.1 |
| JC65157-3.1.1        | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-3.1 |
| JC65157-3.1.1        | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage        |
| JC65157-3.1.1        | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage    |
| JC65157-3.1.1        | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument       |
| JC65157-3.1.1        | GCMS6P               | John Boudreau        | 05/03/18 16:49 | Unload from Instrument   |
| JC65157-3.1.1        | John Boudreau        | Extract Storage      | 05/03/18 16:49 | Return to Storage        |
| JC65157-4.1          | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage    |
| JC65157-4.1          | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage        |
| JC65157-4.1          | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage    |
| JC65157-4.1          | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage        |
| JC65157-4.3          | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-4.3          | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-4.3          | Secured Staging Area | Chadiyah Canaday     | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-4.3          | Chadiyah Canaday     | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-4.3          | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-4.3.1        | Chadiyah Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-4.3 |
| JC65157-4.3.1        | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-4.3 |
| JC65157-4.3.1        | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage        |
| JC65157-4.3.1        | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage    |
| JC65157-4.3.1        | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument       |
| JC65157-4.3.1        | GCMS6P               | John Boudreau        | 05/04/18 15:49 | Unload from Instrument   |
| JC65157-4.3.1        | John Boudreau        | Extract Storage      | 05/04/18 15:49 | Return to Storage        |
| JC65157-4.3.1        | Extract Storage      | Christopher Sowa     | 05/10/18 04:06 | Retrieve from Storage    |
| JC65157-4.3.1        | Christopher Sowa     | GCMS6P               | 05/10/18 04:06 | Load on Instrument       |
| JC65157-4.3.1        | GCMS6P               | Christine Change     | 05/10/18 15:56 | Unload from Instrument   |
| JC65157-4.3.1        | Christine Change     | Extract Freezer      | 05/10/18 15:56 | Return to Storage        |
| JC65157-5.1          | Secured Storage      | Sahara Feliciano     | 05/13/18 10:39 | Retrieve from Storage    |
| JC65157-5.1          | Sahara Feliciano     | Secured Staging Area | 05/13/18 10:39 | Return to Storage        |
| JC65157-5.1          | Secured Staging Area | Sauvelson Auguste    | 05/14/18 04:41 | Retrieve from Storage    |
| JC65157-5.1          | Sauvelson Auguste    | Secured Storage      | 05/14/18 11:01 | Return to Storage        |
| JC65157-5.1.1        | Sauvelson Auguste    | Organics Prep        | 05/14/18 04:44 | Extract from JC65157-5.1 |
| JC65157-5.1.1        | Organics Prep        | Finley Nyaata        | 05/14/18 12:13 | Extract from JC65157-5.1 |
| JC65157-5.1.1        | Finley Nyaata        | Extract Storage      | 05/14/18 12:13 | Return to Storage        |
| JC65157-5.1.1        | Extract Storage      | Sufiyanu Ahmed       | 05/14/18 22:53 | Retrieve from Storage    |
| JC65157-5.1.1        | Sufiyanu Ahmed       | GCMS2P               | 05/14/18 22:53 | Load on Instrument       |
| JC65157-5.1.1        | GCMS2P               | Christine Change     | 05/15/18 09:51 | Unload from Instrument   |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC65157-5.1.1   | Christine Change     | Extract Freezer      | 05/15/18 09:51 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Harrison Tsai        | 04/28/18 15:42 | Retrieve from Storage    |
| JC65157-6.1   | Harrison Tsai        | Secured Storage      | 04/28/18 15:44 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-6.1   | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Chatayah Canaday     | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-6.1   | Chatayah Canaday     | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-6.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage    |
| JC65157-6.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage    |
| JC65157-6.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage    |
| JC65157-6.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65157-6.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage    |
| JC65157-6.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage    |
| JC65157-6.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage    |
| JC65157-6.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Dave Hunkele         | 05/10/18 07:04 | Retrieve from Storage    |
| JC65157-6.1   | Dave Hunkele         | Secured Staging Area | 05/10/18 07:05 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 07:10 | Retrieve from Storage    |
| JC65157-6.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer         |
| JC65157-6.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65157-6.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage    |
| JC65157-6.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage        |
| JC65157-6.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage    |
| JC65157-6.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage        |
| JC65157-6.1   | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage    |
| JC65157-6.1   | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage        |
| JC65157-6.1.1   | Chatayah Canaday     | Organics Prep        | 05/01/18 12:12 | Extract from JC65157-6.1 |
| JC65157-6.1.1   | Organics Prep        | Natasha Torres       | 05/01/18 18:10 | Extract from JC65157-6.1 |
| JC65157-6.1.1   | Natasha Torres       | Extract Storage      | 05/01/18 18:10 | Return to Storage        |
| JC65157-6.1.1   | Extract Storage      | Rebecca Krug         | 05/02/18 09:47 | Retrieve from Storage    |
| JC65157-6.1.1   | Rebecca Krug         | GC2Z                 | 05/02/18 09:47 | Load on Instrument       |
| JC65157-6.1.1   | GC2Z                 | Rebecca Krug         | 05/14/18 14:23 | Unload from Instrument   |

# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65157-6.1.1        | Rebecca Krug         | Extract Freezer          | 05/14/18 14:23 | Return to Storage          |
| JC65157-6.1.2        | Chatiyah Canaday     | Organics Prep            | 05/01/18 12:25 | Extract from JC65157-6.1   |
| JC65157-6.1.2        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:24 | Extract from JC65157-6.1   |
| JC65157-6.1.2        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:24 | Return to Storage          |
| JC65157-6.1.2        | Extract Storage      | Christine Phillips       | 05/02/18 02:25 | Retrieve from Storage      |
| JC65157-6.1.2        | Christine Phillips   | GC2G                     | 05/02/18 02:25 | Load on Instrument         |
| JC65157-6.1.2        | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65157-6.1.2        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65157-6.1.3        | Chatiyah Canaday     | Organics Prep            | 05/01/18 12:28 | Extract from JC65157-6.1   |
| JC65157-6.1.3        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:40 | Extract from JC65157-6.1   |
| JC65157-6.1.3        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:41 | Return to Storage          |
| JC65157-6.1.3        | Extract Storage      | George Sleem             | 05/02/18 02:24 | Retrieve from Storage      |
| JC65157-6.1.3        | George Sleem         | GCMS6P                   | 05/02/18 02:24 | Load on Instrument         |
| JC65157-6.1.3        | GCMS6P               | John Boudreau            | 05/04/18 15:49 | Unload from Instrument     |
| JC65157-6.1.3        | John Boudreau        | Extract Storage          | 05/04/18 15:49 | Return to Storage          |
| JC65157-6.1.4        | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65157-6.1 |
| JC65157-6.1.4        | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65157-6.1 |
| JC65157-6.1.4        | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65157-6.1.5        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65157-6.1   |
| JC65157-6.1.5        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65157-6.1   |
| JC65157-6.1.5        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65157-6.1.5        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65157-6.1.5        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65157-6.2          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:10 | Retrieve from Storage      |
| JC65157-6.2          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:10 | Return to Storage          |
| JC65157-6.2          | Secured Staging Area | Radhika Mistry           | 05/01/18 07:41 | Retrieve from Storage      |
| JC65157-6.2          | Radhika Mistry       | Secured Storage          | 05/01/18 09:27 | Return to Storage          |
| JC65157-6.2          | Secured Storage      | Todd Shoemaker           | 05/01/18 13:37 | Retrieve from Storage      |
| JC65157-6.2          | Todd Shoemaker       | Secured Staging Area     | 05/01/18 13:37 | Return to Storage          |
| JC65157-6.2          | Secured Staging Area | Jessica Adametz          | 05/01/18 15:12 | Retrieve from Storage      |
| JC65157-6.2          | Jessica Adametz      | Secured Storage          | 05/01/18 15:13 | Return to Storage          |
| JC65157-6.2          | Secured Storage      | Dave Hunkele             | 05/02/18 12:47 | Retrieve from Storage      |
| JC65157-6.2          | Dave Hunkele         | Secured Staging Area     | 05/02/18 12:47 | Return to Storage          |
| JC65157-6.2          | Secured Staging Area | Sahara Feliciano         | 05/02/18 14:35 | Retrieve from Storage      |
| JC65157-6.2          | Sahara Feliciano     | Secured Storage          | 05/02/18 14:35 | Return to Storage          |
| JC65157-6.2.1        | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-6.2 |
| JC65157-6.2.1        | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-6.2 |
| JC65157-6.2.1        | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                |
|---|----------------------|----------------------|----------------|-----------------------|
| JC65157-6.4   | Secured Storage      | Krizhka Cuenta       | 04/30/18 14:03 | Retrieve from Storage |
| JC65157-6.4   | Krizhka Cuenta       | Secured Storage      | 04/30/18 16:55 | Return to Storage     |
| JC65157-6.7   | Secured Storage      | Thien Nguyen         | 05/03/18 08:59 | Retrieve from Storage |
| JC65157-6.7   | Thien Nguyen         | Secured Storage      | 05/03/18 08:59 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Harrison Tsai        | 04/28/18 16:06 | Retrieve from Storage |
| JC65157-7.1   | Harrison Tsai        | Secured Storage      | 04/28/18 16:21 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage |
| JC65157-7.1   | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Chadiyah Canaday     | 05/01/18 12:11 | Retrieve from Storage |
| JC65157-7.1   | Chadiyah Canaday     | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer      |
| JC65157-7.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage |
| JC65157-7.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage |
| JC65157-7.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage |
| JC65157-7.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC65157-7.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage |
| JC65157-7.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Dwayne Johnson       | 05/04/18 08:25 | Retrieve from Storage |
| JC65157-7.1   | Dwayne Johnson       | Secured Staging Area | 05/04/18 08:27 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Rinku Patel          | 05/04/18 08:37 | Retrieve from Storage |
| JC65157-7.1   | Rinku Patel          | Secured Storage      | 05/04/18 10:10 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage |
| JC65157-7.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage |
| JC65157-7.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Dave Hunkele         | 05/10/18 07:04 | Retrieve from Storage |
| JC65157-7.1   | Dave Hunkele         | Secured Staging Area | 05/10/18 07:05 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 07:10 | Retrieve from Storage |
| JC65157-7.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer      |
| JC65157-7.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                       |
| JC65157-7.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage     |
| JC65157-7.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage |
| JC65157-7.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage     |
| JC65157-7.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage |
| JC65157-7.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage     |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65157-7.1          | Secured Staging Area | Jared O. Onindo          | 05/13/18 09:09 | Retrieve from Storage      |
| JC65157-7.1          | Jared O. Onindo      | Secured Storage          | 05/15/18 08:37 | Return to Storage          |
| JC65157-7.1.1        | Chadiyah Canaday     | Organics Prep            | 05/01/18 12:12 | Extract from JC65157-7.1   |
| JC65157-7.1.1        | Organics Prep        | Natasha Torres           | 05/01/18 18:10 | Extract from JC65157-7.1   |
| JC65157-7.1.1        | Natasha Torres       | Extract Storage          | 05/01/18 18:10 | Return to Storage          |
| JC65157-7.1.1        | Extract Storage      | Rebecca Krug             | 05/02/18 09:47 | Retrieve from Storage      |
| JC65157-7.1.1        | Rebecca Krug         | GC2Z                     | 05/02/18 09:47 | Load on Instrument         |
| JC65157-7.1.1        | GC2Z                 | Rebecca Krug             | 05/14/18 14:23 | Unload from Instrument     |
| JC65157-7.1.1        | Rebecca Krug         | Extract Freezer          | 05/14/18 14:23 | Return to Storage          |
| JC65157-7.1.2        | Chadiyah Canaday     | Organics Prep            | 05/01/18 12:25 | Extract from JC65157-7.1   |
| JC65157-7.1.2        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:24 | Extract from JC65157-7.1   |
| JC65157-7.1.2        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:24 | Return to Storage          |
| JC65157-7.1.2        | Extract Storage      | Christine Phillips       | 05/02/18 02:25 | Retrieve from Storage      |
| JC65157-7.1.2        | Christine Phillips   | GC2G                     | 05/02/18 02:25 | Load on Instrument         |
| JC65157-7.1.2        | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65157-7.1.2        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65157-7.1.3        | Chadiyah Canaday     | Organics Prep            | 05/01/18 12:28 | Extract from JC65157-7.1   |
| JC65157-7.1.3        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:40 | Extract from JC65157-7.1   |
| JC65157-7.1.3        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:41 | Return to Storage          |
| JC65157-7.1.3        | Extract Storage      | George Sleem             | 05/02/18 02:24 | Retrieve from Storage      |
| JC65157-7.1.3        | George Sleem         | GCMS6P                   | 05/02/18 02:24 | Load on Instrument         |
| JC65157-7.1.3        | GCMS6P               | John Boudreau            | 05/03/18 16:49 | Unload from Instrument     |
| JC65157-7.1.3        | John Boudreau        | Extract Storage          | 05/03/18 16:49 | Return to Storage          |
| JC65157-7.1.4        | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65157-7.1 |
| JC65157-7.1.4        | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65157-7.1 |
| JC65157-7.1.4        | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65157-7.1.5        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65157-7.1   |
| JC65157-7.1.5        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65157-7.1   |
| JC65157-7.1.5        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65157-7.1.5        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65157-7.1.5        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65157-7.1.5        | GC6G                 | Mailisi Heshuote         | 05/11/18 11:56 | Unload from Instrument     |
| JC65157-7.1.5        | Mailisi Heshuote     | GC8G                     | 05/11/18 11:56 | Load on Instrument         |
| JC65157-7.2          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:10 | Retrieve from Storage      |
| JC65157-7.2          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:10 | Return to Storage          |
| JC65157-7.2          | Secured Staging Area | Radhika Mistry           | 05/01/18 07:41 | Retrieve from Storage      |
| JC65157-7.2          | Radhika Mistry       | Secured Storage          | 05/01/18 09:27 | Return to Storage          |
| JC65157-7.2          | Secured Storage      | Todd Shoemaker           | 05/01/18 13:37 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|---|----------------------|--------------------------|----------------|----------------------------|
| JC65157-7.2   | Todd Shoemaker       | Secured Staging Area     | 05/01/18 13:37 | Return to Storage          |
| JC65157-7.2   | Secured Staging Area | Jessica Adametz          | 05/01/18 15:12 | Retrieve from Storage      |
| JC65157-7.2   | Jessica Adametz      | Secured Storage          | 05/01/18 15:13 | Return to Storage          |
| JC65157-7.2   | Secured Storage      | Dave Hunkele             | 05/02/18 12:47 | Retrieve from Storage      |
| JC65157-7.2   | Dave Hunkele         | Secured Staging Area     | 05/02/18 12:47 | Return to Storage          |
| JC65157-7.2   | Secured Staging Area | Sahara Feliciano         | 05/02/18 14:35 | Retrieve from Storage      |
| JC65157-7.2   | Sahara Feliciano     | Secured Storage          | 05/02/18 14:35 | Return to Storage          |
| JC65157-7.2.1   | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-7.2 |
| JC65157-7.2.1   | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-7.2 |
| JC65157-7.2.1   | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage          |
| JC65157-7.4   | Secured Storage      | Krizhka Cuenta           | 04/30/18 14:03 | Retrieve from Storage      |
| JC65157-7.4   | Krizhka Cuenta       | Secured Storage          | 04/30/18 16:55 | Return to Storage          |
| JC65157-7.5   | Secured Storage      | Prashant Shukla          | 05/02/18 10:43 | Retrieve from Storage      |
| JC65157-7.5   | Prashant Shukla      | GCMSY                    | 05/02/18 10:43 | Load on Instrument         |
| JC65157-7.5   | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument     |
| JC65157-7.5   | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                   |
| JC65157-7.6   | Secured Storage      | Prashant Shukla          | 05/02/18 12:49 | Retrieve from Storage      |
| JC65157-7.6   | Prashant Shukla      | GCMSY                    | 05/02/18 12:49 | Load on Instrument         |
| JC65157-7.6   | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument     |
| JC65157-7.6   | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                   |
| JC65157-8.1   | Secured Storage      | Harrison Tsai            | 04/28/18 16:06 | Retrieve from Storage      |
| JC65157-8.1   | Harrison Tsai        | Secured Storage          | 04/28/18 16:21 | Return to Storage          |
| JC65157-8.1   | Secured Storage      | Dwayne Johnson           | 05/01/18 09:49 | Retrieve from Storage      |
| JC65157-8.1   | Dwayne Johnson       | Secured Staging Area     | 05/01/18 09:49 | Return to Storage          |
| JC65157-8.1   | Secured Staging Area | Chatiyah Canaday         | 05/01/18 12:11 | Retrieve from Storage      |
| JC65157-8.1   | Chatiyah Canaday     | Rebecca Gluckman         | 05/01/18 14:54 | Custody Transfer           |
| JC65157-8.1   | Rebecca Gluckman     | Secured Storage          | 05/01/18 15:58 | Return to Storage          |
| JC65157-8.1   | Secured Storage      | Luis Villanueva          | 05/01/18 19:27 | Retrieve from Storage      |
| JC65157-8.1   | Luis Villanueva      | Secured Staging Area     | 05/01/18 19:27 | Return to Storage          |
| JC65157-8.1   | Secured Staging Area | Rinku Patel              | 05/02/18 10:35 | Retrieve from Storage      |
| JC65157-8.1   | Rinku Patel          | Secured Storage          | 05/02/18 14:36 | Return to Storage          |
| JC65157-8.1   | Secured Storage      | Sahara Feliciano         | 05/02/18 14:47 | Retrieve from Storage      |
| JC65157-8.1   | Sahara Feliciano     | Secured Staging Area     | 05/02/18 14:47 | Return to Storage          |
| JC65157-8.1   | Secured Storage      | Sahara Feliciano         | 05/03/18 14:32 | Retrieve from Storage      |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                          |                |                            |
| JC65157-8.1   | Sahara Feliciano     | Secured Staging Area     | 05/03/18 14:32 | Return to Storage          |
| JC65157-8.1   | Secured Staging Area | Hans Seignon             | 05/03/18 22:59 | Retrieve from Storage      |
| JC65157-8.1   | Hans Seignon         | Secured Storage          | 05/03/18 23:06 | Return to Storage          |
| JC65157-8.1   | Secured Storage      | Dwayne Johnson           | 05/04/18 08:25 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC65157-8.1   | Dwayne Johnson       | Secured Staging Area | 05/04/18 08:27 | Return to Storage        |
| JC65157-8.1   | Secured Staging Area | Rinku Patel          | 05/04/18 08:37 | Retrieve from Storage    |
| JC65157-8.1   | Rinku Patel          | Secured Storage      | 05/04/18 10:10 | Return to Storage        |
| JC65157-8.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage    |
| JC65157-8.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage        |
| JC65157-8.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage    |
| JC65157-8.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage        |
| JC65157-8.1   | Secured Storage      | Dave Hunkele         | 05/10/18 07:04 | Retrieve from Storage    |
| JC65157-8.1   | Dave Hunkele         | Secured Staging Area | 05/10/18 07:05 | Return to Storage        |
| JC65157-8.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 07:10 | Retrieve from Storage    |
| JC65157-8.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer         |
| JC65157-8.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65157-8.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage        |
| JC65157-8.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage    |
| JC65157-8.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage        |
| JC65157-8.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage    |
| JC65157-8.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage        |
| JC65157-8.1   | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage    |
| JC65157-8.1   | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage        |
| JC65157-8.1.1   | Chatihay Canaday     | Organics Prep        | 05/01/18 12:12 | Extract from JC65157-8.1 |
| JC65157-8.1.1   | Organics Prep        | Natasha Torres       | 05/01/18 18:10 | Extract from JC65157-8.1 |
| JC65157-8.1.1   | Natasha Torres       | Extract Storage      | 05/01/18 18:10 | Return to Storage        |
| JC65157-8.1.1   | Extract Storage      | Rebecca Krug         | 05/02/18 09:47 | Retrieve from Storage    |
| JC65157-8.1.1   | Rebecca Krug         | GC2Y                 | 05/02/18 09:47 | Load on Instrument       |
| JC65157-8.1.1   | GC2Y                 | Rebecca Krug         | 05/14/18 14:23 | Unload from Instrument   |
| JC65157-8.1.1   | Rebecca Krug         | Extract Freezer      | 05/14/18 14:23 | Return to Storage        |
| JC65157-8.1.2   | Chatihay Canaday     | Organics Prep        | 05/01/18 12:25 | Extract from JC65157-8.1 |
| JC65157-8.1.2   | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:24 | Extract from JC65157-8.1 |
| JC65157-8.1.2   | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:24 | Return to Storage        |
| JC65157-8.1.2   | Extract Storage      | Christine Phillips   | 05/02/18 02:25 | Retrieve from Storage    |
| JC65157-8.1.2   | Christine Phillips   | GC2G                 | 05/02/18 02:25 | Load on Instrument       |
| JC65157-8.1.2   | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument   |
| JC65157-8.1.2   | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage        |
| JC65157-8.1.3   | Chatihay Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-8.1 |
| JC65157-8.1.3   | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-8.1 |
| JC65157-8.1.3   | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage        |
| JC65157-8.1.3   | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage    |
| JC65157-8.1.3   | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument       |
| JC65157-8.1.3   | GCMS6P               | John Boudreau        | 05/04/18 15:49 | Unload from Instrument   |
| JC65157-8.1.3   | John Boudreau        | Extract Storage      | 05/04/18 15:49 | Return to Storage        |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65157-8.1.4        | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65157-8.1 |
| JC65157-8.1.4        | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65157-8.1 |
| JC65157-8.1.4        | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65157-8.1.5        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65157-8.1   |
| JC65157-8.1.5        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65157-8.1   |
| JC65157-8.1.5        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65157-8.1.5        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65157-8.1.5        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65157-8.1.5        | GC6G                 | Mailisi Heshuote         | 05/11/18 11:56 | Unload from Instrument     |
| JC65157-8.1.5        | Mailisi Heshuote     | GC8G                     | 05/11/18 11:56 | Load on Instrument         |
| JC65157-8.2          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:10 | Retrieve from Storage      |
| JC65157-8.2          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:10 | Return to Storage          |
| JC65157-8.2          | Secured Staging Area | Radhika Mistry           | 05/01/18 07:41 | Retrieve from Storage      |
| JC65157-8.2          | Radhika Mistry       | Secured Storage          | 05/01/18 09:27 | Return to Storage          |
| JC65157-8.2          | Secured Storage      | Todd Shoemaker           | 05/01/18 13:37 | Retrieve from Storage      |
| JC65157-8.2          | Todd Shoemaker       | Secured Staging Area     | 05/01/18 13:37 | Return to Storage          |
| JC65157-8.2          | Secured Staging Area | Jessica Adametz          | 05/01/18 15:12 | Retrieve from Storage      |
| JC65157-8.2          | Jessica Adametz      | Secured Storage          | 05/01/18 15:13 | Return to Storage          |
| JC65157-8.2          | Secured Storage      | Dave Hunkele             | 05/02/18 12:47 | Retrieve from Storage      |
| JC65157-8.2          | Dave Hunkele         | Secured Staging Area     | 05/02/18 12:47 | Return to Storage          |
| JC65157-8.2          | Secured Staging Area | Sahara Feliciano         | 05/02/18 14:35 | Retrieve from Storage      |
| JC65157-8.2          | Sahara Feliciano     | Secured Storage          | 05/02/18 14:35 | Return to Storage          |
| JC65157-8.2.1        | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-8.2 |
| JC65157-8.2.1        | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-8.2 |
| JC65157-8.2.1        | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage          |
| JC65157-8.4          | Secured Storage      | Krizhka Cuenta           | 04/30/18 14:03 | Retrieve from Storage      |
| JC65157-8.4          | Krizhka Cuenta       | Secured Storage          | 04/30/18 16:55 | Return to Storage          |
| JC65157-8.5          | Secured Storage      | Prashant Shukla          | 05/02/18 10:43 | Retrieve from Storage      |
| JC65157-8.5          | Prashant Shukla      | GCMSY                    | 05/02/18 10:43 | Load on Instrument         |
| JC65157-8.5          | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument     |
| JC65157-8.5          | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                   |
| JC65157-8.6          | Secured Storage      | Prashant Shukla          | 05/02/18 12:49 | Retrieve from Storage      |
| JC65157-8.6          | Prashant Shukla      | GCMSY                    | 05/02/18 12:49 | Load on Instrument         |
| JC65157-8.6          | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument     |
| JC65157-8.6          | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                   |
| JC65157-9.1          | Secured Storage      | Harrison Tsai            | 04/28/18 16:06 | Retrieve from Storage      |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                   |
|---|----------------------|----------------------|----------------|--------------------------|
| JC65157-9.1   | Harrison Tsai        | Secured Storage      | 04/28/18 16:21 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Dwayne Johnson       | 05/01/18 09:49 | Retrieve from Storage    |
| JC65157-9.1   | Dwayne Johnson       | Secured Staging Area | 05/01/18 09:49 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Chatiyah Canaday     | 05/01/18 12:11 | Retrieve from Storage    |
| JC65157-9.1   | Chatiyah Canaday     | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer         |
| JC65157-9.1   | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Luis Villanueva      | 05/01/18 19:27 | Retrieve from Storage    |
| JC65157-9.1   | Luis Villanueva      | Secured Staging Area | 05/01/18 19:27 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Rinku Patel          | 05/02/18 10:35 | Retrieve from Storage    |
| JC65157-9.1   | Rinku Patel          | Secured Storage      | 05/02/18 14:36 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Sahara Feliciano     | 05/02/18 14:47 | Retrieve from Storage    |
| JC65157-9.1   | Sahara Feliciano     | Secured Staging Area | 05/02/18 14:47 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Sahara Feliciano     | 05/03/18 14:32 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65157-9.1   | Sahara Feliciano     | Secured Staging Area | 05/03/18 14:32 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Hans Seignon         | 05/03/18 22:59 | Retrieve from Storage    |
| JC65157-9.1   | Hans Seignon         | Secured Storage      | 05/03/18 23:06 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Jennifer Voitovitch  | 05/06/18 13:07 | Retrieve from Storage    |
| JC65157-9.1   | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 13:07 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Bhooma Patel         | 05/07/18 06:38 | Retrieve from Storage    |
| JC65157-9.1   | Bhooma Patel         | Secured Storage      | 05/07/18 09:38 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Dave Hunkele         | 05/10/18 07:04 | Retrieve from Storage    |
| JC65157-9.1   | Dave Hunkele         | Secured Staging Area | 05/10/18 07:05 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Sauvelson Auguste    | 05/10/18 07:10 | Retrieve from Storage    |
| JC65157-9.1   | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer         |
| JC65157-9.1   | Secured Storage      | Luis Villanueva      | 05/10/18 17:00 | Retrieve from Storage    |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                          |
| JC65157-9.1   | Luis Villanueva      | Secured Staging Area | 05/10/18 17:00 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Hans Seignon         | 05/10/18 18:41 | Retrieve from Storage    |
| JC65157-9.1   | Hans Seignon         | Secured Storage      | 05/10/18 23:05 | Return to Storage        |
| JC65157-9.1   | Secured Storage      | Dave Hunkele         | 05/12/18 10:20 | Retrieve from Storage    |
| JC65157-9.1   | Dave Hunkele         | Secured Staging Area | 05/12/18 10:20 | Return to Storage        |
| JC65157-9.1   | Secured Staging Area | Jared O. Onindo      | 05/13/18 09:09 | Retrieve from Storage    |
| JC65157-9.1   | Jared O. Onindo      | Secured Storage      | 05/15/18 08:37 | Return to Storage        |
| JC65157-9.1.1   | Chatiyah Canaday     | Organics Prep        | 05/01/18 12:12 | Extract from JC65157-9.1 |
| JC65157-9.1.1   | Organics Prep        | Natasha Torres       | 05/01/18 18:10 | Extract from JC65157-9.1 |
| JC65157-9.1.1   | Natasha Torres       | Extract Storage      | 05/01/18 18:10 | Return to Storage        |
| JC65157-9.1.1   | Extract Storage      | Rebecca Krug         | 05/02/18 09:47 | Retrieve from Storage    |
| JC65157-9.1.1   | Rebecca Krug         | GC2Y                 | 05/02/18 09:47 | Load on Instrument       |
| JC65157-9.1.1   | GC2Y                 | Rebecca Krug         | 05/14/18 14:23 | Unload from Instrument   |
| JC65157-9.1.1   | Rebecca Krug         | Extract Freezer      | 05/14/18 14:23 | Return to Storage        |
| JC65157-9.1.2   | Chatiyah Canaday     | Organics Prep        | 05/01/18 12:25 | Extract from JC65157-9.1 |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65157-9.1.2        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:24 | Extract from JC65157-9.1   |
| JC65157-9.1.2        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:24 | Return to Storage          |
| JC65157-9.1.2        | Extract Storage      | Christine Phillips       | 05/02/18 02:25 | Retrieve from Storage      |
| JC65157-9.1.2        | Christine Phillips   | GC2G                     | 05/02/18 02:25 | Load on Instrument         |
| JC65157-9.1.2        | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument     |
| JC65157-9.1.2        | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage          |
| JC65157-9.1.3        | Chatayah Canaday     | Organics Prep            | 05/01/18 12:28 | Extract from JC65157-9.1   |
| JC65157-9.1.3        | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:40 | Extract from JC65157-9.1   |
| JC65157-9.1.3        | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:41 | Return to Storage          |
| JC65157-9.1.3        | Extract Storage      | George Sleem             | 05/02/18 02:24 | Retrieve from Storage      |
| JC65157-9.1.3        | George Sleem         | GCMS6P                   | 05/02/18 02:24 | Load on Instrument         |
| JC65157-9.1.3        | GCMS6P               | John Boudreau            | 05/03/18 16:49 | Unload from Instrument     |
| JC65157-9.1.3        | John Boudreau        | Extract Storage          | 05/03/18 16:49 | Return to Storage          |
| JC65157-9.1.4        | Bhooma Patel         | Metals Digestion         | 05/07/18 09:30 | Digestate from JC65157-9.1 |
| JC65157-9.1.4        | Metals Digestion     | Bhooma Patel             | 05/07/18 09:30 | Digestate from JC65157-9.1 |
| JC65157-9.1.4        | Bhooma Patel         | Metals Digestate Storage | 05/07/18 09:30 | Return to Storage          |
| JC65157-9.1.5        | Sauvelson Auguste    | Organics Prep            | 05/10/18 07:22 | Extract from JC65157-9.1   |
| JC65157-9.1.5        | Organics Prep        | Lindsey Lee              | 05/10/18 21:40 | Extract from JC65157-9.1   |
| JC65157-9.1.5        | Lindsey Lee          | Extract Storage          | 05/10/18 21:40 | Return to Storage          |
| JC65157-9.1.5        | Extract Storage      | Christine Phillips       | 05/11/18 01:37 | Retrieve from Storage      |
| JC65157-9.1.5        | Christine Phillips   | GC6G                     | 05/11/18 01:37 | Load on Instrument         |
| JC65157-9.1.5        | GC6G                 | Mailisi Heshuote         | 05/11/18 11:56 | Unload from Instrument     |
| JC65157-9.1.5        | Mailisi Heshuote     | GC8G                     | 05/11/18 11:56 | Load on Instrument         |
| JC65157-9.2          | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:10 | Retrieve from Storage      |
| JC65157-9.2          | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:10 | Return to Storage          |
| JC65157-9.2          | Secured Staging Area | Radhika Mistry           | 05/01/18 07:41 | Retrieve from Storage      |
| JC65157-9.2          | Radhika Mistry       | Secured Storage          | 05/01/18 09:27 | Return to Storage          |
| JC65157-9.2          | Secured Storage      | Todd Shoemaker           | 05/01/18 13:37 | Retrieve from Storage      |
| JC65157-9.2          | Todd Shoemaker       | Secured Staging Area     | 05/01/18 13:37 | Return to Storage          |
| JC65157-9.2          | Secured Staging Area | Jessica Adametz          | 05/01/18 15:12 | Retrieve from Storage      |
| JC65157-9.2          | Jessica Adametz      | Secured Storage          | 05/01/18 15:13 | Return to Storage          |
| JC65157-9.2          | Secured Storage      | Dave Hunkele             | 05/02/18 12:47 | Retrieve from Storage      |
| JC65157-9.2          | Dave Hunkele         | Secured Staging Area     | 05/02/18 12:47 | Return to Storage          |
| JC65157-9.2          | Secured Staging Area | Sahara Feliciano         | 05/02/18 14:35 | Retrieve from Storage      |
| JC65157-9.2          | Sahara Feliciano     | Secured Storage          | 05/02/18 14:35 | Return to Storage          |
| JC65157-9.2.1        | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-9.2 |
| JC65157-9.2.1        | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-9.2 |
| JC65157-9.2.1        | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage          |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|----------------------|----------------------|----------------------|----------------|---------------------------|
| JC65157-9.4          | Secured Storage      | Krizhka Cuenta       | 04/30/18 14:03 | Retrieve from Storage     |
| JC65157-9.4          | Krizhka Cuenta       | Secured Storage      | 04/30/18 16:55 | Return to Storage         |
| JC65157-9.5          | Secured Storage      | Prashant Shukla      | 05/02/18 10:43 | Retrieve from Storage     |
| JC65157-9.5          | Prashant Shukla      | GCMSY                | 05/02/18 10:43 | Load on Instrument        |
| JC65157-9.5          | GCMSY                | Prashant Shukla      | 05/03/18 08:33 | Unload from Instrument    |
| JC65157-9.5          | Prashant Shukla      |                      | 05/03/18 08:33 | Depleted                  |
| JC65157-9.6          | Secured Storage      | Prashant Shukla      | 05/02/18 15:23 | Retrieve from Storage     |
| JC65157-9.6          | Prashant Shukla      | GCMSY                | 05/02/18 15:23 | Load on Instrument        |
| JC65157-9.6          | GCMSY                | Prashant Shukla      | 05/03/18 08:33 | Unload from Instrument    |
| JC65157-9.6          | Prashant Shukla      |                      | 05/03/18 08:33 | Depleted                  |
| JC65157-10.1         | Secured Storage      | Harrison Tsai        | 04/28/18 15:42 | Retrieve from Storage     |
| JC65157-10.1         | Harrison Tsai        | Secured Storage      | 04/28/18 15:44 | Return to Storage         |
| JC65157-10.1         | Secured Storage      | Jennifer Voitovitch  | 04/30/18 22:10 | Retrieve from Storage     |
| JC65157-10.1         | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 22:10 | Return to Storage         |
| JC65157-10.1         | Secured Staging Area | Meilly Arbelo        | 05/01/18 06:24 | Retrieve from Storage     |
| JC65157-10.1         | Meilly Arbelo        | Chatiyah Canaday     | 05/01/18 12:24 | Custody Transfer          |
| JC65157-10.1         | Chatiyah Canaday     | Rebecca Gluckman     | 05/01/18 14:54 | Custody Transfer          |
| JC65157-10.1         | Rebecca Gluckman     | Secured Storage      | 05/01/18 15:58 | Return to Storage         |
| JC65157-10.1         | Secured Storage      | Todd Shoemaker       | 05/04/18 14:40 | Retrieve from Storage     |
| JC65157-10.1         | Todd Shoemaker       | Secured Staging Area | 05/04/18 14:40 | Return to Storage         |
| JC65157-10.1         | Secured Staging Area | Natasha Torres       | 05/04/18 15:13 | Retrieve from Storage     |
| JC65157-10.1         | Natasha Torres       | Secured Storage      | 05/05/18 09:45 | Return to Storage         |
| JC65157-10.1         | Secured Storage      | Dave Hunkele         | 05/10/18 07:04 | Retrieve from Storage     |
| JC65157-10.1         | Dave Hunkele         | Secured Staging Area | 05/10/18 07:05 | Return to Storage         |
| JC65157-10.1         | Secured Staging Area | Sauvelson Auguste    | 05/10/18 07:10 | Retrieve from Storage     |
| JC65157-10.1         | Sauvelson Auguste    | Lindsey Lee          | 05/10/18 15:03 | Custody Transfer          |
| JC65157-10.1         | Lindsey Lee          | Secured Storage      | 05/10/18 18:56 | Return to Storage         |
| JC65157-10.1.1       | Meilly Arbelo        | Organics Prep        | 05/01/18 06:37 | Extract from JC65157-10.1 |
| JC65157-10.1.1       | Organics Prep        | Finley Nyaata        | 05/01/18 16:05 | Extract from JC65157-10.1 |
| JC65157-10.1.1       | Finley Nyaata        | Extract Storage      | 05/01/18 16:05 | Return to Storage         |
| JC65157-10.1.2       | Meilly Arbelo        | Chatiyah Canaday     | 05/01/18 12:19 | Extract from JC65157-10.1 |
| JC65157-10.1.2       | Chatiyah Canaday     | Extract Storage      | 05/05/18 09:37 | Return to Storage         |
| JC65157-10.1.3       | Chatiyah Canaday     | Organics Prep        | 05/01/18 12:25 | Extract from JC65157-10.1 |
| JC65157-10.1.3       | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:24 | Extract from JC65157-10.1 |
| JC65157-10.1.3       | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:24 | Return to Storage         |
| JC65157-10.1.3       | Extract Storage      | Christine Phillips   | 05/02/18 02:25 | Retrieve from Storage     |
| JC65157-10.1.3       | Christine Phillips   | GC2G                 | 05/02/18 02:25 | Load on Instrument        |
| JC65157-10.1.3       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |

# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|----------------------|----------------------|----------------------|----------------|---------------------------|
| JC65157-10.1.3       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |
| JC65157-10.1.4       | Chatayah Canaday     | Organics Prep        | 05/01/18 12:26 | Extract from JC65157-10.1 |
| JC65157-10.1.4       | Organics Prep        | Natasha Torres       | 05/01/18 18:09 | Extract from JC65157-10.1 |
| JC65157-10.1.4       | Natasha Torres       | Extract Storage      | 05/01/18 18:09 | Return to Storage         |
| JC65157-10.1.4       | Extract Storage      | Rebecca Krug         | 05/02/18 09:31 | Retrieve from Storage     |
| JC65157-10.1.4       | Rebecca Krug         | GC6G                 | 05/02/18 09:31 | Load on Instrument        |
| JC65157-10.1.5       | Chatayah Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-10.1 |
| JC65157-10.1.5       | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-10.1 |
| JC65157-10.1.5       | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage         |
| JC65157-10.1.5       | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage     |
| JC65157-10.1.5       | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument        |
| JC65157-10.1.5       | GCMS6P               | John Boudreau        | 05/03/18 16:49 | Unload from Instrument    |
| JC65157-10.1.5       | John Boudreau        | Extract Storage      | 05/03/18 16:49 | Return to Storage         |
| JC65157-10.1.6       | Natasha Torres       | Organics Prep        | 05/04/18 15:15 | Extract from JC65157-10.1 |
| JC65157-10.1.6       | Organics Prep        | Natasha Torres       | 05/05/18 07:57 | Extract from JC65157-10.1 |
| JC65157-10.1.6       | Natasha Torres       | Extract Storage      | 05/05/18 07:57 | Return to Storage         |
| JC65157-10.1.6       | Extract Storage      | Tianwei Ruan         | 05/07/18 11:52 | Retrieve from Storage     |
| JC65157-10.1.6       | Tianwei Ruan         | GC2G                 | 05/07/18 11:52 | Load on Instrument        |
| JC65157-10.1.6       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |
| JC65157-10.1.6       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |
| JC65157-10.1.7       | Sauvelson Auguste    | Organics Prep        | 05/10/18 07:22 | Extract from JC65157-10.1 |
| JC65157-10.1.7       | Organics Prep        | Lindsey Lee          | 05/10/18 21:40 | Extract from JC65157-10.1 |
| JC65157-10.1.7       | Lindsey Lee          | Extract Storage      | 05/10/18 21:40 | Return to Storage         |
| JC65157-10.1.7       | Extract Storage      | Christine Phillips   | 05/11/18 01:37 | Retrieve from Storage     |
| JC65157-10.1.7       | Christine Phillips   | GC6G                 | 05/11/18 01:37 | Load on Instrument        |
| JC65157-10.1.7       | GC6G                 | Mailisi Heshuote     | 05/11/18 11:56 | Unload from Instrument    |
| JC65157-10.1.7       | Mailisi Heshuote     | GC8G                 | 05/11/18 11:56 | Load on Instrument        |
| JC65157-10.2         | Secured Storage      | Jennifer Voitovitch  | 04/30/18 17:10 | Retrieve from Storage     |
| JC65157-10.2         | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 17:10 | Return to Storage         |
| JC65157-10.2         | Secured Staging Area | Radhika Mistry       | 05/01/18 07:41 | Retrieve from Storage     |
| JC65157-10.2         | Radhika Mistry       | Secured Storage      | 05/01/18 09:27 | Return to Storage         |
| JC65157-10.2         | Secured Storage      | Todd Shoemaker       | 05/01/18 13:37 | Retrieve from Storage     |
| JC65157-10.2         | Todd Shoemaker       | Secured Staging Area | 05/01/18 13:37 | Return to Storage         |
| JC65157-10.2         | Secured Staging Area | Jessica Adametz      | 05/01/18 15:12 | Retrieve from Storage     |
| JC65157-10.2         | Jessica Adametz      | Secured Storage      | 05/01/18 15:13 | Return to Storage         |
| JC65157-10.2         | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage     |
| JC65157-10.2         | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage         |
| JC65157-10.2         | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage     |
| JC65157-10.2         | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage         |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC65157-10.2.1       | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-10.2 |
| JC65157-10.2.1       | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-10.2 |
| JC65157-10.2.1       | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage           |
| JC65157-10.5         | Secured Storage      | Prashant Shukla          | 05/02/18 10:43 | Retrieve from Storage       |
| JC65157-10.5         | Prashant Shukla      | GCMSY                    | 05/02/18 10:43 | Load on Instrument          |
| JC65157-10.5         | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument      |
| JC65157-10.5         | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                    |
| JC65157-11.1         | Secured Storage      | Harrison Tsai            | 04/28/18 16:06 | Retrieve from Storage       |
| JC65157-11.1         | Harrison Tsai        | Secured Storage          | 04/28/18 16:21 | Return to Storage           |
| JC65157-11.1         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 22:10 | Retrieve from Storage       |
| JC65157-11.1         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 22:10 | Return to Storage           |
| JC65157-11.1         | Secured Staging Area | Meilly Arbelo            | 05/01/18 06:24 | Retrieve from Storage       |
| JC65157-11.1         | Meilly Arbelo        | Chadiyah Canaday         | 05/01/18 12:24 | Custody Transfer            |
| JC65157-11.1         | Chadiyah Canaday     | Rebecca Gluckman         | 05/01/18 14:54 | Custody Transfer            |
| JC65157-11.1         | Rebecca Gluckman     | Secured Storage          | 05/01/18 15:58 | Return to Storage           |
| JC65157-11.1         | Secured Storage      | Todd Shoemaker           | 05/04/18 14:40 | Retrieve from Storage       |
| JC65157-11.1         | Todd Shoemaker       | Secured Staging Area     | 05/04/18 14:40 | Return to Storage           |
| JC65157-11.1         | Secured Staging Area | Natasha Torres           | 05/04/18 15:13 | Retrieve from Storage       |
| JC65157-11.1         | Natasha Torres       | Secured Storage          | 05/05/18 09:45 | Return to Storage           |
| JC65157-11.1         | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage       |
| JC65157-11.1         | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage           |
| JC65157-11.1         | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage       |
| JC65157-11.1         | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer            |
| JC65157-11.1         | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage           |
| JC65157-11.1.1       | Meilly Arbelo        | Organics Prep            | 05/01/18 06:37 | Extract from JC65157-11.1   |
| JC65157-11.1.1       | Organics Prep        | Finley Nyaata            | 05/01/18 16:05 | Extract from JC65157-11.1   |
| JC65157-11.1.1       | Finley Nyaata        | Extract Storage          | 05/01/18 16:05 | Return to Storage           |
| JC65157-11.1.2       | Meilly Arbelo        | Chadiyah Canaday         | 05/01/18 12:19 | Extract from JC65157-11.1   |
| JC65157-11.1.2       | Chadiyah Canaday     | Extract Storage          | 05/05/18 09:37 | Return to Storage           |
| JC65157-11.1.3       | Chadiyah Canaday     | Organics Prep            | 05/01/18 12:25 | Extract from JC65157-11.1   |
| JC65157-11.1.3       | Organics Prep        | Rebecca Gluckman         | 05/01/18 20:24 | Extract from JC65157-11.1   |
| JC65157-11.1.3       | Rebecca Gluckman     | Extract Storage          | 05/01/18 20:24 | Return to Storage           |
| JC65157-11.1.3       | Extract Storage      | Christine Phillips       | 05/02/18 02:25 | Retrieve from Storage       |
| JC65157-11.1.3       | Christine Phillips   | GC2G                     | 05/02/18 02:25 | Load on Instrument          |
| JC65157-11.1.3       | GC2G                 | Edouard Adrian Lee       | 05/12/18 14:55 | Unload from Instrument      |
| JC65157-11.1.3       | Edouard Adrian Lee   | Extract Freezer          | 05/12/18 14:55 | Return to Storage           |
| JC65157-11.1.4       | Chadiyah Canaday     | Organics Prep            | 05/01/18 12:26 | Extract from JC65157-11.1   |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                      |
|----------------------|----------------------|----------------------|----------------|-----------------------------|
| JC65157-11.1.4       | Organics Prep        | Natasha Torres       | 05/01/18 18:09 | Extract from JC65157-11.1   |
| JC65157-11.1.4       | Natasha Torres       | Extract Storage      | 05/01/18 18:09 | Return to Storage           |
| JC65157-11.1.4       | Extract Storage      | Rebecca Krug         | 05/02/18 09:31 | Retrieve from Storage       |
| JC65157-11.1.4       | Rebecca Krug         | GC6G                 | 05/02/18 09:31 | Load on Instrument          |
| JC65157-11.1.5       | Chadiyah Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-11.1   |
| JC65157-11.1.5       | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-11.1   |
| JC65157-11.1.5       | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage           |
| JC65157-11.1.5       | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage       |
| JC65157-11.1.5       | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument          |
| JC65157-11.1.5       | GCMS6P               | John Boudreau        | 05/03/18 16:49 | Unload from Instrument      |
| JC65157-11.1.5       | John Boudreau        | Extract Storage      | 05/03/18 16:49 | Return to Storage           |
| JC65157-11.1.6       | Natasha Torres       | Organics Prep        | 05/04/18 15:15 | Extract from JC65157-11.1   |
| JC65157-11.1.6       | Organics Prep        | Natasha Torres       | 05/05/18 07:57 | Extract from JC65157-11.1   |
| JC65157-11.1.6       | Natasha Torres       | Extract Storage      | 05/05/18 07:57 | Return to Storage           |
| JC65157-11.1.6       | Extract Storage      | Tianwei Ruan         | 05/07/18 11:52 | Retrieve from Storage       |
| JC65157-11.1.6       | Tianwei Ruan         | GC2G                 | 05/07/18 11:52 | Load on Instrument          |
| JC65157-11.1.6       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument      |
| JC65157-11.1.6       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage           |
| JC65157-11.1.7       | Sauvelson Auguste    | Organics Prep        | 05/10/18 07:22 | Extract from JC65157-11.1   |
| JC65157-11.1.7       | Organics Prep        | Lindsey Lee          | 05/10/18 21:40 | Extract from JC65157-11.1   |
| JC65157-11.1.7       | Lindsey Lee          | Extract Storage      | 05/10/18 21:40 | Return to Storage           |
| JC65157-11.1.7       | Extract Storage      | Christine Phillips   | 05/11/18 01:37 | Retrieve from Storage       |
| JC65157-11.1.7       | Christine Phillips   | GC6G                 | 05/11/18 01:37 | Load on Instrument          |
| JC65157-11.1.7       | GC6G                 | Mailisi Heshuote     | 05/11/18 11:56 | Unload from Instrument      |
| JC65157-11.1.7       | Mailisi Heshuote     | GC8G                 | 05/11/18 11:56 | Load on Instrument          |
| JC65157-11.2         | Secured Storage      | Jennifer Voitovitch  | 04/30/18 17:10 | Retrieve from Storage       |
| JC65157-11.2         | Jennifer Voitovitch  | Secured Staging Area | 04/30/18 17:10 | Return to Storage           |
| JC65157-11.2         | Secured Staging Area | Radhika Mistry       | 05/01/18 07:41 | Retrieve from Storage       |
| JC65157-11.2         | Radhika Mistry       | Secured Storage      | 05/01/18 09:27 | Return to Storage           |
| JC65157-11.2         | Secured Storage      | Todd Shoemaker       | 05/01/18 13:37 | Retrieve from Storage       |
| JC65157-11.2         | Todd Shoemaker       | Secured Staging Area | 05/01/18 13:37 | Return to Storage           |
| JC65157-11.2         | Secured Staging Area | Jessica Adametz      | 05/01/18 15:12 | Retrieve from Storage       |
| JC65157-11.2         | Jessica Adametz      | Secured Storage      | 05/01/18 15:13 | Return to Storage           |
| JC65157-11.2         | Secured Storage      | Dave Hunkele         | 05/02/18 12:47 | Retrieve from Storage       |
| JC65157-11.2         | Dave Hunkele         | Secured Staging Area | 05/02/18 12:47 | Return to Storage           |
| JC65157-11.2         | Secured Staging Area | Sahara Feliciano     | 05/02/18 14:35 | Retrieve from Storage       |
| JC65157-11.2         | Sahara Feliciano     | Secured Storage      | 05/02/18 14:35 | Return to Storage           |
| JC65157-11.2.1       | Radhika Mistry       | Metals Digestion     | 05/01/18 09:22 | Digestate from JC65157-11.2 |
| JC65157-11.2.1       | Metals Digestion     | Radhika Mistry       | 05/01/18 09:22 | Digestate from JC65157-11.2 |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                     |
|----------------------|----------------------|--------------------------|----------------|----------------------------|
| JC65157-11.2.1       | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage          |
| JC65157-11.5         | Secured Storage      | Prashant Shukla          | 05/02/18 12:49 | Retrieve from Storage      |
| JC65157-11.5         | Prashant Shukla      | GCMSY                    | 05/02/18 12:49 | Load on Instrument         |
| JC65157-11.5         | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument     |
| JC65157-11.5         | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                   |
| JC65157-12.1         | Secured Storage      | Brian Miller             | 04/30/18 03:08 | Retrieve from Storage      |
| JC65157-12.1         | Brian Miller         | Secured Storage          | 04/30/18 10:21 | Return to Storage          |
| JC65157-12.1         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 22:10 | Retrieve from Storage      |
| JC65157-12.1         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 22:10 | Return to Storage          |
| JC65157-12.1         | Secured Staging Area | Meilly Arbelo            | 05/01/18 06:24 | Retrieve from Storage      |
| JC65157-12.1         | Meilly Arbelo        | Chatiyah Canaday         | 05/01/18 12:24 | Custody Transfer           |
| JC65157-12.1         | Chatiyah Canaday     | Rebecca Gluckman         | 05/01/18 14:54 | Custody Transfer           |
| JC65157-12.1         | Rebecca Gluckman     | Secured Storage          | 05/01/18 15:58 | Return to Storage          |
| JC65157-12.1         | Secured Storage      | Todd Shoemaker           | 05/04/18 14:40 | Retrieve from Storage      |
| JC65157-12.1         | Todd Shoemaker       | Secured Staging Area     | 05/04/18 14:40 | Return to Storage          |
| JC65157-12.1         | Secured Staging Area | Natasha Torres           | 05/04/18 15:13 | Retrieve from Storage      |
| JC65157-12.1         | Natasha Torres       | Secured Storage          | 05/05/18 09:45 | Return to Storage          |
| JC65157-12.1         | Secured Storage      | Dave Hunkele             | 05/10/18 07:04 | Retrieve from Storage      |
| JC65157-12.1         | Dave Hunkele         | Secured Staging Area     | 05/10/18 07:05 | Return to Storage          |
| JC65157-12.1         | Secured Staging Area | Sauvelson Auguste        | 05/10/18 07:10 | Retrieve from Storage      |
| JC65157-12.1         | Sauvelson Auguste    | Lindsey Lee              | 05/10/18 15:03 | Custody Transfer           |
| JC65157-12.1         | Lindsey Lee          | Secured Storage          | 05/10/18 18:56 | Return to Storage          |
| JC65157-12.1.1       | Brian Miller         | TCLP                     | 04/30/18 03:08 | Leachate from JC65157-12.1 |
| JC65157-12.1.1       | TCLP                 | Brian Miller             | 05/01/18 05:05 | Leachate from JC65157-12.1 |
| JC65157-12.1.1       | Brian Miller         | Secured Storage          | 05/01/18 05:06 | Return to Storage          |
| JC65157-12.1.1       | Secured Storage      | Jessica Potts            | 05/01/18 10:24 | Retrieve from Storage      |
| JC65157-12.1.1       | Jessica Potts        | GCMS2V                   | 05/01/18 10:24 | Load on Instrument         |
| JC65157-12.1.1       | GCMS2V               | Jessica Potts            | 05/02/18 07:30 | Unload from Instrument     |
| JC65157-12.1.1       | Jessica Potts        | Secured Storage          | 05/02/18 07:30 | Return to Storage          |
| JC65157-12.1.2       | TCLP                 | Brian Miller             | 05/01/18 05:05 | Leachate from JC65157-12.1 |
| JC65157-12.1.2       | Brian Miller         | Secured Storage          | 05/01/18 05:06 | Return to Storage          |
| JC65157-12.1.3       | Meilly Arbelo        | Organics Prep            | 05/01/18 06:37 | Extract from JC65157-12.1  |
| JC65157-12.1.3       | Organics Prep        | Finley Nyaata            | 05/01/18 16:05 | Extract from JC65157-12.1  |
| JC65157-12.1.3       | Finley Nyaata        | Extract Storage          | 05/01/18 16:05 | Return to Storage          |
| JC65157-12.1.4       | Meilly Arbelo        | Chatiyah Canaday         | 05/01/18 12:19 | Extract from JC65157-12.1  |
| JC65157-12.1.4       | Chatiyah Canaday     | Extract Storage          | 05/05/18 09:37 | Return to Storage          |
| JC65157-12.1.5       | Chatiyah Canaday     | Organics Prep            | 05/01/18 12:25 | Extract from JC65157-12.1  |

# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO          | Date/Time      | Reason                    |
|----------------------|----------------------|----------------------|----------------|---------------------------|
| JC65157-12.1.5       | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:24 | Extract from JC65157-12.1 |
| JC65157-12.1.5       | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:24 | Return to Storage         |
| JC65157-12.1.5       | Extract Storage      | Christine Phillips   | 05/02/18 02:25 | Retrieve from Storage     |
| JC65157-12.1.5       | Christine Phillips   | GC2G                 | 05/02/18 02:25 | Load on Instrument        |
| JC65157-12.1.5       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |
| JC65157-12.1.5       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |
| JC65157-12.1.6       | Chadiyah Canaday     | Organics Prep        | 05/01/18 12:26 | Extract from JC65157-12.1 |
| JC65157-12.1.6       | Organics Prep        | Natasha Torres       | 05/01/18 18:09 | Extract from JC65157-12.1 |
| JC65157-12.1.6       | Natasha Torres       | Extract Storage      | 05/01/18 18:09 | Return to Storage         |
| JC65157-12.1.6       | Extract Storage      | Rebecca Krug         | 05/02/18 09:31 | Retrieve from Storage     |
| JC65157-12.1.6       | Rebecca Krug         | GC6G                 | 05/02/18 09:31 | Load on Instrument        |
| JC65157-12.1.7       | Chadiyah Canaday     | Organics Prep        | 05/01/18 12:28 | Extract from JC65157-12.1 |
| JC65157-12.1.7       | Organics Prep        | Rebecca Gluckman     | 05/01/18 20:40 | Extract from JC65157-12.1 |
| JC65157-12.1.7       | Rebecca Gluckman     | Extract Storage      | 05/01/18 20:41 | Return to Storage         |
| JC65157-12.1.7       | Extract Storage      | George Sleem         | 05/02/18 02:24 | Retrieve from Storage     |
| JC65157-12.1.7       | George Sleem         | GCMS6P               | 05/02/18 02:24 | Load on Instrument        |
| JC65157-12.1.7       | GCMS6P               | John Boudreau        | 05/03/18 16:49 | Unload from Instrument    |
| JC65157-12.1.7       | John Boudreau        | Extract Storage      | 05/03/18 16:49 | Return to Storage         |
| JC65157-12.1.8       | Natasha Torres       | Organics Prep        | 05/04/18 15:15 | Extract from JC65157-12.1 |
| JC65157-12.1.8       | Organics Prep        | Natasha Torres       | 05/05/18 07:57 | Extract from JC65157-12.1 |
| JC65157-12.1.8       | Natasha Torres       | Extract Storage      | 05/05/18 07:57 | Return to Storage         |
| JC65157-12.1.8       | Extract Storage      | Tianwei Ruan         | 05/07/18 11:52 | Retrieve from Storage     |
| JC65157-12.1.8       | Tianwei Ruan         | GC2G                 | 05/07/18 11:52 | Load on Instrument        |
| JC65157-12.1.8       | GC2G                 | Edouard Adrian Lee   | 05/12/18 14:55 | Unload from Instrument    |
| JC65157-12.1.8       | Edouard Adrian Lee   | Extract Freezer      | 05/12/18 14:55 | Return to Storage         |
| JC65157-12.1.9       | Sauvelson Auguste    | Organics Prep        | 05/10/18 07:22 | Extract from JC65157-12.1 |
| JC65157-12.1.9       | Organics Prep        | Lindsey Lee          | 05/10/18 21:40 | Extract from JC65157-12.1 |
| JC65157-12.1.9       | Lindsey Lee          | Extract Storage      | 05/10/18 21:40 | Return to Storage         |
| JC65157-12.1.9       | Extract Storage      | Christine Phillips   | 05/11/18 01:37 | Retrieve from Storage     |
| JC65157-12.1.9       | Christine Phillips   | GC6G                 | 05/11/18 01:37 | Load on Instrument        |
| JC65157-12.1.9       | GC6G                 | Mailisi Heshuote     | 05/11/18 11:56 | Unload from Instrument    |
| JC65157-12.1.9       | Mailisi Heshuote     | GC8G                 | 05/11/18 11:56 | Load on Instrument        |
| JC65157-12.2         | Secured Storage      | Harrison Tsai        | 04/28/18 16:06 | Retrieve from Storage     |
| JC65157-12.2         | Harrison Tsai        | Secured Storage      | 04/28/18 16:21 | Return to Storage         |
| JC65157-12.2         | Secured Storage      | Brian Miller         | 05/01/18 06:18 | Retrieve from Storage     |
| JC65157-12.2         | Brian Miller         | Secured Storage      | 05/01/18 06:19 | Return to Storage         |
| JC65157-12.2         | Secured Storage      | Todd Shoemaker       | 05/01/18 13:37 | Retrieve from Storage     |
| JC65157-12.2         | Todd Shoemaker       | Secured Staging Area | 05/01/18 13:37 | Return to Storage         |
| JC65157-12.2         | Secured Staging Area | Jessica Adametz      | 05/01/18 15:12 | Retrieve from Storage     |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number  | Transfer FROM        | Transfer TO          | Date/Time      | Reason                      |
|---|----------------------|----------------------|----------------|-----------------------------|
| JC65157-12.2  | Jessica Adametz      | Secured Storage      | 05/01/18 15:13 | Return to Storage           |
| JC65157-12.2  | Secured Storage      | Dwayne Johnson       | 05/04/18 12:25 | Retrieve from Storage       |
| JC65157-12.2  | Dwayne Johnson       | Secured Staging Area | 05/04/18 12:25 | Return to Storage           |
| JC65157-12.2  | Secured Staging Area | Faraja Ombwayo       | 05/04/18 16:47 | Retrieve from Storage       |
| JC65157-12.2  | Faraja Ombwayo       | Secured Storage      | 05/04/18 16:48 | Return to Storage           |
| JC65157-12.2  | Secured Storage      | Jennifer Voitovitch  | 05/06/18 12:58 | Retrieve from Storage       |
| JC65157-12.2  | Jennifer Voitovitch  | Secured Staging Area | 05/06/18 12:58 | Return to Storage           |
| JC65157-12.2  | Secured Staging Area | Robert Bandstra      | 05/07/18 08:14 | Retrieve from Storage       |
| JC65157-12.2  | Secured Storage      | Jennifer Voitovitch  | 05/07/18 20:06 | Retrieve from Storage       |
| Bottle was returned to secure storage, but inadvertently not scanned. |                      |                      |                |                             |
| JC65157-12.2  | Jennifer Voitovitch  | Secured Staging Area | 05/07/18 20:06 | Return to Storage           |
| JC65157-12.2  | Secured Staging Area | Robert Bandstra      | 05/08/18 09:33 | Retrieve from Storage       |
| JC65157-12.2  | Robert Bandstra      | Secured Storage      | 05/08/18 16:12 | Return to Storage           |
| JC65157-12.2.1  | Brian Miller         | TCLP                 | 05/01/18 06:18 | Leachate from JC65157-12.2  |
| JC65157-12.2.1  | TCLP                 | Brian Miller         | 05/01/18 06:19 | Leachate from JC65157-12.2  |
| JC65157-12.2.1  | Brian Miller         | Secured Storage      | 05/01/18 06:19 | Return to Storage           |
| JC65157-12.2.2  | TCLP                 | Brian Miller         | 05/01/18 06:19 | Leachate from JC65157-12.2  |
| JC65157-12.2.2  | Brian Miller         | Secured Storage      | 05/01/18 06:19 | Return to Storage           |
| JC65157-12.2.2  | Secured Storage      | Vikas Parikh         | 05/03/18 04:39 | Retrieve from Storage       |
| JC65157-12.2.2  | Vikas Parikh         | Yaw Britwum          | 05/03/18 07:09 | Custody Transfer            |
| JC65157-12.2.2  | Yaw Britwum          | Jonathan Stanley     | 05/03/18 08:06 | Custody Transfer            |
| JC65157-12.2.2  | Jonathan Stanley     | Secured Storage      | 05/03/18 15:32 | Return to Storage           |
| JC65157-12.2.3  | Vikas Parikh         | Organics Prep        | 05/03/18 04:52 | Extract from JC65157-12.2.2 |
| JC65157-12.2.3  | Organics Prep        | Meilly Arbelo        | 05/03/18 14:51 | Extract from JC65157-12.2.2 |
| JC65157-12.2.3  | Meilly Arbelo        | Extract Storage      | 05/03/18 14:51 | Return to Storage           |
| JC65157-12.2.3  | Extract Storage      | Dhara Sapia          | 05/03/18 16:56 | Retrieve from Storage       |
| JC65157-12.2.3  | Dhara Sapia          | GC8G                 | 05/03/18 16:56 | Load on Instrument          |
| JC65157-12.2.4  | Yaw Britwum          | Organics Prep        | 05/03/18 07:12 | Extract from JC65157-12.2.2 |
| JC65157-12.2.4  | Organics Prep        | Jonathan Stanley     | 05/04/18 16:41 | Extract from JC65157-12.2.2 |
| JC65157-12.2.4  | Jonathan Stanley     | Extract Storage      | 05/04/18 16:41 | Return to Storage           |
| JC65157-12.2.4  | Extract Storage      | Vincent Drago        | 05/04/18 17:18 | Retrieve from Storage       |
| JC65157-12.2.4  | Vincent Drago        | GCOA                 | 05/04/18 17:18 | Load on Instrument          |
| JC65157-12.2.4  | GCOA                 | Vincent Drago        | 05/07/18 10:24 | Unload from Instrument      |
| JC65157-12.2.4  | Vincent Drago        | Extract Freezer      | 05/07/18 10:24 | Return to Storage           |
| JC65157-12.2.5  | Yaw Britwum          | Organics Prep        | 05/03/18 07:14 | Extract from JC65157-12.2.2 |
| JC65157-12.2.5  | Organics Prep        | Jonathan Stanley     | 05/04/18 16:42 | Extract from JC65157-12.2.2 |
| JC65157-12.2.5  | Jonathan Stanley     | Extract Storage      | 05/04/18 16:42 | Return to Storage           |
| JC65157-12.2.5  | Extract Storage      | Vincent Drago        | 05/04/18 17:20 | Retrieve from Storage       |
| JC65157-12.2.5  | Vincent Drago        | GCOA                 | 05/04/18 17:20 | Load on Instrument          |

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# SGS Internal Chain of Custody

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY  
**Received:** 04/28/18

| Sample.Bottle Number | Transfer FROM        | Transfer TO              | Date/Time      | Reason                      |
|----------------------|----------------------|--------------------------|----------------|-----------------------------|
| JC65157-12.2.5       | GCOA                 | Vincent Drago            | 05/07/18 10:24 | Unload from Instrument      |
| JC65157-12.2.5       | Vincent Drago        | Extract Freezer          | 05/07/18 10:24 | Return to Storage           |
| JC65157-12.2.6       | Jonathan Stanley     | Organics Prep            | 05/03/18 08:10 | Extract from JC65157-12.2.2 |
| JC65157-12.2.6       | Organics Prep        | Yaw Britwum              | 05/03/18 16:42 | Extract from JC65157-12.2.2 |
| JC65157-12.2.6       | Yaw Britwum          | Extract Storage          | 05/03/18 16:43 | Return to Storage           |
| JC65157-12.2.6       | Extract Storage      | Sean Block               | 05/05/18 21:09 | Retrieve from Storage       |
| JC65157-12.2.6       | Sean Block           | GCMS2P                   | 05/05/18 21:09 | Load on Instrument          |
| JC65157-12.2.6       | GCMS2P               | John Boudreau            | 05/07/18 13:56 | Unload from Instrument      |
| JC65157-12.2.6       | John Boudreau        | Extract Storage          | 05/07/18 13:56 | Return to Storage           |
| JC65157-12.3         | Secured Storage      | Jennifer Voitovitch      | 04/30/18 17:10 | Retrieve from Storage       |
| JC65157-12.3         | Jennifer Voitovitch  | Secured Staging Area     | 04/30/18 17:10 | Return to Storage           |
| JC65157-12.3         | Secured Staging Area | Radhika Mistry           | 05/01/18 07:41 | Retrieve from Storage       |
| JC65157-12.3         | Radhika Mistry       | Secured Storage          | 05/01/18 09:27 | Return to Storage           |
| JC65157-12.3         | Secured Storage      | Dave Hunkele             | 05/02/18 12:47 | Retrieve from Storage       |
| JC65157-12.3         | Dave Hunkele         | Secured Staging Area     | 05/02/18 12:47 | Return to Storage           |
| JC65157-12.3         | Secured Staging Area | Sahara Feliciano         | 05/02/18 14:35 | Retrieve from Storage       |
| JC65157-12.3         | Sahara Feliciano     | Secured Storage          | 05/02/18 14:35 | Return to Storage           |
| JC65157-12.3.1       | Radhika Mistry       | Metals Digestion         | 05/01/18 09:22 | Digestate from JC65157-12.3 |
| JC65157-12.3.1       | Metals Digestion     | Radhika Mistry           | 05/01/18 09:22 | Digestate from JC65157-12.3 |
| JC65157-12.3.1       | Radhika Mistry       | Metals Digestate Storage | 05/01/18 09:22 | Return to Storage           |
| JC65157-12.5         | Secured Storage      | Prashant Shukla          | 05/02/18 12:49 | Retrieve from Storage       |
| JC65157-12.5         | Prashant Shukla      | GCMSY                    | 05/02/18 12:49 | Load on Instrument          |
| JC65157-12.5         | GCMSY                | Prashant Shukla          | 05/03/18 08:33 | Unload from Instrument      |
| JC65157-12.5         | Prashant Shukla      |                          | 05/03/18 08:33 | Depleted                    |

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| V2V2004-MB | 2V50237.D | 1  | 05/01/18 | JP | n/a       | n/a        | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-12A

| CAS No.  | Compound             | Result | RL   | MDL  | Units | Q |
|----------|----------------------|--------|------|------|-------|---|
| 71-43-2  | Benzene              | ND     | 0.50 | 0.17 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 10   | 4.8  | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 1.0  | 0.34 | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 1.0  | 0.24 | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 1.0  | 0.29 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 1.0  | 0.17 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 1.0  | 0.20 | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 1.0  | 0.47 | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 1.0  | 0.50 | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 1.0  | 0.27 | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 1.0  | 0.62 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%    | 64-135% |
| 2037-26-5  | Toluene-D8            | 104%   | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 72-122% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7767-MB | Y179622.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 6.4  | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.11 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 5.0  | 0.44 | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.0  | 0.24 | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 5.0  | 0.31 | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 5.0  | 0.70 | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 10   | 5.2  | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 2.0  | 0.61 | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 2.0  | 0.65 | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.0  | 0.29 | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 5.0  | 0.90 | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 2.0  | 0.32 | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 5.0  | 0.99 | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 2.0  | 0.34 | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.0  | 0.67 | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.0  | 0.38 | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.0  | 0.25 | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.0  | 0.52 | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.0  | 0.29 | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.0  | 0.48 | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0  | 0.61 | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.0  | 0.26 | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.0  | 0.18 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 1.0  | 0.71 | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 1.0  | 0.40 | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 1.0  | 0.58 | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.0  | 0.40 | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.0  | 0.38 | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.0  | 0.24 | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 1.0  | 0.29 | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 5.0  | 0.67 | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 5.0  | 2.8  | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 2.0  | 0.25 | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 5.0  | 2.5  | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 2.0  | 0.55 | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 1.0  | 0.43 | ug/kg |   |

# Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7767-MB | Y179622.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | Result | RL  | MDL  | Units | Q |
|-----------|----------------------------|--------|-----|------|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 5.0 | 1.8  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 5.0 | 2.5  | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 2.0 | 0.50 | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.25 | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 2.0 | 0.64 | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 1.0 | 0.55 | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 5.0 | 1.0  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.58 | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.42 | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 1.0 | 0.55 | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 5.0 | 0.48 | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 2.0 | 0.77 | ug/kg |   |
|           | m,p-Xylene                 | ND     | 1.0 | 0.55 | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 1.0 | 0.25 | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 1.0 | 0.25 | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 95% 75-127%  |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% 75-130%  |
| 2037-26-5  | Toluene-D8            | 95% 80-120%  |
| 460-00-4   | 4-Bromofluorobenzene  | 109% 79-127% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---------|----------------------------------|------|------------|-------|---|
|         | Total TIC, Volatile              |      | 0          | ug/kg |   |

6.12  
6

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VE10829-MB | E252268.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.    | Compound                    | Result | RL  | MDL | Units | Q |
|------------|-----------------------------|--------|-----|-----|-------|---|
| 67-64-1    | Acetone                     | ND     | 500 | 320 | ug/kg |   |
| 71-43-2    | Benzene                     | ND     | 25  | 5.4 | ug/kg |   |
| 74-97-5    | Bromochloromethane          | ND     | 250 | 22  | ug/kg |   |
| 75-27-4    | Bromodichloromethane        | ND     | 100 | 12  | ug/kg |   |
| 75-25-2    | Bromoform                   | ND     | 250 | 16  | ug/kg |   |
| 74-83-9    | Bromomethane                | ND     | 250 | 35  | ug/kg |   |
| 78-93-3    | 2-Butanone (MEK)            | ND     | 500 | 260 | ug/kg |   |
| 75-15-0    | Carbon disulfide            | ND     | 100 | 31  | ug/kg |   |
| 56-23-5    | Carbon tetrachloride        | ND     | 100 | 32  | ug/kg |   |
| 108-90-7   | Chlorobenzene               | ND     | 100 | 14  | ug/kg |   |
| 75-00-3    | Chloroethane                | ND     | 250 | 45  | ug/kg |   |
| 67-66-3    | Chloroform                  | ND     | 100 | 16  | ug/kg |   |
| 74-87-3    | Chloromethane               | ND     | 250 | 49  | ug/kg |   |
| 110-82-7   | Cyclohexane                 | ND     | 100 | 17  | ug/kg |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 100 | 34  | ug/kg |   |
| 124-48-1   | Dibromochloromethane        | ND     | 100 | 19  | ug/kg |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 50  | 12  | ug/kg |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 50  | 26  | ug/kg |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 50  | 14  | ug/kg |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 50  | 24  | ug/kg |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 250 | 30  | ug/kg |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 50  | 13  | ug/kg |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 50  | 9.0 | ug/kg |   |
| 75-35-4    | 1,1-Dichloroethene          | ND     | 50  | 35  | ug/kg |   |
| 156-59-2   | cis-1,2-Dichloroethene      | ND     | 50  | 20  | ug/kg |   |
| 156-60-5   | trans-1,2-Dichloroethene    | ND     | 50  | 29  | ug/kg |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 100 | 20  | ug/kg |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 100 | 19  | ug/kg |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 100 | 12  | ug/kg |   |
| 100-41-4   | Ethylbenzene                | ND     | 50  | 14  | ug/kg |   |
| 76-13-1    | Freon 113                   | ND     | 250 | 34  | ug/kg |   |
| 591-78-6   | 2-Hexanone                  | ND     | 250 | 140 | ug/kg |   |
| 98-82-8    | Isopropylbenzene            | ND     | 100 | 12  | ug/kg |   |
| 79-20-9    | Methyl Acetate              | ND     | 250 | 130 | ug/kg |   |
| 108-87-2   | Methylcyclohexane           | ND     | 100 | 27  | ug/kg |   |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND     | 50  | 21  | ug/kg |   |

# Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VE10829-MB | E252268.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND     | 250 | 90  | ug/kg |   |
| 75-09-2   | Methylene chloride         | ND     | 250 | 130 | ug/kg |   |
| 100-42-5  | Styrene                    | ND     | 100 | 25  | ug/kg |   |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND     | 100 | 13  | ug/kg |   |
| 127-18-4  | Tetrachloroethene          | ND     | 100 | 32  | ug/kg |   |
| 108-88-3  | Toluene                    | ND     | 50  | 27  | ug/kg |   |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND     | 250 | 50  | ug/kg |   |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND     | 250 | 50  | ug/kg |   |
| 71-55-6   | 1,1,1-Trichloroethane      | ND     | 100 | 29  | ug/kg |   |
| 79-00-5   | 1,1,2-Trichloroethane      | ND     | 100 | 21  | ug/kg |   |
| 79-01-6   | Trichloroethene            | ND     | 50  | 27  | ug/kg |   |
| 75-69-4   | Trichlorofluoromethane     | ND     | 250 | 24  | ug/kg |   |
| 75-01-4   | Vinyl chloride             | ND     | 100 | 38  | ug/kg |   |
|           | m,p-Xylene                 | ND     | 50  | 27  | ug/kg |   |
| 95-47-6   | o-Xylene                   | ND     | 50  | 13  | ug/kg |   |
| 1330-20-7 | Xylene (total)             | ND     | 50  | 13  | ug/kg |   |

| CAS No.    | Surrogate Recoveries  | Limits      |
|------------|-----------------------|-------------|
| 1868-53-7  | Dibromofluoromethane  | 96% 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% 75-130% |
| 2037-26-5  | Toluene-D8            | 94% 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 96% 79-127% |

| CAS No. | Tentatively Identified Compounds | R. T. | Est. Conc. | Units | Q |
|---------|----------------------------------|-------|------------|-------|---|
|         | system artifact                  | 4.14  | 780        | ug/kg | J |
|         | Total TIC, Volatile              |       | 0          | ug/kg |   |

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| GP12723-LB11 | 2V50245.D | 5  | 05/01/18 | JP | 04/30/18  | GP12723    | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-12A

| CAS No.  | Compound             | Result | RL  | MDL  | Units | Q |
|----------|----------------------|--------|-----|------|-------|---|
| 71-43-2  | Benzene              | ND     | 2.5 | 0.87 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 50  | 24   | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 5.0 | 1.7  | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 5.0 | 1.2  | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 5.0 | 1.4  | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 5.0 | 0.87 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 5.0 | 1.0  | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 5.0 | 2.4  | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 5.0 | 2.5  | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 5.0 | 1.3  | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 5.0 | 3.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 64-135% |
| 2037-26-5  | Toluene-D8            | 102%   | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   | 72-122% |



# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| GP12723-LB10 | 2V50199.D | 5  | 04/30/18 | JP | 04/29/18  | GP12723    | V2V2002          |

The QC reported here applies to the following samples:

Method: SW846 8260C

GP12723-LS7

| CAS No.  | Compound             | Result | RL  | MDL  | Units | Q |
|----------|----------------------|--------|-----|------|-------|---|
| 71-43-2  | Benzene              | ND     | 2.5 | 0.87 | ug/l  |   |
| 78-93-3  | 2-Butanone (MEK)     | ND     | 50  | 24   | ug/l  |   |
| 56-23-5  | Carbon tetrachloride | ND     | 5.0 | 1.7  | ug/l  |   |
| 108-90-7 | Chlorobenzene        | ND     | 5.0 | 1.2  | ug/l  |   |
| 67-66-3  | Chloroform           | ND     | 5.0 | 1.4  | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene  | ND     | 5.0 | 0.87 | ug/l  |   |
| 107-06-2 | 1,2-Dichloroethane   | ND     | 5.0 | 1.0  | ug/l  |   |
| 75-35-4  | 1,1-Dichloroethene   | ND     | 5.0 | 2.4  | ug/l  |   |
| 127-18-4 | Tetrachloroethene    | ND     | 5.0 | 2.5  | ug/l  |   |
| 79-01-6  | Trichloroethene      | ND     | 5.0 | 1.3  | ug/l  |   |
| 75-01-4  | Vinyl chloride       | ND     | 5.0 | 3.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 105% 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% 64-135% |
| 2037-26-5  | Toluene-D8            | 100% 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% 72-122% |

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| V2V2004-BS | 2V50235.D | 1  | 05/01/18 | JP | n/a       | n/a        | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-12A

| CAS No.  | Compound             | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|----------|----------------------|---------------|-------------|----------|--------|
| 71-43-2  | Benzene              | 50            | 45.5        | 91       | 75-122 |
| 78-93-3  | 2-Butanone (MEK)     | 200           | 196         | 98       | 64-130 |
| 56-23-5  | Carbon tetrachloride | 50            | 43.4        | 87       | 75-148 |
| 108-90-7 | Chlorobenzene        | 50            | 45.2        | 90       | 76-124 |
| 67-66-3  | Chloroform           | 50            | 45.1        | 90       | 77-124 |
| 106-46-7 | 1,4-Dichlorobenzene  | 50            | 46.8        | 94       | 71-123 |
| 107-06-2 | 1,2-Dichloroethane   | 50            | 44.7        | 89       | 66-150 |
| 75-35-4  | 1,1-Dichloroethene   | 50            | 49.5        | 99       | 61-132 |
| 127-18-4 | Tetrachloroethene    | 50            | 46.4        | 93       | 70-136 |
| 79-01-6  | Trichloroethene      | 50            | 44.9        | 90       | 79-126 |
| 75-01-4  | Vinyl chloride       | 50            | 40.1        | 80       | 56-146 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101% | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% | 64-135% |
| 2037-26-5  | Toluene-D8            | 101% | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 72-122% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7767-BS | Y179620.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 200            | 136          | 68       | 48-149 |
| 71-43-2    | Benzene                     | 50             | 45.4         | 91       | 74-117 |
| 74-97-5    | Bromochloromethane          | 50             | 51.9         | 104      | 82-121 |
| 75-27-4    | Bromodichloromethane        | 50             | 45.1         | 90       | 78-119 |
| 75-25-2    | Bromoform                   | 50             | 54.4         | 109      | 76-130 |
| 74-83-9    | Bromomethane                | 50             | 59.5         | 119      | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 200            | 202          | 101      | 65-143 |
| 75-15-0    | Carbon disulfide            | 50             | 43.7         | 87       | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 50             | 49.3         | 99       | 69-136 |
| 108-90-7   | Chlorobenzene               | 50             | 47.8         | 96       | 79-117 |
| 75-00-3    | Chloroethane                | 50             | 60.8         | 122      | 62-139 |
| 67-66-3    | Chloroform                  | 50             | 44.1         | 88       | 76-119 |
| 74-87-3    | Chloromethane               | 50             | 56.7         | 113      | 52-144 |
| 110-82-7   | Cyclohexane                 | 50             | 45.5         | 91       | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 50             | 47.9         | 96       | 72-124 |
| 124-48-1   | Dibromochloromethane        | 50             | 50.4         | 101      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 50             | 52.6         | 105      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 50             | 48.8         | 98       | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 50             | 50.6         | 101      | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 50             | 48.4         | 97       | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 50             | 53.3         | 107      | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 50             | 46.4         | 93       | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 50             | 43.4         | 87       | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 50             | 48.9         | 98       | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 50             | 41.9         | 84       | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 50             | 46.8         | 94       | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 50             | 49.7         | 99       | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 50             | 52.7         | 105      | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 50             | 45.2         | 90       | 78-119 |
| 100-41-4   | Ethylbenzene                | 50             | 44.1         | 88       | 75-118 |
| 76-13-1    | Freon 113                   | 50             | 53.4         | 107      | 60-181 |
| 591-78-6   | 2-Hexanone                  | 200            | 203          | 102      | 63-138 |
| 98-82-8    | Isopropylbenzene            | 50             | 45.1         | 90       | 74-122 |
| 79-20-9    | Methyl Acetate              | 50             | 50.7         | 101      | 61-140 |
| 108-87-2   | Methylcyclohexane           | 50             | 42.2         | 84       | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 50             | 44.2         | 88       | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VY7767-BS | Y179620.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 200         | 249       | 125   | 73-136 |
| 75-09-2   | Methylene chloride         | 50          | 47.8      | 96    | 73-120 |
| 100-42-5  | Styrene                    | 50          | 46.9      | 94    | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 50          | 49.1      | 98    | 72-120 |
| 127-18-4  | Tetrachloroethene          | 50          | 48.7      | 97    | 69-128 |
| 108-88-3  | Toluene                    | 50          | 46.0      | 92    | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 50          | 46.6      | 93    | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 50          | 46.9      | 94    | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 50          | 45.1      | 90    | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 50          | 45.7      | 91    | 79-117 |
| 79-01-6   | Trichloroethene            | 50          | 45.3      | 91    | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 50          | 58.4      | 117   | 63-141 |
| 75-01-4   | Vinyl chloride             | 50          | 59.8      | 120   | 55-145 |
|           | m,p-Xylene                 | 100         | 98.7      | 99    | 75-120 |
| 95-47-6   | o-Xylene                   | 50          | 43.1      | 86    | 75-119 |
| 1330-20-7 | Xylene (total)             | 150         | 142       | 95    | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 96%  | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88%  | 75-130% |
| 2037-26-5  | Toluene-D8            | 92%  | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 106% | 79-127% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VE10829-BS | E252266.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.    | Compound                    | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits |
|------------|-----------------------------|----------------|--------------|----------|--------|
| 67-64-1    | Acetone                     | 10000          | 9640         | 96       | 48-149 |
| 71-43-2    | Benzene                     | 2500           | 2440         | 98       | 74-117 |
| 74-97-5    | Bromochloromethane          | 2500           | 2660         | 106      | 82-121 |
| 75-27-4    | Bromodichloromethane        | 2500           | 2460         | 98       | 78-119 |
| 75-25-2    | Bromoform                   | 2500           | 3020         | 121      | 76-130 |
| 74-83-9    | Bromomethane                | 2500           | 2450         | 98       | 58-137 |
| 78-93-3    | 2-Butanone (MEK)            | 10000          | 9980         | 100      | 65-143 |
| 75-15-0    | Carbon disulfide            | 2500           | 2030         | 81       | 66-140 |
| 56-23-5    | Carbon tetrachloride        | 2500           | 2370         | 95       | 69-136 |
| 108-90-7   | Chlorobenzene               | 2500           | 2550         | 102      | 79-117 |
| 75-00-3    | Chloroethane                | 2500           | 2380         | 95       | 62-139 |
| 67-66-3    | Chloroform                  | 2500           | 2340         | 94       | 76-119 |
| 74-87-3    | Chloromethane               | 2500           | 2190         | 88       | 52-144 |
| 110-82-7   | Cyclohexane                 | 2500           | 2410         | 96       | 64-136 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 2500           | 2180         | 87       | 72-124 |
| 124-48-1   | Dibromochloromethane        | 2500           | 2560         | 102      | 78-122 |
| 106-93-4   | 1,2-Dibromoethane           | 2500           | 2660         | 106      | 80-116 |
| 95-50-1    | 1,2-Dichlorobenzene         | 2500           | 2350         | 94       | 77-117 |
| 541-73-1   | 1,3-Dichlorobenzene         | 2500           | 2380         | 95       | 75-117 |
| 106-46-7   | 1,4-Dichlorobenzene         | 2500           | 2390         | 96       | 76-115 |
| 75-71-8    | Dichlorodifluoromethane     | 2500           | 2210         | 88       | 43-156 |
| 75-34-3    | 1,1-Dichloroethane          | 2500           | 2320         | 93       | 75-124 |
| 107-06-2   | 1,2-Dichloroethane          | 2500           | 2310         | 92       | 74-124 |
| 75-35-4    | 1,1-Dichloroethene          | 2500           | 2330         | 93       | 64-129 |
| 156-59-2   | cis-1,2-Dichloroethene      | 2500           | 2460         | 98       | 74-118 |
| 156-60-5   | trans-1,2-Dichloroethene    | 2500           | 2390         | 96       | 71-125 |
| 78-87-5    | 1,2-Dichloropropane         | 2500           | 2410         | 96       | 80-119 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 2500           | 2450         | 98       | 80-119 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 2500           | 2400         | 96       | 78-119 |
| 100-41-4   | Ethylbenzene                | 2500           | 2470         | 99       | 75-118 |
| 76-13-1    | Freon 113                   | 2500           | 2410         | 96       | 60-181 |
| 591-78-6   | 2-Hexanone                  | 10000          | 10800        | 108      | 63-138 |
| 98-82-8    | Isopropylbenzene            | 2500           | 2430         | 97       | 74-122 |
| 79-20-9    | Methyl Acetate              | 2500           | 2110         | 84       | 61-140 |
| 108-87-2   | Methylcyclohexane           | 2500           | 2510         | 100      | 67-136 |
| 1634-04-4  | Methyl Tert Butyl Ether     | 2500           | 2430         | 97       | 75-123 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|-----|-----------|------------|------------------|
| VE10829-BS | E252266.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | 10000       | 9910      | 99    | 73-136 |
| 75-09-2   | Methylene chloride         | 2500        | 2420      | 97    | 73-120 |
| 100-42-5  | Styrene                    | 2500        | 2770      | 111   | 78-120 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | 2500        | 2400      | 96    | 72-120 |
| 127-18-4  | Tetrachloroethene          | 2500        | 2420      | 97    | 69-128 |
| 108-88-3  | Toluene                    | 2500        | 2330      | 93    | 74-117 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | 2500        | 2300      | 92    | 72-133 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | 2500        | 2300      | 92    | 73-132 |
| 71-55-6   | 1,1,1-Trichloroethane      | 2500        | 2330      | 93    | 73-131 |
| 79-00-5   | 1,1,2-Trichloroethane      | 2500        | 2580      | 103   | 79-117 |
| 79-01-6   | Trichloroethene            | 2500        | 2480      | 99    | 80-120 |
| 75-69-4   | Trichlorofluoromethane     | 2500        | 2380      | 95    | 63-141 |
| 75-01-4   | Vinyl chloride             | 2500        | 2320      | 93    | 55-145 |
|           | m,p-Xylene                 | 5000        | 5090      | 102   | 75-120 |
| 95-47-6   | o-Xylene                   | 2500        | 2460      | 98    | 75-119 |
| 1330-20-7 | Xylene (total)             | 7500        | 7550      | 101   | 76-119 |

| CAS No.    | Surrogate Recoveries  | BSP | Limits  |
|------------|-----------------------|-----|---------|
| 1868-53-7  | Dibromofluoromethane  | 95% | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91% | 75-130% |
| 2037-26-5  | Toluene-D8            | 94% | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 98% | 79-127% |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65157-8MS            | Y179632.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |
| JC65157-8 <sup>a</sup> | Y179625.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound                    | JC65157-8<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>%          | Limits |
|------------|-----------------------------|--------------------|------------|-------------|------------------|--------|
| 67-64-1    | Acetone                     | ND                 | 232        | 104         | 45               | 10-157 |
| 71-43-2    | Benzene                     | ND                 | 58         | 39.8        | 69               | 58-125 |
| 74-97-5    | Bromochloromethane          | ND                 | 58         | 40.8        | 70               | 60-127 |
| 75-27-4    | Bromodichloromethane        | ND                 | 58         | 38.7        | 67               | 57-128 |
| 75-25-2    | Bromoform                   | ND                 | 58         | 36.5        | 63               | 48-133 |
| 74-83-9    | Bromomethane                | ND                 | 58         | 46.3        | 80               | 31-141 |
| 78-93-3    | 2-Butanone (MEK)            | ND                 | 232        | 150         | 65               | 29-146 |
| 75-15-0    | Carbon disulfide            | ND                 | 58         | 26.4        | 46* <sup>b</sup> | 47-145 |
| 56-23-5    | Carbon tetrachloride        | ND                 | 58         | 50.0        | 86               | 51-143 |
| 108-90-7   | Chlorobenzene               | ND                 | 58         | 29.7        | 51* <sup>b</sup> | 54-130 |
| 75-00-3    | Chloroethane                | ND                 | 58         | 46.4        | 80               | 22-153 |
| 67-66-3    | Chloroform                  | ND                 | 58         | 41.9        | 72               | 61-125 |
| 74-87-3    | Chloromethane               | ND                 | 58         | 45.4        | 78               | 43-142 |
| 110-82-7   | Cyclohexane                 | ND                 | 58         | 44.4        | 77               | 37-148 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 | 58         | 30.5        | 53               | 41-127 |
| 124-48-1   | Dibromochloromethane        | ND                 | 58         | 39.9        | 69               | 56-127 |
| 106-93-4   | 1,2-Dibromoethane           | ND                 | 58         | 33.9        | 58               | 54-121 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 | 58         | 23.6        | 41               | 41-134 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 | 58         | 22.0        | 38* <sup>b</sup> | 41-135 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 | 58         | 19.0        | 33* <sup>b</sup> | 41-133 |
| 75-71-8    | Dichlorodifluoromethane     | ND                 | 58         | 41.3        | 71               | 30-153 |
| 75-34-3    | 1,1-Dichloroethane          | ND                 | 58         | 46.0        | 79               | 61-131 |
| 107-06-2   | 1,2-Dichloroethane          | ND                 | 58         | 34.5        | 59               | 56-126 |
| 75-35-4    | 1,1-Dichloroethene          | ND                 | 58         | 41.9        | 72               | 53-132 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 | 58         | 32.4        | 56* <sup>b</sup> | 57-125 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 | 58         | 31.9        | 55* <sup>b</sup> | 56-130 |
| 78-87-5    | 1,2-Dichloropropane         | ND                 | 58         | 46.3        | 80               | 63-126 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 | 58         | 34.1        | 59               | 55-126 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 | 58         | 25.4        | 44* <sup>b</sup> | 51-126 |
| 100-41-4   | Ethylbenzene                | ND                 | 58         | 31.0        | 53               | 49-132 |
| 76-13-1    | Freon 113                   | ND                 | 58         | 58.2        | 100              | 42-179 |
| 591-78-6   | 2-Hexanone                  | ND                 | 232        | 144         | 62               | 25-150 |
| 98-82-8    | Isopropylbenzene            | ND                 | 58         | 32.4        | 56               | 43-141 |
| 79-20-9    | Methyl Acetate              | ND                 | 58         | 57.8        | 100              | 32-158 |
| 108-87-2   | Methylcyclohexane           | ND                 | 58         | 34.2        | 59               | 22-158 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 | 58         | 43.0        | 74               | 58-123 |

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65157-8MS            | Y179632.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |
| JC65157-8 <sup>a</sup> | Y179625.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | JC65157-8<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>%          | Limits |
|-----------|----------------------------|--------------------|------------|-------------|------------------|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 | 232        | 189         | 81               | 40-140 |
| 75-09-2   | Methylene chloride         | ND                 | 58         | 42.6        | 73               | 57-123 |
| 100-42-5  | Styrene                    | ND                 | 58         | 24.6        | 42* <sup>b</sup> | 46-139 |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 | 58         | 39.0        | 67               | 44-127 |
| 127-18-4  | Tetrachloroethene          | ND                 | 58         | 35.6        | 61               | 39-154 |
| 108-88-3  | Toluene                    | ND                 | 58         | 36.4        | 63               | 54-127 |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 | 58         | 12.4        | 21               | 17-151 |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 | 58         | 11.3        | 19               | 19-153 |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 | 58         | 47.1        | 81               | 57-138 |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 | 58         | 38.2        | 66               | 53-127 |
| 79-01-6   | Trichloroethene            | ND                 | 58         | 31.5        | 54               | 52-140 |
| 75-69-4   | Trichlorofluoromethane     | ND                 | 58         | 50.8        | 88               | 46-142 |
| 75-01-4   | Vinyl chloride             | ND                 | 58         | 44.1        | 76               | 43-146 |
|           | m,p-Xylene                 | ND                 | 116        | 66.7        | 57               | 45-137 |
| 95-47-6   | o-Xylene                   | ND                 | 58         | 31.7        | 55               | 48-135 |
| 1330-20-7 | Xylene (total)             | ND                 | 174        | 98.4        | 57               | 46-137 |

| CAS No.    | Surrogate Recoveries  | MS   | JC65157-8 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 94%  | 101%      | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 81%  | 97%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 97%  | 100%      | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 112% | 116%      | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

(b) Outside control limits due to matrix interference.

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65070-1AMS  | 2V50252.D | 5  | 05/01/18 | JP | n/a       | n/a        | V2V2004          |
| JC65070-1AMSD | 2V50253.D | 5  | 05/01/18 | JP | n/a       | n/a        | V2V2004          |
| JC65070-1A    | 2V50238.D | 5  | 05/01/18 | JP | 04/29/18  | GP12723    | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-12A

| CAS No.  | Compound             | JC65070-1A Spike |        | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|----------------------|------------------|--------|---------|------|------------|----------|-------|-----|----------------|
|          |                      | ug/l             | Q ug/l |         |      |            |          |       |     |                |
| 71-43-2  | Benzene              | ND               | 250    | 233     | 93   | 250        | 252      | 101   | 8   | 38-139/13      |
| 78-93-3  | 2-Butanone (MEK)     | ND               | 1000   | 970     | 97   | 1000       | 986      | 99    | 2   | 58-140/14      |
| 56-23-5  | Carbon tetrachloride | ND               | 250    | 231     | 92   | 250        | 251      | 100   | 8   | 50-161/18      |
| 108-90-7 | Chlorobenzene        | ND               | 250    | 223     | 89   | 250        | 244      | 98    | 9   | 65-128/12      |
| 67-66-3  | Chloroform           | ND               | 250    | 233     | 93   | 250        | 249      | 100   | 7   | 66-132/14      |
| 106-46-7 | 1,4-Dichlorobenzene  | ND               | 250    | 225     | 90   | 250        | 246      | 98    | 9   | 63-126/13      |
| 107-06-2 | 1,2-Dichloroethane   | ND               | 250    | 236     | 94   | 250        | 250      | 100   | 6   | 59-153/15      |
| 75-35-4  | 1,1-Dichloroethene   | ND               | 250    | 251     | 100  | 250        | 276      | 110   | 9   | 41-144/17      |
| 127-18-4 | Tetrachloroethene    | ND               | 250    | 219     | 88   | 250        | 244      | 98    | 11  | 48-145/15      |
| 79-01-6  | Trichloroethene      | ND               | 250    | 229     | 92   | 250        | 248      | 99    | 8   | 53-141/15      |
| 75-01-4  | Vinyl chloride       | ND               | 250    | 198     | 79   | 250        | 221      | 88    | 11  | 34-151/20      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | JC65070-1A Limits |
|------------|-----------------------|------|------|-------------------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 103% | 76-120%           |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | 106% | 64-135%           |
| 2037-26-5  | Toluene-D8            | 96%  | 100% | 76-117%           |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 101% | 72-122%           |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC65555-1MS  | E252282.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |
| JC65555-1MSD | E252283.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |
| JC65555-1    | E252285.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.    | Compound                    | JC65555-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |           |
|------------|-----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|-----------|
| 67-64-1    | Acetone                     | ND                 |                     | 23200       | 19200   | 83             | 23200        | 18600    | 80  | 3                 | 10-157/31 |
| 71-43-2    | Benzene                     | ND                 |                     | 5790        | 5270    | 91             | 5790         | 5250     | 91  | 0                 | 58-125/22 |
| 74-97-5    | Bromochloromethane          | ND                 |                     | 5790        | 5490    | 95             | 5790         | 5630     | 97  | 3                 | 60-127/22 |
| 75-27-4    | Bromodichloromethane        | ND                 |                     | 5790        | 5130    | 89             | 5790         | 5120     | 88  | 0                 | 57-128/22 |
| 75-25-2    | Bromoform                   | ND                 |                     | 5790        | 5780    | 100            | 5790         | 5830     | 101 | 1                 | 48-133/21 |
| 74-83-9    | Bromomethane                | ND                 |                     | 5790        | 4110    | 71             | 5790         | 3700     | 64  | 10                | 31-141/28 |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |                     | 23200       | 18000   | 78             | 23200        | 18700    | 81  | 4                 | 29-146/27 |
| 75-15-0    | Carbon disulfide            | ND                 |                     | 5790        | 4860    | 84             | 5790         | 4690     | 81  | 4                 | 47-145/24 |
| 56-23-5    | Carbon tetrachloride        | ND                 |                     | 5790        | 5450    | 94             | 5790         | 5360     | 93  | 2                 | 51-143/25 |
| 108-90-7   | Chlorobenzene               | ND                 |                     | 5790        | 5320    | 92             | 5790         | 5400     | 93  | 1                 | 54-130/22 |
| 75-00-3    | Chloroethane                | ND                 |                     | 5790        | 4340    | 75             | 5790         | 4030     | 70  | 7                 | 22-153/32 |
| 67-66-3    | Chloroform                  | ND                 |                     | 5790        | 4880    | 84             | 5790         | 5060     | 87  | 4                 | 61-125/22 |
| 74-87-3    | Chloromethane               | ND                 |                     | 5790        | 5020    | 87             | 5790         | 4770     | 82  | 5                 | 43-142/27 |
| 110-82-7   | Cyclohexane                 | ND                 |                     | 5790        | 5730    | 99             | 5790         | 5570     | 96  | 3                 | 37-148/26 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |                     | 5790        | 5140    | 89             | 5790         | 5170     | 89  | 1                 | 41-127/23 |
| 124-48-1   | Dibromochloromethane        | ND                 |                     | 5790        | 5220    | 90             | 5790         | 5280     | 91  | 1                 | 56-127/21 |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |                     | 5790        | 5330    | 92             | 5790         | 5460     | 94  | 2                 | 54-121/21 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |                     | 5790        | 5060    | 87             | 5790         | 5170     | 89  | 2                 | 41-134/22 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |                     | 5790        | 5060    | 87             | 5790         | 5190     | 90  | 3                 | 41-135/22 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |                     | 5790        | 5080    | 88             | 5790         | 5210     | 90  | 3                 | 41-133/22 |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |                     | 5790        | 5460    | 94             | 5790         | 5220     | 90  | 4                 | 30-153/29 |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |                     | 5790        | 4950    | 85             | 5790         | 5040     | 87  | 2                 | 61-131/23 |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |                     | 5790        | 4770    | 82             | 5790         | 4840     | 84  | 1                 | 56-126/21 |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |                     | 5790        | 5440    | 94             | 5790         | 5310     | 92  | 2                 | 53-132/23 |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |                     | 5790        | 5200    | 90             | 5790         | 5290     | 91  | 2                 | 57-125/22 |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |                     | 5790        | 5260    | 91             | 5790         | 5200     | 90  | 1                 | 56-130/23 |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |                     | 5790        | 5140    | 89             | 5790         | 5030     | 87  | 2                 | 63-126/22 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |                     | 5790        | 5040    | 87             | 5790         | 5050     | 87  | 0                 | 55-126/21 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |                     | 5790        | 4880    | 84             | 5790         | 5000     | 86  | 2                 | 51-126/21 |
| 100-41-4   | Ethylbenzene                | 35.1               | J                   | 5790        | 5360    | 92             | 5790         | 5410     | 93  | 1                 | 49-132/23 |
| 76-13-1    | Freon 113                   | ND                 |                     | 5790        | 5760    | 99             | 5790         | 5520     | 95  | 4                 | 42-179/25 |
| 591-78-6   | 2-Hexanone                  | ND                 |                     | 23200       | 19700   | 85             | 23200        | 21100    | 91  | 7                 | 25-150/25 |
| 98-82-8    | Isopropylbenzene            | 85.6               | J                   | 5790        | 5550    | 94             | 5790         | 5610     | 95  | 1                 | 43-141/25 |
| 79-20-9    | Methyl Acetate              | ND                 |                     | 5790        | 4180    | 72             | 5790         | 4270     | 74  | 2                 | 32-158/26 |
| 108-87-2   | Methylcyclohexane           | 77.7               | J                   | 5790        | 6020    | 103            | 5790         | 5800     | 99  | 4                 | 22-158/30 |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |                     | 5790        | 4910    | 85             | 5790         | 4920     | 85  | 0                 | 58-123/23 |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|-----|-----------|------------|------------------|
| JC65555-1MS  | E252282.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |
| JC65555-1MSD | E252283.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |
| JC65555-1    | E252285.D | 1  | 05/07/18 | TDN | n/a       | n/a        | VE10829          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-6

| CAS No.   | Compound                   | JC65555-1<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|-----------|----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 | 23200               | 19600       | 85      | 23200          | 19400        | 84       | 1   | 40-140/24         |
| 75-09-2   | Methylene chloride         | ND                 | 5790                | 5540        | 96      | 5790           | 5370         | 93       | 3   | 57-123/23         |
| 100-42-5  | Styrene                    | ND                 | 5790                | 5710        | 99      | 5790           | 5790         | 100      | 1   | 46-139/22         |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 | 5790                | 4800        | 83      | 5790           | 4970         | 86       | 3   | 44-127/26         |
| 127-18-4  | Tetrachloroethene          | ND                 | 5790                | 5330        | 92      | 5790           | 5430         | 94       | 2   | 39-154/26         |
| 108-88-3  | Toluene                    | ND                 | 5790                | 5090        | 88      | 5790           | 5180         | 89       | 2   | 54-127/22         |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 | 5790                | 4520        | 78      | 5790           | 5180         | 89       | 14  | 17-151/32         |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 | 5790                | 4900        | 85      | 5790           | 5150         | 89       | 5   | 19-153/32         |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 | 5790                | 5280        | 91      | 5790           | 5180         | 89       | 2   | 57-138/24         |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 | 5790                | 5370        | 93      | 5790           | 5510         | 95       | 3   | 53-127/22         |
| 79-01-6   | Trichloroethene            | ND                 | 5790                | 5200        | 90      | 5790           | 5240         | 90       | 1   | 52-140/24         |
| 75-69-4   | Trichlorofluoromethane     | ND                 | 5790                | 5200        | 90      | 5790           | 5010         | 87       | 4   | 46-142/27         |
| 75-01-4   | Vinyl chloride             | ND                 | 5790                | 5360        | 93      | 5790           | 5110         | 88       | 5   | 43-146/26         |
|           | m,p-Xylene                 | ND                 | 11600               | 10800       | 93      | 11600          | 11000        | 95       | 2   | 45-137/23         |
| 95-47-6   | o-Xylene                   | ND                 | 5790                | 5440        | 94      | 5790           | 5490         | 95       | 1   | 48-135/22         |
| 1330-20-7 | Xylene (total)             | ND                 | 17400               | 16300       | 94      | 17400          | 16500        | 95       | 1   | 46-137/23         |

| CAS No.    | Surrogate Recoveries  | MS  | MSD | JC65555-1 | Limits  |
|------------|-----------------------|-----|-----|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 96% | 98% | 96%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | 90% | 93%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 99% | 98% | 97%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 96% | 99% | 98%       | 79-127% |

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GP12723-LS7 | 2V50252A.D | 5  | 05/01/18 | JP | 04/29/18  | GP12723    | V2V2004          |
| JC65070-1A  | 2V50238.D  | 5  | 05/01/18 | JP | 04/29/18  | GP12723    | V2V2004          |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-12A

| CAS No.  | Compound             | JC65070-1A<br>ug/l | Spike<br>Q ug/l | LS<br>ug/l | LS<br>% | Limits |
|----------|----------------------|--------------------|-----------------|------------|---------|--------|
| 71-43-2  | Benzene              | ND                 | 250             | 233        | 93      | 38-139 |
| 78-93-3  | 2-Butanone (MEK)     | ND                 | 1000            | 970        | 97      | 58-140 |
| 56-23-5  | Carbon tetrachloride | ND                 | 250             | 231        | 92      | 50-161 |
| 108-90-7 | Chlorobenzene        | ND                 | 250             | 223        | 89      | 65-128 |
| 67-66-3  | Chloroform           | ND                 | 250             | 233        | 93      | 66-132 |
| 106-46-7 | 1,4-Dichlorobenzene  | ND                 | 250             | 225        | 90      | 63-126 |
| 107-06-2 | 1,2-Dichloroethane   | ND                 | 250             | 236        | 94      | 59-153 |
| 75-35-4  | 1,1-Dichloroethene   | ND                 | 250             | 251        | 100     | 41-144 |
| 127-18-4 | Tetrachloroethene    | ND                 | 250             | 219        | 88      | 48-145 |
| 79-01-6  | Trichloroethene      | ND                 | 250             | 229        | 92      | 53-141 |
| 75-01-4  | Vinyl chloride       | ND                 | 250             | 198        | 79      | 34-151 |

| CAS No.    | Surrogate Recoveries  | LS   | JC65070-1A | Limits  |
|------------|-----------------------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 103%       | 76-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108% | 108%       | 64-135% |
| 2037-26-5  | Toluene-D8            | 96%  | 101%       | 76-117% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 102%       | 72-122% |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65157-9DUP           | Y179633.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |
| JC65157-9 <sup>a</sup> | Y179626.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound                    | JC65157-9<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|------------|-----------------------------|--------------------|----------|-------|---|-----|--------|
| 67-64-1    | Acetone                     | ND                 |          | ND    |   | nc  | 40     |
| 71-43-2    | Benzene                     | ND                 |          | ND    |   | nc  | 30     |
| 74-97-5    | Bromochloromethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-27-4    | Bromodichloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 75-25-2    | Bromoform                   | ND                 |          | ND    |   | nc  | 30     |
| 74-83-9    | Bromomethane                | ND                 |          | ND    |   | nc  | 30     |
| 78-93-3    | 2-Butanone (MEK)            | ND                 |          | ND    |   | nc  | 30     |
| 75-15-0    | Carbon disulfide            | ND                 |          | ND    |   | nc  | 30     |
| 56-23-5    | Carbon tetrachloride        | ND                 |          | ND    |   | nc  | 30     |
| 108-90-7   | Chlorobenzene               | ND                 |          | ND    |   | nc  | 30     |
| 75-00-3    | Chloroethane                | ND                 |          | ND    |   | nc  | 30     |
| 67-66-3    | Chloroform                  | ND                 |          | ND    |   | nc  | 30     |
| 74-87-3    | Chloromethane               | ND                 |          | ND    |   | nc  | 30     |
| 110-82-7   | Cyclohexane                 | ND                 |          | ND    |   | nc  | 30     |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |          | ND    |   | nc  | 30     |
| 124-48-1   | Dibromochloromethane        | ND                 |          | ND    |   | nc  | 30     |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |          | ND    |   | nc  | 30     |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |          | ND    |   | nc  | 30     |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-34-3    | 1,1-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 107-06-2   | 1,2-Dichloroethane          | ND                 |          | ND    |   | nc  | 30     |
| 75-35-4    | 1,1-Dichloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 156-59-2   | cis-1,2-Dichloroethene      | ND                 |          | ND    |   | nc  | 30     |
| 156-60-5   | trans-1,2-Dichloroethene    | ND                 |          | ND    |   | nc  | 30     |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |          | ND    |   | nc  | 30     |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |          | ND    |   | nc  | 30     |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |          | ND    |   | nc  | 30     |
| 100-41-4   | Ethylbenzene                | ND                 |          | ND    |   | nc  | 30     |
| 76-13-1    | Freon 113                   | ND                 |          | ND    |   | nc  | 30     |
| 591-78-6   | 2-Hexanone                  | ND                 |          | ND    |   | nc  | 30     |
| 98-82-8    | Isopropylbenzene            | ND                 |          | ND    |   | nc  | 30     |
| 79-20-9    | Methyl Acetate              | ND                 |          | ND    |   | nc  | 30     |
| 108-87-2   | Methylcyclohexane           | ND                 |          | ND    |   | nc  | 30     |
| 1634-04-4  | Methyl Tert Butyl Ether     | ND                 |          | ND    |   | nc  | 30     |

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| JC65157-9DUP           | Y179633.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |
| JC65157-9 <sup>a</sup> | Y179626.D | 1  | 05/02/18 | PS | n/a       | n/a        | VY7767           |

The QC reported here applies to the following samples:

Method: SW846 8260C

JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | JC65157-9<br>ug/kg | DUP<br>Q | ug/kg | Q | RPD | Limits |
|-----------|----------------------------|--------------------|----------|-------|---|-----|--------|
| 108-10-1  | 4-Methyl-2-pentanone(MIBK) | ND                 |          | ND    |   | nc  | 30     |
| 75-09-2   | Methylene chloride         | ND                 |          | ND    |   | nc  | 36     |
| 100-42-5  | Styrene                    | ND                 |          | ND    |   | nc  | 30     |
| 79-34-5   | 1,1,2,2-Tetrachloroethane  | ND                 |          | ND    |   | nc  | 30     |
| 127-18-4  | Tetrachloroethene          | ND                 |          | ND    |   | nc  | 30     |
| 108-88-3  | Toluene                    | ND                 |          | ND    |   | nc  | 24     |
| 87-61-6   | 1,2,3-Trichlorobenzene     | ND                 |          | ND    |   | nc  | 30     |
| 120-82-1  | 1,2,4-Trichlorobenzene     | ND                 |          | ND    |   | nc  | 30     |
| 71-55-6   | 1,1,1-Trichloroethane      | ND                 |          | ND    |   | nc  | 30     |
| 79-00-5   | 1,1,2-Trichloroethane      | ND                 |          | ND    |   | nc  | 30     |
| 79-01-6   | Trichloroethene            | ND                 |          | ND    |   | nc  | 30     |
| 75-69-4   | Trichlorofluoromethane     | ND                 |          | ND    |   | nc  | 30     |
| 75-01-4   | Vinyl chloride             | ND                 |          | ND    |   | nc  | 30     |
|           | m,p-Xylene                 | ND                 |          | ND    |   | nc  | 32     |
| 95-47-6   | o-Xylene                   | ND                 |          | ND    |   | nc  | 30     |
| 1330-20-7 | Xylene (total)             | ND                 |          | ND    |   | nc  | 33     |

| CAS No.    | Surrogate Recoveries  | DUP  | JC65157-9 | Limits  |
|------------|-----------------------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 98%       | 75-127% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90%  | 93%       | 75-130% |
| 2037-26-5  | Toluene-D8            | 92%  | 96%       | 80-120% |
| 460-00-4   | 4-Bromofluorobenzene  | 111% | 112%      | 79-127% |

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

\* = Outside of Control Limits.

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V1992-BFB    | <b>Injection Date:</b> 04/20/18 |
| <b>Lab File ID:</b> 2V49935.D | <b>Injection Time:</b> 21:15    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 28419         | 19.6                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 69003         | 47.6                     | Pass      |
| 95  | Base peak, 100% relative abundance | 145059        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 9905          | 6.83                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 109355        | 75.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 8677          | 5.98 (7.93) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 104872        | 72.3 (95.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 6929          | 4.78 (6.61) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| V2V1992-IC1992  | 2V49936.D   | 04/20/18      | 21:44         | 00:29        | Initial cal 0.5             |
| V2V1992-IC1992  | 2V49937.D   | 04/20/18      | 22:10         | 00:55        | Initial cal 1               |
| V2V1992-IC1992  | 2V49938.D   | 04/20/18      | 22:35         | 01:20        | Initial cal 2               |
| V2V1992-IC1992  | 2V49939.D   | 04/20/18      | 23:01         | 01:46        | Initial cal 5               |
| V2V1992-IC1992  | 2V49940.D   | 04/20/18      | 23:26         | 02:11        | Initial cal 10              |
| V2V1992-IC1992  | 2V49941.D   | 04/20/18      | 23:51         | 02:36        | Initial cal 20              |
| V2V1992-ICC1992 | 2V49942.D   | 04/21/18      | 00:17         | 03:02        | Initial cal 50              |
| V2V1992-IC1992  | 2V49943.D   | 04/21/18      | 00:42         | 03:27        | Initial cal 100             |
| V2V1992-IC1992  | 2V49944.D   | 04/21/18      | 01:08         | 03:53        | Initial cal 200             |
| V2V1992-ICV1992 | 2V49947.D   | 04/21/18      | 02:24         | 05:09        | Initial cal verification 50 |
| V2V1992-ICV1992 | 2V49948.D   | 04/21/18      | 02:50         | 05:35        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V1992-BFB2   | <b>Injection Date:</b> 04/23/18 |
| <b>Lab File ID:</b> 2V49951.D | <b>Injection Time:</b> 08:45    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 29075         | 18.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 73819         | 46.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 157696        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10395         | 6.59                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 118291        | 75.0                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9358          | 5.93 (7.91) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 116291        | 73.7 (98.3) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 7485          | 4.75 (6.44) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| V2V1992-ICV1992 | 2V49952.D   | 04/23/18      | 09:14         | 00:29        | Initial cal verification 50 |



# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V2002-BFB    | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 2V50183.D | <b>Injection Time:</b> 06:42    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 33739         | 18.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 85064         | 47.7                     | Pass      |
| 95  | Base peak, 100% relative abundance | 178155        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 11543         | 6.48                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 137707        | 77.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 10725         | 6.02 (7.79) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 130960        | 73.5 (95.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8917          | 5.01 (6.81) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| V2V2002-CC1992 | 2V50183.D   | 04/30/18      | 06:42         | 00:00        | Continuing cal 20                           |
| V2V2002-BS     | 2V50184.D   | 04/30/18      | 07:15         | 00:33        | Blank Spike                                 |
| V2V2002-MB     | 2V50186.D   | 04/30/18      | 08:21         | 01:39        | Method Blank                                |
| GP12593-LB7    | 2V50187.D   | 04/30/18      | 08:55         | 02:13        | Leachate Blank                              |
| GP12692-LB9    | 2V50188.D   | 04/30/18      | 09:29         | 02:47        | Leachate Blank                              |
| JC64956-1      | 2V50189.D   | 04/30/18      | 09:55         | 03:13        | (used for QC only; not part of job JC65157) |
| ZZZZZZ         | 2V50191.D   | 04/30/18      | 10:47         | 04:05        | (unrelated sample)                          |
| ZZZZZZ         | 2V50192.D   | 04/30/18      | 11:12         | 04:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50193.D   | 04/30/18      | 11:38         | 04:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50194.D   | 04/30/18      | 12:04         | 05:22        | (unrelated sample)                          |
| ZZZZZZ         | 2V50195.D   | 04/30/18      | 12:30         | 05:48        | (unrelated sample)                          |
| ZZZZZZ         | 2V50196.D   | 04/30/18      | 12:55         | 06:13        | (unrelated sample)                          |
| ZZZZZZ         | 2V50197.D   | 04/30/18      | 13:21         | 06:39        | (unrelated sample)                          |
| GP12723-LB10   | 2V50199.D   | 04/30/18      | 14:13         | 07:31        | Leachate Blank                              |
| ZZZZZZ         | 2V50200.D   | 04/30/18      | 14:38         | 07:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50201.D   | 04/30/18      | 15:04         | 08:22        | (unrelated sample)                          |
| ZZZZZZ         | 2V50202.D   | 04/30/18      | 15:30         | 08:48        | (unrelated sample)                          |
| JC64956-1MS    | 2V50203.D   | 04/30/18      | 15:56         | 09:14        | Matrix Spike                                |
| GP12692-LS6    | 2V50203A.D  | 04/30/18      | 15:56         | 09:14        | Leachate Spike                              |
| JC64956-1MSD   | 2V50204.D   | 04/30/18      | 16:21         | 09:39        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 2V50206.D   | 04/30/18      | 17:12         | 10:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50207.D   | 04/30/18      | 17:38         | 10:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50208.D   | 04/30/18      | 18:04         | 11:22        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> V2V2004-BFB    | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2V50234.D | <b>Injection Time:</b> 06:36    |
| <b>Instrument ID:</b> GCMS2V  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 32608         | 19.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 79392         | 47.2                     | Pass      |
| 95  | Base peak, 100% relative abundance | 168299        | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 10670         | 6.34                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 125181        | 74.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 9270          | 5.51 (7.41) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 121976        | 72.5 (97.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 8251          | 4.90 (6.76) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| V2V2004-CC1992 | 2V50234.D   | 05/01/18      | 06:36         | 00:00        | Continuing cal 20                           |
| V2V2004-BS     | 2V50235.D   | 05/01/18      | 07:07         | 00:31        | Blank Spike                                 |
| V2V2004-MB     | 2V50237.D   | 05/01/18      | 08:12         | 01:36        | Method Blank                                |
| JC65070-1A     | 2V50238.D   | 05/01/18      | 08:48         | 02:12        | (used for QC only; not part of job JC65157) |
| ZZZZZZ         | 2V50239.D   | 05/01/18      | 09:14         | 02:38        | (unrelated sample)                          |
| ZZZZZZ         | 2V50240.D   | 05/01/18      | 09:40         | 03:04        | (unrelated sample)                          |
| ZZZZZZ         | 2V50241.D   | 05/01/18      | 10:06         | 03:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50242.D   | 05/01/18      | 10:32         | 03:56        | (unrelated sample)                          |
| ZZZZZZ         | 2V50243.D   | 05/01/18      | 10:58         | 04:22        | (unrelated sample)                          |
| GP12723-LB11   | 2V50245.D   | 05/01/18      | 11:49         | 05:13        | Leachate Blank                              |
| ZZZZZZ         | 2V50246.D   | 05/01/18      | 12:14         | 05:38        | (unrelated sample)                          |
| ZZZZZZ         | 2V50247.D   | 05/01/18      | 12:40         | 06:04        | (unrelated sample)                          |
| ZZZZZZ         | 2V50248.D   | 05/01/18      | 13:06         | 06:30        | (unrelated sample)                          |
| ZZZZZZ         | 2V50249.D   | 05/01/18      | 13:32         | 06:56        | (unrelated sample)                          |
| JC65157-12A    | 2V50250.D   | 05/01/18      | 13:58         | 07:22        | SB-100 (0-8)                                |
| ZZZZZZ         | 2V50251.D   | 05/01/18      | 14:23         | 07:47        | (unrelated sample)                          |
| GP12723-LS7    | 2V50252A.D  | 05/01/18      | 14:49         | 08:13        | Leachate Spike                              |
| JC65070-1AMS   | 2V50252.D   | 05/01/18      | 14:49         | 08:13        | Matrix Spike                                |
| JC65070-1AMSD  | 2V50253.D   | 05/01/18      | 15:14         | 08:38        | Matrix Spike Duplicate                      |
| GP12692-LB12   | 2V50255.D   | 05/01/18      | 16:05         | 09:29        | Leachate Blank                              |
| ZZZZZZ         | 2V50256.D   | 05/01/18      | 16:31         | 09:55        | (unrelated sample)                          |
| ZZZZZZ         | 2V50257.D   | 05/01/18      | 16:57         | 10:21        | (unrelated sample)                          |
| ZZZZZZ         | 2V50258.D   | 05/01/18      | 17:22         | 10:46        | (unrelated sample)                          |
| ZZZZZZ         | 2V50259.D   | 05/01/18      | 17:48         | 11:12        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VE10811-BFB    | <b>Injection Date:</b> 04/18/18 |
| <b>Lab File ID:</b> E251854.D | <b>Injection Time:</b> 15:08    |
| <b>Instrument ID:</b> GCMSE   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 14156         | 18.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 36592         | 48.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 74936         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4840          | 6.46                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 150.0% of mass 95           | 65736         | 87.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4805          | 6.41 (7.31) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 62728         | 83.7 (95.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 4150          | 5.54 (6.62) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID    | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|------------------|-------------|---------------|---------------|--------------|-----------------------------|
| VE10811-IC10811  | E251855.D   | 04/18/18      | 16:02         | 00:54        | Initial cal 0.5             |
| VE10811-IC10811  | E251856.D   | 04/18/18      | 16:32         | 01:24        | Initial cal 1               |
| VE10811-IC10811  | E251857.D   | 04/18/18      | 17:02         | 01:54        | Initial cal 2               |
| VE10811-IC10811  | E251858.D   | 04/18/18      | 17:32         | 02:24        | Initial cal 4               |
| VE10811-IC10811  | E251859.D   | 04/18/18      | 18:02         | 02:54        | Initial cal 8               |
| VE10811-IC10811  | E251860.D   | 04/18/18      | 18:33         | 03:25        | Initial cal 20              |
| VE10811-ICC10811 | E251861.D   | 04/18/18      | 19:03         | 03:55        | Initial cal 50              |
| VE10811-IC10811  | E251862.D   | 04/18/18      | 19:34         | 04:26        | Initial cal 100             |
| VE10811-IC10811  | E251863.D   | 04/18/18      | 20:05         | 04:57        | Initial cal 200             |
| VE10811-ICV10811 | E251866.D   | 04/18/18      | 21:36         | 06:28        | Initial cal verification 50 |
| VE10811-ICV10811 | E251867.D   | 04/18/18      | 22:06         | 06:58        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VE10829-BFB    | <b>Injection Date:</b> 05/07/18 |
| <b>Lab File ID:</b> E252265.D | <b>Injection Time:</b> 07:22    |
| <b>Instrument ID:</b> GCMSE   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 8770          | 17.2                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 23482         | 46.2                     | Pass      |
| 95  | Base peak, 100% relative abundance | 50869         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3512          | 6.90                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 150.0% of mass 95           | 44840         | 88.1                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3589          | 7.06 (8.00) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 44181         | 86.9 (98.5) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2948          | 5.80 (6.67) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|-----------------|-------------|---------------|---------------|--------------|---|
| VE10829-CC10811 | E252265.D   | 05/07/18      | 07:22         | 00:00        | Continuing cal 50                           |
| VE10829-BS      | E252266.D   | 05/07/18      | 08:51         | 01:29        | Blank Spike                                 |
| VE10829-MB      | E252268.D   | 05/07/18      | 09:59         | 02:37        | Method Blank                                |
| ZZZZZZ          | E252268A.D  | 05/07/18      | 09:59         | 02:37        | (unrelated sample)                          |
| ZZZZZZ          | E252269.D   | 05/07/18      | 10:30         | 03:08        | (unrelated sample)                          |
| ZZZZZZ          | E252270.D   | 05/07/18      | 11:09         | 03:47        | (unrelated sample)                          |
| ZZZZZZ          | E252271.D   | 05/07/18      | 11:40         | 04:18        | (unrelated sample)                          |
| ZZZZZZ          | E252272.D   | 05/07/18      | 12:13         | 04:51        | (unrelated sample)                          |
| ZZZZZZ          | E252276.D   | 05/07/18      | 14:23         | 07:01        | (unrelated sample)                          |
| ZZZZZZ          | E252278.D   | 05/07/18      | 14:54         | 07:32        | (unrelated sample)                          |
| JC65157-6       | E252279.D   | 05/07/18      | 15:27         | 08:05        | SB-103 (9-19)                               |
| JC65555-1MS     | E252282.D   | 05/07/18      | 16:59         | 09:37        | Matrix Spike                                |
| JC65555-1MSD    | E252283.D   | 05/07/18      | 17:29         | 10:07        | Matrix Spike Duplicate                      |
| JC65555-1       | E252285.D   | 05/07/18      | 18:31         | 11:09        | (used for QC only; not part of job JC65157) |
| ZZZZZZ          | E252286.D   | 05/07/18      | 19:01         | 11:39        | (unrelated sample)                          |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7713-BFB     | <b>Injection Date:</b> 02/27/18 |
| <b>Lab File ID:</b> Y178404.D | <b>Injection Time:</b> 17:32    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10392         | 17.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 26546         | 44.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 59720         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3564          | 5.97                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 55101         | 92.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4101          | 6.87 (7.44) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 54221         | 90.8 (98.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3555          | 5.95 (6.56) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7713-IC7713  | Y178405.D   | 02/27/18      | 18:24         | 00:52        | Initial cal 0.2             |
| VY7713-IC7713  | Y178406.D   | 02/27/18      | 18:53         | 01:21        | Initial cal 0.5             |
| VY7713-IC7713  | Y178407.D   | 02/27/18      | 19:21         | 01:49        | Initial cal 1               |
| VY7713-IC7713  | Y178408.D   | 02/27/18      | 19:50         | 02:18        | Initial cal 2               |
| VY7713-IC7713  | Y178409.D   | 02/27/18      | 20:18         | 02:46        | Initial cal 4               |
| VY7713-IC7713  | Y178410.D   | 02/27/18      | 20:53         | 03:21        | Initial cal 8               |
| VY7713-IC7713  | Y178411.D   | 02/27/18      | 21:21         | 03:49        | Initial cal 20              |
| VY7713-ICC7713 | Y178412.D   | 02/27/18      | 21:50         | 04:18        | Initial cal 50              |
| VY7713-IC7713  | Y178413.D   | 02/27/18      | 22:19         | 04:47        | Initial cal 100             |
| VY7713-IC7713  | Y178414.D   | 02/27/18      | 22:52         | 05:20        | Initial cal 200             |
| VY7713-ICV7713 | Y178417.D   | 02/28/18      | 00:17         | 06:45        | Initial cal verification 50 |
| VY7713-ICV7713 | Y178418.D   | 02/28/18      | 00:45         | 07:13        | Initial cal verification 50 |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7713-BFB2    | <b>Injection Date:</b> 02/28/18 |
| <b>Lab File ID:</b> Y178420.D | <b>Injection Time:</b> 13:40    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 12286         | 18.8                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 30709         | 47.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 65304         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4323          | 6.62                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 60085         | 92.0                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 5068          | 7.76 (8.43) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 59149         | 90.6 (98.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3877          | 5.94 (6.55) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7713-ICV7713 | Y178421.D   | 02/28/18      | 14:19         | 00:39        | Initial cal verification 50 |

6.8.8  
6

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7767-BFB     | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> Y179618.D | <b>Injection Time:</b> 07:45    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10087         | 15.6                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 27584         | 42.7                     | Pass      |
| 95  | Base peak, 100% relative abundance | 64667         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4182          | 6.47                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 62283         | 96.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4383          | 6.78 (7.04) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 60037         | 92.8 (96.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3875          | 5.99 (6.45) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| VY7767-CC7713 | Y179618.D   | 05/02/18      | 07:45         | 00:00        | Continuing cal 50  |
| VY7767-BS     | Y179620.D   | 05/02/18      | 09:11         | 01:26        | Blank Spike        |
| VY7767-MB     | Y179622.D   | 05/02/18      | 10:38         | 02:53        | Method Blank       |
| ZZZZZZ        | Y179623.D   | 05/02/18      | 11:16         | 03:31        | (unrelated sample) |
| JC65157-7     | Y179624.D   | 05/02/18      | 11:45         | 04:00        | SB-101 (0-9)       |
| JC65157-8     | Y179625.D   | 05/02/18      | 12:13         | 04:28        | SB-100 (0-8)       |
| JC65157-9     | Y179626.D   | 05/02/18      | 12:41         | 04:56        | SB-100 (8-11)      |
| JC65157-10    | Y179627.D   | 05/02/18      | 13:10         | 05:25        | SB-103 (0-5)       |
| JC65157-11    | Y179629.D   | 05/02/18      | 14:07         | 06:22        | SB-101 (0-9)       |
| JC65157-12    | Y179630.D   | 05/02/18      | 14:36         | 06:51        | SB-100 (0-8)       |
| ZZZZZZ        | Y179631.D   | 05/02/18      | 15:05         | 07:20        | (unrelated sample) |
| JC65157-8MS   | Y179632.D   | 05/02/18      | 15:33         | 07:48        | Matrix Spike       |
| JC65157-9DUP  | Y179633.D   | 05/02/18      | 16:02         | 08:17        | Duplicate          |
| ZZZZZZ        | Y179634.D   | 05/02/18      | 16:30         | 08:45        | (unrelated sample) |
| ZZZZZZ        | Y179635.D   | 05/02/18      | 16:59         | 09:14        | (unrelated sample) |
| ZZZZZZ        | Y179636.D   | 05/02/18      | 17:28         | 09:43        | (unrelated sample) |
| ZZZZZZ        | Y179637.D   | 05/02/18      | 17:56         | 10:11        | (unrelated sample) |

# Instrument Performance Check (BFB)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> VY7781-BFB     | <b>Injection Date:</b> 05/16/18 |
| <b>Lab File ID:</b> Y179903.D | <b>Injection Time:</b> 22:31    |
| <b>Instrument ID:</b> GCMSY   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 9976          | 15.5                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 27234         | 42.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 64333         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4327          | 6.73                     | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 174 | 50.0 - 120.0% of mass 95           | 62853         | 97.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 4537          | 7.05 (7.22) <sup>a</sup> | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 61040         | 94.9 (97.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3975          | 6.18 (6.51) <sup>b</sup> | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| VY7781-IC7713  | Y179904.D   | 05/16/18      | 22:59         | 00:28        | Initial cal 0.5             |
| VY7781-IC7713  | Y179905.D   | 05/16/18      | 23:28         | 00:57        | Initial cal 1               |
| VY7781-IC7713  | Y179906.D   | 05/16/18      | 23:56         | 01:25        | Initial cal 2               |
| VY7781-IC7713  | Y179907.D   | 05/17/18      | 00:25         | 01:54        | Initial cal 4               |
| VY7781-IC7713  | Y179908.D   | 05/17/18      | 00:54         | 02:23        | Initial cal 8               |
| VY7781-IC7713  | Y179909.D   | 05/17/18      | 01:23         | 02:52        | Initial cal 20              |
| VY7781-IC7713  | Y179910.D   | 05/17/18      | 01:51         | 03:20        | Initial cal 50              |
| VY7781-IC7713  | Y179911.D   | 05/17/18      | 02:20         | 03:49        | Initial cal 100             |
| VY7781-IC7713  | Y179912.D   | 05/17/18      | 02:49         | 04:18        | Initial cal 200             |
| VY7781-ICV7713 | Y179914.D   | 05/17/18      | 03:46         | 05:15        | Initial cal verification 50 |

6.8.10  
6



# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V2V2002-CC1992 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 2V50183.D    | <b>Injection Time:</b> 06:42    |
| <b>Instrument ID:</b> GCMS2V     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT   | IS 4<br>AREA | RT   | IS 5<br>AREA | RT   |
|--------------------------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| Check Std                | 390670       | 2.27 | 470564       | 3.36 | 697673       | 3.88 | 589688       | 6.16 | 270000       | 8.33 |
| Upper Limit <sup>a</sup> | 781340       | 2.77 | 941128       | 3.86 | 1395346      | 4.38 | 1179376      | 6.66 | 540000       | 8.83 |
| Lower Limit <sup>b</sup> | 195335       | 1.77 | 235282       | 2.86 | 348837       | 3.38 | 294844       | 5.66 | 135000       | 7.83 |

| Lab<br>Sample ID | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT   | IS 4<br>AREA | RT   | IS 5<br>AREA | RT   |
|------------------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|
| V2V2002-BS       | 335602       | 2.27 | 462390       | 3.36 | 687724       | 3.88 | 577340       | 6.17 | 261841       | 8.33 |
| V2V2002-MB       | 323786       | 2.27 | 446873       | 3.36 | 651214       | 3.88 | 537041       | 6.17 | 241010       | 8.33 |
| GP12593-LB7      | 318507       | 2.27 | 454315       | 3.36 | 677742       | 3.88 | 566054       | 6.17 | 254659       | 8.33 |
| GP12692-LB9      | 347614       | 2.27 | 448473       | 3.36 | 662140       | 3.88 | 555679       | 6.17 | 249978       | 8.33 |
| JC64956-1        | 326410       | 2.27 | 419168       | 3.36 | 618070       | 3.88 | 516257       | 6.17 | 233611       | 8.33 |
| ZZZZZZ           | 330687       | 2.27 | 414646       | 3.36 | 616568       | 3.88 | 521238       | 6.17 | 241237       | 8.33 |
| ZZZZZZ           | 339245       | 2.27 | 410787       | 3.36 | 620264       | 3.88 | 523831       | 6.17 | 237876       | 8.33 |
| ZZZZZZ           | 324407       | 2.27 | 410650       | 3.36 | 634970       | 3.88 | 532991       | 6.17 | 242186       | 8.33 |
| ZZZZZZ           | 345475       | 2.27 | 419693       | 3.36 | 635637       | 3.88 | 540358       | 6.17 | 242735       | 8.33 |
| ZZZZZZ           | 331947       | 2.27 | 411072       | 3.36 | 625112       | 3.88 | 528427       | 6.17 | 236499       | 8.33 |
| ZZZZZZ           | 314583       | 2.27 | 395085       | 3.36 | 597892       | 3.88 | 512468       | 6.16 | 231989       | 8.33 |
| ZZZZZZ           | 323012       | 2.27 | 389179       | 3.36 | 591779       | 3.88 | 504333       | 6.17 | 232758       | 8.33 |
| GP12723-LB10     | 319999       | 2.27 | 403235       | 3.36 | 616936       | 3.88 | 522421       | 6.17 | 233906       | 8.33 |
| ZZZZZZ           | 314877       | 2.27 | 396281       | 3.36 | 612329       | 3.88 | 519318       | 6.17 | 232312       | 8.33 |
| ZZZZZZ           | 316074       | 2.27 | 391901       | 3.36 | 612536       | 3.88 | 519566       | 6.17 | 232524       | 8.33 |
| ZZZZZZ           | 309620       | 2.27 | 374439       | 3.36 | 571039       | 3.88 | 487666       | 6.17 | 224738       | 8.33 |
| JC64956-1MS      | 344345       | 2.27 | 397300       | 3.36 | 625821       | 3.88 | 534792       | 6.17 | 243082       | 8.33 |
| GP12692-LS6      | 344345       | 2.27 | 397300       | 3.36 | 625821       | 3.88 | 534792       | 6.17 | 243082       | 8.33 |
| JC64956-1MSD     | 345661       | 2.27 | 400561       | 3.36 | 624333       | 3.88 | 527501       | 6.17 | 241892       | 8.33 |
| ZZZZZZ           | 320481       | 2.27 | 387818       | 3.36 | 601884       | 3.88 | 504392       | 6.17 | 227811       | 8.33 |
| ZZZZZZ           | 312418       | 2.27 | 394497       | 3.36 | 607661       | 3.88 | 510955       | 6.16 | 230252       | 8.33 |
| ZZZZZZ           | 300250       | 2.27 | 378696       | 3.36 | 585460       | 3.88 | 492949       | 6.17 | 220879       | 8.33 |

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> V2V2004-CC1992 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2V50234.D    | <b>Injection Time:</b> 06:36    |
| <b>Instrument ID:</b> GCMS2V     | <b>Method:</b> SW846 8260C      |

|                          | IS 1   | RT   | IS 2   | RT   | IS 3    | RT   | IS 4    | RT   | IS 5   | RT   |
|--------------------------|--------|------|--------|------|---------|------|---------|------|--------|------|
|                          | AREA   |      | AREA   |      | AREA    |      | AREA    |      | AREA   |      |
| Check Std                | 334300 | 2.27 | 416132 | 3.36 | 633167  | 3.88 | 537007  | 6.17 | 248348 | 8.33 |
| Upper Limit <sup>a</sup> | 668600 | 2.77 | 832264 | 3.86 | 1266334 | 4.38 | 1074014 | 6.67 | 496696 | 8.83 |
| Lower Limit <sup>b</sup> | 167150 | 1.77 | 208066 | 2.86 | 316584  | 3.38 | 268504  | 5.67 | 124174 | 7.83 |

| Lab Sample ID | IS 1   | RT   | IS 2   | RT   | IS 3   | RT   | IS 4   | RT   | IS 5   | RT   |
|---------------|--------|------|--------|------|--------|------|--------|------|--------|------|
|               | AREA   |      | AREA   |      | AREA   |      | AREA   |      | AREA   |      |
| V2V2004-BS    | 358018 | 2.27 | 437387 | 3.36 | 660675 | 3.88 | 555659 | 6.17 | 253446 | 8.33 |
| V2V2004-MB    | 308420 | 2.27 | 421613 | 3.36 | 632071 | 3.88 | 506387 | 6.16 | 223507 | 8.33 |
| JC65070-1A    | 319883 | 2.27 | 408246 | 3.36 | 610771 | 3.88 | 512425 | 6.17 | 232271 | 8.33 |
| ZZZZZZ        | 316205 | 2.27 | 406781 | 3.36 | 615864 | 3.88 | 514292 | 6.16 | 232324 | 8.33 |
| ZZZZZZ        | 333632 | 2.27 | 389647 | 3.36 | 588081 | 3.88 | 496396 | 6.16 | 224710 | 8.33 |
| ZZZZZZ        | 307699 | 2.27 | 405847 | 3.36 | 604752 | 3.88 | 512582 | 6.16 | 229398 | 8.33 |
| ZZZZZZ        | 309981 | 2.27 | 406228 | 3.36 | 615186 | 3.88 | 514746 | 6.16 | 226762 | 8.33 |
| ZZZZZZ        | 300715 | 2.27 | 369308 | 3.36 | 549929 | 3.88 | 464982 | 6.16 | 209469 | 8.33 |
| GP12723-LB11  | 286159 | 2.27 | 370393 | 3.36 | 545479 | 3.88 | 448985 | 6.17 | 203310 | 8.33 |
| ZZZZZZ        | 272991 | 2.27 | 373707 | 3.36 | 559897 | 3.88 | 470687 | 6.17 | 209312 | 8.33 |
| ZZZZZZ        | 288710 | 2.27 | 368458 | 3.36 | 557307 | 3.88 | 466145 | 6.16 | 205227 | 8.33 |
| ZZZZZZ        | 278813 | 2.27 | 377567 | 3.36 | 566274 | 3.88 | 471237 | 6.17 | 208389 | 8.33 |
| ZZZZZZ        | 288415 | 2.27 | 368837 | 3.36 | 546385 | 3.88 | 460154 | 6.17 | 203959 | 8.33 |
| JC65157-12A   | 279019 | 2.27 | 345573 | 3.36 | 513938 | 3.88 | 431728 | 6.16 | 194281 | 8.33 |
| ZZZZZZ        | 296853 | 2.27 | 360716 | 3.36 | 542020 | 3.88 | 461411 | 6.16 | 206230 | 8.33 |
| GP12723-LS7   | 308815 | 2.27 | 376568 | 3.36 | 569646 | 3.88 | 499562 | 6.16 | 231089 | 8.33 |
| JC65070-1AMS  | 308815 | 2.27 | 376568 | 3.36 | 569646 | 3.88 | 499562 | 6.16 | 231089 | 8.33 |
| JC65070-1AMSD | 298873 | 2.27 | 370849 | 3.36 | 557480 | 3.88 | 476001 | 6.17 | 221785 | 8.33 |
| GP12692-LB12  | 285898 | 2.27 | 362890 | 3.36 | 546401 | 3.88 | 461594 | 6.17 | 208217 | 8.33 |
| ZZZZZZ        | 279525 | 2.27 | 354431 | 3.36 | 532020 | 3.88 | 446361 | 6.17 | 197450 | 8.33 |
| ZZZZZZ        | 278966 | 2.27 | 364704 | 3.36 | 544968 | 3.88 | 452167 | 6.16 | 198436 | 8.33 |
| ZZZZZZ        | 277066 | 2.27 | 362099 | 3.36 | 541854 | 3.88 | 453574 | 6.17 | 202912 | 8.33 |
| ZZZZZZ        | 286000 | 2.27 | 355944 | 3.36 | 535097 | 3.88 | 442727 | 6.17 | 198925 | 8.33 |

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.9.2  
6

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                 |                        |             |
|-----------------------|-----------------|------------------------|-------------|
| <b>Check Std:</b>     | VE10829-CC10811 | <b>Injection Date:</b> | 05/07/18    |
| <b>Lab File ID:</b>   | E252265.D       | <b>Injection Time:</b> | 07:22       |
| <b>Instrument ID:</b> | GCMSE           | <b>Method:</b>         | SW846 8260C |

|                          | IS 1   |      | IS 2   |       | IS 3   |       | IS 4   |       | IS 5   |       |
|--------------------------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
|                          | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| Check Std                | 73640  | 7.73 | 126431 | 10.01 | 177643 | 10.98 | 187295 | 14.38 | 132500 | 17.02 |
| Upper Limit <sup>a</sup> | 147280 | 8.23 | 252862 | 10.51 | 355286 | 11.48 | 374590 | 14.88 | 265000 | 17.52 |
| Lower Limit <sup>b</sup> | 36820  | 7.23 | 63216  | 9.51  | 88822  | 10.48 | 93648  | 13.88 | 66250  | 16.52 |

| Lab Sample ID          | IS 1  |      | IS 2   |       | IS 3   |       | IS 4   |       | IS 5   |       |
|------------------------|-------|------|--------|-------|--------|-------|--------|-------|--------|-------|
|                        | AREA  | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| VE10829-BS             | 80330 | 7.75 | 146753 | 10.02 | 208318 | 10.98 | 211266 | 14.38 | 141269 | 17.02 |
| ZZZZZZ                 | 71124 | 7.76 | 126793 | 10.01 | 176986 | 10.98 | 185763 | 14.38 | 123601 | 17.02 |
| VE10829-MB             | 71124 | 7.76 | 126793 | 10.01 | 176986 | 10.98 | 185763 | 14.38 | 123601 | 17.02 |
| ZZZZZZ                 | 69916 | 7.73 | 126518 | 10.01 | 178826 | 10.98 | 186283 | 14.38 | 120476 | 17.02 |
| ZZZZZZ                 | 74599 | 7.76 | 131307 | 10.01 | 188394 | 10.98 | 192151 | 14.38 | 129447 | 17.02 |
| ZZZZZZ                 | 73066 | 7.76 | 130412 | 10.01 | 187654 | 10.97 | 189389 | 14.38 | 122183 | 17.02 |
| ZZZZZZ                 | 57140 | 7.74 | 123165 | 10.01 | 173467 | 10.98 | 172383 | 14.39 | 113045 | 17.02 |
| ZZZZZZ                 | 55978 | 7.75 | 112250 | 10.01 | 157384 | 10.98 | 160334 | 14.38 | 105563 | 17.02 |
| ZZZZZZ                 | 50267 | 7.74 | 124731 | 10.01 | 173916 | 10.98 | 179882 | 14.38 | 119023 | 17.02 |
| JC65157-6 <sup>c</sup> | 48859 | 7.74 | 116335 | 10.01 | 162959 | 10.98 | 161377 | 14.38 | 105515 | 17.02 |
| JC65555-1MS            | 57325 | 7.75 | 123969 | 10.01 | 172908 | 10.98 | 170929 | 14.38 | 115352 | 17.02 |
| JC65555-1MSD           | 51873 | 7.76 | 125341 | 10.01 | 178717 | 10.98 | 173195 | 14.38 | 115348 | 17.02 |
| JC65555-1              | 57946 | 7.73 | 133120 | 10.01 | 186322 | 10.98 | 182064 | 14.38 | 124519 | 17.02 |
| ZZZZZZ                 | 62965 | 7.77 | 136300 | 10.01 | 194178 | 10.98 | 199881 | 14.38 | 157660 | 17.02 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

6.9.3  
6

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VY7767-CC7713 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> Y179618.D   | <b>Injection Time:</b> 07:45    |
| <b>Instrument ID:</b> GCMSY     | <b>Method:</b> SW846 8260C      |

|                          | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|--------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 72885        | 6.98 | 191697       | 9.20 | 283148       | 10.11 | 266144       | 13.29 | 135280       | 15.60 |
| Upper Limit <sup>a</sup> | 145770       | 7.48 | 383394       | 9.70 | 566296       | 10.61 | 532288       | 13.79 | 270560       | 16.10 |
| Lower Limit <sup>b</sup> | 36443        | 6.48 | 95849        | 8.70 | 141574       | 9.61  | 133072       | 12.79 | 67640        | 15.10 |

| Lab<br>Sample ID        | IS 1<br>AREA | RT   | IS 2<br>AREA | RT   | IS 3<br>AREA | RT    | IS 4<br>AREA | RT    | IS 5<br>AREA | RT    |
|-------------------------|--------------|------|--------------|------|--------------|-------|--------------|-------|--------------|-------|
| VY7767-BS               | 87605        | 6.96 | 189053       | 9.20 | 287674       | 10.11 | 285162       | 13.29 | 144506       | 15.60 |
| VY7767-MB               | 70925        | 6.99 | 184273       | 9.20 | 277561       | 10.11 | 260018       | 13.29 | 123732       | 15.60 |
| ZZZZZZ                  | 87749        | 6.98 | 199435       | 9.20 | 299471       | 10.11 | 281623       | 13.29 | 128752       | 15.60 |
| JC65157-7 <sup>c</sup>  | 87298        | 6.98 | 195660       | 9.20 | 297953       | 10.11 | 264716       | 13.29 | 114645       | 15.60 |
| JC65157-8 <sup>c</sup>  | 97131        | 6.97 | 184060       | 9.20 | 276708       | 10.11 | 240023       | 13.29 | 99467        | 15.60 |
| JC65157-9 <sup>c</sup>  | 86498        | 6.97 | 205131       | 9.20 | 311978       | 10.11 | 286048       | 13.29 | 134136       | 15.60 |
| JC65157-10 <sup>c</sup> | 78581        | 6.97 | 194294       | 9.20 | 299379       | 10.11 | 279112       | 13.29 | 131249       | 15.60 |
| JC65157-11 <sup>c</sup> | 90892        | 6.97 | 186677       | 9.20 | 287300       | 10.11 | 275912       | 13.29 | 118190       | 15.60 |
| JC65157-12 <sup>c</sup> | 91782        | 6.97 | 186989       | 9.20 | 281403       | 10.11 | 257903       | 13.29 | 108628       | 15.60 |
| ZZZZZZ                  | 69562        | 6.98 | 192248       | 9.20 | 294128       | 10.11 | 273078       | 13.28 | 131700       | 15.60 |
| JC65157-8MS             | 69982        | 6.97 | 218976       | 9.20 | 328774       | 10.11 | 303086       | 13.28 | 137049       | 15.60 |
| JC65157-9DUP            | 105282       | 6.97 | 204885       | 9.20 | 314854       | 10.11 | 308160       | 13.29 | 140136       | 15.60 |
| ZZZZZZ                  | 77207        | 6.97 | 205864       | 9.20 | 311586       | 10.11 | 285984       | 13.29 | 132927       | 15.60 |
| ZZZZZZ                  | 79432        | 6.98 | 196624       | 9.20 | 299359       | 10.11 | 284953       | 13.29 | 123334       | 15.60 |
| ZZZZZZ                  | 78987        | 6.98 | 198590       | 9.20 | 300916       | 10.11 | 279044       | 13.29 | 133319       | 15.60 |
| ZZZZZZ                  | 86615        | 6.96 | 209471       | 9.20 | 316218       | 10.11 | 288279       | 13.29 | 141030       | 15.60 |

- IS 1** = Tert Butyl Alcohol-D9
- IS 2** = Pentafluorobenzene
- IS 3** = 1,4-Difluorobenzene
- IS 4** = Chlorobenzene-D5
- IS 5** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.  
 (c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

6.9.4  
6

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8260C | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2  | S3  | S4  |
|---------------|-------------|-----|-----|-----|-----|
| JC65157-12A   | 2V50250.D   | 103 | 109 | 100 | 102 |
| GP12723-LB11  | 2V50245.D   | 99  | 104 | 102 | 101 |
| GP12723-LS7   | 2V50252A.D  | 103 | 108 | 96  | 100 |
| JC65070-1AMS  | 2V50252.D   | 103 | 108 | 96  | 100 |
| JC65070-1AMSD | 2V50253.D   | 103 | 106 | 100 | 101 |
| V2V2004-BS    | 2V50235.D   | 101 | 100 | 101 | 101 |
| V2V2004-MB    | 2V50237.D   | 98  | 98  | 104 | 102 |
| GP12723-LB10  | 2V50199.D   | 105 | 105 | 100 | 102 |

| Surrogate Compounds        | Recovery Limits |
|----------------------------|-----------------|
| S1 = Dibromofluoromethane  | 76-120%         |
| S2 = 1,2-Dichloroethane-D4 | 64-135%         |
| S3 = Toluene-D8            | 76-117%         |
| S4 = 4-Bromofluorobenzene  | 72-122%         |

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8260C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1  | S2 | S3  | S4  |
|---------------|-------------|-----|----|-----|-----|
| JC65157-6     | E252279.D   | 96  | 91 | 98  | 98  |
| JC65157-7     | Y179624.D   | 100 | 93 | 98  | 114 |
| JC65157-8     | Y179625.D   | 101 | 97 | 100 | 116 |
| JC65157-9     | Y179626.D   | 98  | 93 | 96  | 112 |
| JC65157-10    | Y179627.D   | 100 | 91 | 95  | 108 |
| JC65157-11    | Y179629.D   | 102 | 97 | 95  | 115 |
| JC65157-12    | Y179630.D   | 101 | 97 | 98  | 117 |
| JC65157-8MS   | Y179632.D   | 94  | 81 | 97  | 112 |
| JC65157-9DUP  | Y179633.D   | 98  | 90 | 92  | 111 |
| JC65555-1MS   | E252282.D   | 96  | 90 | 99  | 96  |
| JC65555-1MSD  | E252283.D   | 98  | 90 | 98  | 99  |
| VE10829-BS    | E252266.D   | 95  | 91 | 94  | 98  |
| VE10829-MB    | E252268.D   | 96  | 92 | 94  | 96  |
| VY7767-BS     | Y179620.D   | 96  | 88 | 92  | 106 |
| VY7767-MB     | Y179622.D   | 95  | 90 | 95  | 109 |

| Surrogate Compounds        | Recovery Limits |
|----------------------------|-----------------|
| S1 = Dibromofluoromethane  | 75-127%         |
| S2 = 1,2-Dichloroethane-D4 | 75-130%         |
| S3 = Toluene-D8            | 80-120%         |
| S4 = 4-Bromofluorobenzene  | 79-127%         |

6.10.2  
6

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

## Response Factor Report MS2V

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration

### Calibration Files

10 =2V49940.D 0.5 =2V49936.D 5 =2V49939.D 50 =2V49942.D  
 100 =2V49943.D 1 =2V49937.D 200 =2V49944.D 20 =2V49941.D  
 2 =2V49938.D =

| Compound  | 10    | 0.5   | 5     | 50    | 100   | 1     | 200   | 20    | 2     | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD-----             |       |       |       |       |       |       |       |       |       |       |       |
| 2) ethanol  | 0.165 | 0.176 | 0.161 | 0.153 | 0.136 | 0.168 |       | 0.159 | 0.171 | 0.161 | 7.73  |
| 3) tertiary butyl alcohol                             | 1.442 | 1.627 | 1.466 | 1.391 | 1.347 | 1.477 | 1.359 | 1.414 | 1.509 | 1.448 | 5.95  |
| 4) 1,4-dioxane  | 0.140 |       | 0.136 | 0.134 | 0.126 | 0.153 | 0.123 | 0.132 | 0.148 | 0.137 | 7.53  |
| 5) I pentafluorobenzene -----ISTD-----                |       |       |       |       |       |       |       |       |       |       |       |
| 6) chlorodifluoromethane                              | 0.814 | 0.879 | 0.785 | 0.765 | 0.729 | 0.828 | 0.682 | 0.801 | 0.829 | 0.790 | 7.43  |
| 7) dichlorodifluoromethane                            | 0.992 | 0.976 | 0.964 | 0.951 | 0.947 | 1.020 | 0.874 | 0.997 | 0.987 | 0.967 | 4.35  |
| 8) freon 114  |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 9) freon 142b   |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 10) chloromethane                                     | 1.043 |       | 1.041 | 1.036 | 1.005 | 1.159 | 0.910 | 1.068 | 1.113 | 1.047 | 7.04  |
| 11) vinyl chloride                                    | 0.871 | 0.938 | 0.825 | 0.835 | 0.820 | 0.916 | 0.804 | 0.868 | 0.909 | 0.865 | 5.51  |
| 12) bromomethane                                      | 0.352 |       | 0.372 | 0.272 | 0.200 |       |       | 0.338 | 0.423 | 0.326 | 24.16 |
| ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00486 + 0.34213 *A + -0.07233 *A^2 |       |       |       |       |       |       |       |       |       |       |       |
| Coefficient = 0.9997                                  |       |       |       |       |       |       |       |       |       |       |       |
| 13) chloroethane                                      | 0.348 |       | 0.363 | 0.306 | 0.266 | 0.417 |       | 0.345 | 0.404 | 0.350 | 15.01 |
| 14) trichlorofluoromethane                            | 1.094 | 1.087 | 1.058 | 1.048 | 1.050 | 1.141 | 1.006 | 1.105 | 1.137 | 1.081 | 4.09  |
| 15) vinyl bromide                                     | 0.577 | 0.650 | 0.561 | 0.559 | 0.557 | 0.618 | 0.490 | 0.580 | 0.590 | 0.576 | 7.72  |
| 16) 1,3-butadiene                                     |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 17) ethyl ether                                       | 0.315 | 0.309 | 0.300 | 0.302 | 0.297 | 0.341 | 0.296 | 0.306 | 0.323 | 0.310 | 4.73  |
| 18) 2-chloropropane                                   | 0.926 | 0.944 | 0.916 | 0.866 | 0.863 | 0.996 | 0.810 | 0.918 | 0.959 | 0.911 | 6.19  |
| 19) acrolein  | 0.183 | 0.204 | 0.167 | 0.172 | 0.165 | 0.201 | 0.169 | 0.179 | 0.190 | 0.181 | 8.07  |
| 20) freon 113   | 0.396 | 0.403 | 0.382 | 0.354 | 0.369 | 0.356 | 0.357 | 0.384 | 0.384 | 0.376 | 4.80  |
| 21) 1,1-dichloroethene                                | 0.990 | 0.996 | 0.984 | 0.948 | 0.943 | 0.963 | 0.915 | 0.994 | 0.997 | 0.970 | 3.02  |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|     |   |       |       |       |       |       |       |       |       |       |       |                      |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 22) | acetone   | 0.074 | 0.081 | 0.072 | 0.073 | 0.066 | 0.083 | 0.067 | 0.075 | 0.074 | 0.074 | 7.58                 |
| 23) | acetonitrile  | 0.119 | 0.136 | 0.113 | 0.113 | 0.104 | 0.131 | 0.106 | 0.119 | 0.121 | 0.118 | 9.00                 |
| 24) | iodomethane   | 0.272 |       | 0.244 | 0.352 | 0.431 |       | 0.470 | 0.295 | 0.247 | 0.330 | 27.39                |
|     | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |       | Coefficient = 0.9992 |
|     | Response Ratio = -0.02172 + 0.37944 *A + 0.02435 *A^2 |       |       |       |       |       |       |       |       |       |       |                      |
| 25) | carbon disulfide                                      | 1.483 | 1.811 | 1.478 | 1.401 | 1.393 | 1.542 | 1.363 | 1.482 | 1.494 | 1.494 | 8.84                 |
| 26) | methylene chloride                                    | 0.648 | 0.780 | 0.652 | 0.611 | 0.602 | 0.698 | 0.593 | 0.646 | 0.718 | 0.661 | 9.25                 |
| 27) | methyl acetate  | 0.664 | 0.708 | 0.642 | 0.626 | 0.589 | 0.692 | 0.602 | 0.651 | 0.675 | 0.650 | 6.10                 |
| 28) | methyl tert butyl ether                               | 1.845 | 1.955 | 1.790 | 1.786 | 1.769 | 1.888 | 1.737 | 1.832 | 1.794 | 1.822 | 3.68                 |
| 29) | trans-1,2-dichloroethene                              | 0.595 | 0.641 | 0.576 | 0.554 | 0.559 | 0.620 | 0.548 | 0.592 | 0.587 | 0.586 | 5.23                 |
| 30) | hexane  | 0.378 | 0.345 | 0.352 | 0.345 | 0.357 | 0.330 | 0.352 | 0.371 | 0.365 | 0.355 | 4.17                 |
| 31) | di-isopropyl ether                                    | 2.103 | 2.187 | 2.041 | 2.034 | 2.009 | 2.097 | 1.922 | 2.100 | 2.066 | 2.062 | 3.58                 |
| 32) | ethyl tert-butyl ether                                | 1.951 | 1.938 | 1.865 | 1.917 | 1.899 | 1.986 | 1.857 | 1.931 | 1.902 | 1.916 | 2.14                 |
| 33) | 1,1-dichloroethane                                    | 1.245 | 1.265 | 1.225 | 1.189 | 1.189 | 1.252 | 1.146 | 1.245 | 1.272 | 1.225 | 3.44                 |
| 34) | chloroprene   | 0.898 | 0.904 | 0.864 | 0.884 | 0.888 | 0.837 | 0.859 | 0.914 | 0.888 | 0.882 | 2.76                 |
| 35) | acrylonitrile   | 0.316 | 0.331 | 0.304 | 0.310 | 0.287 | 0.326 | 0.292 | 0.321 | 0.317 | 0.312 | 4.71                 |
| 36) | vinyl acetate   | 0.099 |       | 0.095 | 0.097 | 0.095 | 0.086 | 0.098 | 0.099 | 0.088 | 0.095 | 5.29                 |
| 37) | ethyl acetate   | 0.148 |       | 0.146 | 0.147 | 0.135 | 0.152 | 0.132 | 0.152 | 0.153 | 0.146 | 5.46                 |
| 38) | 2-butanone  | 0.098 | 0.103 | 0.095 | 0.097 | 0.089 | 0.096 | 0.091 | 0.097 | 0.094 | 0.095 | 4.33                 |
| 39) | 2,2-dichloropropane                                   | 0.855 | 0.867 | 0.851 | 0.832 | 0.831 | 0.871 | 0.796 | 0.845 | 0.888 | 0.849 | 3.17                 |
| 40) | cis-1,2-dichloroethene                                | 0.670 | 0.785 | 0.661 | 0.644 | 0.649 | 0.661 | 0.628 | 0.678 | 0.684 | 0.673 | 6.72                 |
| 41) | propionitrile   | 0.152 | 0.152 | 0.147 | 0.148 | 0.133 | 0.152 | 0.134 | 0.152 | 0.155 | 0.147 | 5.41                 |
| 42) | methyl acrylate                                       | 0.133 |       | 0.124 | 0.132 | 0.124 | 0.120 | 0.123 | 0.135 | 0.130 | 0.128 | 4.34                 |
| 43) | bromochloromethane                                    | 0.313 | 0.294 | 0.297 | 0.307 | 0.303 | 0.278 | 0.279 | 0.314 | 0.312 | 0.300 | 4.60                 |
| 44) | tetrahydrofuran                                       | 0.115 |       | 0.114 | 0.116 | 0.108 | 0.129 | 0.108 | 0.121 | 0.112 | 0.116 | 6.13                 |
| 45) | chloroform  | 1.226 | 1.376 | 1.184 | 1.176 | 1.163 | 1.325 | 1.129 | 1.211 | 1.260 | 1.228 | 6.52                 |
| 46) | dibromofluoromethane (s)                              | 0.496 | 0.496 | 0.496 | 0.506 | 0.513 | 0.513 | 0.503 | 0.513 | 0.494 | 0.503 | 1.61                 |
| 47) | methacrylonitrile                                     | 0.343 | 0.321 | 0.315 | 0.331 | 0.314 | 0.308 | 0.314 | 0.338 | 0.326 | 0.323 | 3.74                 |
| 48) | 1,1,1-trichloroethane                                 | 0.998 | 1.094 | 0.969 | 0.971 | 0.962 | 1.025 | 0.943 | 1.004 | 1.021 | 0.999 | 4.55                 |
| 49) | cyclohexane   | 0.769 | 0.852 | 0.733 | 0.709 | 0.724 | 0.674 | 0.714 | 0.751 | 0.728 | 0.739 | 6.77                 |
| 50) | 1,1-dichloropropene                                   |       |       |       |       |       |       |       |       |       |       |                      |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|     |                           |                |       |       |       |       |       |       |       |       |       |       |
|-----|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 51) | carbon tetrachloride      | 0.913          | 0.939 | 0.912 | 0.874 | 0.869 | 0.967 | 0.843 | 0.903 | 0.946 | 0.907 | 4.41  |
| 52) | isobutyl alcohol          | 0.830          | 0.857 | 0.804 | 0.786 | 0.778 | 0.826 | 0.745 | 0.814 | 0.818 | 0.806 | 4.06  |
| 53) | tert-amyl alcohol         | 0.044          | 0.043 | 0.039 | 0.043 | 0.040 | 0.042 | 0.042 | 0.044 | 0.040 | 0.042 | 4.45  |
|     |                           | 0.042          | 0.038 | 0.040 | 0.039 | 0.035 | 0.040 | 0.036 | 0.042 | 0.041 | 0.039 | 6.10  |
| 54) | I 1,4-difluorobenzene     | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 55) | 1,2-dichloroethane-d4 (s) | 0.355          | 0.352 | 0.342 | 0.346 | 0.353 | 0.360 | 0.336 | 0.345 | 0.339 | 0.348 | 2.32  |
| 56) | n-butyl alcohol           | 0.019          | 0.017 | 0.018 | 0.020 | 0.018 | 0.017 | 0.019 | 0.020 | 0.017 | 0.019 | 6.73  |
| 57) | benzene                   | 1.675          | 1.806 | 1.634 | 1.589 | 1.570 | 1.737 | 1.509 | 1.650 | 1.680 | 1.650 | 5.41  |
| 58) | tert-amyl methyl ether    | 1.259          | 1.312 | 1.191 | 1.224 | 1.199 | 1.227 | 1.160 | 1.244 | 1.217 | 1.226 | 3.55  |
| 59) | iso-octane                | 1.075          | 1.012 | 1.026 | 0.997 | 1.014 | 1.007 | 0.979 | 1.048 | 1.035 | 1.022 | 2.80  |
| 60) | heptane                   | 0.224          | 0.212 | 0.213 | 0.206 | 0.211 | 0.204 | 0.208 | 0.214 | 0.215 | 0.212 | 2.80  |
| 61) | isopropyl acetate         | 0.085          |       | 0.081 | 0.085 | 0.080 | 0.088 | 0.080 | 0.088 | 0.086 | 0.084 | 4.01  |
| 62) | 1,2-dichloroethane        | 0.634          |       | 0.626 | 0.602 | 0.581 | 0.757 | 0.561 | 0.626 | 0.668 | 0.632 | 9.56  |
| 63) | trichloroethene           | 0.447          | 0.479 | 0.437 | 0.432 | 0.426 | 0.484 | 0.420 | 0.444 | 0.465 | 0.448 | 5.10  |
| 64) | ethyl acrylate            | 0.699          | 0.667 | 0.642 | 0.703 | 0.664 | 0.670 | 0.665 | 0.709 | 0.637 | 0.673 | 3.84  |
| 65) | 2-nitropropane            | 0.132          |       | 0.114 | 0.137 | 0.131 | 0.141 | 0.143 | 0.135 | 0.121 | 0.132 | 7.64  |
| 66) | 2-chloroethyl vinyl ether | 0.242          |       | 0.204 | 0.286 | 0.284 |       | 0.276 | 0.260 | 0.178 | 0.247 | 16.90 |
| 67) | methyl methacrylate       | 0.339          | 0.324 | 0.310 | 0.341 | 0.326 | 0.322 | 0.324 | 0.343 | 0.309 | 0.327 | 3.81  |
| 68) | 1,2-dichloropropane       | 0.490          | 0.533 | 0.468 | 0.465 | 0.463 | 0.481 | 0.440 | 0.482 | 0.488 | 0.479 | 5.33  |
| 69) | methylcyclohexane         | 0.623          | 0.574 | 0.594 | 0.580 | 0.596 | 0.542 | 0.586 | 0.611 | 0.573 | 0.586 | 4.00  |
| 70) | dibromomethane            | 0.344          | 0.365 | 0.326 | 0.325 | 0.319 | 0.370 | 0.307 | 0.336 | 0.335 | 0.336 | 6.14  |
| 71) | bromodichloromethane      | 0.636          | 0.669 | 0.604 | 0.624 | 0.622 | 0.613 | 0.603 | 0.631 | 0.617 | 0.624 | 3.23  |
| 72) | epichlorohydrin           | 0.057          | 0.053 | 0.052 | 0.056 | 0.052 | 0.053 | 0.053 | 0.060 | 0.053 | 0.054 | 4.92  |
| 73) | cis-1,3-dichloropropene   | 0.715          | 0.729 | 0.674 | 0.715 | 0.715 | 0.695 | 0.683 | 0.724 | 0.674 | 0.703 | 3.03  |
| 74) | 4-methyl-2-pentanone      | 0.237          | 0.216 | 0.220 | 0.235 | 0.216 | 0.216 | 0.216 | 0.239 | 0.222 | 0.224 | 4.51  |
| 75) | 3-methyl-1-butanol        | 0.016          |       | 0.014 | 0.017 | 0.015 |       | 0.016 | 0.016 | 0.013 | 0.015 | 9.88  |
| 76) | I chlorobenzene-d5        | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 77) | toluene-d8 (s)            | 1.307          | 1.300 | 1.296 | 1.277 | 1.276 | 1.285 | 1.259 | 1.297 | 1.327 | 1.292 | 1.54  |
| 78) | toluene                   | 1.160          | 1.300 | 1.157 | 1.086 | 1.055 | 1.167 | 1.036 | 1.123 | 1.196 | 1.142 | 7.02  |
| 79) | ethyl methacrylate        | 0.690          | 0.634 | 0.648 | 0.701 | 0.675 | 0.612 | 0.673 | 0.704 | 0.633 | 0.663 | 4.95  |
| 80) | trans-1,3-dichloropropene |                |       |       |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|      |  |       |       |       |       |       |       |       |       |       |       |       |
|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 81)  | 1,1,2-trichloroethane                  | 0.769 | 0.719 | 0.726 | 0.761 | 0.754 | 0.730 | 0.743 | 0.766 | 0.729 | 0.744 | 2.55  |
| 82)  | 2-hexanone                             | 0.472 | 0.509 | 0.445 | 0.447 | 0.427 | 0.470 | 0.421 | 0.456 | 0.472 | 0.458 | 5.86  |
| 83)  | tetrachloroethene                      | 0.286 | 0.258 | 0.264 | 0.281 | 0.253 | 0.245 | 0.258 | 0.289 | 0.271 | 0.267 | 5.75  |
| 84)  | 1,3-dichloropropane                    | 0.368 | 0.397 | 0.365 | 0.353 | 0.350 | 0.367 | 0.349 | 0.369 | 0.389 | 0.367 | 4.50  |
| 85)  | butyl acetate                          | 0.788 | 0.840 | 0.750 | 0.741 | 0.717 | 0.769 | 0.697 | 0.763 | 0.764 | 0.759 | 5.40  |
| 86)  | dibromochloromethane                   | 0.409 | 0.422 | 0.388 | 0.408 | 0.380 | 0.388 | 0.384 | 0.413 | 0.408 | 0.400 | 3.76  |
| 87)  | 1,2-dibromoethane                      | 0.567 | 0.536 | 0.524 | 0.554 | 0.544 | 0.543 | 0.534 | 0.555 | 0.530 | 0.543 | 2.51  |
| 88)  | n-butyl ether                          | 0.588 | 0.622 | 0.557 | 0.568 | 0.545 | 0.574 | 0.538 | 0.571 | 0.575 | 0.571 | 4.32  |
| 89)  | chlorobenzene                          | 2.090 | 1.989 | 1.996 | 2.032 | 1.964 | 1.934 | 1.863 | 2.070 | 1.980 | 1.991 | 3.48  |
| 90)  | 1,1,1,2-tetrachloroethane              | 1.236 | 1.356 | 1.188 | 1.161 | 1.139 | 1.247 | 1.121 | 1.201 | 1.242 | 1.210 | 5.86  |
| 91)  | ethylbenzene                           | 0.450 | 0.423 | 0.428 | 0.435 | 0.435 | 0.418 | 0.425 | 0.442 | 0.419 | 0.431 | 2.52  |
| 92)  | m,p-xylene                             | 2.151 | 2.219 | 2.084 | 2.079 | 2.039 | 2.038 | 1.958 | 2.129 | 2.166 | 2.096 | 3.78  |
| 93)  | o-xylene                               | 0.779 | 0.785 | 0.752 | 0.735 | 0.720 | 0.741 | 0.702 | 0.761 | 0.777 | 0.750 | 3.78  |
| 94)  | styrene                                | 1.696 | 1.658 | 1.614 | 1.620 | 1.583 | 1.632 | 1.561 | 1.658 | 1.624 | 1.627 | 2.50  |
| 95)  | butyl acrylate                         | 1.290 | 1.134 | 1.200 | 1.257 | 1.218 | 1.168 | 1.196 | 1.261 | 1.163 | 1.210 | 4.27  |
| 96)  | bromoform                              | 0.495 | 0.429 | 0.449 | 0.529 | 0.513 | 0.407 | 0.518 | 0.513 | 0.436 | 0.476 | 9.65  |
| 97)  | isopropylbenzene                       | 0.366 | 0.334 | 0.334 | 0.383 | 0.374 | 0.329 | 0.387 | 0.372 | 0.342 | 0.358 | 6.48  |
| 98)  | cis-1,4-dichloro-2-butene              | 1.880 | 1.877 | 1.830 | 1.840 | 1.808 | 1.791 | 1.796 | 1.891 | 1.866 | 1.842 | 2.07  |
|      |  | 0.207 |       | 0.182 | 0.235 | 0.229 |       | 0.245 | 0.224 | 0.173 | 0.213 | 12.85 |
| 99)  | I 1,4-dichlorobenzene-d -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 100) | 4-bromofluorobenzene (s)               | 1.031 | 1.028 | 1.018 | 1.004 | 1.005 | 1.019 | 0.992 | 1.024 | 1.032 | 1.017 | 1.35  |
| 101) | bromobenzene                           | 1.103 | 1.145 | 1.064 | 1.036 | 1.014 | 1.119 | 0.992 | 1.055 | 1.062 | 1.066 | 4.65  |
| 102) | 1,1,2,2-tetrachloroethane              | 1.834 | 1.797 | 1.642 | 1.696 | 1.602 | 1.669 | 1.593 | 1.739 | 1.832 | 1.712 | 5.48  |
| 103) | trans-1,4-dichloro-2-butene            | 0.357 | 0.339 | 0.332 | 0.373 | 0.346 | 0.340 | 0.360 | 0.372 | 0.347 | 0.352 | 4.15  |
| 104) | 1,2,3-trichloropropane                 | 0.372 | 0.395 | 0.359 | 0.354 | 0.332 | 0.356 | 0.327 | 0.364 | 0.365 | 0.358 | 5.74  |
| 105) | n-propylbenzene                        | 5.192 | 5.105 | 5.027 | 4.953 | 4.779 | 4.783 | 4.655 | 5.089 | 5.027 | 4.957 | 3.62  |
| 106) | 2-chlorotoluene                        | 1.013 | 0.960 | 0.976 | 0.938 | 0.906 | 0.899 | 0.895 | 0.958 | 1.021 | 0.952 | 4.91  |
| 107) | 4-chlorotoluene                        | 0.995 | 1.081 | 0.939 | 0.938 | 0.904 | 0.998 | 0.886 | 0.966 | 0.999 | 0.968 | 6.10  |
| 108) | 4-ethyltoluene                         |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 109) | 1,3,5-trimethylbenzene                 | 3.279 | 3.170 | 3.084 | 3.185 | 3.100 | 2.961 | 3.057 | 3.225 | 3.170 | 3.137 | 3.06  |
| 110) | tert-butylbenzene                      |       |       |       |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICC1992  
**Lab FileID:** 2V49942.D

|      |                             |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |                             | 2.600 | 2.510 | 2.533 | 2.528 | 2.455 | 2.414 | 2.454 | 2.549 | 2.547 | 2.510 | 2.32  |
| 111) | 1,2,4-trimethylbenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.380 | 4.754 | 3.289 | 3.197 | 3.120 | 3.649 | 3.087 | 3.276 | 3.449 | 3.467 | 14.79 |
| 112) | sec-butylbenzene            |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 4.069 | 3.784 | 3.880 | 3.951 | 3.839 | 3.543 | 3.814 | 3.979 | 3.901 | 3.862 | 3.86  |
| 113) | 1,3-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.877 | 1.933 | 1.752 | 1.801 | 1.752 | 1.815 | 1.752 | 1.807 | 1.875 | 1.818 | 3.56  |
| 114) | p-isopropyltoluene          |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.143 | 3.026 | 3.060 | 3.114 | 3.012 | 2.674 | 3.010 | 3.082 | 2.971 | 3.010 | 4.56  |
| 115) | 1,4-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.892 | 2.022 | 1.850 | 1.828 | 1.767 | 1.884 | 1.779 | 1.869 | 1.969 | 1.873 | 4.41  |
| 116) | 1,2-dichlorobenzene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.824 | 1.901 | 1.732 | 1.785 | 1.745 | 1.737 | 1.753 | 1.770 | 1.760 | 1.779 | 3.03  |
| 117) | 1,4-diethylbenzene          |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 118) | n-butylbenzene              |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.661 | 1.568 | 1.583 | 1.691 | 1.679 | 1.471 | 1.686 | 1.685 | 1.504 | 1.614 | 5.27  |
| 119) | 1,2,4,5-tetramethylbenzene  |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 120) | 1,2-dibromo-3-chloropropane |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.275 |       | 0.251 | 0.310 | 0.294 | 0.231 | 0.316 | 0.290 | 0.272 | 0.280 | 10.29 |
| 121) | 1,3,5-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.163 | 1.202 | 1.111 | 1.226 | 1.213 | 1.075 | 1.248 | 1.181 | 1.150 | 1.174 | 4.75  |
| 122) | 1,2,4-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.033 | 0.999 | 1.004 | 1.101 | 1.082 | 1.013 | 1.134 | 1.062 | 0.983 | 1.046 | 4.98  |
| 123) | hexachlorobutadiene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.375 | 0.390 | 0.377 | 0.392 | 0.391 | 0.380 | 0.388 | 0.381 | 0.403 | 0.386 | 2.28  |
| 124) | naphthalene                 |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 3.429 |       | 3.217 | 3.582 | 3.383 | 3.511 | 3.440 | 3.500 | 3.237 | 3.412 | 3.79  |
| 125) | 1,2,3-trichlorobenzene      |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.017 | 0.991 | 0.950 | 1.052 | 1.027 | 0.876 | 1.046 | 1.019 | 0.964 | 0.993 | 5.64  |
| 126) | hexachloroethane            |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.457 | 0.410 | 0.460 | 0.498 | 0.494 | 0.386 | 0.523 | 0.469 | 0.471 | 0.463 | 9.25  |
| 127) | Benzyl chloride             |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 2.153 | 2.181 | 1.987 | 2.276 | 2.199 | 1.893 | 2.269 | 2.200 | 1.972 | 2.126 | 6.54  |
| 128) | 2-ethylhexyl acrylate       |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 0.577 |       | 0.495 | 0.761 | 0.814 |       | 0.831 | 0.653 |       | 0.689 | 19.71 |
| 129) | 2-methylnaphthalene         |       |       |       |       |       |       |       |       |       |       |       |
|      |                             | 1.245 |       | 1.116 | 1.502 | 1.464 |       | 1.571 | 1.364 | 1.069 | 1.333 | 14.61 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2V1992.M

Mon Apr 23 10:51:22 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49947.D Vial: 13  
 Acq On : 21 Apr 2018 2:24 am Operator: JessicaP  
 Sample : icv1992-50 Inst : MS2V  
 Misc : MS25736,V2V1992,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | TrueValue      | AvgRF        | CCRF   | %Dev    | Area% | Dev(min) | R.T. |
|-----------------------------|----------------|--------------|--------|---------|-------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 500.00         | 1.000        | 1.000  | 0.0     | 102   | 0.00     | 2.27 |
| 2 ethanol                   | 5000.00        | 0.161        | 0.156  | 3.1     | 104   | 0.00     | 1.78 |
| 3 M tertiary butyl alcohol  | 250.00         | 1.448        | 1.428  | 1.4     | 105   | 0.00     | 2.32 |
| 4 1,4-dioxane               | 1250.00        | 0.137        | 0.137  | 0.0     | 105   | 0.00     | 4.28 |
| 5 I pentafluorobenzene      | 50.00          | 1.000        | 1.000  | 0.0     | 103   | 0.00     | 3.36 |
| 6 chlorodifluoromethane     |                | -----NA----- |        |         |       |          |      |
| 7 dichlorodifluoromethane   | 50.00          | 0.967        | 1.029  | -6.4    | 111   | 0.00     | 1.13 |
| 8 freon 114                 |                | -----NA----- |        |         |       |          |      |
| 9 freon 142b                |                | -----NA----- |        |         |       |          |      |
| 10 chloromethane            | 50.00          | 1.047        | 1.057  | -1.0    | 105   | 0.00     | 1.24 |
| 11 vinyl chloride           | 50.00          | 0.865        | 0.828  | 4.3     | 102   | 0.00     | 1.30 |
|                             | -----TrueValue | CC-RF        | Calc.  | % Drift | ----- | R.T.     |      |
| 12 bromomethane             | 50.00          | 0.338        | 68.550 | -37.1#  | 128   | 0.00     | 1.49 |
|                             | -----TrueValue | AvgRF        | CCRF   | % Dev   | ----- | R.T.     |      |
| 13 chloroethane             | 50.00          | 0.350        | 0.361  | -3.1    | 121   | 0.00     | 1.55 |
| 14 trichlorofluoromethane   | 50.00          | 1.081        | 1.063  | 1.7     | 104   | 0.00     | 1.69 |
| 15 vinyl bromide            | 50.00          | 0.576        | 0.577  | -0.2    | 106   | 0.00     | 1.66 |
| 16 1,3-butadiene            |                | -----NA----- |        |         |       |          |      |
| 17 ethyl ether              | 50.00          | 0.310        | 0.299  | 3.5     | 102   | 0.00     | 1.85 |
| 18 2-chloropropane          | 50.00          | 0.911        | 0.911  | 0.0     | 108   | 0.00     | 1.92 |
| 19 acrolein                 | 50.00          | 0.181        | 0.193  | -6.6    | 116   | 0.00     | 1.93 |
| 20 freon 113                | 50.00          | 0.376        | 0.361  | 4.0     | 105   | 0.00     | 1.99 |
| 21 1,1-dichloroethene       | 50.00          | 0.970        | 0.869  | 10.4    | 94    | 0.00     | 1.99 |
| 22 acetone                  | 200.00         | 0.074        | 0.075  | -1.4    | 106   | 0.00     | 2.01 |
| 23 acetonitrile             |                | -----NA----- |        |         |       |          |      |
|                             | -----TrueValue | CC-RF        | Calc.  | % Drift | ----- | R.T.     |      |
| 24 iodomethane              | 50.00          | 0.048        | 61.459 | -22.9   | 141   | 0.00     | 2.08 |
|                             | -----TrueValue | AvgRF        | CCRF   | % Dev   | ----- | R.T.     |      |
| 25 carbon disulfide         | 50.00          | 1.494        | 1.522  | -1.9    | 112   | 0.00     | 2.12 |
| 26 methylene chloride       | 50.00          | 0.661        | 0.608  | 8.0     | 103   | 0.00     | 2.27 |
| 27 methyl acetate           | 50.00          | 0.650        | 0.613  | 5.7     | 101   | 0.00     | 2.18 |
| 28 methyl tert butyl ether  | 50.00          | 1.822        | 1.833  | -0.6    | 106   | 0.00     | 2.42 |
| 29 trans-1,2-dichloroethene | 50.00          | 0.586        | 0.549  | 6.3     | 102   | 0.00     | 2.43 |
| 30 hexane                   | 50.00          | 0.355        | 0.344  | 3.1     | 103   | 0.00     | 2.59 |
| 31 di-isopropyl ether       | 50.00          | 2.062        | 2.067  | -0.2    | 105   | 0.00     | 2.70 |
| 32 ethyl tert-butyl ether   | 50.00          | 1.916        | 1.930  | -0.7    | 104   | 0.00     | 2.92 |
| 33 M 1,1-dichloroethane     | 50.00          | 1.225        | 1.183  | 3.4     | 102   | 0.00     | 2.69 |

6.11.2  
6

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

|      |                           |         |       |              |       |     |      |      |
|------|---------------------------|---------|-------|--------------|-------|-----|------|------|
| 34   | chloroprene               | 50.00   | 0.882 | 0.887        | -0.6  | 103 | 0.00 | 2.73 |
| 35   | acrylonitrile             | 50.00   | 0.312 | 0.349        | -11.9 | 116 | 0.00 | 2.40 |
| 36   | vinyl acetate             | 50.00   | 0.095 | 0.107        | -12.6 | 113 | 0.00 | 2.68 |
| 37   | ethyl acetate             | 50.00   | 0.146 | 0.147        | -0.7  | 103 | 0.00 | 3.04 |
| 38   | 2-butanone                | 200.00  | 0.095 | 0.099        | -4.2  | 104 | 0.00 | 3.03 |
| 39   | 2,2-dichloropropane       | 50.00   | 0.849 | 0.821        | 3.3   | 102 | 0.00 | 3.05 |
| 40   | cis-1,2-dichloroethene    | 50.00   | 0.673 | 0.666        | 1.0   | 106 | 0.00 | 3.04 |
| 41   | propionitrile             | 500.00  | 0.147 | 0.147        | 0.0   | 102 | 0.00 | 3.07 |
| 42   | methyl acrylate           | 50.00   | 0.128 | 0.133        | -3.9  | 104 | 0.00 | 3.07 |
| 43   | bromochloromethane        | 50.00   | 0.300 | 0.317        | -5.7  | 107 | 0.00 | 3.19 |
| 44   | tetrahydrofuran           | 50.00   | 0.116 | 0.115        | 0.9   | 102 | 0.00 | 3.20 |
| 45   | chloroform                | 50.00   | 1.228 | 1.187        | 3.3   | 104 | 0.00 | 3.25 |
| 46 S | dibromofluoromethane (s)  | 50.00   | 0.503 | 0.510        | -1.4  | 104 | 0.00 | 3.35 |
| 47   | methacrylonitrile         | 50.00   | 0.323 | 0.339        | -5.0  | 105 | 0.00 | 3.16 |
| 48   | 1,1,1-trichloroethane     | 50.00   | 0.999 | 0.947        | 5.2   | 100 | 0.00 | 3.36 |
| 49   | cyclohexane               | 50.00   | 0.739 | 0.769        | -4.1  | 112 | 0.00 | 3.41 |
| 50   | 1,1-dichloropropene       | 50.00   | 0.907 | 0.876        | 3.4   | 103 | 0.00 | 3.46 |
| 51   | carbon tetrachloride      | 50.00   | 0.806 | 0.771        | 4.3   | 101 | 0.00 | 3.46 |
| 52   | isobutyl alcohol          | 500.00  | 0.042 | 0.045        | -7.1  | 107 | 0.00 | 3.51 |
| 53   | tert-amyl alcohol         | 250.00  | 0.039 | 0.040        | -2.6  | 105 | 0.00 | 3.59 |
| 54 I | 1,4-difluorobenzene       | 50.00   | 1.000 | 1.000        | 0.0   | 103 | 0.00 | 3.88 |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00   | 0.348 | 0.347        | 0.3   | 103 | 0.00 | 3.58 |
| 56   | n-butyl alcohol           | 2500.00 | 0.019 | 0.020        | -5.3  | 104 | 0.00 | 3.96 |
| 57 M | benzene                   | 50.00   | 1.650 | 1.603        | 2.8   | 104 | 0.00 | 3.60 |
| 58   | tert-amyl methyl ether    | 50.00   | 1.226 | 1.241        | -1.2  | 104 | 0.00 | 3.68 |
| 59   | iso-octane                | 50.00   | 1.022 | 0.971        | 5.0   | 100 | 0.00 | 3.67 |
| 60   | heptane                   | 50.00   | 0.212 | 0.223        | -5.2  | 111 | 0.00 | 3.78 |
| 61   | isopropyl acetate         | 50.00   | 0.084 | 0.088        | -4.8  | 107 | 0.00 | 3.61 |
| 62   | 1,2-dichloroethane        | 50.00   | 0.632 | 0.612        | 3.2   | 105 | 0.00 | 3.62 |
| 63   | trichloroethene           | 50.00   | 0.448 | 0.438        | 2.2   | 104 | 0.00 | 4.04 |
| 64   | ethyl acrylate            | 50.00   | 0.673 | 0.729        | -8.3  | 107 | 0.00 | 4.09 |
| 65   | 2-nitropropane            | 50.00   | 0.132 | 0.149        | -12.9 | 112 | 0.00 | 4.58 |
| 66   | 2-chloroethyl vinyl ether | 250.00  | 0.247 | 0.288        | -16.6 | 104 | 0.00 | 4.63 |
| 67   | methyl methacrylate       | 50.00   | 0.327 | 0.352        | -7.6  | 106 | 0.00 | 4.26 |
| 68   | 1,2-dichloropropane       | 50.00   | 0.479 | 0.468        | 2.3   | 104 | 0.00 | 4.23 |
| 69   | methylcyclohexane         | 50.00   | 0.586 | 0.569        | 2.9   | 101 | 0.00 | 4.22 |
| 70   | dibromomethane            | 50.00   | 0.336 | 0.347        | -3.3  | 110 | 0.00 | 4.29 |
| 71   | bromodichloromethane      | 50.00   | 0.624 | 0.631        | -1.1  | 104 | 0.00 | 4.42 |
| 72   | epichlorohydrin           | 250.00  | 0.054 | 0.057        | -5.6  | 104 | 0.00 | 4.66 |
| 73   | cis-1,3-dichloropropene   | 50.00   | 0.703 | 0.738        | -5.0  | 106 | 0.00 | 4.75 |
| 74   | 4-methyl-2-pentanone      | 200.00  | 0.224 | 0.240        | -7.1  | 105 | 0.00 | 4.86 |
| 75   | 3-methyl-1-butanol        | 1000.00 | 0.015 | 0.017        | -13.3 | 103 | 0.00 | 4.90 |
| 76 I | chlorobenzene-d5          | 50.00   | 1.000 | 1.000        | 0.0   | 103 | 0.00 | 6.17 |
| 77 S | toluene-d8 (s)            | 50.00   | 1.292 | 1.279        | 1.0   | 103 | 0.00 | 4.96 |
| 78   | toluene                   | 50.00   | 1.142 | 1.100        | 3.7   | 104 | 0.00 | 5.01 |
| 79   | ethyl methacrylate        | 50.00   | 0.663 | 0.705        | -6.3  | 103 | 0.00 | 5.24 |
| 80   | trans-1,3-dichloropropene | 50.00   | 0.744 | 0.764        | -2.7  | 103 | 0.00 | 5.19 |
| 81   | 1,1,2-trichloroethane     | 50.00   | 0.458 | 0.454        | 0.9   | 104 | 0.00 | 5.35 |
| 82   | 2-hexanone                | 200.00  | 0.267 | 0.281        | -5.2  | 103 | 0.00 | 5.53 |
| 83   | tetrachloroethene         |         |       | -----NA----- |       |     |      |      |
| 84   | 1,3-dichloropropane       | 50.00   | 0.759 | 0.777        | -2.4  | 108 | 0.00 | 5.49 |
| 85   | butyl acetate             | 50.00   | 0.400 | 0.431        | -7.7  | 109 | 0.00 | 5.63 |
| 86   | dibromochloromethane      | 50.00   | 0.543 | 0.590        | -8.7  | 109 | 0.00 | 5.66 |
| 87   | 1,2-dibromoethane         | 50.00   | 0.571 | 0.587        | -2.8  | 106 | 0.00 | 5.77 |
| 88   | n-butyl ether             | 50.00   | 1.991 | 1.997        | -0.3  | 101 | 0.00 | 6.29 |
| 89   | chlorobenzene             | 50.00   | 1.210 | 1.185        | 2.1   | 105 | 0.00 | 6.19 |
| 90   | 1,1,1,2-tetrachloroethane | 50.00   | 0.431 | 0.453        | -5.1  | 107 | 0.00 | 6.27 |
| 91   | ethylbenzene              | 50.00   | 2.096 | 2.111        | -0.7  | 104 | 0.00 | 6.28 |

6.11.2  
6

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49947.D

|       |                           |        |              |       |       |     |      |       |
|-------|---------------------------|--------|--------------|-------|-------|-----|------|-------|
| 92    | m,p-xylene                | 100.00 | 0.750        | 0.751 | -0.1  | 105 | 0.00 | 6.40  |
| 93    | o-xylene                  | 50.00  | 1.627        | 1.643 | -1.0  | 104 | 0.00 | 6.74  |
| 94    | styrene                   | 50.00  | 1.210        | 1.289 | -6.5  | 105 | 0.00 | 6.76  |
| 95    | butyl acrylate            | 50.00  | 0.476        | 0.539 | -13.2 | 105 | 0.00 | 6.71  |
| 96    | bromoform                 | 50.00  | 0.358        | 0.415 | -15.9 | 111 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 50.00  | 1.842        | 1.872 | -1.6  | 105 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 50.00  | 0.213        | 0.232 | -8.9  | 101 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 50.00  | 1.000        | 1.000 | 0.0   | 101 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 50.00  | 1.017        | 1.020 | -0.3  | 103 | 0.00 | 7.23  |
| 101   | bromobenzene              | 50.00  | 1.066        | 1.080 | -1.3  | 106 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 50.00  | 1.712        | 1.713 | -0.1  | 102 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 50.00  | 0.352        | 0.405 | -15.1 | 110 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 50.00  | 0.358        | 0.368 | -2.8  | 105 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 50.00  | 4.957        | 5.022 | -1.3  | 103 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 50.00  | 0.952        | 0.950 | 0.2   | 103 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 50.00  | 0.968        | 0.984 | -1.7  | 106 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |        | -----NA----- |       |       |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 50.00  | 3.137        | 3.222 | -2.7  | 103 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 50.00  | 2.510        | 3.218 | -28.2 | 129 | 0.00 | 7.94  |
| 111   | 1,2,4-trimethylbenzene    | 50.00  | 3.467        | 3.357 | 3.2   | 107 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 50.00  | 3.862        | 3.999 | -3.5  | 103 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 50.00  | 1.818        | 1.839 | -1.2  | 104 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 50.00  | 3.010        | 3.147 | -4.6  | 103 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 50.00  | 1.873        | 1.876 | -0.2  | 104 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 50.00  | 1.779        | 1.815 | -2.0  | 103 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |        | -----NA----- |       |       |     |      |       |
| 118   | n-butylbenzene            | 50.00  | 1.614        | 1.691 | -4.8  | 101 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |        | -----NA----- |       |       |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 50.00  | 0.280        | 0.310 | -10.7 | 101 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 50.00  | 1.174        | 1.225 | -4.3  | 101 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 50.00  | 1.046        | 1.125 | -7.6  | 104 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 50.00  | 0.386        | 0.385 | 0.3   | 100 | 0.00 | 10.42 |
| 124   | naphthalene               | 50.00  | 3.412        | 3.664 | -7.4  | 104 | 0.00 | 10.52 |
| 125   | 1,2,3-trichlorobenzene    | 50.00  | 0.993        | 1.043 | -5.0  | 101 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 50.00  | 0.463        | 0.502 | -8.4  | 102 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 50.00  | 2.126        | 1.866 | 12.2  | 83  | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 10.00  | 0.689        | 0.826 | -19.9 | 110 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 25.00  | 1.333        | 1.429 | -7.2  | 97  | 0.00 | 11.61 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M                      Mon Apr 23 10:51:12 2018    RPT1

6.11.2  
6

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49948.D Vial: 14  
Acq On : 21 Apr 2018 2:50 am Operator: JessicaP  
Sample : icv1992-50 Inst : MS2V  
Misc : MS25736,V2V1992,5,,,,1 Multiplr: 1.00  
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
Last Update : Mon Apr 23 10:47:36 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | TrueValue | AvgRF | CCRF         | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------------|-----------|-------|--------------|-------|-------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 500.00    | 1.000 | 1.000        | 0.0   | 103   | 0.00     | 2.27 |
| 2 ethanol                   |           |       | -----NA----- |       |       |          |      |
| 3 M tertiary butyl alcohol  |           |       | -----NA----- |       |       |          |      |
| 4 1,4-dioxane               |           |       | -----NA----- |       |       |          |      |
| 5 I pentafluorobenzene      | 50.00     | 1.000 | 1.000        | 0.0   | 104   | 0.00     | 3.36 |
| 6 chlorodifluoromethane     | 50.00     | 0.790 | 0.927        | -17.3 | 126   | 0.00     | 1.14 |
| 7 dichlorodifluoromethane   |           |       | -----NA----- |       |       |          |      |
| 8 freon 114                 |           |       | -----NA----- |       |       |          |      |
| 9 freon 142b                |           |       | -----NA----- |       |       |          |      |
| 10 chloromethane            |           |       | -----NA----- |       |       |          |      |
| 11 vinyl chloride           |           |       | -----NA----- |       |       |          |      |
| 12 bromomethane             |           |       | -----NA----- |       |       |          |      |
| 13 chloroethane             |           |       | -----NA----- |       |       |          |      |
| 14 trichlorofluoromethane   |           |       | -----NA----- |       |       |          |      |
| 15 vinyl bromide            |           |       | -----NA----- |       |       |          |      |
| 16 1,3-butadiene            |           |       | -----NA----- |       |       |          |      |
| 17 ethyl ether              |           |       | -----NA----- |       |       |          |      |
| 18 2-chloropropane          |           |       | -----NA----- |       |       |          |      |
| 19 acrolein                 |           |       | -----NA----- |       |       |          |      |
| 20 freon 113                |           |       | -----NA----- |       |       |          |      |
| 21 1,1-dichloroethene       |           |       | -----NA----- |       |       |          |      |
| 22 acetone                  |           |       | -----NA----- |       |       |          |      |
| 23 acetonitrile             | 500.00    | 0.118 | 0.122        | -3.4  | 112   | 0.00     | 2.17 |
| 24 iodomethane              |           |       | -----NA----- |       |       |          |      |
| 25 carbon disulfide         |           |       | -----NA----- |       |       |          |      |
| 26 methylene chloride       |           |       | -----NA----- |       |       |          |      |
| 27 methyl acetate           |           |       | -----NA----- |       |       |          |      |
| 28 methyl tert butyl ether  |           |       | -----NA----- |       |       |          |      |
| 29 trans-1,2-dichloroethene |           |       | -----NA----- |       |       |          |      |
| 30 hexane                   |           |       | -----NA----- |       |       |          |      |
| 31 di-isopropyl ether       |           |       | -----NA----- |       |       |          |      |
| 32 ethyl tert-butyl ether   |           |       | -----NA----- |       |       |          |      |
| 33 M 1,1-dichloroethane     |           |       | -----NA----- |       |       |          |      |
| 34 chloroprene              |           |       | -----NA----- |       |       |          |      |
| 35 acrylonitrile            |           |       | -----NA----- |       |       |          |      |
| 36 vinyl acetate            |           |       | -----NA----- |       |       |          |      |
| 37 ethyl acetate            |           |       | -----NA----- |       |       |          |      |
| 38 2-butanone               |           |       | -----NA----- |       |       |          |      |
| 39 2,2-dichloropropane      |           |       | -----NA----- |       |       |          |      |
| 40 cis-1,2-dichloroethene   |           |       | -----NA----- |       |       |          |      |
| 41 propionitrile            |           |       | -----NA----- |       |       |          |      |

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

|      |                           |       |       |       |      |     |      |      |              |
|------|---------------------------|-------|-------|-------|------|-----|------|------|--------------|
| 42   | methyl acrylate           |       |       |       |      |     |      |      | -----NA----- |
| 43   | bromochloromethane        |       |       |       |      |     |      |      | -----NA----- |
| 44   | tetrahydrofuran           |       |       |       |      |     |      |      | -----NA----- |
| 45   | chloroform                |       |       |       |      |     |      |      | -----NA----- |
| 46 S | dibromofluoromethane (s)  | 50.00 | 0.503 | 0.498 | 1.0  | 102 | 0.00 | 3.35 |              |
| 47   | methacrylonitrile         |       |       |       |      |     |      |      | -----NA----- |
| 48   | 1,1,1-trichloroethane     |       |       |       |      |     |      |      | -----NA----- |
| 49   | cyclohexane               |       |       |       |      |     |      |      | -----NA----- |
| 50   | 1,1-dichloropropene       |       |       |       |      |     |      |      | -----NA----- |
| 51   | carbon tetrachloride      |       |       |       |      |     |      |      | -----NA----- |
| 52   | isobutyl alcohol          |       |       |       |      |     |      |      | -----NA----- |
| 53   | tert-amyl alcohol         |       |       |       |      |     |      |      | -----NA----- |
| 54 I | 1,4-difluorobenzene       | 50.00 | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 3.88 |              |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00 | 0.348 | 0.354 | -1.7 | 104 | 0.00 | 3.58 |              |
| 56   | n-butyl alcohol           |       |       |       |      |     |      |      | -----NA----- |
| 57 M | benzene                   |       |       |       |      |     |      |      | -----NA----- |
| 58   | tert-amyl methyl ether    |       |       |       |      |     |      |      | -----NA----- |
| 59   | iso-octane                |       |       |       |      |     |      |      | -----NA----- |
| 60   | heptane                   |       |       |       |      |     |      |      | -----NA----- |
| 61   | isopropyl acetate         |       |       |       |      |     |      |      | -----NA----- |
| 62   | 1,2-dichloroethane        |       |       |       |      |     |      |      | -----NA----- |
| 63   | trichloroethene           |       |       |       |      |     |      |      | -----NA----- |
| 64   | ethyl acrylate            |       |       |       |      |     |      |      | -----NA----- |
| 65   | 2-nitropropane            |       |       |       |      |     |      |      | -----NA----- |
| 66   | 2-chloroethyl vinyl ether |       |       |       |      |     |      |      | -----NA----- |
| 67   | methyl methacrylate       |       |       |       |      |     |      |      | -----NA----- |
| 68   | 1,2-dichloropropane       |       |       |       |      |     |      |      | -----NA----- |
| 69   | methylcyclohexane         |       |       |       |      |     |      |      | -----NA----- |
| 70   | dibromomethane            |       |       |       |      |     |      |      | -----NA----- |
| 71   | bromodichloromethane      |       |       |       |      |     |      |      | -----NA----- |
| 72   | epichlorohydrin           |       |       |       |      |     |      |      | -----NA----- |
| 73   | cis-1,3-dichloropropene   |       |       |       |      |     |      |      | -----NA----- |
| 74   | 4-methyl-2-pentanone      |       |       |       |      |     |      |      | -----NA----- |
| 75   | 3-methyl-1-butanol        |       |       |       |      |     |      |      | -----NA----- |
| 76 I | chlorobenzene-d5          | 50.00 | 1.000 | 1.000 | 0.0  | 98  | 0.00 | 6.16 |              |
| 77 S | toluene-d8 (s)            | 50.00 | 1.292 | 1.288 | 0.3  | 99  | 0.00 | 4.96 |              |
| 78   | toluene                   |       |       |       |      |     |      |      | -----NA----- |
| 79   | ethyl methacrylate        |       |       |       |      |     |      |      | -----NA----- |
| 80   | trans-1,3-dichloropropene |       |       |       |      |     |      |      | -----NA----- |
| 81   | 1,1,2-trichloroethane     |       |       |       |      |     |      |      | -----NA----- |
| 82   | 2-hexanone                |       |       |       |      |     |      |      | -----NA----- |
| 83   | tetrachloroethene         | 50.00 | 0.367 | 0.361 | 1.6  | 101 | 0.00 | 5.43 |              |
| 84   | 1,3-dichloropropane       |       |       |       |      |     |      |      | -----NA----- |
| 85   | butyl acetate             |       |       |       |      |     |      |      | -----NA----- |
| 86   | dibromochloromethane      |       |       |       |      |     |      |      | -----NA----- |
| 87   | 1,2-dibromoethane         |       |       |       |      |     |      |      | -----NA----- |
| 88   | n-butyl ether             |       |       |       |      |     |      |      | -----NA----- |
| 89   | chlorobenzene             |       |       |       |      |     |      |      | -----NA----- |
| 90   | 1,1,1,2-tetrachloroethane |       |       |       |      |     |      |      | -----NA----- |
| 91   | ethylbenzene              |       |       |       |      |     |      |      | -----NA----- |
| 92   | m,p-xylene                |       |       |       |      |     |      |      | -----NA----- |
| 93   | o-xylene                  |       |       |       |      |     |      |      | -----NA----- |
| 94   | styrene                   |       |       |       |      |     |      |      | -----NA----- |
| 95   | butyl acrylate            |       |       |       |      |     |      |      | -----NA----- |
| 96   | bromoform                 |       |       |       |      |     |      |      | -----NA----- |
| 97   | isopropylbenzene          |       |       |       |      |     |      |      | -----NA----- |
| 98   | cis-1,4-dichloro-2-butene |       |       |       |      |     |      |      | -----NA----- |

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49948.D

|     |   |                           |       |       |       |      |    |      |      |
|-----|---|---------------------------|-------|-------|-------|------|----|------|------|
| 99  | I | 1,4-dichlorobenzene-d4    | 50.00 | 1.000 | 1.000 | 0.0  | 96 | 0.00 | 8.33 |
| 100 | S | 4-bromofluorobenzene (s)  | 50.00 | 1.017 | 1.035 | -1.8 | 99 | 0.00 | 7.23 |
| 101 |   | bromobenzene              |       |       |       |      |    |      |      |
| 102 |   | 1,1,2,2-tetrachloroethane |       |       |       |      |    |      |      |
| 103 |   | trans-1,4-dichloro-2-bute |       |       |       |      |    |      |      |
| 104 |   | 1,2,3-trichloropropane    |       |       |       |      |    |      |      |
| 105 |   | n-propylbenzene           |       |       |       |      |    |      |      |
| 106 |   | 2-chlorotoluene           |       |       |       |      |    |      |      |
| 107 |   | 4-chlorotoluene           |       |       |       |      |    |      |      |
| 108 |   | 4-ethyltoluene            |       |       |       |      |    |      |      |
| 109 |   | 1,3,5-trimethylbenzene    |       |       |       |      |    |      |      |
| 110 |   | tert-butylbenzene         |       |       |       |      |    |      |      |
| 111 |   | 1,2,4-trimethylbenzene    |       |       |       |      |    |      |      |
| 112 |   | sec-butylbenzene          |       |       |       |      |    |      |      |
| 113 |   | 1,3-dichlorobenzene       |       |       |       |      |    |      |      |
| 114 |   | p-isopropyltoluene        |       |       |       |      |    |      |      |
| 115 |   | 1,4-dichlorobenzene       |       |       |       |      |    |      |      |
| 116 |   | 1,2-dichlorobenzene       |       |       |       |      |    |      |      |
| 117 |   | 1,4-diethylbenzene        |       |       |       |      |    |      |      |
| 118 |   | n-butylbenzene            |       |       |       |      |    |      |      |
| 119 |   | 1,2,4,5-tetramethylbenzen |       |       |       |      |    |      |      |
| 120 |   | 1,2-dibromo-3-chloropropa |       |       |       |      |    |      |      |
| 121 |   | 1,3,5-trichlorobenzene    |       |       |       |      |    |      |      |
| 122 |   | 1,2,4-trichlorobenzene    |       |       |       |      |    |      |      |
| 123 |   | hexachlorobutadiene       |       |       |       |      |    |      |      |
| 124 |   | naphthalene               |       |       |       |      |    |      |      |
| 125 |   | 1,2,3-trichlorobenzene    |       |       |       |      |    |      |      |
| 126 |   | hexachloroethane          |       |       |       |      |    |      |      |
| 127 |   | Benzyl chloride           |       |       |       |      |    |      |      |
| 128 |   | 2-ethylhexyl acrylate     |       |       |       |      |    |      |      |
| 129 |   | 2-methylnaphthalene       |       |       |       |      |    |      |      |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M                      Mon Apr 23 10:48:25 2018    RPT1

6.11.3

6

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V1992\2V49952.D Vial: 2  
 Acq On : 23 Apr 2018 9:14 am Operator: JessicaP  
 Sample : icv1992-50 Inst : MS2V  
 Misc : MS25736,V2V1992,5,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:47:36 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | TrueValue      | AvgRF | CCRF         | %Dev    | Area% | Dev(min) | R.T. |
|-----------------------------|----------------|-------|--------------|---------|-------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 500.00         | 1.000 | 1.000        | 0.0     | 110   | 0.00     | 2.27 |
| 2 ethanol                   |                |       | -----NA----- |         |       |          |      |
| 3 M tertiary butyl alcohol  |                |       | -----NA----- |         |       |          |      |
| 4 1,4-dioxane               |                |       | -----NA----- |         |       |          |      |
| 5 I pentafluorobenzene      | 50.00          | 1.000 | 1.000        | 0.0     | 113   | 0.00     | 3.36 |
| 6 chlorodifluoromethane     |                |       | -----NA----- |         |       |          |      |
| 7 dichlorodifluoromethane   |                |       | -----NA----- |         |       |          |      |
| 8 freon 114                 |                |       | -----NA----- |         |       |          |      |
| 9 freon 142b                |                |       | -----NA----- |         |       |          |      |
| 10 chloromethane            |                |       | -----NA----- |         |       |          |      |
| 11 vinyl chloride           |                |       | -----NA----- |         |       |          |      |
|                             | -----TrueValue | CC-RF | Calc.        | % Drift |       |          | R.T. |
| 12 bromomethane             | 50.00          | 0.273 | 49.707       | 0.6     | 113   | 0.00     | 1.49 |
| 13 chloroethane             |                |       | -----NA----- |         |       |          |      |
| 14 trichlorofluoromethane   |                |       | -----NA----- |         |       |          |      |
| 15 vinyl bromide            |                |       | -----NA----- |         |       |          |      |
| 16 1,3-butadiene            |                |       | -----NA----- |         |       |          |      |
| 17 ethyl ether              |                |       | -----NA----- |         |       |          |      |
| 18 2-chloropropane          |                |       | -----NA----- |         |       |          |      |
| 19 acrolein                 |                |       | -----NA----- |         |       |          |      |
| 20 freon 113                |                |       | -----NA----- |         |       |          |      |
| 21 1,1-dichloroethene       |                |       | -----NA----- |         |       |          |      |
| 22 acetone                  |                |       | -----NA----- |         |       |          |      |
| 23 acetonitrile             |                |       | -----NA----- |         |       |          |      |
| 24 iodomethane              |                |       | -----NA----- |         |       |          |      |
| 25 carbon disulfide         |                |       | -----NA----- |         |       |          |      |
| 26 methylene chloride       |                |       | -----NA----- |         |       |          |      |
| 27 methyl acetate           |                |       | -----NA----- |         |       |          |      |
| 28 methyl tert butyl ether  |                |       | -----NA----- |         |       |          |      |
| 29 trans-1,2-dichloroethene |                |       | -----NA----- |         |       |          |      |
| 30 hexane                   |                |       | -----NA----- |         |       |          |      |
| 31 di-isopropyl ether       |                |       | -----NA----- |         |       |          |      |
| 32 ethyl tert-butyl ether   |                |       | -----NA----- |         |       |          |      |
| 33 M 1,1-dichloroethane     |                |       | -----NA----- |         |       |          |      |
| 34 chloroprene              |                |       | -----NA----- |         |       |          |      |
| 35 acrylonitrile            |                |       | -----NA----- |         |       |          |      |
| 36 vinyl acetate            |                |       | -----NA----- |         |       |          |      |
| 37 ethyl acetate            |                |       | -----NA----- |         |       |          |      |
| 38 2-butanone               |                |       | -----NA----- |         |       |          |      |
| 39 2,2-dichloropropane      |                |       | -----NA----- |         |       |          |      |

6.11.4

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

|      |                           | -----TrueValue | AvgRF | CCRF  | % Dev | ----- | R.T.      |
|------|---------------------------|----------------|-------|-------|-------|-------|-----------|
| 40   | cis-1,2-dichloroethene    |                |       |       |       |       |           |
| 41   | propionitrile             |                |       |       |       |       |           |
| 42   | methyl acrylate           |                |       |       |       |       |           |
| 43   | bromochloromethane        |                |       |       |       |       |           |
| 44   | tetrahydrofuran           |                |       |       |       |       |           |
| 45   | chloroform                |                |       |       |       |       |           |
|      |                           |                |       |       |       |       |           |
| 46 S | dibromofluoromethane (s)  | 50.00          | 0.503 | 0.491 | 2.4   | 109   | 0.00 3.35 |
| 47   | methacrylonitrile         |                |       |       |       |       |           |
| 48   | 1,1,1-trichloroethane     |                |       |       |       |       |           |
| 49   | cyclohexane               |                |       |       |       |       |           |
| 50   | 1,1-dichloropropene       |                |       |       |       |       |           |
| 51   | carbon tetrachloride      |                |       |       |       |       |           |
| 52   | isobutyl alcohol          |                |       |       |       |       |           |
| 53   | tert-amyl alcohol         |                |       |       |       |       |           |
|      |                           |                |       |       |       |       |           |
| 54 I | 1,4-difluorobenzene       | 50.00          | 1.000 | 1.000 | 0.0   | 111   | 0.00 3.88 |
| 55 S | 1,2-dichloroethane-d4 (s) | 50.00          | 0.348 | 0.340 | 2.3   | 109   | 0.00 3.58 |
| 56   | n-butyl alcohol           |                |       |       |       |       |           |
| 57 M | benzene                   |                |       |       |       |       |           |
| 58   | tert-amyl methyl ether    |                |       |       |       |       |           |
| 59   | iso-octane                |                |       |       |       |       |           |
| 60   | heptane                   |                |       |       |       |       |           |
| 61   | isopropyl acetate         |                |       |       |       |       |           |
| 62   | 1,2-dichloroethane        |                |       |       |       |       |           |
| 63   | trichloroethene           |                |       |       |       |       |           |
| 64   | ethyl acrylate            |                |       |       |       |       |           |
| 65   | 2-nitropropane            |                |       |       |       |       |           |
| 66   | 2-chloroethyl vinyl ether |                |       |       |       |       |           |
| 67   | methyl methacrylate       |                |       |       |       |       |           |
| 68   | 1,2-dichloropropane       |                |       |       |       |       |           |
| 69   | methylcyclohexane         |                |       |       |       |       |           |
| 70   | dibromomethane            |                |       |       |       |       |           |
| 71   | bromodichloromethane      |                |       |       |       |       |           |
| 72   | epichlorohydrin           |                |       |       |       |       |           |
| 73   | cis-1,3-dichloropropene   |                |       |       |       |       |           |
| 74   | 4-methyl-2-pentanone      |                |       |       |       |       |           |
| 75   | 3-methyl-1-butanol        |                |       |       |       |       |           |
|      |                           |                |       |       |       |       |           |
| 76 I | chlorobenzene-d5          | 50.00          | 1.000 | 1.000 | 0.0   | 106   | 0.00 6.16 |
| 77 S | toluene-d8 (s)            | 50.00          | 1.292 | 1.296 | -0.3  | 108   | 0.00 4.96 |
| 78   | toluene                   |                |       |       |       |       |           |
| 79   | ethyl methacrylate        |                |       |       |       |       |           |
| 80   | trans-1,3-dichloropropene |                |       |       |       |       |           |
| 81   | 1,1,2-trichloroethane     |                |       |       |       |       |           |
| 82   | 2-hexanone                |                |       |       |       |       |           |
| 83   | tetrachloroethene         |                |       |       |       |       |           |
| 84   | 1,3-dichloropropane       |                |       |       |       |       |           |
| 85   | butyl acetate             |                |       |       |       |       |           |
| 86   | dibromochloromethane      |                |       |       |       |       |           |
| 87   | 1,2-dibromoethane         |                |       |       |       |       |           |
| 88   | n-butyl ether             |                |       |       |       |       |           |
| 89   | chlorobenzene             |                |       |       |       |       |           |
| 90   | 1,1,1,2-tetrachloroethane |                |       |       |       |       |           |
| 91   | ethylbenzene              |                |       |       |       |       |           |
| 92   | m,p-xylene                |                |       |       |       |       |           |
| 93   | o-xylene                  |                |       |       |       |       |           |
| 94   | styrene                   |                |       |       |       |       |           |
| 95   | butyl acrylate            |                |       |       |       |       |           |

6.11.4

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V1992-ICV1992  
**Lab FileID:** 2V49952.D

|       |                           |       |       |       |      |     |      |      |              |
|-------|---------------------------|-------|-------|-------|------|-----|------|------|--------------|
| 96    | bromoform                 |       |       |       |      |     |      |      | -----NA----- |
| 97    | isopropylbenzene          |       |       |       |      |     |      |      | -----NA----- |
| 98    | cis-1,4-dichloro-2-butene |       |       |       |      |     |      |      | -----NA----- |
| 99 I  | 1,4-dichlorobenzene-d4    | 50.00 | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 8.33 |              |
| 100 S | 4-bromofluorobenzene (s)  | 50.00 | 1.017 | 1.040 | -2.3 | 106 | 0.00 | 7.23 |              |
| 101   | bromobenzene              |       |       |       |      |     |      |      | -----NA----- |
| 102   | 1,1,2,2-tetrachloroethane |       |       |       |      |     |      |      | -----NA----- |
| 103   | trans-1,4-dichloro-2-bute |       |       |       |      |     |      |      | -----NA----- |
| 104   | 1,2,3-trichloropropane    |       |       |       |      |     |      |      | -----NA----- |
| 105   | n-propylbenzene           |       |       |       |      |     |      |      | -----NA----- |
| 106   | 2-chlorotoluene           |       |       |       |      |     |      |      | -----NA----- |
| 107   | 4-chlorotoluene           |       |       |       |      |     |      |      | -----NA----- |
| 108   | 4-ethyltoluene            |       |       |       |      |     |      |      | -----NA----- |
| 109   | 1,3,5-trimethylbenzene    |       |       |       |      |     |      |      | -----NA----- |
| 110   | tert-butylbenzene         |       |       |       |      |     |      |      | -----NA----- |
| 111   | 1,2,4-trimethylbenzene    |       |       |       |      |     |      |      | -----NA----- |
| 112   | sec-butylbenzene          |       |       |       |      |     |      |      | -----NA----- |
| 113   | 1,3-dichlorobenzene       |       |       |       |      |     |      |      | -----NA----- |
| 114   | p-isopropyltoluene        |       |       |       |      |     |      |      | -----NA----- |
| 115   | 1,4-dichlorobenzene       |       |       |       |      |     |      |      | -----NA----- |
| 116   | 1,2-dichlorobenzene       |       |       |       |      |     |      |      | -----NA----- |
| 117   | 1,4-diethylbenzene        |       |       |       |      |     |      |      | -----NA----- |
| 118   | n-butylbenzene            |       |       |       |      |     |      |      | -----NA----- |
| 119   | 1,2,4,5-tetramethylbenzen |       |       |       |      |     |      |      | -----NA----- |
| 120   | 1,2-dibromo-3-chloropropa |       |       |       |      |     |      |      | -----NA----- |
| 121   | 1,3,5-trichlorobenzene    |       |       |       |      |     |      |      | -----NA----- |
| 122   | 1,2,4-trichlorobenzene    |       |       |       |      |     |      |      | -----NA----- |
| 123   | hexachlorobutadiene       |       |       |       |      |     |      |      | -----NA----- |
| 124   | naphthalene               |       |       |       |      |     |      |      | -----NA----- |
| 125   | 1,2,3-trichlorobenzene    |       |       |       |      |     |      |      | -----NA----- |
| 126   | hexachloroethane          |       |       |       |      |     |      |      | -----NA----- |
| 127   | Benzyl chloride           |       |       |       |      |     |      |      | -----NA----- |
| 128   | 2-ethylhexyl acrylate     |       |       |       |      |     |      |      | -----NA----- |
| 129   | 2-methylnaphthalene       |       |       |       |      |     |      |      | -----NA----- |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2V49942.D    M2V1992.M                      Mon Apr 23 10:48:28 2018    RPT1

6.11.4

6

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V2V2002-CC1992  
 Lab FileID: 2V50183.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\05...nng\v2v2002\2v50183.d Vial: 2  
 Acq On : 30 Apr 2018 6:42 am Operator: JessicaP  
 Sample : cc1992-20 Inst : MS2V  
 Misc : MS25681,V2V2002,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                    | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T. |
|-----------------------------|--------|--------|--------------|-------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 1.000  | 1.000  | 0.0          | 133   | 0.00     | 2.27 |
| 2 ethanol                   | 0.161  | 0.147  | 8.7          | 123   | 0.00     | 1.78 |
| 3 M tertiary butyl alcohol  | 1.448  | 1.337  | 7.7          | 126   | 0.00     | 2.31 |
| 4 1,4-dioxane               | 0.137  | 0.123  | 10.2         | 123   | 0.00     | 4.28 |
| 5 I pentafluorobenzene      | 1.000  | 1.000  | 0.0          | 134   | 0.00     | 3.36 |
| 6 chlorodifluoromethane     | 0.790  | 0.785  | 0.6          | 132   | 0.00     | 1.14 |
| 7 dichlorodifluoromethane   | 0.967  | 0.816  | 15.6         | 110   | 0.00     | 1.13 |
| 8 freon 114                 |        |        | -----NA----- |       |          |      |
| 9 freon 142b                |        |        | -----NA----- |       |          |      |
| 10 chloromethane            | 1.047  | 0.794  | 24.2#        | 100   | 0.00     | 1.24 |
| 11 vinyl chloride           | 0.865  | 0.714  | 17.5         | 111   | 0.00     | 1.30 |
| 12 bromomethane             | 20.000 | 16.923 | 15.4         | 112   | 0.00     | 1.49 |
| 13 chloroethane             | 0.350  | 0.327  | 6.6          | 128   | 0.00     | 1.55 |
| 14 trichlorofluoromethane   | 1.081  | 0.990  | 8.4          | 120   | 0.00     | 1.69 |
| 15 vinyl bromide            | 0.576  | 0.496  | 13.9         | 115   | 0.00     | 1.66 |
| 16 1,3-butadiene            |        |        | -----NA----- |       |          |      |
| 17 ethyl ether              | 0.310  | 0.296  | 4.5          | 130   | 0.00     | 1.85 |
| 18 2-chloropropane          | 0.911  | 0.852  | 6.5          | 125   | 0.00     | 1.92 |
| 19 acrolein                 | 0.181  | 0.173  | 4.4          | 130   | 0.00     | 1.93 |
| 20 freon 113                | 0.376  | 0.366  | 2.7          | 128   | 0.00     | 1.99 |
| 21 1,1-dichloroethene       | 0.970  | 0.927  | 4.4          | 125   | 0.00     | 1.99 |
| 22 acetone                  | 0.074  | 0.070  | 5.4          | 126   | 0.00     | 2.01 |
| 23 acetonitrile             | 0.118  | 0.110  | 6.8          | 124   | 0.00     | 2.17 |
| 24 iodomethane              | 20.000 | 20.699 | -3.5         | 159   | 0.00     | 2.08 |
| 25 carbon disulfide         | 1.494  | 1.436  | 3.9          | 130   | 0.00     | 2.12 |
| 26 methylene chloride       | 0.661  | 0.600  | 9.2          | 125   | 0.00     | 2.27 |
| 27 methyl acetate           | 0.650  | 0.660  | -1.5         | 136   | 0.00     | 2.18 |
| 28 methyl tert butyl ether  | 1.822  | 1.735  | 4.8          | 127   | 0.00     | 2.42 |
| 29 trans-1,2-dichloroethene | 0.586  | 0.545  | 7.0          | 124   | 0.00     | 2.43 |
| 30 hexane                   | 0.355  | 0.371  | -4.5         | 134   | 0.00     | 2.59 |
| 31 di-isopropyl ether       | 2.062  | 1.937  | 6.1          | 124   | 0.00     | 2.70 |
| 32 ethyl tert-butyl ether   | 1.916  | 1.819  | 5.1          | 127   | 0.00     | 2.92 |
| 33 M 1,1-dichloroethane     | 1.225  | 1.151  | 6.0          | 124   | 0.00     | 2.69 |

6.11.5  
6

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2002-CC1992  
**Lab FileID:** 2V50183.D

|    |   |                           |       |       |       |     |      |      |
|----|---|---------------------------|-------|-------|-------|-----|------|------|
| 34 |   | chloroprene               | 0.882 | 0.834 | 5.4   | 123 | 0.00 | 2.73 |
| 35 |   | acrylonitrile             | 0.312 | 0.296 | 5.1   | 124 | 0.00 | 2.40 |
| 36 |   | vinyl acetate             | 0.095 | 0.087 | 8.4   | 119 | 0.00 | 2.68 |
| 37 |   | ethyl acetate             | 0.146 | 0.141 | 3.4   | 125 | 0.00 | 3.04 |
| 38 |   | 2-butanone                | 0.095 | 0.092 | 3.2   | 126 | 0.00 | 3.03 |
| 39 |   | 2,2-dichloropropane       | 0.849 | 0.863 | -1.6  | 137 | 0.00 | 3.05 |
| 40 |   | cis-1,2-dichloroethene    | 0.673 | 0.622 | 7.6   | 123 | 0.00 | 3.04 |
| 41 |   | propionitrile             | 0.147 | 0.140 | 4.8   | 124 | 0.00 | 3.06 |
| 42 |   | methyl acrylate           | 0.128 | 0.120 | 6.3   | 120 | 0.00 | 3.07 |
| 43 |   | bromochloromethane        | 0.300 | 0.299 | 0.3   | 128 | 0.00 | 3.19 |
| 44 |   | tetrahydrofuran           | 0.116 | 0.110 | 5.2   | 122 | 0.00 | 3.19 |
| 45 |   | chloroform                | 1.228 | 1.112 | 9.4   | 123 | 0.00 | 3.25 |
| 46 | S | dibromofluoromethane (s)  | 0.503 | 0.507 | -0.8  | 133 | 0.00 | 3.35 |
| 47 |   | methacrylonitrile         | 0.323 | 0.315 | 2.5   | 125 | 0.00 | 3.16 |
| 48 |   | 1,1,1-trichloroethane     | 0.999 | 0.895 | 10.4  | 120 | 0.00 | 3.36 |
| 49 |   | cyclohexane               | 0.739 | 0.682 | 7.7   | 122 | 0.00 | 3.41 |
| 50 |   | 1,1-dichloropropene       | 0.907 | 0.819 | 9.7   | 122 | 0.00 | 3.46 |
| 51 |   | carbon tetrachloride      | 0.806 | 0.744 | 7.7   | 123 | 0.00 | 3.47 |
| 52 |   | isobutyl alcohol          | 0.042 | 0.040 | 4.8   | 123 | 0.00 | 3.50 |
| 53 |   | tert-amyl alcohol         | 0.039 | 0.037 | 5.1   | 119 | 0.00 | 3.58 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 132 | 0.00 | 3.88 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.348 | 0.350 | -0.6  | 134 | 0.00 | 3.58 |
| 56 |   | n-butyl alcohol           | 0.019 | 0.019 | 0.0   | 122 | 0.00 | 3.95 |
| 57 | M | benzene                   | 1.650 | 1.524 | 7.6   | 122 | 0.00 | 3.60 |
| 58 |   | tert-amyl methyl ether    | 1.226 | 1.182 | 3.6   | 125 | 0.00 | 3.67 |
| 59 |   | iso-octane                | 1.022 | 0.983 | 3.8   | 124 | 0.00 | 3.67 |
| 60 |   | heptane                   | 0.212 | 0.217 | -2.4  | 134 | 0.00 | 3.78 |
| 61 |   | isopropyl acetate         | 0.084 | 0.084 | 0.0   | 126 | 0.00 | 3.61 |
| 62 |   | 1,2-dichloroethane        | 0.632 | 0.576 | 8.9   | 121 | 0.00 | 3.63 |
| 63 |   | trichloroethene           | 0.448 | 0.404 | 9.8   | 120 | 0.00 | 4.04 |
| 64 |   | ethyl acrylate            | 0.673 | 0.658 | 2.2   | 123 | 0.00 | 4.09 |
| 65 |   | 2-nitropropane            | 0.132 | 0.131 | 0.8   | 128 | 0.00 | 4.58 |
| 66 |   | 2-chloroethyl vinyl ether | 0.247 | 0.115 | 53.4# | 58  | 0.00 | 4.63 |
| 67 |   | methyl methacrylate       | 0.327 | 0.315 | 3.7   | 121 | 0.00 | 4.26 |
| 68 |   | 1,2-dichloropropane       | 0.479 | 0.442 | 7.7   | 121 | 0.00 | 4.23 |
| 69 |   | methylcyclohexane         | 0.586 | 0.558 | 4.8   | 121 | 0.00 | 4.22 |
| 70 |   | dibromomethane            | 0.336 | 0.313 | 6.8   | 123 | 0.00 | 4.29 |
| 71 |   | bromodichloromethane      | 0.624 | 0.587 | 5.9   | 123 | 0.00 | 4.42 |
| 72 |   | epichlorohydrin           | 0.054 | 0.054 | 0.0   | 119 | 0.00 | 4.66 |
| 73 |   | cis-1,3-dichloropropene   | 0.703 | 0.692 | 1.6   | 126 | 0.00 | 4.75 |
| 74 |   | 4-methyl-2-pentanone      | 0.224 | 0.222 | 0.9   | 122 | 0.00 | 4.86 |
| 75 |   | 3-methyl-1-butanol        | 0.015 | 0.015 | 0.0   | 124 | 0.00 | 4.90 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 131 | 0.00 | 6.16 |
| 77 | S | toluene-d8 (s)            | 1.292 | 1.287 | 0.4   | 130 | 0.00 | 4.96 |
| 78 |   | toluene                   | 1.142 | 1.038 | 9.1   | 121 | 0.00 | 5.01 |
| 79 |   | ethyl methacrylate        | 0.663 | 0.649 | 2.1   | 121 | 0.00 | 5.24 |
| 80 |   | trans-1,3-dichloropropene | 0.744 | 0.745 | -0.1  | 127 | 0.00 | 5.19 |
| 81 |   | 1,1,2-trichloroethane     | 0.458 | 0.424 | 7.4   | 122 | 0.00 | 5.35 |
| 82 |   | 2-hexanone                | 0.267 | 0.268 | -0.4  | 122 | 0.00 | 5.53 |
| 83 |   | tetrachloroethene         | 0.367 | 0.342 | 6.8   | 121 | 0.00 | 5.43 |
| 84 |   | 1,3-dichloropropane       | 0.759 | 0.718 | 5.4   | 123 | 0.00 | 5.49 |
| 85 |   | butyl acetate             | 0.400 | 0.382 | 4.5   | 121 | 0.00 | 5.63 |
| 86 |   | dibromochloromethane      | 0.543 | 0.532 | 2.0   | 126 | 0.00 | 5.66 |
| 87 |   | 1,2-dibromoethane         | 0.571 | 0.545 | 4.6   | 125 | 0.00 | 5.76 |
| 88 |   | n-butyl ether             | 1.991 | 1.901 | 4.5   | 120 | 0.00 | 6.29 |
| 89 |   | chlorobenzene             | 1.210 | 1.117 | 7.7   | 122 | 0.00 | 6.19 |
| 90 |   | 1,1,1,2-tetrachloroethane | 0.431 | 0.418 | 3.0   | 124 | 0.00 | 6.27 |
| 91 |   | ethylbenzene              | 2.096 | 1.968 | 6.1   | 121 | 0.00 | 6.28 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2002-CC1992  
**Lab FileID:** 2V50183.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 92    | m,p-xylene                | 0.750 | 0.706 | 5.9          | 122 | 0.00 | 6.39  |
| 93    | o-xylene                  | 1.627 | 1.548 | 4.9          | 122 | 0.00 | 6.74  |
| 94    | styrene                   | 1.210 | 1.201 | 0.7          | 125 | 0.00 | 6.75  |
| 95    | butyl acrylate            | 0.476 | 0.477 | -0.2         | 122 | 0.00 | 6.71  |
| 96    | bromoform                 | 0.358 | 0.359 | -0.3         | 127 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 1.842 | 1.732 | 6.0          | 120 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 0.213 | 0.184 | 13.6         | 108 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 129 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 1.017 | 1.016 | 0.1          | 128 | 0.00 | 7.23  |
| 101   | bromobenzene              | 1.066 | 1.026 | 3.8          | 126 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 1.712 | 1.634 | 4.6          | 122 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 0.352 | 0.298 | 15.3         | 103 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 0.358 | 0.346 | 3.4          | 123 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 4.957 | 4.717 | 4.8          | 120 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 0.952 | 0.916 | 3.8          | 124 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 0.968 | 0.902 | 6.8          | 121 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 3.137 | 3.022 | 3.7          | 121 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 2.510 | 2.355 | 6.2          | 120 | 0.00 | 7.93  |
| 111   | 1,2,4-trimethylbenzene    | 3.467 | 3.126 | 9.8          | 123 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 3.862 | 3.663 | 5.2          | 119 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 1.818 | 1.768 | 2.8          | 127 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 3.010 | 2.894 | 3.9          | 122 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 1.873 | 1.784 | 4.8          | 124 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 1.779 | 1.725 | 3.0          | 126 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 118   | n-butylbenzene            | 1.614 | 1.555 | 3.7          | 119 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 0.280 | 0.284 | -1.4         | 127 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 1.174 | 1.169 | 0.4          | 128 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 1.046 | 1.040 | 0.6          | 127 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 0.386 | 0.376 | 2.6          | 127 | 0.00 | 10.42 |
| 124   | naphthalene               | 3.412 | 3.334 | 2.3          | 123 | 0.00 | 10.51 |
| 125   | 1,2,3-trichlorobenzene    | 0.993 | 1.002 | -0.9         | 127 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 0.463 | 0.439 | 5.2          | 121 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 2.126 | 2.524 | -18.7        | 148 | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 0.689 | 0.637 | 7.5          | 126 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 1.333 | 1.401 | -5.1         | 133 | 0.00 | 11.61 |

(#) = Out of Range  
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 23:06:45 2018

6.11.5  
 6

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: V2V2004-CC1992  
 Lab FileID: 2V50234.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\michellc\v2v2004\2v50234.d Vial: 2  
 Acq On : 1 May 2018 6:36 am Operator: JessicaP  
 Sample : cc1992-20 Inst : MS2V  
 Misc : MS25994,V2V2004,5,,,,,1 Multiplr: 1.00  
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V1992.M (RTE Integrator)  
 Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 Last Update : Mon Apr 23 10:50:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                    | AvgRF  | CCRF   | %Dev         | Area% | Dev(min) | R.T. |
|-----------------------------|--------|--------|--------------|-------|----------|------|
| 1 I Tert Butyl Alcohol-d9   | 1.000  | 1.000  | 0.0          | 114   | 0.00     | 2.27 |
| 2 ethanol                   | 0.161  | 0.154  | 4.3          | 110   | 0.00     | 1.78 |
| 3 M tertiary butyl alcohol  | 1.448  | 1.363  | 5.9          | 110   | 0.00     | 2.31 |
| 4 1,4-dioxane               | 0.137  | 0.131  | 4.4          | 113   | 0.00     | 4.27 |
| 5 I pentafluorobenzene      | 1.000  | 1.000  | 0.0          | 119   | 0.00     | 3.36 |
| 6 chlorodifluoromethane     | 0.790  | 0.890  | -12.7        | 132   | 0.00     | 1.14 |
| 7 dichlorodifluoromethane   | 0.967  | 0.835  | 13.7         | 99    | 0.00     | 1.13 |
| 8 freon 114                 |        |        | -----NA----- |       |          |      |
| 9 freon 142b                |        |        | -----NA----- |       |          |      |
| 10 chloromethane            | 1.047  | 0.884  | 15.6         | 98    | 0.00     | 1.24 |
| 11 vinyl chloride           | 0.865  | 0.758  | 12.4         | 104   | 0.00     | 1.30 |
| ----- True                  |        | Calc.  | % Drift      | ----- |          |      |
| 12 bromomethane             | 20.000 | 35.747 | -78.7#       | 187   | 0.00     | 1.49 |
| ----- AvgRF                 |        | CCRF   | % Dev        | ----- |          |      |
| 13 chloroethane             | 0.350  | 0.327  | 6.6          | 113   | 0.00     | 1.55 |
| 14 trichlorofluoromethane   | 1.081  | 1.039  | 3.9          | 112   | 0.00     | 1.70 |
| 15 vinyl bromide            | 0.576  | 0.521  | 9.5          | 107   | 0.00     | 1.66 |
| 16 1,3-butadiene            |        |        | -----NA----- |       |          |      |
| 17 ethyl ether              | 0.310  | 0.320  | -3.2         | 124   | 0.00     | 1.85 |
| 18 2-chloropropane          | 0.911  | 0.909  | 0.2          | 118   | 0.00     | 1.92 |
| 19 acrolein                 | 0.181  | 0.175  | 3.3          | 116   | 0.00     | 1.93 |
| 20 freon 113                | 0.376  | 0.394  | -4.8         | 122   | 0.00     | 1.99 |
| 21 1,1-dichloroethene       | 0.970  | 1.007  | -3.8         | 120   | 0.00     | 1.99 |
| 22 acetone                  | 0.074  | 0.070  | 5.4          | 112   | 0.00     | 2.01 |
| 23 acetonitrile             | 0.118  | 0.110  | 6.8          | 110   | 0.00     | 2.17 |
| ----- True                  |        | Calc.  | % Drift      | ----- |          |      |
| 24 iodomethane              | 20.000 | 9.623  | 51.9#        | 52    | 0.00     | 2.08 |
| ----- AvgRF                 |        | CCRF   | % Dev        | ----- |          |      |
| 25 carbon disulfide         | 1.494  | 1.507  | -0.9         | 121   | 0.00     | 2.12 |
| 26 methylene chloride       | 0.661  | 0.652  | 1.4          | 120   | 0.00     | 2.27 |
| 27 methyl acetate           | 0.650  | 0.650  | 0.0          | 119   | 0.00     | 2.18 |
| 28 methyl tert butyl ether  | 1.822  | 1.829  | -0.4         | 119   | 0.00     | 2.42 |
| 29 trans-1,2-dichloroethene | 0.586  | 0.575  | 1.9          | 115   | 0.00     | 2.43 |
| 30 hexane                   | 0.355  | 0.405  | -14.1        | 130   | 0.00     | 2.59 |
| 31 di-isopropyl ether       | 2.062  | 2.083  | -1.0         | 118   | 0.00     | 2.70 |
| 32 ethyl tert-butyl ether   | 1.916  | 1.911  | 0.3          | 118   | 0.00     | 2.92 |
| 33 M 1,1-dichloroethane     | 1.225  | 1.229  | -0.3         | 117   | 0.00     | 2.69 |

6.11.6  
6



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2004-CC1992  
**Lab FileID:** 2V50234.D

|    |   |                           |       |       |       |     |      |      |
|----|---|---------------------------|-------|-------|-------|-----|------|------|
| 34 |   | chloroprene               | 0.882 | 0.893 | -1.2  | 116 | 0.00 | 2.73 |
| 35 |   | acrylonitrile             | 0.312 | 0.307 | 1.6   | 113 | 0.00 | 2.40 |
| 36 |   | vinyl acetate             | 0.095 | 0.092 | 3.2   | 111 | 0.00 | 2.68 |
| 37 |   | ethyl acetate             | 0.146 | 0.149 | -2.1  | 117 | 0.00 | 3.04 |
| 38 |   | 2-butanone                | 0.095 | 0.094 | 1.1   | 115 | 0.00 | 3.03 |
| 39 |   | 2,2-dichloropropane       | 0.849 | 0.913 | -7.5  | 128 | 0.00 | 3.05 |
| 40 |   | cis-1,2-dichloroethene    | 0.673 | 0.660 | 1.9   | 116 | 0.00 | 3.04 |
| 41 |   | propionitrile             | 0.147 | 0.143 | 2.7   | 112 | 0.00 | 3.07 |
| 42 |   | methyl acrylate           | 0.128 | 0.127 | 0.8   | 112 | 0.00 | 3.07 |
| 43 |   | bromochloromethane        | 0.300 | 0.308 | -2.7  | 116 | 0.00 | 3.19 |
| 44 |   | tetrahydrofuran           | 0.116 | 0.111 | 4.3   | 109 | 0.00 | 3.20 |
| 45 |   | chloroform                | 1.228 | 1.187 | 3.3   | 116 | 0.00 | 3.25 |
| 46 | S | dibromofluoromethane (s)  | 0.503 | 0.519 | -3.2  | 120 | 0.00 | 3.35 |
| 47 |   | methacrylonitrile         | 0.323 | 0.319 | 1.2   | 112 | 0.00 | 3.16 |
| 48 |   | 1,1,1-trichloroethane     | 0.999 | 0.955 | 4.4   | 113 | 0.00 | 3.36 |
| 49 |   | cyclohexane               | 0.739 | 0.714 | 3.4   | 113 | 0.00 | 3.41 |
| 50 |   | 1,1-dichloropropene       | 0.907 | 0.877 | 3.3   | 115 | 0.00 | 3.47 |
| 51 |   | carbon tetrachloride      | 0.806 | 0.749 | 7.1   | 109 | 0.00 | 3.46 |
| 52 |   | isobutyl alcohol          | 0.042 | 0.040 | 4.8   | 110 | 0.00 | 3.50 |
| 53 |   | tert-amyl alcohol         | 0.039 | 0.038 | 2.6   | 108 | 0.00 | 3.58 |
| 54 | I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0   | 120 | 0.00 | 3.88 |
| 55 | S | 1,2-dichloroethane-d4 (s) | 0.348 | 0.361 | -3.7  | 126 | 0.00 | 3.58 |
| 56 |   | n-butyl alcohol           | 0.019 | 0.018 | 5.3   | 107 | 0.00 | 3.95 |
| 57 | M | benzene                   | 1.650 | 1.578 | 4.4   | 115 | 0.00 | 3.60 |
| 58 |   | tert-amyl methyl ether    | 1.226 | 1.189 | 3.0   | 115 | 0.00 | 3.68 |
| 59 |   | iso-octane                | 1.022 | 1.024 | -0.2  | 117 | 0.00 | 3.67 |
| 60 |   | heptane                   | 0.212 | 0.222 | -4.7  | 124 | 0.00 | 3.79 |
| 61 |   | isopropyl acetate         | 0.084 | 0.081 | 3.6   | 110 | 0.00 | 3.61 |
| 62 |   | 1,2-dichloroethane        | 0.632 | 0.615 | 2.7   | 118 | 0.00 | 3.62 |
| 63 |   | trichloroethene           | 0.448 | 0.419 | 6.5   | 113 | 0.00 | 4.04 |
| 64 |   | ethyl acrylate            | 0.673 | 0.666 | 1.0   | 113 | 0.00 | 4.09 |
| 65 |   | 2-nitropropane            | 0.132 | 0.122 | 7.6   | 108 | 0.00 | 4.58 |
| 66 |   | 2-chloroethyl vinyl ether | 0.247 | 0.103 | 58.3# | 47# | 0.00 | 4.63 |
| 67 |   | methyl methacrylate       | 0.327 | 0.324 | 0.9   | 113 | 0.00 | 4.26 |
| 68 |   | 1,2-dichloropropane       | 0.479 | 0.467 | 2.5   | 116 | 0.00 | 4.23 |
| 69 |   | methylcyclohexane         | 0.586 | 0.579 | 1.2   | 114 | 0.00 | 4.22 |
| 70 |   | dibromomethane            | 0.336 | 0.325 | 3.3   | 116 | 0.00 | 4.29 |
| 71 |   | bromodichloromethane      | 0.624 | 0.606 | 2.9   | 115 | 0.00 | 4.42 |
| 72 |   | epichlorohydrin           | 0.054 | 0.054 | 0.0   | 109 | 0.00 | 4.66 |
| 73 |   | cis-1,3-dichloropropene   | 0.703 | 0.705 | -0.3  | 117 | 0.00 | 4.75 |
| 74 |   | 4-methyl-2-pentanone      | 0.224 | 0.225 | -0.4  | 112 | 0.00 | 4.86 |
| 75 |   | 3-methyl-1-butanol        | 0.015 | 0.015 | 0.0   | 106 | 0.00 | 4.90 |
| 76 | I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0   | 119 | 0.00 | 6.17 |
| 77 | S | toluene-d8 (s)            | 1.292 | 1.294 | -0.2  | 119 | 0.00 | 4.96 |
| 78 |   | toluene                   | 1.142 | 1.066 | 6.7   | 113 | 0.00 | 5.01 |
| 79 |   | ethyl methacrylate        | 0.663 | 0.675 | -1.8  | 114 | 0.00 | 5.24 |
| 80 |   | trans-1,3-dichloropropene | 0.744 | 0.757 | -1.7  | 118 | 0.00 | 5.19 |
| 81 |   | 1,1,2-trichloroethane     | 0.458 | 0.438 | 4.4   | 115 | 0.00 | 5.35 |
| 82 |   | 2-hexanone                | 0.267 | 0.267 | 0.0   | 110 | 0.00 | 5.53 |
| 83 |   | tetrachloroethene         | 0.367 | 0.348 | 5.2   | 112 | 0.00 | 5.43 |
| 84 |   | 1,3-dichloropropane       | 0.759 | 0.744 | 2.0   | 116 | 0.00 | 5.49 |
| 85 |   | butyl acetate             | 0.400 | 0.389 | 2.8   | 112 | 0.00 | 5.63 |
| 86 |   | dibromochloromethane      | 0.543 | 0.540 | 0.6   | 116 | 0.00 | 5.66 |
| 87 |   | 1,2-dibromoethane         | 0.571 | 0.551 | 3.5   | 115 | 0.00 | 5.76 |
| 88 |   | n-butyl ether             | 1.991 | 1.962 | 1.5   | 113 | 0.00 | 6.29 |
| 89 |   | chlorobenzene             | 1.210 | 1.136 | 6.1   | 113 | 0.00 | 6.19 |
| 90 |   | 1,1,1,2-tetrachloroethane | 0.431 | 0.420 | 2.6   | 113 | 0.00 | 6.27 |
| 91 |   | ethylbenzene              | 2.096 | 2.009 | 4.2   | 113 | 0.00 | 6.28 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** V2V2004-CC1992  
**Lab FileID:** 2V50234.D

|       |                           |       |       |              |     |      |       |
|-------|---------------------------|-------|-------|--------------|-----|------|-------|
| 92    | m,p-xylene                | 0.750 | 0.710 | 5.3          | 111 | 0.00 | 6.39  |
| 93    | o-xylene                  | 1.627 | 1.576 | 3.1          | 113 | 0.00 | 6.74  |
| 94    | styrene                   | 1.210 | 1.213 | -0.2         | 115 | 0.00 | 6.76  |
| 95    | butyl acrylate            | 0.476 | 0.487 | -2.3         | 113 | 0.00 | 6.71  |
| 96    | bromoform                 | 0.358 | 0.349 | 2.5          | 112 | 0.00 | 6.91  |
| 97    | isopropylbenzene          | 1.842 | 1.757 | 4.6          | 111 | 0.00 | 7.08  |
| 98    | cis-1,4-dichloro-2-butene | 0.213 | 0.215 | -0.9         | 114 | 0.00 | 7.14  |
| 99 I  | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 119 | 0.00 | 8.33  |
| 100 S | 4-bromofluorobenzene (s)  | 1.017 | 1.029 | -1.2         | 120 | 0.00 | 7.23  |
| 101   | bromobenzene              | 1.066 | 1.027 | 3.7          | 116 | 0.00 | 7.36  |
| 102   | 1,1,2,2-tetrachloroethane | 1.712 | 1.624 | 5.1          | 111 | 0.00 | 7.37  |
| 103   | trans-1,4-dichloro-2-bute | 0.352 | 0.349 | 0.9          | 112 | 0.00 | 7.40  |
| 104   | 1,2,3-trichloropropane    | 0.358 | 0.332 | 7.3          | 108 | 0.00 | 7.42  |
| 105   | n-propylbenzene           | 4.957 | 4.767 | 3.8          | 111 | 0.00 | 7.47  |
| 106   | 2-chlorotoluene           | 0.952 | 0.916 | 3.8          | 114 | 0.00 | 7.54  |
| 107   | 4-chlorotoluene           | 0.968 | 0.917 | 5.3          | 113 | 0.00 | 7.66  |
| 108   | 4-ethyltoluene            |       |       | -----NA----- |     |      |       |
| 109   | 1,3,5-trimethylbenzene    | 3.137 | 3.046 | 2.9          | 112 | 0.00 | 7.65  |
| 110   | tert-butylbenzene         | 2.510 | 2.347 | 6.5          | 110 | 0.00 | 7.94  |
| 111   | 1,2,4-trimethylbenzene    | 3.467 | 3.036 | 12.4         | 110 | 0.00 | 8.00  |
| 112   | sec-butylbenzene          | 3.862 | 3.603 | 6.7          | 108 | 0.00 | 8.15  |
| 113   | 1,3-dichlorobenzene       | 1.818 | 1.735 | 4.6          | 114 | 0.00 | 8.25  |
| 114   | p-isopropyltoluene        | 3.010 | 2.835 | 5.8          | 109 | 0.00 | 8.31  |
| 115   | 1,4-dichlorobenzene       | 1.873 | 1.753 | 6.4          | 112 | 0.00 | 8.35  |
| 116   | 1,2-dichlorobenzene       | 1.779 | 1.702 | 4.3          | 114 | 0.00 | 8.69  |
| 117   | 1,4-diethylbenzene        |       |       | -----NA----- |     |      |       |
| 118   | n-butylbenzene            | 1.614 | 1.552 | 3.8          | 110 | 0.00 | 8.70  |
| 119   | 1,2,4,5-tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 120   | 1,2-dibromo-3-chloropropa | 0.280 | 0.265 | 5.4          | 109 | 0.00 | 9.46  |
| 121   | 1,3,5-trichlorobenzene    | 1.174 | 1.120 | 4.6          | 113 | 0.00 | 9.64  |
| 122   | 1,2,4-trichlorobenzene    | 1.046 | 0.986 | 5.7          | 110 | 0.00 | 10.27 |
| 123   | hexachlorobutadiene       | 0.386 | 0.358 | 7.3          | 112 | 0.00 | 10.42 |
| 124   | naphthalene               | 3.412 | 3.075 | 9.9          | 105 | 0.00 | 10.51 |
| 125   | 1,2,3-trichlorobenzene    | 0.993 | 0.935 | 5.8          | 109 | 0.00 | 10.73 |
| 126   | hexachloroethane          | 0.463 | 0.417 | 9.9          | 106 | 0.00 | 8.95  |
| 127   | Benzyl chloride           | 2.126 | 2.378 | -11.9        | 129 | 0.00 | 8.47  |
| 128   | 2-ethylhexyl acrylate     | 0.689 | 0.554 | 19.6         | 101 | 0.00 | 10.52 |
| 129   | 2-methylnaphthalene       | 1.333 | 1.104 | 17.2         | 96  | 0.00 | 11.60 |

(#) = Out of Range  
 2V49941.D M2V1992.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 02:23:46 2018

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 6

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICC10811  
**Lab FileID:** E251861.D

## Response Factor Report MSE

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)  
 Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 19 08:11:48 2018  
 Response via : Initial Calibration

### Calibration Files

1 =E251856.D 4 =E251858.D 100 =E251862.D 50 =E251861.D  
 20 =E251860.D 200 =E251863.D 8 =E251859.D 0.5 =E251855.D  
 2 =E251857.D =

| Compound  | 1 | 4 | 100 | 50 | 20 | 200 | 8 | 0.5 | 2     | Avg   | %RSD  |
|---|---|---|-----|----|----|-----|---|-----|-------|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD-----             |   |   |     |    |    |     |   |     |       |       |       |
| 2) ethanol  |   |   |     |    |    |     |   |     |       | 0.000 | -1.00 |
| 3) tertiary butyl alcohol                             |   |   |     |    |    |     |   |     |       |       |       |
| 1.350 1.426 1.356 1.338 1.374 1.359 1.293             |   |   |     |    |    |     |   |     | 1.236 | 1.341 | 4.20  |
| 4) 1,4-dioxane  |   |   |     |    |    |     |   |     |       |       |       |
| 0.112 0.125 0.126 0.125 0.125 0.118                   |   |   |     |    |    |     |   |     | 0.095 | 0.118 | 9.62  |
| 5) I pentafluorobenzene -----ISTD-----                |   |   |     |    |    |     |   |     |       |       |       |
| 6) chlorodifluoromethane                              |   |   |     |    |    |     |   |     |       |       |       |
| 1.570 1.559 1.460 1.547 1.538 1.368 1.536 1.901 1.531 |   |   |     |    |    |     |   |     |       | 1.557 | 9.23  |
| 7) dichlorodifluoromethane                            |   |   |     |    |    |     |   |     |       |       |       |
| 1.072 1.276 1.254 1.352 1.342 1.198 1.313 1.116 1.265 |   |   |     |    |    |     |   |     |       | 1.243 | 7.82  |
| 8) chloromethane                                      |   |   |     |    |    |     |   |     |       |       |       |
| 2.057 1.936 1.793 1.902 1.940 1.679 1.991             |   |   |     |    |    |     |   |     | 2.076 | 1.922 | 6.91  |
| 9) vinyl chloride                                     |   |   |     |    |    |     |   |     |       |       |       |
| 1.804 1.766 1.650 1.760 1.781 1.579 1.795             |   |   |     |    |    |     |   |     | 1.774 | 1.739 | 4.62  |
| 10) 1,3-butadiene                                     |   |   |     |    |    |     |   |     |       | 0.000 | -1.00 |
| 11) bromomethane                                      |   |   |     |    |    |     |   |     |       |       |       |
| 1.067 0.914 0.955 1.000 0.853 1.034                   |   |   |     |    |    |     |   |     | 1.119 | 0.992 | 9.27  |
| 12) chloroethane                                      |   |   |     |    |    |     |   |     |       |       |       |
| 0.880 0.829 0.744 0.758 0.788 0.712 0.795             |   |   |     |    |    |     |   |     | 0.767 | 0.784 | 6.65  |
| 13) trichlorofluoromethane                            |   |   |     |    |    |     |   |     |       |       |       |
| 1.296 1.348 1.287 1.352 1.377 1.274 1.391 1.401 1.413 |   |   |     |    |    |     |   |     |       | 1.349 | 3.86  |
| 14) vinyl bromide                                     |   |   |     |    |    |     |   |     |       |       |       |
| 0.848 0.891 0.857 0.884 0.915 0.840 0.897 1.130 0.963 |   |   |     |    |    |     |   |     |       | 0.914 | 9.78  |
| 15) ethyl ether                                       |   |   |     |    |    |     |   |     |       |       |       |
| 0.337 0.335 0.330 0.328 0.332 0.321 0.325             |   |   |     |    |    |     |   |     | 0.328 | 0.330 | 1.58  |
| 16) 2-chloropropane                                   |   |   |     |    |    |     |   |     |       |       |       |
| 1.471 1.328 1.344 1.439 1.311 1.431                   |   |   |     |    |    |     |   |     | 1.592 | 1.417 | 6.98  |
| 17) acrolein  |   |   |     |    |    |     |   |     |       |       |       |
| 0.117 0.134 0.126 0.130 0.133 0.122                   |   |   |     |    |    |     |   |     | 0.107 | 0.124 | 7.96  |
| 18) freon 113   |   |   |     |    |    |     |   |     |       |       |       |
| 0.532 0.579 0.587 0.620 0.618 0.592 0.602             |   |   |     |    |    |     |   |     | 0.615 | 0.593 | 4.88  |
| 19) 1,1-dichloroethene                                |   |   |     |    |    |     |   |     |       |       |       |
| 0.681 0.736 0.679 0.682 0.708 0.692 0.699             |   |   |     |    |    |     |   |     | 0.742 | 0.703 | 3.53  |
| 20) acetone   |   |   |     |    |    |     |   |     |       |       |       |
| 0.047 0.048 0.048 0.048 0.048 0.047                   |   |   |     |    |    |     |   |     | 0.044 | 0.047 | 2.94  |
| 21) acetonitrile                                      |   |   |     |    |    |     |   |     |       |       |       |
| 0.102 0.096 0.095 0.102 0.092 0.102                   |   |   |     |    |    |     |   |     | 0.109 | 0.100 | 5.92  |
| 22) iodomethane                                       |   |   |     |    |    |     |   |     |       |       |       |
| 1.104 1.094 1.078 1.081 1.120 1.074 1.115 1.194 1.119 |   |   |     |    |    |     |   |     |       | 1.109 | 3.30  |
| 23) carbon disulfide                                  |   |   |     |    |    |     |   |     |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICC10811  
**Lab FileID:** E251861.D

|     |                          |  |       |       |       |       |       |       |       |       |       |       |
|-----|--------------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 24) | methylen chloride        | 2.826  | 2.674 | 2.434 | 2.528 | 2.643 | 2.354 | 2.641 | 3.140 | 2.758 | 2.666 | 8.70  |
| 25) | methyl acetate           | 0.839  | 0.784 | 0.754 | 0.746 | 0.787 | 0.754 | 0.798 | 0.903 | 0.782 | 0.794 | 6.24  |
| 26) | methyl tert butyl ether  | 0.485  | 0.433 | 0.451 | 0.469 | 0.414 | 0.462 |       | 0.480 | 0.456 | 5.57  |       |
| 27) | trans-1,2-dichloroethene | 2.241  | 2.190 | 2.177 | 2.132 | 2.202 | 2.065 | 2.171 | 2.333 | 2.166 | 2.186 | 3.36  |
| 28) | hexane                   | 0.803  | 0.706 | 0.633 | 0.643 | 0.666 | 0.630 | 0.655 | 0.698 | 0.698 | 0.681 | 7.91  |
| 29) | di-isopropyl ether       | 0.498  | 0.484 | 0.469 | 0.484 | 0.495 | 0.472 | 0.483 | 0.453 | 0.469 | 0.478 | 2.93  |
| 30) | 2-butanone               | 2.900  | 2.756 | 2.731 | 2.733 | 2.798 | 2.532 | 2.744 | 3.294 | 2.717 | 2.800 | 7.43  |
| 31) | 1,1-dichloroethane       | 0.044  | 0.057 | 0.061 | 0.058 | 0.058 | 0.059 | 0.055 |       | 0.048 | 0.055 | 11.10 |
| 32) | chloroprene              | 1.302  | 1.287 | 1.207 | 1.236 | 1.256 | 1.171 | 1.263 | 1.381 | 1.285 | 1.265 | 4.75  |
| 33) | acrylonitrile            | 1.092  | 1.037 | 0.989 | 1.001 | 1.034 | 0.963 | 1.012 | 1.134 | 0.988 | 1.028 | 5.31  |
| 34) | vinyl acetate            | 0.204  | 0.220 | 0.215 | 0.218 | 0.217 | 0.209 |       | 0.175 | 0.208 | 7.57  |       |
| 35) | ethyl tert-butyl ether   | 0.072  | 0.089 | 0.088 | 0.088 | 0.086 | 0.087 | 0.072 |       | 0.082 | 9.79  |       |
| 36) | ethyl acetate            | 2.713  | 2.520 | 2.533 | 2.510 | 2.588 | 2.386 | 2.490 | 2.888 | 2.556 | 2.576 | 5.65  |
| 37) | 2,2-dichloropropane      | 0.073  | 0.092 | 0.088 | 0.094 | 0.086 | 0.087 |       |       | 0.087 | 8.41  |       |
| 38) | cis-1,2-dichloroethene   | 1.304  | 1.159 | 1.084 | 1.123 | 1.159 | 1.037 | 1.155 |       | 1.219 | 1.155 | 7.04  |
| 39) | propionitrile            | 0.794  | 0.746 | 0.700 | 0.699 | 0.709 | 0.684 | 0.719 | 0.666 | 0.734 | 0.717 | 5.26  |
| 40) | methyl acrylate          | 0.091  | 0.095 | 0.094 | 0.092 | 0.097 | 0.088 | 0.092 | 0.089 | 0.093 | 0.092 | 3.23  |
| 41) | methacrylonitrile        | 0.044  | 0.078 | 0.072 | 0.076 | 0.075 | 0.067 |       |       | 0.069 | 18.26 |       |
| 42) | bromochloromethane       | 0.193  | 0.218 | 0.207 | 0.210 | 0.211 | 0.194 |       | 0.190 | 0.203 | 5.43  |       |
| 43) | tetrahydrofuran          | 0.325  | 0.304 | 0.312 | 0.312 | 0.316 | 0.306 | 0.307 | 0.219 | 0.307 | 0.301 | 10.47 |
| 44) | chloroform               | 0.185  | 0.229 | 0.180 | 0.191 | 0.219 | 0.245 |       |       | 0.208 | 12.71 |       |
| 45) | tert-Butyl Formate       | 1.199  | 1.123 | 1.080 | 1.072 | 1.114 | 1.036 | 1.116 | 1.310 | 1.153 | 1.134 | 7.15  |
| 46) | dibromofluoromethane (s) | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |       |       |
| 47) | 1,1,1-trichloroethane    | 0.727  | 0.707 | 0.739 | 0.725 | 0.749 | 0.685 | 0.691 | 0.761 | 0.744 | 0.725 | 3.62  |
| 48) | cyclohexane              | 0.476  | 0.482 | 0.489 | 0.479 | 0.478 | 0.486 | 0.484 | 0.487 | 0.476 | 0.482 | 1.03  |
| 49) | isobutyl alcohol         | 1.228  | 1.176 | 1.148 | 1.153 | 1.163 | 1.122 | 1.156 | 1.448 | 1.222 | 1.202 | 8.20  |
| 50) | 1,1-dichloropropene      | 1.224  | 1.412 | 1.346 | 1.450 | 1.459 | 1.374 | 1.415 | 1.221 | 1.349 | 1.361 | 6.47  |
| 51) | carbon tetrachloride     |  |       |       |       |       |       |       |       | 0.000 | -1.00 |       |
| 52) | tert-amyl alcohol        | 0.949  | 0.902 | 0.833 | 0.859 | 0.876 | 0.817 | 0.883 | 0.969 | 0.884 | 0.886 | 5.54  |
|     |                          | 0.977  | 0.973 | 0.946 | 0.964 | 0.968 | 0.935 | 0.959 | 1.181 | 0.924 | 0.981 | 7.86  |
|     |                          | 0.035  | 0.039 | 0.038 | 0.039 | 0.038 | 0.039 |       | 0.038 | 0.038 | 3.83  |       |

6.11.7  
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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICC10811  
**Lab FileID:** E251861.D

|       |                           |                |       |       |       |       |       |       |       |       |       |      |
|-------|---------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 53)   | isopropyl acetate         | 0.099          | 0.120 | 0.112 | 0.104 | 0.118 | 0.104 | 0.107 | 0.109 | 7.24  |       |      |
| 54) I | 1,4-difluorobenzene       | -----ISTD----- |       |       |       |       |       |       |       |       |       |      |
| 55)   | 1,2-dichloroethane-d4 (s) | 0.349          | 0.361 | 0.346 | 0.343 | 0.368 | 0.329 | 0.356 | 0.366 | 0.360 | 0.353 | 3.50 |
| 56)   | n-butyl alcohol           | 0.008          | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 6.68 |
| 57)   | 2,2,4-trimethylpentane    | 1.683          | 1.780 | 1.822 | 1.886 | 1.869 | 1.766 | 1.722 | 1.680 | 1.692 | 1.767 | 4.48 |
| 58)   | benzene                   | 1.814          | 1.794 | 1.591 | 1.649 | 1.714 | 1.470 | 1.696 | 2.034 | 1.777 | 1.727 | 9.17 |
| 59)   | tert-amyl methyl ether    | 1.641          | 1.515 | 1.454 | 1.472 | 1.556 | 1.328 | 1.504 | 1.669 | 1.601 | 1.527 | 6.87 |
| 60)   | heptane                   | 0.322          | 0.333 | 0.298 | 0.304 | 0.322 | 0.295 | 0.297 | 0.265 | 0.279 | 0.302 | 7.17 |
| 61)   | 1,2-dichloroethane        | 0.591          | 0.542 | 0.494 | 0.498 | 0.518 | 0.467 | 0.522 | 0.546 | 0.522 | 0.522 | 7.31 |
| 62)   | ethyl acrylate            | 0.376          | 0.408 | 0.453 | 0.428 | 0.443 | 0.426 | 0.431 | 0.380 | 0.418 | 0.418 | 6.70 |
| 63)   | trichloroethene           | 0.439          | 0.436 | 0.400 | 0.399 | 0.412 | 0.393 | 0.408 | 0.430 | 0.422 | 0.415 | 4.08 |
| 64)   | 2-chloroethyl vinyl ether | 0.218          | 0.227 | 0.233 | 0.230 | 0.241 | 0.211 | 0.225 | 0.216 | 0.220 | 0.225 | 4.11 |
| 65)   | methyl methacrylate       | 0.074          | 0.092 | 0.085 | 0.084 | 0.090 | 0.073 | 0.083 | 0.083 | 0.083 | 0.083 | 9.57 |
| 66)   | methylcyclohexane         | 0.909          | 0.944 | 0.906 | 0.949 | 0.951 | 0.884 | 0.911 | 0.928 | 0.892 | 0.919 | 2.69 |
| 67)   | 1,2-dichloropropane       | 0.465          | 0.467 | 0.461 | 0.452 | 0.458 | 0.442 | 0.464 | 0.541 | 0.475 | 0.469 | 6.07 |
| 68)   | dibromomethane            | 0.233          | 0.228 | 0.227 | 0.223 | 0.234 | 0.219 | 0.224 | 0.226 | 0.229 | 0.227 | 2.06 |
| 69)   | bromodichloromethane      | 0.599          | 0.562 | 0.552 | 0.547 | 0.563 | 0.529 | 0.543 | 0.550 | 0.541 | 0.554 | 3.58 |
| 70)   | 2-nitropropane            | 0.126          | 0.130 | 0.128 | 0.136 | 0.125 | 0.129 | 0.129 | 0.129 | 0.129 | 0.129 | 3.02 |
| 71)   | epichlorohydrin           | 0.036          | 0.037 | 0.036 | 0.040 | 0.036 | 0.039 | 0.037 | 0.037 | 0.038 | 0.038 | 3.99 |
| 72)   | cis-1,3-dichloropropene   | 0.702          | 0.678 | 0.686 | 0.674 | 0.703 | 0.653 | 0.678 | 0.756 | 0.665 | 0.688 | 4.36 |
| 73)   | 4-methyl-2-pentanone      | 0.144          | 0.152 | 0.161 | 0.154 | 0.157 | 0.151 | 0.154 | 0.158 | 0.147 | 0.153 | 3.56 |
| 74)   | isoamyl alcohol           | 0.012          | 0.013 | 0.012 | 0.012 | 0.013 | 0.012 | 0.011 | 0.011 | 0.012 | 0.012 | 5.26 |
| 75) I | chlorobenzene-d5          | -----ISTD----- |       |       |       |       |       |       |       |       |       |      |
| 76)   | toluene-d8 (s)            | 1.250          | 1.249 | 1.224 | 1.232 | 1.243 | 1.227 | 1.252 | 1.272 | 1.237 | 1.243 | 1.20 |
| 77)   | toluene                   | 1.103          | 1.102 | 0.978 | 1.015 | 1.050 | 0.925 | 1.042 | 1.258 | 1.060 | 1.059 | 8.84 |
| 78)   | ethyl methacrylate        | 0.486          | 0.449 | 0.500 | 0.490 | 0.490 | 0.477 | 0.476 | 0.484 | 0.462 | 0.479 | 3.24 |
| 79)   | trans-1,3-dichloropropene | 0.632          | 0.593 | 0.578 | 0.586 | 0.616 | 0.546 | 0.623 | 0.696 | 0.631 | 0.611 | 6.93 |
| 80)   | 1,1,2-trichloroethane     | 0.253          | 0.273 | 0.279 | 0.279 | 0.280 | 0.270 | 0.281 | 0.266 | 0.269 | 0.272 | 3.31 |
| 81)   | tetrachloroethene         | 0.351          | 0.357 | 0.336 | 0.343 | 0.354 | 0.333 | 0.356 | 0.364 | 0.377 | 0.352 | 3.90 |
| 82)   | 2-hexanone                | 0.123          | 0.131 | 0.139 | 0.140 | 0.143 | 0.134 | 0.134 | 0.125 | 0.129 | 0.133 | 5.03 |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICC10811  
**Lab FileID:** E251861.D

|      |  |       |       |       |       |       |       |       |       |       |       |       |
|------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)  | 1,3-dichloropropane                    | 0.624 | 0.588 | 0.557 | 0.559 | 0.585 | 0.522 | 0.577 | 0.558 | 0.585 | 0.573 | 4.92  |
| 84)  | butyl acetate                          | 0.232 | 0.244 | 0.262 | 0.255 | 0.266 | 0.254 | 0.256 | 0.195 | 0.242 | 0.245 | 8.88  |
| 85)  | dibromochloromethane                   | 0.392 | 0.377 | 0.377 | 0.373 | 0.380 | 0.367 | 0.378 | 0.420 | 0.389 | 0.384 | 4.02  |
| 86)  | 1,2-dibromoethane                      | 0.353 | 0.342 | 0.342 | 0.336 | 0.354 | 0.330 | 0.347 | 0.304 | 0.341 | 0.339 | 4.43  |
| 87)  | n-butyl ether                          | 2.382 | 2.237 | 2.004 | 2.130 | 2.234 | 1.787 | 2.175 | 2.422 | 2.301 | 2.186 | 8.97  |
| 88)  | chlorobenzene                          | 1.224 | 1.183 | 1.085 | 1.111 | 1.145 | 1.022 | 1.136 | 1.319 | 1.180 | 1.156 | 7.35  |
| 89)  | 1,1,1,2-tetrachloroethane              | 0.473 | 0.501 | 0.468 | 0.473 | 0.496 | 0.454 | 0.472 | 0.532 | 0.477 | 0.483 | 4.83  |
| 90)  | ethylbenzene                           | 2.139 | 2.063 | 1.834 | 1.927 | 2.035 | 1.656 | 2.006 | 2.342 | 2.004 | 2.001 | 9.56  |
| 91)  | m,p-xylene                             | 0.775 | 0.757 | 0.717 | 0.741 | 0.764 | 0.680 | 0.754 | 0.882 | 0.806 | 0.764 | 7.42  |
| 92)  | o-xylene                               | 1.786 | 1.783 | 1.630 | 1.711 | 1.776 | 1.492 | 1.741 | 1.955 | 1.768 | 1.738 | 7.25  |
| 93)  | styrene                                | 1.303 | 1.270 | 1.246 | 1.255 | 1.297 | 1.169 | 1.258 | 1.313 | 1.237 | 1.261 | 3.46  |
| 94)  | butyl acrylate                         | 0.856 | 0.858 | 0.844 | 0.833 | 0.873 | 0.812 | 0.832 | 0.877 | 0.802 | 0.843 | 3.08  |
| 95)  | isopropylbenzene                       | 2.431 | 2.324 | 2.043 | 2.213 | 2.310 | 1.849 | 2.297 | 2.548 | 2.354 | 2.263 | 9.21  |
| 96)  | bromoform                              | 0.228 | 0.258 | 0.253 | 0.247 | 0.252 | 0.251 | 0.238 | 0.226 | 0.234 | 0.243 | 4.85  |
| 97)  | cis-1,4-dichloro-2-butene              | 0.149 | 0.156 | 0.151 | 0.154 | 0.152 | 0.154 |       | 0.157 | 0.153 | 1.74  |       |
| 98)  | I 1,4-dichlorobenzene-d -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 99)  | 4-bromofluorobenzene (s)               | 0.789 | 0.810 | 0.821 | 0.796 | 0.803 | 0.799 | 0.812 | 0.803 | 0.793 | 0.803 | 1.26  |
| 100) | 1,1,1,2-tetrachloroethane              | 0.808 | 0.808 | 0.785 | 0.784 | 0.810 | 0.717 | 0.805 | 0.859 | 0.802 | 0.798 | 4.66  |
| 101) | trans-1,4-dichloro-2-butene            | 0.221 | 0.217 | 0.197 | 0.199 | 0.211 | 0.186 | 0.200 | 0.190 | 0.203 | 6.17  |       |
| 102) | 1,2,3-trichloropropane                 | 0.179 | 0.208 | 0.195 | 0.192 | 0.197 | 0.181 | 0.189 | 0.199 | 0.193 | 4.87  |       |
| 103) | bromobenzene                           | 0.856 | 0.841 | 0.849 | 0.847 | 0.859 | 0.799 | 0.854 | 1.003 | 0.839 | 0.861 | 6.54  |
| 104) | n-propylbenzene                        | 4.349 | 4.372 | 3.780 | 4.059 | 4.331 | 3.198 | 4.296 | 4.778 | 4.443 | 4.179 | 10.93 |
| 105) | 2-chlorotoluene                        | 0.878 | 0.872 | 0.877 | 0.875 | 0.893 | 0.833 | 0.874 | 0.847 | 0.818 | 0.863 | 2.84  |
| 106) | 4-chlorotoluene                        | 2.636 | 2.484 | 2.296 | 2.374 | 2.515 | 2.087 | 2.498 | 2.856 | 2.613 | 2.484 | 8.82  |
| 107) | 1,3,5-trimethylbenzene                 | 3.411 | 3.400 | 3.047 | 3.251 | 3.389 | 2.647 | 3.346 | 3.750 | 3.351 | 3.288 | 9.17  |
| 108) | tert-butylbenzene                      | 2.982 | 2.911 | 2.782 | 2.936 | 3.034 | 2.476 | 2.999 | 3.396 | 2.960 | 2.942 | 8.18  |
| 109) | 1,2,4-trimethylbenzene                 | 3.464 | 3.353 | 3.043 | 3.233 | 3.398 | 2.652 | 3.327 | 3.698 | 3.358 | 3.281 | 8.95  |
| 110) | sec-butylbenzene                       | 4.683 | 4.592 | 4.017 | 4.385 | 4.613 | 3.399 | 4.525 | 5.062 | 4.480 | 4.417 | 10.64 |
| 111) | p-isopropyltoluene                     | 3.919 | 3.780 | 3.450 | 3.675 | 3.821 | 2.977 | 3.772 | 4.121 | 3.875 | 3.710 | 8.87  |
| 112) | 1,3-dichlorobenzene                    | 1.982 | 1.863 | 1.695 | 1.749 | 1.829 | 1.559 | 1.822 | 2.188 | 1.882 | 1.841 | 9.64  |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICC10811  
**Lab FileID:** E251861.D

|      |                             |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 113) | 1,4-dichlorobenzene         | 1.980 | 1.883 | 1.729 | 1.780 | 1.853 | 1.595 | 1.861 | 2.137 | 1.960 | 1.864 | 8.38  |
| 114) | 1,2-dichlorobenzene         | 1.993 | 1.894 | 1.767 | 1.830 | 1.888 | 1.600 | 1.867 | 2.051 | 1.953 | 1.871 | 7.09  |
| 115) | benzyl Chloride             | 1.913 | 1.815 | 1.666 | 1.723 | 1.813 | 1.497 | 1.729 | 1.974 | 1.863 | 1.777 | 8.05  |
| 116) | n-butylbenzene              | 1.914 | 2.045 | 1.941 | 2.019 | 2.059 | 1.757 | 2.007 | 2.048 | 1.997 | 1.976 | 4.85  |
| 117) | 2-ethylhexyl acrylate       | 1.022 | 1.515 | 1.411 | 1.181 | 1.519 | 1.114 |       | 1.080 |       | 1.263 | 16.82 |
| 118) | hexachloroethane            | 0.612 | 0.669 | 0.726 | 0.719 | 0.715 | 0.699 | 0.677 | 0.736 | 0.661 | 0.690 | 5.74  |
| 119) | 1,2-dibromo-3-chloropropane | 0.143 | 0.166 | 0.173 | 0.173 | 0.171 | 0.164 | 0.170 |       | 0.146 | 0.163 | 7.31  |
| 120) | 1,3,5-trichlorobenzene      | 1.885 | 1.740 | 1.782 | 1.860 | 1.869 | 1.562 | 1.793 | 2.037 | 1.793 | 1.813 | 7.05  |
| 121) | nitrobenzene                |       | 0.063 | 0.055 | 0.050 | 0.065 | 0.043 |       |       |       | 0.055 | 16.46 |
| 122) | 1,2,4-trichlorobenzene      | 1.185 | 1.198 | 1.376 | 1.390 | 1.367 | 1.216 | 1.285 |       | 1.228 | 1.281 | 6.70  |
| 123) | hexachlorobutadiene         | 0.826 | 0.762 | 0.742 | 0.786 | 0.801 | 0.675 | 0.785 |       | 0.794 | 0.771 | 6.02  |
| 124) | naphthalene                 | 1.961 | 2.034 | 2.348 | 2.397 | 2.373 | 2.019 | 2.149 |       | 2.045 | 2.166 | 8.29  |
| 125) | 1,2,3-trichlorobenzene      | 0.919 | 0.843 | 0.998 | 1.001 | 1.003 | 0.905 | 0.925 |       | 0.902 | 0.937 | 6.22  |
| 126) | 2-methylnaphthalene         |       | 0.735 | 0.629 | 0.542 | 0.740 | 0.488 |       |       |       | 0.627 | 18.03 |

-----  
(#) = Out of Range ### Number of calibration levels exceeded format ###

ME10811.M

Thu Apr 19 08:12:40 2018

RPT1

6.11.7

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICV10811  
**Lab FileID:** E251866.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VE10811\E251866.D Vial: 13  
 Acq On : 18 Apr 2018 9:36 pm Operator: ThienN  
 Sample : icv10811-50 Inst : MSE  
 Misc : MS25604,VE10811,5,,100,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)  
 Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 19 10:52:27 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 99    | 0.00     | 7.75  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.341 | 1.376 | -2.6         | 102   | 0.02     | 7.87  |
| 4   | 1,4-dioxane              | 0.118 | 0.122 | -3.4         | 96    | 0.00     | 11.66 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 104   | 0.00     | 10.02 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |       |
| 7   | dichlorodifluoromethane  | 1.243 | 1.022 | 17.8         | 79    | 0.00     | 4.51  |
| 8   | chloromethane            | 1.922 | 1.614 | 16.0         | 88    | 0.00     | 4.87  |
| 9   | vinyl chloride           | 1.739 | 1.421 | 18.3         | 84    | 0.00     | 5.11  |
| 10  | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 11  | bromomethane             | 0.992 | 0.854 | 13.9         | 93    | 0.00     | 5.71  |
| 12  | chloroethane             | 0.784 | 0.682 | 13.0         | 94    | 0.02     | 5.88  |
| 13  | trichlorofluoromethane   | 1.349 | 1.141 | 15.4         | 88    | 0.00     | 6.34  |
| 14  | vinyl bromide            | 0.914 | 0.862 | 5.7          | 102   | 0.00     | 6.22  |
| 15  | ethyl ether              | 0.330 | 0.292 | 11.5         | 93    | 0.00     | 6.68  |
| 16  | 2-chloropropane          | 1.417 | 1.191 | 15.9         | 92    | 0.00     | 6.92  |
| 17  | acrolein                 | 0.124 | 0.134 | -8.1         | 111   | 0.00     | 6.92  |
| 18  | freon 113                | 0.593 | 0.589 | 0.7          | 99    | 0.00     | 7.14  |
| 19  | 1,1-dichloroethene       | 0.703 | 0.537 | 23.6         | 82    | 0.00     | 7.13  |
| 20  | acetone                  | 0.047 | 0.046 | 2.1          | 102   | 0.00     | 7.11  |
| 21  | acetonitrile             |       |       | -----NA----- |       |          |       |
| 22  | iodomethane              | 1.109 | 1.071 | 3.4          | 103   | 0.00     | 7.40  |
| 23  | carbon disulfide         | 2.666 | 2.520 | 5.5          | 104   | 0.00     | 7.55  |
| 24  | methylene chloride       | 0.794 | 0.696 | 12.3         | 97    | 0.00     | 7.82  |
| 25  | methyl acetate           | 0.456 | 0.385 | 15.6         | 89    | 0.00     | 7.56  |
| 26  | methyl tert butyl ether  | 2.186 | 1.978 | 9.5          | 97    | 0.00     | 8.17  |
| 27  | trans-1,2-dichloroethene | 0.681 | 0.559 | 17.9         | 91    | 0.00     | 8.21  |
| 28  | hexane                   | 0.478 | 0.380 | 20.5         | 82    | 0.00     | 8.54  |
| 29  | di-isopropyl ether       | 2.800 | 2.607 | 6.9          | 99    | 0.00     | 8.75  |
| 30  | 2-butanone               | 0.055 | 0.057 | -3.6         | 101   | 0.00     | 9.42  |
| 31  | 1,1-dichloroethane       | 1.265 | 1.124 | 11.1         | 95    | 0.00     | 8.78  |
| 32  | chloroprene              | 1.028 | 0.917 | 10.8         | 96    | 0.00     | 8.88  |
| 33  | acrylonitrile            | 0.208 | 0.243 | -16.8        | 117   | 0.00     | 8.10  |
| 34  | vinyl acetate            | 0.082 | 0.092 | -12.2        | 109   | 0.00     | 8.70  |
| 35  | ethyl tert-butyl ether   | 2.576 | 2.414 | 6.3          | 100   | 0.00     | 9.21  |
| 36  | ethyl acetate            | 0.087 | 0.092 | -5.7         | 108   | 0.00     | 9.43  |
| 37  | 2,2-dichloropropane      | 1.155 | 0.960 | 16.9         | 89    | 0.00     | 9.54  |
| 38  | cis-1,2-dichloroethene   | 0.717 | 0.661 | 7.8          | 99    | 0.00     | 9.50  |
| 39  | propionitrile            | 0.092 | 0.089 | 3.3          | 101   | 0.00     | 9.50  |
| 40  | methyl acrylate          | 0.069 | 0.071 | -2.9         | 103   | 0.00     | 9.52  |
| 41  | methacrylonitrile        | 0.203 | 0.203 | 0.0          | 102   | 0.00     | 9.70  |



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICV10811  
**Lab FileID:** E251866.D

|      |                           |       |       |              |     |      |       |
|------|---------------------------|-------|-------|--------------|-----|------|-------|
| 42   | bromochloromethane        | 0.301 | 0.292 | 3.0          | 98  | 0.00 | 9.80  |
| 43   | tetrahydrofuran           | 0.208 | 0.200 | 3.8          | 115 | 0.00 | 9.83  |
| 44   | chloroform                | 1.134 | 1.030 | 9.2          | 100 | 0.00 | 9.88  |
| 45   | tert-Butyl Formate        | 0.725 | 0.489 | 32.6#        | 70  | 0.00 | 9.91  |
| 46 S | dibromofluoromethane (s)  | 0.482 | 0.482 | 0.0          | 105 | 0.00 | 10.07 |
| 47   | 1,1,1-trichloroethane     | 1.202 | 1.013 | 15.7         | 92  | 0.00 | 10.16 |
| 48   | cyclohexane               | 1.361 | 1.291 | 5.1          | 93  | 0.00 | 10.28 |
| 49   | isobutyl alcohol          |       |       | -----NA----- |     |      |       |
| 50   | 1,1-dichloropropene       | 0.886 | 0.780 | 12.0         | 95  | 0.00 | 10.32 |
| 51   | carbon tetrachloride      | 0.981 | 0.860 | 12.3         | 93  | 0.00 | 10.36 |
| 52   | tert-amyl alcohol         | 0.038 | 0.037 | 2.6          | 103 | 0.00 | 10.43 |
| 53   | isopropyl acetate         | 0.109 | 0.111 | -1.8         | 103 | 0.00 | 10.45 |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 104 | 0.00 | 10.98 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.353 | 0.344 | 2.5          | 104 | 0.00 | 10.51 |
| 56   | n-butyl alcohol           | 0.010 | 0.010 | 0.0          | 100 | 0.00 | 11.01 |
| 57   | 2,2,4-trimethylpentane    | 1.767 | 1.619 | 8.4          | 89  | 0.00 | 10.66 |
| 58   | benzene                   | 1.727 | 1.544 | 10.6         | 97  | 0.00 | 10.58 |
| 59   | tert-amyl methyl ether    | 1.527 | 1.416 | 7.3          | 100 | 0.00 | 10.64 |
| 60   | heptane                   | 0.302 | 0.296 | 2.0          | 101 | 0.00 | 10.81 |
| 61   | 1,2-dichloroethane        | 0.522 | 0.476 | 8.8          | 99  | 0.00 | 10.60 |
| 62   | ethyl acrylate            | 0.418 | 0.433 | -3.6         | 105 | 0.00 | 11.27 |
| 63   | trichloroethene           | 0.415 | 0.379 | 8.7          | 99  | 0.00 | 11.31 |
| 64   | 2-chloroethyl vinyl ether | 0.225 | 0.234 | -4.0         | 106 | 0.00 | 12.12 |
| 65   | methyl methacrylate       | 0.083 | 0.086 | -3.6         | 105 | 0.00 | 11.55 |
| 66   | methylcyclohexane         | 0.919 | 0.787 | 14.4         | 86  | 0.00 | 11.63 |
| 67   | 1,2-dichloropropane       | 0.469 | 0.434 | 7.5          | 100 | 0.00 | 11.61 |
| 68   | dibromomethane            | 0.227 | 0.225 | 0.9          | 105 | 0.00 | 11.73 |
| 69   | bromodichloromethane      | 0.554 | 0.524 | 5.4          | 99  | 0.00 | 11.89 |
| 70   | 2-nitropropane            | 0.129 | 0.138 | -7.0         | 112 | 0.00 | 12.10 |
| 71   | epichlorohydrin           | 0.038 | 0.036 | 5.3          | 103 | 0.00 | 12.23 |
| 72   | cis-1,3-dichloropropene   | 0.688 | 0.661 | 3.9          | 102 | 0.00 | 12.37 |
| 73   | 4-methyl-2-pentanone      | 0.153 | 0.154 | -0.7         | 104 | 0.00 | 12.47 |
| 74   | isoamyl alcohol           | 0.012 | 0.012 | 0.0          | 102 | 0.00 | 12.46 |
| 75 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 103 | 0.00 | 14.39 |
| 76 S | toluene-d8 (s)            | 1.243 | 1.231 | 1.0          | 103 | 0.00 | 12.71 |
| 77   | toluene                   | 1.059 | 0.981 | 7.4          | 100 | 0.00 | 12.79 |
| 78   | ethyl methacrylate        | 0.479 | 0.474 | 1.0          | 100 | 0.00 | 12.96 |
| 79   | trans-1,3-dichloropropene | 0.611 | 0.552 | 9.7          | 97  | 0.00 | 12.98 |
| 80   | 1,1,2-trichloroethane     | 0.272 | 0.277 | -1.8         | 103 | 0.00 | 13.23 |
| 81   | tetrachloroethene         |       |       | -----NA----- |     |      |       |
| 82   | 2-hexanone                | 0.133 | 0.137 | -3.0         | 102 | 0.00 | 13.40 |
| 83   | 1,3-dichloropropane       | 0.573 | 0.564 | 1.6          | 104 | 0.00 | 13.43 |
| 84   | butyl acetate             | 0.245 | 0.267 | -9.0         | 108 | 0.00 | 13.48 |
| 85   | dibromochloromethane      | 0.384 | 0.383 | 0.3          | 106 | 0.00 | 13.71 |
| 86   | 1,2-dibromoethane         | 0.339 | 0.339 | 0.0          | 104 | 0.00 | 13.89 |
| 87   | n-butyl ether             | 2.186 | 2.035 | 6.9          | 99  | 0.00 | 14.35 |
| 88   | chlorobenzene             | 1.156 | 1.088 | 5.9          | 101 | 0.00 | 14.42 |
| 89   | 1,1,1,2-tetrachloroethane | 0.483 | 0.477 | 1.2          | 104 | 0.00 | 14.50 |
| 90   | ethylbenzene              | 2.001 | 1.874 | 6.3          | 101 | 0.00 | 14.49 |
| 91   | m,p-xylene                | 0.764 | 0.723 | 5.4          | 101 | 0.00 | 14.62 |
| 92   | o-xylene                  | 1.738 | 1.654 | 4.8          | 100 | 0.00 | 15.08 |
| 93   | styrene                   | 1.261 | 1.249 | 1.0          | 103 | 0.00 | 15.09 |
| 94   | butyl acrylate            | 0.843 | 0.849 | -0.7         | 105 | 0.00 | 14.87 |
| 95   | isopropylbenzene          | 2.263 | 2.106 | 6.9          | 98  | 0.00 | 15.47 |
| 96   | bromoform                 | 0.243 | 0.263 | -8.2         | 110 | 0.00 | 15.36 |
| 97   | cis-1,4-dichloro-2-butene | 0.153 | 0.143 | 6.5          | 98  | 0.00 | 15.51 |
| 98 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 101 | 0.00 | 17.02 |

**Initial Calibration Verification**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICV10811  
**Lab FileID:** E251866.D

|      |                           |       |       |       |     |      |       |
|------|---------------------------|-------|-------|-------|-----|------|-------|
| 99 S | 4-bromofluorobenzene (s)  | 0.803 | 0.822 | -2.4  | 104 | 0.00 | 15.70 |
| 100  | 1,1,2,2-tetrachloroethane | 0.798 | 0.801 | -0.4  | 103 | 0.00 | 15.78 |
| 101  | trans-1,4-dichloro-2-bute | 0.203 | 0.222 | -9.4  | 112 | 0.00 | 15.82 |
| 102  | 1,2,3-trichloropropane    | 0.193 | 0.192 | 0.5   | 100 | 0.00 | 15.89 |
| 103  | bromobenzene              | 0.861 | 0.863 | -0.2  | 102 | 0.00 | 15.91 |
| 104  | n-propylbenzene           | 4.179 | 4.024 | 3.7   | 100 | 0.00 | 15.94 |
| 105  | 2-chlorotoluene           | 0.863 | 0.859 | 0.5   | 99  | 0.00 | 16.10 |
| 106  | 4-chlorotoluene           | 2.484 | 2.474 | 0.4   | 105 | 0.00 | 16.22 |
| 107  | 1,3,5-trimethylbenzene    | 3.288 | 3.171 | 3.6   | 98  | 0.00 | 16.11 |
| 108  | tert-butylbenzene         | 2.942 | 2.904 | 1.3   | 99  | 0.00 | 16.50 |
| 109  | 1,2,4-trimethylbenzene    | 3.281 | 3.289 | -0.2  | 102 | 0.00 | 16.56 |
| 110  | sec-butylbenzene          | 4.417 | 4.280 | 3.1   | 98  | 0.00 | 16.74 |
| 111  | p-isopropyltoluene        | 3.710 | 3.643 | 1.8   | 100 | 0.00 | 16.89 |
| 112  | 1,3-dichlorobenzene       | 1.841 | 1.751 | 4.9   | 101 | 0.00 | 16.94 |
| 113  | 1,4-dichlorobenzene       | 1.864 | 1.788 | 4.1   | 101 | 0.00 | 17.05 |
| 114  | 1,2-dichlorobenzene       | 1.871 | 1.827 | 2.4   | 100 | 0.00 | 17.47 |
| 115  | benzyl Chloride           | 1.777 | 1.341 | 24.5  | 78  | 0.00 | 17.15 |
| 116  | n-butylbenzene            | 1.976 | 1.962 | 0.7   | 98  | 0.00 | 17.35 |
| 117  | 2-ethylhexyl acrylate     | 1.263 | 1.389 | -10.0 | 99  | 0.00 | 19.27 |
| 118  | hexachloroethane          | 0.690 | 0.723 | -4.8  | 101 | 0.00 | 17.81 |
| 119  | 1,2-dibromo-3-chloropropa | 0.163 | 0.170 | -4.3  | 99  | 0.00 | 18.33 |
| 120  | 1,3,5-trichlorobenzene    | 1.813 | 1.828 | -0.8  | 99  | 0.00 | 18.54 |
| 121  | nitrobenzene              | 0.055 | 0.055 | 0.0   | 99  | 0.00 | 18.55 |
| 122  | 1,2,4-trichlorobenzene    | 1.281 | 1.395 | -8.9  | 101 | 0.00 | 19.30 |
| 123  | hexachlorobutadiene       | 0.771 | 0.750 | 2.7   | 96  | 0.00 | 19.43 |
| 124  | naphthalene               | 2.166 | 2.465 | -13.8 | 103 | 0.00 | 19.66 |
| 125  | 1,2,3-trichlorobenzene    | 0.937 | 1.001 | -6.8  | 101 | 0.00 | 19.94 |
| 126  | 2-methylnaphthalene       | 0.627 | 0.536 | 14.5  | 86  | 0.00 | 21.07 |

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(#) = Out of Range                                  SPCC's out = 0    CCC's out = 0  
 E251861.D ME10811.M                              Thu Apr 19 10:53:48 2018    RPT1

# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VE10811-ICV10811  
 Lab FileID: E251867.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VE10811\E251867.D Vial: 14  
 Acq On : 18 Apr 2018 10:06 pm Operator: ThienN  
 Sample : icv10811-50 Inst : MSE  
 Misc : MS25604,VE10811,5,,100,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)  
 Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 19 08:07:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 103   | 0.00     | 7.74  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |       |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |       |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 106   | 0.00     | 10.02 |
| 6   | chlorodifluoromethane    | 1.557 | 1.394 | 10.5         | 96    | 0.00     | 4.52  |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |       |
| 8   | chloromethane            |       |       | -----NA----- |       |          |       |
| 9   | vinyl chloride           |       |       | -----NA----- |       |          |       |
| 10  | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 11  | bromomethane             |       |       | -----NA----- |       |          |       |
| 12  | chloroethane             |       |       | -----NA----- |       |          |       |
| 13  | trichlorofluoromethane   |       |       | -----NA----- |       |          |       |
| 14  | vinyl bromide            |       |       | -----NA----- |       |          |       |
| 15  | ethyl ether              |       |       | -----NA----- |       |          |       |
| 16  | 2-chloropropane          |       |       | -----NA----- |       |          |       |
| 17  | acrolein                 |       |       | -----NA----- |       |          |       |
| 18  | freon 113                |       |       | -----NA----- |       |          |       |
| 19  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |       |
| 20  | acetone                  |       |       | -----NA----- |       |          |       |
| 21  | acetonitrile             | 0.100 | 0.098 | 2.0          | 110   | 0.00     | 7.53  |
| 22  | iodomethane              |       |       | -----NA----- |       |          |       |
| 23  | carbon disulfide         |       |       | -----NA----- |       |          |       |
| 24  | methylene chloride       |       |       | -----NA----- |       |          |       |
| 25  | methyl acetate           |       |       | -----NA----- |       |          |       |
| 26  | methyl tert butyl ether  |       |       | -----NA----- |       |          |       |
| 27  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |       |
| 28  | hexane                   |       |       | -----NA----- |       |          |       |
| 29  | di-isopropyl ether       |       |       | -----NA----- |       |          |       |
| 30  | 2-butanone               |       |       | -----NA----- |       |          |       |
| 31  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |       |
| 32  | chloroprene              |       |       | -----NA----- |       |          |       |
| 33  | acrylonitrile            |       |       | -----NA----- |       |          |       |
| 34  | vinyl acetate            |       |       | -----NA----- |       |          |       |
| 35  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |       |
| 36  | ethyl acetate            |       |       | -----NA----- |       |          |       |
| 37  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |       |
| 38  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |       |
| 39  | propionitrile            |       |       | -----NA----- |       |          |       |
| 40  | methyl acrylate          |       |       | -----NA----- |       |          |       |
| 41  | methacrylonitrile        |       |       | -----NA----- |       |          |       |

6.11.9  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICV10811  
**Lab FileID:** E251867.D

|      |                           |       |       |      |     |      |       |  |
|------|---------------------------|-------|-------|------|-----|------|-------|--|
| 42   | bromochloromethane        |       |       |      |     |      |       |  |
| 43   | tetrahydrofuran           |       |       |      |     |      |       |  |
| 44   | chloroform                |       |       |      |     |      |       |  |
| 45   | tert-Butyl Formate        |       |       |      |     |      |       |  |
| 46 S | dibromofluoromethane (s)  | 0.482 | 0.471 | 2.3  | 105 | 0.00 | 10.07 |  |
| 47   | 1,1,1-trichloroethane     |       |       |      |     |      |       |  |
| 48   | cyclohexane               |       |       |      |     |      |       |  |
| 49   | isobutyl alcohol          |       |       |      |     |      |       |  |
| 50   | 1,1-dichloropropene       |       |       |      |     |      |       |  |
| 51   | carbon tetrachloride      |       |       |      |     |      |       |  |
| 52   | tert-amyl alcohol         |       |       |      |     |      |       |  |
| 53   | isopropyl acetate         |       |       |      |     |      |       |  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 105 | 0.00 | 10.98 |  |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.353 | 0.352 | 0.3  | 107 | 0.00 | 10.51 |  |
| 56   | n-butyl alcohol           |       |       |      |     |      |       |  |
| 57   | 2,2,4-trimethylpentane    |       |       |      |     |      |       |  |
| 58   | benzene                   |       |       |      |     |      |       |  |
| 59   | tert-amyl methyl ether    |       |       |      |     |      |       |  |
| 60   | heptane                   |       |       |      |     |      |       |  |
| 61   | 1,2-dichloroethane        |       |       |      |     |      |       |  |
| 62   | ethyl acrylate            |       |       |      |     |      |       |  |
| 63   | trichloroethene           |       |       |      |     |      |       |  |
| 64   | 2-chloroethyl vinyl ether |       |       |      |     |      |       |  |
| 65   | methyl methacrylate       |       |       |      |     |      |       |  |
| 66   | methylcyclohexane         |       |       |      |     |      |       |  |
| 67   | 1,2-dichloropropane       |       |       |      |     |      |       |  |
| 68   | dibromomethane            |       |       |      |     |      |       |  |
| 69   | bromodichloromethane      |       |       |      |     |      |       |  |
| 70   | 2-nitropropane            |       |       |      |     |      |       |  |
| 71   | epichlorohydrin           |       |       |      |     |      |       |  |
| 72   | cis-1,3-dichloropropene   |       |       |      |     |      |       |  |
| 73   | 4-methyl-2-pentanone      |       |       |      |     |      |       |  |
| 74   | isoamyl alcohol           |       |       |      |     |      |       |  |
| 75 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 100 | 0.00 | 14.39 |  |
| 76 S | toluene-d8 (s)            | 1.243 | 1.260 | -1.4 | 103 | 0.00 | 12.71 |  |
| 77   | toluene                   |       |       |      |     |      |       |  |
| 78   | ethyl methacrylate        |       |       |      |     |      |       |  |
| 79   | trans-1,3-dichloropropene |       |       |      |     |      |       |  |
| 80   | 1,1,2-trichloroethane     |       |       |      |     |      |       |  |
| 81   | tetrachloroethene         | 0.352 | 0.352 | 0.0  | 103 | 0.00 | 13.40 |  |
| 82   | 2-hexanone                |       |       |      |     |      |       |  |
| 83   | 1,3-dichloropropane       |       |       |      |     |      |       |  |
| 84   | butyl acetate             |       |       |      |     |      |       |  |
| 85   | dibromochloromethane      |       |       |      |     |      |       |  |
| 86   | 1,2-dibromoethane         |       |       |      |     |      |       |  |
| 87   | n-butyl ether             |       |       |      |     |      |       |  |
| 88   | chlorobenzene             |       |       |      |     |      |       |  |
| 89   | 1,1,1,2-tetrachloroethane |       |       |      |     |      |       |  |
| 90   | ethylbenzene              |       |       |      |     |      |       |  |
| 91   | m,p-xylene                |       |       |      |     |      |       |  |
| 92   | o-xylene                  |       |       |      |     |      |       |  |
| 93   | styrene                   |       |       |      |     |      |       |  |
| 94   | butyl acrylate            |       |       |      |     |      |       |  |
| 95   | isopropylbenzene          |       |       |      |     |      |       |  |
| 96   | bromoform                 |       |       |      |     |      |       |  |
| 97   | cis-1,4-dichloro-2-butene |       |       |      |     |      |       |  |
| 98 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 104 | 0.00 | 17.02 |  |

6.11.9  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10811-ICV10811  
**Lab FileID:** E251867.D

|      |                           |             |       |         |     |      |              |
|------|---------------------------|-------------|-------|---------|-----|------|--------------|
| 99 S | 4-bromofluorobenzene (s)  | 0.803       | 0.801 | 0.2     | 104 | 0.00 | 15.71        |
| 100  | 1,1,2,2-tetrachloroethane |             |       |         |     |      | -----NA----- |
| 101  | trans-1,4-dichloro-2-bute |             |       |         |     |      | -----NA----- |
| 102  | 1,2,3-trichloropropane    |             |       |         |     |      | -----NA----- |
| 103  | bromobenzene              |             |       |         |     |      | -----NA----- |
| 104  | n-propylbenzene           |             |       |         |     |      | -----NA----- |
| 105  | 2-chlorotoluene           |             |       |         |     |      | -----NA----- |
| 106  | 4-chlorotoluene           |             |       |         |     |      | -----NA----- |
| 107  | 1,3,5-trimethylbenzene    |             |       |         |     |      | -----NA----- |
| 108  | tert-butylbenzene         |             |       |         |     |      | -----NA----- |
| 109  | 1,2,4-trimethylbenzene    |             |       |         |     |      | -----NA----- |
| 110  | sec-butylbenzene          |             |       |         |     |      | -----NA----- |
| 111  | p-isopropyltoluene        |             |       |         |     |      | -----NA----- |
| 112  | 1,3-dichlorobenzene       |             |       |         |     |      | -----NA----- |
| 113  | 1,4-dichlorobenzene       |             |       |         |     |      | -----NA----- |
| 114  | 1,2-dichlorobenzene       |             |       |         |     |      | -----NA----- |
| 115  | benzyl Chloride           |             |       |         |     |      | -----NA----- |
| 116  | n-butylbenzene            |             |       |         |     |      | -----NA----- |
| 117  | 2-ethylhexyl acrylate     |             |       |         |     |      | -----NA----- |
| 118  | hexachloroethane          |             |       |         |     |      | -----NA----- |
| 119  | 1,2-dibromo-3-chloropropa |             |       |         |     |      | -----NA----- |
| 120  | 1,3,5-trichlorobenzene    |             |       |         |     |      | -----NA----- |
|      |                           | ----- True  | Calc. | % Drift |     |      | -----        |
| 121  | nitrobenzene              |             |       |         |     |      | -----NA----- |
|      |                           | ----- AvgRF | CCRF  | % Dev   |     |      | -----        |
| 122  | 1,2,4-trichlorobenzene    |             |       |         |     |      | -----NA----- |
| 123  | hexachlorobutadiene       |             |       |         |     |      | -----NA----- |
| 124  | naphthalene               |             |       |         |     |      | -----NA----- |
| 125  | 1,2,3-trichlorobenzene    |             |       |         |     |      | -----NA----- |
| 126  | 2-methylnaphthalene       |             |       |         |     |      | -----NA----- |

(#) = Out of Range  
 E251861.D ME10811.M

SPCC's out = 0 CCC's out = 0  
 Thu Apr 19 08:08:59 2018 RPT1

6.11.9  
6

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VE10829-CC10811  
 Lab FileID: E252265.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E252265.D Vial: 1  
 Acq On : 7 May 2018 7:22 am Operator: ThienN  
 Sample : cc10811-50 Inst : MSE  
 Misc : MS25974,VE10829,5,,100,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\ME10811.M (RTE Integrator)  
 Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 Last Update : Thu Apr 19 10:52:27 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 65    | 0.00     | 7.73  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.341 | 1.418 | -5.7         | 68    | 0.00     | 7.85  |
| 4   | 1,4-dioxane              | 0.118 | 0.120 | -1.7         | 62    | 0.00     | 11.66 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 66    | 0.00     | 10.01 |
| 6   | chlorodifluoromethane    | 1.557 | 0.737 | 52.7#        | 31#   | 0.00     | 4.52  |
| 7   | dichlorodifluoromethane  | 1.243 | 1.321 | -6.3         | 64    | 0.00     | 4.50  |
| 8   | chloromethane            | 1.922 | 1.971 | -2.5         | 68    | 0.01     | 4.88  |
| 9   | vinyl chloride           | 1.739 | 1.895 | -9.0         | 71    | 0.00     | 5.11  |
| 10  | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 11  | bromomethane             | 0.992 | 1.115 | -12.4        | 77    | 0.00     | 5.72  |
| 12  | chloroethane             | 0.784 | 0.842 | -7.4         | 73    | 0.01     | 5.87  |
| 13  | trichlorofluoromethane   | 1.349 | 1.459 | -8.2         | 71    | 0.00     | 6.34  |
| 14  | vinyl bromide            | 0.914 | 1.022 | -11.8        | 76    | 0.01     | 6.22  |
| 15  | ethyl ether              | 0.330 | 0.331 | -0.3         | 67    | 0.00     | 6.67  |
| 16  | 2-chloropropane          | 1.417 | 1.223 | 13.7         | 60    | 0.00     | 6.91  |
| 17  | acrolein                 | 0.124 | 0.127 | -2.4         | 67    | 0.00     | 6.91  |
| 18  | freon 113                | 0.593 | 0.661 | -11.5        | 70    | 0.00     | 7.14  |
| 19  | 1,1-dichloroethene       | 0.703 | 0.708 | -0.7         | 68    | 0.00     | 7.12  |
| 20  | acetone                  | 0.047 | 0.049 | -4.3         | 67    | 0.00     | 7.10  |
| 21  | acetonitrile             | 0.100 | 0.093 | 7.0          | 64    | -0.02    | 7.51  |
| 22  | iodomethane              | 1.109 | 1.174 | -5.9         | 72    | 0.00     | 7.39  |
| 23  | carbon disulfide         | 2.666 | 2.395 | 10.2         | 62    | 0.00     | 7.54  |
| 24  | methylene chloride       | 0.794 | 0.823 | -3.7         | 73    | 0.00     | 7.81  |
| 25  | methyl acetate           | 0.456 | 0.386 | 15.4         | 56    | 0.00     | 7.55  |
| 26  | methyl tert butyl ether  | 2.186 | 2.244 | -2.7         | 69    | 0.00     | 8.16  |
| 27  | trans-1,2-dichloroethene | 0.681 | 0.673 | 1.2          | 69    | 0.00     | 8.20  |
| 28  | hexane                   | 0.478 | 0.400 | 16.3         | 55    | 0.00     | 8.54  |
| 29  | di-isopropyl ether       | 2.800 | 2.564 | 8.4          | 62    | 0.00     | 8.74  |
| 30  | 2-butanone               | 0.055 | 0.056 | -1.8         | 63    | 0.00     | 9.41  |
| 31  | 1,1-dichloroethane       | 1.265 | 1.201 | 5.1          | 64    | 0.00     | 8.77  |
| 32  | chloroprene              | 1.028 | 0.888 | 13.6         | 58    | 0.00     | 8.87  |
| 33  | acrylonitrile            | 0.208 | 0.212 | -1.9         | 65    | 0.00     | 8.09  |
| 34  | vinyl acetate            | 0.082 | 0.091 | -11.0        | 68    | 0.00     | 8.70  |
| 35  | ethyl tert-butyl ether   | 2.576 | 2.500 | 3.0          | 66    | 0.00     | 9.21  |
| 36  | ethyl acetate            | 0.087 | 0.078 | 10.3         | 58    | 0.00     | 9.42  |
| 37  | 2,2-dichloropropane      | 1.155 | 1.203 | -4.2         | 71    | 0.00     | 9.53  |
| 38  | cis-1,2-dichloroethene   | 0.717 | 0.725 | -1.1         | 68    | 0.00     | 9.49  |
| 39  | propionitrile            | 0.092 | 0.085 | 7.6          | 61    | 0.00     | 9.49  |
| 40  | methyl acrylate          | 0.069 | 0.074 | -7.2         | 67    | 0.00     | 9.51  |
| 41  | methacrylonitrile        | 0.203 | 0.194 | 4.4          | 62    | 0.00     | 9.69  |

6.11.10  
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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10829-CC10811  
**Lab FileID:** E252265.D

|      |                           |       |       |              |    |       |       |
|------|---------------------------|-------|-------|--------------|----|-------|-------|
| 42   | bromochloromethane        | 0.301 | 0.334 | -11.0        | 70 | 0.00  | 9.79  |
| 43   | tetrahydrofuran           | 0.208 | 0.162 | 22.1#        | 59 | -0.02 | 9.81  |
| 44   | chloroform                | 1.134 | 1.077 | 5.0          | 66 | 0.00  | 9.87  |
| 45   | tert-Butyl Formate        | 0.725 | 0.684 | 5.7          | 62 | 0.00  | 9.91  |
| 46 S | dibromofluoromethane (s)  | 0.482 | 0.467 | 3.1          | 64 | 0.00  | 10.07 |
| 47   | 1,1,1-trichloroethane     | 1.202 | 1.173 | 2.4          | 67 | 0.00  | 10.15 |
| 48   | cyclohexane               | 1.361 | 1.433 | -5.3         | 65 | 0.00  | 10.28 |
| 49   | isobutyl alcohol          |       |       | -----NA----- |    |       |       |
| 50   | 1,1-dichloropropene       | 0.886 | 0.801 | 9.6          | 61 | 0.00  | 10.31 |
| 51   | carbon tetrachloride      | 0.981 | 0.992 | -1.1         | 68 | 0.00  | 10.35 |
| 52   | tert-amyl alcohol         | 0.038 | 0.039 | -2.6         | 69 | 0.00  | 10.42 |
| 53   | isopropyl acetate         | 0.109 | 0.109 | 0.0          | 64 | 0.00  | 10.45 |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 60 | 0.00  | 10.98 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.353 | 0.323 | 8.5          | 57 | 0.00  | 10.50 |
| 56   | n-butyl alcohol           | 0.010 | 0.009 | 10.0         | 54 | 0.00  | 11.01 |
| 57   | 2,2,4-trimethylpentane    | 1.767 | 1.888 | -6.8         | 61 | 0.00  | 10.66 |
| 58   | benzene                   | 1.727 | 1.715 | 0.7          | 63 | 0.00  | 10.57 |
| 59   | tert-amyl methyl ether    | 1.527 | 1.658 | -8.6         | 68 | 0.00  | 10.64 |
| 60   | heptane                   | 0.302 | 0.281 | 7.0          | 56 | 0.00  | 10.80 |
| 61   | 1,2-dichloroethane        | 0.522 | 0.489 | 6.3          | 59 | 0.00  | 10.59 |
| 62   | ethyl acrylate            | 0.418 | 0.420 | -0.5         | 59 | 0.00  | 11.27 |
| 63   | trichloroethene           | 0.415 | 0.414 | 0.2          | 63 | 0.00  | 11.31 |
| 64   | 2-chloroethyl vinyl ether | 0.225 | 0.227 | -0.9         | 60 | 0.00  | 12.12 |
| 65   | methyl methacrylate       | 0.083 | 0.093 | -12.0        | 66 | 0.00  | 11.55 |
| 66   | methylcyclohexane         | 0.919 | 0.977 | -6.3         | 62 | 0.00  | 11.62 |
| 67   | 1,2-dichloropropane       | 0.469 | 0.457 | 2.6          | 61 | 0.00  | 11.61 |
| 68   | dibromomethane            | 0.227 | 0.236 | -4.0         | 64 | 0.00  | 11.73 |
| 69   | bromodichloromethane      | 0.554 | 0.548 | 1.1          | 61 | 0.00  | 11.88 |
| 70   | 2-nitropropane            | 0.129 | 0.112 | 13.2         | 53 | -0.02 | 12.08 |
| 71   | epichlorohydrin           | 0.038 | 0.035 | 7.9          | 58 | 0.00  | 12.22 |
| 72   | cis-1,3-dichloropropene   | 0.688 | 0.690 | -0.3         | 62 | 0.00  | 12.36 |
| 73   | 4-methyl-2-pentanone      | 0.153 | 0.154 | -0.7         | 61 | 0.00  | 12.46 |
| 74   | isoamyl alcohol           | 0.012 | 0.013 | -8.3         | 64 | 0.00  | 12.46 |
| 75 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 64 | 0.00  | 14.38 |
| 76 S | toluene-d8 (s)            | 1.243 | 1.159 | 6.8          | 61 | 0.00  | 12.70 |
| 77   | toluene                   | 1.059 | 0.977 | 7.7          | 62 | 0.00  | 12.78 |
| 78   | ethyl methacrylate        | 0.479 | 0.493 | -2.9         | 65 | 0.00  | 12.95 |
| 79   | trans-1,3-dichloropropene | 0.611 | 0.576 | 5.7          | 63 | 0.00  | 12.98 |
| 80   | 1,1,2-trichloroethane     | 0.272 | 0.278 | -2.2         | 64 | 0.00  | 13.22 |
| 81   | tetrachloroethene         | 0.352 | 0.348 | 1.1          | 65 | 0.00  | 13.39 |
| 82   | 2-hexanone                | 0.133 | 0.133 | 0.0          | 61 | 0.00  | 13.39 |
| 83   | 1,3-dichloropropane       | 0.573 | 0.560 | 2.3          | 65 | 0.00  | 13.43 |
| 84   | butyl acetate             | 0.245 | 0.260 | -6.1         | 66 | 0.00  | 13.48 |
| 85   | dibromochloromethane      | 0.384 | 0.390 | -1.6         | 67 | 0.00  | 13.71 |
| 86   | 1,2-dibromoethane         | 0.339 | 0.358 | -5.6         | 69 | 0.00  | 13.88 |
| 87   | n-butyl ether             | 2.186 | 2.128 | 2.7          | 64 | 0.00  | 14.35 |
| 88   | chlorobenzene             | 1.156 | 1.178 | -1.9         | 68 | 0.00  | 14.42 |
| 89   | 1,1,1,2-tetrachloroethane | 0.483 | 0.490 | -1.4         | 67 | 0.00  | 14.49 |
| 90   | ethylbenzene              | 2.001 | 2.005 | -0.2         | 67 | 0.00  | 14.48 |
| 91   | m,p-xylene                | 0.764 | 0.782 | -2.4         | 68 | 0.00  | 14.62 |
| 92   | o-xylene                  | 1.738 | 1.744 | -0.3         | 66 | 0.00  | 15.07 |
| 93   | styrene                   | 1.261 | 1.378 | -9.3         | 71 | 0.00  | 15.08 |
| 94   | butyl acrylate            | 0.843 | 0.863 | -2.4         | 67 | 0.00  | 14.86 |
| 95   | isopropylbenzene          | 2.263 | 2.264 | -0.0         | 66 | 0.00  | 15.46 |
| 96   | bromoform                 | 0.243 | 0.286 | -17.7        | 75 | 0.00  | 15.36 |
| 97   | cis-1,4-dichloro-2-butene | 0.153 | 0.168 | -9.8         | 72 | 0.00  | 15.51 |
| 98 I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 75 | 0.00  | 17.02 |

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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VE10829-CC10811  
**Lab FileID:** E252265.D

|      |                           |       |       |       |    |      |       |
|------|---------------------------|-------|-------|-------|----|------|-------|
| 99 S | 4-bromofluorobenzene (s)  | 0.803 | 0.756 | 5.9   | 71 | 0.00 | 15.70 |
| 100  | 1,1,2,2-tetrachloroethane | 0.798 | 0.720 | 9.8   | 69 | 0.00 | 15.78 |
| 101  | trans-1,4-dichloro-2-bute | 0.203 | 0.179 | 11.8  | 67 | 0.00 | 15.81 |
| 102  | 1,2,3-trichloropropane    | 0.193 | 0.180 | 6.7   | 70 | 0.00 | 15.88 |
| 103  | bromobenzene              | 0.861 | 0.829 | 3.7   | 73 | 0.00 | 15.91 |
| 104  | n-propylbenzene           | 4.179 | 3.701 | 11.4  | 68 | 0.00 | 15.93 |
| 105  | 2-chlorotoluene           | 0.863 | 0.829 | 3.9   | 71 | 0.00 | 16.09 |
| 106  | 4-chlorotoluene           | 2.484 | 2.254 | 9.3   | 71 | 0.00 | 16.22 |
| 107  | 1,3,5-trimethylbenzene    | 3.288 | 2.872 | 12.7  | 66 | 0.00 | 16.11 |
| 108  | tert-butylbenzene         | 2.942 | 2.527 | 14.1  | 64 | 0.00 | 16.49 |
| 109  | 1,2,4-trimethylbenzene    | 3.281 | 2.945 | 10.2  | 68 | 0.00 | 16.55 |
| 110  | sec-butylbenzene          | 4.417 | 3.795 | 14.1  | 65 | 0.00 | 16.74 |
| 111  | p-isopropyltoluene        | 3.710 | 3.334 | 10.1  | 68 | 0.00 | 16.89 |
| 112  | 1,3-dichlorobenzene       | 1.841 | 1.669 | 9.3   | 71 | 0.00 | 16.94 |
| 113  | 1,4-dichlorobenzene       | 1.864 | 1.683 | 9.7   | 71 | 0.00 | 17.05 |
| 114  | 1,2-dichlorobenzene       | 1.871 | 1.719 | 8.1   | 70 | 0.00 | 17.47 |
| 115  | benzyl Chloride           | 1.777 | 1.661 | 6.5   | 72 | 0.00 | 17.15 |
| 116  | n-butylbenzene            | 1.976 | 1.749 | 11.5  | 65 | 0.00 | 17.35 |
| 117  | 2-ethylhexyl acrylate     | 1.263 | 1.262 | 0.1   | 67 | 0.00 | 19.26 |
| 118  | hexachloroethane          | 0.690 | 0.636 | 7.8   | 66 | 0.00 | 17.81 |
| 119  | 1,2-dibromo-3-chloropropa | 0.163 | 0.143 | 12.3  | 62 | 0.00 | 18.32 |
| 120  | 1,3,5-trichlorobenzene    | 1.813 | 1.622 | 10.5  | 65 | 0.00 | 18.53 |
| 121  | nitrobenzene              | 0.055 | 0.044 | 20.0# | 60 | 0.00 | 18.54 |
| 122  | 1,2,4-trichlorobenzene    | 1.281 | 1.217 | 5.0   | 66 | 0.00 | 19.29 |
| 123  | hexachlorobutadiene       | 0.771 | 0.732 | 5.1   | 70 | 0.00 | 19.42 |
| 124  | naphthalene               | 2.166 | 2.071 | 4.4   | 65 | 0.00 | 19.65 |
| 125  | 1,2,3-trichlorobenzene    | 0.937 | 0.846 | 9.7   | 63 | 0.00 | 19.93 |
| 126  | 2-methylnaphthalene       | 0.627 | 0.442 | 29.5# | 53 | 0.00 | 21.06 |

(#) = Out of Range  
E251861.D ME10811.M

SPCC's out = 0 CCC's out = 0  
Mon May 07 13:30:25 2018 RPT1

6.11.10  
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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

## Response Factor Report MSY

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Thu May 17 08:41:26 2018  
 Response via : Initial Calibration

### Calibration Files

4 =Y178409.D 8 =Y178410.D 0.5 =Y178406.D 50 =Y178412.D  
 100 =Y178413.D 1 =Y178407.D 200 =Y178414.D 20 =Y178411.D  
 2 =Y178408.D 0.2 =Y178405.D = =

| Compound                                  | 4 | 8 | 0.5   | 50    | 100   | 1     | 200   | 20    | 2 | 0.2 | Avg   | %RSD  |
|---|---|---|-------|-------|-------|-------|-------|-------|---|-----|-------|-------|
| 1) I Tert Butyl Alcohol-d9 -----ISTD----- |   |   |       |       |       |       |       |       |   |     |       |       |
| 2) ethanol                                |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 3) tertiary butyl alcohol                 |   |   |       |       |       |       |       |       |   |     |       |       |
| 1.644 1.453                               |   |   | 1.436 | 1.567 |       | 1.500 | 1.520 |       |   |     | 1.520 | 5.05  |
| 4) 1,4-dioxane                            |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.111 0.103                               |   |   | 0.116 | 0.126 |       | 0.122 | 0.114 |       |   |     | 0.115 | 6.95  |
| 5) I pentafluorobenzene -----ISTD-----    |   |   |       |       |       |       |       |       |   |     |       |       |
| 6) chlorodifluoromethane                  |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.942 0.846                               |   |   | 0.836 | 0.915 | 1.071 | 0.840 | 0.899 | 1.005 |   |     | 0.919 | 9.18  |
| 7) dichlorodifluoromethane                |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.867 0.809                               |   |   | 0.700 | 0.738 | 0.956 | 0.701 | 0.804 | 0.881 |   |     | 0.807 | 11.38 |
| 8) Freon 123                              |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 9) Freon 114                              |   |   |       |       |       |       |       |       |   |     | 0.000 | -1.00 |
| 10) chloromethane                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 1.181 1.106                               |   |   | 0.956 | 1.031 |       | 0.973 | 1.148 | 1.088 |   |     | 1.069 | 8.01  |
| 11) vinyl chloride                        |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.994 0.920                               |   |   | 0.832 | 0.937 | 0.912 | 0.898 | 0.940 | 0.867 |   |     | 0.913 | 5.36  |
| 12) 1,3-butadiene                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.917 0.801                               |   |   | 0.686 | 0.795 |       | 0.729 | 0.798 | 0.891 |   |     | 0.803 | 10.18 |
| 13) bromomethane                          |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.825 0.653                               |   |   | 0.533 | 0.585 |       | 0.545 | 0.632 |       |   |     | 0.629 | 17.01 |
| 14) chloroethane                          |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.592 0.519 0.423                         |   |   | 0.449 | 0.481 |       | 0.459 | 0.508 | 0.596 |   |     | 0.503 | 12.71 |
| 15) vinyl Bromide                         |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.598 0.549                               |   |   | 0.509 | 0.554 |       | 0.542 | 0.565 |       |   |     | 0.553 | 5.32  |
| 16) trichlorofluoromethane                |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.840 0.770                               |   |   | 0.728 | 0.775 | 0.797 | 0.756 | 0.804 | 0.742 |   |     | 0.776 | 4.69  |
| 17) ethyl ether                           |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.326 0.278                               |   |   | 0.276 | 0.294 | 0.290 | 0.282 | 0.298 | 0.317 |   |     | 0.295 | 6.14  |
| 18) 2-chloropropane                       |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.251 0.234                               |   |   | 0.210 | 0.218 |       | 0.208 | 0.226 | 0.246 |   |     | 0.227 | 7.45  |
| 19) acrolein                              |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.137                                     |   |   | 0.097 | 0.096 |       | 0.094 | 0.115 |       |   |     | 0.108 | 16.92 |
| 20) freon 113                             |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.432 0.392                               |   |   | 0.373 | 0.396 |       | 0.385 | 0.405 | 0.365 |   |     | 0.393 | 5.64  |
| 21) 1,1-dichloroethene                    |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.856 0.797 0.660                         |   |   | 0.735 | 0.782 | 0.723 | 0.737 | 0.784 | 0.739 |   |     | 0.757 | 7.31  |
| 22) acetone                               |   |   |       |       |       |       |       |       |   |     |       |       |
| 0.067 0.064                               |   |   | 0.056 | 0.057 |       | 0.053 | 0.062 | 0.074 |   |     | 0.062 | 11.85 |
| 23) acetonitrile                          |   |   |       |       |       |       |       |       |   |     |       |       |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|     |  |       |       |       |       |       |       |       |       |  |
|-----|--|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 24) | iodomethane  | 0.078 | 0.077 | 0.067 | 0.072 | 0.068 | 0.077 | 0.073 | 7.04  |  |
| 25) | carbon disulfide   | 0.968 | 0.949 | 0.863 | 0.871 | 0.952 | 0.912 | 0.915 | 4.08  |  |
| 26) | methylene chloride   | 1.977 | 1.859 | 1.837 | 1.735 | 1.855 | 1.805 | 1.771 | 4.35  |  |
| 27) | methyl acetate   | 0.652 | 0.591 | 0.619 | 0.543 | 0.588 | 0.638 | 0.562 | 5.90  |  |
| 28) | methyl tert butyl ether                                    | 0.393 | 0.355 | 0.335 | 0.374 | 0.351 | 0.365 | 0.362 | 5.56  |  |
| 29) | trans-1,2-dichloroethene                                   | 1.851 | 1.742 | 2.327 | 1.580 | 1.712 | 1.789 | 1.635 | 12.17 |  |
| 30) | hexane   | 0.826 | 0.754 | 0.790 | 0.718 | 0.754 | 0.711 | 0.698 | 5.40  |  |
| 31) | di-isopropyl ether   | 0.815 | 0.775 | 0.688 | 0.701 | 0.663 | 0.761 | 0.700 | 7.53  |  |
| 32) | ethyl tert-butyl ether                                     | 2.500 | 2.264 | 2.124 | 2.267 | 2.974 | 2.130 | 2.279 | 11.81 |  |
| 33) | 2-butanone   | 2.100 | 1.962 | 2.194 | 1.890 | 2.062 | 1.968 | 1.986 | 5.08  |  |
| 34) | 1,1-dichloroethane   | 0.055 | 0.049 | 0.054 | 0.058 | 0.057 | 0.057 | 0.036 | 14.78 |  |
| 35) | chloroprene  | 1.027 | 0.985 | 1.013 | 0.909 | 0.968 | 0.877 | 0.906 | 5.43  |  |
| 36) | acrylonitrile  | 0.818 | 0.755 | 0.827 | 0.706 | 0.731 | 0.801 | 0.676 | 6.68  |  |
| 37) | vinyl acetate  | 0.142 | 0.197 | 0.172 | 0.187 | 0.168 | 0.183 | 0.198 | 13.02 |  |
| 38) | ethyl acetate  | 0.057 | 0.068 | 0.080 | 0.075 | 0.074 | 0.071 | 12.13 |       |  |
|     | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |  |
| 39) | 2,2-dichloropropane  | 0.115 | 0.066 | 0.069 | 0.079 | 0.086 | 0.083 | 23.78 |       |  |
| 40) | cis-1,2-dichloroethene                                     | 0.978 | 0.848 | 0.761 | 0.804 | 1.014 | 0.758 | 0.833 | 11.59 |  |
| 41) | propionitrile  | 0.720 | 0.610 | 0.550 | 0.581 | 0.881 | 0.545 | 0.572 | 19.33 |  |
| 42) | bromochloromethane   | 0.081 | 0.075 | 0.072 | 0.076 | 0.074 | 0.079 | 0.063 | 7.68  |  |
| 43) | tetrahydrofuran  | 0.363 | 0.335 | 0.291 | 0.320 | 0.351 | 0.300 | 0.336 | 9.12  |  |
| 44) | chloroform   | 0.053 | 0.058 | 0.059 | 0.065 | 0.064 | 0.071 | 0.062 | 10.43 |  |
| 45) | tert-Butyl Formate   | 1.008 | 0.918 | 0.854 | 0.914 | 1.116 | 0.859 | 0.903 | 9.19  |  |
|     | *This compound does not meet initial calibration criteria* |       |       |       |       |       |       |       |       |  |
| 46) | isobutyl alcohol   | 0.234 | 0.228 | 0.251 | 0.241 | 0.251 | 0.241 | 4.25  |       |  |
| 47) | dibromofluoromethane (s)                                   | 0.141 | 0.130 | 0.121 | 0.125 | 0.116 | 0.120 | 0.131 | 6.26  |  |
| 48) | methacrylonitrile  | 0.447 | 0.444 | 0.442 | 0.447 | 0.452 | 0.441 | 0.458 | 1.43  |  |
| 49) | 1,1,1-trichloroethane                                      | 0.159 | 0.182 | 0.177 | 0.186 | 0.270 | 0.183 | 0.195 | 17.63 |  |
| 50) | cyclohexane  | 0.914 | 0.780 | 1.062 | 0.751 | 0.805 | 0.858 | 0.762 | 11.56 |  |
| 51) | 1,1-dichloropropene  | 0.877 | 0.807 | 0.890 | 0.741 | 0.760 | 0.796 | 0.769 | 6.23  |  |
| 52) | tert-amyl alcohol  | 0.685 | 0.642 | 0.728 | 0.615 | 0.651 | 0.614 | 0.608 | 8.84  |  |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|       |                                    |       |       |       |       |       |       |       |       |       |       |       |
|-------|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|       | 0.025                              | 0.026 | 0.021 | 0.023 | 0.022 | 0.024 | 0.023 | 9.12  |       |       |       |       |
| 53)   | carbon tetrachloride               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.742                              | 0.673 | 0.587 | 0.648 | 0.683 | 0.695 | 0.649 | 0.669 | 6.49  |       |       |       |
| 54) I | 1,4-difluorobenzene -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 55)   | 1,2-dichloroethane-d4 (s)          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.306                              | 0.301 | 0.291 | 0.284 | 0.287 | 0.289 | 0.283 | 0.295 | 0.297 | 0.292 | 0.292 | 2.47  |
| 56)   | 2,2,4-trimethylpentane             |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.559                              | 1.416 | 1.812 | 1.286 | 1.395 | 1.690 | 1.381 | 1.418 | 1.452 | 1.534 | 1.494 | 10.57 |
| 57)   | tert-amyl methyl ether             |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.344                              | 1.320 | 1.149 | 1.262 | 1.563 | 1.200 | 1.256 | 1.253 | 1.293 | 9.67  |       |       |
| 58)   | n-butyl alcohol                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.009                              | 0.011 | 0.010 | 0.011 | 0.011 | 0.012 | 0.011 | 8.06  |       |       |       |       |
| 59)   | benzene                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.550                              | 1.442 | 1.761 | 1.312 | 1.400 | 1.512 | 1.299 | 1.405 | 1.489 | 1.463 | 9.58  |       |
| 60)   | heptane                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.286                              | 0.276 | 0.255 | 0.269 | 0.250 | 0.277 | 0.379 | 0.285 | 15.24 |       |       |       |
| 61)   | isopropyl acetate                  |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.043                              | 0.051 | 0.057 | 0.061 | 0.061 | 0.058 | 0.055 | 12.52 |       |       |       |       |
| 62)   | 1,2-dichloroethane                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.457                              | 0.426 | 0.577 | 0.389 | 0.420 | 0.452 | 0.383 | 0.422 | 0.424 | 0.417 | 0.437 | 12.44 |
| 63)   | trichloroethene                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.374                              | 0.341 | 0.415 | 0.308 | 0.327 | 0.379 | 0.305 | 0.329 | 0.346 | 0.369 | 0.349 | 9.94  |
| 64)   | ethyl acrylate                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.271                              | 0.365 | 0.332 | 0.359 | 0.350 | 0.352 | 0.338 | 10.31 |       |       |       |       |
| 65)   | 2-nitropropane                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.078                              | 0.076 | 0.062 | 0.068 | 0.064 | 0.069 | 0.069 | 9.25  |       |       |       |       |
| 66)   | 2-chloroethyl vinyl ether          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.180                              | 0.167 | 0.158 | 0.170 | 0.153 | 0.164 | 0.173 | 0.155 | 0.165 | 5.66  |       |       |
| 67)   | methyl methacrylate                |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.059                              | 0.066 | 0.067 | 0.072 | 0.071 | 0.068 | 0.068 | 6.77  |       |       |       |       |
| 68)   | 1,2-dichloropropane                |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.406                              | 0.385 | 0.371 | 0.361 | 0.390 | 0.359 | 0.364 | 0.380 | 0.385 | 0.378 | 4.11  |       |
| 69)   | methylcyclohexane                  |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.763                              | 0.686 | 0.903 | 0.609 | 0.656 | 0.702 | 0.628 | 0.670 | 0.653 | 0.697 | 12.84 |       |
| 70)   | dibromomethane                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.217                              | 0.204 | 0.182 | 0.188 | 0.201 | 0.214 | 0.188 | 0.201 | 0.187 | 0.198 | 6.30  |       |
| 71)   | bromodichloromethane               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.500                              | 0.465 | 0.637 | 0.440 | 0.474 | 0.503 | 0.448 | 0.461 | 0.503 | 0.492 | 12.04 |       |
| 72)   | epichlorohydrin                    |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.034                              | 0.026 | 0.028 | 0.027 | 0.032 | 0.029 | 11.70 |       |       |       |       |       |
| 73)   | cis-1,3-dichloropropene            |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.577                              | 0.553 | 0.556 | 0.538 | 0.582 | 0.555 | 0.549 | 0.562 | 0.528 | 0.556 | 3.07  |       |
| 74)   | 4-methyl-2-pentanone               |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.128                              | 0.123 | 0.075 | 0.117 | 0.126 | 0.097 | 0.122 | 0.131 | 0.114 | 0.115 | 15.56 |       |
| 75)   | 3-methyl-1-butanol                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.010                              | 0.011 | 0.010 | 0.010 | 0.010 | 0.011 | 0.009 | 0.010 | 7.35  |       |       |       |
| 76) I | chlorobenzene-d5 -----ISTD-----    |       |       |       |       |       |       |       |       |       |       |       |
| 77)   | toluene-d8 (s)                     |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.351                              | 1.352 | 1.344 | 1.374 | 1.371 | 1.344 | 1.355 | 1.372 | 1.368 | 1.356 | 1.359 | 0.85  |
| 78)   | toluene                            |       |       |       |       |       |       |       |       |       |       |       |
|       | 1.031                              | 0.958 | 0.986 | 0.924 | 0.979 | 0.927 | 0.896 | 0.950 | 0.988 | 0.922 | 0.956 | 4.24  |
| 79)   | trans-1,3-dichloropropene          |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.609                              | 0.552 | 0.537 | 0.546 | 0.578 | 0.611 | 0.535 | 0.579 | 0.557 | 0.592 | 0.570 | 4.97  |
| 80)   | ethyl methacrylate                 |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.544                              | 0.483 | 0.453 | 0.466 | 0.445 | 0.496 | 0.481 | 7.55  |       |       |       |       |
| 81)   | 1,1,2-trichloroethane              |       |       |       |       |       |       |       |       |       |       |       |
|       | 0.305                              | 0.281 | 0.266 | 0.282 | 0.322 | 0.260 | 0.284 | 0.277 | 0.285 | 7.08  |       |       |
| 82)   | 2-hexanone                         |       |       |       |       |       |       |       |       |       |       |       |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|      |  |                |       |       |       |       |       |       |       |       |       |       |       |
|------|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 83)  | tetrachloroethene  | 0.140          | 0.139 | 0.131 | 0.137 | 0.109 | 0.129 | 0.140 | 0.111 | 0.129 | 9.83  |       |       |
| 84)  | 1,3-dichloropropane  | 0.426          | 0.367 | 0.366 | 0.368 | 0.388 | 0.364 | 0.364 | 0.402 | 0.365 | 5.84  |       |       |
| 85)  | butyl acetate  | 0.562          | 0.530 | 0.549 | 0.490 | 0.527 | 0.499 | 0.490 | 0.528 | 0.510 | 7.55  |       |       |
|      | *This compound does not meet initial calibration criteria* |                |       |       |       |       |       |       |       |       |       |       |       |
|      |  | 0.206          |       | 0.202 | 0.218 |       | 0.205 | 0.217 |       | 0.209 | 3.57  |       |       |
| 86)  | dibromochloromethane                                       | 0.371          | 0.363 | 0.335 | 0.354 | 0.386 | 0.321 | 0.368 | 0.381 | 0.361 | 5.81  |       |       |
| 87)  | 1,2-dibromoethane  | 0.327          | 0.325 | 0.323 | 0.312 | 0.333 | 0.291 | 0.312 | 0.328 | 0.314 | 3.95  |       |       |
| 88)  | 3,3-Dimethyl-1-Butanol                                     | 0.047          | 0.048 | 0.043 | 0.047 |       | 0.045 | 0.051 | 0.045 | 0.047 | 5.56  |       |       |
| 89)  | n-butyl ether  | 2.001          | 1.869 | 1.782 | 1.896 |       | 1.720 | 1.865 | 1.844 | 1.854 | 4.78  |       |       |
| 90)  | chlorobenzene  | 1.105          | 1.030 | 1.146 | 0.993 | 1.067 | 0.991 | 0.986 | 1.070 | 1.091 | 7.93  |       |       |
| 91)  | 1,1,1,2-tetrachloroethane                                  | 0.438          | 0.406 | 0.339 | 0.406 | 0.443 | 0.406 | 0.409 | 0.440 | 0.408 | 7.60  |       |       |
| 92)  | ethylbenzene   | 1.898          | 1.791 | 2.128 | 1.669 | 1.783 | 1.700 | 1.632 | 1.813 | 1.844 | 14.23 |       |       |
| 93)  | m,p-xylene   | 0.709          | 0.665 | 0.729 | 0.637 | 0.680 | 0.623 | 0.624 | 0.670 | 0.661 | 5.20  |       |       |
| 94)  | o-xylene   | 1.644          | 1.521 | 1.892 | 1.437 | 1.559 | 1.501 | 1.429 | 1.556 | 1.622 | 11.77 |       |       |
| 95)  | styrene  | 1.270          | 1.134 | 1.237 | 1.111 | 1.178 | 1.126 | 1.097 | 1.164 | 1.149 | 5.96  |       |       |
| 96)  | bromoform  | 0.236          | 0.232 | 0.228 | 0.234 | 0.251 | 0.194 | 0.239 | 0.242 | 0.218 | 7.17  |       |       |
| 97)  | butyl acrylate   | 0.728          | 0.643 | 0.689 | 0.728 |       | 0.683 | 0.786 | 0.554 | 0.687 | 10.77 |       |       |
| 98)  | isopropylbenzene   | 1.949          | 1.779 | 1.888 | 1.728 | 1.871 | 1.767 | 1.709 | 1.855 | 1.806 | 7.47  |       |       |
| 99)  | cis-1,4-dichloro-2-butene                                  | 0.136          | 0.129 | 0.129 | 0.140 |       | 0.128 | 0.137 | 0.089 | 0.127 | 13.57 |       |       |
| 100) | I 1,4-dichlorobenzene-d                                    | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 101) | 4-bromofluorobenzene (s)                                   | 0.821          | 0.825 | 0.834 | 0.833 | 0.829 | 0.838 | 0.827 | 0.818 | 0.843 | 0.830 | 0.92  |       |
| 102) | bromobenzene   | 0.865          | 0.854 | 0.846 | 0.822 | 0.893 | 0.821 | 0.834 | 0.857 | 0.849 | 0.817 | 2.78  |       |
| 103) | 1,1,2,2-tetrachloroethane                                  | 0.881          | 0.815 | 1.117 | 0.775 | 0.829 | 0.985 | 0.779 | 0.829 | 0.913 | 0.880 | 12.63 |       |
| 104) | trans-1,4-dichloro-2-butene                                | 0.198          | 0.175 | 0.164 | 0.170 | 0.197 | 0.156 | 0.173 | 0.174 | 0.176 | 8.38  |       |       |
| 105) | 1,2,3-trichloropropane                                     | 0.214          | 0.185 | 0.170 | 0.187 | 0.129 | 0.172 | 0.177 | 0.186 | 0.178 | 13.42 |       |       |
| 106) | n-propylbenzene  | 4.127          | 3.859 | 4.773 | 3.695 | 3.977 | 3.768 | 3.622 | 3.941 | 4.079 | 5.832 | 4.167 | 16.02 |
| 107) | 4-Ethyltoluene   |                |       |       |       |       |       |       |       | 0.000 | -1.00 |       |       |
| 108) | 2-chlorotoluene  | 0.862          | 0.821 | 0.785 | 0.793 | 0.864 | 0.847 | 0.800 | 0.828 | 0.890 | 0.626 | 0.812 | 9.08  |
| 109) | 4-chlorotoluene  | 2.505          | 2.379 | 3.207 | 2.171 | 2.381 | 2.503 | 2.191 | 2.342 | 2.502 | 2.465 | 12.39 |       |
| 110) | 1,3,5-trimethylbenzene                                     | 2.925          | 2.801 | 3.060 | 2.732 | 3.032 | 2.693 | 2.766 | 2.781 | 2.889 | 3.912 | 2.959 | 12.06 |
| 111) | tert-butylbenzene  | 0.526          | 0.474 | 0.490 | 0.500 | 0.557 | 0.452 | 0.519 | 0.514 | 0.468 | 0.500 | 6.56  |       |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICC7713  
**Lab FileID:** Y178412.D

|      |                             |                |       |       |       |       |       |       |       |       |       |       |       |
|------|-----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112) | 1,2,4-trimethylbenzene      | 2.986          | 2.870 | 3.238 | 2.795 | 3.089 | 2.686 | 2.830 | 2.906 | 3.004 | 3.424 | 2.983 | 7.39  |
| 113) | sec-butylbenzene            | 3.868          | 3.613 | 4.225 | 3.547 | 3.931 | 3.700 | 3.607 | 3.738 | 3.670 | 4.381 | 3.828 | 7.28  |
| 114) | 1,3-dichlorobenzene         | 1.750          | 1.665 | 1.721 | 1.597 | 1.746 | 1.700 | 1.611 | 1.665 | 1.794 | 1.753 | 1.700 | 3.80  |
| 115) | p-isopropyltoluene          | 3.239          | 3.111 | 3.485 | 3.021 | 3.334 | 3.042 | 3.073 | 3.186 | 3.076 | 3.676 | 3.224 | 6.68  |
| 116) | 1,4-dichlorobenzene         | 1.878          | 1.722 | 2.033 | 1.609 | 1.749 | 1.855 | 1.624 | 1.700 | 1.785 | 1.855 | 1.781 | 7.23  |
| 117) | 1,2-dichlorobenzene         | 1.790          | 1.692 | 1.868 | 1.629 | 1.786 | 1.641 | 1.652 | 1.711 | 1.656 | 1.890 | 1.732 | 5.55  |
| 118) | 1,4-Diethylbenzene          |                |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 119) | n-butylbenzene              | 1.755          | 1.667 | 1.985 | 1.657 | 1.830 | 1.579 | 1.657 | 1.764 | 1.705 | 1.817 | 1.742 | 6.65  |
| 120) | 1,2,4,5-Tetramethylbenzene  |                |       |       |       |       |       |       |       |       |       | 0.000 | -1.00 |
| 121) | 1,2-dibromo-3-chloropropane | 0.202          | 0.178 |       | 0.170 | 0.192 |       | 0.177 | 0.185 | 0.174 |       | 0.183 | 6.16  |
| 122) | 1,3,5-Trichlorobenzene      | 1.695          | 1.610 | 1.836 | 1.590 | 1.825 | 1.603 | 1.647 | 1.747 | 1.578 | 2.251 | 1.738 | 11.70 |
| 123) | 1,2,4-trichlorobenzene      | 1.433          | 1.310 | 1.326 | 1.333 | 1.561 | 1.293 | 1.414 | 1.411 | 1.329 | 1.557 | 1.397 | 7.01  |
| 124) | hexachlorobutadiene         | 0.922          | 0.829 | 1.057 | 0.838 | 0.933 | 0.833 | 0.813 | 0.887 | 0.897 | 0.839 | 0.885 | 8.31  |
| 125) | naphthalene                 | 2.622          | 2.382 | 2.840 | 2.326 | 2.751 | 2.468 | 2.535 | 2.602 | 2.535 | 3.062 | 2.612 | 8.48  |
| 126) | 1,2,3-trichlorobenzene      | 1.296          | 1.178 | 1.201 | 1.184 | 1.383 | 1.199 | 1.271 | 1.286 | 1.191 | 1.298 | 1.248 | 5.46  |
| 127) | hexachloroethane            | 0.512          | 0.524 | 0.388 | 0.559 | 0.627 | 0.425 | 0.596 | 0.555 | 0.490 |       | 0.520 | 14.82 |
| 128) | Benzyl chloride             | 1.635          | 1.587 |       | 1.449 | 1.556 | 1.943 | 1.440 | 1.573 | 1.603 |       | 1.598 | 9.75  |
| 129) | 2-ethylhexyl acrylate       | 1.268          | 0.957 |       | 0.990 | 1.206 |       | 1.119 | 1.089 | 1.337 |       | 1.138 | 12.37 |
| 130) | 2-methylnaphthalene         |                | 1.086 |       | 1.147 | 1.469 |       | 1.423 | 1.223 |       |       | 1.269 | 13.32 |
| 131) | pentafluorobenzene(a)       | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |       |
| 132) | freon 142b                  | 0.979          | 0.882 | 1.115 | 1.040 | 0.898 | 1.015 | 0.968 | 0.827 | 0.886 |       | 0.957 | 9.56  |
| 133) | freon 141b                  | 0.911          | 0.862 | 0.648 | 0.941 | 0.828 | 0.853 | 0.873 | 0.774 | 0.814 |       | 0.834 | 10.29 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

MYS7713.M Thu May 17 08:44:26 2018 RPT1

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# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7713-ICV7713  
 Lab FileID: Y178417.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178417.D Vial: 14  
 Acq On : 28 Feb 2018 12:17 am Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Mon Mar 05 14:04:44 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 104   | -0.01    | 6.99  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.520 | 1.613 | -6.1         | 117   | 0.00     | 7.11  |
| 4   | 1,4-dioxane              | 0.115 | 0.126 | -9.6         | 114   | 0.00     | 10.84 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 98    | 0.00     | 9.22  |
| 6   | chlorodifluoromethane    | 0.919 | 0.807 | 12.2         | 94    | 0.00     | 3.86  |
| 7   | dichlorodifluoromethane  | 0.807 | 0.829 | -2.7         | 116   | 0.00     | 3.86  |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |       |
| 9   | Freon 114                |       |       | -----NA----- |       |          |       |
| 10  | chloromethane            | 1.069 | 1.144 | -7.0         | 117   | 0.00     | 4.19  |
| 11  | vinyl chloride           | 0.913 | 0.891 | 2.4          | 105   | 0.00     | 4.42  |
| 12  | 1,3-butadiene            |       |       | -----NA----- |       |          |       |
| 13  | bromomethane             | 0.629 | 0.618 | 1.7          | 114   | 0.00     | 5.01  |
| 14  | chloroethane             | 0.503 | 0.501 | 0.4          | 109   | 0.00     | 5.16  |
| 15  | vinyl Bromide            | 0.553 | 0.558 | -0.9         | 107   | 0.00     | 5.48  |
| 16  | trichlorofluoromethane   | 0.776 | 0.773 | 0.4          | 104   | 0.01     | 5.61  |
| 17  | ethyl ether              | 0.295 | 0.296 | -0.3         | 105   | 0.00     | 5.96  |
| 18  | 2-chloropropane          | 0.227 | 0.225 | 0.9          | 105   | 0.00     | 6.13  |
| 19  | acrolein                 | 0.108 | 0.110 | -1.9         | 111   | 0.00     | 6.16  |
| 20  | freon 113                | 0.393 | 0.443 | -12.7        | 116   | 0.00     | 6.38  |
| 21  | 1,1-dichloroethene       | 0.757 | 0.741 | 2.1          | 99    | 0.00     | 6.36  |
| 22  | acetone                  | 0.062 | 0.055 | 11.3         | 96    | 0.00     | 6.37  |
| 23  | acetonitrile             | 0.073 | 0.069 | 5.5          | 102   | 0.00     | 6.75  |
| 24  | iodomethane              | 0.919 | 0.928 | -1.0         | 104   | 0.00     | 6.62  |
| 25  | carbon disulfide         | 1.825 | 1.829 | -0.2         | 103   | 0.00     | 6.76  |
| 26  | methylene chloride       | 0.595 | 0.598 | -0.5         | 108   | 0.00     | 7.03  |
| 27  | methyl acetate           | 0.362 | 0.386 | -6.6         | 113   | 0.00     | 6.84  |
| 28  | methyl tert butyl ether  | 1.786 | 1.800 | 0.8          | 112   | 0.00     | 7.40  |
| 29  | trans-1,2-dichloroethene | 0.753 | 0.757 | -0.5         | 103   | 0.00     | 7.42  |
| 30  | hexane                   | 0.729 | 0.603 | 17.3         | 86    | 0.00     | 7.76  |
| 31  | di-isopropyl ether       | 2.350 | 2.362 | -0.5         | 109   | 0.00     | 8.00  |
| 32  | ethyl tert-butyl ether   | 2.003 | 2.135 | -6.6         | 110   | 0.00     | 8.45  |
| 33  | 2-butanone               | 0.052 | 0.059 | -13.5        | 106   | 0.00     | 8.63  |
| 34  | 1,1-dichloroethane       | 0.962 | 0.985 | -2.4         | 106   | 0.00     | 7.96  |
| 35  | chloroprene              | 0.757 | 0.756 | 0.1          | 105   | 0.00     | 8.09  |
| 36  | acrylonitrile            | 0.174 | 0.220 | -26.4        | 125   | 0.00     | 7.30  |
| 37  | vinyl acetate            | 0.071 | 0.087 | -22.5        | 126   | 0.00     | 7.95  |
| 38  | ethyl acetate            | 0.083 | 0.078 | 6.0          | 115   | 0.00     | 8.68  |
| 39  | 2,2-dichloropropane      | 0.870 | 0.818 | 6.0          | 105   | 0.00     | 8.71  |
| 40  | cis-1,2-dichloroethene   | 0.657 | 0.600 | 8.7          | 107   | 0.00     | 8.68  |
| 41  | propionitrile            | 0.074 | 0.075 | -1.4         | 103   | 0.00     | 8.69  |

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178417.D

|      |                           |       |       |        |     |      |       |
|------|---------------------------|-------|-------|--------|-----|------|-------|
| 42   | bromochloromethane        | 0.325 | 0.362 | -11.4  | 111 | 0.00 | 8.98  |
| 43   | tetrahydrofuran           | 0.062 | 0.068 | -9.7   | 113 | 0.00 | 9.05  |
| 44   | chloroform                | 0.940 | 0.927 | 1.4    | 106 | 0.00 | 9.04  |
| 45   | tert-Butyl Formate        | 0.241 | 0.339 | -40.7# | 145 | 0.01 | 9.11  |
| 46   | isobutyl alcohol          | 0.126 | 0.131 | -4.0   | 106 | 0.00 | 9.42  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.448 | -0.2   | 98  | 0.00 | 9.24  |
| 48   | methacrylonitrile         | 0.191 | 0.190 | 0.5    | 105 | 0.00 | 8.89  |
| 49   | 1,1,1-trichloroethane     | 0.845 | 0.788 | 6.7    | 103 | 0.00 | 9.33  |
| 50   | cyclohexane               | 0.807 | 0.781 | 3.2    | 103 | 0.00 | 9.43  |
| 51   | 1,1-dichloropropene       | 0.639 | 0.655 | -2.5   | 104 | 0.00 | 9.51  |
| 52   | tert-amyl alcohol         | 0.023 | 0.026 | -13.0  | 122 | 0.00 | 9.61  |
| 53   | carbon tetrachloride      | 0.669 | 0.679 | -1.5   | 102 | 0.00 | 9.54  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0    | 97  | 0.00 | 10.13 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.290 | 0.7    | 99  | 0.00 | 9.65  |
| 56   | 2,2,4-trimethylpentane    | 1.494 | 1.442 | 3.5    | 108 | 0.00 | 9.81  |
| 57   | tert-amyl methyl ether    | 1.293 | 1.332 | -3.0   | 112 | 0.00 | 9.82  |
| 58   | n-butyl alcohol           | 0.011 | 0.012 | -9.1   | 114 | 0.00 | 10.22 |
| 59   | benzene                   | 1.463 | 1.432 | 2.1    | 105 | 0.00 | 9.76  |
| 60   | heptane                   | 0.285 | 0.296 | -3.9   | 112 | 0.00 | 9.99  |
| 61   | isopropyl acetate         | 0.055 | 0.066 | -20.0  | 112 | 0.00 | 9.68  |
| 62   | 1,2-dichloroethane        | 0.437 | 0.439 | -0.5   | 109 | 0.00 | 9.74  |
| 63   | trichloroethene           | 0.349 | 0.335 | 4.0    | 105 | 0.00 | 10.48 |
| 64   | ethyl acrylate            | 0.338 | 0.374 | -10.7  | 109 | 0.00 | 10.47 |
| 65   | 2-nitropropane            | 0.069 | 0.072 | -4.3   | 112 | 0.00 | 11.20 |
| 66   | 2-chloroethyl vinyl ether | 0.165 | 0.182 | -10.3  | 111 | 0.00 | 11.26 |
| 67   | methyl methacrylate       | 0.068 | 0.075 | -10.3  | 107 | 0.00 | 10.74 |
| 68   | 1,2-dichloropropane       | 0.378 | 0.388 | -2.6   | 104 | 0.00 | 10.72 |
| 69   | methylcyclohexane         | 0.697 | 0.620 | 11.0   | 98  | 0.00 | 10.74 |
| 70   | dibromomethane            | 0.198 | 0.212 | -7.1   | 109 | 0.00 | 10.87 |
| 71   | bromodichloromethane      | 0.492 | 0.476 | 3.3    | 104 | 0.00 | 11.00 |
| 72   | epichlorohydrin           | 0.029 | 0.032 | -10.3  | 118 | 0.00 | 11.35 |
| 73   | cis-1,3-dichloropropene   | 0.556 | 0.585 | -5.2   | 105 | 0.00 | 11.48 |
| 74   | 4-methyl-2-pentanone      | 0.115 | 0.139 | -20.9  | 115 | 0.00 | 11.57 |
| 75   | 3-methyl-1-butanol        | 0.010 | 0.011 | -10.0  | 108 | 0.00 | 11.59 |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0    | 96  | 0.00 | 13.29 |
| 77 S | toluene-d8 (s)            | 1.359 | 1.379 | -1.5   | 97  | 0.00 | 11.79 |
| 78   | toluene                   | 0.956 | 0.983 | -2.8   | 102 | 0.00 | 11.87 |
| 79   | trans-1,3-dichloropropene | 0.570 | 0.564 | 1.1    | 99  | 0.00 | 12.03 |
| 80   | ethyl methacrylate        | 0.481 | 0.477 | 0.8    | 101 | 0.00 | 12.06 |
| 81   | 1,1,2-trichloroethane     | 0.285 | 0.291 | -2.1   | 105 | 0.00 | 12.24 |
| 82   | 2-hexanone                | 0.129 | 0.142 | -10.1  | 105 | 0.00 | 12.43 |
| 83   | tetrachloroethene         | 0.381 | 0.429 | -12.6  | 112 | 0.00 | 12.47 |
| 84   | 1,3-dichloropropane       | 0.511 | 0.563 | -10.2  | 111 | 0.00 | 12.43 |
| 85   | butyl acetate             | 0.209 | 0.241 | -15.3  | 115 | 0.00 | 12.53 |
| 86   | dibromochloromethane      | 0.360 | 0.406 | -12.8  | 110 | 0.00 | 12.69 |
| 87   | 1,2-dibromoethane         | 0.318 | 0.347 | -9.1   | 107 | 0.00 | 12.85 |
| 88   | 3,3-Dimethyl-1-Butanol    | 0.047 | 0.051 | -8.5   | 113 | 0.00 | 12.60 |
| 89   | n-butyl ether             | 1.854 | 1.881 | -1.5   | 101 | 0.00 | 13.29 |
| 90   | chlorobenzene             | 1.074 | 1.074 | 0.0    | 104 | 0.00 | 13.33 |
| 91   | 1,1,1,2-tetrachloroethane | 0.411 | 0.456 | -10.9  | 108 | 0.00 | 13.38 |
| 92   | ethylbenzene              | 1.878 | 1.826 | 2.8    | 105 | 0.00 | 13.40 |
| 93   | m,p-xylene                | 0.665 | 0.696 | -4.7   | 105 | 0.00 | 13.50 |
| 94   | o-xylene                  | 1.617 | 1.594 | 1.4    | 107 | 0.00 | 13.92 |
| 95   | styrene                   | 1.177 | 1.226 | -4.2   | 106 | 0.00 | 13.92 |
| 96   | bromoform                 | 0.231 | 0.270 | -16.9  | 111 | 0.00 | 14.15 |
| 97   | butyl acrylate            | 0.687 | 0.791 | -15.1  | 110 | 0.00 | 13.74 |
| 98   | isopropylbenzene          | 1.854 | 1.905 | -2.8   | 106 | 0.00 | 14.26 |
| 99   | cis-1,4-dichloro-2-butene | 0.127 | 0.142 | -11.8  | 106 | 0.00 | 14.29 |

6.11.12  
6

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178417.D

|     |   |                           |       |       |              |     |      |       |
|-----|---|---------------------------|-------|-------|--------------|-----|------|-------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 96  | 0.00 | 15.61 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.824 | 0.7          | 95  | 0.00 | 14.45 |
| 102 |   | bromobenzene              | 0.846 | 0.901 | -6.5         | 106 | 0.00 | 14.64 |
| 103 |   | 1,1,2,2-tetrachloroethane | 0.880 | 0.860 | 2.3          | 107 | 0.00 | 14.52 |
| 104 |   | trans-1,4-dichloro-2-bute | 0.176 | 0.222 | -26.1        | 131 | 0.00 | 14.57 |
| 105 |   | 1,2,3-trichloropropane    | 0.178 | 0.192 | -7.9         | 108 | 0.00 | 14.60 |
| 106 |   | n-propylbenzene           | 4.167 | 4.028 | 3.3          | 105 | 0.00 | 14.67 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |      |       |
| 108 |   | 2-chlorotoluene           | 0.812 | 0.864 | -6.4         | 105 | 0.00 | 14.81 |
| 109 |   | 4-chlorotoluene           | 2.465 | 2.470 | -0.2         | 109 | 0.00 | 14.90 |
| 110 |   | 1,3,5-trimethylbenzene    | 2.959 | 3.007 | -1.6         | 106 | 0.00 | 14.82 |
| 111 |   | tert-butylbenzene         | 0.500 | 0.555 | -11.0        | 107 | 0.00 | 15.17 |
| 112 |   | 1,2,4-trimethylbenzene    | 2.983 | 3.161 | -6.0         | 109 | 0.00 | 15.21 |
| 113 |   | sec-butylbenzene          | 3.828 | 3.943 | -3.0         | 107 | 0.00 | 15.38 |
| 114 |   | 1,3-dichlorobenzene       | 1.700 | 1.753 | -3.1         | 106 | 0.00 | 15.55 |
| 115 |   | p-isopropyltoluene        | 3.224 | 3.403 | -5.6         | 108 | 0.00 | 15.50 |
| 116 |   | 1,4-dichlorobenzene       | 1.781 | 1.764 | 1.0          | 106 | 0.00 | 15.63 |
| 117 |   | 1,2-dichlorobenzene       | 1.732 | 1.776 | -2.5         | 105 | 0.00 | 16.01 |
| 118 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |      |       |
| 119 |   | n-butylbenzene            | 1.742 | 1.923 | -10.4        | 112 | 0.00 | 15.92 |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       | -----NA----- |     |      |       |
| 121 |   | 1,2-dibromo-3-chloropropa | 0.183 | 0.201 | -9.8         | 114 | 0.00 | 16.77 |
| 122 |   | 1,3,5-Trichlorobenzene    | 1.738 | 1.807 | -4.0         | 109 | 0.00 | 16.99 |
| 123 |   | 1,2,4-trichlorobenzene    | 1.397 | 1.544 | -10.5        | 111 | 0.00 | 17.60 |
| 124 |   | hexachlorobutadiene       | 0.885 | 0.916 | -3.5         | 105 | 0.00 | 17.75 |
| 125 |   | naphthalene               | 2.612 | 2.757 | -5.6         | 114 | 0.00 | 17.87 |
| 126 |   | 1,2,3-trichlorobenzene    | 1.248 | 1.342 | -7.5         | 109 | 0.00 | 18.11 |
| 127 |   | hexachloroethane          | 0.520 | 0.630 | -21.2        | 109 | 0.00 | 16.30 |
| 128 |   | Benzyl chloride           | 1.598 | 1.395 | 12.7         | 93  | 0.00 | 15.73 |
| 129 |   | 2-ethylhexyl acrylate     | 1.138 | 1.285 | -12.9        | 125 | 0.00 | 17.61 |
| 130 |   | 2-methylnaphthalene       | 1.269 | 1.210 | 4.6          | 101 | 0.00 | 19.05 |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Mon Mar 05 14:06:10 2018 RPT1

6.11.12  
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# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7713-ICV7713  
 Lab FileID: Y178418.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178418.D Vial: 15  
 Acq On : 28 Feb 2018 12:45 am Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Wed Feb 28 11:02:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 106   | 0.00     | 7.00 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 94    | 0.00     | 9.22 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |      |
| 9   | Freon 114                |       |       | -----NA----- |       |          |      |
| 10  | chloromethane            |       |       | -----NA----- |       |          |      |
| 11  | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 12  | 1,3-butadiene            |       |       | -----NA----- |       |          |      |
| 13  | bromomethane             |       |       | -----NA----- |       |          |      |
| 14  | chloroethane             |       |       | -----NA----- |       |          |      |
| 15  | vinyl Bromide            |       |       | -----NA----- |       |          |      |
| 16  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 17  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 18  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 19  | acrolein                 |       |       | -----NA----- |       |          |      |
| 20  | freon 113                |       |       | -----NA----- |       |          |      |
| 21  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 22  | acetone                  |       |       | -----NA----- |       |          |      |
| 23  | acetonitrile             | 0.073 | 0.076 | -4.1         | 106   | 0.01     | 6.76 |
| 24  | iodomethane              |       |       | -----NA----- |       |          |      |
| 25  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 26  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 27  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 28  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 29  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 30  | hexane                   |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 33  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 34  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 35  | chloroprene              |       |       | -----NA----- |       |          |      |
| 36  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 37  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 38  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 39  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 40  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 41  | propionitrile            |       |       | -----NA----- |       |          |      |

6.11.13  
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# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7713-ICV7713  
 Lab FileID: Y178418.D

|      |                           |       |       |      |    |      |       |  |
|------|---------------------------|-------|-------|------|----|------|-------|--|
| 42   | bromochloromethane        |       |       |      |    |      |       |  |
| 43   | tetrahydrofuran           |       |       |      |    |      |       |  |
| 44   | chloroform                |       |       |      |    |      |       |  |
| 45   | tert-Butyl Formate        |       |       |      |    |      |       |  |
| 46   | isobutyl alcohol          |       |       |      |    |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.447 | 0.0  | 94 | 0.00 | 9.23  |  |
| 48   | methacrylonitrile         |       |       |      |    |      |       |  |
| 49   | 1,1,1-trichloroethane     |       |       |      |    |      |       |  |
| 50   | cyclohexane               |       |       |      |    |      |       |  |
| 51   | 1,1-dichloropropene       |       |       |      |    |      |       |  |
| 52   | tert-amyl alcohol         |       |       |      |    |      |       |  |
| 53   | carbon tetrachloride      |       |       |      |    |      |       |  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 91 | 0.00 | 10.13 |  |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.301 | -3.1 | 96 | 0.00 | 9.64  |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      |    |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      |    |      |       |  |
| 58   | n-butyl alcohol           |       |       |      |    |      |       |  |
| 59   | benzene                   |       |       |      |    |      |       |  |
| 60   | heptane                   |       |       |      |    |      |       |  |
| 61   | isopropyl acetate         |       |       |      |    |      |       |  |
| 62   | 1,2-dichloroethane        |       |       |      |    |      |       |  |
| 63   | trichloroethene           |       |       |      |    |      |       |  |
| 64   | ethyl acrylate            |       |       |      |    |      |       |  |
| 65   | 2-nitropropane            |       |       |      |    |      |       |  |
| 66   | 2-chloroethyl vinyl ether |       |       |      |    |      |       |  |
| 67   | methyl methacrylate       |       |       |      |    |      |       |  |
| 68   | 1,2-dichloropropane       |       |       |      |    |      |       |  |
| 69   | methylcyclohexane         |       |       |      |    |      |       |  |
| 70   | dibromomethane            |       |       |      |    |      |       |  |
| 71   | bromodichloromethane      |       |       |      |    |      |       |  |
| 72   | epichlorohydrin           |       |       |      |    |      |       |  |
| 73   | cis-1,3-dichloropropene   |       |       |      |    |      |       |  |
| 74   | 4-methyl-2-pentanone      |       |       |      |    |      |       |  |
| 75   | 3-methyl-1-butanol        |       |       |      |    |      |       |  |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 94 | 0.00 | 13.30 |  |
| 77 S | toluene-d8 (s)            | 1.359 | 1.323 | 2.6  | 90 | 0.00 | 11.79 |  |
| 78   | toluene                   |       |       |      |    |      |       |  |
| 79   | trans-1,3-dichloropropene |       |       |      |    |      |       |  |
| 80   | ethyl methacrylate        |       |       |      |    |      |       |  |
| 81   | 1,1,2-trichloroethane     |       |       |      |    |      |       |  |
| 82   | 2-hexanone                |       |       |      |    |      |       |  |
| 83   | tetrachloroethene         | 0.381 | 0.383 | -0.5 | 98 | 0.00 | 12.47 |  |
| 84   | 1,3-dichloropropane       |       |       |      |    |      |       |  |
| 85   | butyl acetate             |       |       |      |    |      |       |  |
| 86   | dibromochloromethane      |       |       |      |    |      |       |  |
| 87   | 1,2-dibromoethane         |       |       |      |    |      |       |  |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       |      |    |      |       |  |
| 89   | n-butyl ether             |       |       |      |    |      |       |  |
| 90   | chlorobenzene             |       |       |      |    |      |       |  |
| 91   | 1,1,1,2-tetrachloroethane |       |       |      |    |      |       |  |
| 92   | ethylbenzene              |       |       |      |    |      |       |  |
| 93   | m,p-xylene                |       |       |      |    |      |       |  |
| 94   | o-xylene                  |       |       |      |    |      |       |  |
| 95   | styrene                   |       |       |      |    |      |       |  |
| 96   | bromoform                 |       |       |      |    |      |       |  |
| 97   | butyl acrylate            |       |       |      |    |      |       |  |
| 98   | isopropylbenzene          |       |       |      |    |      |       |  |
| 99   | cis-1,4-dichloro-2-butene |       |       |      |    |      |       |  |

6.11.13  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178418.D

|     |   |                           |       |       |     |    |      |              |
|-----|---|---------------------------|-------|-------|-----|----|------|--------------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0 | 98 | 0.00 | 15.61        |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.818 | 1.4 | 96 | 0.00 | 14.45        |
| 102 |   | bromobenzene              |       |       |     |    |      | -----NA----- |
| 103 |   | 1,1,2,2-tetrachloroethane |       |       |     |    |      | -----NA----- |
| 104 |   | trans-1,4-dichloro-2-bute |       |       |     |    |      | -----NA----- |
| 105 |   | 1,2,3-trichloropropane    |       |       |     |    |      | -----NA----- |
| 106 |   | n-propylbenzene           |       |       |     |    |      | -----NA----- |
| 107 |   | 4-Ethyltoluene            |       |       |     |    |      | -----NA----- |
| 108 |   | 2-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 109 |   | 4-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 110 |   | 1,3,5-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 111 |   | tert-butylbenzene         |       |       |     |    |      | -----NA----- |
| 112 |   | 1,2,4-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 113 |   | sec-butylbenzene          |       |       |     |    |      | -----NA----- |
| 114 |   | 1,3-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 115 |   | p-isopropyltoluene        |       |       |     |    |      | -----NA----- |
| 116 |   | 1,4-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 117 |   | 1,2-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 118 |   | 1,4-Diethylbenzene        |       |       |     |    |      | -----NA----- |
| 119 |   | n-butylbenzene            |       |       |     |    |      | -----NA----- |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       |     |    |      | -----NA----- |
| 121 |   | 1,2-dibromo-3-chloropropa |       |       |     |    |      | -----NA----- |
| 122 |   | 1,3,5-Trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 123 |   | 1,2,4-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 124 |   | hexachlorobutadiene       |       |       |     |    |      | -----NA----- |
| 125 |   | naphthalene               |       |       |     |    |      | -----NA----- |
| 126 |   | 1,2,3-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 127 |   | hexachloroethane          |       |       |     |    |      | -----NA----- |
| 128 |   | Benzyl chloride           |       |       |     |    |      | -----NA----- |
| 129 |   | 2-ethylhexyl acrylate     |       |       |     |    |      | -----NA----- |
| 130 |   | 2-methylnaphthalene       |       |       |     |    |      | -----NA----- |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 01 09:38:46 2018 RPT1

6.11.13  
 6

# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7713-ICV7713  
 Lab FileID: Y178421.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7713\Y178421.D Vial: 18  
 Acq On : 28 Feb 2018 2:19 pm Operator: PrashanS  
 Sample : ICV7713-50 Inst : MSY  
 Misc : MS24386,VY7713,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Wed Feb 28 11:02:25 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T. |
|-----|--------------------------|-------|-------|--------------|-------|----------|------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 104   | 0.00     | 7.01 |
| 2   | ethanol                  |       |       | -----NA----- |       |          |      |
| 3   | tertiary butyl alcohol   |       |       | -----NA----- |       |          |      |
| 4   | 1,4-dioxane              |       |       | -----NA----- |       |          |      |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 91    | 0.00     | 9.22 |
| 6   | chlorodifluoromethane    |       |       | -----NA----- |       |          |      |
| 7   | dichlorodifluoromethane  |       |       | -----NA----- |       |          |      |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |      |
| 9   | Freon 114                |       |       | -----NA----- |       |          |      |
| 10  | chloromethane            |       |       | -----NA----- |       |          |      |
| 11  | vinyl chloride           |       |       | -----NA----- |       |          |      |
| 12  | 1,3-butadiene            | 0.803 | 0.977 | -21.7        | 130   | 0.00     | 4.45 |
| 13  | bromomethane             |       |       | -----NA----- |       |          |      |
| 14  | chloroethane             |       |       | -----NA----- |       |          |      |
| 15  | vinyl Bromide            |       |       | -----NA----- |       |          |      |
| 16  | trichlorofluoromethane   |       |       | -----NA----- |       |          |      |
| 17  | ethyl ether              |       |       | -----NA----- |       |          |      |
| 18  | 2-chloropropane          |       |       | -----NA----- |       |          |      |
| 19  | acrolein                 |       |       | -----NA----- |       |          |      |
| 20  | freon 113                |       |       | -----NA----- |       |          |      |
| 21  | 1,1-dichloroethene       |       |       | -----NA----- |       |          |      |
| 22  | acetone                  |       |       | -----NA----- |       |          |      |
| 23  | acetonitrile             |       |       | -----NA----- |       |          |      |
| 24  | iodomethane              |       |       | -----NA----- |       |          |      |
| 25  | carbon disulfide         |       |       | -----NA----- |       |          |      |
| 26  | methylene chloride       |       |       | -----NA----- |       |          |      |
| 27  | methyl acetate           |       |       | -----NA----- |       |          |      |
| 28  | methyl tert butyl ether  |       |       | -----NA----- |       |          |      |
| 29  | trans-1,2-dichloroethene |       |       | -----NA----- |       |          |      |
| 30  | hexane                   |       |       | -----NA----- |       |          |      |
| 31  | di-isopropyl ether       |       |       | -----NA----- |       |          |      |
| 32  | ethyl tert-butyl ether   |       |       | -----NA----- |       |          |      |
| 33  | 2-butanone               |       |       | -----NA----- |       |          |      |
| 34  | 1,1-dichloroethane       |       |       | -----NA----- |       |          |      |
| 35  | chloroprene              |       |       | -----NA----- |       |          |      |
| 36  | acrylonitrile            |       |       | -----NA----- |       |          |      |
| 37  | vinyl acetate            |       |       | -----NA----- |       |          |      |
| 38  | ethyl acetate            |       |       | -----NA----- |       |          |      |
| 39  | 2,2-dichloropropane      |       |       | -----NA----- |       |          |      |
| 40  | cis-1,2-dichloroethene   |       |       | -----NA----- |       |          |      |
| 41  | propionitrile            |       |       | -----NA----- |       |          |      |

6.11.14  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178421.D

|      |                           |       |       |      |    |      |       |  |
|------|---------------------------|-------|-------|------|----|------|-------|--|
| 42   | bromochloromethane        |       |       |      |    |      |       |  |
| 43   | tetrahydrofuran           |       |       |      |    |      |       |  |
| 44   | chloroform                |       |       |      |    |      |       |  |
| 45   | tert-Butyl Formate        |       |       |      |    |      |       |  |
| 46   | isobutyl alcohol          |       |       |      |    |      |       |  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.452 | -1.1 | 92 | 0.00 | 9.24  |  |
| 48   | methacrylonitrile         |       |       |      |    |      |       |  |
| 49   | 1,1,1-trichloroethane     |       |       |      |    |      |       |  |
| 50   | cyclohexane               |       |       |      |    |      |       |  |
| 51   | 1,1-dichloropropene       |       |       |      |    |      |       |  |
| 52   | tert-amyl alcohol         |       |       |      |    |      |       |  |
| 53   | carbon tetrachloride      |       |       |      |    |      |       |  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0  | 88 | 0.00 | 10.13 |  |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.306 | -4.8 | 95 | 0.00 | 9.65  |  |
| 56   | 2,2,4-trimethylpentane    |       |       |      |    |      |       |  |
| 57   | tert-amyl methyl ether    |       |       |      |    |      |       |  |
| 58   | n-butyl alcohol           |       |       |      |    |      |       |  |
| 59   | benzene                   |       |       |      |    |      |       |  |
| 60   | heptane                   |       |       |      |    |      |       |  |
| 61   | isopropyl acetate         |       |       |      |    |      |       |  |
| 62   | 1,2-dichloroethane        |       |       |      |    |      |       |  |
| 63   | trichloroethene           |       |       |      |    |      |       |  |
| 64   | ethyl acrylate            |       |       |      |    |      |       |  |
| 65   | 2-nitropropane            |       |       |      |    |      |       |  |
| 66   | 2-chloroethyl vinyl ether |       |       |      |    |      |       |  |
| 67   | methyl methacrylate       |       |       |      |    |      |       |  |
| 68   | 1,2-dichloropropane       |       |       |      |    |      |       |  |
| 69   | methylcyclohexane         |       |       |      |    |      |       |  |
| 70   | dibromomethane            |       |       |      |    |      |       |  |
| 71   | bromodichloromethane      |       |       |      |    |      |       |  |
| 72   | epichlorohydrin           |       |       |      |    |      |       |  |
| 73   | cis-1,3-dichloropropene   |       |       |      |    |      |       |  |
| 74   | 4-methyl-2-pentanone      |       |       |      |    |      |       |  |
| 75   | 3-methyl-1-butanol        |       |       |      |    |      |       |  |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0  | 90 | 0.00 | 13.30 |  |
| 77 S | toluene-d8 (s)            | 1.359 | 1.330 | 2.1  | 87 | 0.00 | 11.79 |  |
| 78   | toluene                   |       |       |      |    |      |       |  |
| 79   | trans-1,3-dichloropropene |       |       |      |    |      |       |  |
| 80   | ethyl methacrylate        |       |       |      |    |      |       |  |
| 81   | 1,1,2-trichloroethane     |       |       |      |    |      |       |  |
| 82   | 2-hexanone                |       |       |      |    |      |       |  |
| 83   | tetrachloroethene         |       |       |      |    |      |       |  |
| 84   | 1,3-dichloropropane       |       |       |      |    |      |       |  |
| 85   | butyl acetate             |       |       |      |    |      |       |  |
| 86   | dibromochloromethane      |       |       |      |    |      |       |  |
| 87   | 1,2-dibromoethane         |       |       |      |    |      |       |  |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       |      |    |      |       |  |
| 89   | n-butyl ether             |       |       |      |    |      |       |  |
| 90   | chlorobenzene             |       |       |      |    |      |       |  |
| 91   | 1,1,1,2-tetrachloroethane |       |       |      |    |      |       |  |
| 92   | ethylbenzene              |       |       |      |    |      |       |  |
| 93   | m,p-xylene                |       |       |      |    |      |       |  |
| 94   | o-xylene                  |       |       |      |    |      |       |  |
| 95   | styrene                   |       |       |      |    |      |       |  |
| 96   | bromoform                 |       |       |      |    |      |       |  |
| 97   | butyl acrylate            |       |       |      |    |      |       |  |
| 98   | isopropylbenzene          |       |       |      |    |      |       |  |
| 99   | cis-1,4-dichloro-2-butene |       |       |      |    |      |       |  |

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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7713-ICV7713  
**Lab FileID:** Y178421.D

|     |   |                           |       |       |     |    |      |              |
|-----|---|---------------------------|-------|-------|-----|----|------|--------------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0 | 92 | 0.00 | 15.61        |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.827 | 0.4 | 92 | 0.00 | 14.45        |
| 102 |   | bromobenzene              |       |       |     |    |      | -----NA----- |
| 103 |   | 1,1,2,2-tetrachloroethane |       |       |     |    |      | -----NA----- |
| 104 |   | trans-1,4-dichloro-2-bute |       |       |     |    |      | -----NA----- |
| 105 |   | 1,2,3-trichloropropane    |       |       |     |    |      | -----NA----- |
| 106 |   | n-propylbenzene           |       |       |     |    |      | -----NA----- |
| 107 |   | 4-Ethyltoluene            |       |       |     |    |      | -----NA----- |
| 108 |   | 2-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 109 |   | 4-chlorotoluene           |       |       |     |    |      | -----NA----- |
| 110 |   | 1,3,5-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 111 |   | tert-butylbenzene         |       |       |     |    |      | -----NA----- |
| 112 |   | 1,2,4-trimethylbenzene    |       |       |     |    |      | -----NA----- |
| 113 |   | sec-butylbenzene          |       |       |     |    |      | -----NA----- |
| 114 |   | 1,3-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 115 |   | p-isopropyltoluene        |       |       |     |    |      | -----NA----- |
| 116 |   | 1,4-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 117 |   | 1,2-dichlorobenzene       |       |       |     |    |      | -----NA----- |
| 118 |   | 1,4-Diethylbenzene        |       |       |     |    |      | -----NA----- |
| 119 |   | n-butylbenzene            |       |       |     |    |      | -----NA----- |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       |     |    |      | -----NA----- |
| 121 |   | 1,2-dibromo-3-chloropropa |       |       |     |    |      | -----NA----- |
| 122 |   | 1,3,5-Trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 123 |   | 1,2,4-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 124 |   | hexachlorobutadiene       |       |       |     |    |      | -----NA----- |
| 125 |   | naphthalene               |       |       |     |    |      | -----NA----- |
| 126 |   | 1,2,3-trichlorobenzene    |       |       |     |    |      | -----NA----- |
| 127 |   | hexachloroethane          |       |       |     |    |      | -----NA----- |
| 128 |   | Benzyl chloride           |       |       |     |    |      | -----NA----- |
| 129 |   | 2-ethylhexyl acrylate     |       |       |     |    |      | -----NA----- |
| 130 |   | 2-methylnaphthalene       |       |       |     |    |      | -----NA----- |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 01 09:29:58 2018 RPT1

6.11.14

6

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7767-CC7713  
 Lab FileID: Y179618.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\eu...0318\vy7767\y179618.d Vial: 1  
 Acq On : 2 May 2018 7:45 am Operator: PrashanS  
 Sample : cc7713-50 Inst : MSY  
 Misc : MS26004,VY7767,5.0,,,,,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MYS7713.M (RTE Integrator)  
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 Last Update : Mon Sep 13 11:48:20 2010  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound                 | AvgRF | CCRF  | %Dev         | Area% | Dev(min) | R.T.  |
|-----|--------------------------|-------|-------|--------------|-------|----------|-------|
| 1 I | Tert Butyl Alcohol-d9    | 1.000 | 1.000 | 0.0          | 79    | -0.03    | 6.98  |
| 2   | ethanol                  |       |       | -----NA----- |       |          |       |
| 3   | tertiary butyl alcohol   | 1.520 | 1.605 | -5.6         | 88    | -0.02    | 7.09  |
| 4   | 1,4-dioxane              | 0.115 | 0.158 | -37.4#       | 108   | -0.01    | 10.83 |
| 5 I | pentafluorobenzene       | 1.000 | 1.000 | 0.0          | 95    | -0.02    | 9.20  |
| 6   | chlorodifluoromethane    | 0.919 | 0.869 | 5.4          | 98    | -0.01    | 3.85  |
| 7   | dichlorodifluoromethane  | 0.807 | 0.926 | -14.7        | 125   | 0.00     | 3.85  |
| 8   | Freon 142B               |       |       | -----NA----- |       |          |       |
| 9   | Freon 114                |       |       | -----NA----- |       |          |       |
| 10  | chloromethane            | 1.069 | 1.261 | -18.0        | 125   | 0.00     | 4.20  |
| 11  | vinyl chloride           | 0.913 | 1.202 | -31.7#       | 137   | 0.00     | 4.42  |
| 12  | 1,3-butadiene            | 0.803 | 0.680 | 15.3         | 94    | 0.00     | 4.45  |
| 13  | bromomethane             | 0.629 | 0.786 | -25.0#       | 140   | 0.00     | 5.00  |
| 14  | chloroethane             | 0.503 | 0.640 | -27.2#       | 135   | 0.00     | 5.16  |
| 15  | vinyl Bromide            | 0.553 | 0.603 | -9.0         | 112   | 0.00     | 5.48  |
| 16  | trichlorofluoromethane   | 0.776 | 0.985 | -26.9#       | 128   | -0.01    | 5.59  |
| 17  | ethyl ether              | 0.295 | 0.274 | 7.1          | 94    | -0.02    | 5.95  |
| 18  | 2-chloropropane          | 0.227 | 0.216 | 4.8          | 97    | -0.02    | 6.12  |
| 19  | acrolein                 | 0.108 | 0.093 | 13.9         | 91    | -0.03    | 6.13  |
| 20  | freon 113                | 0.393 | 0.452 | -15.0        | 115   | -0.01    | 6.37  |
| 21  | 1,1-dichloroethene       | 0.757 | 0.796 | -5.2         | 103   | -0.01    | 6.35  |
| 22  | acetone                  | 0.062 | 0.038 | 38.7#        | 64    | -0.02    | 6.34  |
| 23  | acetonitrile             | 0.073 | 0.068 | 6.8          | 96    | -0.02    | 6.73  |
| 24  | iodomethane              | 0.919 | 0.827 | 10.0         | 90    | -0.02    | 6.60  |
| 25  | carbon disulfide         | 1.825 | 1.698 | 7.0          | 93    | -0.02    | 6.75  |
| 26  | methylene chloride       | 0.595 | 0.577 | 3.0          | 101   | -0.02    | 7.01  |
| 27  | methyl acetate           | 0.362 | 0.332 | 8.3          | 94    | -0.02    | 6.83  |
| 28  | methyl tert butyl ether  | 1.786 | 1.521 | 14.8         | 91    | -0.02    | 7.38  |
| 29  | trans-1,2-dichloroethene | 0.753 | 0.754 | -0.1         | 99    | -0.02    | 7.41  |
| 30  | hexane                   | 0.729 | 0.661 | 9.3          | 91    | 0.00     | 7.76  |
| 31  | di-isopropyl ether       | 2.350 | 1.941 | 17.4         | 86    | -0.02    | 7.98  |
| 32  | ethyl tert-butyl ether   | 2.003 | 1.747 | 12.8         | 87    | -0.01    | 8.44  |
| 33  | 2-butanone               | 0.052 | 0.047 | 9.6          | 82    | -0.01    | 8.62  |
| 34  | 1,1-dichloroethane       | 0.962 | 0.937 | 2.6          | 97    | -0.02    | 7.94  |
| 35  | chloroprene              | 0.757 | 0.674 | 11.0         | 90    | -0.02    | 8.07  |
| 36  | acrylonitrile            | 0.174 | 0.160 | 8.0          | 88    | -0.01    | 7.30  |
| 37  | vinyl acetate            | 0.071 | 0.071 | 0.0          | 99    | -0.02    | 7.94  |
| 38  | ethyl acetate            | 0.083 | 0.070 | 15.7         | 101   | 0.00     | 8.67  |
| 39  | 2,2-dichloropropane      | 0.870 | 0.825 | 5.2          | 103   | -0.02    | 8.69  |
| 40  | cis-1,2-dichloroethene   | 0.657 | 0.576 | 12.3         | 99    | -0.02    | 8.67  |
| 41  | propionitrile            | 0.074 | 0.071 | 4.1          | 94    | -0.02    | 8.67  |

6.11.15  
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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** VY7767-CC7713  
**Lab FileID:** Y179618.D

|      |                           |       |       |              |     |       |       |
|------|---------------------------|-------|-------|--------------|-----|-------|-------|
| 42   | bromochloromethane        | 0.325 | 0.338 | -4.0         | 100 | -0.02 | 8.96  |
| 43   | tetrahydrofuran           | 0.062 | 0.061 | 1.6          | 99  | -0.02 | 9.03  |
| 44   | chloroform                | 0.940 | 0.872 | 7.2          | 97  | -0.02 | 9.03  |
| 45   | tert-Butyl Formate        | 0.241 | 0.453 | -88.0#       | 188 | -0.02 | 9.08  |
| 46   | isobutyl alcohol          | 0.126 | 0.121 | 4.0          | 95  | -0.01 | 9.40  |
| 47 S | dibromofluoromethane (s)  | 0.447 | 0.417 | 6.7          | 88  | -0.02 | 9.22  |
| 48   | methacrylonitrile         | 0.191 | 0.164 | 14.1         | 88  | -0.02 | 8.87  |
| 49   | 1,1,1-trichloroethane     | 0.845 | 0.815 | 3.6          | 103 | -0.01 | 9.31  |
| 50   | cyclohexane               | 0.807 | 0.805 | 0.2          | 103 | -0.02 | 9.42  |
| 51   | 1,1-dichloropropene       | 0.639 | 0.670 | -4.9         | 103 | -0.01 | 9.50  |
| 52   | tert-amyl alcohol         | 0.023 | 0.022 | 4.3          | 103 | -0.01 | 9.60  |
| 53   | carbon tetrachloride      | 0.669 | 0.708 | -5.8         | 103 | -0.01 | 9.53  |
| 54 I | 1,4-difluorobenzene       | 1.000 | 1.000 | 0.0          | 93  | -0.01 | 10.11 |
| 55 S | 1,2-dichloroethane-d4 (s) | 0.292 | 0.254 | 13.0         | 83  | -0.01 | 9.64  |
| 56   | 2,2,4-trimethylpentane    | 1.494 | 1.331 | 10.9         | 96  | -0.01 | 9.80  |
| 57   | tert-amyl methyl ether    | 1.293 | 1.103 | 14.7         | 89  | -0.02 | 9.81  |
| 58   | n-butyl alcohol           | 0.011 | 0.010 | 9.1          | 92  | -0.02 | 10.21 |
| 59   | benzene                   | 1.463 | 1.441 | 1.5          | 102 | -0.02 | 9.74  |
| 60   | heptane                   | 0.285 | 0.273 | 4.2          | 99  | -0.01 | 9.98  |
| 61   | isopropyl acetate         | 0.055 | 0.063 | -14.5        | 102 | 0.00  | 9.68  |
| 62   | 1,2-dichloroethane        | 0.437 | 0.388 | 11.2         | 93  | -0.02 | 9.72  |
| 63   | trichloroethene           | 0.349 | 0.351 | -0.6         | 106 | -0.01 | 10.47 |
| 64   | ethyl acrylate            | 0.338 | 0.362 | -7.1         | 101 | 0.00  | 10.46 |
| 65   | 2-nitropropane            | 0.069 | 0.058 | 15.9         | 87  | -0.02 | 11.18 |
| 66   | 2-chloroethyl vinyl ether | 0.165 | 0.174 | -5.5         | 102 | 0.00  | 11.24 |
| 67   | methyl methacrylate       | 0.068 | 0.076 | -11.8        | 105 | -0.02 | 10.73 |
| 68   | 1,2-dichloropropane       | 0.378 | 0.390 | -3.2         | 101 | -0.01 | 10.71 |
| 69   | methylcyclohexane         | 0.697 | 0.656 | 5.9          | 100 | -0.02 | 10.73 |
| 70   | dibromomethane            | 0.198 | 0.200 | -1.0         | 99  | -0.01 | 10.86 |
| 71   | bromodichloromethane      | 0.492 | 0.461 | 6.3          | 97  | 0.00  | 10.99 |
| 72   | epichlorohydrin           | 0.029 | 0.030 | -3.4         | 108 | -0.02 | 11.34 |
| 73   | cis-1,3-dichloropropene   | 0.556 | 0.608 | -9.4         | 105 | -0.01 | 11.47 |
| 74   | 4-methyl-2-pentanone      | 0.115 | 0.127 | -10.4        | 100 | -0.01 | 11.56 |
| 75   | 3-methyl-1-butanol        | 0.010 | 0.010 | 0.0          | 94  | -0.01 | 11.57 |
| 76 I | chlorobenzene-d5          | 1.000 | 1.000 | 0.0          | 106 | 0.00  | 13.29 |
| 77 S | toluene-d8 (s)            | 1.359 | 1.310 | 3.6          | 101 | -0.01 | 11.78 |
| 78   | toluene                   | 0.956 | 0.973 | -1.8         | 112 | -0.01 | 11.86 |
| 79   | trans-1,3-dichloropropene | 0.570 | 0.542 | 4.9          | 105 | -0.01 | 12.02 |
| 80   | ethyl methacrylate        | 0.481 | 0.419 | 12.9         | 98  | -0.01 | 12.05 |
| 81   | 1,1,2-trichloroethane     | 0.285 | 0.270 | 5.3          | 108 | -0.01 | 12.23 |
| 82   | 2-hexanone                | 0.129 | 0.117 | 9.3          | 95  | 0.00  | 12.42 |
| 83   | tetrachloroethene         | 0.381 | 0.431 | -13.1        | 125 | 0.00  | 12.46 |
| 84   | 1,3-dichloropropane       | 0.511 | 0.514 | -0.6         | 111 | -0.01 | 12.42 |
| 85   | butyl acetate             | 0.209 | 0.214 | -2.4         | 113 | 0.00  | 12.53 |
| 86   | dibromochloromethane      | 0.360 | 0.378 | -5.0         | 114 | -0.02 | 12.68 |
| 87   | 1,2-dibromoethane         | 0.318 | 0.342 | -7.5         | 116 | -0.01 | 12.83 |
| 88   | 3,3-Dimethyl-1-Butanol    |       |       | -----NA----- |     |       |       |
| 89   | n-butyl ether             | 1.854 | 1.738 | 6.3          | 104 | -0.01 | 13.28 |
| 90   | chlorobenzene             | 1.074 | 1.104 | -2.8         | 118 | 0.00  | 13.32 |
| 91   | 1,1,1,2-tetrachloroethane | 0.411 | 0.402 | 2.2          | 105 | -0.01 | 13.37 |
| 92   | ethylbenzene              | 1.878 | 1.789 | 4.7          | 114 | -0.01 | 13.39 |
| 93   | m,p-xylene                | 0.665 | 0.707 | -6.3         | 118 | 0.00  | 13.50 |
| 94   | o-xylene                  | 1.617 | 1.488 | 8.0          | 110 | -0.01 | 13.91 |
| 95   | styrene                   | 1.177 | 1.141 | 3.1          | 109 | -0.01 | 13.91 |
| 96   | bromoform                 | 0.231 | 0.250 | -8.2         | 113 | -0.01 | 14.15 |
| 97   | butyl acrylate            | 0.687 | 0.576 | 16.2         | 89  | 0.00  | 13.74 |
| 98   | isopropylbenzene          | 1.854 | 1.820 | 1.8          | 112 | 0.00  | 14.26 |
| 99   | cis-1,4-dichloro-2-butene | 0.127 | 0.125 | 1.6          | 102 | -0.01 | 14.28 |

6:11.15  
6



# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: VY7767-CC7713  
 Lab FileID: Y179618.D

|     |   |                           |       |       |              |     |       |       |
|-----|---|---------------------------|-------|-------|--------------|-----|-------|-------|
| 100 | I | 1,4-dichlorobenzene-d4    | 1.000 | 1.000 | 0.0          | 97  | -0.01 | 15.60 |
| 101 | S | 4-bromofluorobenzene (s)  | 0.830 | 0.857 | -3.3         | 100 | 0.00  | 14.44 |
| 102 |   | bromobenzene              | 0.846 | 0.974 | -15.1        | 115 | -0.01 | 14.63 |
| 103 |   | 1,1,2,2-tetrachloroethane | 0.880 | 0.849 | 3.5          | 106 | -0.01 | 14.51 |
| 104 |   | trans-1,4-dichloro-2-bute | 0.176 | 0.168 | 4.5          | 100 | 0.00  | 14.56 |
| 105 |   | 1,2,3-trichloropropane    | 0.178 | 0.188 | -5.6         | 107 | -0.01 | 14.59 |
| 106 |   | n-propylbenzene           | 4.167 | 4.229 | -1.5         | 111 | -0.01 | 14.66 |
| 107 |   | 4-Ethyltoluene            |       |       | -----NA----- |     |       |       |
| 108 |   | 2-chlorotoluene           | 0.812 | 0.931 | -14.7        | 114 | -0.01 | 14.80 |
| 109 |   | 4-chlorotoluene           | 2.465 | 2.483 | -0.7         | 111 | -0.01 | 14.89 |
| 110 |   | 1,3,5-trimethylbenzene    | 2.959 | 3.054 | -3.2         | 109 | 0.00  | 14.82 |
| 111 |   | tert-butylbenzene         | 0.500 | 0.580 | -16.0        | 113 | 0.00  | 15.16 |
| 112 |   | 1,2,4-trimethylbenzene    | 2.983 | 3.086 | -3.5         | 107 | 0.00  | 15.20 |
| 113 |   | sec-butylbenzene          | 3.828 | 4.009 | -4.7         | 110 | 0.00  | 15.38 |
| 114 |   | 1,3-dichlorobenzene       | 1.700 | 1.793 | -5.5         | 109 | 0.00  | 15.54 |
| 115 |   | p-isopropyltoluene        | 3.224 | 3.373 | -4.6         | 108 | 0.00  | 15.50 |
| 116 |   | 1,4-dichlorobenzene       | 1.781 | 1.810 | -1.6         | 109 | -0.01 | 15.62 |
| 117 |   | 1,2-dichlorobenzene       | 1.732 | 1.778 | -2.7         | 106 | -0.01 | 16.01 |
| 118 |   | 1,4-Diethylbenzene        |       |       | -----NA----- |     |       |       |
| 119 |   | n-butylbenzene            | 1.742 | 1.772 | -1.7         | 104 | -0.01 | 15.90 |
| 120 |   | 1,2,4,5-Tetramethylbenzen |       |       | -----NA----- |     |       |       |
| 121 |   | 1,2-dibromo-3-chloropropa | 0.183 | 0.173 | 5.5          | 99  | -0.02 | 16.75 |
| 122 |   | 1,3,5-Trichlorobenzene    | 1.738 | 1.818 | -4.6         | 111 | -0.01 | 16.98 |
| 123 |   | 1,2,4-trichlorobenzene    | 1.397 | 1.403 | -0.4         | 102 | -0.01 | 17.59 |
| 124 |   | hexachlorobutadiene       | 0.885 | 0.931 | -5.2         | 108 | -0.01 | 17.73 |
| 125 |   | naphthalene               | 2.612 | 2.200 | 15.8         | 92  | -0.01 | 17.86 |
| 126 |   | 1,2,3-trichlorobenzene    | 1.248 | 1.227 | 1.7          | 101 | -0.01 | 18.10 |
| 127 |   | hexachloroethane          | 0.520 | 0.619 | -19.0        | 108 | 0.00  | 16.29 |
| 128 |   | Benzyl chloride           | 1.598 | 1.500 | 6.1          | 101 | 0.00  | 15.73 |
| 129 |   | 2-ethylhexyl acrylate     | 1.138 | 0.524 | 54.0#        | 51  | -0.01 | 17.60 |
| 130 |   | 2-methylnaphthalene       | 1.269 | 0.726 | 42.8#        | 62  | -0.01 | 19.04 |

(#) = Out of Range  
 Y178412.D MYS7713.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 01:06:12 2018

6.11.15  
6

MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MICHELLC\ve10829\_halfway\  
 Data File : e252279.d  
 Acq On : 7 May 2018 3:27 pm  
 Operator : ThienN  
 Sample : JC65157-6 Inst : MSE  
 Misc : MS25974,VE10829,9.8,,100,10,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\ME10811.M  
 Quant Results File: ME10811.RES  
 Quant Time: May 08 22:11:28 2018  
 Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 QLast Update : Thu Apr 19 10:52:27 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|--------|----------|
| Internal Standards            |        |                |          |        |        |          |
| 1) Tert Butyl Alcohol-d9      | 7.744  | 65             | 48859    | 500.00 | ug/L   | 0.00     |
| 5) pentafluorobenzene         | 10.008 | 168            | 116335   | 50.00  | ug/L   | -0.01    |
| 54) 1,4-difluorobenzene       | 10.976 | 114            | 162959   | 50.00  | ug/L   | 0.00     |
| 75) chlorobenzene-d5          | 14.381 | 117            | 161377   | 50.00  | ug/L   | 0.00     |
| 98) 1,4-dichlorobenzene-d4    | 17.017 | 152            | 105515   | 50.00  | ug/L   | 0.00     |
| System Monitoring Compounds   |        |                |          |        |        |          |
| 46) dibromofluoromethane (s)  | 10.066 | 113            | 53973    | 48.14  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 72 - 129 | Recovery | =      | 96.28% |          |
| 55) 1,2-dichloroethane-d4 (s) | 10.500 | 65             | 52355    | 45.48  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 132 | Recovery | =      | 90.96% |          |
| 76) toluene-d8 (s)            | 12.702 | 98             | 195776   | 48.81  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 120 | Recovery | =      | 97.62% |          |
| 99) 4-bromofluorobenzene (s)  | 15.699 | 95             | 83160    | 49.07  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 77 - 125 | Recovery | =      | 98.14% |          |
| Target Compounds              |        |                |          |        |        |          |
| 58) benzene                   | 10.573 | 78             | 4413     | 0.78   | ug/L   | 95       |
| 66) methylcyclohexane         | 11.629 | 83             | 1442     | 0.48   | ug/L # | 80       |
| 77) toluene                   | 12.785 | 92             | 4065     | 1.19   | ug/L   | 98       |
| 90) ethylbenzene              | 14.480 | 91             | 3184     | 0.49   | ug/L   | 98       |
| 91) m,p-xylene                | 14.611 | 106            | 10990    | 4.46   | ug/L   | 95       |
| 92) o-xylene                  | 15.071 | 91             | 6565     | 1.17   | ug/L   | 98       |
| 93) styrene                   | 15.081 | 104            | 956      | 0.23   | ug/L   | 65       |

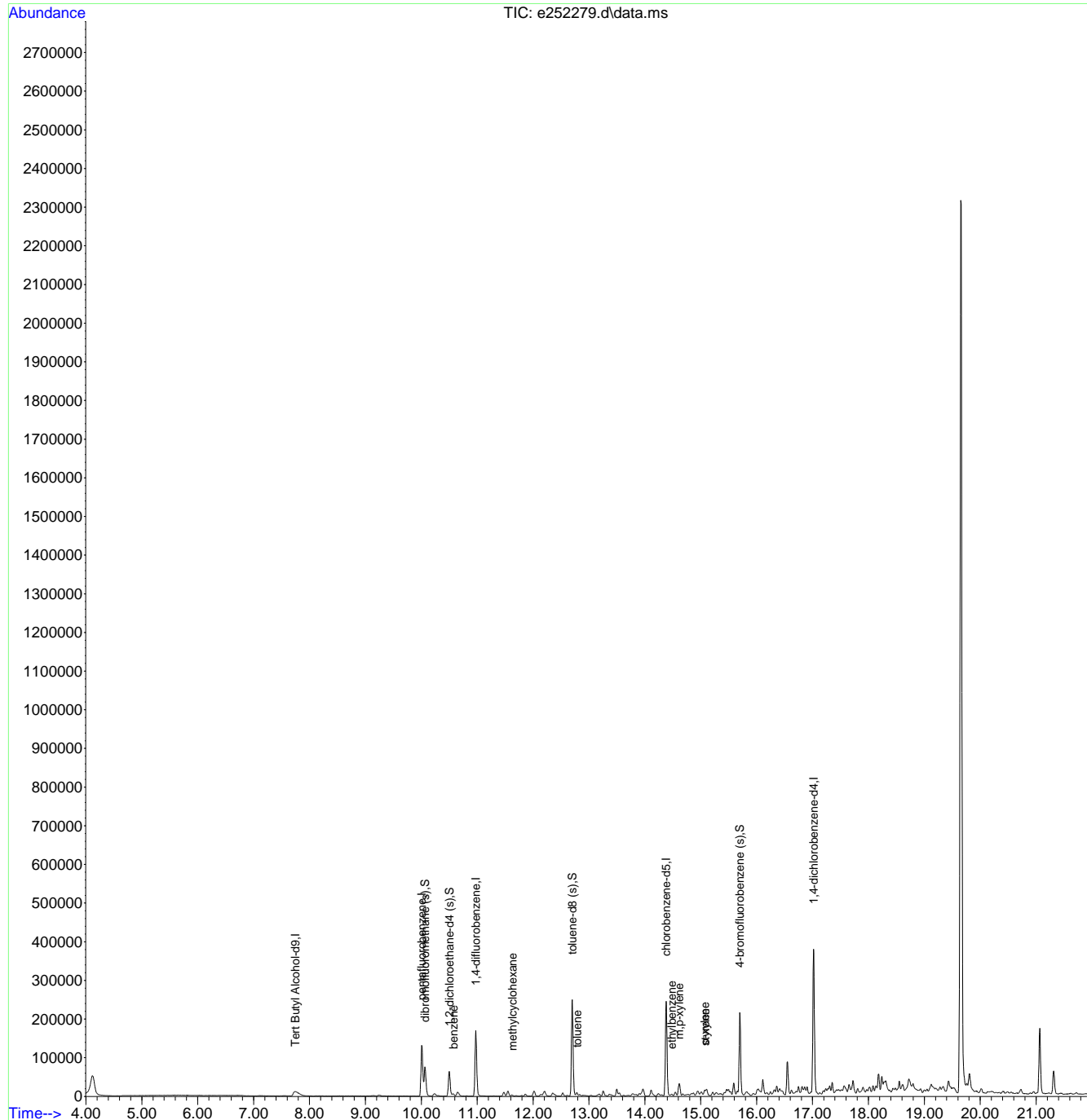
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1  
7

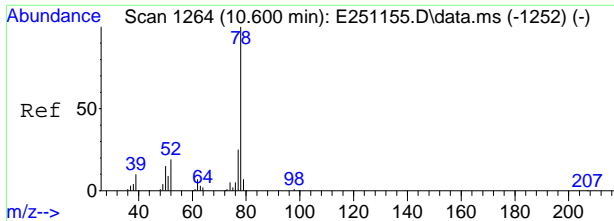
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MICHELLC\ve10829\_halfway\  
Data File : e252279.d  
Acq On : 7 May 2018 3:27 pm  
Operator : ThienN  
Sample : JC65157-6 Inst : MSE  
Misc : MS25974,VE10829,9.8,,100,10,1  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\ME10811.M  
Quant Results File: ME10811.RES  
Quant Time: May 08 22:11:28 2018  
Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
QLast Update : Thu Apr 19 10:52:27 2018  
Response via : Initial Calibration

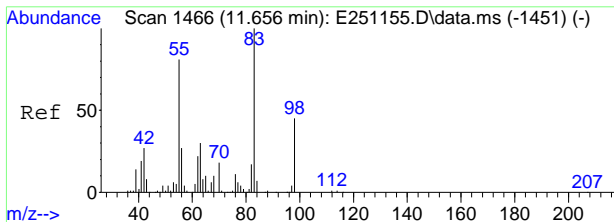
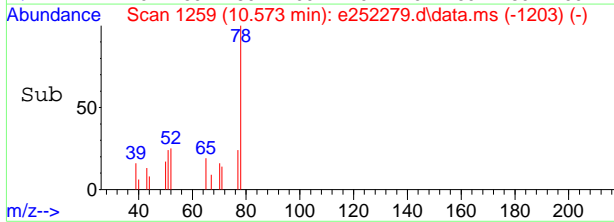
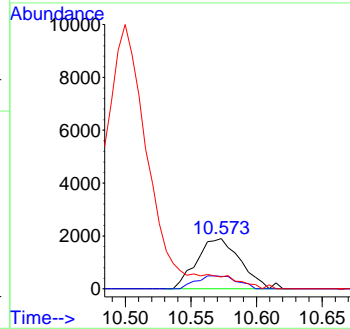
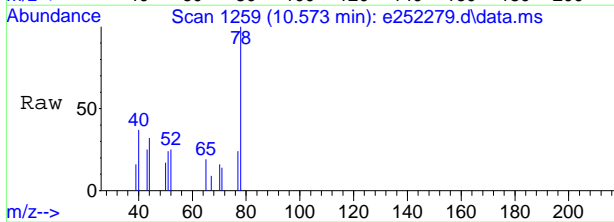


7.1.1  
7



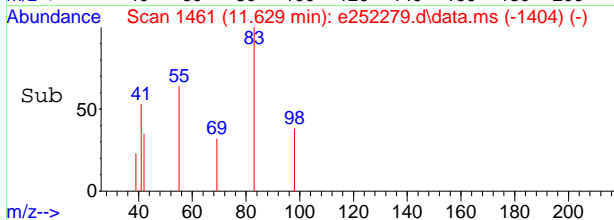
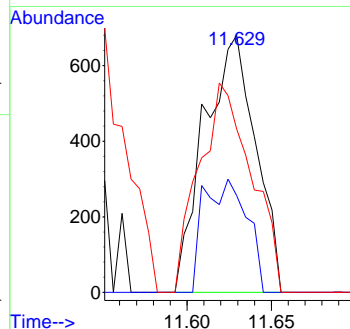
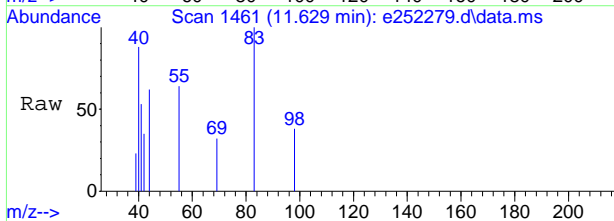
#58  
benzene  
Concen: 0.78 ug/L  
RT: 10.573 min Scan# 1259  
Delta R.T. -0.005 min  
Lab File: e252279.d  
Acq: 7 May 2018 3:27 pm

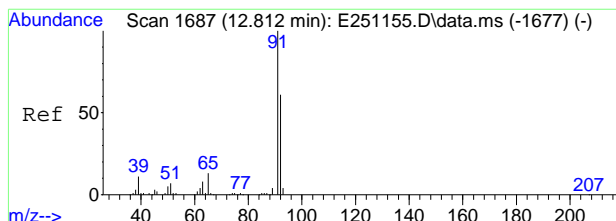
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 78      | 4413 |       |       |
| 77      | 24.5 | 0.0   | 54.8  |
| 51      | 23.7 | 0.0   | 48.9  |



#66  
methylcyclohexane  
Concen: 0.48 ug/L  
RT: 11.629 min Scan# 1461  
Delta R.T. 0.000 min  
Lab File: e252279.d  
Acq: 7 May 2018 3:27 pm

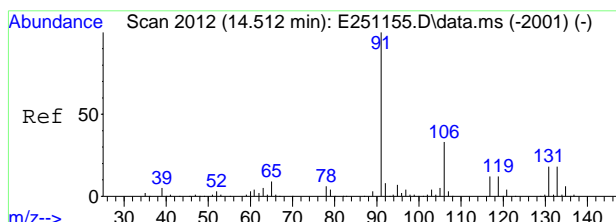
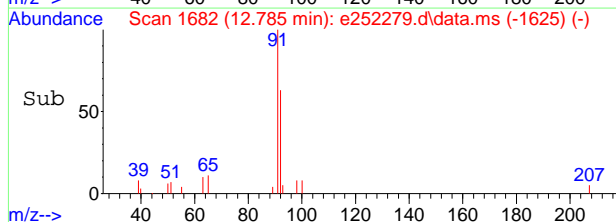
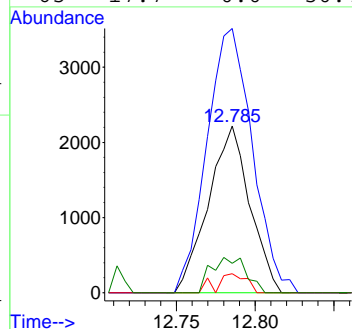
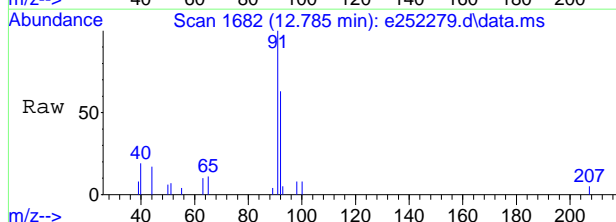
| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 83      | 1442 |       |        |
| 98      | 37.6 | 24.2  | 64.2   |
| 55      | 63.5 | 66.1  | 106.1# |





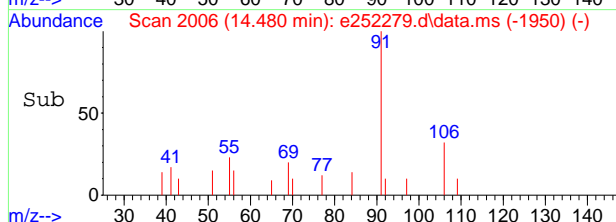
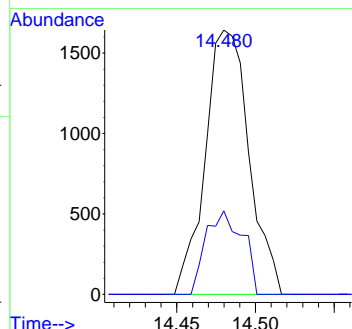
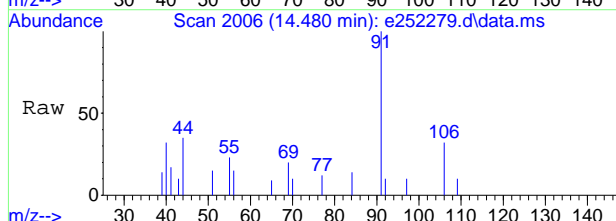
#77  
 toluene  
 Concen: 1.19 ug/L  
 RT: 12.785 min Scan# 1682  
 Delta R.T. 0.000 min  
 Lab File: e252279.d  
 Acq: 7 May 2018 3:27 pm

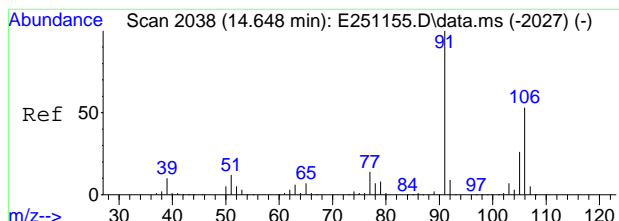
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 92      | 4065  |       |       |
| 91      | 158.6 | 141.3 | 181.3 |
| 51      | 11.4  | 0.0   | 41.9  |
| 65      | 17.7  | 0.0   | 50.7  |



#90  
 ethylbenzene  
 Concen: 0.49 ug/L  
 RT: 14.480 min Scan# 2006  
 Delta R.T. -0.005 min  
 Lab File: e252279.d  
 Acq: 7 May 2018 3:27 pm

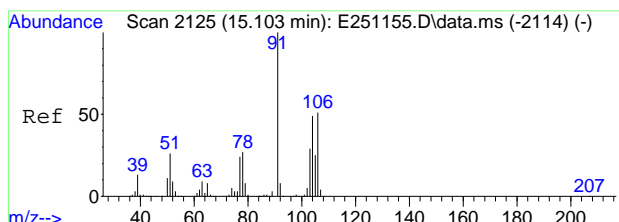
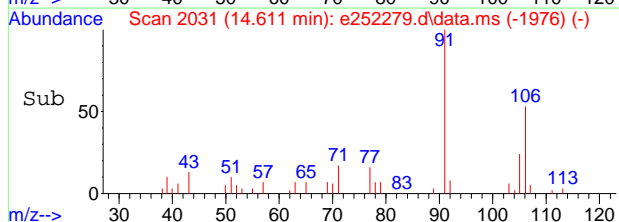
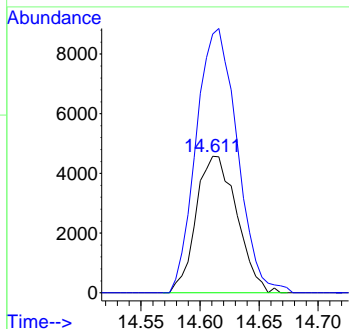
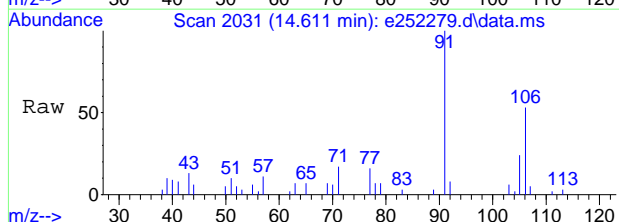
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 91      | 3184 |       |       |
| 91      | 100  |       |       |
| 106     | 31.6 | 2.8   | 62.8  |





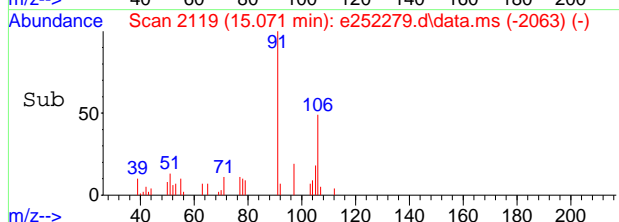
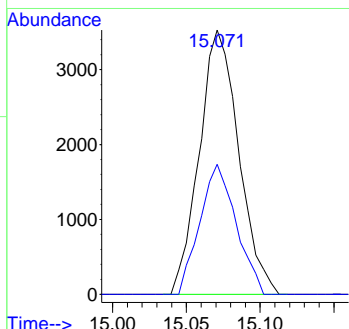
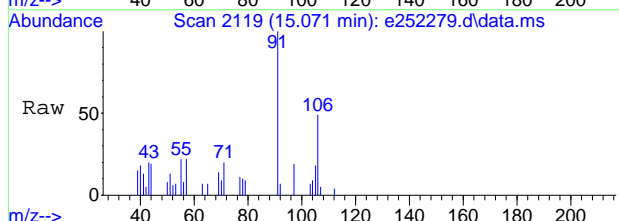
#91  
 m,p-xylene  
 Concen: 4.46 ug/L  
 RT: 14.611 min Scan# 2031  
 Delta R.T. -0.010 min  
 Lab File: e252279.d  
 Acq: 7 May 2018 3:27 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 106     | 100   |       |       |
| 91      | 189.7 | 167.3 | 227.3 |

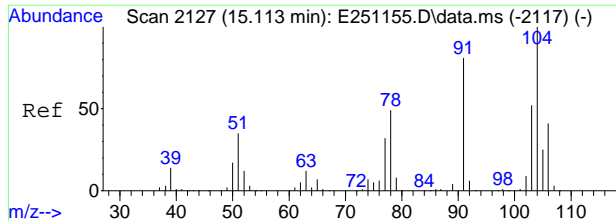


#92  
 o-xylene  
 Concen: 1.17 ug/L  
 RT: 15.071 min Scan# 2119  
 Delta R.T. -0.005 min  
 Lab File: e252279.d  
 Acq: 7 May 2018 3:27 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 49.2  | 17.5  | 77.5  |

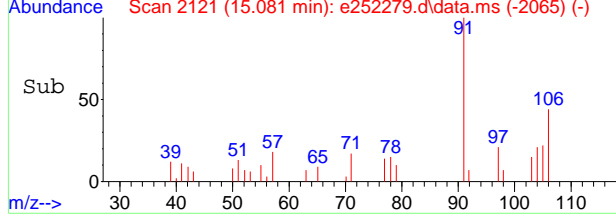
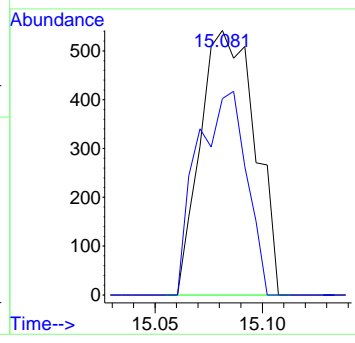
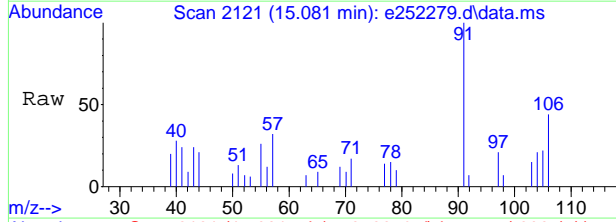


7.1.1  
7



#93  
 styrene  
 Concen: 0.23 ug/L  
 RT: 15.081 min Scan# 2121  
 Delta R.T. -0.005 min  
 Lab File: e252279.d  
 Acq: 7 May 2018 3:27 pm

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 104   | Resp: | 956   |
| Ion      | Ratio | Lower | Upper |
| 104      | 100   |       |       |
| 78       | 74.2  | 20.3  | 80.3  |



7.1.1  
7





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179624.d  
 Acq On : 2 May 2018 11:45 am  
 Operator : PrashanS  
 Sample : JC65157-7 Inst : MSY  
 Misc : MS25974,VY7767,6.0,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:40:47 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| Internal Standards            |        |                |          |        |         |          |
| 1) Tert Butyl Alcohol-d9      | 6.982  | 65             | 87298    | 500.00 | ug/L    | -0.02    |
| 5) pentafluorobenzene         | 9.199  | 168            | 195660   | 50.00  | ug/L    | -0.02    |
| 54) 1,4-difluorobenzene       | 10.114 | 114            | 297953   | 50.00  | ug/L    | 0.00     |
| 76) chlorobenzene-d5          | 13.289 | 117            | 264716   | 50.00  | ug/L    | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152            | 114645   | 50.00  | ug/L    | -0.01    |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113            | 87510    | 50.05  | ug/L    | -0.02    |
| Spiked Amount                 | 50.000 | Range 72 - 129 | Recovery | =      | 100.10% |          |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65             | 81219    | 46.60  | ug/L    | -0.02    |
| Spiked Amount                 | 50.000 | Range 73 - 132 | Recovery | =      | 93.20%  |          |
| 77) toluene-d8 (s)            | 11.783 | 98             | 351162   | 48.82  | ug/L    | -0.01    |
| Spiked Amount                 | 50.000 | Range 80 - 120 | Recovery | =      | 97.64%  |          |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95             | 108307   | 56.90  | ug/L    | 0.00     |
| Spiked Amount                 | 50.000 | Range 77 - 125 | Recovery | =      | 113.80% |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

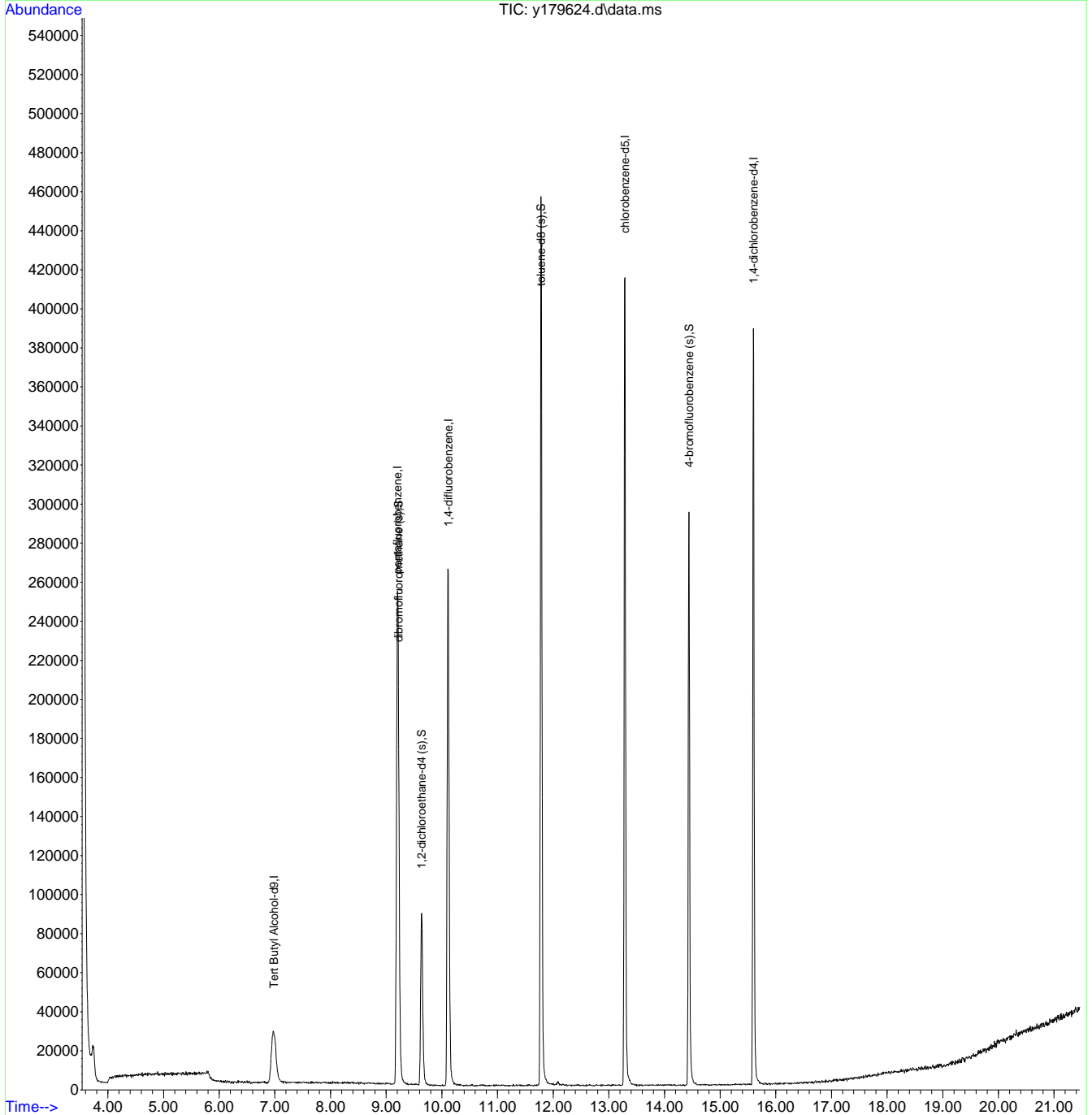
7.12  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179624.d  
 Acq On : 2 May 2018 11:45 am  
 Operator : Prashans  
 Sample : JC65157-7 Inst : MSY  
 Misc : MS25974,VY7767,6.0,,,,,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:40:47 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.1.2  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\
Data File : y179625.d
Acq On : 2 May 2018 12:13 pm
Operator : PrashanS
Sample : JC65157-8 Inst : MSY
Misc : MS25974,VY7767,5.4,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M
Quant Results File: MYS7713.RES
Quant Time: May 03 00:41:31 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 05 14:04:44 2018
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (1) Tert Butyl Alcohol-d9, 5) pentafluorobenzene, 54) 1,4-difluorobenzene, 76) chlorobenzene-d5, 100) 1,4-dichlorobenzene-d4, System Monitoring Compounds (47) dibromofluoromethane (s), 55) 1,2-dichloroethane-d4 (s), 77) toluene-d8 (s), 101) 4-bromofluorobenzene (s) with associated spiked amounts and recovery percentages.

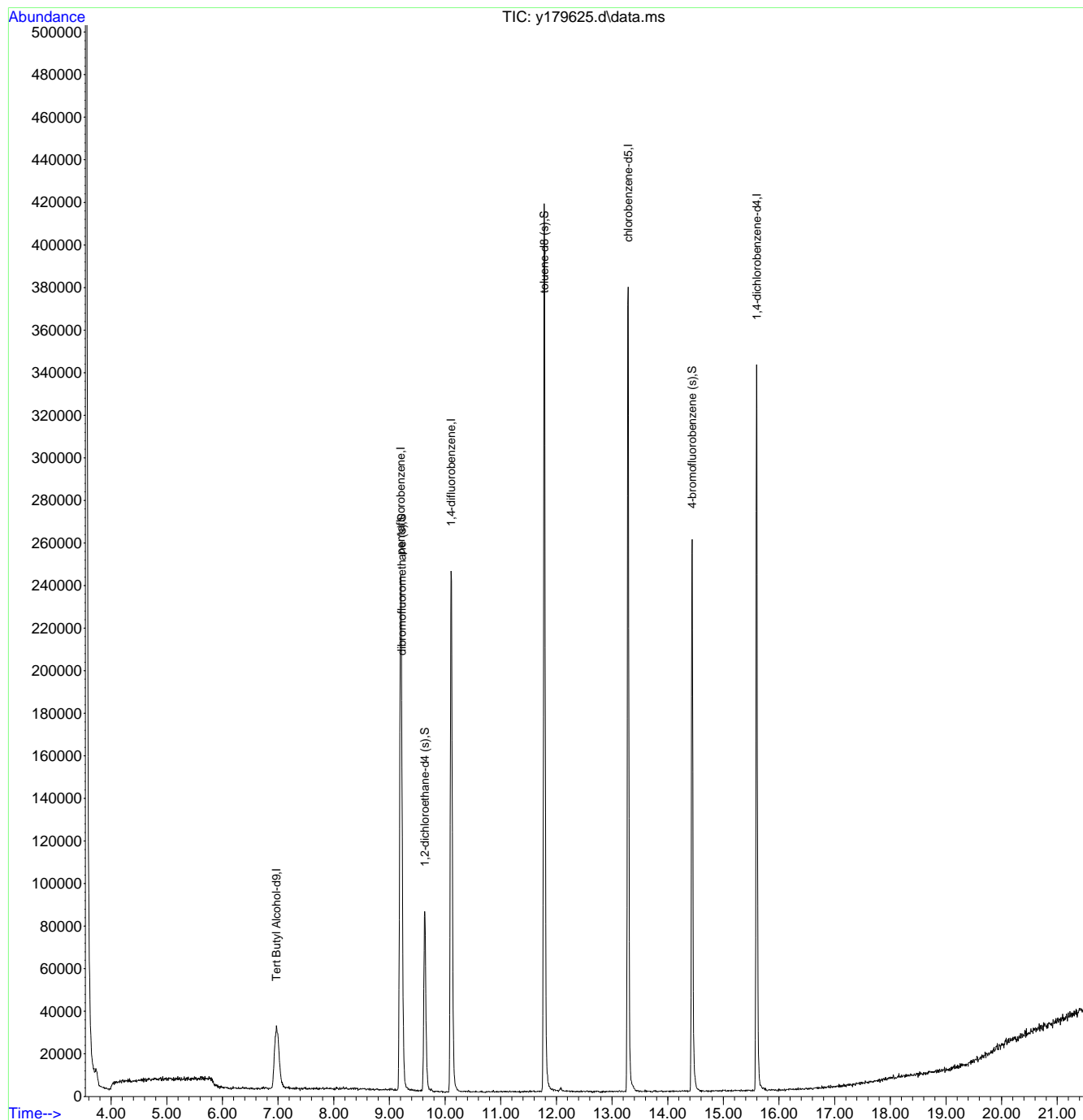
Target Compounds Qvalue
-----
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem50318\vy7767\  
 Data File : y179625.d  
 Acq On : 2 May 2018 12:13 pm  
 Operator : Prashans  
 Sample : JC65157-8 Inst : MSY  
 Misc : MS25974,VY7767,5.4,,,,,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:41:31 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.13  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179626.d  
 Acq On : 2 May 2018 12:41 pm  
 Operator : PrashanS  
 Sample : JC65157-9 Inst : MSY  
 Misc : MS25974,VY7767,5.2,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:42:10 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 86498    | 500.00   | ug/L  | -0.03    |
| 5) pentafluorobenzene         | 9.199  | 168   | 205131   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.115 | 114   | 311978   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 13.289 | 117   | 286048   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 134136   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 90144    | 49.18    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 98.36%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 84555    | 46.33    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 92.66%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 373305   | 48.02    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 96.04%   |
| 101) 4-bromofluorobenzene (s) | 14.435 | 95    | 124267   | 55.80    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 111.60%  |

Target Compounds Qvalue

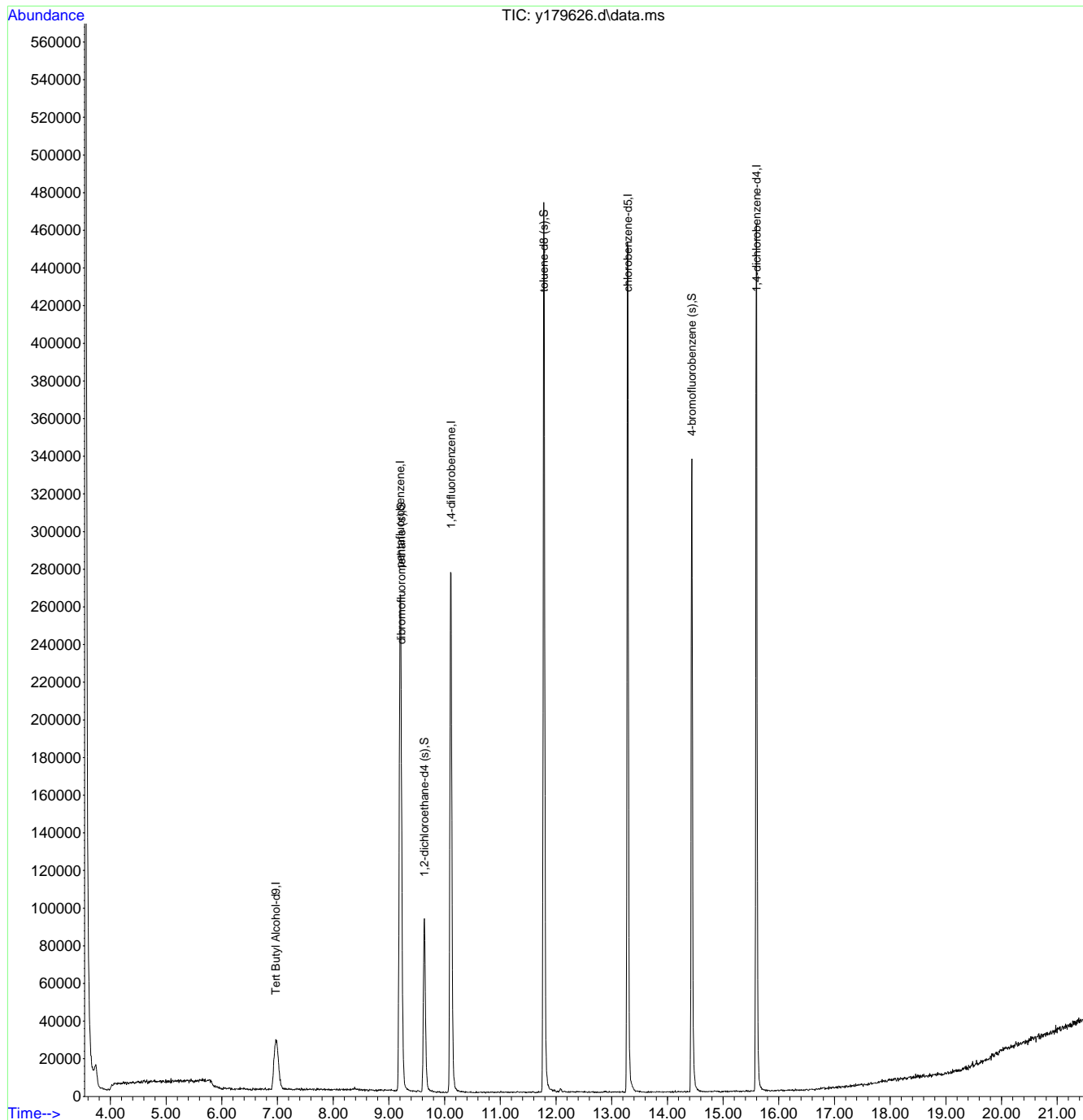
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem50318\vy7767\  
 Data File : y179626.d  
 Acq On : 2 May 2018 12:41 pm  
 Operator : PrashanS  
 Sample : JC65157-9 Inst : MSY  
 Misc : MS25974,VY7767,5.2,,,,,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:42:10 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.1.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179627.d  
 Acq On : 2 May 2018 1:10 pm  
 Operator : PrashanS  
 Sample : JC65157-10 Inst : MSY  
 Misc : MS25974,VY7767,5.3,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:42:59 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min)     |
|-------------------------------|--------|-------|----------|----------|-------|--------------|
| Internal Standards            |        |       |          |          |       |              |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 78581    | 500.00   | ug/L  | -0.03        |
| 5) pentafluorobenzene         | 9.204  | 168   | 194294   | 50.00    | ug/L  | -0.01        |
| 54) 1,4-difluorobenzene       | 10.114 | 114   | 299379   | 50.00    | ug/L  | 0.00         |
| 76) chlorobenzene-d5          | 13.289 | 117   | 279112   | 50.00    | ug/L  | 0.00         |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 131249   | 50.00    | ug/L  | -0.01        |
| System Monitoring Compounds   |        |       |          |          |       |              |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 86702    | 49.94    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 99.88%       |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 80062    | 45.71    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 91.42%       |
| 77) toluene-d8 (s)            | 11.783 | 98    | 359292   | 47.37    | ug/L  | -0.01        |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 94.74%       |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 117878   | 54.10    | ug/L  | 0.00         |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 108.20%      |
| Target Compounds              |        |       |          |          |       |              |
| 25) carbon disulfide          | 6.751  | 76    | 3388     | 0.48     | ug/L  | Qvalue<br>82 |

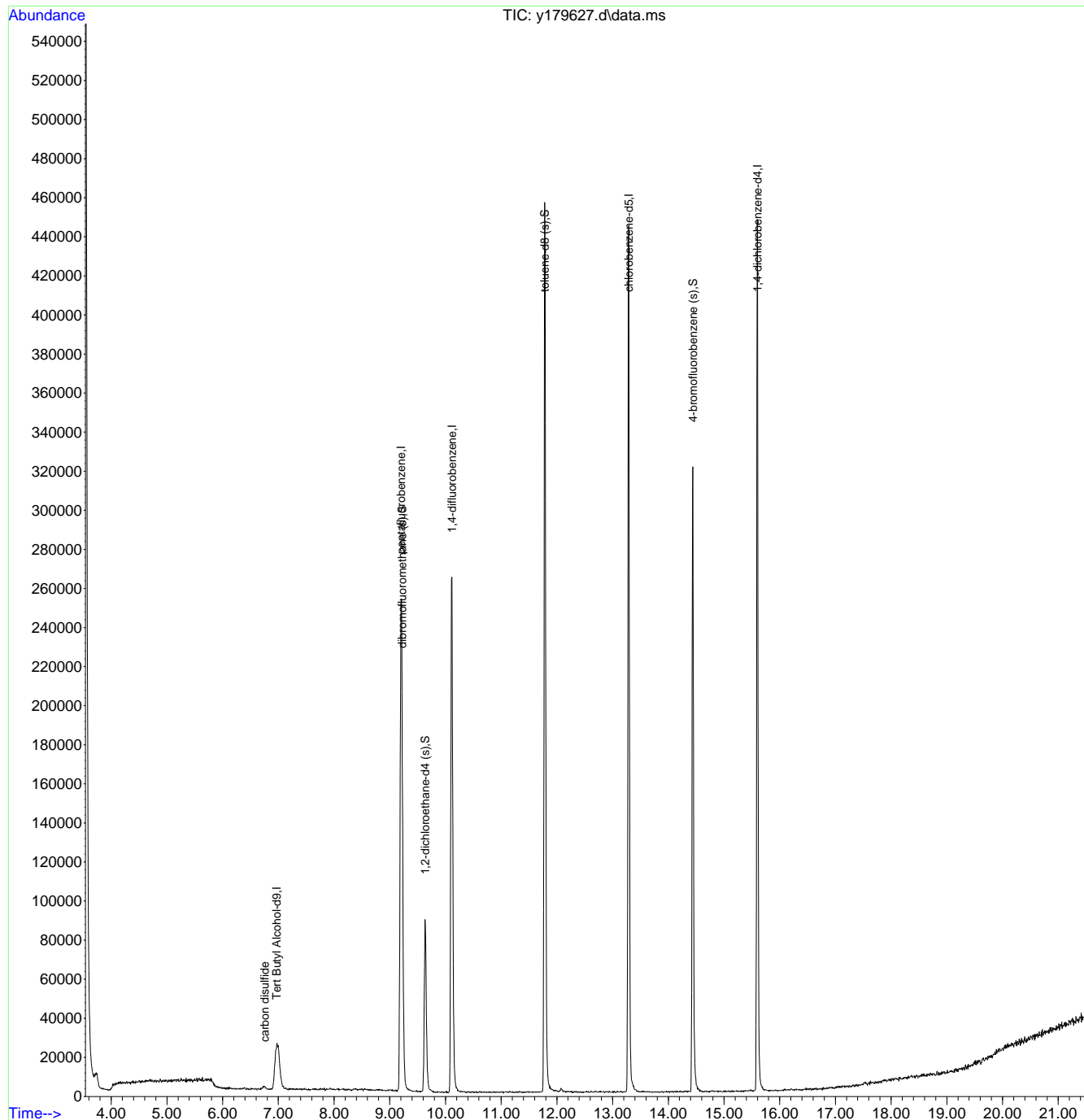
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.15  
7

Quantitation Report (QT Reviewed)

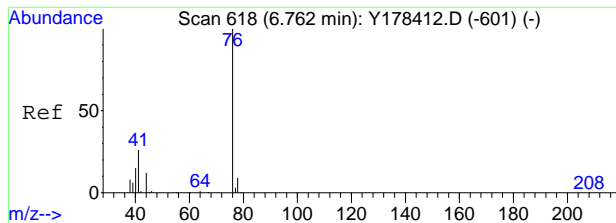
Data Path : C:\msdchem\1\data\unicem50318\vy7767\  
 Data File : y179627.d  
 Acq On : 2 May 2018 1:10 pm  
 Operator : PrashanS  
 Sample : JC65157-10 Inst : MSY  
 Misc : MS25974,VY7767,5.3,,,,,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:42:59 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

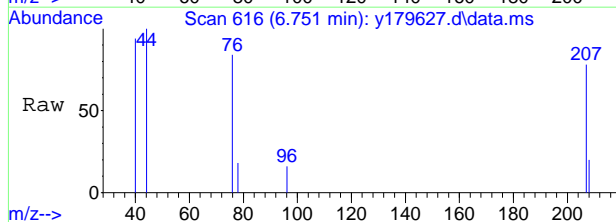


7.15  
7



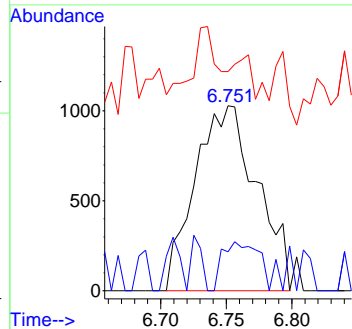
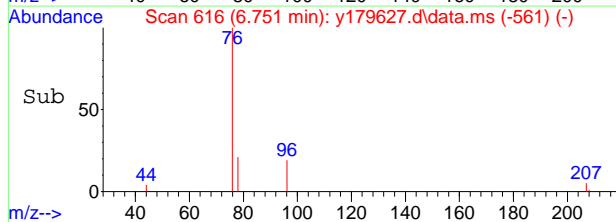


#25  
 carbon disulfide  
 Concen: 0.48 ug/L  
 RT: 6.751 min Scan# 616  
 Delta R.T. -0.011 min  
 Lab File: y179627.d  
 Acq: 2 May 2018 1:10 pm



Tgt Ion: 76 Resp: 3388

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 76  | 100   |       |       |
| 78  | 2.3   | 0.0   | 39.3  |
| 44  | 18.7  | 0.0   | 42.1  |



7.1.5  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
Data File : y179629.d  
Acq On : 2 May 2018 2:07 pm  
Operator : PrashanS  
Sample : JC65157-11 Inst : MSY  
Misc : MS25974,VY7767,5.4,,,,,1  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
Quant Results File: MYS7713.RES  
Quant Time: May 03 00:46:37 2018  
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
QLast Update : Mon Mar 05 14:04:44 2018  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 90892    | 500.00   | ug/L  | -0.03    |
| 5) pentafluorobenzene         | 9.199  | 168   | 186677   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 287300   | 50.00    | ug/L  | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 275912   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 118190   | 50.00    | ug/L  | -0.01    |
|                               |        |       |          |          |       |          |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 85361    | 51.17    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 102.34%  |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 81809    | 48.68    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 97.36%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 356618   | 47.56    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 95.12%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 112834   | 57.50    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 115.00%  |
|                               |        |       |          |          |       |          |
| Target Compounds              |        |       |          |          |       | Qvalue   |
| 3) tertiary butyl alcohol     | 7.076  | 59    | 2385     | 8.63     | ug/L  | 53       |
| -----                         |        |       |          |          |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

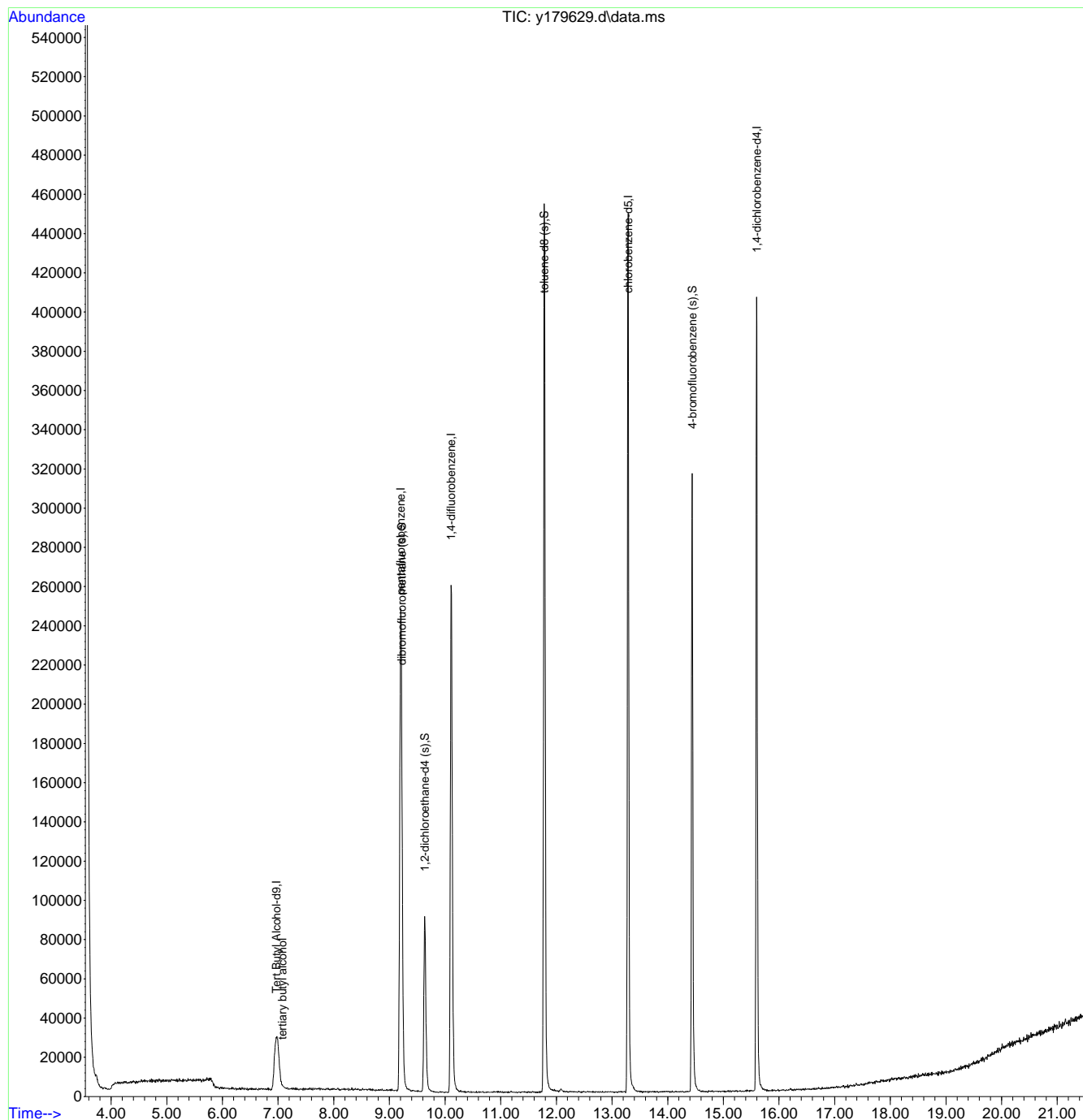
7.1.6  
7



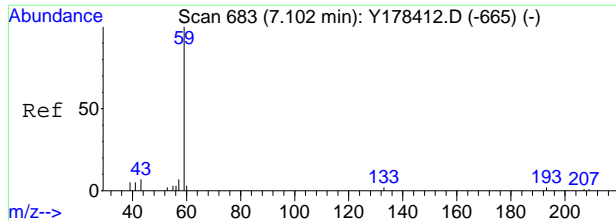
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179629.d  
 Acq On : 2 May 2018 2:07 pm  
 Operator : Prashans  
 Sample : JC65157-11 Inst : MSY  
 Misc : MS25974,VY7767,5.4,,,,,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:46:37 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

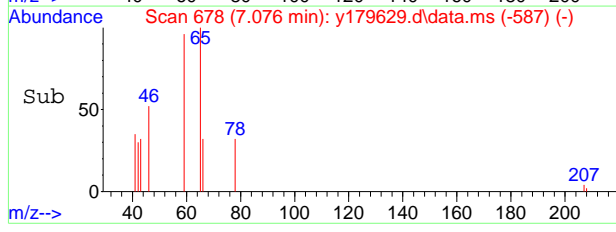
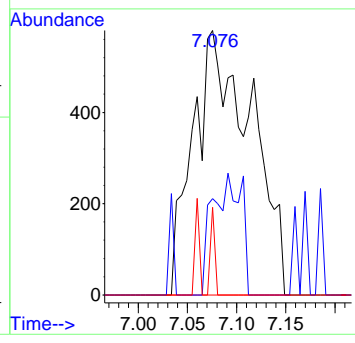
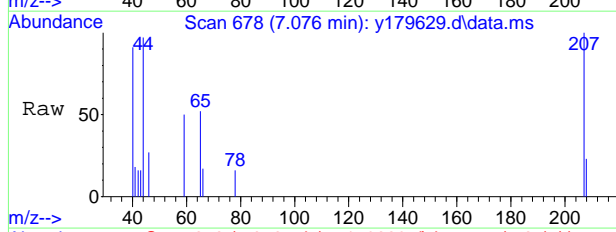


7.1.6  
7



#3  
 tertiary butyl alcohol  
 Concen: 8.63 ug/L  
 RT: 7.076 min Scan# 678  
 Delta R.T. -0.026 min  
 Lab File: y179629.d  
 Acq: 2 May 2018 2:07 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 41      | 36.4  | 0.0   | 48.5  |
| 43      | 33.1  | 0.0   | 40.7  |



7.1.6  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179630.d  
 Acq On : 2 May 2018 2:36 pm  
 Operator : PrashanS  
 Sample : JC65157-12 Inst : MSY  
 Misc : MS25974,VY7767,5.6,,,,,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 01:29:46 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min)     |
|-------------------------------|--------|-------|----------|----------|-------|--------------|
| Internal Standards            |        |       |          |          |       |              |
| 1) Tert Butyl Alcohol-d9      | 6.971  | 65    | 91782    | 500.00   | ug/L  | -0.03        |
| 5) pentafluorobenzene         | 9.199  | 168   | 186989   | 50.00    | ug/L  | -0.02        |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 281403   | 50.00    | ug/L  | -0.01        |
| 76) chlorobenzene-d5          | 13.289 | 117   | 257903   | 50.00    | ug/L  | 0.00         |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 108628   | 50.00    | ug/L  | -0.01        |
| System Monitoring Compounds   |        |       |          |          |       |              |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 84642    | 50.66    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 101.32%      |
| 55) 1,2-dichloroethane-d4 (s) | 9.633  | 65    | 79486    | 48.28    | ug/L  | -0.02        |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 96.56%       |
| 77) toluene-d8 (s)            | 11.783 | 98    | 342660   | 48.89    | ug/L  | -0.01        |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 97.78%       |
| 101) 4-bromofluorobenzene (s) | 14.435 | 95    | 105418   | 58.45    | ug/L  | -0.01        |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 116.90%      |
| Target Compounds              |        |       |          |          |       |              |
| 3) tertiary butyl alcohol     | 7.097  | 59    | 2398     | 8.59     | ug/L  | Qvalue<br>62 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

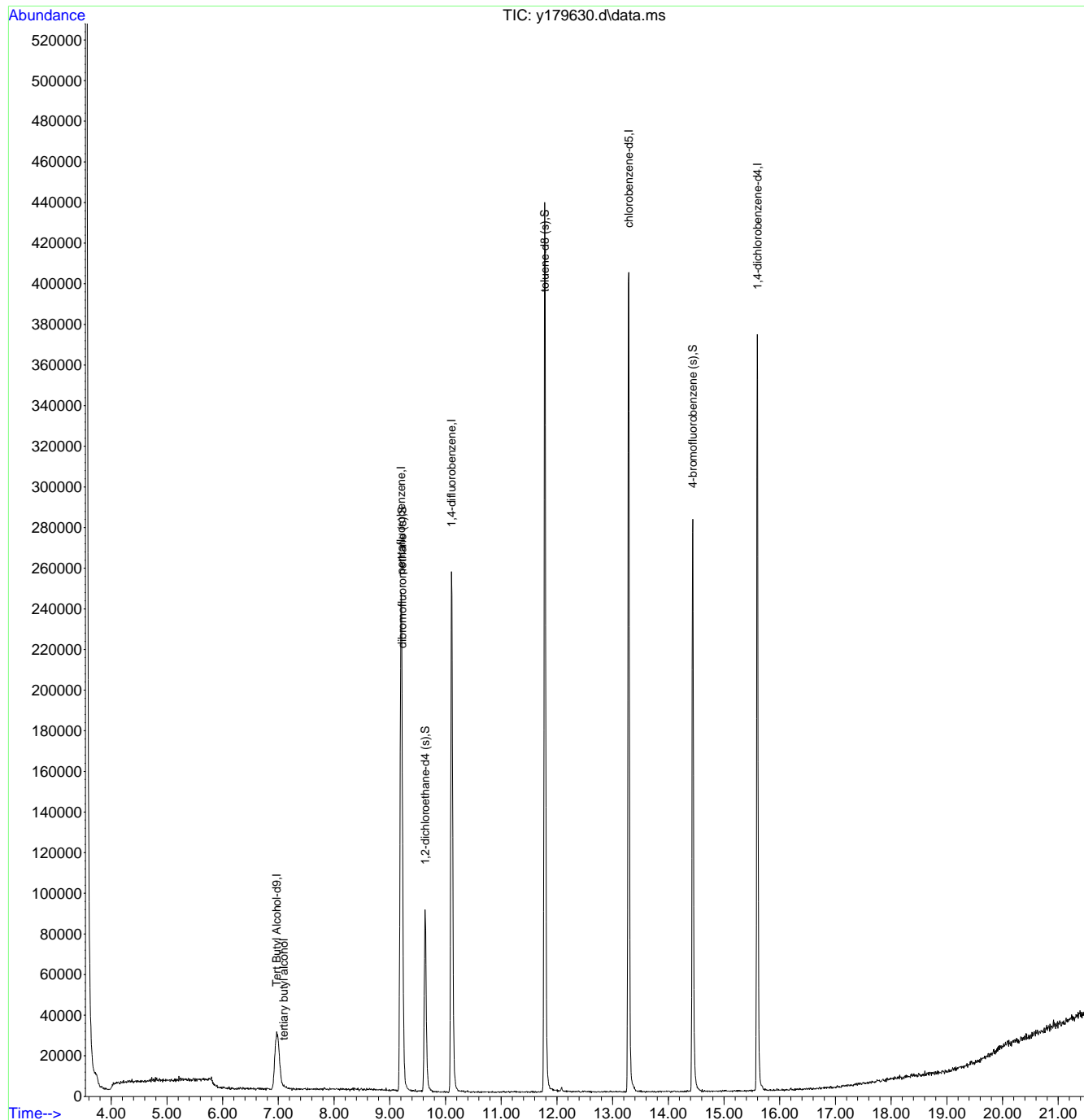
7.17  
7



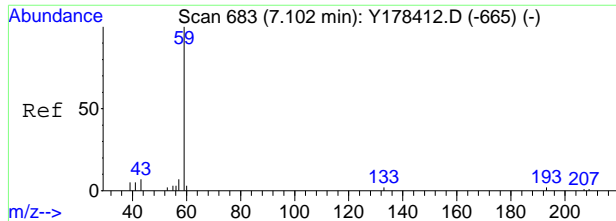
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem50318\vy7767\  
 Data File : y179630.d  
 Acq On : 2 May 2018 2:36 pm  
 Operator : Prashans  
 Sample : JC65157-12 Inst : MSY  
 Misc : MS25974,VY7767,5.6,,,,,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 01:29:46 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

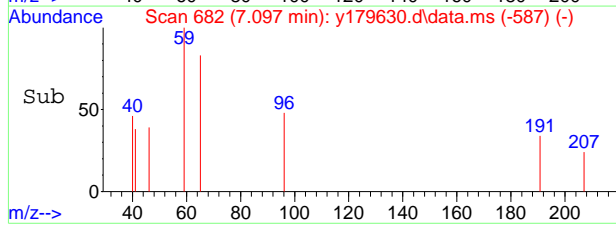
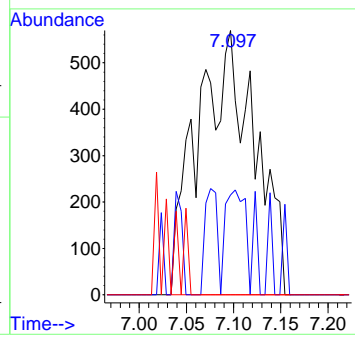
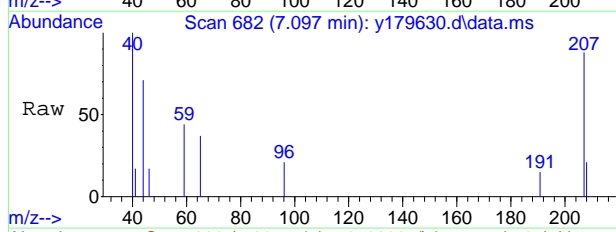


7.17  
7



#3  
 tertiary butyl alcohol  
 Concen: 8.59 ug/L  
 RT: 7.097 min Scan# 682  
 Delta R.T. -0.005 min  
 Lab File: y179630.d  
 Acq: 2 May 2018 2:36 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 41      | 37.7  | 0.0   | 48.5  |
| 43      | 0.0   | 0.0   | 40.7  |



7.17  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v2v2004\  
 Data File : 2v50250.d  
 Acq On : 1 May 2018 1:58 pm  
 Operator : JessicaP  
 Sample : JC65157-12A Inst : MS2V  
 Misc : MS26002,V2V2004,5,,,,5  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 03 02:48:13 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 2.266  | 65    | 279019   | 500.00   | ug/L  | 0.00     |
| 5) pentafluorobenzene         | 3.357  | 168   | 345573   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 3.876  | 114   | 513938   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 6.162  | 117   | 431728   | 50.00    | ug/L  | 0.00     |
| 99) 1,4-dichlorobenzene-d4    | 8.327  | 152   | 194281   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 3.347  | 113   | 178446   | 51.30    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 120 | Recovery | =     | 102.60%  |
| 55) 1,2-dichloroethane-d4 (s) | 3.577  | 65    | 193966   | 54.30    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 64 - 135 | Recovery | =     | 108.60%  |
| 77) toluene-d8 (s)            | 4.956  | 98    | 558251   | 50.05    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 117 | Recovery | =     | 100.10%  |
| 100) 4-bromofluorobenzene (s) | 7.232  | 95    | 201196   | 50.91    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 122 | Recovery | =     | 101.82%  |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

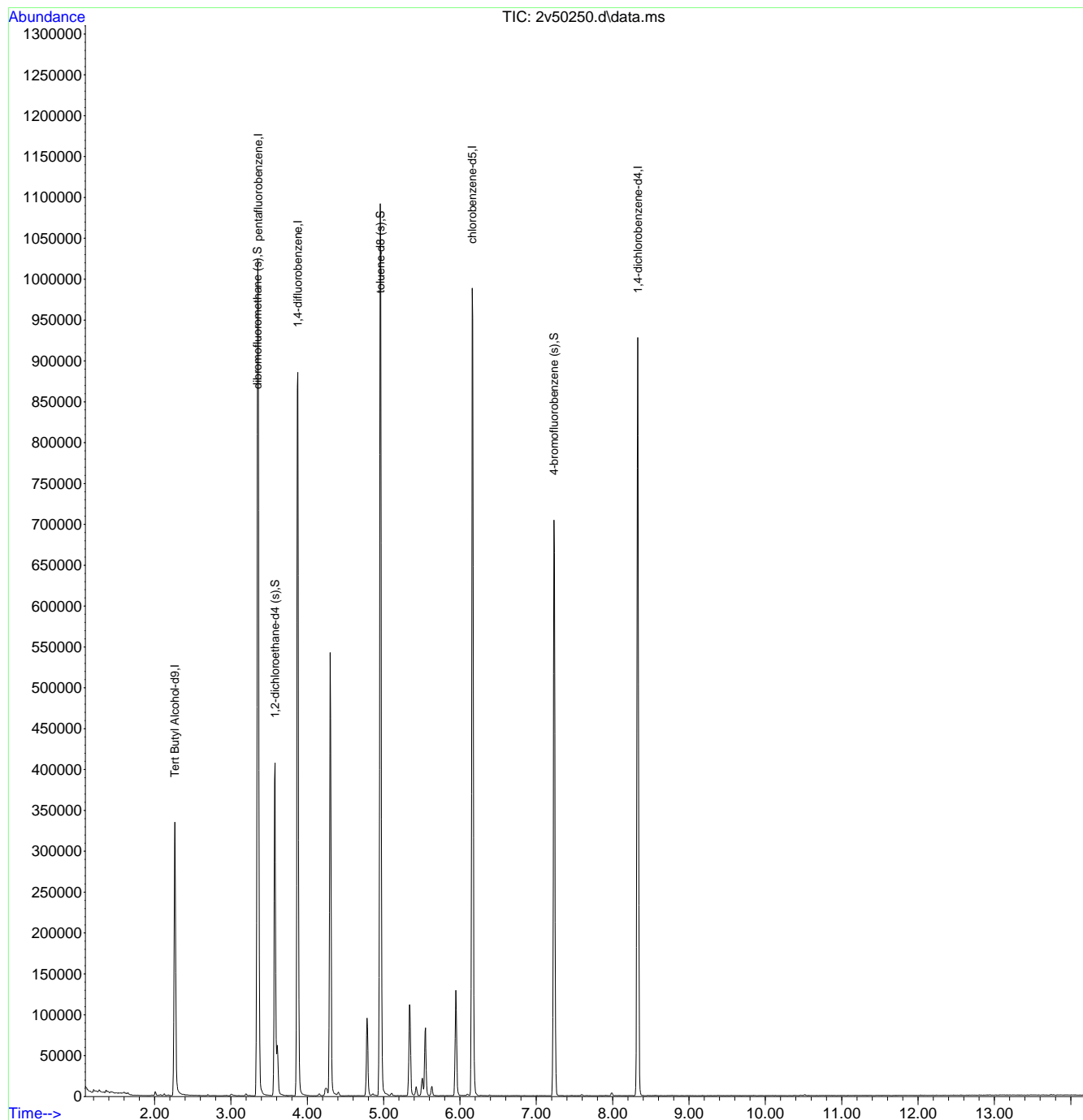
7.1.8  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v2v2004\  
 Data File : 2v50250.d  
 Acq On : 1 May 2018 1:58 pm  
 Operator : JessicaP  
 Sample : JC65157-12A Inst : MS2V  
 Misc : MS26002,V2V2004,5,,,,,5  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 03 02:48:13 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:50:09 2018  
 Response via : Initial Calibration



7.18  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v2v2004\  
 Data File : 2v50237.d  
 Acq On : 1 May 2018 8:12 am  
 Operator : JessicaP  
 Sample : mb Inst : MS2V  
 Misc : MS25977,V2V2004,5,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 03 02:28:29 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:38:21 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 2.267  | 65    | 308420   | 500.00   | ug/L  | 0.00     |
| 5) pentafluorobenzene         | 3.357  | 168   | 421613   | 50.00    | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene       | 3.876  | 114   | 632071   | 50.00    | ug/L  | 0.00     |
| 76) chlorobenzene-d5          | 6.162  | 117   | 506387   | 50.00    | ug/L  | 0.00     |
| 99) 1,4-dichlorobenzene-d4    | 8.328  | 152   | 223507   | 50.00    | ug/L  | 0.00     |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 46) dibromofluoromethane (s)  | 3.347  | 113   | 207210   | 48.82    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 120 | Recovery | =     | 97.64%   |
| 55) 1,2-dichloroethane-d4 (s) | 3.577  | 65    | 215413   | 49.04    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 64 - 135 | Recovery | =     | 98.08%   |
| 77) toluene-d8 (s)            | 4.956  | 98    | 677468   | 51.79    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 76 - 117 | Recovery | =     | 103.58%  |
| 100) 4-bromofluorobenzene (s) | 7.232  | 95    | 230739   | 50.75    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 72 - 122 | Recovery | =     | 101.50%  |

Target Compounds Qvalue

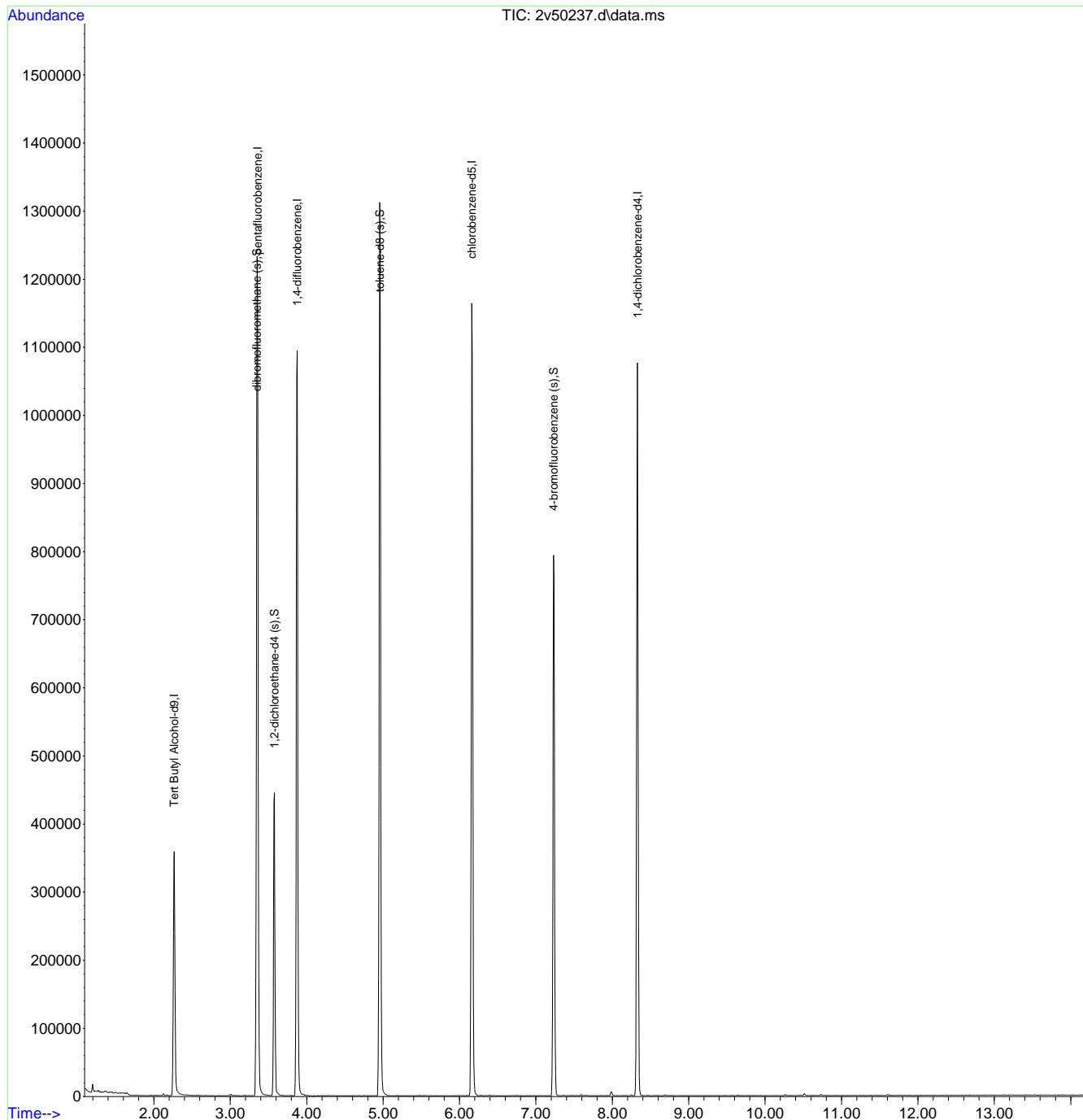
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\v2v2004\  
 Data File : 2v50237.d  
 Acq On : 1 May 2018 8:12 am  
 Operator : JessicaP  
 Sample : mb Inst : MS2V  
 Misc : MS25977,V2V2004,5,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V1992.M  
 Quant Results File: M2V1992.RES  
 Quant Time: May 03 02:28:29 2018  
 Quant Title : SW 846 Method 8260C, ZB624 (60m x 0.25mm x 1.4um)  
 QLast Update : Mon Apr 23 10:38:21 2018  
 Response via : Initial Calibration



7.2.1  
7

Quantitation Report (LSC Reviewed)

Data Path : C:\msdchem\1\DATA\  
 Data File : E252268.D  
 Acq On : 7 May 2018 9:59 am  
 Operator : ThienN  
 Sample : mb  
 Misc : MS25904,VE10829,5,,100,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 07 13:31:45 2018  
 Quant Method : C:\msdchem\1\METHODS\ME10811.M  
 Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 QLast Update : Thu Apr 19 10:52:27 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 1) Tert Butyl Alcohol-d9   | 7.759  | 65   | 71124    | 500.00 | ug/L  | 0.02     |
| 5) pentafluorobenzene      | 10.008 | 168  | 126793   | 50.00  | ug/L  | 0.00     |
| 54) 1,4-difluorobenzene    | 10.976 | 114  | 176986   | 50.00  | ug/L  | 0.00     |
| 75) chlorobenzene-d5       | 14.381 | 117  | 185763   | 50.00  | ug/L  | 0.00     |
| 98) 1,4-dichlorobenzene-d4 | 17.017 | 152  | 123601   | 50.00  | ug/L  | 0.00     |

System Monitoring Compounds

|                               |        |                |          |       |        |      |
|-------------------------------|--------|----------------|----------|-------|--------|------|
| 46) dibromofluoromethane (s)  | 10.066 | 113            | 58859    | 48.17 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 72 - 129 | Recovery | =     | 96.34% |      |
| 55) 1,2-dichloroethane-d4 (s) | 10.500 | 65             | 57576    | 46.05 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 132 | Recovery | =     | 92.10% |      |
| 76) toluene-d8 (s)            | 12.702 | 98             | 216498   | 46.89 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 120 | Recovery | =     | 93.78% |      |
| 99) 4-bromofluorobenzene (s)  | 15.699 | 95             | 95498    | 48.11 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 77 - 125 | Recovery | =     | 96.22% |      |

Target Compounds Qvalue

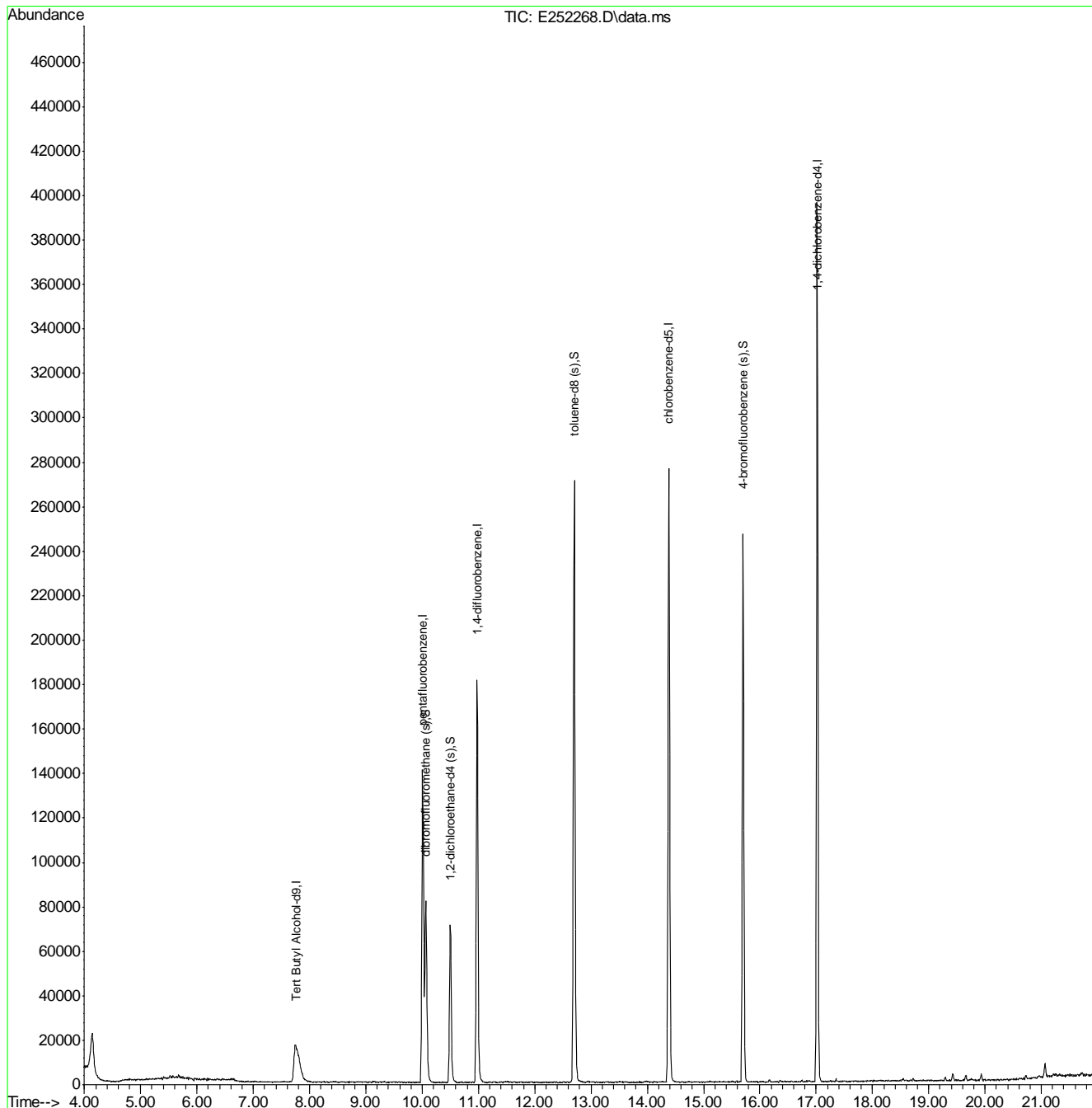
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

Quantitation Report (LSC Reviewed)

Data Path : C:\msdchem\1\DATA\  
 Data File : E252268.D  
 Acq On : 7 May 2018 9:59 am  
 Operator : ThienN  
 Sample : mb  
 Misc : MS25904,VE10829,5,,100,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 07 13:31:45 2018  
 Quant Method : C:\msdchem\1\METHODS\ME10811.M  
 Quant Title : SW846 8260C, ZB624 MS 60m x 0.25mm x 1.4um  
 QLast Update : Thu Apr 19 10:52:27 2018  
 Response via : Initial Calibration



7.22  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179622.d  
 Acq On : 2 May 2018 10:38 am  
 Operator : PrashanS  
 Sample : MB Inst : MSY  
 Misc : MS25887,VY7767,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:37:40 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|-------|----------|
| -----                         |        |       |          |          |       |          |
| Internal Standards            |        |       |          |          |       |          |
| 1) Tert Butyl Alcohol-d9      | 6.987  | 65    | 70925    | 500.00   | ug/L  | -0.02    |
| 5) pentafluorobenzene         | 9.199  | 168   | 184273   | 50.00    | ug/L  | -0.02    |
| 54) 1,4-difluorobenzene       | 10.109 | 114   | 277561   | 50.00    | ug/L  | -0.01    |
| 76) chlorobenzene-d5          | 13.289 | 117   | 260018   | 50.00    | ug/L  | 0.00     |
| 100) 1,4-dichlorobenzene-d4   | 15.596 | 152   | 123732   | 50.00    | ug/L  | -0.01    |
| System Monitoring Compounds   |        |       |          |          |       |          |
| 47) dibromofluoromethane (s)  | 9.220  | 113   | 78255    | 47.52    | ug/L  | -0.02    |
| Spiked Amount                 | 50.000 | Range | 72 - 129 | Recovery | =     | 95.04%   |
| 55) 1,2-dichloroethane-d4 (s) | 9.639  | 65    | 72764    | 44.81    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 73 - 132 | Recovery | =     | 89.62%   |
| 77) toluene-d8 (s)            | 11.783 | 98    | 335666   | 47.50    | ug/L  | -0.01    |
| Spiked Amount                 | 50.000 | Range | 80 - 120 | Recovery | =     | 95.00%   |
| 101) 4-bromofluorobenzene (s) | 14.440 | 95    | 111509   | 54.28    | ug/L  | 0.00     |
| Spiked Amount                 | 50.000 | Range | 77 - 125 | Recovery | =     | 108.56%  |

Target Compounds Qvalue

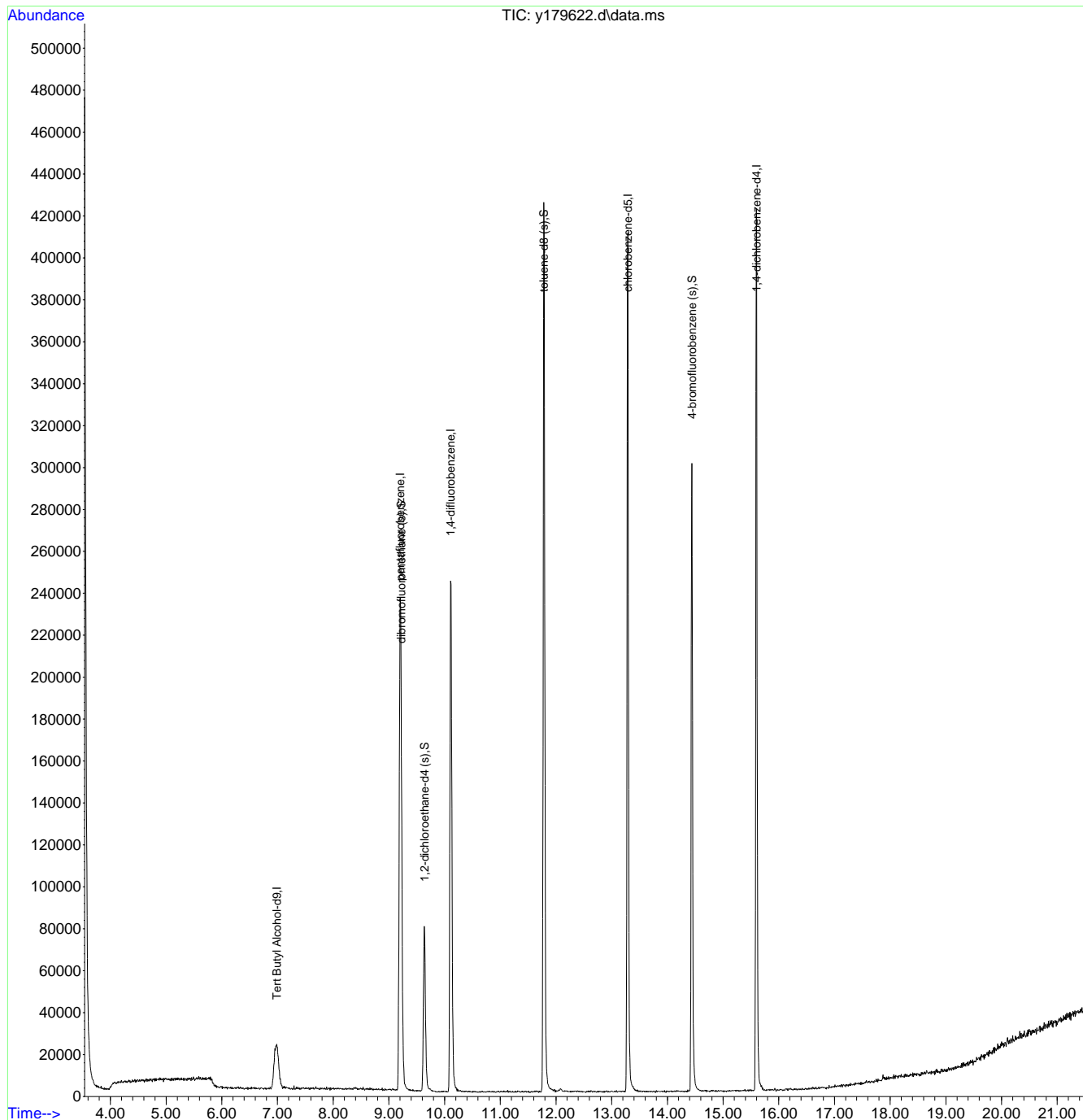
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.3  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem50318\vy7767\  
 Data File : y179622.d  
 Acq On : 2 May 2018 10:38 am  
 Operator : Prashans  
 Sample : MB Inst : MSY  
 Misc : MS25887,VY7767,5.0,,,,,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7713.M  
 Quant Results File: MYS7713.RES  
 Quant Time: May 03 00:37:40 2018  
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um  
 QLast Update : Mon Mar 05 14:04:44 2018  
 Response via : Initial Calibration



7.2.3  
7

## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries



**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 5P49863.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E5P2381          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 5P49863.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E5P2381          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 5P49863.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E5P2381          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 44% 23-115% |
| 4165-62-2 | Phenol-d5            | 46% 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 54% 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 57% 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 52% 39-124% |
| 1718-51-0 | Terphenyl-d14        | 55% 36-134% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 6P472413.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 67  | 16  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 170 | 20  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 170 | 28  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 170 | 59  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 170 | 36  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 67  | 21  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 67  | 27  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 170 | 22  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 330 | 89  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 130 | 31  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 67  | 17  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 170 | 22  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 170 | 25  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 170 | 20  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 33  | 11  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 33  | 17  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 170 | 7.2 | ug/kg |   |
| 120-12-7  | Anthracene                 | ND     | 33  | 20  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 67  | 14  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | ND     | 33  | 9.4 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | ND     | 33  | 15  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 33  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 33  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 33  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 67  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 67  | 8.1 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 67  | 4.6 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 170 | 8.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 67  | 7.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 170 | 12  | ug/kg |   |
| 86-74-8   | Carbazole                  | ND     | 67  | 4.8 | ug/kg |   |
| 105-60-2  | Caprolactam                | ND     | 67  | 13  | ug/kg |   |
| 218-01-9  | Chrysene                   | ND     | 33  | 10  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND     | 67  | 7.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND     | 67  | 14  | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 6P472413.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                     | Result | RL  | MDL | Units | Q |
|-----------|------------------------------|--------|-----|-----|-------|---|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND     | 67  | 12  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND     | 67  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene           | ND     | 33  | 10  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene           | ND     | 33  | 17  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND     | 67  | 28  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                  | ND     | 33  | 22  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene       | ND     | 33  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                 | ND     | 67  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate         | ND     | 67  | 5.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate         | ND     | 67  | 8.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate            | ND     | 67  | 7.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate           | ND     | 67  | 5.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND     | 67  | 7.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                 | ND     | 33  | 15  | ug/kg |   |
| 86-73-7   | Fluorene                     | ND     | 33  | 15  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene            | ND     | 67  | 8.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene          | ND     | 33  | 13  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene    | ND     | 330 | 13  | ug/kg |   |
| 67-72-1   | Hexachloroethane             | ND     | 170 | 16  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | ND     | 33  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                   | ND     | 67  | 7.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene          | ND     | 33  | 7.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline               | ND     | 170 | 7.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline               | ND     | 170 | 8.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline               | ND     | 170 | 8.6 | ug/kg |   |
| 91-20-3   | Naphthalene                  | ND     | 33  | 9.4 | ug/kg |   |
| 98-95-3   | Nitrobenzene                 | ND     | 67  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND     | 67  | 9.6 | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine       | ND     | 170 | 12  | ug/kg |   |
| 85-01-8   | Phenanthrene                 | ND     | 33  | 11  | ug/kg |   |
| 129-00-0  | Pyrene                       | ND     | 33  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND     | 170 | 8.5 | ug/kg |   |

## Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MB1 | 6P472413.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 78%    | 23-115% |
| 4165-62-2 | Phenol-d5            | 78%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 66%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 78%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 76%    | 36-134% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-MB1 | M145715.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | Result | RL  | MDL  | Units | Q |
|----------|-----------------------|--------|-----|------|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 2.0 | 0.89 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 2.0 | 0.88 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 10  | 1.4  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 5.0 | 1.3  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 5.0 | 0.92 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 2.0 | 0.17 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 2.0 | 0.55 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 2.0 | 0.33 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 1.0 | 0.49 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 5.0 | 0.39 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 2.0 | 0.64 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 2.0 | 0.39 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 30% 14-88%  |
| 4165-62-2 | Phenol-d5            | 22% 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 88% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 75% 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 69% 35-119% |
| 1718-51-0 | Terphenyl-d14        | 43% 10-126% |

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB25 | M145717.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 367-12-4  | 2-Fluorophenol       | 52% 14-88%   |
| 4165-62-2 | Phenol-d5            | 37% 10-110%  |
| 118-79-6  | 2,4,6-Tribromophenol | 125% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 99% 32-128%  |
| 321-60-8  | 2-Fluorobiphenyl     | 89% 35-119%  |
| 1718-51-0 | Terphenyl-d14        | 81% 10-126%  |

8.2.1  
8



# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB26 | M145765.D | 1  | 05/04/18 | SA | 05/02/18  | OP11697    | EM6194           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits       |
|-----------|----------------------|--------------|
| 367-12-4  | 2-Fluorophenol       | 43% 14-88%   |
| 4165-62-2 | Phenol-d5            | 29% 10-110%  |
| 118-79-6  | 2,4,6-Tribromophenol | 105% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 83% 32-128%  |
| 321-60-8  | 2-Fluorobiphenyl     | 75% 35-119%  |
| 1718-51-0 | Terphenyl-d14        | 71% 10-126%  |

8.2.2  
8

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LB28 | 2P79163.D | 1  | 05/05/18 | SB | 05/02/18  | OP11697    | E2P3489          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | Result | RL  | MDL | Units | Q |
|----------|-----------------------|--------|-----|-----|-------|---|
| 95-48-7  | 2-Methylphenol        | ND     | 20  | 8.9 | ug/l  |   |
|          | 3&4-Methylphenol      | ND     | 20  | 8.8 | ug/l  |   |
| 87-86-5  | Pentachlorophenol     | ND     | 100 | 14  | ug/l  |   |
| 95-95-4  | 2,4,5-Trichlorophenol | ND     | 50  | 13  | ug/l  |   |
| 88-06-2  | 2,4,6-Trichlorophenol | ND     | 50  | 9.2 | ug/l  |   |
| 106-46-7 | 1,4-Dichlorobenzene   | ND     | 20  | 1.7 | ug/l  |   |
| 121-14-2 | 2,4-Dinitrotoluene    | ND     | 20  | 5.5 | ug/l  |   |
| 118-74-1 | Hexachlorobenzene     | ND     | 20  | 3.3 | ug/l  |   |
| 87-68-3  | Hexachlorobutadiene   | ND     | 10  | 4.9 | ug/l  |   |
| 67-72-1  | Hexachloroethane      | ND     | 50  | 3.9 | ug/l  |   |
| 98-95-3  | Nitrobenzene          | ND     | 20  | 6.4 | ug/l  |   |
| 110-86-1 | Pyridine              | ND     | 20  | 3.9 | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits      |
|-----------|----------------------|-------------|
| 367-12-4  | 2-Fluorophenol       | 26% 14-88%  |
| 4165-62-2 | Phenol-d5            | 21% 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 82% 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 70% 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 79% 35-119% |
| 1718-51-0 | Terphenyl-d14        | 65% 10-126% |

8.2.3  
8

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-BS1 | 6P472414.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|----------------------------|-------------|-----------|-------|--------|
| 95-57-8   | 2-Chlorophenol             | 1670        | 1400      | 84    | 44-122 |
| 59-50-7   | 4-Chloro-3-methyl phenol   | 1670        | 1700      | 102   | 50-123 |
| 120-83-2  | 2,4-Dichlorophenol         | 1670        | 1370      | 82    | 48-122 |
| 105-67-9  | 2,4-Dimethylphenol         | 1670        | 1800      | 108   | 48-124 |
| 51-28-5   | 2,4-Dinitrophenol          | 3330        | 2390      | 72    | 34-146 |
| 534-52-1  | 4,6-Dinitro-o-cresol       | 1670        | 1460      | 88    | 49-140 |
| 95-48-7   | 2-Methylphenol             | 1670        | 1500      | 90    | 40-126 |
|           | 3&4-Methylphenol           | 1670        | 1500      | 90    | 40-127 |
| 88-75-5   | 2-Nitrophenol              | 1670        | 1470      | 88    | 44-133 |
| 100-02-7  | 4-Nitrophenol              | 1670        | 1690      | 101   | 35-153 |
| 87-86-5   | Pentachlorophenol          | 1670        | 1220      | 73    | 15-149 |
| 108-95-2  | Phenol                     | 1670        | 1360      | 82    | 50-109 |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | 1670        | 1030      | 62    | 44-132 |
| 95-95-4   | 2,4,5-Trichlorophenol      | 1670        | 1280      | 77    | 45-124 |
| 88-06-2   | 2,4,6-Trichlorophenol      | 1670        | 1440      | 86    | 57-122 |
| 83-32-9   | Acenaphthene               | 1670        | 1430      | 86    | 53-119 |
| 208-96-8  | Acenaphthylene             | 1670        | 1550      | 93    | 41-125 |
| 98-86-2   | Acetophenone               | 1670        | 1440      | 86    | 52-112 |
| 120-12-7  | Anthracene                 | 1670        | 1400      | 84    | 51-120 |
| 1912-24-9 | Atrazine                   | 1670        | 1270      | 76    | 49-139 |
| 56-55-3   | Benzo(a)anthracene         | 1670        | 1270      | 76    | 54-118 |
| 50-32-8   | Benzo(a)pyrene             | 1670        | 1390      | 83    | 55-121 |
| 205-99-2  | Benzo(b)fluoranthene       | 1670        | 1310      | 79    | 57-116 |
| 191-24-2  | Benzo(g,h,i)perylene       | 1670        | 1380      | 83    | 40-124 |
| 207-08-9  | Benzo(k)fluoranthene       | 1670        | 1580      | 95    | 59-116 |
| 101-55-3  | 4-Bromophenyl phenyl ether | 1670        | 1190      | 71    | 60-122 |
| 85-68-7   | Butyl benzyl phthalate     | 1670        | 1820      | 109   | 51-134 |
| 92-52-4   | 1,1'-Biphenyl              | 1670        | 1340      | 80    | 46-122 |
| 100-52-7  | Benzaldehyde               | 1670        | 895       | 54    | 14-139 |
| 91-58-7   | 2-Chloronaphthalene        | 1670        | 1430      | 86    | 49-120 |
| 106-47-8  | 4-Chloroaniline            | 1670        | 1070      | 64    | 10-115 |
| 86-74-8   | Carbazole                  | 1670        | 1390      | 83    | 52-124 |
| 105-60-2  | Caprolactam                | 1670        | 1090      | 65    | 16-139 |
| 218-01-9  | Chrysene                   | 1670        | 1360      | 82    | 51-115 |
| 111-91-1  | bis(2-Chloroethoxy)methane | 1670        | 1500      | 90    | 36-131 |
| 111-44-4  | bis(2-Chloroethyl)ether    | 1670        | 1390      | 83    | 41-131 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-BS1 | 6P472414.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                     | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|-----------|------------------------------|-------------|-----------|-------|--------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | 1670        | 1510      | 91    | 22-134 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | 1670        | 1350      | 81    | 56-118 |
| 121-14-2  | 2,4-Dinitrotoluene           | 1670        | 1500      | 90    | 57-131 |
| 606-20-2  | 2,6-Dinitrotoluene           | 1670        | 1480      | 89    | 57-132 |
| 91-94-1   | 3,3'-Dichlorobenzidine       | 3330        | 2270      | 68    | 10-129 |
| 123-91-1  | 1,4-Dioxane                  | 1670        | 817       | 49    | 10-110 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 1670        | 1350      | 81    | 48-121 |
| 132-64-9  | Dibenzofuran                 | 1670        | 1500      | 90    | 51-119 |
| 84-74-2   | Di-n-butyl phthalate         | 1670        | 1630      | 98    | 59-125 |
| 117-84-0  | Di-n-octyl phthalate         | 1670        | 1980      | 119   | 47-147 |
| 84-66-2   | Diethyl phthalate            | 1670        | 1580      | 95    | 57-116 |
| 131-11-3  | Dimethyl phthalate           | 1670        | 1480      | 89    | 56-116 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | 1670        | 1760      | 106   | 53-133 |
| 206-44-0  | Fluoranthene                 | 1670        | 1290      | 77    | 58-117 |
| 86-73-7   | Fluorene                     | 1670        | 1460      | 88    | 56-114 |
| 118-74-1  | Hexachlorobenzene            | 1670        | 1230      | 74    | 50-128 |
| 87-68-3   | Hexachlorobutadiene          | 1670        | 1280      | 77    | 43-129 |
| 77-47-4   | Hexachlorocyclopentadiene    | 3330        | 2380      | 71    | 15-140 |
| 67-72-1   | Hexachloroethane             | 1670        | 1180      | 71    | 43-123 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 1670        | 1350      | 81    | 49-124 |
| 78-59-1   | Isophorone                   | 1670        | 1620      | 97    | 38-128 |
| 91-57-6   | 2-Methylnaphthalene          | 1670        | 1510      | 91    | 37-124 |
| 88-74-4   | 2-Nitroaniline               | 1670        | 1640      | 98    | 45-144 |
| 99-09-2   | 3-Nitroaniline               | 1670        | 977       | 59    | 10-134 |
| 100-01-6  | 4-Nitroaniline               | 1670        | 1160      | 70    | 41-130 |
| 91-20-3   | Naphthalene                  | 1670        | 1540      | 92    | 44-116 |
| 98-95-3   | Nitrobenzene                 | 1670        | 1480      | 89    | 36-132 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | 1670        | 1560      | 94    | 38-125 |
| 86-30-6   | N-Nitrosodiphenylamine       | 1670        | 1490      | 89    | 51-122 |
| 85-01-8   | Phenanthrene                 | 1670        | 1310      | 79    | 53-119 |
| 129-00-0  | Pyrene                       | 1670        | 1410      | 85    | 54-124 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | 1670        | 981       | 59    | 45-128 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-BS1 | 6P472414.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 367-12-4  | 2-Fluorophenol       | 80% | 23-115% |
| 4165-62-2 | Phenol-d5            | 83% | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 68% | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 86% | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81% | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 72% | 36-134% |

8.3.1  
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\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-BS1 | M145716.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------|------------|----------|-------|--------|
| 95-48-7  | 2-Methylphenol        | 500        | 311      | 62    | 42-103 |
|          | 3&4-Methylphenol      | 500        | 314      | 63    | 39-110 |
| 87-86-5  | Pentachlorophenol     | 500        | 513      | 103   | 30-136 |
| 95-95-4  | 2,4,5-Trichlorophenol | 500        | 459      | 92    | 55-116 |
| 88-06-2  | 2,4,6-Trichlorophenol | 500        | 482      | 96    | 56-115 |
| 106-46-7 | 1,4-Dichlorobenzene   | 500        | 366      | 73    | 39-110 |
| 121-14-2 | 2,4-Dinitrotoluene    | 500        | 525      | 105   | 57-122 |
| 118-74-1 | Hexachlorobenzene     | 500        | 423      | 85    | 49-122 |
| 87-68-3  | Hexachlorobutadiene   | 500        | 400      | 80    | 24-112 |
| 67-72-1  | Hexachloroethane      | 500        | 372      | 74    | 31-107 |
| 98-95-3  | Nitrobenzene          | 500        | 435      | 87    | 44-116 |
| 110-86-1 | Pyridine              | 500        | 127      | 25    | 10-110 |

| CAS No.   | Surrogate Recoveries | BSP  | Limits  |
|-----------|----------------------|------|---------|
| 367-12-4  | 2-Fluorophenol       | 46%  | 14-88%  |
| 4165-62-2 | Phenol-d5            | 33%  | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 100% | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 87%  | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 75%  | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 69%  | 10-126% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MS  | 6P472427.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| OP11665-MSD | 6P472428.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| JC65157-4   | 6P472429.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                   | JC65157-4<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD    | Limits<br>Rec/RPD |
|-----------|----------------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|--------|-------------------|
| 95-57-8   | 2-Chlorophenol             | ND                 | 2050                | 998         | 49      | 2020           | 897          | 44       | 11     | 10-137/34         |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND                 | 2050                | 1170        | 57      | 2020           | 997          | 49       | 16     | 11-147/35         |
| 120-83-2  | 2,4-Dichlorophenol         | ND                 | 2050                | 935         | 46      | 2020           | 771          | 38       | 19     | 15-140/34         |
| 105-67-9  | 2,4-Dimethylphenol         | ND                 | 2050                | 1110        | 54      | 2020           | 1580         | 78       | 35* a  | 10-151/34         |
| 51-28-5   | 2,4-Dinitrophenol          | ND                 | 4100                | 519         | 13      | 4050           | ND           | 0* b     | 200* a | 10-148/49         |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND                 | 2050                | 476         | 23      | 2020           | 225          | 11       | 72* a  | 10-150/48         |
| 95-48-7   | 2-Methylphenol             | ND                 | 2050                | 1180        | 58      | 2020           | 1460         | 72       | 21     | 10-138/33         |
|           | 3&4-Methylphenol           | ND                 | 2050                | 980         | 48      | 2020           | 2640         | 130      | 92* a  | 10-143/33         |
| 88-75-5   | 2-Nitrophenol              | ND                 | 2050                | 1060        | 52      | 2020           | 831          | 41       | 24     | 10-150/39         |
| 100-02-7  | 4-Nitrophenol              | ND                 | 2050                | 1120        | 55      | 2020           | 2140         | 106      | 63* a  | 10-163/38         |
| 87-86-5   | Pentachlorophenol          | ND                 | 2050                | 832         | 41      | 2020           | 683          | 34       | 20     | 10-148/39         |
| 108-95-2  | Phenol                     | ND                 | 2050                | 930         | 45      | 2020           | 2290         | 113      | 84* a  | 24-114/32         |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND                 | 2050                | 700         | 34      | 2020           | 638          | 32       | 9      | 14-140/38         |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND                 | 2050                | 959         | 47      | 2020           | 810          | 40       | 17     | 10-146/36         |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND                 | 2050                | 997         | 49      | 2020           | 825          | 41       | 19     | 16-148/36         |
| 83-32-9   | Acenaphthene               | 112                | 2050                | 1160        | 51      | 2020           | 12200        | 597* b   | 165* a | 21-136/34         |
| 208-96-8  | Acenaphthylene             | 501                | 2050                | 1640        | 56      | 2020           | 17700        | 850* b   | 166* a | 10-143/36         |
| 98-86-2   | Acetophenone               | ND                 | 2050                | 1220        | 59      | 2020           | 1270         | 63       | 4      | 24-127/31         |
| 120-12-7  | Anthracene                 | 647                | 2050                | 1790        | 56      | 2020           | 15800        | 749* b   | 159* a | 10-147/39         |
| 1912-24-9 | Atrazine                   | ND                 | 2050                | 970         | 47      | 2020           | 859          | 42       | 12     | 10-161/38         |
| 56-55-3   | Benzo(a)anthracene         | 986                | 2050                | 1980        | 48      | 2020           | 24200        | 1147* b  | 170* a | 10-151/41         |
| 50-32-8   | Benzo(a)pyrene             | 1020               | 2050                | 2030        | 49      | 2020           | 10600        | 473* b   | 136* a | 10-149/40         |
| 205-99-2  | Benzo(b)fluoranthene       | 1170               | 2050                | 2090        | 45      | 2020           | 26700        | 1261* b  | 171* a | 10-147/42         |
| 191-24-2  | Benzo(g,h,i)perylene       | 763                | 2050                | 1670        | 44      | 2020           | 28600        | 1375* b  | 178* a | 10-150/41         |
| 207-08-9  | Benzo(k)fluoranthene       | 474                | 2050                | 1670        | 58      | 2020           | 4100         | 179* b   | 84* a  | 12-142/41         |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND                 | 2050                | 888         | 43      | 2020           | 724          | 36       | 20     | 26-138/37         |
| 85-68-7   | Butyl benzyl phthalate     | ND                 | 2050                | 1340        | 65      | 2020           | 1020         | 50       | 27     | 24-143/36         |
| 92-52-4   | 1,1'-Biphenyl              | 69.4               | J 2050              | 1160        | 53      | 2020           | 6930         | 339* b   | 143* a | 18-138/32         |
| 100-52-7  | Benzaldehyde               | ND                 | 2050                | 915         | 45      | 2020           | 1160         | 57       | 24     | 10-149/37         |
| 91-58-7   | 2-Chloronaphthalene        | ND                 | 2050                | 1050        | 51      | 2020           | 932          | 46       | 12     | 24-130/31         |
| 106-47-8  | 4-Chloroaniline            | ND                 | 2050                | 487         | 24      | 2020           | 621          | 31       | 24     | 10-111/52         |
| 86-74-8   | Carbazole                  | 171                | 2050                | 1350        | 57      | 2020           | 14900        | 728* b   | 167* a | 12-146/39         |
| 105-60-2  | Caprolactam                | ND                 | 2050                | 952         | 46      | 2020           | 957          | 47       | 1      | 10-147/40         |
| 218-01-9  | Chrysene                   | 964                | 2050                | 2010        | 51      | 2020           | 13800        | 634* b   | 149* a | 10-151/41         |
| 111-91-1  | bis(2-Chloroethoxy)methane | ND                 | 2050                | 1090        | 53      | 2020           | 962          | 48       | 12     | 10-144/35         |
| 111-44-4  | bis(2-Chloroethyl)ether    | ND                 | 2050                | 1080        | 53      | 2020           | 1020         | 50       | 6      | 12-142/35         |

\* = Outside of Control Limits.

8.4.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MS  | 6P472427.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| OP11665-MSD | 6P472428.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| JC65157-4   | 6P472429.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Compound                     | JC65157-4<br>ug/kg | Spike<br>Q | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD     | Limits<br>Rec/RPD |           |
|-----------|------------------------------|--------------------|------------|-------------|---------|----------------|--------------|----------|---------|-------------------|-----------|
| 108-60-1  | 2,2'-Oxybis(1-chloropropane) | ND                 |            | 2050        | 1240    | 60             | 2020         | 1220     | 2       | 10-137/33         |           |
| 7005-72-3 | 4-Chlorophenyl phenyl ether  | ND                 |            | 2050        | 979     | 48             | 2020         | 1090     | 11      | 21-136/35         |           |
| 121-14-2  | 2,4-Dinitrotoluene           | ND                 |            | 2050        | 1040    | 51             | 2020         | 2530     | 83* a   | 14-148/41         |           |
| 606-20-2  | 2,6-Dinitrotoluene           | ND                 |            | 2050        | 1090    | 53             | 2020         | 931      | 16      | 14-152/40         |           |
| 91-94-1   | 3,3'-Dichlorobenzidine       | ND                 |            | 4100        | ND      | 0* b           | 4050         | 990      | 24      | 200* a            | 10-137/47 |
| 123-91-1  | 1,4-Dioxane                  | ND                 |            | 2050        | 668     | 33             | 2020         | 627      | 31      | 6                 | 10-110/40 |
| 53-70-3   | Dibenzo(a,h)anthracene       | 131                |            | 2050        | 1110    | 48             | 2020         | 9230     | 450* b  | 157* a            | 10-152/38 |
| 132-64-9  | Dibenzofuran                 | 376                |            | 2050        | 1690    | 64             | 2020         | 19200    | 930* b  | 168* a            | 17-141/36 |
| 84-74-2   | Di-n-butyl phthalate         | ND                 |            | 2050        | 1260    | 61             | 2020         | 1200     | 59      | 5                 | 26-137/35 |
| 117-84-0  | Di-n-octyl phthalate         | ND                 |            | 2050        | 1330    | 65             | 2020         | 1140     | 56      | 15                | 23-145/36 |
| 84-66-2   | Diethyl phthalate            | ND                 |            | 2050        | 1170    | 57             | 2020         | 1090     | 54      | 7                 | 25-133/35 |
| 131-11-3  | Dimethyl phthalate           | ND                 |            | 2050        | 1100    | 54             | 2020         | 999      | 49      | 10                | 21-134/36 |
| 117-81-7  | bis(2-Ethylhexyl)phthalate   | ND                 |            | 2050        | 1330    | 65             | 2020         | 1320     | 65      | 1                 | 26-144/39 |
| 206-44-0  | Fluoranthene                 | 2530               |            | 2050        | 3740    | 59             | 2020         | 39300    | 1817* b | 165* a            | 10-151/44 |
| 86-73-7   | Fluorene                     | 364                |            | 2050        | 1380    | 50             | 2020         | 24200    | 1178* b | 178* a            | 19-133/36 |
| 118-74-1  | Hexachlorobenzene            | ND                 |            | 2050        | 873     | 43             | 2020         | 696      | 34      | 23                | 18-142/37 |
| 87-68-3   | Hexachlorobutadiene          | ND                 |            | 2050        | 1010    | 49             | 2020         | 843      | 42      | 18                | 16-137/32 |
| 77-47-4   | Hexachlorocyclopentadiene    | ND                 |            | 4100        | 824     | 20             | 4050         | 124      | 3* b    | 148* a            | 10-150/50 |
| 67-72-1   | Hexachloroethane             | ND                 |            | 2050        | 878     | 43             | 2020         | 731      | 36      | 18                | 10-131/38 |
| 193-39-5  | Indeno(1,2,3-cd)pyrene       | 613                |            | 2050        | 1590    | 48             | 2020         | 22100    | 1062* b | 173* a            | 10-148/41 |
| 78-59-1   | Isophorone                   | ND                 |            | 2050        | 1210    | 59             | 2020         | 1040     | 51      | 15                | 11-142/33 |
| 91-57-6   | 2-Methylnaphthalene          | 308                |            | 2050        | 1730    | 69             | 2020         | 16800    | 815* b  | 163* a            | 10-141/35 |
| 88-74-4   | 2-Nitroaniline               | ND                 |            | 2050        | 1220    | 59             | 2020         | 1170     | 58      | 4                 | 14-156/38 |
| 99-09-2   | 3-Nitroaniline               | ND                 |            | 2050        | 549     | 27             | 2020         | 764      | 38      | 33                | 10-144/45 |
| 100-01-6  | 4-Nitroaniline               | ND                 |            | 2050        | 293     | 14             | 2020         | 849      | 42      | 97* a             | 10-156/44 |
| 91-20-3   | Naphthalene                  | 589                |            | 2050        | 2150    | 76             | 2020         | 19200    | 920* b  | 160* a            | 10-136/36 |
| 98-95-3   | Nitrobenzene                 | ND                 |            | 2050        | 1150    | 56             | 2020         | 969      | 48      | 17                | 10-142/34 |
| 621-64-7  | N-Nitroso-di-n-propylamine   | ND                 |            | 2050        | 1200    | 59             | 2020         | 1110     | 55      | 8                 | 10-142/31 |
| 86-30-6   | N-Nitrosodiphenylamine       | ND                 |            | 2050        | 1150    | 56             | 2020         | 1280     | 63      | 11                | 10-156/37 |
| 85-01-8   | Phenanthrene                 | 2570               |            | 2050        | 3910    | 65             | 2020         | 43200    | 2008* b | 167* a            | 11-145/45 |
| 129-00-0  | Pyrene                       | 2320               |            | 2050        | 3530    | 59             | 2020         | 28900    | 1313* b | 156* a            | 11-155/44 |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene   | ND                 |            | 2050        | 713     | 35             | 2020         | 627      | 31      | 13                | 23-136/32 |

\* = Outside of Control Limits.

8.4.1  
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# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11665-MS  | 6P472427.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| OP11665-MSD | 6P472428.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |
| JC65157-4   | 6P472429.D | 1  | 05/02/18 | SA | 05/01/18  | OP11665    | E6P2189          |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-1, JC65157-2, JC65157-3, JC65157-4, JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65157-4 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 55% | 56% | 43%       | 23-115% |
| 4165-62-2 | Phenol-d5            | 55% | 55% | 44%       | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 46% | 42% | 34%       | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 60% | 54% | 46%       | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 55% | 52% | 46%       | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 47% | 44% | 37%       | 36-134% |

- (a) Outside control limits due to possible sample nonhomogeneity.
- (b) Outside control limits due to matrix interference.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-MS  | M145730.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| OP11697-MSD | M145731.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| JC65130-2   | M145732.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | JC65130-2<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|-----------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 95-48-7  | 2-Methylphenol        | ND                | 500                | 270        | 54      | 500           | 250         | 50       | 8   | 47-112/18         |
|          | 3&4-Methylphenol      | ND                | 500                | 271        | 54      | 500           | 246         | 49       | 10  | 44-113/19         |
| 87-86-5  | Pentachlorophenol     | ND                | 500                | 486        | 97      | 500           | 456         | 91       | 6   | 25-151/25         |
| 95-95-4  | 2,4,5-Trichlorophenol | ND                | 500                | 461        | 92      | 500           | 422         | 84       | 9   | 51-124/20         |
| 88-06-2  | 2,4,6-Trichlorophenol | ND                | 500                | 465        | 93      | 500           | 431         | 86       | 8   | 53-120/21         |
| 106-46-7 | 1,4-Dichlorobenzene   | ND                | 500                | 347        | 69      | 500           | 343         | 69       | 1   | 40-105/22         |
| 121-14-2 | 2,4-Dinitrotoluene    | ND                | 500                | 528        | 106     | 500           | 498         | 100      | 6   | 54-123/27         |
| 118-74-1 | Hexachlorobenzene     | ND                | 500                | 411        | 82      | 500           | 388         | 78       | 6   | 46-125/24         |
| 87-68-3  | Hexachlorobutadiene   | ND                | 500                | 373        | 75      | 500           | 372         | 74       | 0   | 26-121/24         |
| 67-72-1  | Hexachloroethane      | ND                | 500                | 348        | 70      | 500           | 346         | 69       | 1   | 35-111/26         |
| 98-95-3  | Nitrobenzene          | ND                | 500                | 426        | 85      | 500           | 404         | 81       | 5   | 35-130/25         |
| 110-86-1 | Pyridine              | ND                | 500                | 98.7       | 20      | 500           | 80.0        | 16       | 21  | 12-102/41         |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65130-2 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 38% | 33% | 45%       | 14-88%  |
| 4165-62-2 | Phenol-d5            | 28% | 25% | 32%       | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 90% | 87% | 107%      | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 79% | 77% | 80%       | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 72% | 70% | 74%       | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 61% | 57% | 78%       | 10-126% |

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11697-LS10 | M145730.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |
| JC65130-2    | M145732.D | 1  | 05/03/18 | CS | 05/02/18  | OP11697    | EM6192           |

The QC reported here applies to the following samples:

Method: SW846 8270D

JC65157-12A

| CAS No.  | Compound              | JC65130-2<br>ug/l | Spike<br>Q | ug/l | LS<br>ug/l | LS<br>% | Limits |
|----------|-----------------------|-------------------|------------|------|------------|---------|--------|
| 95-48-7  | 2-Methylphenol        | ND                | 500        | 270  | 54         | 47-112  |        |
|          | 3&4-Methylphenol      | ND                | 500        | 271  | 54         | 44-113  |        |
| 87-86-5  | Pentachlorophenol     | ND                | 500        | 486  | 97         | 25-151  |        |
| 95-95-4  | 2,4,5-Trichlorophenol | ND                | 500        | 461  | 92         | 51-124  |        |
| 88-06-2  | 2,4,6-Trichlorophenol | ND                | 500        | 465  | 93         | 53-120  |        |
| 106-46-7 | 1,4-Dichlorobenzene   | ND                | 500        | 347  | 69         | 40-105  |        |
| 121-14-2 | 2,4-Dinitrotoluene    | ND                | 500        | 528  | 106        | 54-123  |        |
| 118-74-1 | Hexachlorobenzene     | ND                | 500        | 411  | 82         | 46-125  |        |
| 87-68-3  | Hexachlorobutadiene   | ND                | 500        | 373  | 75         | 26-121  |        |
| 67-72-1  | Hexachloroethane      | ND                | 500        | 348  | 70         | 35-111  |        |
| 98-95-3  | Nitrobenzene          | ND                | 500        | 426  | 85         | 35-130  |        |
| 110-86-1 | Pyridine              | ND                | 500        | 98.7 | 20         | 12-102  |        |

| CAS No.   | Surrogate Recoveries | LS  | JC65130-2 | Limits  |
|-----------|----------------------|-----|-----------|---------|
| 367-12-4  | 2-Fluorophenol       | 38% | 45%       | 14-88%  |
| 4165-62-2 | Phenol-d5            | 28% | 32%       | 10-110% |
| 118-79-6  | 2,4,6-Tribromophenol | 90% | 107%      | 39-149% |
| 4165-60-0 | Nitrobenzene-d5      | 79% | 80%       | 32-128% |
| 321-60-8  | 2-Fluorobiphenyl     | 72% | 74%       | 35-119% |
| 1718-51-0 | Terphenyl-d14        | 61% | 78%       | 10-126% |

\* = Outside of Control Limits.

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3481-DFTPP  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 2P79036.D | <b>Injection Time:</b> 20:08    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 100824        | 37.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1207          | 0.45 (0.86) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 140923        | 52.0                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 673           | 0.25 (0.48) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 151036        | 55.8                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 270763        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 19261         | 7.11                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 64885         | 24.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 8152          | 3.01                     | Pass      |
| 441 | Present, but less than mass 443    | 33955         | 12.5 (83.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 216021        | 79.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 40507         | 15.0 (18.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3481-IC3481  | 2P79037.D   | 05/01/18      | 20:33         | 00:25        | Initial cal 100             |
| E2P3481-IC3481  | 2P79038.D   | 05/01/18      | 20:55         | 00:47        | Initial cal 80              |
| E2P3481-ICC3481 | 2P79039.D   | 05/01/18      | 21:16         | 01:08        | Initial cal 50              |
| E2P3481-IC3481  | 2P79040.D   | 05/01/18      | 21:38         | 01:30        | Initial cal 25              |
| E2P3481-IC3481  | 2P79041.D   | 05/01/18      | 22:00         | 01:52        | Initial cal 10              |
| E2P3481-IC3481  | 2P79042.D   | 05/01/18      | 22:22         | 02:14        | Initial cal 5               |
| E2P3481-IC3481  | 2P79043.D   | 05/01/18      | 22:44         | 02:36        | Initial cal 2               |
| E2P3481-IC3481  | 2P79044.D   | 05/01/18      | 23:05         | 02:57        | Initial cal 1               |
| E2P3481-ICV3479 | 2P79045.D   | 05/01/18      | 23:27         | 03:19        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79046.D   | 05/01/18      | 23:49         | 03:41        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79047.D   | 05/02/18      | 00:11         | 04:03        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79048.D   | 05/02/18      | 00:32         | 04:24        | Initial cal verification 50 |
| E2P3481-ICV3481 | 2P79049.D   | 05/02/18      | 00:54         | 04:46        | Initial cal verification 50 |

8.6.1  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3484-DFTPP  | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 2P79079.D | <b>Injection Time:</b> 02:24    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 47513         | 40.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1010          | 0.85 (1.56) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 64706         | 54.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 314           | 0.26 (0.49) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 69344         | 58.5                     | Pass      |
| 197 | Less than 1.04% of mass 198        | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 118616        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 8351          | 7.04                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 28589         | 24.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4437          | 3.74                     | Pass      |
| 441 | Present, but less than mass 443    | 15602         | 13.2 (80.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 100016        | 84.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 19461         | 16.4 (19.5) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E2P3484-IC3484  | 2P79081.D   | 05/03/18      | 03:21         | 00:57        | Initial cal 100             |
| E2P3484-IC3484  | 2P79082.D   | 05/03/18      | 03:43         | 01:19        | Initial cal 80              |
| E2P3484-ICC3484 | 2P79083.D   | 05/03/18      | 04:05         | 01:41        | Initial cal 50              |
| E2P3484-IC3484  | 2P79084.D   | 05/03/18      | 04:26         | 02:02        | Initial cal 25              |
| E2P3484-IC3484  | 2P79085.D   | 05/03/18      | 04:48         | 02:24        | Initial cal 10              |
| E2P3484-IC3484  | 2P79086.D   | 05/03/18      | 05:10         | 02:46        | Initial cal 5               |
| E2P3484-IC3484  | 2P79087.D   | 05/03/18      | 05:31         | 03:07        | Initial cal 2               |
| E2P3484-IC3484  | 2P79088.D   | 05/03/18      | 05:53         | 03:29        | Initial cal 1               |
| E2P3484-ICV3484 | 2P79089.D   | 05/03/18      | 06:14         | 03:50        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79090.D   | 05/03/18      | 06:36         | 04:12        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79091.D   | 05/03/18      | 06:58         | 04:34        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79092.D   | 05/03/18      | 07:19         | 04:55        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79093.D   | 05/03/18      | 07:41         | 05:17        | Initial cal verification 50 |
| E2P3484-ICV3484 | 2P79094.D   | 05/03/18      | 08:02         | 05:38        | Initial cal verification 50 |

8.6.2  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3489-DFTPP  | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79159.D | <b>Injection Time:</b> 19:44    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 71296         | 35.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 569           | 0.28 (0.57) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 99917         | 49.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 439           | 0.22 (0.44) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 110661        | 54.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 202325        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 13280         | 6.56                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 52915         | 26.2                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 7509          | 3.71                     | Pass      |
| 441 | Present, but less than mass 443    | 25027         | 12.4 (83.1) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 156629        | 77.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 30109         | 14.9 (19.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|----------------|-------------|---------------|---------------|--------------|--------------------|
| E2P3489-CC3484 | 2P79160.D   | 05/05/18      | 19:56         | 00:12        | Continuing cal 50  |
| E2P3489-CC3481 | 2P79161.D   | 05/05/18      | 20:17         | 00:33        | Continuing cal 50  |
| OP11696-MB1    | 2P79162.D   | 05/05/18      | 20:39         | 00:55        | Method Blank       |
| OP11697-LB28   | 2P79163.D   | 05/05/18      | 21:00         | 01:16        | Leachate Blank     |
| OP11696-LB32   | 2P79164.D   | 05/05/18      | 21:22         | 01:38        | Leachate Blank     |
| OP11696-LB34   | 2P79165.D   | 05/05/18      | 21:43         | 01:59        | Leachate Blank     |
| OP11696-BS1    | 2P79166.D   | 05/05/18      | 22:05         | 02:21        | Blank Spike        |
| ZZZZZZ         | 2P79167.D   | 05/05/18      | 22:26         | 02:42        | (unrelated sample) |
| ZZZZZZ         | 2P79168.D   | 05/05/18      | 22:48         | 03:04        | (unrelated sample) |
| ZZZZZZ         | 2P79169.D   | 05/05/18      | 23:09         | 03:25        | (unrelated sample) |
| ZZZZZZ         | 2P79170.D   | 05/05/18      | 23:31         | 03:47        | (unrelated sample) |
| ZZZZZZ         | 2P79171.D   | 05/05/18      | 23:52         | 04:08        | (unrelated sample) |
| ZZZZZZ         | 2P79172.D   | 05/06/18      | 00:14         | 04:30        | (unrelated sample) |
| ZZZZZZ         | 2P79173.D   | 05/06/18      | 00:36         | 04:52        | (unrelated sample) |
| ZZZZZZ         | 2P79174.D   | 05/06/18      | 00:57         | 05:13        | (unrelated sample) |
| ZZZZZZ         | 2P79175.D   | 05/06/18      | 01:19         | 05:35        | (unrelated sample) |
| ZZZZZZ         | 2P79176.D   | 05/06/18      | 01:40         | 05:56        | (unrelated sample) |
| ZZZZZZ         | 2P79177.D   | 05/06/18      | 02:02         | 06:18        | (unrelated sample) |
| ZZZZZZ         | 2P79178.D   | 05/06/18      | 02:23         | 06:39        | (unrelated sample) |

8.6.3  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E2P3489-DFTPP  | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79159.D | <b>Injection Time:</b> 19:44    |
| <b>Instrument ID:</b> GCMS2P  |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| JC65157-12A   | 2P79179.D   | 05/06/18      | 02:45         | 07:01        | SB-100 (0-8)                                |
| ZZZZZZ        | 2P79180.D   | 05/06/18      | 03:06         | 07:22        | (unrelated sample)                          |
| ZZZZZZ        | 2P79181.D   | 05/06/18      | 03:28         | 07:44        | (unrelated sample)                          |
| ZZZZZZ        | 2P79182.D   | 05/06/18      | 03:49         | 08:05        | (unrelated sample)                          |
| ZZZZZZ        | 2P79183.D   | 05/06/18      | 04:10         | 08:26        | (unrelated sample)                          |
| ZZZZZZ        | 2P79184.D   | 05/06/18      | 04:32         | 08:48        | (unrelated sample)                          |
| ZZZZZZ        | 2P79185.D   | 05/06/18      | 04:53         | 09:09        | (unrelated sample)                          |
| OP11558-MB1   | 2P79186.D   | 05/06/18      | 05:15         | 09:31        | Method Blank                                |
| OP11558-BS1   | 2P79187.D   | 05/06/18      | 05:36         | 09:52        | Blank Spike                                 |
| OP11558-BSD   | 2P79188.D   | 05/06/18      | 05:58         | 10:14        | Blank Spike Duplicate                       |
| OP11558-MB2   | 2P79189.D   | 05/06/18      | 06:19         | 10:35        | Method Blank                                |
| OP11558-BS2   | 2P79190.D   | 05/06/18      | 06:41         | 10:57        | Blank Spike                                 |
| OP11558-MS    | 2P79191.D   | 05/06/18      | 07:02         | 11:18        | Matrix Spike                                |
| OP11558-MSD   | 2P79192.D   | 05/06/18      | 07:24         | 11:40        | Matrix Spike Duplicate                      |
| ZZZZZZ        | 2P79193.D   | 05/06/18      | 07:45         | 12:01        | (unrelated sample)                          |
| ZZZZZZ        | 2P79194.D   | 05/06/18      | 08:07         | 12:23        | (unrelated sample)                          |
| ZZZZZZ        | 2P79195.D   | 05/06/18      | 08:28         | 12:44        | (unrelated sample)                          |
| ZZZZZZ        | 2P79196.D   | 05/06/18      | 08:50         | 13:06        | (unrelated sample)                          |
| ZZZZZZ        | 2P79197.D   | 05/06/18      | 09:11         | 13:27        | (unrelated sample)                          |
| ZZZZZZ        | 2P79198.D   | 05/06/18      | 09:33         | 13:49        | (unrelated sample)                          |
| ZZZZZZ        | 2P79199.D   | 05/06/18      | 09:54         | 14:10        | (unrelated sample)                          |
| ZZZZZZ        | 2P79202.D   | 05/06/18      | 10:59         | 15:15        | (unrelated sample)                          |
| ZZZZZZ        | 2P79203.D   | 05/06/18      | 11:20         | 15:36        | (unrelated sample)                          |
| ZZZZZZ        | 2P79204.D   | 05/06/18      | 11:42         | 15:58        | (unrelated sample)                          |
| ZZZZZZ        | 2P79205.D   | 05/06/18      | 12:03         | 16:19        | (unrelated sample)                          |
| ZZZZZZ        | 2P79206.D   | 05/06/18      | 12:25         | 16:41        | (unrelated sample)                          |
| ZZZZZZ        | 2P79207.D   | 05/06/18      | 12:46         | 17:02        | (unrelated sample)                          |
| JC64815-13    | 2P79208.D   | 05/06/18      | 13:08         | 17:24        | (used for QC only; not part of job JC65157) |
| ZZZZZZ        | 2P79209.D   | 05/06/18      | 13:29         | 17:45        | (unrelated sample)                          |
| ZZZZZZ        | 2P79211.D   | 05/06/18      | 14:13         | 18:29        | (unrelated sample)                          |
| ZZZZZZ        | 2P79212.D   | 05/06/18      | 14:34         | 18:50        | (unrelated sample)                          |

8.6.3  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E5P2305-DFTPP  | <b>Injection Date:</b> 02/26/18 |
| <b>Lab File ID:</b> 5P48076.D | <b>Injection Time:</b> 01:44    |
| <b>Instrument ID:</b> GCMS5P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 52944         | 30.7                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 104           | 0.06 (0.18) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 58109         | 33.7                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 354           | 0.21 (0.61) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 77440         | 44.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 172666        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11489         | 6.65                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 40318         | 23.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 5838          | 3.38                     | Pass      |
| 441 | Present, but less than mass 443    | 17552         | 10.2 (72.7) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 140392        | 81.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 24133         | 14.0 (17.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E5P2305-IC2305  | 5P48078.D   | 02/26/18      | 02:46         | 01:02        | Initial cal 100             |
| E5P2305-IC2305  | 5P48079.D   | 02/26/18      | 03:10         | 01:26        | Initial cal 80              |
| E5P2305-ICC2305 | 5P48080.D   | 02/26/18      | 03:35         | 01:51        | Initial cal 50              |
| E5P2305-IC2305  | 5P48081.D   | 02/26/18      | 03:59         | 02:15        | Initial cal 25              |
| E5P2305-IC2305  | 5P48082.D   | 02/26/18      | 04:23         | 02:39        | Initial cal 10              |
| E5P2305-IC2305  | 5P48083.D   | 02/26/18      | 04:47         | 03:03        | Initial cal 5               |
| E5P2305-IC2305  | 5P48084.D   | 02/26/18      | 05:10         | 03:26        | Initial cal 2               |
| E5P2305-IC2305  | 5P48085.D   | 02/26/18      | 05:35         | 03:51        | Initial cal 1               |
| E5P2305-ICV2305 | 5P48086.D   | 02/26/18      | 05:59         | 04:15        | Initial cal verification 50 |
| E5P2305-ICV2305 | 5P48089.D   | 02/26/18      | 07:10         | 05:26        | Initial cal verification 50 |
| E5P2305-ICV2305 | 5P48090.D   | 02/26/18      | 07:34         | 05:50        | Initial cal verification 50 |

8.6.4  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E5P2307-DFTPP  | <b>Injection Date:</b> 02/26/18 |
| <b>Lab File ID:</b> 5P48105.D | <b>Injection Time:</b> 21:01    |
| <b>Instrument ID:</b> GCMS5P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 64906         | 30.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 68759         | 32.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 138           | 0.07 (0.20) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 91442         | 43.1                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 212077        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 14385         | 6.78                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 46994         | 22.2                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6524          | 3.08                     | Pass      |
| 441 | Present, but less than mass 443    | 6842          | 3.23 (20.5) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 174592        | 82.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 33304         | 15.7 (19.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E5P2307-ICV2305 | 5P48106.D   | 02/26/18      | 21:14         | 00:13        | Initial cal verification 50 |
| E5P2307-ICV2305 | 5P48108.D   | 02/26/18      | 22:53         | 01:52        | Initial cal verification 50 |

8.6.5  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E5P2318-DFTPP  | <b>Injection Date:</b> 03/06/18 |
| <b>Lab File ID:</b> 5P48340.D | <b>Injection Time:</b> 22:10    |
| <b>Instrument ID:</b> GCMS5P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 68620         | 38.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 69486         | 39.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 397           | 0.22 (0.57) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 87741         | 49.3                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 485           | 0.27                     | Pass      |
| 198 | Base peak, 100% relative abundance | 177877        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 12547         | 7.05                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 44538         | 25.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6570          | 3.69                     | Pass      |
| 441 | Present, but less than mass 443    | 3512          | 1.97 (12.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 140008        | 78.7                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 27374         | 15.4 (19.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E5P2318-IC2318  | 5P48341.D   | 03/06/18      | 22:36         | 00:26        | Initial cal 100             |
| E5P2318-IC2318  | 5P48342.D   | 03/06/18      | 23:01         | 00:51        | Initial cal 80              |
| E5P2318-ICC2318 | 5P48343.D   | 03/06/18      | 23:25         | 01:15        | Initial cal 50              |
| E5P2318-IC2318  | 5P48344.D   | 03/06/18      | 23:50         | 01:40        | Initial cal 25              |
| E5P2318-IC2318  | 5P48345.D   | 03/07/18      | 00:15         | 02:05        | Initial cal 10              |
| E5P2318-IC2318  | 5P48346.D   | 03/07/18      | 00:40         | 02:30        | Initial cal 5               |
| E5P2318-IC2318  | 5P48347.D   | 03/07/18      | 01:05         | 02:55        | Initial cal 2               |
| E5P2318-IC2318  | 5P48348.D   | 03/07/18      | 01:30         | 03:20        | Initial cal 1               |
| E5P2318-ICV2318 | 5P48349.D   | 03/07/18      | 01:55         | 03:45        | Initial cal verification 50 |
| E5P2318-ICV2318 | 5P48350.D   | 03/07/18      | 02:20         | 04:10        | Initial cal verification 50 |
| E5P2318-ICV2318 | 5P48351.D   | 03/07/18      | 02:44         | 04:34        | Initial cal verification 50 |
| E5P2318-ICV2318 | 5P48352.D   | 03/07/18      | 03:09         | 04:59        | Initial cal verification 50 |
| E5P2318-ICV2318 | 5P48353.D   | 03/07/18      | 03:34         | 05:24        | Initial cal verification 50 |

8.6.6  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> E5P2381-DFTPP  | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 5P49860.D | <b>Injection Time:</b> 23:08    |
| <b>Instrument ID:</b> GCMS5P  |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 62087         | 32.7                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 89344         | 47.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 125           | 0.07 (0.14) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 102586        | 54.0                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 189877        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 12309         | 6.48                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 51285         | 27.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6862          | 3.61                     | Pass      |
| 441 | Present, but less than mass 443    | 28949         | 15.2 (87.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 175920        | 92.6                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 32970         | 17.4 (18.7) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|----------------|-------------|---------------|---------------|--------------|--------------------|
| E5P2381-CC2305 | 5P49861.D   | 05/01/18      | 23:25         | 00:17        | Continuing cal 50  |
| E5P2381-CC2318 | 5P49862.D   | 05/01/18      | 23:50         | 00:42        | Continuing cal 50  |
| OP11665-MB1    | 5P49863.D   | 05/02/18      | 00:15         | 01:07        | Method Blank       |
| ZZZZZZ         | 5P49865.D   | 05/02/18      | 01:03         | 01:55        | (unrelated sample) |
| ZZZZZZ         | 5P49866.D   | 05/02/18      | 01:28         | 02:20        | (unrelated sample) |
| ZZZZZZ         | 5P49867.D   | 05/02/18      | 01:52         | 02:44        | (unrelated sample) |
| ZZZZZZ         | 5P49868.D   | 05/02/18      | 02:16         | 03:08        | (unrelated sample) |
| ZZZZZZ         | 5P49869.D   | 05/02/18      | 02:41         | 03:33        | (unrelated sample) |
| ZZZZZZ         | 5P49870.D   | 05/02/18      | 03:05         | 03:57        | (unrelated sample) |
| ZZZZZZ         | 5P49871.D   | 05/02/18      | 03:29         | 04:21        | (unrelated sample) |
| ZZZZZZ         | 5P49872.D   | 05/02/18      | 03:53         | 04:45        | (unrelated sample) |

8.6.7  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2164-DFTPP   | <b>Injection Date:</b> 04/13/18 |
| <b>Lab File ID:</b> 6P471774.D | <b>Injection Time:</b> 23:44    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 185492        | 46.4                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 2655          | 0.66 (1.65) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 161241        | 40.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 1012          | 0.25 (0.63) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 182858        | 45.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 2777          | 0.70                     | Pass      |
| 198 | Base peak, 100% relative abundance | 399552        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 25358         | 6.35                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 109442        | 27.4                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 15577         | 3.90                     | Pass      |
| 441 | Present, but less than mass 443    | 49568         | 12.4 (82.7) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 312832        | 78.3                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 59968         | 15.0 (19.2) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E6P2164-IC2164  | 6P471775.D  | 04/14/18      | 00:24         | 00:40        | Initial cal 100             |
| E6P2164-IC2164  | 6P471776.D  | 04/14/18      | 00:49         | 01:05        | Initial cal 80              |
| E6P2164-ICC2164 | 6P471777.D  | 04/14/18      | 01:14         | 01:30        | Initial cal 50              |
| E6P2164-IC2164  | 6P471778.D  | 04/14/18      | 01:39         | 01:55        | Initial cal 25              |
| E6P2164-IC2164  | 6P471779.D  | 04/14/18      | 02:04         | 02:20        | Initial cal 10              |
| E6P2164-IC2164  | 6P471780.D  | 04/14/18      | 02:28         | 02:44        | Initial cal 5               |
| E6P2164-IC2164  | 6P471781.D  | 04/14/18      | 02:53         | 03:09        | Initial cal 2               |
| E6P2164-IC2164  | 6P471782.D  | 04/14/18      | 03:18         | 03:34        | Initial cal 1               |
| E6P2164-ICV2164 | 6P471783.D  | 04/14/18      | 03:43         | 03:59        | Initial cal verification 50 |
| E6P2164-ICV2164 | 6P471784.D  | 04/14/18      | 04:08         | 04:24        | Initial cal verification 50 |
| E6P2164-ICV2164 | 6P471785.D  | 04/14/18      | 04:32         | 04:48        | Initial cal verification 50 |
| E6P2164-ICV2164 | 6P471786.D  | 04/14/18      | 04:57         | 05:13        | Initial cal verification 50 |
| E6P2164-ICV2164 | 6P471787.D  | 04/14/18      | 05:22         | 05:38        | Initial cal verification 50 |

8.6.8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2165-DFTPP   | <b>Injection Date:</b> 04/14/18 |
| <b>Lab File ID:</b> 6P471788.D | <b>Injection Time:</b> 05:42    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 227605        | 42.3                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 3266          | 0.61 (1.61) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 202318        | 37.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 676           | 0.13 (0.33) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 235221        | 43.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 538005        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 34632         | 6.44                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 154754        | 28.8                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 23029         | 4.28                     | Pass      |
| 441 | Present, but less than mass 443    | 79578         | 14.8 (81.5) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 501653        | 93.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 97586         | 18.1 (19.5) <sup>c</sup> | Pass      |

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|-----------------|-------------|---------------|---------------|--------------|-----------------------------|
| E6P2165-IC2165  | 6P471789.D  | 04/14/18      | 05:55         | 00:13        | Initial cal 100             |
| E6P2165-IC2165  | 6P471790.D  | 04/14/18      | 06:20         | 00:38        | Initial cal 80              |
| E6P2165-ICC2165 | 6P471791.D  | 04/14/18      | 06:44         | 01:02        | Initial cal 50              |
| E6P2165-IC2165  | 6P471792.D  | 04/14/18      | 07:09         | 01:27        | Initial cal 25              |
| E6P2165-IC2165  | 6P471793.D  | 04/14/18      | 07:34         | 01:52        | Initial cal 10              |
| E6P2165-IC2165  | 6P471794.D  | 04/14/18      | 07:58         | 02:16        | Initial cal 5               |
| E6P2165-IC2165  | 6P471795.D  | 04/14/18      | 08:23         | 02:41        | Initial cal 2               |
| E6P2165-IC2165  | 6P471796.D  | 04/14/18      | 08:48         | 03:06        | Initial cal 1               |
| E6P2165-ICV2165 | 6P471797A.D | 04/14/18      | 09:12         | 03:30        | Initial cal verification 50 |
| E6P2165-ICV2164 | 6P471797.D  | 04/14/18      | 09:12         | 03:30        | Initial cal verification 50 |
| E6P2165-ICV2165 | 6P471798.D  | 04/14/18      | 09:37         | 03:55        | Initial cal verification 50 |
| E6P2165-ICV2165 | 6P471799.D  | 04/14/18      | 10:02         | 04:20        | Initial cal verification 50 |
| E6P2165-ICV2165 | 6P471800.D  | 04/14/18      | 10:26         | 04:44        | Initial cal verification 50 |
| E6P2165-ICV2165 | 6P471801.D  | 04/14/18      | 10:51         | 05:09        | Initial cal verification 50 |

8.6.9  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2189-DFTPP   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 6P472407.D | <b>Injection Time:</b> 23:08    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 137778        | 49.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 2218          | 0.80 (1.56) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 142537        | 51.3                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 570           | 0.21 (0.40) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 158794        | 57.1                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 277922        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 17297         | 6.22                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 73736         | 26.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 8810          | 3.17                     | Pass      |
| 441 | Present, but less than mass 443    | 31116         | 11.2 (78.5) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 205360        | 73.9                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 39624         | 14.3 (19.3) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|----------------|-------------|---------------|---------------|--------------|------------------------|
| E6P2189-CC2164 | 6P472408.D  | 05/01/18      | 23:21         | 00:13        | Continuing cal 25      |
| E6P2189-CC2165 | 6P472409.D  | 05/01/18      | 23:48         | 00:40        | Continuing cal 25      |
| OP11665-MB1    | 6P472413.D  | 05/02/18      | 01:27         | 02:19        | Method Blank           |
| OP11665-BS1    | 6P472414.D  | 05/02/18      | 01:52         | 02:44        | Blank Spike            |
| OP11705-MB1    | 6P472415.D  | 05/02/18      | 02:17         | 03:09        | Method Blank           |
| OP11705-BS1    | 6P472416.D  | 05/02/18      | 02:42         | 03:34        | Blank Spike            |
| OP11705-MS     | 6P472417.D  | 05/02/18      | 03:07         | 03:59        | Matrix Spike           |
| OP11705-MSD    | 6P472418.D  | 05/02/18      | 03:32         | 04:24        | Matrix Spike Duplicate |
| JC65157-2      | 6P472424.D  | 05/02/18      | 06:00         | 06:52        | SB-109 (7-9)           |
| JC65157-3      | 6P472425.D  | 05/02/18      | 06:24         | 07:16        | SB-109 (15-17)         |
| JC65157-9      | 6P472426.D  | 05/02/18      | 06:49         | 07:41        | SB-100 (8-11)          |
| OP11665-MS     | 6P472427.D  | 05/02/18      | 07:14         | 08:06        | Matrix Spike           |
| OP11665-MSD    | 6P472428.D  | 05/02/18      | 07:38         | 08:30        | Matrix Spike Duplicate |
| JC65157-4      | 6P472429.D  | 05/02/18      | 08:03         | 08:55        | SB-101 (7-9)           |
| JC65157-6      | 6P472430.D  | 05/02/18      | 08:27         | 09:19        | SB-103 (9-19)          |
| JC65157-7      | 6P472431.D  | 05/02/18      | 08:52         | 09:44        | SB-101 (0-9)           |
| JC65157-8      | 6P472432.D  | 05/02/18      | 09:17         | 10:09        | SB-100 (0-8)           |
| JC65157-10     | 6P472433.D  | 05/02/18      | 09:42         | 10:34        | SB-103 (0-5)           |
| JC65157-11     | 6P472434.D  | 05/02/18      | 10:07         | 10:59        | SB-101 (0-9)           |

8.6.10  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2189-DFTPP   | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 6P472407.D | <b>Injection Time:</b> 23:08    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---------------|-------------|---------------|---------------|--------------|------------------|
| JC65157-12    | 6P472435.D  | 05/02/18      | 10:32         | 11:24        | SB-100 (0-8)     |
| JC65157-1     | 6P472436.D  | 05/02/18      | 10:57         | 11:49        | SB-103 (7-9)     |

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Sample:</b> E6P2202-DFTPP    | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 6P472770A.D | <b>Injection Time:</b> 01:58    |
| <b>Instrument ID:</b> GCMS6P    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 147843        | 47.9                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 1837          | 0.59 (1.17) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 156776        | 50.8                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 1389          | 0.45 (0.89) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 169152        | 54.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 308816        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 23153         | 7.50                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 80653         | 26.1                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 10336         | 3.35                     | Pass      |
| 441 | Present, but less than mass 443    | 39666         | 12.8 (73.0) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 262378        | 85.0                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 54333         | 17.6 (20.7) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|-----------------|-------------|---------------|---------------|--------------|---|
| E6P2202-CC2164  | 6P472771.D  | 05/10/18      | 02:11         | 00:13        | Continuing cal 50                           |
| E6P2202-CC2165  | 6P472772.D  | 05/10/18      | 02:35         | 00:37        | Continuing cal 50                           |
| JC65157-1       | 6P472783.D  | 05/10/18      | 07:05         | 05:07        | SB-103 (7-9)                                |
| JC65157-8       | 6P472784.D  | 05/10/18      | 07:30         | 05:32        | SB-100 (0-8)                                |
| JC65157-1       | 6P472785.D  | 05/10/18      | 07:54         | 05:56        | SB-103 (7-9)                                |
| JC65157-6       | 6P472786.D  | 05/10/18      | 08:19         | 06:21        | SB-103 (9-19)                               |
| ZZZZZZ          | 6P472787.D  | 05/10/18      | 08:43         | 06:45        | (unrelated sample)                          |
| ZZZZZZ          | 6P472788.D  | 05/10/18      | 09:08         | 07:10        | (unrelated sample)                          |
| JC65269-2       | 6P472790.D  | 05/10/18      | 09:57         | 07:59        | (used for QC only; not part of job JC65157) |
| E6P2202-ECC2164 | 6P472791.D  | 05/10/18      | 10:22         | 08:24        | Ending cal 50                               |
| E6P2202-ECC2165 | 6P472792.D  | 05/10/18      | 10:47         | 08:49        | Ending cal 50                               |

8.6.11  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2211-DFTPP   | <b>Injection Date:</b> 05/16/18 |
| <b>Lab File ID:</b> 6P472996.D | <b>Injection Time:</b> 11:40    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 140441        | 44.0                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 2723          | 0.85 (1.62) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 167627        | 52.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 1576          | 0.49 (0.94) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 173800        | 54.5                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 318861        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 22654         | 7.10                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 87755         | 27.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 12720         | 3.99                     | Pass      |
| 441 | Present, but less than mass 443    | 42888         | 13.5 (85.2) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 263232        | 82.6                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 50320         | 15.8 (19.1) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| E6P2211-CC2164 | 6P472997.D  | 05/16/18      | 11:54         | 00:14        | Continuing cal 50                           |
| E6P2211-CC2165 | 6P472998.D  | 05/16/18      | 12:20         | 00:40        | Continuing cal 50                           |
| OP12038-MB     | 6P473002.D  | 05/16/18      | 14:06         | 02:26        | Method Blank                                |
| OP12038-BS     | 6P473003.D  | 05/16/18      | 14:31         | 02:51        | Blank Spike                                 |
| ZZZZZZ         | 6P473004.D  | 05/16/18      | 14:55         | 03:15        | (unrelated sample)                          |
| JC65157-12     | 6P473005.D  | 05/16/18      | 15:21         | 03:41        | SB-100 (0-8)                                |
| ZZZZZZ         | 6P473006.D  | 05/16/18      | 15:46         | 04:06        | (unrelated sample)                          |
| ZZZZZZ         | 6P473007.D  | 05/16/18      | 16:11         | 04:31        | (unrelated sample)                          |
| ZZZZZZ         | 6P473008.D  | 05/16/18      | 16:36         | 04:56        | (unrelated sample)                          |
| ZZZZZZ         | 6P473009.D  | 05/16/18      | 17:01         | 05:21        | (unrelated sample)                          |
| ZZZZZZ         | 6P473010.D  | 05/16/18      | 17:26         | 05:46        | (unrelated sample)                          |
| ZZZZZZ         | 6P473011.D  | 05/16/18      | 17:51         | 06:11        | (unrelated sample)                          |
| ZZZZZZ         | 6P473012.D  | 05/16/18      | 18:15         | 06:35        | (unrelated sample)                          |
| ZZZZZZ         | 6P473013.D  | 05/16/18      | 18:40         | 07:00        | (unrelated sample)                          |
| JC66178-1      | 6P473014.D  | 05/16/18      | 19:05         | 07:25        | (used for QC only; not part of job JC65157) |
| ZZZZZZ         | 6P473015.D  | 05/16/18      | 19:30         | 07:50        | (unrelated sample)                          |
| OP12038-MS     | 6P473016.D  | 05/16/18      | 19:55         | 08:15        | Matrix Spike                                |
| OP12038-MSD    | 6P473017.D  | 05/16/18      | 20:20         | 08:40        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 6P473018.D  | 05/16/18      | 20:45         | 09:05        | (unrelated sample)                          |

8.6.12  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> E6P2211-DFTPP   | <b>Injection Date:</b> 05/16/18 |
| <b>Lab File ID:</b> 6P472996.D | <b>Injection Time:</b> 11:40    |
| <b>Instrument ID:</b> GCMS6P   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | 6P473019.D  | 05/16/18      | 21:10         | 09:30        | (unrelated sample) |
| ZZZZZZ        | 6P473020.D  | 05/16/18      | 21:35         | 09:55        | (unrelated sample) |
| ZZZZZZ        | 6P473021.D  | 05/16/18      | 22:00         | 10:20        | (unrelated sample) |
| ZZZZZZ        | 6P473022.D  | 05/16/18      | 22:24         | 10:44        | (unrelated sample) |
| ZZZZZZ        | 6P473023.D  | 05/16/18      | 22:49         | 11:09        | (unrelated sample) |
| ZZZZZZ        | 6P473024.D  | 05/16/18      | 23:14         | 11:34        | (unrelated sample) |
| ZZZZZZ        | 6P473025.D  | 05/16/18      | 23:39         | 11:59        | (unrelated sample) |

8.6.12  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6168-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145273.D | <b>Injection Time:</b> 03:46    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 59257         | 34.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 71939         | 41.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 174           | 0.10 (0.24) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 91976         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 173922        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11453         | 6.59                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 41398         | 23.8                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4915          | 2.83                     | Pass      |
| 441 | Present, but less than mass 443    | 18451         | 10.6 (77.9) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 120712        | 69.4                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 23676         | 13.6 (19.6) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6168-IC6168  | M145274.D   | 04/17/18      | 04:09         | 00:23        | Initial cal 100             |
| EM6168-IC6168  | M145275.D   | 04/17/18      | 04:38         | 00:52        | Initial cal 80              |
| EM6168-ICC6168 | M145276.D   | 04/17/18      | 05:08         | 01:22        | Initial cal 50              |
| EM6168-IC6168  | M145277.D   | 04/17/18      | 05:37         | 01:51        | Initial cal 25              |
| EM6168-IC6168  | M145278.D   | 04/17/18      | 06:06         | 02:20        | Initial cal 10              |
| EM6168-IC6168  | M145279.D   | 04/17/18      | 06:35         | 02:49        | Initial cal 5               |
| EM6168-IC6168  | M145280.D   | 04/17/18      | 07:05         | 03:19        | Initial cal 2               |
| EM6168-IC6168  | M145281.D   | 04/17/18      | 07:34         | 03:48        | Initial cal 1               |
| EM6168-ICV6168 | M145282.D   | 04/17/18      | 08:03         | 04:17        | Initial cal verification 50 |
| EM6168-ICV6168 | M145284.D   | 04/17/18      | 09:02         | 05:16        | Initial cal verification 50 |
| EM6168-ICV6168 | M145285.D   | 04/17/18      | 09:31         | 05:45        | Initial cal verification 50 |
| EM6168-ICV6168 | M145286.D   | 04/17/18      | 10:00         | 06:14        | Initial cal verification 50 |
| EM6168-ICV6168 | M145287.D   | 04/17/18      | 10:30         | 06:44        | Initial cal verification 50 |

8.6.13  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6169-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145288.D | <b>Injection Time:</b> 10:55    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 54344         | 32.2                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 349           | 0.21 (0.51) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 68186         | 40.4                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 378           | 0.22 (0.55) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 89104         | 52.9                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 462           | 0.27                     | Pass      |
| 198 | Base peak, 100% relative abundance | 168576        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 11591         | 6.88                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 39557         | 23.5                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4960          | 2.94                     | Pass      |
| 441 | Present, but less than mass 443    | 18883         | 11.2 (73.4) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 132344        | 78.5                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 25736         | 15.3 (19.4) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6169-IC6169  | M145289.D   | 04/17/18      | 11:39         | 00:44        | Initial cal 100             |
| EM6169-IC6169  | M145290.D   | 04/17/18      | 12:08         | 01:13        | Initial cal 80              |
| EM6169-ICC6169 | M145291.D   | 04/17/18      | 12:37         | 01:42        | Initial cal 50              |
| EM6169-IC6169  | M145292.D   | 04/17/18      | 13:07         | 02:12        | Initial cal 25              |
| EM6169-IC6169  | M145293.D   | 04/17/18      | 13:36         | 02:41        | Initial cal 10              |
| EM6169-IC6169  | M145294.D   | 04/17/18      | 14:06         | 03:11        | Initial cal 5               |
| EM6169-IC6169  | M145295.D   | 04/17/18      | 14:35         | 03:40        | Initial cal 2               |
| EM6169-IC6169  | M145296.D   | 04/17/18      | 15:04         | 04:09        | Initial cal 1               |
| EM6169-ICV6169 | M145297.D   | 04/17/18      | 15:34         | 04:39        | Initial cal verification 50 |
| EM6169-ICV6169 | M145298.D   | 04/17/18      | 16:03         | 05:08        | Initial cal verification 50 |
| EM6169-ICV6169 | M145299.D   | 04/17/18      | 16:32         | 05:37        | Initial cal verification 50 |
| EM6169-ICV6169 | M145300.D   | 04/17/18      | 17:02         | 06:07        | Initial cal verification 50 |
| EM6169-ICV6169 | M145301.D   | 04/17/18      | 17:31         | 06:36        | Initial cal verification 50 |

8.6.14  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6170-DFTPP   | <b>Injection Date:</b> 04/17/18 |
| <b>Lab File ID:</b> M145302.D | <b>Injection Time:</b> 20:36    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 57893         | 30.8                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 0             | 0.00 (0.00) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 73598         | 39.2                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 465           | 0.25 (0.63) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 97176         | 51.8                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 187690        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 13198         | 7.03                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 44914         | 23.9                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 6194          | 3.30                     | Pass      |
| 441 | Present, but less than mass 443    | 24056         | 12.8 (73.3) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 165570        | 88.2                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 32797         | 17.5 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID            |
|----------------|-------------|---------------|---------------|--------------|-----------------------------|
| EM6170-ICV6168 | M145303.D   | 04/17/18      | 20:55         | 00:19        | Initial cal verification 50 |

8.6.15  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6192-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145713.D | <b>Injection Time:</b> 01:08    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 40781         | 39.1                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 325           | 0.31 (0.67) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 48618         | 46.6                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 353           | 0.34 (0.73) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 56570         | 54.2                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 104397        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 7262          | 6.96                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 26112         | 25.0                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4067          | 3.90                     | Pass      |
| 441 | Present, but less than mass 443    | 13568         | 13.0 (77.1) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 92680         | 88.8                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 17599         | 16.9 (19.0) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EM6192-CC6168 | M145714.D   | 05/03/18      | 01:21         | 00:13        | Continuing cal 50                           |
| OP11695-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11696-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11697-MB1   | M145715.D   | 05/03/18      | 01:55         | 00:47        | Method Blank                                |
| OP11696-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11695-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11697-BS1   | M145716.D   | 05/03/18      | 02:26         | 01:18        | Blank Spike                                 |
| OP11697-LB25  | M145717.D   | 05/03/18      | 02:55         | 01:47        | Leachate Blank                              |
| OP11696-LB17  | M145718.D   | 05/03/18      | 03:25         | 02:17        | Leachate Blank                              |
| OP11696-MS    | M145719.D   | 05/03/18      | 03:55         | 02:47        | Matrix Spike                                |
| OP11696-LS5   | M145719.D   | 05/03/18      | 03:55         | 02:47        | Leachate Spike                              |
| OP11696-MSD   | M145720.D   | 05/03/18      | 04:25         | 03:17        | Matrix Spike Duplicate                      |
| JC64929-1     | M145721.D   | 05/03/18      | 04:55         | 03:47        | (used for QC only; not part of job JC65157) |
| ZZZZZZ        | M145722.D   | 05/03/18      | 05:25         | 04:17        | (unrelated sample)                          |
| ZZZZZZ        | M145723.D   | 05/03/18      | 05:54         | 04:46        | (unrelated sample)                          |
| ZZZZZZ        | M145724.D   | 05/03/18      | 06:25         | 05:17        | (unrelated sample)                          |
| ZZZZZZ        | M145725.D   | 05/03/18      | 06:54         | 05:46        | (unrelated sample)                          |
| ZZZZZZ        | M145726.D   | 05/03/18      | 07:23         | 06:15        | (unrelated sample)                          |
| ZZZZZZ        | M145727.D   | 05/03/18      | 07:53         | 06:45        | (unrelated sample)                          |

8.6.16  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |              |                        |          |
|-----------------------|--------------|------------------------|----------|
| <b>Sample:</b>        | EM6192-DFTPP | <b>Injection Date:</b> | 05/03/18 |
| <b>Lab File ID:</b>   | M145713.D    | <b>Injection Time:</b> | 01:08    |
| <b>Instrument ID:</b> | GCSM         |                        |          |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| ZZZZZZ        | M145728.D   | 05/03/18      | 08:23         | 07:15        | (unrelated sample)                          |
| ZZZZZZ        | M145729.D   | 05/03/18      | 08:52         | 07:44        | (unrelated sample)                          |
| OP11697-MS    | M145730.D   | 05/03/18      | 09:22         | 08:14        | Matrix Spike                                |
| OP11697-LS10  | M145730.D   | 05/03/18      | 09:22         | 08:14        | Leachate Spike                              |
| OP11697-MSD   | M145731.D   | 05/03/18      | 09:52         | 08:44        | Matrix Spike Duplicate                      |
| JC65130-2     | M145732.D   | 05/03/18      | 10:21         | 09:13        | (used for QC only; not part of job JC65157) |
| ZZZZZZ        | M145733.D   | 05/03/18      | 10:51         | 09:43        | (unrelated sample)                          |
| ZZZZZZ        | M145734.D   | 05/03/18      | 11:21         | 10:13        | (unrelated sample)                          |
| ZZZZZZ        | M145735.D   | 05/03/18      | 11:51         | 10:43        | (unrelated sample)                          |
| ZZZZZZ        | M145736.D   | 05/03/18      | 12:21         | 11:13        | (unrelated sample)                          |
| ZZZZZZ        | M145737.D   | 05/03/18      | 12:51         | 11:43        | (unrelated sample)                          |

8.6.16  
8

# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6194-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145756.D | <b>Injection Time:</b> 23:54    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 51  | 30.0 - 60.0% of mass 198           | 47472         | 35.6                     | Pass      |
| 68  | Less than 2.0% of mass 69          | 551           | 0.41 (0.98) <sup>a</sup> | Pass      |
| 69  | Mass 69 relative abundance         | 56094         | 42.1                     | Pass      |
| 70  | Less than 2.0% of mass 69          | 517           | 0.39 (0.92) <sup>a</sup> | Pass      |
| 127 | 40.0 - 60.0% of mass 198           | 67528         | 50.7                     | Pass      |
| 197 | Less than 1.0% of mass 198         | 0             | 0.00                     | Pass      |
| 198 | Base peak, 100% relative abundance | 133312        | 100.0                    | Pass      |
| 199 | 5.0 - 9.0% of mass 198             | 9269          | 6.95                     | Pass      |
| 275 | 10.0 - 30.0% of mass 198           | 32864         | 24.7                     | Pass      |
| 365 | 1.0 - 100.0% of mass 198           | 4880          | 3.66                     | Pass      |
| 441 | Present, but less than mass 443    | 17819         | 13.4 (73.8) <sup>b</sup> | Pass      |
| 442 | 40.0 - 100.0% of mass 198          | 122261        | 91.7                     | Pass      |
| 443 | 17.0 - 23.0% of mass 442           | 24149         | 18.1 (19.8) <sup>c</sup> | Pass      |

- (a) Value is % of mass 69
- (b) Value is % of mass 443
- (c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|---------------|-------------|---------------|---------------|--------------|---|
| EM6194-CC6168 | M145757.D   | 05/04/18      | 00:06         | 00:12        | Continuing cal 50                           |
| EM6194-CC6169 | M145759.D   | 05/04/18      | 01:07         | 01:13        | Continuing cal 50                           |
| OP11465-MB1   | M145762.D   | 05/04/18      | 02:38         | 02:44        | Method Blank                                |
| OP11607-MB1   | M145763.D   | 05/04/18      | 03:08         | 03:14        | Method Blank                                |
| OP11510-MB1   | M145764.D   | 05/04/18      | 03:39         | 03:45        | Method Blank                                |
| OP11697-LB26  | M145765.D   | 05/04/18      | 04:09         | 04:15        | Leachate Blank                              |
| OP11695-LB18  | M145766.D   | 05/04/18      | 04:39         | 04:45        | Leachate Blank                              |
| ZZZZZZ        | M145767.D   | 05/04/18      | 05:09         | 05:15        | (unrelated sample)                          |
| ZZZZZZ        | M145768.D   | 05/04/18      | 05:40         | 05:46        | (unrelated sample)                          |
| ZZZZZZ        | M145769.D   | 05/04/18      | 06:10         | 06:16        | (unrelated sample)                          |
| ZZZZZZ        | M145780.D   | 05/04/18      | 06:40         | 06:46        | (unrelated sample)                          |
| ZZZZZZ        | M145782.D   | 05/04/18      | 07:39         | 07:45        | (unrelated sample)                          |
| ZZZZZZ        | M145783.D   | 05/04/18      | 08:09         | 08:15        | (unrelated sample)                          |
| OP11695-MS    | M145770.D   | 05/04/18      | 08:39         | 08:45        | Matrix Spike                                |
| OP11695-LS6   | M145770.D   | 05/04/18      | 08:39         | 08:45        | Leachate Spike                              |
| OP11695-MSD   | M145771.D   | 05/04/18      | 09:09         | 09:15        | Matrix Spike Duplicate                      |
| ZZZZZZ        | M145777.D   | 05/04/18      | 09:39         | 09:45        | (unrelated sample)                          |
| JC64994-1     | M145772.D   | 05/04/18      | 10:08         | 10:14        | (used for QC only; not part of job JC65157) |
| ZZZZZZ        | M145773.D   | 05/04/18      | 10:38         | 10:44        | (unrelated sample)                          |

8.6.17  
8



# Instrument Performance Check (DFTPP)

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> EM6194-DFTPP   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145756.D | <b>Injection Time:</b> 23:54    |
| <b>Instrument ID:</b> GCMSM   |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | M145774.D   | 05/04/18      | 11:09         | 11:15        | (unrelated sample) |
| ZZZZZZ        | M145775.D   | 05/04/18      | 11:38         | 11:44        | (unrelated sample) |

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3489-CC3484 | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79160.D    | <b>Injection Time:</b> 19:56    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 459384 | 4.59 | 1488420 | 5.65 | 826753  | 7.09 | 1540036 | 8.36 | 1632380 | 11.55 | 1481788 | 13.52 |
| Upper Limit <sup>a</sup> | 918768 | 5.09 | 2976840 | 6.15 | 1653506 | 7.59 | 3080072 | 8.86 | 3264760 | 12.05 | 2963576 | 14.02 |
| Lower Limit <sup>b</sup> | 229692 | 4.09 | 744210  | 5.15 | 413377  | 6.59 | 770018  | 7.86 | 816190  | 11.05 | 740894  | 13.02 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP11696-MB1   | 770703 | 4.59 | 2650905 | 5.65 | 1204233 | 7.08 | 2217599 | 8.35 | 2144271 | 11.54 | 1962947 | 13.51 |
| OP11697-LB28  | 776166 | 4.59 | 2698986 | 5.65 | 1252930 | 7.08 | 2326705 | 8.35 | 2270231 | 11.54 | 2160309 | 13.51 |
| OP11696-LB32  | 750812 | 4.59 | 2696941 | 5.65 | 1247630 | 7.08 | 2345238 | 8.35 | 2280045 | 11.54 | 2155236 | 13.51 |
| OP11696-LB34  | 784348 | 4.59 | 2789761 | 5.65 | 1275612 | 7.08 | 2371184 | 8.35 | 2271628 | 11.54 | 2168505 | 13.51 |
| OP11696-BS1   | 569887 | 4.60 | 1853642 | 5.65 | 899520  | 7.09 | 1712343 | 8.36 | 1766941 | 11.55 | 1653408 | 13.51 |
| ZZZZZZ        | 843791 | 4.59 | 2965052 | 5.65 | 1259070 | 7.08 | 2090693 | 8.35 | 2216029 | 11.54 | 2189521 | 13.51 |
| ZZZZZZ        | 848029 | 4.59 | 2935568 | 5.65 | 1246236 | 7.08 | 2112715 | 8.35 | 2184339 | 11.54 | 2147695 | 13.51 |
| ZZZZZZ        | 741828 | 4.59 | 2744781 | 5.65 | 1298219 | 7.08 | 2429215 | 8.35 | 2393486 | 11.54 | 2183611 | 13.51 |
| ZZZZZZ        | 713498 | 4.59 | 2577662 | 5.65 | 1200123 | 7.08 | 2210748 | 8.35 | 2164756 | 11.54 | 2052309 | 13.51 |
| ZZZZZZ        | 787833 | 4.59 | 2793570 | 5.65 | 1303031 | 7.08 | 2442214 | 8.35 | 2388415 | 11.54 | 2292804 | 13.51 |
| ZZZZZZ        | 710757 | 4.59 | 2547543 | 5.65 | 1264106 | 7.08 | 2164192 | 8.35 | 2064562 | 11.54 | 1957512 | 13.51 |
| ZZZZZZ        | 816444 | 4.59 | 2745565 | 5.65 | 1332305 | 7.08 | 2260904 | 8.35 | 2209890 | 11.54 | 2078725 | 13.51 |
| ZZZZZZ        | 738678 | 4.59 | 2652313 | 5.65 | 1238187 | 7.08 | 2292569 | 8.35 | 2270349 | 11.54 | 2177636 | 13.51 |
| ZZZZZZ        | 798674 | 4.59 | 2685763 | 5.65 | 1269916 | 7.08 | 2323541 | 8.35 | 2260746 | 11.54 | 2189612 | 13.51 |
| ZZZZZZ        | 729791 | 4.59 | 2441442 | 5.65 | 1160196 | 7.08 | 2014933 | 8.35 | 2113438 | 11.54 | 2048739 | 13.51 |
| ZZZZZZ        | 797132 | 4.59 | 2751971 | 5.65 | 1258203 | 7.08 | 2284539 | 8.35 | 2203811 | 11.54 | 2152538 | 13.51 |
| ZZZZZZ        | 638515 | 4.59 | 2136663 | 5.65 | 985767  | 7.08 | 1802361 | 8.35 | 1893011 | 11.54 | 1984072 | 13.51 |
| JC65157-12A   | 751827 | 4.59 | 2727452 | 5.65 | 1258348 | 7.08 | 2337841 | 8.35 | 2276053 | 11.54 | 2169917 | 13.51 |
| ZZZZZZ        | 733277 | 4.59 | 2682691 | 5.65 | 1244309 | 7.08 | 2295597 | 8.35 | 2249538 | 11.54 | 2197240 | 13.51 |
| ZZZZZZ        | 804783 | 4.59 | 2819309 | 5.65 | 1295682 | 7.08 | 2415426 | 8.35 | 2306183 | 11.54 | 2213731 | 13.51 |
| ZZZZZZ        | 786791 | 4.59 | 2782669 | 5.65 | 1397328 | 7.08 | 2350638 | 8.35 | 2266783 | 11.54 | 2195828 | 13.51 |
| ZZZZZZ        | 770682 | 4.59 | 2616957 | 5.65 | 1291650 | 7.08 | 2210262 | 8.35 | 2114217 | 11.54 | 2041424 | 13.51 |
| ZZZZZZ        | 792717 | 4.59 | 2721758 | 5.65 | 1339505 | 7.08 | 2282478 | 8.35 | 2218226 | 11.54 | 2111908 | 13.51 |
| ZZZZZZ        | 767531 | 4.59 | 2633715 | 5.65 | 1298763 | 7.08 | 2144557 | 8.35 | 2168446 | 11.54 | 2130103 | 13.51 |
| OP11558-MB1   | 872317 | 4.59 | 2939742 | 5.65 | 1438597 | 7.08 | 2448285 | 8.35 | 2364545 | 11.54 | 2298843 | 13.51 |
| OP11558-BS1   | 575800 | 4.60 | 1878377 | 5.65 | 972076  | 7.09 | 1713629 | 8.35 | 1766069 | 11.55 | 1619761 | 13.51 |
| OP11558-BSD   | 598864 | 4.60 | 1934420 | 5.65 | 1000846 | 7.08 | 1734452 | 8.35 | 1797177 | 11.55 | 1650102 | 13.51 |
| OP11558-MB2   | 837493 | 4.59 | 2798869 | 5.65 | 1366234 | 7.08 | 2315140 | 8.35 | 2251095 | 11.54 | 2163432 | 13.51 |
| OP11558-BS2   | 519321 | 4.60 | 1806677 | 5.65 | 990537  | 7.09 | 1747119 | 8.35 | 1806086 | 11.55 | 1671153 | 13.51 |
| OP11558-MS    | 549056 | 4.60 | 1770371 | 5.65 | 942841  | 7.09 | 1633428 | 8.35 | 1659187 | 11.55 | 1538656 | 13.51 |
| OP11558-MSD   | 334861 | 4.60 | 1756495 | 5.65 | 952821  | 7.08 | 1737068 | 8.35 | 1904533 | 11.55 | 1720393 | 13.51 |
| ZZZZZZ        | 852911 | 4.59 | 2952009 | 5.65 | 1498379 | 7.08 | 2568697 | 8.35 | 2428897 | 11.54 | 2380453 | 13.51 |
| ZZZZZZ        | 867145 | 4.59 | 2923772 | 5.65 | 1442735 | 7.08 | 2441422 | 8.35 | 2366827 | 11.54 | 2254586 | 13.51 |
| ZZZZZZ        | 764922 | 4.59 | 2637839 | 5.65 | 1318922 | 7.08 | 2274739 | 8.35 | 2216614 | 11.54 | 2082702 | 13.51 |
| ZZZZZZ        | 834688 | 4.59 | 2904573 | 5.65 | 1426108 | 7.08 | 2420213 | 8.35 | 2318429 | 11.54 | 2194003 | 13.51 |

8.7.1  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E2P3489-CC3484 | <b>Injection Date:</b> 05/05/18 |
| <b>Lab File ID:</b> 2P79160.D    | <b>Injection Time:</b> 19:56    |
| <b>Instrument ID:</b> GCMS2P     | <b>Method:</b> SW846 8270D      |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT | IS 3 AREA | IS 3 RT | IS 4 AREA | IS 4 RT | IS 5 AREA | IS 5 RT | IS 6 AREA | IS 6 RT |
|---------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| ZZZZZZ        | 854056    | 4.59    | 2901672   | 5.65    | 1412711   | 7.08    | 2409674   | 8.35    | 2317960   | 11.54   | 2202907   | 13.51   |
| ZZZZZZ        | 838455    | 4.59    | 2824347   | 5.65    | 1390685   | 7.08    | 2364908   | 8.35    | 2284902   | 11.54   | 2161085   | 13.51   |
| ZZZZZZ        | 824130    | 4.59    | 2808254   | 5.65    | 1386730   | 7.08    | 2377774   | 8.35    | 2291036   | 11.54   | 2202400   | 13.51   |
| ZZZZZZ        | 832670    | 4.59    | 2775612   | 5.65    | 1367955   | 7.08    | 2343540   | 8.35    | 2227099   | 11.54   | 2095192   | 13.51   |
| ZZZZZZ        | 711569    | 4.59    | 2454822   | 5.65    | 1224604   | 7.08    | 2024229   | 8.35    | 1897489   | 11.54   | 1827007   | 13.51   |
| ZZZZZZ        | 785542    | 4.59    | 2654877   | 5.65    | 1288887   | 7.08    | 2091634   | 8.35    | 1977403   | 11.54   | 1884773   | 13.51   |
| ZZZZZZ        | 763685    | 4.59    | 2490361   | 5.65    | 1139718   | 7.08    | 1885113   | 8.35    | 1876963   | 11.54   | 1752223   | 13.51   |
| ZZZZZZ        | 842441    | 4.59    | 2953763   | 5.65    | 1484326   | 7.08    | 2480388   | 8.35    | 2278429   | 11.54   | 2113201   | 13.51   |
| ZZZZZZ        | 871287    | 4.59    | 2902093   | 5.65    | 1450896   | 7.08    | 2461360   | 8.35    | 2301849   | 11.54   | 2110189   | 13.51   |
| JC64815-13    | 845010    | 4.59    | 2849214   | 5.65    | 1412731   | 7.08    | 2252245   | 8.35    | 2030847   | 11.54   | 2069903   | 13.51   |
| ZZZZZZ        | 840207    | 4.59    | 2862178   | 5.65    | 1405238   | 7.08    | 2406717   | 8.35    | 2252218   | 11.54   | 2038109   | 13.51   |
| ZZZZZZ        | 674309    | 4.59    | 1691111   | 5.65    | 658837    | 7.10    | 1166121   | 8.37    | 1552761   | 11.55   | 1760519   | 13.52   |
| ZZZZZZ        | 621632    | 4.59    | 1852075   | 5.65    | 730286    | 7.09    | 1207830   | 8.36    | 1224837   | 11.56   | 1147367   | 13.54   |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.1  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E5P2381-CC2305 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 5P49861.D    | <b>Injection Time:</b> 23:25    |
| <b>Instrument ID:</b> GCMS5P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 212715 | 4.32 | 879537  | 5.52 | 506679  | 7.22 | 856736  | 8.70 | 762980  | 12.16 | 740384  | 14.18 |
| Upper Limit <sup>a</sup> | 425430 | 4.82 | 1759074 | 6.02 | 1013358 | 7.72 | 1713472 | 9.20 | 1525960 | 12.66 | 1480768 | 14.68 |
| Lower Limit <sup>b</sup> | 106358 | 3.82 | 439769  | 5.02 | 253340  | 6.72 | 428368  | 8.20 | 381490  | 11.66 | 370192  | 13.68 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3   |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|--------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA   | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP11665-MB1   | 362595 | 4.32 | 1410075 | 5.52 | 717056 | 7.22 | 1200479 | 8.70 | 1067545 | 12.15 | 896715  | 14.18 |
| ZZZZZZ        | 245580 | 4.32 | 967037  | 5.52 | 487460 | 7.22 | 740074  | 8.70 | 648589  | 12.15 | 547757  | 14.18 |
| ZZZZZZ        | 264253 | 4.32 | 998875  | 5.52 | 500673 | 7.22 | 799035  | 8.70 | 671805  | 12.15 | 596780  | 14.17 |
| ZZZZZZ        | 250008 | 4.32 | 999041  | 5.52 | 488905 | 7.22 | 769495  | 8.70 | 646860  | 12.15 | 664441  | 14.18 |
| ZZZZZZ        | 233087 | 4.32 | 942083  | 5.52 | 442048 | 7.22 | 714462  | 8.70 | 605532  | 12.15 | 609870  | 14.18 |
| ZZZZZZ        | 289233 | 4.32 | 1161863 | 5.52 | 599157 | 7.22 | 999452  | 8.70 | 964882  | 12.15 | 1074518 | 14.19 |
| ZZZZZZ        | 231203 | 4.32 | 852928  | 5.52 | 424211 | 7.22 | 687446  | 8.70 | 696407  | 12.16 | 717723  | 14.19 |
| ZZZZZZ        | 214619 | 4.32 | 827227  | 5.52 | 416723 | 7.23 | 683221  | 8.70 | 714314  | 12.16 | 711229  | 14.20 |
| ZZZZZZ        | 220937 | 4.32 | 851282  | 5.52 | 418117 | 7.22 | 648735  | 8.71 | 716920  | 12.16 | 731899  | 14.20 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.2  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E6P2189-CC2164 | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 6P472408.D   | <b>Injection Time:</b> 23:21    |
| <b>Instrument ID:</b> GCMS6P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 479697 | 4.62 | 2006846 | 5.65 | 1066851 | 7.39 | 1781271 | 9.09 | 1711621 | 12.28 | 1705303 | 13.88 |
| Upper Limit <sup>a</sup> | 959394 | 5.12 | 4013692 | 6.15 | 2133702 | 7.89 | 3562542 | 9.59 | 3423242 | 12.78 | 3410606 | 14.38 |
| Lower Limit <sup>b</sup> | 239849 | 4.12 | 1003423 | 5.15 | 533426  | 6.89 | 890636  | 8.59 | 855811  | 11.78 | 852652  | 13.38 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP11665-MB1   | 512199 | 4.62 | 2008609 | 5.65 | 1022603 | 7.39 | 1709547 | 9.09 | 1605841 | 12.27 | 1558686 | 13.88 |
| OP11665-BS1   | 482082 | 4.62 | 1807360 | 5.65 | 948470  | 7.39 | 1608267 | 9.09 | 1484503 | 12.27 | 1390770 | 13.88 |
| OP11705-MB1   | 477443 | 4.62 | 1832978 | 5.65 | 937033  | 7.39 | 1658117 | 9.09 | 1479834 | 12.27 | 1430966 | 13.88 |
| OP11705-BS1   | 472884 | 4.62 | 1780950 | 5.65 | 955574  | 7.39 | 1572750 | 9.09 | 1480954 | 12.28 | 1394838 | 13.88 |
| OP11705-MS    | 503588 | 4.62 | 1885643 | 5.65 | 932599  | 7.39 | 1580602 | 9.09 | 1469680 | 12.28 | 1412819 | 13.88 |
| OP11705-MSD   | 541584 | 4.62 | 2027007 | 5.65 | 1033878 | 7.39 | 1718762 | 9.09 | 1562634 | 12.28 | 1543377 | 13.88 |
| JC65157-2     | 512056 | 4.62 | 1942674 | 5.65 | 969718  | 7.39 | 1665324 | 9.09 | 1477922 | 12.27 | 1443562 | 13.88 |
| JC65157-3     | 496644 | 4.62 | 1893500 | 5.65 | 981320  | 7.39 | 1663715 | 9.09 | 1503668 | 12.27 | 1470035 | 13.88 |
| JC65157-9     | 486743 | 4.62 | 1888763 | 5.65 | 968221  | 7.39 | 1658725 | 9.09 | 1478210 | 12.27 | 1411880 | 13.88 |
| OP11665-MS    | 500771 | 4.62 | 1863009 | 5.65 | 971938  | 7.39 | 1580191 | 9.09 | 1527829 | 12.28 | 1635831 | 13.88 |
| OP11665-MSD   | 488866 | 4.62 | 1997983 | 5.67 | 1016125 | 7.40 | 1891932 | 9.17 | 2317637 | 12.37 | 2297756 | 13.98 |
| JC65157-4     | 510073 | 4.62 | 1926681 | 5.65 | 972313  | 7.40 | 1707634 | 9.10 | 1602224 | 12.29 | 1731124 | 13.90 |
| JC65157-6     | 523871 | 4.62 | 1961643 | 5.65 | 1003752 | 7.40 | 1707075 | 9.10 | 1567010 | 12.29 | 1768842 | 13.89 |
| JC65157-7     | 525741 | 4.62 | 1892977 | 5.65 | 973028  | 7.39 | 1664058 | 9.09 | 1537524 | 12.28 | 1704634 | 13.89 |
| JC65157-8     | 516043 | 4.62 | 1961825 | 5.65 | 984326  | 7.40 | 1651432 | 9.10 | 1767856 | 12.30 | 1937795 | 13.91 |
| JC65157-10    | 533279 | 4.62 | 1994783 | 5.65 | 1020410 | 7.40 | 1715591 | 9.09 | 1575562 | 12.29 | 1747668 | 13.89 |
| JC65157-11    | 552541 | 4.62 | 2041290 | 5.65 | 1051632 | 7.40 | 1734933 | 9.09 | 1540058 | 12.28 | 1692496 | 13.89 |
| JC65157-12    | 543299 | 4.62 | 2028324 | 5.65 | 1016538 | 7.40 | 1746772 | 9.10 | 1654717 | 12.29 | 1765450 | 13.90 |
| JC65157-1     | 498694 | 4.62 | 1908575 | 5.66 | 976753  | 7.40 | 1693026 | 9.11 | 1736627 | 12.30 | 1819311 | 13.91 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12
- IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.3  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E6P2202-CC2164 | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 6P472771.D   | <b>Injection Time:</b> 02:11    |
| <b>Instrument ID:</b> GCMS6P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 455652 | 4.56 | 1841787 | 5.58 | 1029579 | 7.32 | 1690154 | 9.01 | 1564666 | 12.19 | 1580249 | 13.79 |
| Upper Limit <sup>a</sup> | 911304 | 5.06 | 3683574 | 6.08 | 2059158 | 7.82 | 3380308 | 9.51 | 3129332 | 12.69 | 3160498 | 14.29 |
| Lower Limit <sup>b</sup> | 227826 | 4.06 | 920894  | 5.08 | 514790  | 6.82 | 845077  | 8.51 | 782333  | 11.69 | 790125  | 13.29 |

| Lab Sample ID        | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|----------------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                      | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| JC65157-1            | 471785 | 4.56 | 1963229 | 5.58 | 1025866 | 7.32 | 1837605 | 9.01 | 1664542 | 12.19 | 1739480 | 13.79 |
| JC65157-8            | 400718 | 4.56 | 1670537 | 5.58 | 855331  | 7.32 | 1539738 | 9.01 | 1424899 | 12.19 | 1503783 | 13.79 |
| JC65157-1            | 429634 | 4.56 | 1700438 | 5.58 | 874670  | 7.32 | 1593956 | 9.01 | 1489444 | 12.19 | 1600263 | 13.79 |
| JC65157-6            | 452010 | 4.56 | 1800767 | 5.58 | 921910  | 7.32 | 1671157 | 9.01 | 1517320 | 12.19 | 1616574 | 13.79 |
| ZZZZZZ               | 432887 | 4.56 | 2186206 | 5.61 | 964967  | 7.33 | 1762388 | 9.02 | 1547404 | 12.19 | 1674759 | 13.79 |
| ZZZZZZ               | 462902 | 4.56 | 1849406 | 5.58 | 909905  | 7.32 | 1614742 | 9.01 | 1485118 | 12.19 | 1649189 | 13.80 |
| JC65269-2            | 426019 | 4.56 | 1666222 | 5.58 | 811827  | 7.32 | 1421625 | 9.01 | 1268186 | 12.19 | 1445163 | 13.80 |
| E6P2202-ECC216462154 | 4.56   | 4.56 | 1829850 | 5.59 | 987907  | 7.32 | 1671711 | 9.02 | 1540532 | 12.20 | 1647227 | 13.80 |
| E6P2202-ECC216467284 | 4.56   | 4.56 | 1757845 | 5.58 | 969425  | 7.32 | 1745740 | 9.02 | 1618992 | 12.19 | 1690038 | 13.80 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.4  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> E6P2211-CC2164 | <b>Injection Date:</b> 05/16/18 |
| <b>Lab File ID:</b> 6P472997.D   | <b>Injection Time:</b> 11:54    |
| <b>Instrument ID:</b> GCMS6P     | <b>Method:</b> SW846 8270D      |

|                          | IS 1    |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|--------------------------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|                          | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| Check Std                | 642487  | 4.51 | 2514090 | 5.53 | 1416056 | 7.25 | 2413019 | 8.94 | 2234669 | 12.12 | 2244777 | 13.72 |
| Upper Limit <sup>a</sup> | 1284974 | 5.01 | 5028180 | 6.03 | 2832112 | 7.75 | 4826038 | 9.44 | 4469338 | 12.62 | 4489554 | 14.22 |
| Lower Limit <sup>b</sup> | 321244  | 4.01 | 1257045 | 5.03 | 708028  | 6.75 | 1206510 | 8.44 | 1117335 | 11.62 | 1122389 | 13.22 |

| Lab Sample ID | IS 1   |      | IS 2    |      | IS 3    |      | IS 4    |      | IS 5    |       | IS 6    |       |
|---------------|--------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
|               | AREA   | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT   | AREA    | RT    | AREA    | RT    |
| OP12038-MB    | 583854 | 4.51 | 2283345 | 5.52 | 1108216 | 7.25 | 1894813 | 8.94 | 1601318 | 12.11 | 1589117 | 13.72 |
| OP12038-BS    | 565103 | 4.51 | 2199500 | 5.52 | 1114633 | 7.25 | 1928004 | 8.94 | 1618382 | 12.12 | 1568003 | 13.72 |
| ZZZZZZ        | 554970 | 4.51 | 2213329 | 5.52 | 1072553 | 7.25 | 1910106 | 8.94 | 1570792 | 12.11 | 1537054 | 13.72 |
| JC65157-12    | 499328 | 4.51 | 2000951 | 5.52 | 1034066 | 7.25 | 1773367 | 8.94 | 1615939 | 12.12 | 1802205 | 13.72 |
| ZZZZZZ        | 582372 | 4.51 | 2272607 | 5.52 | 1068431 | 7.25 | 1935353 | 8.94 | 1614947 | 12.11 | 1609859 | 13.72 |
| ZZZZZZ        | 585146 | 4.51 | 2331405 | 5.52 | 1136198 | 7.25 | 1946907 | 8.94 | 1610696 | 12.11 | 1644045 | 13.72 |
| ZZZZZZ        | 554235 | 4.51 | 2181540 | 5.52 | 1053719 | 7.25 | 1815732 | 8.94 | 1531523 | 12.11 | 1539218 | 13.72 |
| ZZZZZZ        | 507632 | 4.51 | 2190836 | 5.52 | 1085376 | 7.25 | 1924575 | 8.94 | 1597495 | 12.11 | 1598368 | 13.71 |
| ZZZZZZ        | 569958 | 4.51 | 2284786 | 5.52 | 1110271 | 7.25 | 1926937 | 8.94 | 1599177 | 12.11 | 1616495 | 13.71 |
| ZZZZZZ        | 570188 | 4.51 | 2265090 | 5.52 | 1106361 | 7.25 | 1904258 | 8.94 | 1559925 | 12.11 | 1617081 | 13.71 |
| ZZZZZZ        | 627314 | 4.51 | 2426626 | 5.52 | 1170260 | 7.25 | 1984435 | 8.94 | 1657124 | 12.11 | 1692242 | 13.71 |
| ZZZZZZ        | 575336 | 4.51 | 2161409 | 5.52 | 1052641 | 7.25 | 1814029 | 8.94 | 1461021 | 12.11 | 1581108 | 13.71 |
| JC66178-1     | 548114 | 4.51 | 2194363 | 5.52 | 1051202 | 7.25 | 1803658 | 8.94 | 1494720 | 12.11 | 1660520 | 13.72 |
| ZZZZZZ        | 561485 | 4.51 | 2208040 | 5.52 | 1077124 | 7.25 | 1853396 | 8.94 | 1524979 | 12.11 | 1692649 | 13.72 |
| OP12038-MS    | 562913 | 4.51 | 2210870 | 5.52 | 1075148 | 7.25 | 1863329 | 8.94 | 1605487 | 12.11 | 1840379 | 13.72 |
| OP12038-MSD   | 521035 | 4.51 | 2128168 | 5.52 | 1036052 | 7.25 | 1869132 | 8.94 | 1602116 | 12.12 | 1820486 | 13.72 |
| ZZZZZZ        | 584884 | 4.51 | 2284416 | 5.52 | 1086778 | 7.25 | 1909692 | 8.94 | 1512280 | 12.11 | 1743230 | 13.72 |
| ZZZZZZ        | 589918 | 4.51 | 2369375 | 5.52 | 1127467 | 7.25 | 1921990 | 8.94 | 1586424 | 12.12 | 1863278 | 13.72 |
| ZZZZZZ        | 561629 | 4.51 | 2189669 | 5.52 | 1082916 | 7.25 | 1767440 | 8.94 | 1568441 | 12.12 | 1855260 | 13.72 |
| ZZZZZZ        | 599398 | 4.51 | 2326709 | 5.52 | 1072058 | 7.25 | 1807246 | 8.94 | 1594611 | 12.12 | 1904167 | 13.72 |
| ZZZZZZ        | 554612 | 4.51 | 2113767 | 5.52 | 1008864 | 7.25 | 1688259 | 8.94 | 1637552 | 12.12 | 1979485 | 13.73 |
| ZZZZZZ        | 568327 | 4.51 | 2173472 | 5.53 | 1116512 | 7.26 | 1976601 | 8.95 | 2150470 | 12.16 | 2533769 | 13.77 |
| ZZZZZZ        | 609366 | 4.51 | 2663071 | 5.57 | 1608518 | 7.27 | 2665381 | 9.06 | 2943001 | 12.26 | 3683005 | 13.86 |
| ZZZZZZ        | 595263 | 4.51 | 2270693 | 5.53 | 1101638 | 7.26 | 2008190 | 8.96 | 2292878 | 12.17 | 2731246 | 13.79 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.5  
8

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6192-CC6168 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145714.D   | <b>Injection Time:</b> 01:21    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA    | RT    | AREA    | RT    |
| Check Std                | 124100 | 4.56 | 470425 | 5.66 | 291470 | 7.95 | 562578  | 10.53 | 516502  | 15.69 | 514657  | 18.30 |
| Upper Limit <sup>a</sup> | 248200 | 5.06 | 940850 | 6.16 | 582940 | 8.45 | 1125156 | 11.03 | 1033004 | 16.19 | 1029314 | 18.80 |
| Lower Limit <sup>b</sup> | 62050  | 4.06 | 235213 | 5.16 | 145735 | 7.45 | 281289  | 10.03 | 258251  | 15.19 | 257329  | 17.80 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| OP11697-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11695-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11696-MB1   | 133871 | 4.55 | 472582 | 5.65 | 266168 | 7.95 | 515131 | 10.54 | 518826 | 15.68 | 467114 | 18.30 |
| OP11695-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11696-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11697-BS1   | 130245 | 4.56 | 471468 | 5.66 | 285347 | 7.95 | 569685 | 10.54 | 542351 | 15.69 | 521700 | 18.30 |
| OP11697-LB25  | 128498 | 4.56 | 454295 | 5.66 | 258170 | 7.94 | 494799 | 10.53 | 492160 | 15.68 | 458800 | 18.29 |
| OP11696-LB17  | 141690 | 4.55 | 501466 | 5.66 | 285535 | 7.94 | 556195 | 10.53 | 561365 | 15.68 | 528407 | 18.29 |
| OP11696-LS5   | 129368 | 4.56 | 455491 | 5.66 | 271097 | 7.95 | 537378 | 10.53 | 510743 | 15.68 | 500989 | 18.29 |
| OP11696-MS    | 129368 | 4.56 | 455491 | 5.66 | 271097 | 7.95 | 537378 | 10.53 | 510743 | 15.68 | 500989 | 18.29 |
| OP11696-MSD   | 139279 | 4.56 | 494217 | 5.66 | 296758 | 7.94 | 594301 | 10.53 | 577654 | 15.68 | 573820 | 18.29 |
| JC64929-1     | 155354 | 4.56 | 545656 | 5.66 | 304225 | 7.94 | 576009 | 10.53 | 581433 | 15.68 | 562062 | 18.29 |
| ZZZZZZ        | 157093 | 4.55 | 554199 | 5.65 | 315206 | 7.94 | 610977 | 10.53 | 622248 | 15.68 | 592779 | 18.29 |
| ZZZZZZ        | 152804 | 4.56 | 542989 | 5.66 | 304856 | 7.94 | 599946 | 10.53 | 603031 | 15.68 | 582213 | 18.29 |
| ZZZZZZ        | 142385 | 4.56 | 507311 | 5.66 | 285627 | 7.94 | 555060 | 10.53 | 558147 | 15.68 | 530535 | 18.29 |
| ZZZZZZ        | 153673 | 4.56 | 543312 | 5.66 | 304875 | 7.94 | 592153 | 10.53 | 598106 | 15.68 | 577014 | 18.29 |
| ZZZZZZ        | 153323 | 4.55 | 547019 | 5.66 | 312460 | 7.94 | 608974 | 10.53 | 626005 | 15.67 | 600065 | 18.29 |
| ZZZZZZ        | 155685 | 4.56 | 550179 | 5.66 | 313326 | 7.94 | 602948 | 10.53 | 611930 | 15.68 | 591015 | 18.29 |
| ZZZZZZ        | 166779 | 4.56 | 587632 | 5.66 | 329523 | 7.94 | 651820 | 10.53 | 672643 | 15.68 | 642437 | 18.29 |
| ZZZZZZ        | 155151 | 4.56 | 554042 | 5.66 | 317366 | 7.94 | 614322 | 10.53 | 624500 | 15.68 | 607200 | 18.29 |
| OP11697-MS    | 129559 | 4.56 | 462491 | 5.66 | 273308 | 7.94 | 566340 | 10.53 | 545845 | 15.68 | 527055 | 18.29 |
| OP11697-LS10  | 129559 | 4.56 | 462491 | 5.66 | 273308 | 7.94 | 566340 | 10.53 | 545845 | 15.68 | 527055 | 18.29 |
| OP11697-MSD   | 135585 | 4.56 | 486458 | 5.66 | 294408 | 7.94 | 589179 | 10.53 | 573402 | 15.68 | 548168 | 18.29 |
| JC65130-2     | 153125 | 4.56 | 544522 | 5.66 | 312052 | 7.94 | 610944 | 10.53 | 618352 | 15.67 | 587207 | 18.29 |
| ZZZZZZ        | 158079 | 4.55 | 559011 | 5.65 | 327351 | 7.94 | 628602 | 10.53 | 641315 | 15.67 | 612201 | 18.28 |
| ZZZZZZ        | 159298 | 4.56 | 553689 | 5.66 | 315264 | 7.94 | 620560 | 10.53 | 626717 | 15.67 | 613903 | 18.29 |
| ZZZZZZ        | 163167 | 4.56 | 576406 | 5.66 | 331434 | 7.94 | 638398 | 10.53 | 651638 | 15.67 | 618948 | 18.29 |
| ZZZZZZ        | 155042 | 4.56 | 557440 | 5.66 | 320301 | 7.94 | 624188 | 10.53 | 628652 | 15.67 | 585556 | 18.29 |
| ZZZZZZ        | 160611 | 4.56 | 556801 | 5.66 | 320150 | 7.94 | 623894 | 10.53 | 623536 | 15.67 | 601595 | 18.28 |

- IS 1** = 1,4-Dichlorobenzene-d4
- IS 2** = Naphthalene-d8
- IS 3** = Acenaphthene-D10
- IS 4** = Phenanthrene-d10
- IS 5** = Chrysene-d12

8.7.6  
8



# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6192-CC6168 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> M145714.D   | <b>Injection Time:</b> 01:21    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

| Lab       | IS 1 |    | IS 2 |    | IS 3 |    | IS 4 |    | IS 5 |    | IS 6 |    |
|-----------|------|----|------|----|------|----|------|----|------|----|------|----|
| Sample ID | AREA | RT | AREA | RT | AREA | RT | AREA | RT | AREA | RT | AREA | RT |

IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> EM6194-CC6168 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> M145757.D   | <b>Injection Time:</b> 00:06    |
| <b>Instrument ID:</b> GCMSM     | <b>Method:</b> SW846 8270D      |

|                          | IS 1   |      | IS 2   |      | IS 3   |      | IS 4    |       | IS 5    |       | IS 6    |       |
|--------------------------|--------|------|--------|------|--------|------|---------|-------|---------|-------|---------|-------|
|                          | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA    | RT    | AREA    | RT    | AREA    | RT    |
| Check Std                | 123849 | 4.55 | 453939 | 5.65 | 281287 | 7.93 | 561575  | 10.52 | 533104  | 15.67 | 554381  | 18.27 |
| Upper Limit <sup>a</sup> | 247698 | 5.05 | 907878 | 6.15 | 562574 | 8.43 | 1123150 | 11.02 | 1066208 | 16.17 | 1108762 | 18.77 |
| Lower Limit <sup>b</sup> | 61925  | 4.05 | 226970 | 5.15 | 140644 | 7.43 | 280788  | 10.02 | 266552  | 15.17 | 277191  | 17.77 |

| Lab Sample ID | IS 1   |      | IS 2   |      | IS 3   |      | IS 4   |       | IS 5   |       | IS 6   |       |
|---------------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT   | AREA   | RT   | AREA   | RT    | AREA   | RT    | AREA   | RT    |
| OP11465-MB1   | 177789 | 4.55 | 665088 | 5.65 | 375014 | 7.93 | 678361 | 10.51 | 630384 | 15.66 | 627482 | 18.27 |
| OP11607-MB1   | 167317 | 4.55 | 605626 | 5.65 | 357467 | 7.93 | 663680 | 10.51 | 661971 | 15.66 | 667467 | 18.27 |
| OP11510-MB1   | 178733 | 4.55 | 649367 | 5.65 | 384492 | 7.93 | 716333 | 10.51 | 724976 | 15.65 | 732079 | 18.27 |
| OP11697-LB26  | 165967 | 4.55 | 576378 | 5.65 | 328794 | 7.93 | 642423 | 10.51 | 658007 | 15.66 | 626832 | 18.27 |
| OP11695-LB18  | 156030 | 4.55 | 549148 | 5.65 | 309215 | 7.93 | 605660 | 10.51 | 622272 | 15.65 | 591628 | 18.27 |
| ZZZZZZ        | 155715 | 4.54 | 552508 | 5.64 | 312965 | 7.93 | 614623 | 10.51 | 635123 | 15.65 | 605710 | 18.27 |
| ZZZZZZ        | 161063 | 4.55 | 548789 | 5.65 | 315318 | 7.93 | 616049 | 10.51 | 631204 | 15.65 | 592809 | 18.26 |
| ZZZZZZ        | 161136 | 4.55 | 573860 | 5.65 | 320155 | 7.93 | 583098 | 10.51 | 631649 | 15.65 | 618106 | 18.26 |
| ZZZZZZ        | 170243 | 4.55 | 600835 | 5.65 | 360930 | 7.93 | 707397 | 10.51 | 738351 | 15.65 | 704295 | 18.26 |
| ZZZZZZ        | 176251 | 4.55 | 599489 | 5.64 | 356187 | 7.93 | 700837 | 10.51 | 741299 | 15.65 | 714376 | 18.26 |
| ZZZZZZ        | 190879 | 4.55 | 667545 | 5.65 | 367517 | 7.93 | 678061 | 10.51 | 615329 | 15.67 | 584673 | 18.27 |
| OP11695-MS    | 145359 | 4.55 | 519027 | 5.64 | 313169 | 7.93 | 634404 | 10.52 | 596952 | 15.66 | 587666 | 18.27 |
| OP11695-LS6   | 145359 | 4.55 | 519027 | 5.64 | 313169 | 7.93 | 634404 | 10.52 | 596952 | 15.66 | 587666 | 18.27 |
| OP11695-MSD   | 131153 | 4.55 | 472388 | 5.65 | 282158 | 7.93 | 568151 | 10.51 | 556476 | 15.66 | 541988 | 18.26 |
| ZZZZZZ        | 160696 | 4.55 | 598591 | 5.65 | 347242 | 7.93 | 628640 | 10.51 | 568949 | 15.65 | 518641 | 18.27 |
| JC64994-1     | 157128 | 4.55 | 556546 | 5.65 | 323276 | 7.93 | 638264 | 10.51 | 619763 | 15.66 | 568631 | 18.27 |
| ZZZZZZ        | 183103 | 4.55 | 671422 | 5.64 | 396800 | 7.93 | 739361 | 10.51 | 710949 | 15.65 | 683457 | 18.26 |
| ZZZZZZ        | 190391 | 4.55 | 701443 | 5.65 | 414885 | 7.93 | 787702 | 10.51 | 753215 | 15.65 | 738327 | 18.27 |
| ZZZZZZ        | 168087 | 4.55 | 624026 | 5.65 | 365180 | 7.93 | 689951 | 10.51 | 658556 | 15.66 | 642384 | 18.27 |

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.7.7  
8

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8270D | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3  | S4 | S5 | S6 |
|---------------|-------------|----|----|-----|----|----|----|
| JC65157-12A   | 2P79179.D   | 42 | 32 | 102 | 77 | 87 | 92 |
| OP11697-BS1   | M145716.D   | 46 | 33 | 100 | 87 | 75 | 69 |
| OP11697-LB25  | M145717.D   | 52 | 37 | 125 | 99 | 89 | 81 |
| OP11697-LB26  | M145765.D   | 43 | 29 | 105 | 83 | 75 | 71 |
| OP11697-LB28  | 2P79163.D   | 26 | 21 | 82  | 70 | 79 | 65 |
| OP11697-LS10  | M145730.D   | 38 | 28 | 90  | 79 | 72 | 61 |
| OP11697-MB1   | M145715.D   | 30 | 22 | 88  | 75 | 69 | 43 |
| OP11697-MS    | M145730.D   | 38 | 28 | 90  | 79 | 72 | 61 |
| OP11697-MSD   | M145731.D   | 33 | 25 | 87  | 77 | 70 | 57 |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = 2-Fluorophenol       | 14-88%          |
| S2 = Phenol-d5            | 10-110%         |
| S3 = 2,4,6-Tribromophenol | 39-149%         |
| S4 = Nitrobenzene-d5      | 32-128%         |
| S5 = 2-Fluorobiphenyl     | 35-119%         |
| S6 = Terphenyl-d14        | 10-126%         |

8.8.1  
8

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8270D | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 | S2 | S3 | S4 | S5 | S6 |
|---------------|-------------|----|----|----|----|----|----|
| JC65157-1     | 6P472785.D  | 55 | 50 | 45 | 53 | 61 | 55 |
| JC65157-1     | 6P472783.D  | 47 | 48 | 35 | 38 | 57 | 58 |
| JC65157-1     | 6P472436.D  | 59 | 56 | 44 | 58 | 56 | 45 |
| JC65157-2     | 6P472424.D  | 72 | 70 | 57 | 72 | 73 | 69 |
| JC65157-3     | 6P472425.D  | 74 | 74 | 58 | 78 | 73 | 70 |
| JC65157-4     | 6P472429.D  | 43 | 44 | 34 | 46 | 46 | 37 |
| JC65157-6     | 6P472786.D  | 56 | 57 | 54 | 57 | 65 | 61 |
| JC65157-6     | 6P472430.D  | 61 | 58 | 48 | 62 | 61 | 54 |
| JC65157-7     | 6P472431.D  | 48 | 51 | 44 | 56 | 55 | 48 |
| JC65157-8     | 6P472784.D  | 49 | 55 | 47 | 51 | 59 | 57 |
| JC65157-8     | 6P472432.D  | 58 | 57 | 46 | 61 | 61 | 48 |
| JC65157-9     | 6P472426.D  | 64 | 64 | 47 | 65 | 64 | 60 |
| JC65157-10    | 6P472433.D  | 62 | 60 | 51 | 65 | 62 | 56 |
| JC65157-11    | 6P472434.D  | 43 | 43 | 37 | 46 | 45 | 41 |
| JC65157-12    | 6P473005.D  | 53 | 51 | 50 | 50 | 59 | 55 |
| JC65157-12    | 6P472435.D  | 56 | 54 | 46 | 58 | 60 | 53 |
| OP11665-BS1   | 6P472414.D  | 80 | 83 | 68 | 86 | 81 | 72 |
| OP11665-MB1   | 5P49863.D   | 44 | 46 | 54 | 57 | 52 | 55 |
| OP11665-MB1   | 6P472413.D  | 78 | 78 | 66 | 80 | 78 | 76 |
| OP11665-MS    | 6P472427.D  | 55 | 55 | 46 | 60 | 55 | 47 |
| OP11665-MSD   | 6P472428.D  | 56 | 55 | 42 | 54 | 52 | 44 |

**Surrogate Compounds**

**Recovery Limits**

|                                  |         |
|----------------------------------|---------|
| <b>S1</b> = 2-Fluorophenol       | 23-115% |
| <b>S2</b> = Phenol-d5            | 27-114% |
| <b>S3</b> = 2,4,6-Tribromophenol | 19-152% |
| <b>S4</b> = Nitrobenzene-d5      | 26-134% |
| <b>S5</b> = 2-Fluorobiphenyl     | 39-124% |
| <b>S6</b> = Terphenyl-d14        | 36-134% |

8.8.2  
8

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICC3481  
**Lab FileID:** 2P79039.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3481.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79043.D 5 =2p79042.D 25 =2p79040.D 80 =2p79038.D  
100 =2p79037.D 50 =2p79039.D 1 =2p79044.D 10 =2p79041.D

| Compound   | 2     | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg    | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d                           |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde                                      | 1.115 | 1.081 | 1.036 | 1.024 | 1.044 | 1.038 | 1.056 | 1.066 | 1.057  | 2.79  |
| 103) I Naphthalene-d8a                                 |       |       |       |       |       |       |       |       |        |       |
| 104) Hydroquinone                                      | 0.289 | 0.310 | 0.347 | 0.329 | 0.312 | 0.345 | 0.229 | 0.334 | 0.312  | 12.37 |
| 105) I Acenaphthene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 106) Atrazine  | 0.172 | 0.177 | 0.176 | 0.169 | 0.156 | 0.178 | 0.173 | 0.173 | 0.172  | 4.10  |
| 107) 1,2,4,5-Tetr                                      | 0.659 | 0.629 | 0.576 | 0.507 | 0.483 | 0.539 | 0.633 | 0.595 | 0.577  | 10.94 |
| 108) I Chrysene-d12a                                   |       |       |       |       |       |       |       |       |        |       |
| 109) Benzidine   | 0.331 | 0.474 | 0.558 | 0.508 | 0.488 | 0.551 | 0.227 | 0.601 | 0.467  | 27.02 |
| ----- Quadratic regression -----                       |       |       |       |       |       |       |       |       |        |       |
| Response Ratio = -0.01140 + 0.61773 *A + -0.05046 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 110) I Phenanthrene-d10a                               |       |       |       |       |       |       |       |       |        |       |
| 111) 1-Chloroocta                                      | 0.291 | 0.300 | 0.294 | 0.277 | 0.271 | 0.295 | 0.273 | 0.309 | 0.289  | 4.71  |
| 112) o-terphenyl                                       | 0.546 | 0.547 | 0.535 | 0.511 | 0.499 | 0.537 | 0.553 | 0.561 | 0.536  | 3.94  |
| 113) Pentachloron                                      | 0.040 | 0.044 | 0.047 | 0.047 | 0.045 | 0.047 | 0.040 | 0.046 | 0.044# | 6.91  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3479.M

Wed May 02 11:58:44 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79046.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79046.D Vial: 11  
Acq On : 1 May 2018 11:49 pm Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF   | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|--------------------------------|---------|--------|-------|-------|----------|-------|
| 105 I Acenaphthene-d10a        | 1.000   | 1.000  | 0.0   | 100   | 0.00     | 7.11  |
| 107 1,2,4,5-Tetrachlorobenzen  | 0.577   | 0.708  | -22.7 | 132   | 0.00     | 6.39  |
| 108 I Chrysene-d12a            | 1.000   | 1.000  | 0.0   | 84    | 0.00     | 11.59 |
| ----- True Calc. % Drift ----- |         |        |       |       |          |       |
| 109 Benzidine                  | 100.000 | 82.100 | 17.9  | 128   | 0.00     | 9.91  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:41 2018 RPT1

8.9.2  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79047.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79047.D Vial: 12  
Acq On : 2 May 2018 12:11 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-------|-------------------------|-------|-------|-------|-------|----------|------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0   | 118   | 0.00     | 4.62 |
| 102   | Benzaldehyde            | 1.057 | 0.996 | 5.8   | 113   | 0.00     | 4.28 |
| 105 I | Acenaphthene-d10a       | 1.000 | 1.000 | 0.0   | 105   | 0.00     | 7.11 |
| 106   | Atrazine                | 0.172 | 0.218 | -26.7 | 129   | 0.00     | 8.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:43 2018 RPT1

8.9.3  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79048.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79048.D Vial: 13  
Acq On : 2 May 2018 12:32 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 110 I Phenanthrene-d10a     | 1.000 | 1.000  | 0.0  | 116   | 0.00     | 8.38 |
| 113 Pentachloronitrobenzene | 0.044 | 0.048# | -9.1 | 118   | 0.00     | 8.22 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:45 2018 RPT1

8.9.4  
8



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3481-ICV3481  
**Lab FileID:** 2P79049.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3481\2p79049.D Vial: 14  
Acq On : 2 May 2018 12:54 am Operator: chriss2  
Sample : icv3481-50 Inst : MS2P  
Misc : op10929,e2p3481,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3479.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Wed May 02 11:50:31 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|-------|-------|----------|------|
| 103 I Naphthalene-d8a | 1.000 | 1.000 | 0.0   | 134   | 0.00     | 5.67 |
| 104 Hydroquinone      | 0.312 | 0.353 | -13.1 | 138   | -0.02    | 6.13 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79039a.D M2P3479.M Wed May 02 11:56:47 2018 RPT1

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

## Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Initial Calibration

### Calibration Files

2 =2p79087.D 5 =2p79086.D 25 =2p79084.D 80 =2p79082.D  
100 =2p79081.D 50 =2p79083.D 1 =2p79088.D 10 =2p79085.D

| Compound | 2 | 5 | 25 | 80 | 100 | 50 | 1 | 10 | Avg %RSD |
|----------|---|---|----|----|-----|----|---|----|----------|
|----------|---|---|----|----|-----|----|---|----|----------|

|                            |   |       |       |       |       |       |       |       |       |       |
|----------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1,4-Dichlorobenzene-d | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.559   | 0.542 | 0.656 | 0.782 | 0.943 | 0.662 | 0.339 | 0.613 | 0.637 | 27.84 |
|                            | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = 0.02544 + 0.37596 *A + 0.21544 *A^2  |       |       |       |       |       |       |       |       |       |
|                            | Coefficient = 0.9974                                  |       |       |       |       |       |       |       |       |       |
| 3) Pyridine                | 1.381   | 1.345 | 1.578 | 1.740 | 2.026 | 1.670 | 1.495 | 1.302 | 1.567 | 15.45 |
| 4) N-Nitrosodim            | 0.694   | 0.699 | 0.952 | 1.106 | 1.158 | 0.961 | 0.614 | 0.855 | 0.880 | 22.69 |
|                            | ----- Linear regression -----                         |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = -0.07189 + 1.14713 *A                |       |       |       |       |       |       |       |       |       |
|                            | Coefficient = 0.9948                                  |       |       |       |       |       |       |       |       |       |
| 5) 2-Fluorophen            | 1.291   | 1.363 | 1.649 | 1.887 |       | 1.773 |       | 1.510 | 1.579 | 14.77 |
| 6) Indene                  | 2.056   | 2.057 | 2.089 | 2.046 | 1.969 | 2.057 | 2.057 | 2.157 | 2.061 | 2.51  |
| 7) Cumene                  | 3.433   | 3.540 | 3.999 | 4.094 | 4.067 | 4.020 | 3.617 | 3.825 | 3.824 | 6.83  |
| 8) Phenol-d5               | 1.540   | 1.599 | 1.737 | 1.701 | 1.660 | 1.689 | 1.476 | 1.687 | 1.636 | 5.48  |
| 9) Phenol                  | 1.575   | 1.674 | 1.745 | 1.651 | 1.644 | 1.675 | 1.687 | 1.733 | 1.673 | 3.18  |
| 10) Aniline                | 1.838   | 1.955 | 2.321 | 2.428 | 2.318 | 2.373 | 1.877 | 2.137 | 2.156 | 11.01 |
| 11) bis(2-Chloro           | 1.283   | 1.342 | 1.370 | 1.315 | 1.360 | 1.300 | 1.202 | 1.356 | 1.316 | 4.21  |
| 12) 2-Chlorophen           | 1.461   | 1.485 | 1.411 | 1.310 | 1.267 | 1.326 | 1.469 | 1.476 | 1.401 | 6.20  |
| 13) Decane                 | 1.357   | 1.268 | 1.236 | 1.131 | 1.101 | 1.135 | 1.324 | 1.289 | 1.230 | 7.85  |
| 14) 1,3-Dichloro           | 1.674   | 1.649 | 1.593 | 1.555 | 1.508 | 1.532 | 1.699 | 1.658 | 1.609 | 4.45  |
| 15) 1,4-Dichloro           | 1.493   | 1.474 | 1.466 | 1.471 | 1.447 | 1.445 | 1.526 | 1.505 | 1.478 | 1.90  |
| 16) Benzyl alcoh           | 0.478   | 0.607 | 0.700 | 0.707 | 0.691 | 0.708 |       | 0.677 | 0.652 | 12.98 |
| 17) 1,2-Dichloro           | 1.380   | 1.450 | 1.495 | 1.546 | 1.504 | 1.492 | 1.464 | 1.521 | 1.481 | 3.43  |
| 18) Acetophenone           | 1.730   | 1.705 | 1.714 | 1.686 | 1.635 | 1.666 | 1.698 | 1.811 | 1.706 | 3.04  |
| 19) 2-Methylphen           | 1.112   | 1.079 | 1.163 | 1.158 | 1.102 | 1.137 | 1.042 | 1.229 | 1.128 | 5.11  |
| 20) 2,2'-oxybis(           | 0.265   | 0.324 | 0.317 | 0.295 | 0.289 | 0.299 | 0.340 | 0.343 | 0.309 | 8.67  |
| 21) 3&4-Methylph           | 1.108   | 1.144 | 1.149 | 1.103 | 1.097 | 1.128 | 1.018 | 1.227 | 1.122 | 5.25  |
| 22) n-Nitroso-di           | 0.796   | 0.806 | 0.805 | 0.766 | 0.737 | 0.774 | 0.779 | 0.852 | 0.790 | 4.32  |
| 23) Hexachloroet           | 0.464   | 0.450 | 0.457 | 0.467 | 0.452 | 0.453 | 0.486 | 0.480 | 0.464 | 2.90  |
| 24) I Naphthalene-d8       | -----ISTD-----  |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.353   | 0.371 | 0.372 | 0.366 | 0.366 | 0.374 | 0.360 | 0.387 | 0.369 | 2.78  |
| 26) Nitrobenzene           | 0.361   | 0.369 | 0.352 | 0.339 | 0.335 | 0.351 | 0.386 | 0.376 | 0.359 | 4.95  |
| 27) Quinoline              | 0.659   | 0.700 | 0.721 | 0.764 | 0.767 | 0.756 | 0.665 | 0.747 | 0.722 | 6.03  |
| 28) Isophorone             | 0.560   | 0.598 | 0.632 | 0.654 | 0.663 | 0.665 | 0.547 | 0.633 | 0.619 | 7.44  |
| 29) 2-Nitropheno           |   | 0.189 | 0.206 | 0.203 | 0.202 | 0.207 |       | 0.206 | 0.202 | 3.32  |
| 30) 2,4-Dimethyl           | 0.342   | 0.358 | 0.361 | 0.358 | 0.352 | 0.365 | 0.320 | 0.376 | 0.354 | 4.81  |
| 31) Benzoic acid           | 0.074   | 0.093 | 0.168 | 0.207 | 0.217 | 0.207 |       | 0.133 | 0.157 | 36.86 |
|                            | ----- Quadratic regression -----                      |       |       |       |       |       |       |       |       |       |
|                            | Response Ratio = -0.01219 + 0.19449 *A + 0.01053 *A^2 |       |       |       |       |       |       |       |       |       |
|                            | Coefficient = 0.9990                                  |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro           | 0.362   | 0.363 | 0.347 | 0.342 | 0.339 | 0.354 | 0.364 | 0.369 | 0.355 | 3.21  |
| 33) 2,4-Dichloro           | 0.287   | 0.300 | 0.317 | 0.329 | 0.330 | 0.329 | 0.264 | 0.315 | 0.309 | 7.67  |
| 34) 2,6-Dichloro           | 0.250   | 0.266 | 0.290 | 0.304 | 0.306 | 0.301 | 0.236 | 0.287 | 0.280 | 9.35  |
| 35) 1,3,5-Trichl           | 0.364   | 0.362 | 0.362 | 0.364 | 0.357 | 0.367 | 0.373 | 0.373 | 0.365 | 1.48  |
| 36) 1,2,4-Trichl           | 0.336   | 0.338 | 0.319 | 0.317 | 0.317 | 0.323 | 0.362 | 0.345 | 0.332 | 4.86  |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

|     |   |                      |       |       |       |       |       |       |       |       |       |
|-----|---|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 37) | 1,2,3-Trichl  | 0.301                | 0.291 | 0.287 | 0.278 | 0.276 | 0.287 | 0.300 | 0.307 | 0.291 | 3.77  |
| 38) | Naphthalene   | 0.974                | 0.951 | 0.955 | 0.954 | 0.935 | 0.968 | 1.002 | 1.001 | 0.968 | 2.47  |
| 39) | 4-Chloroanil  | 0.403                | 0.419 | 0.435 | 0.432 | 0.421 | 0.444 | 0.425 | 0.459 | 0.430 | 3.93  |
| 40) | 2,3-Dichloro  | 0.364                | 0.374 | 0.370 | 0.376 | 0.375 | 0.377 | 0.359 | 0.386 | 0.373 | 2.21  |
| 41) | Caprolactam   | 0.075                | 0.092 | 0.112 | 0.123 | 0.122 | 0.118 |       | 0.110 | 0.107 | 16.51 |
| 42) | Hexachlorobu  | 0.158                | 0.162 | 0.157 | 0.156 | 0.153 | 0.160 | 0.158 | 0.166 | 0.159 | 2.53  |
| 43) | 4-Chloro-3-m  | 0.278                | 0.296 | 0.327 | 0.340 | 0.338 | 0.340 | 0.264 | 0.326 | 0.314 | 9.59  |
| 44) | 2-Methylnaph  | 0.608                | 0.608 | 0.616 | 0.598 | 0.589 | 0.619 | 0.600 | 0.645 | 0.611 | 2.78  |
| 45) | 1-Methylnaph  | 0.650                | 0.640 | 0.641 | 0.619 | 0.616 | 0.640 | 0.662 | 0.675 | 0.643 | 3.09  |
| 46) | Dimethylnaph  | 0.621                | 0.596 | 0.587 | 0.608 | 0.612 | 0.609 | 0.623 | 0.630 | 0.611 | 2.30  |
| 47) | I Acenaphthene-d10                                    | -----ISTD-----       |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy  | 0.243                | 0.273 | 0.331 | 0.331 | 0.324 | 0.336 |       | 0.317 | 0.308 | 11.53 |
| 49) | 2,4,6-Trichl  | 0.339                | 0.364 | 0.402 | 0.394 | 0.389 | 0.400 | 0.335 | 0.392 | 0.377 | 7.20  |
| 50) | 2,4,5-Trichl  | 0.367                | 0.385 | 0.394 | 0.368 | 0.354 | 0.383 | 0.329 | 0.405 | 0.373 | 6.42  |
| 51) | 2-Fluorobiph  | 1.485                | 1.450 | 1.358 | 1.212 | 1.151 | 1.262 | 1.601 | 1.458 | 1.372 | 11.20 |
| 52) | 2-Chloronaph  | 1.258                | 1.200 | 1.079 | 0.954 | 0.931 | 1.005 | 1.254 | 1.216 | 1.112 | 12.27 |
| 53) | Biphenyl  | 1.713                | 1.650 | 1.529 | 1.404 | 1.367 | 1.445 | 1.716 | 1.632 | 1.557 | 8.97  |
| 54) | 2-Nitroanili  | 0.291                | 0.328 | 0.332 | 0.303 | 0.288 | 0.315 | 0.279 | 0.355 | 0.311 | 8.32  |
| 55) | Dimethylphth  | 1.331                | 1.334 | 1.302 | 1.247 | 1.225 | 1.277 | 1.335 | 1.385 | 1.305 | 4.02  |
| 56) | Acenaphthyle  | 1.957                | 2.009 | 1.905 | 1.711 | 1.664 | 1.810 | 1.899 | 2.030 | 1.873 | 7.15  |
| 57) | 2,6-Dinitrot  | 0.242                | 0.272 | 0.302 | 0.289 | 0.291 | 0.297 | 0.211 | 0.304 | 0.276 | 12.03 |
| 58) | 3-Nitroanili  | 0.267                | 0.297 | 0.333 | 0.320 | 0.307 | 0.335 | 0.238 | 0.334 | 0.304 | 11.62 |
| 59) | Acenaphthene  | 1.129                | 1.138 | 1.156 | 1.131 | 1.110 | 1.165 | 1.199 | 1.189 | 1.152 | 2.68  |
| 60) | 2,4-Dinitrop  | 0.042                | 0.069 | 0.134 | 0.162 | 0.161 | 0.152 | 0.030 | 0.101 | 0.106 | 50.75 |
|     | ----- Quadratic regression -----                      | Coefficient = 0.9993 |       |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.01619 + 0.14975 *A + 0.00329 *A^2 |                      |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno  | 0.161                | 0.196 | 0.186 | 0.183 | 0.188 |       | 0.189 | 0.184 |       | 6.42  |
| 62) | Dibenzofuran  | 1.582                | 1.619 | 1.645 | 1.556 | 1.527 | 1.600 | 1.600 | 1.689 | 1.602 | 3.16  |
| 63) | 2,4-Dinitrot  | 0.306                | 0.340 | 0.373 | 0.352 | 0.341 | 0.364 | 0.234 | 0.375 | 0.336 | 13.97 |
| 64) | 2,3,4,6-Tetr  | 0.268                | 0.278 | 0.319 | 0.330 | 0.327 | 0.325 | 0.233 | 0.314 | 0.299 | 11.87 |
| 65) | Diethylphtha  | 1.308                | 1.343 | 1.344 | 1.239 | 1.210 | 1.268 | 1.274 | 1.411 | 1.300 | 5.00  |
| 66) | Fluorene  | 1.313                | 1.330 | 1.304 | 1.197 | 1.139 | 1.271 | 1.336 | 1.396 | 1.286 | 6.40  |
| 67) | 4-Chlorophen  | 0.586                | 0.577 | 0.592 | 0.584 | 0.565 | 0.594 | 0.574 | 0.623 | 0.587 | 2.94  |
| 68) | 4-Nitroanili  | 0.296                | 0.338 | 0.361 | 0.347 | 0.336 | 0.350 | 0.266 | 0.374 | 0.333 | 10.65 |
| 69) | I Phenanthrene-d10                                    | -----ISTD-----       |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-  | 0.043                | 0.067 | 0.109 | 0.123 | 0.125 | 0.120 | 0.036 | 0.091 | 0.089 | 40.74 |
|     | ----- Quadratic regression -----                      | Coefficient = 0.9997 |       |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.00500 + 0.11879 *A + 0.00328 *A^2 |                      |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip  | 0.569                | 0.561 | 0.521 | 0.504 | 0.489 | 0.511 | 0.576 | 0.567 | 0.537 | 6.42  |
| 72) | 1,2-Diphenyl  | 0.822                | 0.815 | 0.745 | 0.643 | 0.620 | 0.690 | 0.807 | 0.833 | 0.747 | 11.51 |
| 73) | 2,4,6-Tribr   | 0.107                | 0.113 | 0.125 | 0.136 | 0.140 | 0.134 | 0.097 | 0.124 | 0.122 | 12.39 |
| 74) | 4-Bromopheny  | 0.199                | 0.206 | 0.215 | 0.226 | 0.231 | 0.225 | 0.199 | 0.220 | 0.215 | 5.93  |
| 75) | Hexachlorobe  | 0.259                | 0.266 | 0.267 | 0.271 | 0.271 | 0.270 | 0.281 | 0.278 | 0.270 | 2.59  |
| 76) | Pentachlorop  | 0.055                | 0.081 | 0.112 | 0.134 | 0.136 | 0.130 | 0.048 | 0.099 | 0.099 | 35.16 |
|     | ----- Quadratic regression -----                      | Coefficient = 0.9995 |       |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.00956 + 0.12388 *A + 0.00287 *A^2 |                      |       |       |       |       |       |       |       |       |       |
| 77) | Phenanthrene  | 1.022                | 1.003 | 0.991 | 1.008 | 0.993 | 1.021 | 1.070 | 1.035 | 1.018 | 2.54  |
| 78) | Anthracene  | 0.978                | 1.009 | 1.007 | 0.974 | 0.959 | 1.001 | 0.948 | 1.052 | 0.991 | 3.37  |
| 79) | Carbazole   | 1.018                | 1.061 | 1.082 | 1.079 | 1.064 | 1.108 | 1.012 | 1.118 | 1.068 | 3.56  |
| 80) | Di-n-butylph  | 1.135                | 1.299 | 1.465 | 1.460 | 1.444 | 1.497 | 1.034 | 1.453 | 1.348 | 13.01 |
| 81) | Fluoranthene  | 1.201                | 1.266 | 1.407 | 1.411 | 1.397 | 1.435 | 1.174 | 1.381 | 1.334 | 7.78  |
| 82) | Octadecane  | 0.317                | 0.333 | 0.332 | 0.311 | 0.299 | 0.328 | 0.296 | 0.349 | 0.320 | 5.70  |
| 83) | I Chrysene-d12  | -----ISTD-----       |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene  | 1.365                | 1.385 | 1.317 | 1.266 | 1.266 | 1.327 | 1.363 | 1.440 | 1.341 | 4.45  |

8.9.6  
8

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICC3484  
**Lab FileID:** 2P79083.D

|      |                |  |       |       |       |       |       |       |       |               |        |
|------|----------------|--|-------|-------|-------|-------|-------|-------|-------|---------------|--------|
| 85)  | Terphenyl-d1   | 0.853  | 0.846 | 0.844 | 0.889 | 0.878 | 0.873 | 0.874 | 0.901 | 0.870         | 2.36   |
| 86)  | Butylbenzylp   | 0.520  | 0.607 | 0.701 | 0.748 | 0.744 | 0.746 |       | 0.700 | 0.681         | 12.67  |
| 87)  | Benzo[a]anth   | 1.164  | 1.185 | 1.258 | 1.336 | 1.323 | 1.324 | 1.130 | 1.278 | 1.250         | 6.40   |
| 88)  | 3,3'-Dichlor   | 0.292  | 0.330 | 0.378 | 0.408 | 0.412 | 0.403 |       | 0.373 | 0.371         | 12.09  |
| 89)  | Chrysene       | 1.025  | 1.006 | 0.971 | 0.928 | 0.915 | 0.965 | 1.043 | 1.034 | 0.986         | 4.92   |
| 90)  | bis(2-Ethylh   | 0.546  | 0.636 | 0.714 | 0.703 | 0.692 | 0.717 | 0.465 | 0.731 | 0.650         | 14.82  |
| 91)  | I Perylene-d12 |  |       |       |       |       |       |       |       |               |        |
| 92)  | Di-n-octylph   | 0.934  | 1.253 | 1.742 | 1.851 | 1.823 | 1.835 | 0.761 | 1.583 | 1.473         | 29.55  |
|      |                | ----- Quadratic regression -----                       |       |       |       |       |       |       |       | Coefficient = | 0.9998 |
|      |                | Response Ratio = -0.06116 + 1.89887 *A + -0.01697 *A^2 |       |       |       |       |       |       |       |               |        |
| 93)  | Benzo[b]fluo   | 1.323  | 1.293 | 1.359 | 1.332 | 1.348 | 1.350 | 1.276 | 1.419 | 1.338         | 3.28   |
| 94)  | Benzo[k]fluo   | 1.119  | 1.136 | 1.067 | 0.975 | 0.927 | 1.031 | 1.128 | 1.157 | 1.068         | 7.82   |
| 95)  | Benzo[alpyre   | 0.951  | 1.031 | 1.156 | 1.173 | 1.162 | 1.175 | 0.964 | 1.137 | 1.094         | 8.78   |
| 96)  | Indeno[1,2,3   | 1.019  | 1.102 | 1.264 | 1.325 | 1.317 | 1.320 | 0.992 | 1.234 | 1.197         | 11.59  |
| 97)  | Dibenz(a,h)a   | 0.717  | 0.810 | 0.952 | 1.052 | 1.055 | 1.017 | 0.668 | 0.894 | 0.896         | 16.84  |
| 98)  | Dibenz[a,h]a   | 0.846  | 0.909 | 1.006 | 1.025 | 1.025 | 1.023 | 0.850 | 1.004 | 0.961         | 8.29   |
| 99)  | 7,12-Dimethy   | 0.498  | 0.549 | 0.614 | 0.620 | 0.629 | 0.624 | 0.473 | 0.620 | 0.578         | 10.93  |
| 100) | Benzo[g,h,i]   | 0.860  | 0.858 | 0.994 | 1.047 | 1.038 | 1.044 | 0.845 | 0.970 | 0.957         | 9.28   |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2P3484.M

Thu May 03 12:47:05 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79089.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79089.D Vial: 11  
Acq On : 3 May 2018 6:14 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 4.61  |
| 5 S  | 2-Fluorophenol         | 1.579 | 1.555 | 1.5  | 151   | 0.00     | 3.59  |
| 8 S  | Phenol-d5              | 1.636 | 1.614 | 1.3  | 165   | 0.00     | 4.42  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 187   | 0.00     | 5.66  |
| 25 S | Nitrobenzene-d5        | 0.369 | 0.380 | -3.0 | 190   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 173   | 0.00     | 7.09  |
| 51 S | 2-Fluorobiphenyl       | 1.372 | 1.371 | 0.1  | 188   | 0.00     | 6.55  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 161   | 0.00     | 8.36  |
| 73 S | 2,4,6-Tribromophenol   | 0.122 | 0.127 | -4.1 | 153   | 0.00     | 7.75  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 149   | 0.00     | 11.56 |
| 85 S | Terphenyl-d14          | 0.870 | 0.915 | -5.2 | 156   | 0.00     | 10.14 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:22 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79090.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79090.D Vial: 12  
 Acq On : 3 May 2018 6:36 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 152   | 0.00     | 4.61 |
| 9 t  | Phenol                         | 1.673  | 1.903  | -13.7 | 173   | 0.00     | 4.43 |
| 12 t | 2-Chlorophenol                 | 1.401  | 1.531  | -9.3  | 176   | 0.00     | 4.47 |
| 19 t | 2-Methylphenol                 | 1.128  | 1.161  | -2.9  | 155   | 0.00     | 4.90 |
| 21 t | 3&4-Methylphenol               | 1.122  | 1.176  | -4.8  | 159   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 135   | 0.00     | 5.66 |
| 29 t | 2-Nitrophenol                  | 0.202  | 0.240  | -18.8 | 157   | 0.00     | 5.37 |
| 30 t | 2,4-Dimethylphenol             | 0.354  | 0.369  | -4.2  | 136   | 0.00     | 5.44 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 31 t | Benzoic acid                   | 50.000 | 27.287 | 45.4# | 66    | 0.00     | 5.60 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 33 t | 2,4-Dichlorophenol             | 0.309  | 0.320  | -3.6  | 131   | 0.00     | 5.58 |
| 34 t | 2,6-Dichlorophenol             | 0.280  | 0.304  | -8.6  | 137   | 0.00     | 5.76 |
| 43 t | 4-Chloro-3-methylphenol        | 0.314  | 0.331  | -5.4  | 132   | -0.01    | 6.20 |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 134   | 0.00     | 7.09 |
| 49 t | 2,4,6-Trichlorophenol          | 0.377  | 0.403  | -6.9  | 135   | 0.00     | 6.50 |
| 50 t | 2,4,5-Trichlorophenol          | 0.373  | 0.380  | -1.9  | 133   | -0.01    | 6.54 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 48.263 | 3.5   | 122   | 0.00     | 7.18 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 61 t | 4-Nitrophenol                  | 0.184  | 0.196  | -6.5  | 140   | 0.00     | 7.32 |
| 64   | 2,3,4,6-Tetrachlorophenol      | 0.299  | 0.302  | -1.0  | 125   | 0.00     | 7.38 |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 132   | 0.00     | 8.36 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 52.365 | -4.7  | 137   | 0.00     | 7.60 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 76 t | Pentachlorophenol              | 50.000 | 59.284 | -18.6 | 151   | 0.00     | 8.21 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2p79083a.D M2P3484.M Thu May 03 12:39:24 2018 RPT1

8.9.8  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79091.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79091.D Vial: 13  
Acq On : 3 May 2018 6:58 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 141   | 0.00     | 4.61 |
| 3 t  | Pyridine               | 1.567 | 1.173 | 25.1  | 99    | 0.14     | 2.49 |
| 10   | Aniline                | 2.156 | 2.116 | 1.9   | 125   | 0.01     | 4.39 |
| 16 t | Benzyl alcohol         | 0.652 | 0.721 | -10.6 | 143   | 0.00     | 4.78 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 165   | 0.00     | 5.66 |
| 39 t | 4-Chloroaniline        | 0.430 | 0.371 | 13.7  | 138   | 0.00     | 5.77 |
| 44 t | 2-Methylnaphthalene    | 0.611 | 0.517 | 15.4  | 138   | 0.00     | 6.24 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 145   | 0.00     | 7.09 |
| 54 t | 2-Nitroaniline         | 0.311 | 0.343 | -10.3 | 157   | 0.00     | 6.78 |
| 58 t | 3-Nitroaniline         | 0.304 | 0.306 | -0.7  | 132   | 0.00     | 7.12 |
| 62 t | Dibenzofuran           | 1.602 | 1.452 | 9.4   | 131   | 0.00     | 7.26 |
| 68 t | 4-Nitroaniline         | 0.333 | 0.329 | 1.2   | 136   | 0.00     | 7.64 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 138   | 0.00     | 8.36 |
| 79 t | Carbazole              | 1.068 | 1.029 | 3.7   | 128   | 0.00     | 8.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:26 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79092.D Vial: 14  
 Acq On : 3 May 2018 7:19 am Operator: chriss2  
 Sample : icv3484-50 Inst : MS2P  
 Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 146   | 0.00     | 4.61 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 27.362  | 45.3# | 86    | 0.01     | 2.30 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.389   | -5.5  | 156   | 0.00     | 4.41 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.690   | -5.0  | 161   | 0.00     | 4.56 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.358   | 8.1   | 137   | 0.00     | 4.62 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.347   | 9.0   | 131   | 0.00     | 4.75 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.314   | -1.6  | 153   | 0.00     | 4.84 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.732   | 7.3   | 138   | -0.01    | 4.96 |
| 23 t | Hexachloroethane          | 0.464  | 0.447   | 3.7   | 144   | 0.00     | 5.03 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 5.66 |
| 26 t | Nitrobenzene              | 0.359  | 0.336   | 6.4   | 134   | 0.00     | 5.11 |
| 28 t | Isophorone                | 0.619  | 0.592   | 4.4   | 125   | 0.00     | 5.29 |
| 32 t | bis(2-Chloroethoxy)methan | 0.355  | 0.388   | -9.3  | 153   | 0.00     | 5.48 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332  | 0.344   | -3.6  | 149   | 0.00     | 5.61 |
| 38 t | Naphthalene               | 0.968  | 0.909   | 6.1   | 131   | 0.00     | 5.68 |
| 42 t | Hexachlorobutadiene       | 0.159  | 0.171   | -7.5  | 149   | 0.00     | 5.78 |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 130   | 0.00     | 7.10 |
| 48 t | Hexachlorocyclopentadiene | 0.308  | 0.361   | -17.2 | 127   | 0.00     | 6.37 |
| 52 t | 2-Chloronaphthalene       | 1.112  | 1.271   | -14.3 | 165   | 0.00     | 6.64 |
| 55 t | Dimethylphthalate         | 1.305  | 1.374   | -5.3  | 140   | 0.00     | 6.90 |
| 56 t | Acenaphthylene            | 1.873  | 1.768   | 5.6   | 127   | 0.00     | 6.98 |
| 57 t | 2,6-Dinitrotoluene        | 0.276  | 0.283   | -2.5  | 124   | 0.00     | 6.95 |
| 59 t | Acenaphthene              | 1.152  | 1.079   | 6.3   | 121   | 0.00     | 7.12 |
| 63 t | 2,4-Dinitrotoluene        | 0.336  | 0.361   | -7.4  | 129   | 0.00     | 7.28 |
| 65 t | Diethylphthalate          | 1.300  | 1.340   | -3.1  | 137   | 0.00     | 7.46 |
| 66 t | Fluorene                  | 1.286  | 1.206   | 6.2   | 123   | 0.00     | 7.54 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587  | 0.572   | 2.6   | 125   | 0.00     | 7.53 |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 140   | 0.00     | 8.36 |
| 71 t | n-Nitrosodiphenylamine    | 0.537  | 0.449   | 16.4  | 123   | 0.00     | 7.65 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747  | 0.612   | 18.1  | 124   | 0.00     | 7.67 |
| 74 t | 4-Bromophenyl-phenylether | 0.215  | 0.199   | 7.4   | 124   | 0.00     | 7.95 |
| 75 t | Hexachlorobenzene         | 0.270  | 0.236   | 12.6  | 122   | 0.00     | 8.01 |
| 77 t | Phenanthrene              | 1.018  | 0.921   | 9.5   | 126   | 0.00     | 8.39 |
| 78 t | Anthracene                | 0.991  | 0.857   | 13.5  | 120   | 0.00     | 8.44 |
| 80 t | Di-n-butylphthalate       | 1.348  | 1.282   | 4.9   | 120   | 0.00     | 8.95 |

8.9.10

8



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79092.D

|       |                           |             |        |         |       |      |       |
|-------|---------------------------|-------------|--------|---------|-------|------|-------|
| 81 t  | Fluoranthene              | 1.334       | 1.206  | 9.6     | 117   | 0.00 | 9.66  |
| 83 I  | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 117   | 0.00 | 11.56 |
| 84 t  | Pyrene                    | 1.341       | 1.268  | 5.4     | 112   | 0.00 | 9.94  |
| 86 t  | Butylbenzylphthalate      | 0.681       | 0.746  | -9.5    | 117   | 0.00 | 10.81 |
| 87 t  | Benzo[a]anthracene        | 1.250       | 1.285  | -2.8    | 113   | 0.00 | 11.54 |
| 89 t  | Chrysene                  | 0.986       | 0.877  | 11.1    | 106   | 0.00 | 11.60 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650       | 0.647  | 0.5     | 105   | 0.00 | 11.60 |
| 91 I  | Perylene-d12              | 1.000       | 1.000  | 0.0     | 119   | 0.00 | 13.54 |
|       |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 92 t  | Di-n-octylphthalate       | 50.000      | 46.822 | 6.4     | 111   | 0.00 | 12.51 |
|       |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338       | 1.276  | 4.6     | 113   | 0.00 | 13.03 |
| 94 t  | Benzo[k]fluoranthene      | 1.068       | 1.073  | -0.5    | 124   | 0.00 | 13.07 |
| 95 t  | Benzo[a]pyrene            | 1.094       | 1.126  | -2.9    | 114   | 0.00 | 13.46 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197       | 1.361  | -13.7   | 123   | 0.00 | 14.86 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961       | 1.025  | -6.7    | 120   | 0.00 | 14.88 |
| 100 t | Benzo[g,h,i]perylene      | 0.957       | 1.092  | -14.1   | 125   | 0.00 | 15.23 |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 12:39:28 2018 RPT1

8.9.10  
 8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79093.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79093.D Vial: 15  
Acq On : 3 May 2018 7:41 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T.  |
|------|---------------------------|--------|---------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 151   | 0.00     | 4.61  |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 2 t  | 1,4-Dioxane               | 50.000 | 51.921  | -3.8  | 160   | 0.01     | 1.96  |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 6 t  | Indene                    | 2.061  | 2.197   | -6.6  | 162   | 0.00     | 4.82  |
| 7 t  | Cumene                    | 3.824  | 3.688   | 3.6   | 139   | 0.00     | 3.92  |
| 13 t | Decane                    | 1.230  | 1.136   | 7.6   | 151   | 0.00     | 4.45  |
| 18 t | Acetophenone              | 1.706  | 1.554   | 8.9   | 141   | 0.00     | 4.96  |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 174   | 0.00     | 5.66  |
| 27 t | Quinoline                 | 0.722  | 0.618   | 14.4  | 142   | -0.01    | 5.97  |
| 40 t | 2,3-Dichloroaniline       | 0.373  | 0.267   | 28.4  | 123   | 0.00     | 6.51  |
| 41 t | Caprolactam               | 0.107  | 0.081   | 24.3  | 120   | -0.03    | 6.06  |
| 45 t | 1-Methylnaphthalene       | 0.643  | 0.470   | 26.9  | 128   | 0.00     | 6.32  |
| 46 t | Dimethylnaphthalene       | 0.611  | 0.451   | 26.2  | 129   | 0.00     | 6.74  |
| 47 I | Acenaphthene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 7.09  |
| 53 t | Biphenyl                  | 1.557  | 1.517   | 2.6   | 136   | 0.00     | 6.63  |
| 69 I | Phenanthrene-d10          | 1.000  | 1.000   | 0.0   | 129   | 0.00     | 8.36  |
| 82 t | Octadecane                | 0.320  | 0.310   | 3.1   | 122   | 0.00     | 8.20  |
| 91 I | Perylene-d12              | 1.000  | 1.000   | 0.0   | 125   | 0.00     | 13.53 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.378   | 34.6# | 76    | -0.01    | 13.02 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:30 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3484-ICV3484  
**Lab FileID:** 2P79094.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3484\2p79094.D Vial: 16  
Acq On : 3 May 2018 8:02 am Operator: chriss2  
Sample : icv3484-50 Inst : MS2P  
Misc : op10929,e2p3484,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
Title : Semi Volatile Extractables by GC/MS  
Last Update : Thu May 03 12:30:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 152   | 0.00     | 11.56 |
| 88 t 3,3'-Dichlorobenzidine | 0.371 | 0.353 | 4.9  | 133   | 0.00     | 11.58 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2p79083a.D M2P3484.M Thu May 03 12:39:32 2018 RPT1

8.9.12  
8

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E2P3489-CC3484  
 Lab FileID: 2P79160.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2p3489\2p79160.d Vial: 2  
 Acq On : 5 May 2018 7:56 pm Operator: seanbl  
 Sample : cc3484-50 Inst : MS2P  
 Misc : op10929,e2p3489,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Mon May 07 21:27:43 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|--------|---------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000   | 0.0   | 84    | -0.02    | 4.59 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 2 t  | 1,4-Dioxane               | 50.000 | 57.004  | -14.0 | 102   | -0.04    | 1.91 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 3 t  | Pyridine                  | 1.567  | 1.867   | -19.1 | 94    | -0.05    | 2.29 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 4 t  | N-Nitrosodimethylamine    | 50.000 | 48.345  | 3.3   | 92    | -0.04    | 2.26 |
|      | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |      |
| 5 S  | 2-Fluorophenol            | 1.579  | 1.858   | -17.7 | 88    | -0.02    | 3.56 |
| 6 t  | Indene                    | 2.061  | 2.040   | 1.0   | 84    | -0.01    | 4.81 |
| 7 t  | Cumene                    | 3.824  | 4.296   | -12.3 | 90    | -0.02    | 3.90 |
| 8 S  | Phenol-d5                 | 1.636  | 1.717   | -5.0  | 86    | -0.01    | 4.41 |
| 9 t  | Phenol                    | 1.673  | 1.742   | -4.1  | 88    | -0.01    | 4.42 |
| 10   | Aniline                   | 2.156  | 2.418   | -12.2 | 86    | -0.01    | 4.37 |
| 11 t | bis(2-Chloroethyl)ether   | 1.316  | 1.394   | -5.9  | 90    | -0.01    | 4.39 |
| 12 t | 2-Chlorophenol            | 1.401  | 1.372   | 2.1   | 87    | -0.02    | 4.45 |
| 13 t | Decane                    | 1.230  | 1.240   | -0.8  | 92    | -0.01    | 4.43 |
| 14 t | 1,3-Dichlorobenzene       | 1.609  | 1.593   | 1.0   | 88    | -0.01    | 4.54 |
| 15 t | 1,4-Dichlorobenzene       | 1.478  | 1.521   | -2.9  | 89    | -0.01    | 4.61 |
| 16 t | Benzyl alcohol            | 0.652  | 0.693   | -6.3  | 82    | -0.02    | 4.76 |
| 17 t | 1,2-Dichlorobenzene       | 1.481  | 1.515   | -2.3  | 85    | -0.01    | 4.74 |
| 18 t | Acetophenone              | 1.706  | 1.653   | 3.1   | 84    | -0.02    | 4.95 |
| 19 t | 2-Methylphenol            | 1.128  | 1.119   | 0.8   | 83    | -0.01    | 4.89 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 0.309  | 0.301   | 2.6   | 85    | -0.02    | 4.83 |
| 21 t | 3&4-Methylphenol          | 1.122  | 1.117   | 0.4   | 83    | -0.01    | 5.02 |
| 22 t | n-Nitroso-di-n-propylamin | 0.790  | 0.769   | 2.7   | 84    | -0.01    | 4.96 |
| 23 t | Hexachloroethane          | 0.464  | 0.480   | -3.4  | 89    | -0.01    | 5.02 |
| 24 I | Naphthalene-d8            | 1.000  | 1.000   | 0.0   | 84    | -0.01    | 5.65 |
| 25 S | Nitrobenzene-d5           | 0.369  | 0.373   | -1.1  | 84    | -0.01    | 5.08 |
| 26 t | Nitrobenzene              | 0.359  | 0.351   | 2.2   | 84    | -0.01    | 5.10 |
| 27 t | Quinoline                 | 0.722  | 0.734   | -1.7  | 82    | -0.01    | 5.97 |
| 28 t | Isophorone                | 0.619  | 0.649   | -4.8  | 82    | -0.02    | 5.28 |
| 29 t | 2-Nitrophenol             | 0.202  | 0.211   | -4.5  | 86    | -0.01    | 5.36 |
| 30 t | 2,4-Dimethylphenol        | 0.354  | 0.357   | -0.8  | 82    | -0.01    | 5.43 |
|      | ----- True                | Calc.  | % Drift | ----- |       |          |      |
| 31 t | Benzoic acid              | 50.000 | 34.878  | 30.2# | 54    | -0.02    | 5.59 |

8.9.13  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3484  
**Lab FileID:** 2P79160.D

|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
|------|---------------------------|---------|---------|---------|-----|-------|------|
| 32 t | bis(2-Chloroethoxy)methan | 0.355   | 0.342   | 3.7     | 81  | -0.01 | 5.47 |
| 33 t | 2,4-Dichlorophenol        | 0.309   | 0.331   | -7.1    | 84  | -0.01 | 5.57 |
| 34 t | 2,6-Dichlorophenol        | 0.280   | 0.300   | -7.1    | 84  | -0.01 | 5.75 |
| 35   | 1,3,5-Trichlorobenzene    | 0.365   | 0.385   | -5.5    | 88  | -0.01 | 5.33 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.332   | 0.338   | -1.8    | 88  | -0.01 | 5.60 |
| 37   | 1,2,3-Trichlorobenzene    | 0.291   | 0.301   | -3.4    | 88  | -0.01 | 5.80 |
| 38 t | Naphthalene               | 0.968   | 0.969   | -0.1    | 84  | -0.01 | 5.67 |
| 39 t | 4-Chloroaniline           | 0.430   | 0.434   | -0.9    | 82  | -0.01 | 5.76 |
| 40 t | 2,3-Dichloroaniline       | 0.373   | 0.379   | -1.6    | 84  | -0.01 | 6.50 |
| 41 t | Caprolactam               | 0.107   | 0.112   | -4.7    | 80  | -0.02 | 6.07 |
| 42 t | Hexachlorobutadiene       | 0.159   | 0.177   | -11.3   | 93  | 0.00  | 5.77 |
| 43 t | 4-Chloro-3-methylphenol   | 0.314   | 0.337   | -7.3    | 83  | -0.01 | 6.20 |
| 44 t | 2-Methylnaphthalene       | 0.611   | 0.620   | -1.5    | 84  | -0.01 | 6.23 |
| 45 t | 1-Methylnaphthalene       | 0.643   | 0.640   | 0.5     | 84  | 0.00  | 6.32 |
| 46 t | Dimethylnaphthalene       | 0.611   | 0.608   | 0.5     | 84  | 0.00  | 6.74 |
| 47 I | Acenaphthene-d10          | 1.000   | 1.000   | 0.0     | 83  | 0.00  | 7.09 |
| 48 t | Hexachlorocyclopentadiene | 0.308   | 0.405   | -31.5#  | 100 | -0.01 | 6.36 |
| 49 t | 2,4,6-Trichlorophenol     | 0.377   | 0.407   | -8.0    | 85  | 0.00  | 6.50 |
| 50 t | 2,4,5-Trichlorophenol     | 0.373   | 0.406   | -8.8    | 88  | -0.01 | 6.54 |
| 51 S | 2-Fluorobiphenyl          | 1.372   | 1.283   | 6.5     | 85  | -0.01 | 6.54 |
| 52 t | 2-Chloronaphthalene       | 1.112   | 1.051   | 5.5     | 87  | -0.01 | 6.63 |
| 53 t | Biphenyl                  | 1.557   | 1.463   | 6.0     | 84  | 0.00  | 6.62 |
| 54 t | 2-Nitroaniline            | 0.311   | 0.307   | 1.3     | 81  | -0.01 | 6.77 |
| 55 t | Dimethylphthalate         | 1.305   | 1.315   | -0.8    | 86  | 0.00  | 6.89 |
| 56 t | Acenaphthylene            | 1.873   | 1.865   | 0.4     | 86  | -0.01 | 6.97 |
| 57 t | 2,6-Dinitrotoluene        | 0.276   | 0.304   | -10.1   | 85  | 0.00  | 6.95 |
| 58 t | 3-Nitroaniline            | 0.304   | 0.342   | -12.5   | 85  | 0.00  | 7.12 |
| 59 t | Acenaphthene              | 1.152   | 1.192   | -3.5    | 85  | 0.00  | 7.11 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 60 t | 2,4-Dinitrophenol         | 100.000 | 116.110 | -16.1   | 98  | -0.01 | 7.17 |
|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
| 61 t | 4-Nitrophenol             | 0.184   | 0.190   | -3.3    | 84  | -0.01 | 7.32 |
| 62 t | Dibenzofuran              | 1.602   | 1.631   | -1.8    | 85  | 0.00  | 7.26 |
| 63 t | 2,4-Dinitrotoluene        | 0.336   | 0.375   | -11.6   | 86  | 0.00  | 7.27 |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.299   | 0.356   | -19.1   | 91  | -0.01 | 7.38 |
| 65 t | Diethylphthalate          | 1.300   | 1.317   | -1.3    | 86  | -0.01 | 7.45 |
| 66 t | Fluorene                  | 1.286   | 1.280   | 0.5     | 84  | -0.01 | 7.53 |
| 67 t | 4-Chlorophenyl-phenylethe | 0.587   | 0.639   | -8.9    | 90  | 0.00  | 7.53 |
| 68 t | 4-Nitroaniline            | 0.333   | 0.369   | -10.8   | 88  | 0.00  | 7.64 |
| 69 I | Phenanthrene-d10          | 1.000   | 1.000   | 0.0     | 90  | 0.00  | 8.36 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000  | 52.416  | -4.8    | 94  | -0.01 | 7.60 |
|      |                           | AvgRF   | CCRF    | % Dev   |     |       |      |
| 71 t | n-Nitrosodiphenylamine    | 0.537   | 0.490   | 8.8     | 87  | 0.00  | 7.65 |
| 72 t | 1,2-Diphenylhydrazine     | 0.747   | 0.651   | 12.9    | 85  | 0.00  | 7.66 |
| 73 S | 2,4,6-Tribromophenol      | 0.122   | 0.124   | -1.6    | 84  | -0.01 | 7.74 |
| 74 t | 4-Bromophenyl-phenylether | 0.215   | 0.235   | -9.3    | 94  | 0.00  | 7.94 |
| 75 t | Hexachlorobenzene         | 0.270   | 0.269   | 0.4     | 90  | -0.01 | 7.99 |
|      |                           | True    | Calc.   | % Drift |     |       |      |
| 76 t | Pentachlorophenol         | 100.000 | 94.052  | 5.9     | 83  | -0.01 | 8.21 |

8.9.13

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3484  
**Lab FileID:** 2P79160.D

| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
|-------|---------------------------|--------|--------|---------|-------|-------|-------|
| 77 t  | Phenanthrene              | 1.018  | 1.026  | -0.8    | 91    | -0.01 | 8.38  |
| 78 t  | Anthracene                | 0.991  | 1.016  | -2.5    | 92    | 0.00  | 8.43  |
| 79 t  | Carbazole                 | 1.068  | 1.045  | 2.2     | 85    | 0.00  | 8.63  |
| 80 t  | Di-n-butylphthalate       | 1.348  | 1.404  | -4.2    | 85    | -0.01 | 8.94  |
| 81 t  | Fluoranthene              | 1.334  | 1.438  | -7.8    | 91    | -0.01 | 9.65  |
| 82 t  | Octadecane                | 0.320  | 0.297  | 7.2     | 82    | 0.00  | 8.19  |
|       |                           |        |        |         |       |       |       |
| 83 I  | Chrysene-d12              | 1.000  | 1.000  | 0.0     | 96    | -0.01 | 11.55 |
| 84 t  | Pyrene                    | 1.341  | 1.244  | 7.2     | 90    | -0.01 | 9.93  |
| 85 S  | Terphenyl-d14             | 0.870  | 0.851  | 2.2     | 94    | -0.01 | 10.13 |
| 86 t  | Butylbenzylphthalate      | 0.681  | 0.657  | 3.5     | 85    | -0.01 | 10.80 |
| 87 t  | Benzo[a]anthracene        | 1.250  | 1.311  | -4.9    | 96    | -0.02 | 11.52 |
| 88 t  | 3,3'-Dichlorobenzidine    | 0.371  | 0.402  | -8.4    | 96    | -0.02 | 11.57 |
| 89 t  | Chrysene                  | 0.986  | 0.963  | 2.3     | 96    | -0.02 | 11.58 |
| 90 t  | bis(2-Ethylhexyl)phthalat | 0.650  | 0.647  | 0.5     | 87    | -0.01 | 11.59 |
|       |                           |        |        |         |       |       |       |
| 91 I  | Perylene-d12              | 1.000  | 1.000  | 0.0     | 97    | -0.02 | 13.52 |
| ----- |                           | True   | Calc.  | % Drift | ----- |       |       |
| 92 t  | Di-n-octylphthalate       | 50.000 | 44.885 | 10.2    | 87    | -0.01 | 12.49 |
| ----- |                           | AvgRF  | CCRF   | % Dev   | ----- |       |       |
| 93 t  | Benzo[b]fluoranthene      | 1.338  | 1.421  | -6.2    | 103   | -0.01 | 13.02 |
| 94 t  | Benzo[k]fluoranthene      | 1.068  | 1.013  | 5.1     | 96    | -0.01 | 13.06 |
| 95 t  | Benzo[a]pyrene            | 1.094  | 1.190  | -8.8    | 99    | -0.02 | 13.44 |
| 96 t  | Indeno[1,2,3-cd]pyrene    | 1.197  | 1.331  | -11.2   | 98    | -0.02 | 14.84 |
| 97 t  | Dibenz(a,h)acridine       | 0.896  | 1.037  | -15.7   | 99    | -0.02 | 14.55 |
| 98 t  | Dibenz[a,h]anthracene     | 0.961  | 1.038  | -8.0    | 99    | -0.02 | 14.87 |
| 99 t  | 7,12-Dimethylbenz(a)anthr | 0.578  | 0.634  | -9.7    | 99    | -0.01 | 13.02 |
| 100 t | Benzo[g,h,i]perylene      | 0.957  | 1.043  | -9.0    | 97    | -0.02 | 15.21 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2p79160.d    M2P3484.M                      Mon May 07 21:43:58 2018

8.9.13  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E2P3489-CC3481  
**Lab FileID:** 2P79161.D

## Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...meel\2p3489\2p79161.d Vial: 3  
 Acq On : 5 May 2018 8:17 pm Operator: seanbl  
 Sample : cc3481-50 Inst : MS2P  
 Misc : op10929,e2p3489,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3484.M (RTE Integrator)  
 Title : Semi Volatile Extractables by GC/MS  
 Last Update : Thu May 03 12:30:09 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|--------------------------------|--------|--------|-------|-------|----------|-------|
| 101 I 1,4-Dichlorobenzene-d4a  | 1.000  | 1.000  | 0.0   | 61    | -0.01    | 4.59  |
| 102 Benzaldehyde               | 1.057  | 0.914  | 13.5  | 53    | -0.02    | 4.25  |
| 103 I Naphthalene-d8a          | 1.000  | 1.000  | 0.0   | 58    | -0.01    | 5.65  |
| 104 Hydroquinone               | 0.312  | 0.289  | 7.4   | 48#   | -0.01    | 6.11  |
| 105 I Acenaphthene-d10a        | 1.000  | 1.000  | 0.0   | 54    | -0.01    | 7.08  |
| 106 Atrazine                   | 0.172  | 0.174  | -1.2  | 52    | -0.01    | 8.11  |
| 107 1,2,4,5-Tetrachlorobenzen  | 0.577  | 0.592  | -2.6  | 59    | -0.02    | 6.36  |
| 108 I Chrysene-d12a            | 1.000  | 1.000  | 0.0   | 57    | -0.02    | 11.54 |
| ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 109 Benzidine                  | 50.000 | 38.805 | 22.4# | 45    | -0.02    | 9.88  |
| ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 110 I Phenanthrene-d10a        | 1.000  | 1.000  | 0.0   | 56    | -0.01    | 8.35  |
| 111 s 1-Chlorooctadecane       | 0.289  | 0.263  | 9.0   | 50#   | -0.01    | 9.45  |
| 112 s o-terphenyl              | 0.536  | 0.534  | 0.4   | 56    | 0.00     | 8.73  |
| 113 Pentachloronitrobenzene    | 0.044  | 0.050# | -13.6 | 59    | 0.00     | 8.19  |

(#) = Out of Range  
 2p79083a.D M2P3484.M

SPPC's out = 0 CCC's out = 0  
 Wed May 09 13:13:22 2018 MANAGER

8.9.14  
8

# Initial Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E5P2305-ICC2305  
 Lab FileID: 5P48080.D

## Response Factor Report MS5P

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 Last Update : Tue Feb 27 08:56:19 2018  
 Response via : Initial Calibration

### Calibration Files

2 =5p48084.D 5 =5p48083.D 25 =5p48081.D 80 =5p48079.D  
 100 =5p48078.D 50 =5p48080.D 1 =5p48085.D 10 =5p48082.D

| Compound                   | 2              | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.695          | 0.657 | 0.629 | 0.625 | 0.621 | 0.652 | 0.643 | 0.684 | 0.651 | 4.17  |
| 3) Pyridine                | 1.617          | 1.695 | 1.591 | 1.512 | 1.504 | 1.689 | 1.397 | 1.684 | 1.586 | 6.79  |
| 4) N-Nitrosodim            | 0.839          | 0.925 | 0.884 | 0.907 | 0.873 | 0.962 | 0.895 | 0.837 | 0.890 | 4.74  |
| 5) 2-Fluorophen            | 1.486          | 1.537 | 1.547 | 1.478 | 1.436 | 1.560 | 1.385 | 1.507 | 1.492 | 3.98  |
| 6) Indene                  | 2.416          | 2.420 | 2.237 | 1.996 | 1.913 | 2.205 | 2.451 | 2.415 | 2.257 | 9.24  |
| 7) Cumene                  | 3.631          | 3.744 | 3.491 | 3.100 | 2.987 | 3.426 | 3.650 | 3.673 | 3.463 | 8.07  |
| 8) Phenol-d5               | 1.844          | 1.888 | 1.865 | 1.736 | 1.710 | 1.901 | 1.850 | 1.955 | 1.844 | 4.47  |
| 9) Phenol                  | 1.956          | 2.029 | 1.878 | 1.713 | 1.636 | 1.838 | 2.041 | 1.997 | 1.886 | 7.93  |
| 10) Aniline                | 2.410          | 2.390 | 2.091 | 1.827 | 1.735 | 1.884 | 2.490 | 2.194 | 2.128 | 13.63 |
| 11) bis(2-Chloro           | 1.363          | 1.364 | 1.286 | 1.192 | 1.133 | 1.306 | 1.432 | 1.370 | 1.306 | 7.64  |
| 12) 2-Chlorophen           | 1.687          | 1.617 | 1.471 | 1.308 | 1.249 | 1.429 | 1.740 | 1.577 | 1.510 | 11.67 |
| 13) Decane                 | 1.466          | 1.452 | 1.289 | 1.110 | 1.035 | 1.248 | 1.644 | 1.382 | 1.328 | 15.03 |
| 14) 1,3-Dichloro           | 1.929          | 1.933 | 1.750 | 1.584 | 1.521 | 1.715 | 2.031 | 1.846 | 1.789 | 9.97  |
| 15) 1,4-Dichloro           | 1.801          | 1.820 | 1.638 | 1.541 | 1.456 | 1.659 | 2.128 | 1.791 | 1.729 | 11.97 |
| 16) Benzyl alcoh           | 1.020          | 0.979 | 0.939 | 0.835 | 0.796 | 0.933 | 1.158 | 1.019 | 0.960 | 11.83 |
| 17) 1,2-Dichloro           | 1.794          | 1.759 | 1.540 | 1.362 | 1.314 | 1.500 | 1.848 | 1.702 | 1.602 | 12.64 |
| 18) Acetophenone           | 2.151          | 2.146 | 1.870 | 1.584 | 1.541 | 1.793 | 2.168 | 2.036 | 1.911 | 13.33 |
| 19) 2-Methylphen           | 1.416          | 1.417 | 1.274 | 1.110 | 1.055 | 1.235 | 1.408 | 1.365 | 1.285 | 11.10 |
| 20) 2,2'-oxybis(           | 1.724          | 1.792 | 1.607 | 1.491 | 1.434 | 1.634 | 1.925 | 1.748 | 1.669 | 9.65  |
| 21) 3&4-Methylph           | 1.499          | 1.516 | 1.367 | 1.227 | 1.188 | 1.377 | 1.483 | 1.400 | 1.382 | 8.82  |
| 22) n-Nitroso-di           | 1.105          | 1.066 | 0.897 | 0.787 | 0.766 | 0.859 | 1.014 | 1.001 | 0.937 | 13.62 |
| 23) Hexachloroet           | 0.665          | 0.643 | 0.621 | 0.586 | 0.572 | 0.631 | 0.632 | 0.649 | 0.625 | 5.03  |
| -----                      |                |       |       |       |       |       |       |       |       |       |
| 24) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.404          | 0.402 | 0.395 | 0.368 | 0.358 | 0.382 | 0.385 | 0.417 | 0.389 | 5.06  |
| 26) Nitrobenzene           | 0.396          | 0.403 | 0.378 | 0.336 | 0.321 | 0.361 | 0.413 | 0.401 | 0.376 | 8.91  |
| 27) Quinoline              | 0.768          | 0.773 | 0.764 | 0.709 | 0.689 | 0.730 | 0.803 | 0.772 | 0.751 | 5.08  |
| 28) Isophorone             | 0.709          | 0.712 | 0.692 | 0.633 | 0.616 | 0.663 | 0.690 | 0.706 | 0.678 | 5.38  |
| 29) 2-Nitropheno           | 0.195          | 0.207 | 0.226 | 0.197 | 0.186 | 0.211 | 0.167 | 0.217 | 0.201 | 9.33  |
| 30) 2,4-Dimethyl           | 0.334          | 0.364 | 0.357 | 0.327 | 0.321 | 0.335 | 0.327 | 0.364 | 0.341 | 5.19  |
| 31) Benzoic acid           |                | 0.212 | 0.284 | 0.295 | 0.298 | 0.306 |       | 0.262 | 0.276 | 12.56 |
| 32) bis(2-Chloro           | 0.426          | 0.416 | 0.391 | 0.345 | 0.338 | 0.362 | 0.412 | 0.404 | 0.387 | 8.77  |
| 33) 2,4-Dichloro           | 0.347          | 0.374 | 0.374 | 0.331 | 0.318 | 0.354 | 0.347 | 0.369 | 0.352 | 5.85  |
| 34) 2,6-Dichloro           | 0.352          | 0.350 | 0.347 | 0.313 | 0.299 | 0.329 | 0.383 | 0.360 | 0.342 | 7.90  |
| 35) 1,3,5-Trichl           | 0.416          | 0.401 | 0.377 | 0.322 | 0.313 | 0.351 | 0.390 | 0.400 | 0.371 | 10.37 |
| 36) 1,2,4-Trichl           | 0.409          | 0.388 | 0.373 | 0.322 | 0.321 | 0.346 | 0.383 | 0.386 | 0.366 | 8.90  |
| 37) 1,2,3-Trichl           | 0.373          | 0.368 | 0.350 | 0.303 | 0.294 | 0.323 | 0.379 | 0.370 | 0.345 | 9.74  |
| 38) Naphthalene            | 1.121          | 1.067 | 1.032 | 0.914 | 0.892 | 0.969 | 1.125 | 1.054 | 1.022 | 8.69  |
| 39) 4-Chloroanil           | 0.504          | 0.493 | 0.452 | 0.382 | 0.369 | 0.413 | 0.487 | 0.481 | 0.448 | 11.82 |
| 40) 2,3-Dichloro           | 0.445          | 0.454 | 0.417 | 0.365 | 0.345 | 0.388 | 0.419 | 0.443 | 0.409 | 9.76  |
| 41) Caprolactam            | 0.165          | 0.178 | 0.185 | 0.176 | 0.175 | 0.180 | 0.202 | 0.182 | 0.180 | 5.82  |
| 42) Hexachlorobu           | 0.216          | 0.235 | 0.216 | 0.194 | 0.189 | 0.205 | 0.216 | 0.222 | 0.212 | 7.07  |
| 43) 4-Chloro-3-m           | 0.314          | 0.340 | 0.350 | 0.306 | 0.306 | 0.322 | 0.327 | 0.356 | 0.328 | 5.92  |
| 44) 2-Methylnaph           | 0.681          | 0.696 | 0.659 | 0.580 | 0.558 | 0.620 | 0.693 | 0.681 | 0.646 | 8.31  |
| 45) 1-Methylnaph           | 0.715          | 0.718 | 0.669 | 0.575 | 0.564 | 0.628 | 0.756 | 0.710 | 0.667 | 10.67 |

8.9.15  
8



# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2305-ICC2305  
**Lab FileID:** 5P48080.D

|     |                                  |                                       |       |       |       |       |       |       |       |       |                      |
|-----|----------------------------------|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 46) | Dimethylnaph                     | 0.694                                 | 0.679 | 0.648 | 0.560 | 0.541 | 0.607 | 0.698 | 0.656 | 0.635 | 9.46                 |
| 47) | I Acenaphthene-d10               | -----ISTD-----                        |       |       |       |       |       |       |       |       |                      |
| 48) | Hexachlorocy                     | 0.380                                 | 0.388 | 0.418 | 0.398 | 0.384 | 0.409 | 0.349 | 0.418 | 0.393 | 5.91                 |
| 49) | 2,4,6-Trichl                     | 0.468                                 | 0.492 | 0.480 | 0.444 | 0.432 | 0.473 | 0.416 | 0.493 | 0.462 | 6.17                 |
| 50) | 2,4,5-Trichl                     | 0.557                                 | 0.505 | 0.499 | 0.477 | 0.458 | 0.481 | 0.472 | 0.517 | 0.496 | 6.35                 |
| 51) | 2-Fluorobiph                     | 1.845                                 | 1.772 | 1.610 | 1.469 | 1.444 | 1.551 | 1.847 | 1.744 | 1.660 | 9.82                 |
| 52) | 2-Chloronaph                     | 1.634                                 | 1.482 | 1.327 | 1.214 | 1.165 | 1.275 | 1.600 | 1.452 | 1.394 | 12.57                |
| 53) | Biphenyl                         | 1.874                                 | 1.799 | 1.693 | 1.549 | 1.461 | 1.608 | 2.018 | 1.781 | 1.723 | 10.57                |
| 54) | 2-Nitroanili                     | 0.323                                 | 0.383 | 0.403 | 0.390 | 0.376 | 0.394 | 0.343 | 0.394 | 0.376 | 7.50                 |
| 55) | Dimethylphth                     | 1.754                                 | 1.629 | 1.646 | 1.568 | 1.492 | 1.583 | 1.777 | 1.709 | 1.645 | 5.95                 |
| 56) | Acenaphthyle                     | 2.155                                 | 2.278 | 2.121 | 1.935 | 1.846 | 2.039 | 2.308 | 2.283 | 2.121 | 8.05                 |
| 57) | 2,6-Dinitrot                     | 0.284                                 | 0.309 | 0.356 | 0.354 | 0.341 | 0.349 | 0.252 | 0.353 | 0.325 | 12.04                |
| 58) | 3-Nitroanili                     | 0.352                                 | 0.418 | 0.445 | 0.439 | 0.425 | 0.437 | 0.361 | 0.458 | 0.417 | 9.42                 |
| 59) | Acenaphthene                     | 1.433                                 | 1.369 | 1.285 | 1.194 | 1.157 | 1.246 | 1.554 | 1.357 | 1.324 | 9.91                 |
| 60) | 2,4-Dinitrop                     | 0.067                                 | 0.108 | 0.175 | 0.205 | 0.197 | 0.196 |       | 0.139 | 0.155 | 33.84                |
|     | ----- Quadratic regression ----- |                                       |       |       |       |       |       |       |       |       | Coefficient = 0.9987 |
|     | Response Ratio =                 | -0.02754 + 0.21071 *A + -0.00108 *A^2 |       |       |       |       |       |       |       |       |                      |
| 61) | 4-Nitropheno                     | 0.162                                 | 0.179 | 0.210 | 0.216 | 0.216 | 0.214 | 0.172 | 0.211 | 0.197 | 11.36                |
| 62) | Dibenzofuran                     | 2.196                                 | 2.097 | 1.937 | 1.765 | 1.690 | 1.833 | 2.258 | 2.119 | 1.987 | 10.60                |
| 63) | 2,4-Dinitrot                     | 0.380                                 | 0.455 | 0.466 | 0.426 | 0.415 | 0.440 | 0.338 | 0.480 | 0.425 | 11.09                |
| 64) | 2,3,4,6-Tetr                     | 0.390                                 | 0.418 | 0.448 | 0.435 | 0.430 | 0.440 | 0.411 | 0.443 | 0.427 | 4.51                 |
| 65) | Diethylphtha                     | 1.612                                 | 1.614 | 1.558 | 1.458 | 1.411 | 1.504 | 1.616 | 1.650 | 1.553 | 5.55                 |
| 66) | Fluorene                         | 1.709                                 | 1.680 | 1.568 | 1.450 | 1.361 | 1.518 | 1.744 | 1.677 | 1.589 | 8.62                 |
| 67) | 4-Chlorophen                     | 0.803                                 | 0.786 | 0.693 | 0.643 | 0.609 | 0.664 | 0.841 | 0.770 | 0.726 | 11.66                |
| 68) | 4-Nitroanili                     | 0.408                                 | 0.424 | 0.406 | 0.413 | 0.405 | 0.410 | 0.316 | 0.431 | 0.402 | 8.92                 |
| 69) | I Phenanthrene-d10               | -----ISTD-----                        |       |       |       |       |       |       |       |       |                      |
| 70) | 4,6-Dinitro-                     | 0.062                                 | 0.110 | 0.155 | 0.162 | 0.158 | 0.159 |       | 0.143 | 0.136 | 27.27                |
|     | ----- Quadratic regression ----- |                                       |       |       |       |       |       |       |       |       | Coefficient = 0.9997 |
|     | Response Ratio =                 | -0.00689 + 0.17043 *A + -0.00345 *A^2 |       |       |       |       |       |       |       |       |                      |
| 71) | n-Nitrosodip                     | 0.685                                 | 0.705 | 0.668 | 0.596 | 0.573 | 0.613 | 0.716 | 0.678 | 0.654 | 8.13                 |
| 72) | 1,2-Diphenyl                     | 0.855                                 | 0.856 | 0.803 | 0.702 | 0.672 | 0.740 | 0.842 | 0.838 | 0.788 | 9.35                 |
| 73) | 2,4,6-Tribro                     | 0.126                                 | 0.139 | 0.151 | 0.145 | 0.143 | 0.148 | 0.138 | 0.148 | 0.142 | 5.52                 |
| 74) | 4-Bromopheny                     | 0.285                                 | 0.274 | 0.269 | 0.247 | 0.238 | 0.257 | 0.296 | 0.265 | 0.267 | 7.20                 |
| 75) | Hexachlorobe                     | 0.331                                 | 0.326 | 0.299 | 0.274 | 0.266 | 0.279 | 0.347 | 0.310 | 0.304 | 9.65                 |
| 76) | Pentachlorop                     | 0.157                                 | 0.185 | 0.194 | 0.188 | 0.183 | 0.190 | 0.135 | 0.189 | 0.178 | 11.68                |
| 77) | Phenanthrene                     | 1.339                                 | 1.271 | 1.172 | 1.074 | 1.033 | 1.104 | 1.428 | 1.258 | 1.210 | 11.40                |
| 78) | Anthracene                       | 1.287                                 | 1.303 | 1.242 | 1.095 | 1.052 | 1.151 | 1.370 | 1.290 | 1.224 | 9.16                 |
| 79) | Carbazole                        | 1.346                                 | 1.387 | 1.312 | 1.157 | 1.125 | 1.211 | 1.363 | 1.370 | 1.284 | 8.10                 |
| 80) | Di-n-butylph                     | 1.387                                 | 1.476 | 1.563 | 1.407 | 1.352 | 1.493 | 1.288 | 1.530 | 1.437 | 6.56                 |
| 81) | Fluoranthene                     | 1.383                                 | 1.467 | 1.457 | 1.316 | 1.259 | 1.379 | 1.418 | 1.491 | 1.396 | 5.69                 |
| 82) | Octadecane                       | 0.524                                 | 0.547 | 0.538 | 0.463 | 0.443 | 0.504 | 0.479 | 0.567 | 0.508 | 8.59                 |
| 83) | I Chrysene-d12                   | -----ISTD-----                        |       |       |       |       |       |       |       |       |                      |
| 84) | Pyrene                           | 1.492                                 | 1.526 | 1.530 | 1.454 | 1.405 | 1.488 | 1.606 | 1.553 | 1.507 | 4.08                 |
| 85) | Terphenyl-d1                     | 0.987                                 | 0.991 | 1.051 | 1.027 | 0.992 | 1.030 | 0.999 | 1.026 | 1.013 | 2.32                 |
| 86) | Butylbenzylp                     | 0.518                                 | 0.605 | 0.719 | 0.727 | 0.712 | 0.735 | 0.475 | 0.665 | 0.645 | 15.71                |
| 87) | Benzo[a]anth                     | 1.284                                 | 1.330 | 1.379 | 1.386 | 1.334 | 1.387 | 1.378 | 1.368 | 1.356 | 2.70                 |
| 88) | 3,3'-Dichlor                     | 0.415                                 | 0.492 | 0.511 | 0.513 | 0.501 | 0.515 | 0.376 | 0.485 | 0.476 | 10.92                |
| 89) | Chrysene                         | 1.360                                 | 1.308 | 1.338 | 1.304 | 1.283 | 1.322 | 1.431 | 1.347 | 1.337 | 3.41                 |
| 90) | bis(2-Ethylh                     | 0.654                                 | 0.778 | 0.931 | 0.945 | 0.910 | 0.946 | 0.530 | 0.861 | 0.819 | 18.83                |
| 91) | I Perylene-d12                   | -----ISTD-----                        |       |       |       |       |       |       |       |       |                      |
| 92) | Di-n-octylph                     | 0.876                                 | 1.203 | 1.569 | 1.503 | 1.446 | 1.524 |       | 1.397 | 1.360 | 17.98                |
| 93) | Benzo[b]fluo                     | 1.230                                 | 1.299 | 1.323 | 1.247 | 1.185 | 1.242 | 1.082 | 1.325 | 1.242 | 6.50                 |
| 94) | Benzo[k]fluo                     | 1.325                                 | 1.354 | 1.270 | 1.116 | 1.088 | 1.179 | 1.391 | 1.308 | 1.254 | 9.01                 |
| 95) | Benzo[a]pyre                     | 1.091                                 | 1.160 | 1.208 | 1.161 | 1.109 | 1.169 | 0.987 | 1.202 | 1.136 | 6.38                 |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2305-ICC2305  
**Lab FileID:** 5P48080.D

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|      |              |       |       |       |       |       |       |       |       |       |       |
|------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 96)  | Indeno[1,2,3 | 0.867 | 0.986 | 1.088 | 1.058 | 1.011 | 1.069 | 0.738 | 1.053 | 0.984 | 12.33 |
| 97)  | Dibenz(a,h)a | 0.858 | 0.983 | 1.051 | 0.979 | 0.989 | 1.013 | 0.749 | 1.029 | 0.956 | 10.63 |
| 98)  | Dibenz[a,h]a | 0.922 | 1.076 | 1.103 | 1.072 | 1.048 | 1.113 | 0.886 | 1.113 | 1.042 | 8.51  |
| 99)  | 7,12-Dimethy | 0.449 | 0.510 | 0.567 | 0.546 | 0.522 | 0.543 | 0.394 | 0.525 | 0.507 | 11.33 |
| 100) | Benzo[g,h,i] | 1.012 | 1.103 | 1.129 | 1.081 | 1.053 | 1.091 | 0.988 | 1.141 | 1.075 | 5.03  |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

M5P2305.M

Tue Feb 27 09:09:22 2018

RPT1

8.9.15

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2305-ICV2305  
**Lab FileID:** 5P48086.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2305\5p48086.D Vial: 10  
Acq On : 26 Feb 2018 5:59 am Operator: chriss2  
Sample : icv2305-50 Inst : MS5P  
Misc : op6115,e5p2305,1000,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Tue Feb 27 08:56:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 120   | 0.00     | 4.53  |
| 5 S  | 2-Fluorophenol         | 1.492 | 1.338 | 10.3 | 103   | 0.00     | 3.34  |
| 8 S  | Phenol-d5              | 1.844 | 1.617 | 12.3 | 102   | 0.00     | 4.19  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 117   | 0.00     | 5.73  |
| 25 S | Nitrobenzene-d5        | 0.389 | 0.343 | 11.8 | 105   | 0.00     | 5.05  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 127   | 0.00     | 7.43  |
| 51 S | 2-Fluorobiphenyl       | 1.660 | 1.296 | 21.9 | 106   | 0.00     | 6.79  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 111   | 0.00     | 8.93  |
| 73 S | 2,4,6-Tribromophenol   | 0.142 | 0.126 | 11.3 | 95    | 0.00     | 8.21  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 123   | -0.01    | 12.42 |
| 85 S | Terphenyl-d14          | 1.013 | 0.850 | 16.1 | 102   | 0.00     | 10.95 |

(#) = Out of Range  
5p48112a.D M5P2305.M

SPCC's out = 0 CCC's out = 0  
Tue Feb 27 09:09:07 2018 RPT1

8.9.16

8

# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E5P2305-ICV2305  
 Lab FileID: 5P48089.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2305\5p48089.D Vial: 13  
 Acq On : 26 Feb 2018 7:10 am Operator: chriss2  
 Sample : icv2305-50 Inst : MS5P  
 Misc : op6115,e5p2305,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 Last Update : Tue Feb 27 08:56:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|-------|-------|------|-------|----------|-------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0  | 126   | 0.00     | 4.53  |
| 4 t N-Nitrosodimethylamine     | 0.890 | 0.727 | 18.3 | 95    | 0.00     | 2.19  |
| 11 t bis(2-Chloroethyl)ether   | 1.306 | 1.312 | -0.5 | 126   | 0.00     | 4.30  |
| 14 t 1,3-Dichlorobenzene       | 1.789 | 1.575 | 12.0 | 116   | 0.00     | 4.47  |
| 15 t 1,4-Dichlorobenzene       | 1.729 | 1.473 | 14.8 | 112   | 0.00     | 4.55  |
| 17 t 1,2-Dichlorobenzene       | 1.602 | 1.521 | 5.1  | 128   | 0.00     | 4.68  |
| 20 t 2,2'-oxybis(1-Chloropropa | 1.669 | 1.631 | 2.3  | 126   | 0.00     | 4.79  |
| 22 t n-Nitroso-di-n-propylamin | 0.937 | 0.885 | 5.5  | 130   | 0.00     | 4.91  |
| 23 t Hexachloroethane          | 0.625 | 0.569 | 9.0  | 114   | 0.00     | 5.00  |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 118   | 0.00     | 5.73  |
| 26 t Nitrobenzene              | 0.376 | 0.337 | 10.4 | 110   | 0.00     | 5.07  |
| 28 t Isophorone                | 0.678 | 0.617 | 9.0  | 110   | 0.00     | 5.30  |
| 32 t bis(2-Chloroethoxy)methan | 0.387 | 0.388 | -0.3 | 126   | 0.00     | 5.52  |
| 36 t 1,2,4-Trichlorobenzene    | 0.366 | 0.342 | 6.6  | 117   | 0.00     | 5.68  |
| 38 t Naphthalene               | 1.022 | 0.926 | 9.4  | 113   | 0.00     | 5.75  |
| 42 t Hexachlorobutadiene       | 0.212 | 0.206 | 2.8  | 118   | 0.00     | 5.87  |
| 47 I Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 119   | 0.00     | 7.44  |
| 48 t Hexachlorocyclopentadiene | 0.393 | 0.383 | 2.5  | 56    | 0.00     | 6.57  |
| 52 t 2-Chloronaphthalene       | 1.394 | 1.298 | 6.9  | 122   | 0.00     | 6.89  |
| 55 t Dimethylphthalate         | 1.645 | 1.474 | 10.4 | 111   | 0.00     | 7.19  |
| 56 t Acenaphthylene            | 2.121 | 1.822 | 14.1 | 107   | 0.00     | 7.30  |
| 57 t 2,6-Dinitrotoluene        | 0.325 | 0.298 | 8.3  | 102   | 0.00     | 7.25  |
| 59 t Acenaphthene              | 1.324 | 1.136 | 14.2 | 109   | 0.00     | 7.47  |
| 63 t 2,4-Dinitrotoluene        | 0.425 | 0.405 | 4.7  | 110   | 0.00     | 7.64  |
| 65 t Diethylphthalate          | 1.553 | 1.400 | 9.9  | 111   | 0.00     | 7.88  |
| 66 t Fluorene                  | 1.589 | 1.370 | 13.8 | 108   | 0.00     | 7.97  |
| 67 t 4-Chlorophenyl-phenylethe | 0.726 | 0.588 | 19.0 | 106   | 0.00     | 7.98  |
| 69 I Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 119   | 0.00     | 8.93  |
| 71 t n-Nitrosodiphenylamine    | 0.654 | 0.519 | 20.6 | 101   | 0.00     | 8.10  |
| 72 t 1,2-Diphenylhydrazine     | 0.788 | 0.670 | 15.0 | 108   | 0.00     | 8.14  |
| 74 t 4-Bromophenyl-phenylether | 0.267 | 0.232 | 13.1 | 108   | 0.00     | 8.47  |
| 75 t Hexachlorobenzene         | 0.304 | 0.262 | 13.8 | 112   | 0.00     | 8.51  |
| 77 t Phenanthrene              | 1.210 | 1.025 | 15.3 | 111   | 0.00     | 8.96  |
| 78 t Anthracene                | 1.224 | 1.039 | 15.1 | 108   | 0.00     | 9.02  |
| 80 t Di-n-butylphthalate       | 1.437 | 1.305 | 9.2  | 104   | 0.00     | 9.66  |
| 81 t Fluoranthene              | 1.396 | 1.209 | 13.4 | 105   | 0.00     | 10.40 |
| 83 I Chrysene-d12              | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 12.43 |
| 84 t Pyrene                    | 1.507 | 1.434 | 4.8  | 102   | 0.00     | 10.69 |

8.9.17

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2305-ICV2305  
**Lab FileID:** 5P48089.D

|     |   |                           |       |       |       |     |      |       |
|-----|---|---------------------------|-------|-------|-------|-----|------|-------|
| 86  | t | Butylbenzylphthalate      | 0.645 | 0.710 | -10.1 | 102 | 0.00 | 11.69 |
| 87  | t | Benzo[a]anthracene        | 1.356 | 1.327 | 2.1   | 101 | 0.00 | 12.41 |
| 89  | t | Chrysene                  | 1.337 | 1.249 | 6.6   | 100 | 0.00 | 12.47 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.819 | 0.899 | -9.8  | 100 | 0.00 | 12.58 |
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0   | 100 | 0.00 | 14.44 |
| 92  | t | Di-n-octylphthalate       | 1.360 | 1.512 | -11.2 | 99  | 0.00 | 13.54 |
| 93  | t | Benzo[b]fluoranthene      | 1.242 | 1.151 | 7.3   | 93  | 0.00 | 13.94 |
| 94  | t | Benzo[k]fluoranthene      | 1.254 | 1.181 | 5.8   | 100 | 0.00 | 13.98 |
| 95  | t | Benzo[a]pyrene            | 1.136 | 1.097 | 3.4   | 94  | 0.00 | 14.37 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.984 | 0.990 | -0.6  | 93  | 0.00 | 15.88 |
| 98  | t | Dibenz[a,h]anthracene     | 1.042 | 0.996 | 4.4   | 89  | 0.00 | 15.94 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075 | 1.073 | 0.2   | 98  | 0.00 | 16.30 |

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(#) = Out of Range  
5p48112a.D M5P2305.M

SPCC's out = 0 CCC's out = 0  
Tue Feb 27 09:09:09 2018 RPT1

8.9.17

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2305-ICV2305  
**Lab FileID:** 5P48090.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2305\5p48090.D Vial: 14  
Acq On : 26 Feb 2018 7:34 am Operator: chriss2  
Sample : icv2305-50 Inst : MS5P  
Misc : op6115,e5p2305,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Tue Feb 27 08:56:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 129   | 0.00     | 4.53  |
| 2 t  | 1,4-Dioxane               | 0.651 | 0.541 | 16.9 | 107   | 0.01     | 1.94  |
| 6 t  | Indene                    | 2.257 | 2.258 | -0.0 | 132   | 0.00     | 4.77  |
| 7 t  | Cumene                    | 3.463 | 2.958 | 14.6 | 111   | 0.00     | 3.80  |
| 13 t | Decane                    | 1.328 | 1.081 | 18.6 | 112   | 0.00     | 4.38  |
| 18 t | Acetophenone              | 1.911 | 1.747 | 8.6  | 126   | 0.00     | 4.91  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 126   | 0.00     | 5.73  |
| 27 t | Quinoline                 | 0.751 | 0.651 | 13.3 | 113   | -0.01    | 6.08  |
| 40 t | 2,3-Dichloroaniline       | 0.409 | 0.336 | 17.8 | 110   | 0.00     | 6.70  |
| 41 t | Caprolactam               | 0.180 | 0.145 | 19.4 | 101   | -0.02    | 6.14  |
| 45 t | 1-Methylnaphthalene       | 0.667 | 0.519 | 22.2 | 105   | 0.00     | 6.51  |
| 46 t | Dimethylnaphthalene       | 0.635 | 0.540 | 15.0 | 113   | 0.00     | 7.03  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 141   | 0.00     | 7.43  |
| 53 t | Biphenyl                  | 1.723 | 1.308 | 24.1 | 115   | 0.00     | 6.88  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 115   | 0.00     | 8.93  |
| 82 t | Octadecane                | 0.508 | 0.472 | 7.1  | 108   | 0.00     | 8.85  |
| 91 I | Perylene-d12              | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 14.44 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.507 | 0.418 | 17.6 | 73    | -0.01    | 13.93 |

(#) = Out of Range  
5p48112a.D M5P2305.M

SPCC's out = 0 CCC's out = 0  
Tue Feb 27 09:09:11 2018 RPT1

8.9.18

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2307-ICV2305  
**Lab FileID:** 5P48106.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2307\5p48106.D Vial: 2  
 Acq On : 26 Feb 2018 9:14 pm Operator: chriss2  
 Sample : icv2305-50 Inst : MS5P  
 Misc : op6115,e5p2307,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 Last Update : Mon Feb 26 17:26:08 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|------|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 142   | -0.02    | 4.52 |
| 9 t  | Phenol                         | 1.886  | 1.646  | 12.7  | 127   | -0.02    | 4.19 |
| 19 t | 2-Methylphenol                 | 1.285  | 1.165  | 9.3   | 134   | -0.02    | 4.75 |
| 21 t | 3&4-Methylphenol               | 1.382  | 1.227  | 11.2  | 127   | -0.02    | 4.89 |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 136   | -0.02    | 5.72 |
| 29 t | 2-Nitrophenol                  | 0.201  | 0.203  | -1.0  | 131   | -0.02    | 5.36 |
| 30 t | 2,4-Dimethylphenol             | 0.341  | 0.299  | 12.3  | 122   | -0.02    | 5.40 |
| 31 t | Benzoic acid                   | 0.276  | 0.256  | 7.2   | 114   | 0.00     | 5.51 |
| 33 t | 2,4-Dichlorophenol             | 0.352  | 0.291  | 17.3  | 112   | -0.02    | 5.58 |
| 34 t | 2,6-Dichlorophenol             | 0.342  | 0.294  | 14.0  | 122   | -0.02    | 5.80 |
| 43 t | 4-Chloro-3-methylphenol        | 0.328  | 0.276  | 15.9  | 117   | -0.02    | 6.26 |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 137   | -0.02    | 7.42 |
| 49 t | 2,4,6-Trichlorophenol          | 0.462  | 0.402  | 13.0  | 116   | -0.02    | 6.69 |
| 50 t | 2,4,5-Trichlorophenol          | 0.496  | 0.406  | 18.1  | 116   | -0.02    | 6.71 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 39.254 | 21.5  | 102   | -0.02    | 7.50 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 61 t | 4-Nitrophenol                  | 0.197  | 0.170  | 13.7  | 109   | -0.02    | 7.56 |
| 64   | 2,3,4,6-Tetrachlorophenol      | 0.427  | 0.348  | 18.5  | 109   | -0.02    | 7.74 |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 123   | -0.02    | 8.92 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |      |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 45.654 | 8.7   | 114   | -0.02    | 8.02 |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |      |
| 76 t | Pentachlorophenol              | 0.178  | 0.196  | -10.1 | 119   | -0.02    | 8.70 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 5p48080.D M5P2305.M Tue Feb 27 03:17:21 2018 RPT1

8.9.19  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2307-ICV2305  
**Lab FileID:** 5P48108.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2307\5p48108.D Vial: 4  
Acq On : 26 Feb 2018 10:53 pm Operator: chriss2  
Sample : icv2305-50 Inst : MS5P  
Misc : op6115,e5p2307,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2305.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Mon Feb 26 17:26:08 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 153   | -0.02    | 4.52 |
| 3 t  | Pyridine               | 1.586 | 1.492 | 5.9  | 135   | 0.10     | 2.30 |
| 10   | Aniline                | 2.128 | 2.117 | 0.5  | 172   | -0.01    | 4.22 |
| 16 t | Benzyl alcohol         | 0.960 | 0.882 | 8.1  | 145   | -0.02    | 4.65 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 155   | -0.02    | 5.72 |
| 39 t | 4-Chloroaniline        | 0.448 | 0.373 | 16.7 | 140   | -0.02    | 5.80 |
| 44 t | 2-Methylnaphthalene    | 0.646 | 0.548 | 15.2 | 137   | -0.02    | 6.41 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 160   | -0.02    | 7.42 |
| 54 t | 2-Nitroaniline         | 0.376 | 0.309 | 17.8 | 126   | -0.02    | 7.00 |
| 58 t | 3-Nitroaniline         | 0.417 | 0.343 | 17.7 | 125   | -0.01    | 7.40 |
| 62 t | Dibenzofuran           | 1.987 | 1.599 | 19.5 | 140   | -0.02    | 7.63 |
| 68 t | 4-Nitroaniline         | 0.402 | 0.338 | 15.9 | 132   | -0.02    | 7.99 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 139   | -0.02    | 8.92 |
| 79 t | Carbazole              | 1.284 | 1.062 | 17.3 | 122   | -0.01    | 9.20 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48080.D M5P2305.M Tue Feb 27 03:17:23 2018 RPT1



# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICC2318  
**Lab FileID:** 5P48343.D

## Response Factor Report MS5P

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 12:10:52 2018  
Response via : Initial Calibration

### Calibration Files

2 =5p48347.D 5 =5p48346.D 25 =5p48344.D 80 =5p48342.D  
100 =5p48341.D 50 =5p48343.D 1 =5p48348.D 10 =5p48345.D

| Compound                   | 2     | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg    | %RSD  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) 1,4-Dichlorobenzene-d |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde          | 1.407 | 1.297 | 1.152 | 1.045 | 1.019 | 1.055 | 1.284 | 1.168 | 1.178  | 11.85 |
| 103) Acenaphthene-d10a     |       |       |       |       |       |       |       |       |        |       |
| 104) 1,2,4,5-Tetr          | 0.797 | 0.771 | 0.634 | 0.593 | 0.566 | 0.604 | 0.754 | 0.649 | 0.671  | 13.37 |
| 105) Chrysene-d12a         |       |       |       |       |       |       |       |       |        |       |
| 106) Benzidine             | 1.021 | 1.099 | 0.967 | 0.931 | 0.858 | 0.900 | 0.980 | 0.986 | 0.968  | 7.67  |
| 107) 1-chloroocta          | 0.498 | 0.473 | 0.406 | 0.377 | 0.375 | 0.374 | 0.462 | 0.405 | 0.421  | 11.72 |
| 108) Phenanthrene-d10a     |       |       |       |       |       |       |       |       |        |       |
| 109) o-terphenyl           | 0.691 | 0.682 | 0.604 | 0.538 | 0.515 | 0.541 | 0.722 | 0.622 | 0.614  | 12.81 |
| 110) Atrazine              | 0.154 | 0.131 | 0.113 | 0.103 | 0.099 | 0.104 | 0.135 | 0.112 | 0.119  | 16.15 |
| 111) Pentachloron          | 0.048 | 0.051 | 0.046 | 0.043 | 0.042 | 0.044 | 0.057 | 0.045 | 0.047# | 10.51 |
| 112) I Naphthalene-d8a     |       |       |       |       |       |       |       |       |        |       |
| 113) Hydroquinone          | 0.337 | 0.382 | 0.368 | 0.360 | 0.338 | 0.352 |       | 0.344 | 0.354  | 4.68  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M5P2318.M

Fri Mar 09 12:12:13 2018

RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICV2318  
**Lab FileID:** 5P48349.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2318\5p48349.D Vial: 10  
Acq On : 7 Mar 2018 1:55 am Operator: chriss2  
Sample : icv2318-50 Inst : MS5P  
Misc : op6115,e5p2318,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 08:26:57 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound      | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----|---------------|-------|-------|------|-------|----------|-------|
| 105 | Chrysene-d12a | 1.000 | 1.000 | 0.0  | 152   | -0.12    | 12.28 |
| 106 | Benzidine     | 0.968 | 0.891 | 8.0  | 150   | -0.10    | 10.49 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Fri Mar 09 08:35:21 2018 RPT1

8.9.22

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICV2318  
**Lab FileID:** 5P48350.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2318\5p48350.D Vial: 11  
Acq On : 7 Mar 2018 2:20 am Operator: chriss2  
Sample : icv2318-50 Inst : MS5P  
Misc : op6115,e5p2318,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 12:10:52 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|-------|-------|----------|------|
| 112 I Naphthalene-d8a | 1.000 | 1.000 | 0.0   | 130   | 0.00     | 5.63 |
| 113 Hydroquinone      | 0.354 | 0.446 | -26.0 | 165   | 0.00     | 6.05 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Fri Mar 09 12:12:23 2018 RPT1

8.9.23

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICV2318  
**Lab FileID:** 5P48351.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2318\5p48351.D Vial: 12  
Acq On : 7 Mar 2018 2:44 am Operator: chriss2  
Sample : icv2318-50 Inst : MS5P  
Misc : op6115,e5p2318,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 08:26:57 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----|---------------------------|-------|-------|------|-------|----------|------|
| 103 | Acenaphthene-d10a         | 1.000 | 1.000 | 0.0  | 128   | -0.09    | 7.33 |
| 104 | 1,2,4,5-Tetrachlorobenzen | 0.671 | 0.658 | 1.9  | 139   | -0.09    | 6.48 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Fri Mar 09 08:35:25 2018 RPT1

8.9.24  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICV2318  
**Lab FileID:** 5P48352.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2318\5p48352.D Vial: 13  
Acq On : 7 Mar 2018 3:09 am Operator: chriss2  
Sample : icv2318-50 Inst : MS5P  
Misc : op6115,e5p2318,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 08:26:57 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|     | Compound                | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----|-------------------------|-------|-------|------|-------|----------|------|
| 101 | 1,4-Dichlorobenzene-d4b | 1.000 | 1.000 | 0.0  | 134   | -0.09    | 4.43 |
| 102 | Benzaldehyde            | 1.178 | 0.940 | 20.2 | 119   | -0.09    | 4.03 |
| 108 | Phenanthrene-d10a       | 1.000 | 1.000 | 0.0  | 120   | -0.10    | 8.82 |
| 110 | Atrazine                | 0.119 | 0.107 | 10.1 | 125   | -0.07    | 8.56 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Fri Mar 09 08:35:27 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2318-ICV2318  
**Lab FileID:** 5P48353.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2318\5p48353.D Vial: 14  
Acq On : 7 Mar 2018 3:34 am Operator: chriss2  
Sample : icv2318-50 Inst : MS5P  
Misc : op6115,e5p2318,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Mar 09 08:26:57 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 108 Phenanthrene-d10a       | 1.000 | 1.000  | 0.0  | 124   | -0.10    | 8.82 |
| 111 Pentachloronitrobenzene | 0.047 | 0.045# | 4.3  | 128   | -0.08    | 8.62 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Fri Mar 09 08:35:29 2018 RPT1

8.9.26

8

# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E5P2381-CC2305  
Lab FileID: 5P49861.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2381\5p49861.D Vial: 2  
Acq On : 1 May 2018 11:25 pm Operator: sufiyana  
Sample : cc2305-50 Inst : MS5P  
Misc : op6115,e5p2381,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Apr 27 14:25:35 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0   | 79    | -0.06    | 4.32 |
| 2 t  | 1,4-Dioxane               | 0.651 | 0.474 | 27.2# | 57    | -0.03    | 1.72 |
| 3 t  | Pyridine                  | 1.586 | 1.072 | 32.4# | 50#   | -0.08    | 2.02 |
| 4 t  | N-Nitrosodimethylamine    | 0.890 | 0.578 | 35.1# | 47#   | -0.03    | 1.99 |
| 5 S  | 2-Fluorophenol            | 1.492 | 1.180 | 20.9# | 59    | -0.04    | 3.18 |
| 6 t  | Indene                    | 2.257 | 2.230 | 1.2   | 79    | 0.00     | 4.55 |
| 7 t  | Cumene                    | 3.463 | 3.203 | 7.5   | 73    | -0.01    | 3.58 |
| 8 S  | Phenol-d5                 | 1.844 | 1.516 | 17.8  | 63    | -0.03    | 4.04 |
| 9 t  | Phenol                    | 1.886 | 1.727 | 8.4   | 74    | -0.03    | 4.05 |
| 10   | Aniline                   | 2.128 | 1.943 | 8.7   | 81    | -0.02    | 4.04 |
| 11 t | bis(2-Chloroethyl)ether   | 1.306 | 1.078 | 17.5  | 65    | -0.01    | 4.10 |
| 12 t | 2-Chlorophenol            | 1.510 | 1.366 | 9.5   | 75    | -0.02    | 4.14 |
| 13 t | Decane                    | 1.328 | 0.829 | 37.6# | 52    | -0.01    | 4.16 |
| 14 t | 1,3-Dichlorobenzene       | 1.789 | 1.547 | 13.5  | 71    | 0.00     | 4.27 |
| 15 t | 1,4-Dichlorobenzene       | 1.729 | 1.574 | 9.0   | 75    | -0.06    | 4.33 |
| 16 t | Benzyl alcohol            | 0.960 | 0.827 | 13.9  | 70    | -0.02    | 4.48 |
| 17 t | 1,2-Dichlorobenzene       | 1.602 | 1.551 | 3.2   | 81    | 0.00     | 4.47 |
| 18 t | Acetophenone              | 1.911 | 1.942 | -1.6  | 85    | -0.01    | 4.71 |
| 19 t | 2-Methylphenol            | 1.285 | 1.220 | 5.1   | 78    | -0.03    | 4.60 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 1.669 | 0.869 | 47.9# | 42#   | -0.01    | 4.59 |
| 21 t | 3&4-Methylphenol          | 1.382 | 1.272 | 8.0   | 73    | -0.03    | 4.75 |
| 22 t | n-Nitroso-di-n-propylamin | 0.937 | 0.944 | -0.7  | 86    | -0.02    | 4.71 |
| 23 t | Hexachloroethane          | 0.625 | 0.474 | 24.2# | 59    | -0.01    | 4.77 |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 82    | -0.05    | 5.52 |
| 25 S | Nitrobenzene-d5           | 0.389 | 0.372 | 4.4   | 80    | -0.05    | 4.85 |
| 26 t | Nitrobenzene              | 0.376 | 0.358 | 4.8   | 82    | -0.05    | 4.87 |
| 27 t | Quinoline                 | 0.751 | 0.738 | 1.7   | 83    | -0.07    | 5.88 |
| 28 t | Isophorone                | 0.678 | 0.634 | 6.5   | 79    | -0.07    | 5.10 |
| 29 t | 2-Nitrophenol             | 0.201 | 0.199 | 1.0   | 77    | -0.05    | 5.17 |
| 30 t | 2,4-Dimethylphenol        | 0.341 | 0.370 | -8.5  | 91    | -0.07    | 5.24 |
| 31 t | Benzoic acid              | 0.276 | 0.258 | 6.5   | 69    | -0.04    | 5.41 |
| 32 t | bis(2-Chloroethoxy)methan | 0.387 | 0.314 | 18.9  | 71    | -0.06    | 5.31 |
| 33 t | 2,4-Dichlorophenol        | 0.352 | 0.289 | 17.9  | 67    | -0.07    | 5.41 |
| 34 t | 2,6-Dichlorophenol        | 0.342 | 0.288 | 15.8  | 72    | -0.07    | 5.62 |
| 35   | 1,3,5-Trichlorobenzene    | 0.371 | 0.315 | 15.1  | 74    | -0.05    | 5.16 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.366 | 0.292 | 20.2# | 69    | -0.05    | 5.47 |
| 37   | 1,2,3-Trichlorobenzene    | 0.345 | 0.289 | 16.2  | 74    | -0.05    | 5.68 |
| 38 t | Naphthalene               | 1.022 | 0.973 | 4.8   | 83    | -0.05    | 5.54 |
| 39 t | 4-Chloroaniline           | 0.448 | 0.416 | 7.1   | 83    | -0.06    | 5.62 |
| 40 t | 2,3-Dichloroaniline       | 0.409 | 0.377 | 7.8   | 80    | -0.07    | 6.50 |
| 41 t | Caprolactam               | 0.180 | 0.111 | 38.3# | 51    | -0.10    | 5.99 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2381-CC2305  
**Lab FileID:** 5P49861.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.212       | 0.168  | 20.8#   | 67    | -0.06 | 5.65  |
| 43 t | 4-Chloro-3-methylphenol   | 0.328       | 0.330  | -0.6    | 84    | -0.07 | 6.13  |
| 44 t | 2-Methylnaphthalene       | 0.646       | 0.633  | 2.0     | 84    | -0.06 | 6.21  |
| 45 t | 1-Methylnaphthalene       | 0.667       | 0.656  | 1.6     | 86    | -0.05 | 6.31  |
| 46 t | Dimethylnaphthalene       | 0.635       | 0.676  | -6.5    | 92    | -0.06 | 6.82  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 90    | -0.06 | 7.22  |
| 48 t | Hexachlorocyclopentadiene | 0.393       | 0.236  | 39.9#   | 52    | -0.06 | 6.35  |
| 49 t | 2,4,6-Trichlorophenol     | 0.462       | 0.340  | 26.4#   | 65    | -0.06 | 6.51  |
| 50 t | 2,4,5-Trichlorophenol     | 0.496       | 0.380  | 23.4#   | 72    | -0.08 | 6.56  |
| 51 S | 2-Fluorobiphenyl          | 1.660       | 1.302  | 21.6#   | 76    | -0.06 | 6.57  |
| 52 t | 2-Chloronaphthalene       | 1.394       | 1.088  | 22.0#   | 77    | -0.05 | 6.69  |
| 53 t | Biphenyl                  | 1.723       | 1.567  | 9.1     | 88    | -0.06 | 6.67  |
| 54 t | 2-Nitroaniline            | 0.376       | 0.352  | 6.4     | 81    | -0.06 | 6.82  |
| 55 t | Dimethylphthalate         | 1.645       | 1.387  | 15.7    | 79    | -0.07 | 6.99  |
| 56 t | Acenaphthylene            | 2.121       | 1.833  | 13.6    | 81    | -0.06 | 7.09  |
| 57 t | 2,6-Dinitrotoluene        | 0.325       | 0.320  | 1.5     | 83    | -0.06 | 7.06  |
| 58 t | 3-Nitroaniline            | 0.417       | 0.347  | 16.8    | 72    | -0.06 | 7.23  |
| 59 t | Acenaphthene              | 1.324       | 1.185  | 10.5    | 86    | -0.06 | 7.25  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 85.366 | 14.6    | 77    | -0.04 | 7.35  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.197       | 0.171  | 13.2    | 72    | -0.10 | 7.46  |
| 62 t | Dibenzofuran              | 1.987       | 1.660  | 16.5    | 82    | -0.06 | 7.43  |
| 63 t | 2,4-Dinitrotoluene        | 0.425       | 0.419  | 1.4     | 86    | -0.05 | 7.46  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.427       | 0.310  | 27.4#   | 64    | -0.06 | 7.57  |
| 65 t | Diethylphthalate          | 1.553       | 1.462  | 5.9     | 88    | -0.07 | 7.68  |
| 66 t | Fluorene                  | 1.589       | 1.376  | 13.4    | 82    | -0.06 | 7.76  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.726       | 0.570  | 21.5#   | 78    | -0.07 | 7.77  |
| 68 t | 4-Nitroaniline            | 0.402       | 0.341  | 15.2    | 75    | -0.06 | 7.84  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 84    | -0.07 | 8.70  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 43.433 | 13.1    | 74    | -0.04 | 7.86  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.654       | 0.569  | 13.0    | 78    | -0.06 | 7.90  |
| 72 t | 1,2-Diphenylhydrazine     | 0.788       | 0.774  | 1.8     | 88    | -0.07 | 7.92  |
| 73 S | 2,4,6-Tribromophenol      | 0.142       | 0.117  | 17.6    | 67    | -0.06 | 8.00  |
| 74 t | 4-Bromophenyl-phenylether | 0.267       | 0.223  | 16.5    | 73    | -0.07 | 8.25  |
| 75 t | Hexachlorobenzene         | 0.304       | 0.249  | 18.1    | 75    | -0.06 | 8.29  |
| 76 t | Pentachlorophenol         | 0.178       | 0.120  | 32.6#   | 53    | -0.07 | 8.52  |
| 77 t | Phenanthrene              | 1.210       | 1.024  | 15.4    | 78    | -0.07 | 8.73  |
| 78 t | Anthracene                | 1.224       | 1.127  | 7.9     | 83    | -0.07 | 8.78  |
| 79 t | Carbazole                 | 1.284       | 1.097  | 14.6    | 76    | -0.07 | 8.99  |
| 80 t | Di-n-butylphthalate       | 1.437       | 1.487  | -3.5    | 84    | -0.09 | 9.40  |
| 81 t | Fluoranthene              | 1.396       | 1.202  | 13.9    | 74    | -0.07 | 10.14 |
| 82 t | Octadecane                | 0.508       | 0.370  | 27.2#   | 62    | -0.08 | 8.60  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 80    | -0.09 | 12.16 |
| 84 t | Pyrene                    | 1.507       | 1.321  | 12.3    | 71    | -0.09 | 10.43 |
| 85 S | Terphenyl-d14             | 1.013       | 0.993  | 2.0     | 77    | -0.09 | 10.68 |
| 86 t | Butylbenzylphthalate      | 0.645       | 0.749  | -16.1   | 81    | -0.12 | 11.40 |
| 87 t | Benzo[a]anthracene        | 1.356       | 1.221  | 10.0    | 70    | -0.09 | 12.14 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.476       | 0.451  | 5.3     | 70    | -0.11 | 12.15 |
| 89 t | Chrysene                  | 1.337       | 1.178  | 11.9    | 71    | -0.09 | 12.19 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.819       | 0.970  | -18.4   | 82    | -0.12 | 12.27 |



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2381-CC2305  
**Lab FileID:** 5P49861.D

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|     |   |                           |       |       |        |    |       |       |
|-----|---|---------------------------|-------|-------|--------|----|-------|-------|
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0    | 69 | -0.11 | 14.18 |
| 92  | t | Di-n-octylphthalate       | 1.360 | 1.687 | -24.0# | 76 | -0.06 | 13.23 |
| 93  | t | Benzo[b]fluoranthene      | 1.242 | 1.085 | 12.6   | 60 | -0.10 | 13.68 |
| 94  | t | Benzo[k]fluoranthene      | 1.254 | 1.224 | 2.4    | 72 | -0.10 | 13.72 |
| 95  | t | Benzo[a]pyrene            | 1.136 | 1.101 | 3.1    | 65 | -0.02 | 14.11 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.984 | 1.111 | -12.9  | 72 | 0.00  | 15.57 |
| 97  | t | Dibenz(a,h)acridine       | 0.956 | 1.017 | -6.4   | 69 | -0.02 | 15.27 |
| 98  | t | Dibenz[a,h]anthracene     | 1.042 | 1.161 | -11.4  | 72 | 0.00  | 15.61 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.507 | 0.602 | -18.7  | 76 | -0.03 | 13.66 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075 | 1.100 | -2.3   | 70 | -0.20 | 15.96 |

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(#) = Out of Range  
5p48343a.D M5P2318.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:27:00 2018 RPT1

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2381-CC2318  
**Lab FileID:** 5P49862.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2381\5p49862.D Vial: 3  
Acq On : 1 May 2018 11:50 pm Operator: sufiyana  
Sample : cc2318-50 Inst : MS5P  
Misc : op6115,e5p2381,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Fri Apr 27 14:25:35 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|-------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4b   | 1.000 | 1.000  | 0.0   | 71    | -0.06    | 4.32  |
| 102   | Benzaldehyde              | 1.178 | 0.905  | 23.2# | 61    | -0.06    | 3.93  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0   | 91    | -0.06    | 7.22  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.671 | 0.502  | 25.2# | 75    | -0.03    | 6.37  |
| 105   | Chrysene-d12a             | 1.000 | 1.000  | 0.0   | 90    | -0.10    | 12.15 |
| 106   | Benzidine                 | 0.968 | 0.390  | 59.7# | 39#   | -0.04    | 10.37 |
| 107 s | 1-chlorooctadecane        | 0.421 | 0.246  | 41.6# | 59    | -0.06    | 10.03 |
| 108   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0   | 81    | -0.07    | 8.70  |
| 109 s | o-terphenyl               | 0.614 | 0.589  | 4.1   | 88    | -0.09    | 9.13  |
| 110   | Atrazine                  | 0.119 | 0.112  | 5.9   | 87    | -0.05    | 8.45  |
| 111   | Pentachloronitrobenzene   | 0.047 | 0.048# | -2.1  | 88    | -0.05    | 8.51  |
| 112 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0   | 75    | -0.06    | 5.52  |
| 113   | Hydroquinone              | 0.354 | 0.300  | 15.3  | 64    | -0.11    | 6.01  |

(#) = Out of Range  
5p48343a.D M5P2318.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 08:48:14 2018 RPT1

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2382-ECC2305  
**Lab FileID:** 5P49903A.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2382\5p49903a.D Vial: 2  
 Acq On : 2 May 2018 7:43 pm Operator: christc2  
 Sample : ecc2305-25 Inst : MS5P  
 Misc : op11502,e5p2382,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 Last Update : Wed May 02 12:01:30 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|------|---------------------------|-------|-------|-------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0   | 89    | -0.03    | 4.31 |
| 2 t  | 1,4-Dioxane               | 0.651 | 0.491 | 24.6  | 69    | -0.01    | 1.72 |
| 3 t  | Pyridine                  | 1.586 | 1.065 | 32.8  | 59    | -0.07    | 2.01 |
| 4 t  | N-Nitrosodimethylamine    | 0.890 | 0.603 | 32.2  | 60    | 0.00     | 1.99 |
| 5 S  | 2-Fluorophenol            | 1.492 | 1.223 | 18.0  | 70    | -0.01    | 3.18 |
| 6 t  | Indene                    | 2.257 | 2.368 | -4.9  | 94    | 0.02     | 4.54 |
| 7 t  | Cumene                    | 3.463 | 3.501 | -1.1  | 89    | 0.00     | 3.57 |
| 8 S  | Phenol-d5                 | 1.844 | 1.579 | 14.4  | 75    | 0.00     | 4.04 |
| 9 t  | Phenol                    | 1.886 | 1.775 | 5.9   | 84    | 0.00     | 4.05 |
| 10   | Aniline                   | 2.128 | 1.727 | 18.8  | 73    | 0.00     | 4.02 |
| 11 t | bis(2-Chloroethyl)ether   | 1.306 | 1.102 | 15.6  | 76    | 0.01     | 4.09 |
| 12 t | 2-Chlorophenol            | 1.510 | 1.442 | 4.5   | 87    | 0.00     | 4.13 |
| 13 t | Decane                    | 1.328 | 0.838 | 36.9  | 58    | 0.01     | 4.15 |
| 14 t | 1,3-Dichlorobenzene       | 1.789 | 1.753 | 2.0   | 89    | 0.02     | 4.25 |
| 15 t | 1,4-Dichlorobenzene       | 1.729 | 1.642 | 5.0   | 89    | -0.03    | 4.32 |
| 16 t | Benzyl alcohol            | 0.960 | 0.830 | 13.5  | 78    | 0.02     | 4.47 |
| 17 t | 1,2-Dichlorobenzene       | 1.602 | 1.638 | -2.2  | 94    | 0.02     | 4.46 |
| 18 t | Acetophenone              | 1.911 | 1.991 | -4.2  | 94    | 0.02     | 4.70 |
| 19 t | 2-Methylphenol            | 1.285 | 1.291 | -0.5  | 90    | 0.00     | 4.59 |
| 20 t | 2,2'-oxybis(1-Chloropropa | 1.669 | 0.872 | 47.8  | 48#   | 0.02     | 4.58 |
| 21 t | 3&4-Methylphenol          | 1.382 | 1.325 | 4.1   | 86    | 0.00     | 4.74 |
| 22 t | n-Nitroso-di-n-propylamin | 0.937 | 1.016 | -8.4  | 100   | 0.00     | 4.70 |
| 23 t | Hexachloroethane          | 0.625 | 0.533 | 14.7  | 76    | 0.02     | 4.76 |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 95    | -0.03    | 5.51 |
| 25 S | Nitrobenzene-d5           | 0.389 | 0.432 | -11.1 | 104   | -0.03    | 4.84 |
| 26 t | Nitrobenzene              | 0.376 | 0.397 | -5.6  | 100   | -0.03    | 4.86 |
| 27 t | Quinoline                 | 0.751 | 0.780 | -3.9  | 97    | -0.05    | 5.87 |
| 28 t | Isophorone                | 0.678 | 0.665 | 1.9   | 91    | -0.05    | 5.08 |
| 29 t | 2-Nitrophenol             | 0.201 | 0.221 | -10.0 | 93    | -0.03    | 5.16 |
| 30 t | 2,4-Dimethylphenol        | 0.341 | 0.379 | -11.1 | 100   | -0.04    | 5.23 |
| 31 t | Benzoic acid              | 0.276 | 0.286 | -3.6  | 95    | -0.04    | 5.39 |
| 32 t | bis(2-Chloroethoxy)methan | 0.387 | 0.333 | 14.0  | 81    | -0.04    | 5.30 |
| 33 t | 2,4-Dichlorophenol        | 0.352 | 0.313 | 11.1  | 79    | -0.05    | 5.41 |
| 34 t | 2,6-Dichlorophenol        | 0.342 | 0.308 | 9.9   | 84    | -0.04    | 5.61 |
| 35   | 1,3,5-Trichlorobenzene    | 0.371 | 0.344 | 7.3   | 86    | -0.03    | 5.15 |
| 36 t | 1,2,4-Trichlorobenzene    | 0.366 | 0.328 | 10.4  | 83    | -0.03    | 5.46 |
| 37   | 1,2,3-Trichlorobenzene    | 0.345 | 0.312 | 9.6   | 84    | -0.03    | 5.67 |
| 38 t | Naphthalene               | 1.022 | 1.061 | -3.8  | 98    | -0.04    | 5.53 |
| 39 t | 4-Chloroaniline           | 0.448 | 0.452 | -0.9  | 95    | -0.04    | 5.61 |
| 40 t | 2,3-Dichloroaniline       | 0.409 | 0.402 | 1.7   | 91    | -0.04    | 6.49 |
| 41 t | Caprolactam               | 0.180 | 0.120 | 33.3  | 62    | -0.08    | 5.97 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2382-ECC2305  
**Lab FileID:** 5P49903A.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.212       | 0.184  | 13.2    | 80    | -0.04 | 5.63  |
| 43 t | 4-Chloro-3-methylphenol   | 0.328       | 0.376  | -14.6   | 102   | -0.05 | 6.12  |
| 44 t | 2-Methylanthralene        | 0.646       | 0.657  | -1.7    | 94    | -0.03 | 6.20  |
| 45 t | 1-Methylanthralene        | 0.667       | 0.707  | -6.0    | 100   | -0.03 | 6.29  |
| 46 t | Dimethylanthralene        | 0.635       | 0.730  | -15.0   | 107   | -0.04 | 6.81  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 103   | -0.04 | 7.21  |
| 48 t | Hexachlorocyclopentadiene | 0.393       | 0.220  | 44.0    | 54    | -0.04 | 6.33  |
| 49 t | 2,4,6-Trichlorophenol     | 0.462       | 0.359  | 22.3    | 77    | -0.04 | 6.50  |
| 50 t | 2,4,5-Trichlorophenol     | 0.496       | 0.423  | 14.7    | 87    | -0.05 | 6.55  |
| 51 S | 2-Fluorobiphenyl          | 1.660       | 1.456  | 12.3    | 93    | -0.04 | 6.56  |
| 52 t | 2-Chloronaphthalene       | 1.394       | 1.188  | 14.8    | 92    | -0.03 | 6.67  |
| 53 t | Biphenyl                  | 1.723       | 1.634  | 5.2     | 99    | -0.04 | 6.66  |
| 54 t | 2-Nitroaniline            | 0.376       | 0.385  | -2.4    | 98    | -0.04 | 6.81  |
| 55 t | Dimethylphthalate         | 1.645       | 1.499  | 8.9     | 94    | -0.04 | 6.98  |
| 56 t | Acenaphthylene            | 2.121       | 2.013  | 5.1     | 97    | -0.03 | 7.08  |
| 57 t | 2,6-Dinitrotoluene        | 0.325       | 0.345  | -6.2    | 100   | -0.03 | 7.05  |
| 58 t | 3-Nitroaniline            | 0.417       | 0.375  | 10.1    | 87    | -0.03 | 7.22  |
| 59 t | Acenaphthene              | 1.324       | 1.290  | 2.6     | 103   | -0.04 | 7.24  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 44.095 | 11.8    | 95    | -0.02 | 7.34  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.197       | 0.179  | 9.1     | 88    | -0.06 | 7.46  |
| 62 t | Dibenzofuran              | 1.987       | 1.826  | 8.1     | 97    | -0.04 | 7.41  |
| 63 t | 2,4-Dinitrotoluene        | 0.425       | 0.488  | -14.8   | 108   | -0.02 | 7.45  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.427       | 0.312  | 26.9    | 71    | -0.03 | 7.56  |
| 65 t | Diethylphthalate          | 1.553       | 1.598  | -2.9    | 105   | -0.05 | 7.66  |
| 66 t | Fluorene                  | 1.589       | 1.495  | 5.9     | 98    | -0.03 | 7.75  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.726       | 0.641  | 11.7    | 95    | -0.04 | 7.75  |
| 68 t | 4-Nitroaniline            | 0.402       | 0.367  | 8.7     | 93    | -0.03 | 7.82  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 98    | -0.04 | 8.69  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 25.000      | 22.544 | 9.8     | 89    | -0.02 | 7.84  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.654       | 0.597  | 8.7     | 88    | -0.04 | 7.89  |
| 72 t | 1,2-Diphenylhydrazine     | 0.788       | 0.839  | -6.5    | 103   | -0.04 | 7.91  |
| 73 S | 2,4,6-Tribromophenol      | 0.142       | 0.128  | 9.9     | 84    | -0.04 | 7.99  |
| 74 t | 4-Bromophenyl-phenylether | 0.267       | 0.249  | 6.7     | 91    | -0.04 | 8.23  |
| 75 t | Hexachlorobenzene         | 0.304       | 0.283  | 6.9     | 93    | -0.03 | 8.28  |
| 76 t | Pentachlorophenol         | 0.178       | 0.118  | 33.7    | 60    | -0.04 | 8.51  |
| 77 t | Phenanthrene              | 1.210       | 1.122  | 7.3     | 94    | -0.04 | 8.72  |
| 78 t | Anthracene                | 1.224       | 1.243  | -1.6    | 98    | -0.04 | 8.77  |
| 79 t | Carbazole                 | 1.284       | 1.214  | 5.5     | 91    | -0.04 | 8.98  |
| 80 t | Di-n-butylphthalate       | 1.437       | 1.672  | -16.4   | 105   | -0.06 | 9.38  |
| 81 t | Fluoranthene              | 1.396       | 1.328  | 4.9     | 90    | -0.04 | 10.12 |
| 82 t | Octadecane                | 0.508       | 0.383  | 24.6    | 70    | -0.05 | 8.59  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 94    | -0.05 | 12.13 |
| 84 t | Pyrene                    | 1.507       | 1.440  | 4.4     | 89    | -0.05 | 10.41 |
| 85 S | Terphenyl-d14             | 1.013       | 1.115  | -10.1   | 100   | -0.06 | 10.66 |
| 86 t | Butylbenzylphthalate      | 0.645       | 0.813  | -26.0   | 107   | -0.08 | 11.39 |
| 87 t | Benzo[a]anthracene        | 1.356       | 1.280  | 5.6     | 87    | -0.05 | 12.12 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.476       | 0.485  | -1.9    | 89    | -0.07 | 12.13 |
| 89 t | Chrysene                  | 1.337       | 1.286  | 3.8     | 91    | -0.05 | 12.17 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.819       | 1.019  | -24.4   | 103   | -0.08 | 12.26 |

8.9.29

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2382-ECC2305  
**Lab FileID:** 5P49903A.D

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|     |   |                           |       |       |       |     |       |       |
|-----|---|---------------------------|-------|-------|-------|-----|-------|-------|
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0   | 88  | -0.06 | 14.16 |
| 92  | t | Di-n-octylphthalate       | 1.360 | 1.754 | -29.0 | 98  | -0.02 | 13.21 |
| 93  | t | Benzo[b]fluoranthene      | 1.242 | 1.170 | 5.8   | 78  | -0.06 | 13.66 |
| 94  | t | Benzo[k]fluoranthene      | 1.254 | 1.262 | -0.6  | 87  | -0.07 | 13.69 |
| 95  | t | Benzo[a]pyrene            | 1.136 | 1.166 | -2.6  | 85  | 0.02  | 14.08 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.984 | 1.078 | -9.6  | 87  | 0.03  | 15.54 |
| 97  | t | Dibenz(a,h)acridine       | 0.956 | 1.124 | -17.6 | 94  | 0.02  | 15.24 |
| 98  | t | Dibenz[a,h]anthracene     | 1.042 | 1.279 | -22.7 | 102 | 0.03  | 15.57 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.507 | 0.573 | -13.0 | 89  | 0.00  | 13.64 |
| 100 | t | Benzo[g,h,i]perylene      | 1.075 | 1.211 | -12.7 | 94  | -0.17 | 15.92 |

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(#) = Out of Range  
5p48344a.D M5P2318.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 13:03:58 2018 RPT1

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E5P2382-ECC2318  
**Lab FileID:** 5P49904.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E5P2382\5p49904.D Vial: 3  
Acq On : 2 May 2018 8:08 pm Operator: christc2  
Sample : ecc2318-50 Inst : MS5P  
Misc : op11502,e5p2382,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M5P2318.M (RTE Integrator)  
Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
Last Update : Wed May 02 12:01:30 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 50% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4b   | 1.000 | 1.000  | 0.0  | 74    | -0.03    | 4.31  |
| 102   | Benzaldehyde              | 1.178 | 0.919  | 22.0 | 65    | -0.03    | 3.92  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0  | 98    | -0.04    | 7.21  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.671 | 0.496  | 26.1 | 81    | -0.01    | 6.36  |
| 105   | Chrysene-d12a             | 1.000 | 1.000  | 0.0  | 89    | -0.06    | 12.12 |
| 106   | Benzidine                 | 0.968 | 0.552  | 43.0 | 54    | 0.00     | 10.35 |
| 107 s | 1-chlorooctadecane        | 0.421 | 0.268  | 36.3 | 64    | -0.03    | 10.01 |
| 108   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0  | 82    | -0.04    | 8.69  |
| 109 s | o-terphenyl               | 0.614 | 0.623  | -1.5 | 94    | -0.06    | 9.12  |
| 110   | Atrazine                  | 0.119 | 0.120  | -0.8 | 95    | -0.02    | 8.44  |
| 111   | Pentachloronitrobenzene   | 0.047 | 0.045# | 4.3  | 83    | -0.03    | 8.50  |
| 112 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0  | 82    | -0.04    | 5.50  |
| 113   | Hydroquinone              | 0.354 | 0.296  | 16.4 | 69    | -0.08    | 6.01  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
5p48343a.D M5P2318.M Sat May 05 08:03:01 2018 RPT1

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICC2164  
**Lab FileID:** 6P471777.D

## Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
Last Update : Mon Apr 16 09:33:00 2018  
Response via : Initial Calibration

### Calibration Files

2 =6p471781.D 5 =6p471780.D 25 =6p471778.D 80 =6p471776.D  
100 =6p471775.D 50 =6p471777.D 1 =6p471782.D 10 =6p471779.D

| Compound                   | 2              | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg   | %RSD  |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                      |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane             | 0.769          | 0.686 | 0.657 | 0.621 | 0.646 | 0.636 | 0.780 | 0.674 | 0.684 | 8.74  |
| 3) Pyridine                | 1.975          | 1.991 | 1.818 | 1.697 | 1.775 | 1.725 | 2.124 | 1.767 | 1.859 | 8.19  |
| 4) N-Nitrosodim            | 1.184          | 1.134 | 1.030 | 0.973 | 1.011 | 1.003 | 1.239 | 1.052 | 1.078 | 8.90  |
| 5) 2-Fluorophen            | 1.606          | 1.528 | 1.419 | 1.310 | 1.309 | 1.351 | 1.684 | 1.455 | 1.458 | 9.52  |
| 6) Indene                  | 2.744          | 2.696 | 2.316 | 1.881 | 1.783 | 2.080 | 2.819 | 2.463 | 2.348 | 17.05 |
| 7) Cumene                  | 4.126          | 3.939 | 3.482 | 3.052 | 2.971 | 3.194 | 4.235 | 3.585 | 3.573 | 13.65 |
| 8) Phenol-d5               | 2.103          | 2.014 | 1.808 | 1.665 | 1.641 | 1.705 | 2.048 | 1.872 | 1.857 | 9.78  |
| 9) Phenol                  | 2.430          | 2.335 | 2.060 | 1.777 | 1.686 | 1.876 | 2.399 | 2.187 | 2.094 | 13.85 |
| 10) Aniline                | 2.707          | 2.630 | 2.162 | 1.913 | 1.829 | 1.970 | 2.818 | 2.345 | 2.297 | 16.81 |
| 11) bis(2-Chloro           | 1.640          | 1.567 | 1.397 | 1.271 | 1.289 | 1.318 | 1.756 | 1.449 | 1.461 | 12.15 |
| 12) 2-Chlorophen           | 1.732          | 1.632 | 1.463 | 1.300 | 1.295 | 1.368 | 1.769 | 1.507 | 1.508 | 12.38 |
| 13) Decane                 | 2.238          | 2.131 | 1.884 | 1.567 | 1.532 | 1.711 | 2.292 | 1.997 | 1.919 | 15.38 |
| 14) 1,3-Dichloro           | 1.931          | 1.869 | 1.649 | 1.459 | 1.449 | 1.536 | 1.990 | 1.710 | 1.699 | 12.52 |
| 15) 1,4-Dichloro           | 1.941          | 1.824 | 1.649 | 1.453 | 1.422 | 1.532 | 2.152 | 1.732 | 1.713 | 14.75 |
| 16) Benzyl alcoh           | 1.101          | 1.059 | 1.006 | 0.895 | 0.882 | 0.930 | 1.175 | 1.014 | 1.008 | 10.20 |
| 17) 1,2-Dichloro           | 1.837          | 1.767 | 1.556 | 1.341 | 1.290 | 1.429 | 2.014 | 1.633 | 1.608 | 15.76 |
| 18) Acetophenone           | 2.329          | 2.221 | 1.856 | 1.506 | 1.467 | 1.639 | 2.413 | 2.015 | 1.931 | 19.27 |
| 19) 2-Methylphen           | 1.562          | 1.545 | 1.332 | 1.097 | 1.059 | 1.189 | 1.635 | 1.390 | 1.351 | 16.32 |
| 20) 2,2'-oxybis(           | 0.518          | 0.482 | 0.434 | 0.398 | 0.396 | 0.409 | 0.537 | 0.451 | 0.453 | 11.98 |
| 21) 3&4-Methylph           | 1.695          | 1.610 | 1.339 | 1.082 | 1.046 | 1.194 | 1.723 | 1.478 | 1.396 | 19.40 |
| 22) n-Nitroso-di           | 1.302          | 1.223 | 1.030 | 0.865 | 0.872 | 0.912 | 1.351 | 1.118 | 1.084 | 17.95 |
| 23) Hexachloroet           | 0.648          | 0.633 | 0.587 | 0.541 | 0.534 | 0.565 | 0.686 | 0.597 | 0.599 | 8.91  |
| -----                      |                |       |       |       |       |       |       |       |       |       |
| 24) I Naphthalene-d8       | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene           | 0.474          | 0.471 | 0.429 | 0.393 | 0.385 | 0.402 | 0.489 | 0.429 | 0.434 | 9.17  |
| 26) Nitrobenzene           | 0.459          | 0.450 | 0.403 | 0.366 | 0.358 | 0.375 | 0.474 | 0.409 | 0.412 | 10.86 |
| 27) Quinoline              | 0.802          | 0.765 | 0.692 | 0.646 | 0.640 | 0.657 | 0.798 | 0.690 | 0.712 | 9.47  |
| 28) Isophorone             | 0.778          | 0.767 | 0.690 | 0.621 | 0.616 | 0.641 | 0.811 | 0.698 | 0.703 | 10.72 |
| 29) 2-Nitropheno           | 0.223          | 0.216 | 0.205 | 0.184 | 0.181 | 0.191 | 0.206 | 0.202 | 0.201 | 7.36  |
| 30) 2,4-Dimethyl           | 0.369          | 0.375 | 0.324 | 0.309 | 0.304 | 0.311 | 0.381 | 0.341 | 0.339 | 9.40  |
| 31) Benzoic acid           | 0.194          | 0.258 | 0.286 | 0.290 | 0.298 | 0.293 | 0.181 | 0.260 | 0.257 | 17.82 |
| 32) bis(2-Chloro           | 0.458          | 0.452 | 0.396 | 0.352 | 0.340 | 0.363 | 0.463 | 0.396 | 0.403 | 12.39 |
| 33) 2,4-Dichloro           | 0.340          | 0.347 | 0.307 | 0.278 | 0.267 | 0.290 | 0.364 | 0.314 | 0.313 | 11.08 |
| 34) 2,6-Dichloro           | 0.355          | 0.338 | 0.300 | 0.265 | 0.252 | 0.275 | 0.358 | 0.301 | 0.306 | 13.35 |
| 35) 1,3,5-Trichl           | 0.400          | 0.390 | 0.348 | 0.299 | 0.282 | 0.312 | 0.405 | 0.357 | 0.349 | 13.60 |
| 36) 1,2,4-Trichl           | 0.384          | 0.382 | 0.335 | 0.299 | 0.290 | 0.310 | 0.393 | 0.342 | 0.342 | 11.90 |
| 37) 1,2,3-Trichl           | 0.369          | 0.370 | 0.323 | 0.284 | 0.274 | 0.296 | 0.385 | 0.330 | 0.329 | 12.84 |
| 38) Naphthalene            | 1.216          | 1.181 | 1.017 | 0.866 | 0.834 | 0.923 | 1.287 | 1.062 | 1.048 | 16.08 |
| 39) 4-Chloroanil           | 0.526          | 0.508 | 0.442 | 0.378 | 0.356 | 0.396 | 0.537 | 0.452 | 0.449 | 15.51 |
| 40) 2,3-Dichloro           | 0.416          | 0.418 | 0.361 | 0.315 | 0.302 | 0.328 | 0.420 | 0.369 | 0.366 | 13.15 |
| 41) Caprolactam            | 0.220          | 0.213 | 0.193 | 0.184 | 0.185 | 0.184 | 0.204 | 0.191 | 0.197 | 6.99  |
| 42) Hexachlorobu           | 0.215          | 0.211 | 0.191 | 0.170 | 0.166 | 0.178 | 0.218 | 0.194 | 0.193 | 10.58 |
| 43) 4-Chloro-3-m           | 0.336          | 0.335 | 0.307 | 0.281 | 0.279 | 0.287 | 0.340 | 0.307 | 0.309 | 8.26  |
| 44) 2-Methylnaph           | 0.694          | 0.688 | 0.604 | 0.518 | 0.505 | 0.548 | 0.728 | 0.623 | 0.613 | 13.87 |
| 45) 1-Methylnaph           | 0.720          | 0.712 | 0.620 | 0.538 | 0.516 | 0.562 | 0.774 | 0.635 | 0.635 | 14.77 |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICC2164  
**Lab FileID:** 6P471777.D

|     |                                  |                                      |       |       |       |       |       |       |       |       |                      |
|-----|----------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 46) | Dimethylnaph                     | 0.767                                | 0.771 | 0.670 | 0.583 | 0.557 | 0.621 | 0.786 | 0.680 | 0.680 | 13.06                |
| 47) | I Acenaphthene-d10               | -----ISTD-----                       |       |       |       |       |       |       |       |       |                      |
| 48) | Hexachlorocy                     | 0.382                                | 0.395 | 0.376 | 0.347 | 0.345 | 0.357 | 0.383 | 0.378 | 0.370 | 4.97                 |
| 49) | 2,4,6-Trichl                     | 0.410                                | 0.426 | 0.371 | 0.329 | 0.329 | 0.348 | 0.417 | 0.377 | 0.376 | 10.36                |
| 50) | 2,4,5-Trichl                     | 0.440                                | 0.465 | 0.416 | 0.383 | 0.381 | 0.400 | 0.492 | 0.409 | 0.423 | 9.32                 |
| 51) | 2-Fluorobiph                     | 1.768                                | 1.709 | 1.491 | 1.318 | 1.286 | 1.388 | 1.827 | 1.556 | 1.543 | 13.47                |
| 52) | 2-Chloronaph                     | 1.489                                | 1.401 | 1.232 | 1.084 | 1.053 | 1.138 | 1.494 | 1.247 | 1.267 | 13.89                |
| 53) | Biphenyl                         | 1.987                                | 1.929 | 1.681 | 1.432 | 1.389 | 1.522 | 2.040 | 1.719 | 1.712 | 14.81                |
| 54) | 2-Nitroanili                     | 0.408                                | 0.428 | 0.403 | 0.376 | 0.378 | 0.390 | 0.433 | 0.405 | 0.403 | 5.22                 |
| 55) | Dimethylphth                     | 1.554                                | 1.503 | 1.344 | 1.232 | 1.225 | 1.273 | 1.580 | 1.342 | 1.382 | 10.45                |
| 56) | Acenaphthyle                     | 2.217                                | 2.148 | 1.892 | 1.660 | 1.657 | 1.765 | 2.295 | 1.945 | 1.947 | 12.83                |
| 57) | 2,6-Dinitro                      | 0.319                                | 0.317 | 0.318 | 0.294 | 0.303 | 0.298 | 0.301 | 0.302 | 0.307 | 3.23                 |
| 58) | 3-Nitroanili                     | 0.418                                | 0.411 | 0.385 | 0.359 | 0.365 | 0.367 | 0.379 | 0.382 | 0.383 | 5.54                 |
| 59) | Acenaphthene                     | 1.575                                | 1.509 | 1.326 | 1.151 | 1.133 | 1.218 | 1.593 | 1.355 | 1.357 | 13.63                |
| 60) | 2,4-Dinitrop                     | 0.085                                | 0.115 | 0.175 | 0.189 | 0.195 | 0.183 |       | 0.135 | 0.154 | 27.44                |
|     | ----- Quadratic regression ----- |                                      |       |       |       |       |       |       |       |       | Coefficient = 0.9999 |
|     | Response Ratio =                 | -0.01506 + 0.17969 *A + 0.00352 *A^2 |       |       |       |       |       |       |       |       |                      |
| 61) | 4-Nitropheno                     | 0.177                                | 0.186 | 0.192 | 0.185 | 0.192 | 0.189 | 0.190 | 0.180 | 0.186 | 3.00                 |
| 62) | Dibenzofuran                     | 2.038                                | 1.951 | 1.703 | 1.467 | 1.423 | 1.568 | 2.099 | 1.792 | 1.755 | 14.75                |
| 63) | 2,4-Dinitrot                     | 0.405                                | 0.445 | 0.428 | 0.377 | 0.378 | 0.405 | 0.382 | 0.410 | 0.404 | 6.04                 |
| 64) | 2,3,4,6-Tetr                     | 0.374                                | 0.397 | 0.391 | 0.361 | 0.365 | 0.369 | 0.376 | 0.370 | 0.375 | 3.31                 |
| 65) | Diethylphtha                     | 1.485                                | 1.431 | 1.296 | 1.159 | 1.157 | 1.225 | 1.520 | 1.319 | 1.324 | 10.73                |
| 66) | Fluorene                         | 1.672                                | 1.593 | 1.374 | 1.150 | 1.112 | 1.249 | 1.686 | 1.439 | 1.409 | 16.16                |
| 67) | 4-Chlorophen                     | 0.786                                | 0.779 | 0.661 | 0.566 | 0.552 | 0.602 | 0.810 | 0.684 | 0.680 | 15.08                |
| 68) | 4-Nitroanili                     | 0.409                                | 0.425 | 0.389 | 0.372 | 0.384 | 0.380 | 0.423 | 0.387 | 0.396 | 5.11                 |
| 69) | I Phenanthrene-d10               | -----ISTD-----                       |       |       |       |       |       |       |       |       |                      |
| 70) | 4,6-Dinitro-                     | 0.089                                | 0.119 | 0.146 | 0.157 | 0.155 | 0.151 |       | 0.124 | 0.135 | 18.50                |
| 71) | n-Nitrosodip                     | 0.622                                | 0.609 | 0.543 | 0.501 | 0.483 | 0.511 | 0.623 | 0.564 | 0.557 | 10.10                |
| 72) | 1,2-Diphenyl                     | 0.967                                | 0.938 | 0.832 | 0.727 | 0.698 | 0.754 | 0.985 | 0.862 | 0.845 | 13.21                |
| 73) | 2,4,6-Tribro                     | 0.153                                | 0.158 | 0.153 | 0.148 | 0.146 | 0.145 | 0.151 | 0.149 | 0.150 | 2.82                 |
| 74) | 4-Bromopheny                     | 0.266                                | 0.268 | 0.239 | 0.226 | 0.217 | 0.225 | 0.280 | 0.246 | 0.246 | 9.45                 |
| 75) | Hexachlorobe                     | 0.324                                | 0.310 | 0.278 | 0.264 | 0.258 | 0.269 | 0.345 | 0.292 | 0.292 | 10.66                |
| 76) | Pentachlorop                     | 0.152                                | 0.171 | 0.169 | 0.167 | 0.163 | 0.163 | 0.146 | 0.168 | 0.162 | 5.39                 |
| 77) | Phenanthrene                     | 1.404                                | 1.338 | 1.174 | 1.055 | 1.000 | 1.064 | 1.479 | 1.214 | 1.216 | 14.47                |
| 78) | Anthracene                       | 1.375                                | 1.371 | 1.197 | 1.088 | 1.030 | 1.106 | 1.442 | 1.235 | 1.231 | 12.38                |
| 79) | Carbazole                        | 1.321                                | 1.272 | 1.121 | 1.013 | 0.970 | 1.033 | 1.269 | 1.156 | 1.145 | 11.63                |
| 80) | Di-n-butylph                     | 1.388                                | 1.354 | 1.251 | 1.122 | 1.079 | 1.158 | 1.414 | 1.275 | 1.255 | 10.03                |
| 81) | Fluoranthene                     | 1.452                                | 1.441 | 1.293 | 1.173 | 1.153 | 1.213 | 1.487 | 1.337 | 1.318 | 10.01                |
| 82) | Octadecane                       | 0.657                                | 0.641 | 0.588 | 0.493 | 0.466 | 0.522 | 0.649 | 0.612 | 0.579 | 12.96                |
| 83) | I Chrysene-d12                   | -----ISTD-----                       |       |       |       |       |       |       |       |       |                      |
| 84) | Pyrene                           | 1.460                                | 1.469 | 1.301 | 1.185 | 1.152 | 1.237 | 1.548 | 1.343 | 1.337 | 10.79                |
| 85) | Terphenyl-dl                     | 1.071                                | 1.027 | 0.925 | 0.887 | 0.851 | 0.882 | 1.064 | 0.938 | 0.956 | 9.07                 |
| 86) | Butylbenzylp                     | 0.549                                | 0.567 | 0.536 | 0.500 | 0.492 | 0.508 | 0.556 | 0.529 | 0.529 | 5.19                 |
| 87) | Benzo[a]anth                     | 1.409                                | 1.357 | 1.195 | 1.102 | 1.067 | 1.135 | 1.512 | 1.250 | 1.253 | 12.69                |
| 88) | 3,3'-Dichlor                     | 0.512                                | 0.528 | 0.467 | 0.440 | 0.429 | 0.453 | 0.516 | 0.473 | 0.477 | 7.81                 |
| 89) | Chrysene                         | 1.356                                | 1.354 | 1.184 | 1.115 | 1.079 | 1.148 | 1.468 | 1.210 | 1.239 | 11.10                |
| 90) | bis(2-Ethylh                     | 0.780                                | 0.817 | 0.749 | 0.689 | 0.664 | 0.706 | 0.784 | 0.761 | 0.744 | 7.07                 |
| 91) | I Perylene-d12                   | -----ISTD-----                       |       |       |       |       |       |       |       |       |                      |
| 92) | Di-n-octylph                     | 1.303                                | 1.344 | 1.264 | 1.112 | 1.038 | 1.183 | 1.270 | 1.258 | 1.221 | 8.44                 |
| 93) | Benzo[b]fluo                     | 1.383                                | 1.395 | 1.244 | 1.144 | 1.180 | 1.157 | 1.376 | 1.255 | 1.267 | 8.28                 |
| 94) | Benzo[k]fluo                     | 1.332                                | 1.235 | 1.131 | 1.038 | 0.900 | 1.084 | 1.377 | 1.166 | 1.158 | 13.51                |
| 95) | Benzo[a]pyre                     | 1.239                                | 1.225 | 1.090 | 1.027 | 0.991 | 1.039 | 1.248 | 1.116 | 1.122 | 9.19                 |
| 96) | Indeno[1,2,3                     | 1.629                                | 1.561 | 1.438 | 1.361 | 1.341 | 1.386 | 1.639 | 1.460 | 1.477 | 8.02                 |
| 97) | Dibenz(a,h)a                     | 1.187                                | 1.181 | 1.094 | 1.044 | 1.016 | 1.059 | 1.214 | 1.092 | 1.111 | 6.64                 |
| 98) | Dibenz[a,h]a                     | 1.400                                | 1.372 | 1.243 | 1.180 | 1.144 | 1.192 | 1.386 | 1.269 | 1.273 | 7.93                 |



# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICC2164  
**Lab FileID:** 6P471777.D

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99) 7,12-Dimethy 0.538 0.544 0.523 0.508 0.488 0.505 0.545 0.534 0.523 3.97  
100) Benzo[g,h,i] 1.265 1.255 1.149 1.102 1.086 1.119 1.330 1.155 1.183 7.52

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(#) = Out of Range ### Number of calibration levels exceeded format ###

M6P2164.M Mon Apr 16 09:48:59 2018 ACLIMS

8.9.31

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471783.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471783.D Vial: 10  
Acq On : 14 Apr 2018 3:43 am Operator: sufiyana  
Sample : icv2164-50 Inst : MS6P  
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
Last Update : Mon Apr 16 09:33:00 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 4.66  |
| 5 S  | 2-Fluorophenol         | 1.458 | 1.381 | 5.3  | 96    | 0.00     | 3.68  |
| 8 S  | Phenol-d5              | 1.857 | 1.752 | 5.7  | 97    | 0.00     | 4.39  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 92    | 0.00     | 5.70  |
| 25 S | Nitrobenzene-d5        | 0.434 | 0.393 | 9.4  | 90    | 0.00     | 5.09  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 93    | 0.00     | 7.45  |
| 51 S | 2-Fluorobiphenyl       | 1.543 | 1.298 | 15.9 | 87    | 0.00     | 6.73  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 83    | 0.00     | 9.14  |
| 73 S | 2,4,6-Tribromophenol   | 0.150 | 0.149 | 0.7  | 86    | 0.00     | 8.33  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 85    | 0.00     | 12.32 |
| 85 S | Terphenyl-d14          | 0.956 | 0.867 | 9.3  | 83    | 0.00     | 11.08 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p471777.D M6P2164.M Mon Apr 16 09:49:20 2018 ACLIMS

8.9.32

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471784.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471784.D Vial: 11  
 Acq On : 14 Apr 2018 4:08 am Operator: sufiyana  
 Sample : icv2164-50 Inst : MS6P  
 Misc : op8717,e6p2164,1000,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
 Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
 Last Update : Mon Apr 16 09:33:00 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|--------|--------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000  | 1.000  | 0.0   | 92    | 0.00     | 4.66 |
| 9 t Phenol                     | 2.094  | 1.828  | 12.7  | 89    | 0.00     | 4.40 |
| 12 t 2-Chlorophenol            | 1.508  | 1.402  | 7.0   | 94    | 0.00     | 4.50 |
| 19 t 2-Methylphenol            | 1.351  | 1.260  | 6.7   | 97    | 0.00     | 4.85 |
| 21 t 3&4-Methylphenol          | 1.396  | 1.359  | 2.7   | 104   | 0.00     | 4.97 |
| 24 I Naphthalene-d8            | 1.000  | 1.000  | 0.0   | 89    | 0.00     | 5.70 |
| 29 t 2-Nitrophenol             | 0.201  | 0.199  | 1.0   | 93    | 0.00     | 5.37 |
| 30 t 2,4-Dimethylphenol        | 0.339  | 0.326  | 3.8   | 93    | 0.00     | 5.40 |
| 31 t Benzoic acid              | 0.257  | 0.268  | -4.3  | 81    | 0.06     | 5.50 |
| 33 t 2,4-Dichlorophenol        | 0.313  | 0.295  | 5.8   | 91    | 0.00     | 5.57 |
| 34 t 2,6-Dichlorophenol        | 0.306  | 0.294  | 3.9   | 95    | 0.00     | 5.77 |
| 43 t 4-Chloro-3-methylphenol   | 0.309  | 0.292  | 5.5   | 91    | 0.00     | 6.21 |
| 47 I Acenaphthene-d10          | 1.000  | 1.000  | 0.0   | 81    | 0.00     | 7.45 |
| 49 t 2,4,6-Trichlorophenol     | 0.376  | 0.394  | -4.8  | 91    | 0.00     | 6.64 |
| 50 t 2,4,5-Trichlorophenol     | 0.423  | 0.406  | 4.0   | 82    | 0.00     | 6.68 |
| 60 t 2,4-Dinitrophenol         | 50.000 | 44.062 | 11.9  | 67    | 0.00     | 7.51 |
| 61 t 4-Nitrophenol             | 0.186  | 0.186  | 0.0   | 79    | 0.00     | 7.59 |
| 64 2,3,4,6-Tetrachlorophenol   | 0.375  | 0.369  | 1.6   | 81    | 0.00     | 7.82 |
| 69 I Phenanthrene-d10          | 1.000  | 1.000  | 0.0   | 79    | 0.00     | 9.14 |
| 70 t 4,6-Dinitro-2-methylpheno | 0.135  | 0.145  | -7.4  | 75    | 0.00     | 8.12 |
| 76 t Pentachlorophenol         | 0.162  | 0.195  | -20.4 | 90    | 0.00     | 8.93 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 6p471777.D M6P2164.M Mon Apr 16 09:49:22 2018 ACLIMS

8.9.33  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471785.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471785.D Vial: 12  
Acq On : 14 Apr 2018 4:32 am Operator: sufiyana  
Sample : icv2164-50 Inst : MS6P  
Misc : op8717,e6p2164,1000,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
Last Update : Mon Apr 16 09:33:00 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|------|------------------------|-------|-------|------|-------|----------|------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 4.66 |
| 3 t  | Pyridine               | 1.859 | 1.805 | 2.9  | 104   | 0.10     | 2.64 |
| 10   | Aniline                | 2.297 | 2.441 | -6.3 | 123   | 0.01     | 4.42 |
| 16 t | Benzyl alcohol         | 1.008 | 1.025 | -1.7 | 109   | 0.00     | 4.77 |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.69 |
| 39 t | 4-Chloroaniline        | 0.449 | 0.396 | 11.8 | 106   | 0.00     | 5.76 |
| 44 t | 2-Methylnaphthalene    | 0.613 | 0.589 | 3.9  | 114   | 0.00     | 6.36 |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 110   | 0.00     | 7.45 |
| 54 t | 2-Nitroaniline         | 0.403 | 0.351 | 12.9 | 99    | 0.01     | 6.96 |
| 58 t | 3-Nitroaniline         | 0.383 | 0.309 | 19.3 | 92    | 0.00     | 7.40 |
| 62 t | Dibenzofuran           | 1.755 | 1.566 | 10.8 | 110   | 0.00     | 7.67 |
| 68 t | 4-Nitroaniline         | 0.396 | 0.298 | 24.7 | 86    | 0.01     | 8.08 |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 100   | 0.00     | 9.15 |
| 79 t | Carbazole              | 1.145 | 1.020 | 10.9 | 98    | 0.00     | 9.43 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p471777.D M6P2164.M Mon Apr 16 09:49:24 2018 ACLIMS

8.9.34

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471786.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471786.D Vial: 13  
Acq On : 14 Apr 2018 4:57 am Operator: sufiyana  
Sample : icv2164-50 Inst : MS6P  
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
Last Update : Mon Apr 16 09:33:00 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|-------|-------|------|-------|----------|-------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0  | 92    | 0.00     | 4.66  |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.861 | 20.1 | 79    | 0.01     | 2.50  |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.376 | 5.8  | 96    | 0.00     | 4.46  |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.505 | 11.4 | 90    | 0.00     | 4.62  |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.493 | 12.8 | 89    | 0.00     | 4.68  |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.413 | 12.1 | 91    | 0.00     | 4.79  |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.442 | 2.4  | 99    | 0.00     | 4.87  |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.019 | 6.0  | 103   | 0.00     | 4.97  |
| 23 t Hexachloroethane          | 0.599 | 0.522 | 12.9 | 85    | 0.00     | 5.06  |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 87    | 0.00     | 5.70  |
| 26 t Nitrobenzene              | 0.412 | 0.367 | 10.9 | 85    | 0.00     | 5.10  |
| 28 t Isophorone                | 0.703 | 0.643 | 8.5  | 87    | 0.00     | 5.30  |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.387 | 4.0  | 93    | 0.00     | 5.48  |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.311 | 9.1  | 87    | 0.00     | 5.65  |
| 38 t Naphthalene               | 1.048 | 0.945 | 9.8  | 89    | 0.00     | 5.72  |
| 42 t Hexachlorobutadiene       | 0.193 | 0.186 | 3.6  | 91    | 0.00     | 5.83  |
| 47 I Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 85    | 0.00     | 7.45  |
| 48 t Hexachlorocyclopentadiene | 0.370 | 0.337 | 8.9  | 74    | 0.00     | 6.53  |
| 52 t 2-Chloronaphthalene       | 1.267 | 1.130 | 10.8 | 84    | 0.00     | 6.85  |
| 55 t Dimethylphthalate         | 1.382 | 1.227 | 11.2 | 82    | 0.01     | 7.16  |
| 56 t Acenaphthylene            | 1.947 | 1.745 | 10.4 | 84    | 0.00     | 7.29  |
| 57 t 2,6-Dinitrotoluene        | 0.307 | 0.275 | 10.4 | 78    | 0.01     | 7.22  |
| 59 t Acenaphthene              | 1.357 | 1.191 | 12.2 | 83    | 0.00     | 7.48  |
| 63 t 2,4-Dinitrotoluene        | 0.404 | 0.349 | 13.6 | 73    | 0.00     | 7.66  |
| 65 t Diethylphthalate          | 1.324 | 1.162 | 12.2 | 81    | 0.00     | 7.95  |
| 66 t Fluorene                  | 1.409 | 1.212 | 14.0 | 82    | 0.00     | 8.06  |
| 67 t 4-Chlorophenyl-phenylethe | 0.680 | 0.583 | 14.3 | 82    | 0.00     | 8.07  |
| 69 I Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 80    | 0.00     | 9.15  |
| 71 t n-Nitrosodiphenylamine    | 0.557 | 0.509 | 8.6  | 80    | 0.00     | 8.20  |
| 72 t 1,2-Diphenylhydrazine     | 0.845 | 0.782 | 7.5  | 83    | 0.00     | 8.25  |
| 74 t 4-Bromophenyl-phenylether | 0.246 | 0.224 | 8.9  | 80    | 0.00     | 8.63  |
| 75 t Hexachlorobenzene         | 0.292 | 0.265 | 9.2  | 79    | 0.00     | 8.70  |
| 77 t Phenanthrene              | 1.216 | 1.087 | 10.6 | 82    | 0.00     | 9.17  |
| 78 t Anthracene                | 1.231 | 1.093 | 11.2 | 79    | 0.00     | 9.23  |
| 80 t Di-n-butylphthalate       | 1.255 | 1.138 | 9.3  | 79    | 0.00     | 9.89  |
| 81 t Fluoranthene              | 1.318 | 1.155 | 12.4 | 76    | 0.00     | 10.59 |
| 83 I Chrysene-d12              | 1.000 | 1.000 | 0.0  | 75    | 0.00     | 12.32 |
| 84 t Pyrene                    | 1.337 | 1.235 | 7.6  | 75    | 0.00     | 10.86 |

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471786.D

|     |   |                           |       |       |      |    |      |       |
|-----|---|---------------------------|-------|-------|------|----|------|-------|
| 86  | t | Butylbenzylphthalate      | 0.529 | 0.507 | 4.2  | 75 | 0.00 | 11.69 |
| 87  | t | Benzo[a]anthracene        | 1.253 | 1.104 | 11.9 | 73 | 0.00 | 12.31 |
| 89  | t | Chrysene                  | 1.239 | 1.115 | 10.0 | 73 | 0.00 | 12.36 |
| 90  | t | bis(2-Ethylhexyl)phthalat | 0.744 | 0.697 | 6.3  | 74 | 0.00 | 12.41 |
| 91  | I | Perylene-d12              | 1.000 | 1.000 | 0.0  | 71 | 0.00 | 13.92 |
| 92  | t | Di-n-octylphthalate       | 1.221 | 1.210 | 0.9  | 73 | 0.00 | 13.15 |
| 93  | t | Benzo[b]fluoranthene      | 1.267 | 1.122 | 11.4 | 69 | 0.01 | 13.53 |
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.069 | 7.7  | 70 | 0.01 | 13.56 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.030 | 8.2  | 71 | 0.01 | 13.87 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.379 | 6.6  | 71 | 0.01 | 15.09 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.169 | 8.2  | 70 | 0.02 | 15.12 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.183 | 0.0  | 75 | 0.02 | 15.42 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 6p471777.D M6P2164.M                  Mon Apr 16 09:49:26 2018    ACLIMS

8.9.35

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2164-ICV2164  
**Lab FileID:** 6P471787.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471787.D Vial: 14  
Acq On : 14 Apr 2018 5:22 am Operator: sufiyana  
Sample : icv2164-50 Inst : MS6P  
Misc : op8717,e6p2164,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 09:33:00 2018  
Last Update : Mon Apr 16 09:33:00 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|----------------------------|-------|-------|------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 92    | 0.00     | 4.66 |
| 2 t 1,4-Dioxane            | 0.684 | 0.643 | 6.0  | 93    | 0.02     | 2.23 |
| 6 t Indene                 | 2.348 | 2.446 | -4.2 | 108   | 0.00     | 4.86 |
| 7 t Cumene                 | 3.573 | 3.235 | 9.5  | 93    | 0.00     | 4.07 |
| 13 t Decane                | 1.919 | 1.732 | 9.7  | 93    | 0.00     | 4.55 |
| 18 t Acetophenone          | 1.931 | 1.923 | 0.4  | 108   | 0.00     | 4.96 |
| 24 I Naphthalene-d8        | 1.000 | 1.000 | 0.0  | 91    | 0.00     | 5.70 |
| 27 t Quinoline             | 0.712 | 0.650 | 8.7  | 90    | 0.00     | 6.01 |
| 40 t 2,3-Dichloroaniline   | 0.366 | 0.303 | 17.2 | 84    | 0.00     | 6.64 |
| 41 t Caprolactam           | 0.197 | 0.168 | 14.7 | 83    | 0.02     | 6.07 |
| 45 t 1-Methylnaphthalene   | 0.635 | 0.534 | 15.9 | 87    | 0.00     | 6.46 |
| 46 t Dimethylnaphthalene   | 0.680 | 0.605 | 11.0 | 89    | 0.00     | 7.00 |
| 47 I Acenaphthene-d10      | 1.000 | 1.000 | 0.0  | 81    | 0.00     | 7.45 |
| 53 t Biphenyl              | 1.712 | 1.721 | -0.5 | 92    | 0.00     | 6.83 |
| 69 I Phenanthrene-d10      | 1.000 | 1.000 | 0.0  | 79    | 0.00     | 9.14 |
| 82 t Octadecane            | 0.579 | 0.588 | -1.6 | 89    | 0.00     | 9.08 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p471777.D M6P2164.M Mon Apr 16 09:49:28 2018 ACLIMS

8.9.36

8

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICC2165  
**Lab FileID:** 6P471791.D

## Response Factor Report MS6P

Method : C:\MSDCHEM\1\METHODS\M6P2165.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Initial Calibration

### Calibration Files

2 =6p471795.D 5 =6p471794.D 25 =6p471792.D 80 =6p471790.D  
100 =6p471789.D 50 =6p471791.D 1 =6p471796.D 10 =6p471793.D

| Compound                   | 2     | 5     | 25    | 80    | 100   | 50    | 1     | 10    | Avg    | %RSD  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) 1,4-Dichlorobenzene-d |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde          | 1.519 | 1.446 | 1.278 | 1.098 | 1.018 | 1.156 | 1.541 | 1.308 | 1.295  | 15.14 |
| 103) Acenaphthene-d10a     |       |       |       |       |       |       |       |       |        |       |
| 104) 1,2,4,5-Tetr          | 0.802 | 0.783 | 0.658 | 0.615 | 0.588 | 0.621 | 0.778 | 0.674 | 0.690  | 12.40 |
| 105) Phenanthrene-d10a     |       |       |       |       |       |       |       |       |        |       |
| 106) 1-chloroocta          | 0.412 | 0.453 | 0.414 | 0.371 | 0.355 | 0.380 | 0.386 | 0.405 | 0.397  | 7.74  |
| 107) o-terphenyl           | 0.787 | 0.779 | 0.676 | 0.622 | 0.590 | 0.613 | 0.763 | 0.685 | 0.689  | 11.42 |
| 108) Atrazine              | 0.132 | 0.138 | 0.130 | 0.120 | 0.116 | 0.122 | 0.128 | 0.131 | 0.127  | 5.80  |
| 109) I Chrysene-d12a       |       |       |       |       |       |       |       |       |        |       |
| 110) benzidine             | 0.814 | 0.939 | 0.795 | 0.579 |       | 0.624 | 0.689 | 0.864 | 0.758  | 17.34 |
| 111) I Naphthalene-d8a     |       |       |       |       |       |       |       |       |        |       |
| 112) Hydroquinone          | 0.341 | 0.395 | 0.378 | 0.366 | 0.354 | 0.363 | 0.276 | 0.366 | 0.355  | 10.00 |
| 113) Phenanthrene-d10b     |       |       |       |       |       |       |       |       |        |       |
| 114) Pentachloron          | 0.041 | 0.051 | 0.048 | 0.047 | 0.046 | 0.046 | 0.038 | 0.046 | 0.045# | 8.83  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

M6P2164.M Mon Apr 16 10:21:59 2018 ACLIMS

8.9.37  
8



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2165  
**Lab FileID:** 6P471797A.D

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## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797a.D Vial: 23  
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana  
Sample : icv2165-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound            | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|---------------------|-------|-------|------|-------|----------|-------|
| 109 I Chrysene-d12a | 1.000 | 1.000 | 0.0  | 156   | 0.00     | 12.32 |
| 110 T benzidine     | 0.758 | 0.737 | 2.8  | 185   | 0.01     | 10.78 |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:47 2018 ACLIMS

8.9.38

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2164  
**Lab FileID:** 6P471797.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471797.D Vial: 23  
Acq On : 14 Apr 2018 9:12 am Operator: sufiyana  
Sample : icv2164-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|-----------------------------|-------|-------|------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000 | 1.000 | 0.0  | 147   | 0.00     | 12.32 |
| 88 t 3,3'-Dichlorobenzidine | 0.477 | 0.435 | 8.8  | 141   | 0.00     | 12.30 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:45 2018 ACLIMS

8.9.39

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2165  
**Lab FileID:** 6P471798.D

---

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471798.D Vial: 24  
Acq On : 14 Apr 2018 9:37 am Operator: sufiyana  
Sample : icv2165-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 111 I Naphthalene-d8a | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 5.70 |
| 112 T Hydroquinone    | 0.355 | 0.357 | -0.6 | 92    | -0.02    | 6.06 |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:49 2018 ACLIMS

8.9.40

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2165  
**Lab FileID:** 6P471799.D

---

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471799.D Vial: 13  
Acq On : 14 Apr 2018 10:02 am Operator: sufiyana  
Sample : icv2165-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-------------------------------|-------|-------|------|-------|----------|------|
| 103 Acenaphthene-d10a         | 1.000 | 1.000 | 0.0  | 92    | 0.00     | 7.45 |
| 104 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.613 | 11.2 | 91    | 0.00     | 6.53 |

(#) = Out of Range SPC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:51 2018 ACLIMS

8.9.41

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2165  
**Lab FileID:** 6P471800.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471800.D Vial: 14  
Acq On : 14 Apr 2018 10:26 am Operator: sufiyana  
Sample : icv2165-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|-------|------|-------|----------|------|
| 101 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0  | 89    | 0.00     | 4.66 |
| 102 Benzaldehyde            | 1.295 | 1.018 | 21.4 | 78    | 0.00     | 4.33 |
| 105 Phenanthrene-d10a       | 1.000 | 1.000 | 0.0  | 84    | 0.00     | 9.14 |
| 108 Atrazine                | 0.127 | 0.121 | 4.7  | 84    | 0.00     | 8.84 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:53 2018 ACLIMS

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2165-ICV2165  
**Lab FileID:** 6P471801.D

---

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2164\6p471801.D Vial: 12  
Acq On : 14 Apr 2018 10:51 am Operator: sufiyana  
Sample : icv2165-50 Inst : MS6P  
Misc : op8717,e6p2165,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Mon Apr 16 10:13:29 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T. |
|-----------------------------|-------|--------|------|-------|----------|------|
| 113 Phenanthrene-d10b       | 1.000 | 1.000  | 0.0  | 113   | 0.00     | 9.15 |
| 114 Pentachloronitrobenzene | 0.045 | 0.047# | -4.4 | 115   | 0.00     | 8.95 |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Mon Apr 16 10:22:55 2018 ACLIMS

# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E6P2189-CC2164  
Lab FileID: 6P472408.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2189\6p472408.D Vial: 2  
Acq On : 1 May 2018 11:21 pm Operator: sufiyana  
Sample : cc2164-25 Inst : MS6P  
Misc : op8717,e6p2189,1000,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
Last Update : Wed May 02 09:22:03 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 63    | 0.04     | 4.62 |
| 2 t 1,4-Dioxane                | 0.684 | 0.650 | 5.0   | 62    | 0.11     | 2.15 |
| 3 t Pyridine                   | 1.859 | 1.570 | 15.5  | 54    | 0.00     | 2.49 |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.862 | 20.0# | 53    | 0.02     | 2.45 |
| 5 S 2-Fluorophenol             | 1.458 | 1.349 | 7.5   | 60    | 0.02     | 3.64 |
| 6 t Indene                     | 2.348 | 2.641 | -12.5 | 72    | 0.04     | 4.81 |
| 7 t Cumene                     | 3.573 | 4.042 | -13.1 | 73    | 0.04     | 4.02 |
| 8 S Phenol-d5                  | 1.857 | 1.802 | 3.0   | 63    | 0.03     | 4.37 |
| 9 t Phenol                     | 2.094 | 2.018 | 3.6   | 62    | 0.03     | 4.38 |
| 10 Aniline                     | 2.297 | 2.318 | -0.9  | 67    | 0.04     | 4.38 |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.376 | 5.8   | 62    | 0.04     | 4.42 |
| 12 t 2-Chlorophenol            | 1.508 | 1.477 | 2.1   | 63    | 0.04     | 4.47 |
| 13 t Decane                    | 1.919 | 1.704 | 11.2  | 57    | 0.04     | 4.50 |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.641 | 3.4   | 63    | 0.04     | 4.57 |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.707 | 0.4   | 65    | 0.04     | 4.63 |
| 16 t Benzyl alcohol            | 1.008 | 0.929 | 7.8   | 58    | 0.03     | 4.73 |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.591 | 1.1   | 64    | 0.04     | 4.75 |
| 18 t Acetophenone              | 1.931 | 2.251 | -16.6 | 76    | 0.04     | 4.93 |
| 19 t 2-Methylphenol            | 1.351 | 1.498 | -10.9 | 71    | 0.04     | 4.83 |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.452 | 0.2   | 66    | 0.04     | 4.83 |
| 21 t 3&4-Methylphenol          | 1.396 | 1.480 | -6.0  | 69    | 0.03     | 4.94 |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.272 | -17.3 | 78    | 0.04     | 4.93 |
| 23 t Hexachloroethane          | 0.599 | 0.506 | 15.5  | 54    | 0.05     | 5.01 |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 65    | 0.04     | 5.65 |
| 25 S Nitrobenzene-d5           | 0.434 | 0.415 | 4.4   | 63    | 0.04     | 5.05 |
| 26 t Nitrobenzene              | 0.412 | 0.422 | -2.4  | 68    | 0.05     | 5.07 |
| 27 t Quinoline                 | 0.712 | 0.691 | 2.9   | 65    | 0.05     | 5.98 |
| 28 t Isophorone                | 0.703 | 0.750 | -6.7  | 71    | 0.04     | 5.25 |
| 29 t 2-Nitrophenol             | 0.201 | 0.183 | 9.0   | 58    | 0.04     | 5.32 |
| 30 t 2,4-Dimethylphenol        | 0.339 | 0.388 | -14.5 | 78    | 0.04     | 5.37 |
| 31 t Benzoic acid              | 0.257 | 0.277 | -7.8  | 63    | 0.04     | 5.47 |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.369 | 8.4   | 61    | 0.04     | 5.44 |
| 33 t 2,4-Dichlorophenol        | 0.313 | 0.274 | 12.5  | 59    | 0.04     | 5.54 |
| 34 t 2,6-Dichlorophenol        | 0.306 | 0.274 | 10.5  | 60    | 0.04     | 5.73 |
| 35 1,3,5-Trichlorobenzene      | 0.349 | 0.316 | 9.5   | 60    | 0.04     | 5.33 |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.298 | 12.9  | 58    | 0.04     | 5.60 |
| 37 1,2,3-Trichlorobenzene      | 0.329 | 0.301 | 8.5   | 61    | 0.04     | 5.80 |
| 38 t Naphthalene               | 1.048 | 1.052 | -0.4  | 68    | 0.05     | 5.67 |
| 39 t 4-Chloroaniline           | 0.449 | 0.442 | 1.6   | 65    | 0.04     | 5.72 |
| 40 t 2,3-Dichloroaniline       | 0.366 | 0.338 | 7.7   | 61    | 0.05     | 6.60 |
| 41 t Caprolactam               | 0.197 | 0.164 | 16.8  | 56    | 0.04     | 6.03 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2189-CC2164  
**Lab FileID:** 6P472408.D

|      |                           |             |        |         |       |      |       |
|------|---------------------------|-------------|--------|---------|-------|------|-------|
| 42 t | Hexachlorobutadiene       | 0.193       | 0.150  | 22.3#   | 51    | 0.05 | 5.78  |
| 43 t | 4-Chloro-3-methylphenol   | 0.309       | 0.334  | -8.1    | 71    | 0.04 | 6.18  |
| 44 t | 2-Methylnaphthalene       | 0.613       | 0.598  | 2.4     | 65    | 0.05 | 6.31  |
| 45 t | 1-Methylnaphthalene       | 0.635       | 0.633  | 0.3     | 67    | 0.05 | 6.41  |
| 46 t | Dimethylnaphthalene       | 0.680       | 0.620  | 8.8     | 61    | 0.05 | 6.94  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 64    | 0.05 | 7.39  |
| 48 t | Hexachlorocyclopentadiene | 0.370       | 0.278  | 24.9#   | 47#   | 0.05 | 6.47  |
| 49 t | 2,4,6-Trichlorophenol     | 0.376       | 0.349  | 7.2     | 60    | 0.05 | 6.60  |
| 50 t | 2,4,5-Trichlorophenol     | 0.423       | 0.384  | 9.2     | 59    | 0.05 | 6.64  |
| 51 S | 2-Fluorobiphenyl          | 1.543       | 1.422  | 7.8     | 61    | 0.05 | 6.68  |
| 52 t | 2-Chloronaphthalene       | 1.267       | 1.172  | 7.5     | 61    | 0.05 | 6.80  |
| 53 t | Biphenyl                  | 1.712       | 1.619  | 5.4     | 62    | 0.05 | 6.78  |
| 54 t | 2-Nitroaniline            | 0.403       | 0.442  | -9.7    | 70    | 0.05 | 6.92  |
| 55 t | Dimethylphthalate         | 1.382       | 1.354  | 2.0     | 65    | 0.05 | 7.11  |
| 56 t | Acenaphthylene            | 1.947       | 1.950  | -0.2    | 66    | 0.05 | 7.24  |
| 57 t | 2,6-Dinitrotoluene        | 0.307       | 0.318  | -3.6    | 64    | 0.05 | 7.17  |
| 58 t | 3-Nitroaniline            | 0.383       | 0.329  | 14.1    | 55    | 0.05 | 7.36  |
| 59 t | Acenaphthene              | 1.357       | 1.265  | 6.8     | 61    | 0.05 | 7.43  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 60 t | 2,4-Dinitrophenol         | 50.000      | 39.681 | 20.6#   | 49    | 0.00 | 7.47  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 61 t | 4-Nitrophenol             | 0.186       | 0.193  | -3.8    | 64    | 0.04 | 7.58  |
| 62 t | Dibenzofuran              | 1.755       | 1.680  | 4.3     | 63    | 0.05 | 7.62  |
| 63 t | 2,4-Dinitrotoluene        | 0.404       | 0.416  | -3.0    | 62    | 0.05 | 7.62  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.375       | 0.275  | 26.7#   | 45#   | 0.05 | 7.77  |
| 65 t | Diethylphthalate          | 1.324       | 1.409  | -6.4    | 70    | 0.05 | 7.90  |
| 66 t | Fluorene                  | 1.409       | 1.357  | 3.7     | 63    | 0.05 | 8.00  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.680       | 0.614  | 9.7     | 59    | 0.06 | 8.01  |
| 68 t | 4-Nitroaniline            | 0.396       | 0.290  | 26.8#   | 48#   | 0.05 | 8.05  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 61    | 0.05 | 9.09  |
| 70 t | 4,6-Dinitro-2-methylpheno | 0.135       | 0.125  | 7.4     | 52    | 0.05 | 8.08  |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.586  | -5.2    | 65    | 0.05 | 8.15  |
| 72 t | 1,2-Diphenylhydrazine     | 0.845       | 0.904  | -7.0    | 66    | 0.05 | 8.20  |
| 73 S | 2,4,6-Tribromophenol      | 0.150       | 0.103  | 31.3#   | 41#   | 0.05 | 8.29  |
| 74 t | 4-Bromophenyl-phenylether | 0.246       | 0.198  | 19.5    | 50    | 0.05 | 8.57  |
| 75 t | Hexachlorobenzene         | 0.292       | 0.235  | 19.5    | 51    | 0.05 | 8.65  |
| 76 t | Pentachlorophenol         | 0.162       | 0.140  | 13.6    | 50    | 0.05 | 8.89  |
| 77 t | Phenanthrene              | 1.216       | 1.097  | 9.8     | 57    | 0.05 | 9.12  |
| 78 t | Anthracene                | 1.231       | 1.174  | 4.6     | 59    | 0.05 | 9.18  |
| 79 t | Carbazole                 | 1.145       | 1.081  | 5.6     | 58    | 0.05 | 9.38  |
| 80 t | Di-n-butylphthalate       | 1.255       | 1.435  | -14.3   | 70    | 0.05 | 9.83  |
| 81 t | Fluoranthene              | 1.318       | 1.183  | 10.2    | 55    | 0.05 | 10.54 |
| 82 t | Octadecane                | 0.579       | 0.612  | -5.7    | 63    | 0.05 | 9.01  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 55    | 0.06 | 12.28 |
| 84 t | Pyrene                    | 1.337       | 1.303  | 2.5     | 55    | 0.06 | 10.81 |
| 85 S | Terphenyl-d14             | 0.956       | 0.837  | 12.4    | 50#   | 0.06 | 11.02 |
| 86 t | Butylbenzylphthalate      | 0.529       | 0.657  | -24.2#  | 68    | 0.06 | 11.63 |
| 87 t | Benzo[a]anthracene        | 1.253       | 1.083  | 13.6    | 50#   | 0.06 | 12.26 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.477       | 0.431  | 9.6     | 51    | 0.06 | 12.25 |
| 89 t | Chrysene                  | 1.239       | 1.167  | 5.8     | 54    | 0.06 | 12.30 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.744       | 0.906  | -21.8#  | 67    | 0.06 | 12.35 |
| 91 I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 53    | 0.05 | 13.88 |
| 92 t | Di-n-octylphthalate       | 1.221       | 1.587  | -30.0#  | 67    | 0.06 | 13.09 |
| 93 t | Benzo[b]fluoranthene      | 1.267       | 1.151  | 9.2     | 49#   | 0.06 | 13.48 |



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2189-CC2164  
**Lab FileID:** 6P472408.D

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|     |   |                           |       |       |       |     |      |       |
|-----|---|---------------------------|-------|-------|-------|-----|------|-------|
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.205 | -4.1  | 57  | 0.06 | 13.51 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.088 | 3.0   | 53  | 0.06 | 13.82 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.362 | 7.8   | 51  | 0.08 | 15.03 |
| 97  | t | Dibenz(a,h)acridine       | 1.111 | 0.989 | 11.0  | 48# | 0.07 | 14.76 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.168 | 8.2   | 50  | 0.07 | 15.05 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.523 | 0.587 | -12.2 | 60  | 0.06 | 13.47 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.044 | 11.7  | 48# | 0.08 | 15.35 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6p472376.D M6P2164.M                      Wed May 02 10:40:34 2018    ACLIMS

8.9.44

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2189-CC2165  
**Lab FileID:** 6P472409.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2189\6p472409.D Vial: 3  
Acq On : 1 May 2018 11:48 pm Operator: sufiyana  
Sample : cc2165-25 Inst : MS6P  
Misc : op8717,e6p2189,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
Last Update : Wed May 02 09:22:03 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|-------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a   | 1.000 | 1.000  | 0.0   | 65    | 0.04     | 4.62  |
| 102   | Benzaldehyde              | 1.295 | 1.127  | 13.0  | 57    | 0.04     | 4.29  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0   | 71    | 0.05     | 7.39  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.504  | 27.0# | 54    | 0.04     | 6.48  |
| 105   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0   | 68    | 0.05     | 9.09  |
| 106 S | 1-chlorooctadecane        | 0.397 | 0.371  | 6.5   | 61    | 0.05     | 10.46 |
| 107 S | o-terphenyl               | 0.689 | 0.525  | 23.8# | 53    | 0.04     | 9.56  |
| 108   | Atrazine                  | 0.127 | 0.109  | 14.2  | 57    | 0.04     | 8.79  |
| 109 I | Chrysene-d12a             | 1.000 | 1.000  | 0.0   | 63    | 0.05     | 12.27 |
| 110 T | benzidine                 | 0.758 | 0.355  | 53.2# | 28#   | 0.05     | 10.73 |
| 111 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0   | 65    | 0.04     | 5.65  |
| 112 T | Hydroquinone              | 0.355 | 0.299  | 15.8  | 51    | 0.04     | 6.04  |
| 113   | Phenanthrene-d10b         | 1.000 | 1.000  | 0.0   | 68    | 0.05     | 9.09  |
| 114   | Pentachloronitrobenzene   | 0.045 | 0.039# | 13.3  | 56    | 0.04     | 8.90  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6p472376.D M6P2164.M Wed May 02 10:40:36 2018 ACLIMS

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2190-ECC2164  
**Lab FileID:** 6P472463.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2190\6p472463.D Vial: 2  
Acq On : 2 May 2018 11:47 pm Operator: johnbl  
Sample : ecc2164-50 Inst : MS6P  
Misc : op8717,e6p2190,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
Last Update : Wed May 02 09:22:03 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 50% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 81    | 0.04     | 4.62 |
| 2 t 1,4-Dioxane                | 0.684 | 0.585 | 14.5  | 75    | 0.11     | 2.15 |
| 3 t Pyridine                   | 1.859 | 1.569 | 15.6  | 74    | 0.00     | 2.48 |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.806 | 25.2  | 65    | 0.02     | 2.45 |
| 5 S 2-Fluorophenol             | 1.458 | 1.311 | 10.1  | 79    | 0.02     | 3.64 |
| 6 t Indene                     | 2.348 | 2.501 | -6.5  | 98    | 0.04     | 4.81 |
| 7 t Cumene                     | 3.573 | 3.768 | -5.5  | 96    | 0.04     | 4.02 |
| 8 S Phenol-d5                  | 1.857 | 1.729 | 6.9   | 82    | 0.03     | 4.37 |
| 9 t Phenol                     | 2.094 | 2.079 | 0.7   | 90    | 0.03     | 4.38 |
| 10 Aniline                     | 2.297 | 2.200 | 4.2   | 91    | 0.04     | 4.38 |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.320 | 9.7   | 81    | 0.04     | 4.42 |
| 12 t 2-Chlorophenol            | 1.508 | 1.407 | 6.7   | 84    | 0.04     | 4.47 |
| 13 t Decane                    | 1.919 | 1.605 | 16.4  | 76    | 0.04     | 4.50 |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.533 | 9.8   | 81    | 0.04     | 4.57 |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.610 | 6.0   | 85    | 0.04     | 4.63 |
| 16 t Benzyl alcohol            | 1.008 | 0.845 | 16.2  | 74    | 0.04     | 4.73 |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.514 | 5.8   | 86    | 0.04     | 4.75 |
| 18 t Acetophenone              | 1.931 | 2.159 | -11.8 | 107   | 0.04     | 4.93 |
| 19 t 2-Methylphenol            | 1.351 | 1.407 | -4.1  | 96    | 0.04     | 4.83 |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.454 | -0.2  | 90    | 0.04     | 4.83 |
| 21 t 3&4-Methylphenol          | 1.396 | 1.418 | -1.6  | 96    | 0.03     | 4.94 |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.223 | -12.8 | 109   | 0.04     | 4.93 |
| 23 t Hexachloroethane          | 0.599 | 0.494 | 17.5  | 71    | 0.04     | 5.01 |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 81    | 0.04     | 5.65 |
| 25 S Nitrobenzene-d5           | 0.434 | 0.412 | 5.1   | 83    | 0.04     | 5.05 |
| 26 t Nitrobenzene              | 0.412 | 0.405 | 1.7   | 88    | 0.05     | 5.07 |
| 27 t Quinoline                 | 0.712 | 0.710 | 0.3   | 88    | 0.05     | 5.98 |
| 28 t Isophorone                | 0.703 | 0.722 | -2.7  | 91    | 0.04     | 5.26 |
| 29 t 2-Nitrophenol             | 0.201 | 0.197 | 2.0   | 84    | 0.04     | 5.32 |
| 30 t 2,4-Dimethylphenol        | 0.339 | 0.380 | -12.1 | 99    | 0.04     | 5.37 |
| 31 t Benzoic acid              | 0.257 | 0.287 | -11.7 | 80    | 0.06     | 5.49 |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.364 | 9.7   | 81    | 0.04     | 5.44 |
| 33 t 2,4-Dichlorophenol        | 0.313 | 0.277 | 11.5  | 77    | 0.04     | 5.54 |
| 34 t 2,6-Dichlorophenol        | 0.306 | 0.277 | 9.5   | 82    | 0.04     | 5.73 |
| 35 1,3,5-Trichlorobenzene      | 0.349 | 0.327 | 6.3   | 85    | 0.04     | 5.33 |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.303 | 11.4  | 79    | 0.04     | 5.60 |
| 37 1,2,3-Trichlorobenzene      | 0.329 | 0.303 | 7.9   | 83    | 0.04     | 5.80 |
| 38 t Naphthalene               | 1.048 | 1.030 | 1.7   | 90    | 0.04     | 5.67 |
| 39 t 4-Chloroaniline           | 0.449 | 0.445 | 0.9   | 91    | 0.04     | 5.72 |
| 40 t 2,3-Dichloroaniline       | 0.366 | 0.336 | 8.2   | 83    | 0.05     | 6.60 |
| 41 t Caprolactam               | 0.197 | 0.158 | 19.8  | 70    | 0.06     | 6.06 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2190-ECC2164  
**Lab FileID:** 6P472463.D

|      |                           |             |        |         |       |      |       |
|------|---------------------------|-------------|--------|---------|-------|------|-------|
| 42 t | Hexachlorobutadiene       | 0.193       | 0.155  | 19.7    | 71    | 0.04 | 5.78  |
| 43 t | 4-Chloro-3-methylphenol   | 0.309       | 0.347  | -12.3   | 98    | 0.05 | 6.19  |
| 44 t | 2-Methylnaphthalene       | 0.613       | 0.601  | 2.0     | 89    | 0.05 | 6.31  |
| 45 t | 1-Methylnaphthalene       | 0.635       | 0.651  | -2.5    | 94    | 0.05 | 6.41  |
| 46 t | Dimethylnaphthalene       | 0.680       | 0.629  | 7.5     | 82    | 0.05 | 6.94  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 82    | 0.05 | 7.39  |
| 48 t | Hexachlorocyclopentadiene | 0.370       | 0.268  | 27.6    | 61    | 0.05 | 6.47  |
| 49 t | 2,4,6-Trichlorophenol     | 0.376       | 0.348  | 7.4     | 82    | 0.05 | 6.61  |
| 50 t | 2,4,5-Trichlorophenol     | 0.423       | 0.396  | 6.4     | 81    | 0.05 | 6.65  |
| 51 S | 2-Fluorobiphenyl          | 1.543       | 1.399  | 9.3     | 82    | 0.05 | 6.68  |
| 52 t | 2-Chloronaphthalene       | 1.267       | 1.170  | 7.7     | 84    | 0.05 | 6.80  |
| 53 t | Biphenyl                  | 1.712       | 1.593  | 7.0     | 85    | 0.05 | 6.78  |
| 54 t | 2-Nitroaniline            | 0.403       | 0.423  | -5.0    | 89    | 0.05 | 6.92  |
| 55 t | Dimethylphthalate         | 1.382       | 1.361  | 1.5     | 87    | 0.05 | 7.11  |
| 56 t | Acenaphthylene            | 1.947       | 1.946  | 0.1     | 90    | 0.05 | 7.24  |
| 57 t | 2,6-Dinitrotoluene        | 0.307       | 0.314  | -2.3    | 86    | 0.05 | 7.17  |
| 58 t | 3-Nitroaniline            | 0.383       | 0.337  | 12.0    | 75    | 0.05 | 7.36  |
| 59 t | Acenaphthene              | 1.357       | 1.256  | 7.4     | 84    | 0.05 | 7.43  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |      |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 68.547 | 31.5    | 54    | 0.00 | 7.48  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |      |       |
| 61 t | 4-Nitrophenol             | 0.186       | 0.202  | -8.6    | 87    | 0.05 | 7.59  |
| 62 t | Dibenzofuran              | 1.755       | 1.662  | 5.3     | 87    | 0.05 | 7.62  |
| 63 t | 2,4-Dinitrotoluene        | 0.404       | 0.436  | -7.9    | 88    | 0.05 | 7.62  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.375       | 0.287  | 23.5    | 63    | 0.05 | 7.77  |
| 65 t | Diethylphthalate          | 1.324       | 1.406  | -6.2    | 94    | 0.05 | 7.90  |
| 66 t | Fluorene                  | 1.409       | 1.353  | 4.0     | 88    | 0.06 | 8.01  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.680       | 0.623  | 8.4     | 85    | 0.06 | 8.01  |
| 68 t | 4-Nitroaniline            | 0.396       | 0.328  | 17.2    | 71    | 0.06 | 8.06  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 78    | 0.05 | 9.09  |
| 70 t | 4,6-Dinitro-2-methylpheno | 0.135       | 0.128  | 5.2     | 66    | 0.05 | 8.09  |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.575  | -3.2    | 87    | 0.05 | 8.15  |
| 72 t | 1,2-Diphenylhydrazine     | 0.845       | 0.876  | -3.7    | 90    | 0.05 | 8.20  |
| 73 S | 2,4,6-Tribromophenol      | 0.150       | 0.106  | 29.3    | 57    | 0.05 | 8.29  |
| 74 t | 4-Bromophenyl-phenylether | 0.246       | 0.202  | 17.9    | 70    | 0.05 | 8.57  |
| 75 t | Hexachlorobenzene         | 0.292       | 0.238  | 18.5    | 69    | 0.05 | 8.65  |
| 76 t | Pentachlorophenol         | 0.162       | 0.141  | 13.0    | 67    | 0.05 | 8.89  |
| 77 t | Phenanthrene              | 1.216       | 1.078  | 11.3    | 79    | 0.05 | 9.12  |
| 78 t | Anthracene                | 1.231       | 1.149  | 6.7     | 81    | 0.05 | 9.18  |
| 79 t | Carbazole                 | 1.145       | 1.062  | 7.2     | 80    | 0.05 | 9.39  |
| 80 t | Di-n-butylphthalate       | 1.255       | 1.378  | -9.8    | 92    | 0.05 | 9.83  |
| 81 t | Fluoranthene              | 1.318       | 1.168  | 11.4    | 75    | 0.06 | 10.54 |
| 82 t | Octadecane                | 0.579       | 0.592  | -2.2    | 88    | 0.05 | 9.01  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 68    | 0.06 | 12.28 |
| 84 t | Pyrene                    | 1.337       | 1.325  | 0.9     | 73    | 0.06 | 10.81 |
| 85 S | Terphenyl-d14             | 0.956       | 0.845  | 11.6    | 65    | 0.06 | 11.02 |
| 86 t | Butylbenzylphthalate      | 0.529       | 0.689  | -30.2   | 92    | 0.06 | 11.64 |
| 87 t | Benzo[a]anthracene        | 1.253       | 1.124  | 10.3    | 67    | 0.07 | 12.27 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.477       | 0.432  | 9.4     | 65    | 0.06 | 12.25 |
| 89 t | Chrysene                  | 1.239       | 1.180  | 4.8     | 70    | 0.06 | 12.31 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.744       | 0.959  | -28.9   | 92    | 0.06 | 12.35 |
| 91 I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 66    | 0.06 | 13.89 |
| 92 t | Di-n-octylphthalate       | 1.221       | 1.611  | -31.9   | 90    | 0.06 | 13.09 |
| 93 t | Benzo[b]fluoranthene      | 1.267       | 1.177  | 7.1     | 67    | 0.07 | 13.49 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2190-ECC2164  
**Lab FileID:** 6P472463.D

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|     |   |                           |       |       |       |    |      |       |
|-----|---|---------------------------|-------|-------|-------|----|------|-------|
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.109 | 4.2   | 68 | 0.07 | 13.52 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.057 | 5.8   | 67 | 0.07 | 13.83 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.310 | 11.3  | 63 | 0.09 | 15.04 |
| 97  | t | Dibenz(a,h)acridine       | 1.111 | 0.995 | 10.4  | 62 | 0.08 | 14.77 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.143 | 10.2  | 63 | 0.09 | 15.06 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.523 | 0.601 | -14.9 | 79 | 0.07 | 13.48 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.027 | 13.2  | 61 | 0.09 | 15.37 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6p471791a.D M6P2164.M                  Sat May 05 14:34:24 2018    ACLIMS

8.9.46  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2190-ECC2164  
**Lab FileID:** 6P472464.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2190\6p472464.D Vial: 3  
Acq On : 3 May 2018 12:12 am Operator: johnbl  
Sample : ecc2164-51 Inst : MS6P  
Misc : op8717,e6p2190,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
Last Update : Wed May 02 09:22:03 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 50% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a   | 1.000 | 1.000  | 0.0  | 78    | 0.04     | 4.62  |
| 102   | Benzaldehyde              | 1.295 | 1.076  | 16.9 | 73    | 0.04     | 4.29  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0  | 87    | 0.05     | 7.39  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.519  | 24.8 | 73    | 0.04     | 6.48  |
| 105   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0  | 82    | 0.04     | 9.09  |
| 106 S | 1-chlorooctadecane        | 0.397 | 0.382  | 3.8  | 82    | 0.05     | 10.46 |
| 107 S | o-terphenyl               | 0.689 | 0.552  | 19.9 | 73    | 0.04     | 9.56  |
| 108   | Atrazine                  | 0.127 | 0.112  | 11.8 | 75    | 0.04     | 8.79  |
| 109 I | Chrysene-d12a             | 1.000 | 1.000  | 0.0  | 72    | 0.06     | 12.28 |
| 110 T | benzidine                 | 0.758 | 0.450  | 40.6 | 52    | 0.04     | 10.72 |
| 111 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0  | 77    | 0.04     | 5.64  |
| 112 T | Hydroquinone              | 0.355 | 0.347  | 2.3  | 73    | 0.05     | 6.05  |
| 113   | Phenanthrene-d10b         | 1.000 | 1.000  | 0.0  | 82    | 0.04     | 9.09  |
| 114   | Pentachloronitrobenzene   | 0.045 | 0.042# | 6.7  | 75    | 0.05     | 8.90  |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
6p471791a.D M6P2164.M Sat May 05 14:34:26 2018 ACLIMS

# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E6P2202-CC2164  
Lab FileID: 6P472771.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2202\6p472771.D Vial: 2  
Acq On : 10 May 2018 2:11 am Operator: chriss2  
Sample : cc2164-50 Inst : MS6P  
Misc : op8717,e6p2202,1000,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 10 10:33:17 2018  
Last Update : Thu May 10 10:33:17 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 62    | -0.02    | 4.56 |
| 2 t 1,4-Dioxane                | 0.684 | 0.600 | 12.3  | 59    | 0.03     | 2.07 |
| 3 t Pyridine                   | 1.859 | 1.540 | 17.2  | 56    | -0.07    | 2.41 |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.790 | 26.7# | 49#   | -0.05    | 2.37 |
| 5 S 2-Fluorophenol             | 1.458 | 1.313 | 9.9   | 61    | -0.01    | 3.61 |
| 6 t Indene                     | 2.348 | 2.441 | -4.0  | 73    | -0.02    | 4.75 |
| 7 t Cumene                     | 3.573 | 3.764 | -5.3  | 73    | -0.03    | 3.96 |
| 8 S Phenol-d5                  | 1.857 | 1.620 | 12.8  | 59    | 0.00     | 4.34 |
| 9 t Phenol                     | 2.094 | 1.861 | 11.1  | 62    | 0.00     | 4.35 |
| 10 Aniline                     | 2.297 | 2.009 | 12.5  | 64    | -0.01    | 4.32 |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.333 | 8.8   | 63    | -0.02    | 4.36 |
| 12 t 2-Chlorophenol            | 1.508 | 1.431 | 5.1   | 65    | 0.00     | 4.42 |
| 13 t Decane                    | 1.919 | 1.573 | 18.0  | 57    | -0.02    | 4.44 |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.578 | 7.1   | 64    | -0.02    | 4.52 |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.595 | 6.9   | 65    | -0.02    | 4.57 |
| 16 t Benzyl alcohol            | 1.008 | 0.881 | 12.6  | 59    | -0.02    | 4.68 |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.548 | 3.7   | 67    | -0.02    | 4.68 |
| 18 t Acetophenone              | 1.931 | 2.098 | -8.6  | 80    | -0.02    | 4.87 |
| 19 t 2-Methylphenol            | 1.351 | 1.372 | -1.6  | 72    | 0.00     | 4.79 |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.430 | 5.1   | 66    | -0.02    | 4.76 |
| 21 t 3&4-Methylphenol          | 1.396 | 1.393 | 0.2   | 73    | 0.00     | 4.90 |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.167 | -7.7  | 80    | -0.02    | 4.87 |
| 23 t Hexachloroethane          | 0.599 | 0.512 | 14.5  | 56    | -0.02    | 4.95 |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 62    | -0.02    | 5.58 |
| 25 S Nitrobenzene-d5           | 0.434 | 0.404 | 6.9   | 62    | -0.02    | 4.99 |
| 26 t Nitrobenzene              | 0.412 | 0.395 | 4.1   | 65    | -0.01    | 5.01 |
| 27 t Quinoline                 | 0.712 | 0.683 | 4.1   | 64    | -0.02    | 5.91 |
| 28 t Isophorone                | 0.703 | 0.707 | -0.6  | 68    | -0.02    | 5.20 |
| 29 t 2-Nitrophenol             | 0.201 | 0.195 | 3.0   | 63    | -0.02    | 5.26 |
| 30 t 2,4-Dimethylphenol        | 0.339 | 0.375 | -10.6 | 75    | -0.01    | 5.32 |
| 31 t Benzoic acid              | 0.257 | 0.280 | -8.9  | 59    | 0.02     | 5.45 |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.340 | 15.6  | 58    | -0.02    | 5.37 |
| 33 t 2,4-Dichlorophenol        | 0.313 | 0.272 | 13.1  | 58    | 0.00     | 5.49 |
| 34 t 2,6-Dichlorophenol        | 0.306 | 0.272 | 11.1  | 61    | -0.02    | 5.67 |
| 35 1,3,5-Trichlorobenzene      | 0.349 | 0.324 | 7.2   | 64    | -0.02    | 5.27 |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.299 | 12.6  | 60    | -0.02    | 5.53 |
| 37 1,2,3-Trichlorobenzene      | 0.329 | 0.299 | 9.1   | 62    | -0.02    | 5.73 |
| 38 t Naphthalene               | 1.048 | 1.032 | 1.5   | 69    | -0.02    | 5.60 |
| 39 t 4-Chloroaniline           | 0.449 | 0.397 | 11.6  | 62    | -0.02    | 5.66 |
| 40 t 2,3-Dichloroaniline       | 0.366 | 0.342 | 6.6   | 65    | -0.03    | 6.52 |
| 41 t Caprolactam               | 0.197 | 0.159 | 19.3  | 53    | -0.01    | 5.98 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-CC2164  
**Lab FileID:** 6P472771.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.193       | 0.155  | 19.7    | 54    | -0.02 | 5.72  |
| 43 t | 4-Chloro-3-methylphenol   | 0.309       | 0.334  | -8.1    | 72    | 0.00  | 6.14  |
| 44 t | 2-Methylnaphthalene       | 0.613       | 0.605  | 1.3     | 68    | -0.02 | 6.24  |
| 45 t | 1-Methylnaphthalene       | 0.635       | 0.641  | -0.9    | 71    | -0.02 | 6.34  |
| 46 t | Dimethylnaphthalene       | 0.680       | 0.635  | 6.6     | 63    | -0.03 | 6.87  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 64    | -0.03 | 7.32  |
| 48 t | Hexachlorocyclopentadiene | 0.370       | 0.259  | 30.0#   | 46#   | -0.02 | 6.40  |
| 49 t | 2,4,6-Trichlorophenol     | 0.376       | 0.353  | 6.1     | 65    | -0.02 | 6.54  |
| 50 t | 2,4,5-Trichlorophenol     | 0.423       | 0.380  | 10.2    | 61    | 0.00  | 6.61  |
| 51 S | 2-Fluorobiphenyl          | 1.543       | 1.382  | 10.4    | 64    | -0.02 | 6.61  |
| 52 t | 2-Chloronaphthalene       | 1.267       | 1.136  | 10.3    | 64    | -0.03 | 6.73  |
| 53 t | Biphenyl                  | 1.712       | 1.536  | 10.3    | 64    | -0.02 | 6.71  |
| 54 t | 2-Nitroaniline            | 0.403       | 0.402  | 0.2     | 66    | -0.02 | 6.85  |
| 55 t | Dimethylphthalate         | 1.382       | 1.320  | 4.5     | 66    | -0.02 | 7.04  |
| 56 t | Acenaphthylene            | 1.947       | 1.889  | 3.0     | 68    | -0.02 | 7.17  |
| 57 t | 2,6-Dinitrotoluene        | 0.307       | 0.302  | 1.6     | 65    | -0.02 | 7.10  |
| 58 t | 3-Nitroaniline            | 0.383       | 0.315  | 17.8    | 55    | -0.01 | 7.29  |
| 59 t | Acenaphthene              | 1.357       | 1.232  | 9.2     | 65    | -0.02 | 7.35  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 86.470 | 13.5    | 54    | -0.06 | 7.41  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.186       | 0.182  | 2.2     | 61    | 0.04  | 7.57  |
| 62 t | Dibenzofuran              | 1.755       | 1.568  | 10.7    | 64    | -0.02 | 7.55  |
| 63 t | 2,4-Dinitrotoluene        | 0.404       | 0.425  | -5.2    | 67    | -0.02 | 7.55  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.375       | 0.284  | 24.3#   | 49#   | -0.02 | 7.71  |
| 65 t | Diethylphthalate          | 1.324       | 1.373  | -3.7    | 72    | -0.02 | 7.82  |
| 66 t | Fluorene                  | 1.409       | 1.310  | 7.0     | 67    | -0.02 | 7.93  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.680       | 0.606  | 10.9    | 64    | -0.02 | 7.94  |
| 68 t | 4-Nitroaniline            | 0.396       | 0.288  | 27.3#   | 48#   | -0.01 | 7.98  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 58    | -0.03 | 9.01  |
| 70 t | 4,6-Dinitro-2-methylpheno | 0.135       | 0.148  | -9.6    | 57    | -0.02 | 8.02  |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.578  | -3.8    | 66    | -0.03 | 8.08  |
| 72 t | 1,2-Diphenylhydrazine     | 0.845       | 0.869  | -2.8    | 67    | -0.03 | 8.12  |
| 73 S | 2,4,6-Tribromophenol      | 0.150       | 0.113  | 24.7#   | 45#   | -0.02 | 8.21  |
| 74 t | 4-Bromophenyl-phenylether | 0.246       | 0.205  | 16.7    | 53    | -0.03 | 8.50  |
| 75 t | Hexachlorobenzene         | 0.292       | 0.239  | 18.2    | 52    | -0.02 | 8.57  |
| 76 t | Pentachlorophenol         | 0.162       | 0.147  | 9.3     | 52    | -0.01 | 8.82  |
| 77 t | Phenanthrene              | 1.216       | 1.096  | 9.9     | 60    | -0.02 | 9.04  |
| 78 t | Anthracene                | 1.231       | 1.147  | 6.8     | 61    | -0.03 | 9.10  |
| 79 t | Carbazole                 | 1.145       | 1.027  | 10.3    | 58    | -0.02 | 9.31  |
| 80 t | Di-n-butylphthalate       | 1.255       | 1.386  | -10.4   | 70    | -0.03 | 9.75  |
| 81 t | Fluoranthene              | 1.318       | 1.172  | 11.1    | 56    | -0.03 | 10.46 |
| 82 t | Octadecane                | 0.579       | 0.576  | 0.5     | 64    | -0.02 | 8.94  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 52    | -0.02 | 12.19 |
| 84 t | Pyrene                    | 1.337       | 1.344  | -0.5    | 57    | -0.02 | 10.73 |
| 85 S | Terphenyl-d14             | 0.956       | 0.859  | 10.1    | 51    | -0.02 | 10.94 |
| 86 t | Butylbenzylphthalate      | 0.529       | 0.664  | -25.5#  | 68    | -0.02 | 11.56 |
| 87 t | Benzo[a]anthracene        | 1.253       | 1.119  | 10.7    | 51    | -0.02 | 12.18 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.477       | 0.424  | 11.1    | 49#   | -0.02 | 12.17 |
| 89 t | Chrysene                  | 1.239       | 1.117  | 9.8     | 51    | -0.02 | 12.22 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.744       | 0.909  | -22.2#  | 67    | -0.02 | 12.27 |
| 91 I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 50    | -0.03 | 13.79 |
| 92 t | Di-n-octylphthalate       | 1.221       | 1.546  | -26.6#  | 65    | -0.02 | 13.01 |
| 93 t | Benzo[b]fluoranthene      | 1.267       | 1.231  | 2.8     | 53    | -0.02 | 13.40 |



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-CC2164  
**Lab FileID:** 6P472771.D

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|     |   |                           |       |       |       |     |       |       |
|-----|---|---------------------------|-------|-------|-------|-----|-------|-------|
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.086 | 6.2   | 50  | -0.01 | 13.43 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.057 | 5.8   | 51  | -0.02 | 13.74 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.337 | 9.5   | 48# | -0.03 | 14.93 |
| 97  | t | Dibenz(a,h)acridine       | 1.111 | 0.987 | 11.2  | 46# | -0.03 | 14.66 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.173 | 7.9   | 49# | -0.03 | 14.94 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.523 | 0.598 | -14.3 | 59  | -0.02 | 13.40 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.063 | 10.1  | 47# | -0.03 | 15.24 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6p471791a.D M6P2164.M              Thu May 10 10:38:40 2018    ACLIMS

8.9.48  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-CC2165  
**Lab FileID:** 6P472772.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2202\6p472772.D Vial: 3  
 Acq On : 10 May 2018 2:35 am Operator: chriss2  
 Sample : cc2165-50 Inst : MS6P  
 Misc : op8717,e6p2202,1000,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
 Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 10 10:33:17 2018  
 Last Update : Thu May 10 10:33:17 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|-------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a   | 1.000 | 1.000  | 0.0   | 61    | -0.02    | 4.56  |
| 102   | Benzaldehyde              | 1.295 | 0.952  | 26.5# | 50    | -0.02    | 4.23  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0   | 71    | -0.03    | 7.32  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.513  | 25.7# | 58    | -0.03    | 6.41  |
| 105   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0   | 65    | -0.03    | 9.01  |
| 106 S | 1-chlorooctadecane        | 0.397 | 0.378  | 4.8   | 65    | -0.03    | 10.38 |
| 107 S | o-terphenyl               | 0.689 | 0.582  | 15.5  | 62    | -0.03    | 9.49  |
| 108   | Atrazine                  | 0.127 | 0.114  | 10.2  | 61    | -0.03    | 8.72  |
| 109 I | Chrysene-d12a             | 1.000 | 1.000  | 0.0   | 59    | -0.03    | 12.19 |
| 110 T | benzidine                 | 0.758 | 0.327  | 56.9# | 31#   | -0.03    | 10.65 |
| 111 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0   | 61    | -0.02    | 5.58  |
| 112 T | Hydroquinone              | 0.355 | 0.321  | 9.6   | 54    | 0.00     | 6.01  |
| 113   | Phenanthrene-d10b         | 1.000 | 1.000  | 0.0   | 65    | -0.03    | 9.01  |
| 114   | Pentachloronitrobenzene   | 0.045 | 0.046# | -2.2  | 66    | -0.03    | 8.82  |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
 6p471791a.D M6P2164.M Thu May 10 10:40:38 2018 ACLIMS

8.9.49  
8

# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: E6P2202-ECC2164  
Lab FileID: 6P472791.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2202\6p472791.D Vial: 2  
Acq On : 10 May 2018 10:22 am Operator: chriss2  
Sample : ecc2164-50 Inst : MS6P  
Misc : opl1721,e6p2202,31.4,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 10 10:33:17 2018  
Last Update : Thu May 10 10:33:17 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 63    | -0.02    | 4.56 |
| 2 t 1,4-Dioxane                | 0.684 | 0.590 | 13.7  | 59    | 0.03     | 2.07 |
| 3 t Pyridine                   | 1.859 | 1.533 | 17.5  | 56    | -0.07    | 2.41 |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.788 | 26.9# | 50#   | -0.05    | 2.38 |
| 5 S 2-Fluorophenol             | 1.458 | 1.277 | 12.4  | 60    | -0.01    | 3.61 |
| 6 t Indene                     | 2.348 | 2.405 | -2.4  | 73    | -0.02    | 4.75 |
| 7 t Cumene                     | 3.573 | 3.618 | -1.3  | 72    | -0.02    | 3.96 |
| 8 S Phenol-d5                  | 1.857 | 1.602 | 13.7  | 59    | 0.00     | 4.34 |
| 9 t Phenol                     | 2.094 | 1.803 | 13.9  | 61    | 0.00     | 4.35 |
| 10 Aniline                     | 2.297 | 1.993 | 13.2  | 64    | -0.01    | 4.32 |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.303 | 10.8  | 62    | -0.02    | 4.36 |
| 12 t 2-Chlorophenol            | 1.508 | 1.410 | 6.5   | 65    | 0.00     | 4.42 |
| 13 t Decane                    | 1.919 | 1.520 | 20.8# | 56    | -0.02    | 4.44 |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.530 | 9.9   | 63    | -0.02    | 4.52 |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.602 | 6.5   | 66    | -0.02    | 4.57 |
| 16 t Benzyl alcohol            | 1.008 | 0.872 | 13.5  | 59    | -0.02    | 4.68 |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.499 | 6.8   | 66    | -0.02    | 4.69 |
| 18 t Acetophenone              | 1.931 | 2.062 | -6.8  | 80    | -0.01    | 4.87 |
| 19 t 2-Methylphenol            | 1.351 | 1.297 | 4.0   | 69    | 0.00     | 4.79 |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.415 | 8.4   | 64    | -0.01    | 4.77 |
| 21 t 3&4-Methylphenol          | 1.396 | 1.354 | 3.0   | 72    | 0.00     | 4.90 |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.136 | -4.8  | 79    | -0.01    | 4.88 |
| 23 t Hexachloroethane          | 0.599 | 0.503 | 16.0  | 56    | -0.02    | 4.95 |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 61    | -0.02    | 5.59 |
| 25 S Nitrobenzene-d5           | 0.434 | 0.399 | 8.1   | 61    | -0.02    | 4.99 |
| 26 t Nitrobenzene              | 0.412 | 0.401 | 2.7   | 66    | -0.01    | 5.00 |
| 27 t Quinoline                 | 0.712 | 0.698 | 2.0   | 65    | -0.01    | 5.91 |
| 28 t Isophorone                | 0.703 | 0.707 | -0.6  | 68    | -0.02    | 5.20 |
| 29 t 2-Nitrophenol             | 0.201 | 0.195 | 3.0   | 63    | -0.01    | 5.27 |
| 30 t 2,4-Dimethylphenol        | 0.339 | 0.369 | -8.8  | 73    | 0.00     | 5.32 |
| 31 t Benzoic acid              | 0.257 | 0.271 | -5.4  | 57    | 0.02     | 5.45 |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.345 | 14.4  | 58    | -0.02    | 5.37 |
| 33 t 2,4-Dichlorophenol        | 0.313 | 0.271 | 13.4  | 57    | 0.00     | 5.49 |
| 34 t 2,6-Dichlorophenol        | 0.306 | 0.275 | 10.1  | 61    | -0.02    | 5.67 |
| 35 1,3,5-Trichlorobenzene      | 0.349 | 0.330 | 5.4   | 65    | -0.02    | 5.27 |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.308 | 9.9   | 61    | -0.02    | 5.54 |
| 37 1,2,3-Trichlorobenzene      | 0.329 | 0.310 | 5.8   | 64    | -0.02    | 5.74 |
| 38 t Naphthalene               | 1.048 | 1.043 | 0.5   | 69    | -0.02    | 5.60 |
| 39 t 4-Chloroaniline           | 0.449 | 0.416 | 7.3   | 65    | -0.02    | 5.66 |
| 40 t 2,3-Dichloroaniline       | 0.366 | 0.337 | 7.9   | 63    | -0.02    | 6.53 |
| 41 t Caprolactam               | 0.197 | 0.153 | 22.3# | 51    | 0.00     | 5.99 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-ECC2164  
**Lab FileID:** 6P472791.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.193       | 0.155  | 19.7    | 54    | -0.02 | 5.72  |
| 43 t | 4-Chloro-3-methylphenol   | 0.309       | 0.330  | -6.8    | 71    | 0.00  | 6.14  |
| 44 t | 2-Methylnaphthalene       | 0.613       | 0.589  | 3.9     | 66    | -0.02 | 6.25  |
| 45 t | 1-Methylnaphthalene       | 0.635       | 0.641  | -0.9    | 70    | -0.02 | 6.34  |
| 46 t | Dimethylnaphthalene       | 0.680       | 0.609  | 10.4    | 60    | -0.02 | 6.88  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 61    | -0.02 | 7.32  |
| 48 t | Hexachlorocyclopentadiene | 0.370       | 0.179  | 51.6#   | 31#   | -0.02 | 6.40  |
| 49 t | 2,4,6-Trichlorophenol     | 0.376       | 0.358  | 4.8     | 63    | 0.00  | 6.55  |
| 50 t | 2,4,5-Trichlorophenol     | 0.423       | 0.396  | 6.4     | 61    | 0.00  | 6.60  |
| 51 S | 2-Fluorobiphenyl          | 1.543       | 1.422  | 7.8     | 63    | -0.02 | 6.61  |
| 52 t | 2-Chloronaphthalene       | 1.267       | 1.158  | 8.6     | 62    | -0.02 | 6.73  |
| 53 t | Biphenyl                  | 1.712       | 1.616  | 5.6     | 65    | -0.02 | 6.71  |
| 54 t | 2-Nitroaniline            | 0.403       | 0.391  | 3.0     | 61    | -0.02 | 6.85  |
| 55 t | Dimethylphthalate         | 1.382       | 1.326  | 4.1     | 64    | -0.02 | 7.04  |
| 56 t | Acenaphthylene            | 1.947       | 1.947  | 0.0     | 68    | -0.02 | 7.17  |
| 57 t | 2,6-Dinitrotoluene        | 0.307       | 0.316  | -2.9    | 65    | -0.01 | 7.11  |
| 58 t | 3-Nitroaniline            | 0.383       | 0.314  | 18.0    | 53    | -0.01 | 7.29  |
| 59 t | Acenaphthene              | 1.357       | 1.269  | 6.5     | 64    | -0.02 | 7.36  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 74.592 | 25.4#   | 44    | -0.06 | 7.42  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.186       | 0.196  | -5.4    | 64    | 0.03  | 7.57  |
| 62 t | Dibenzofuran              | 1.755       | 1.683  | 4.1     | 66    | -0.02 | 7.55  |
| 63 t | 2,4-Dinitrotoluene        | 0.404       | 0.447  | -10.6   | 68    | -0.01 | 7.56  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.375       | 0.297  | 20.8#   | 49#   | -0.01 | 7.71  |
| 65 t | Diethylphthalate          | 1.324       | 1.371  | -3.5    | 69    | -0.02 | 7.83  |
| 66 t | Fluorene                  | 1.409       | 1.362  | 3.3     | 67    | -0.02 | 7.94  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.680       | 0.606  | 10.9    | 62    | -0.02 | 7.94  |
| 68 t | 4-Nitroaniline            | 0.396       | 0.296  | 25.3#   | 48#   | -0.01 | 7.98  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 58    | -0.03 | 9.02  |
| 70 t | 4,6-Dinitro-2-methylpheno | 0.135       | 0.131  | 3.0     | 50#   | -0.02 | 8.02  |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.582  | -4.5    | 66    | -0.03 | 8.08  |
| 72 t | 1,2-Diphenylhydrazine     | 0.845       | 0.848  | -0.4    | 65    | -0.02 | 8.12  |
| 73 S | 2,4,6-Tribromophenol      | 0.150       | 0.114  | 24.0#   | 46#   | -0.02 | 8.21  |
| 74 t | 4-Bromophenyl-phenylether | 0.246       | 0.207  | 15.9    | 53    | -0.02 | 8.50  |
| 75 t | Hexachlorobenzene         | 0.292       | 0.249  | 14.7    | 53    | -0.02 | 8.58  |
| 76 t | Pentachlorophenol         | 0.162       | 0.148  | 8.6     | 52    | -0.01 | 8.82  |
| 77 t | Phenanthrene              | 1.216       | 1.077  | 11.4    | 58    | -0.02 | 9.04  |
| 78 t | Anthracene                | 1.231       | 1.139  | 7.5     | 59    | -0.02 | 9.11  |
| 79 t | Carbazole                 | 1.145       | 1.043  | 8.9     | 58    | -0.02 | 9.32  |
| 80 t | Di-n-butylphthalate       | 1.255       | 1.371  | -9.2    | 68    | -0.02 | 9.76  |
| 81 t | Fluoranthene              | 1.318       | 1.176  | 10.8    | 56    | -0.02 | 10.47 |
| 82 t | Octadecane                | 0.579       | 0.558  | 3.6     | 62    | -0.02 | 8.94  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 51    | -0.02 | 12.20 |
| 84 t | Pyrene                    | 1.337       | 1.328  | 0.7     | 55    | -0.02 | 10.73 |
| 85 S | Terphenyl-d14             | 0.956       | 0.853  | 10.8    | 50#   | -0.02 | 10.95 |
| 86 t | Butylbenzylphthalate      | 0.529       | 0.668  | -26.3#  | 67    | -0.01 | 11.56 |
| 87 t | Benzo[a]anthracene        | 1.253       | 1.160  | 7.4     | 52    | 0.00  | 12.19 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.477       | 0.458  | 4.0     | 52    | -0.01 | 12.18 |
| 89 t | Chrysene                  | 1.239       | 1.144  | 7.7     | 51    | -0.01 | 12.23 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.744       | 0.927  | -24.6#  | 67    | -0.01 | 12.27 |
| 91 I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 52    | -0.02 | 13.80 |
| 92 t | Di-n-octylphthalate       | 1.221       | 1.527  | -25.1#  | 67    | -0.01 | 13.02 |
| 93 t | Benzo[b]fluoranthene      | 1.267       | 1.174  | 7.3     | 53    | -0.01 | 13.41 |

8.9.50

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-ECC2164  
**Lab FileID:** 6P472791.D

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|     |   |                           |       |       |       |     |       |       |
|-----|---|---------------------------|-------|-------|-------|-----|-------|-------|
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.095 | 5.4   | 52  | 0.00  | 13.44 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.045 | 6.9   | 52  | -0.01 | 13.74 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.330 | 10.0  | 50# | -0.02 | 14.94 |
| 97  | t | Dibenz(a,h)acridine       | 1.111 | 1.012 | 8.9   | 50# | -0.02 | 14.67 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.164 | 8.6   | 51  | -0.02 | 14.95 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.523 | 0.590 | -12.8 | 61  | -0.01 | 13.40 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.065 | 10.0  | 49# | -0.02 | 15.25 |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6p471791a.D M6P2164.M              Thu May 10 11:27:03 2018    ACLIMS

8.9.50  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2202-ECC2165  
**Lab FileID:** 6P472792.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E6P2202\6p472792.D Vial: 3  
 Acq On : 10 May 2018 10:47 am Operator: chriss2  
 Sample : ecc2165-50 Inst : MS6P  
 Misc : opl1721,e6p2202,31.4,,,1,1 Multiplr: 1.00  
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
 Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuThu May 10 10:33:17 2018  
 Last Update : Thu May 10 10:33:17 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------|---------------------------|-------|--------|-------|-------|----------|-------|
| 101   | 1,4-Dichlorobenzene-d4a   | 1.000 | 1.000  | 0.0   | 64    | -0.02    | 4.56  |
| 102   | Benzaldehyde              | 1.295 | 0.922  | 28.8# | 51    | -0.02    | 4.23  |
| 103   | Acenaphthene-d10a         | 1.000 | 1.000  | 0.0   | 69    | -0.02    | 7.32  |
| 104   | 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.529  | 23.3# | 59    | -0.02    | 6.41  |
| 105   | Phenanthrene-d10a         | 1.000 | 1.000  | 0.0   | 66    | -0.03    | 9.02  |
| 106 S | 1-chlorooctadecane        | 0.397 | 0.356  | 10.3  | 62    | -0.03    | 10.38 |
| 107 S | o-terphenyl               | 0.689 | 0.542  | 21.3# | 58    | -0.03    | 9.49  |
| 108   | Atrazine                  | 0.127 | 0.113  | 11.0  | 62    | -0.02    | 8.73  |
| 109 I | Chrysene-d12a             | 1.000 | 1.000  | 0.0   | 57    | -0.02    | 12.19 |
| 110 T | benzidine                 | 0.758 | 0.356  | 53.0# | 33#   | -0.03    | 10.65 |
| 111 I | Naphthalene-d8a           | 1.000 | 1.000  | 0.0   | 60    | -0.02    | 5.58  |
| 112 T | Hydroquinone              | 0.355 | 0.330  | 7.0   | 55    | 0.00     | 6.01  |
| 113   | Phenanthrene-d10b         | 1.000 | 1.000  | 0.0   | 66    | -0.03    | 9.02  |
| 114   | Pentachloronitrobenzene   | 0.045 | 0.042# | 6.7   | 61    | -0.03    | 8.82  |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
 6p471791a.D M6P2164.M Thu May 10 11:27:14 2018 ACLIMS

8.9.51

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2211-CC2164  
**Lab FileID:** 6P472997.D

## Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...e1\6p2211\6p472997.d Vial: 2  
Acq On : 16 May 2018 11:54 am Operator: christc2  
Sample : cc2164-50 Inst : MS6P  
Misc : op8717,e6p2211,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Fri May 11 07:49:12 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                       | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T. |
|--------------------------------|-------|-------|-------|-------|----------|------|
| 1 I 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 88    | -0.04    | 4.51 |
| 2 t 1,4-Dioxane                | 0.684 | 0.551 | 19.4  | 76    | -0.05    | 2.02 |
| 3 t Pyridine                   | 1.859 | 1.416 | 23.8# | 72    | -0.04    | 2.36 |
| 4 t N-Nitrosodimethylamine     | 1.078 | 0.767 | 28.8# | 67    | -0.05    | 2.32 |
| 5 S 2-Fluorophenol             | 1.458 | 1.239 | 15.0  | 81    | -0.06    | 3.54 |
| 6 t Indene                     | 2.348 | 2.395 | -2.0  | 101   | -0.04    | 4.70 |
| 7 t Cumene                     | 3.573 | 3.676 | -2.9  | 101   | -0.04    | 3.91 |
| 8 S Phenol-d5                  | 1.857 | 1.642 | 11.6  | 85    | -0.05    | 4.27 |
| 9 t Phenol                     | 2.094 | 1.974 | 5.7   | 92    | -0.06    | 4.28 |
| 10 Aniline                     | 2.297 | 1.876 | 18.3  | 84    | -0.04    | 4.27 |
| 11 t bis(2-Chloroethyl)ether   | 1.461 | 1.220 | 16.5  | 81    | -0.04    | 4.32 |
| 12 t 2-Chlorophenol            | 1.508 | 1.393 | 7.6   | 89    | -0.05    | 4.36 |
| 13 t Decane                    | 1.919 | 1.535 | 20.0  | 79    | -0.04    | 4.40 |
| 14 t 1,3-Dichlorobenzene       | 1.699 | 1.557 | 8.4   | 89    | -0.04    | 4.46 |
| 15 t 1,4-Dichlorobenzene       | 1.713 | 1.595 | 6.9   | 91    | -0.04    | 4.52 |
| 16 t Benzyl alcohol            | 1.008 | 0.849 | 15.8  | 80    | -0.04    | 4.63 |
| 17 t 1,2-Dichlorobenzene       | 1.608 | 1.512 | 6.0   | 93    | -0.04    | 4.64 |
| 18 t Acetophenone              | 1.931 | 2.037 | -5.5  | 109   | -0.04    | 4.82 |
| 19 t 2-Methylphenol            | 1.351 | 1.340 | 0.8   | 99    | -0.05    | 4.72 |
| 20 t 2,2'-oxybis(1-Chloropropa | 0.453 | 0.411 | 9.3   | 88    | -0.04    | 4.72 |
| 21 t 3&4-Methylphenol          | 1.396 | 1.375 | 1.5   | 101   | -0.05    | 4.84 |
| 22 t n-Nitroso-di-n-propylamin | 1.084 | 1.144 | -5.5  | 110   | -0.04    | 4.82 |
| 23 t Hexachloroethane          | 0.599 | 0.510 | 14.9  | 79    | -0.05    | 4.89 |
| 24 I Naphthalene-d8            | 1.000 | 1.000 | 0.0   | 84    | -0.04    | 5.53 |
| 25 S Nitrobenzene-d5           | 0.434 | 0.402 | 7.4   | 84    | -0.04    | 4.94 |
| 26 t Nitrobenzene              | 0.412 | 0.393 | 4.6   | 88    | -0.04    | 4.95 |
| 27 t Quinoline                 | 0.712 | 0.703 | 1.3   | 90    | -0.04    | 5.86 |
| 28 t Isophorone                | 0.703 | 0.701 | 0.3   | 92    | -0.04    | 5.14 |
| 29 t 2-Nitrophenol             | 0.201 | 0.200 | 0.5   | 88    | -0.04    | 5.21 |
| 30 t 2,4-Dimethylphenol        | 0.339 | 0.356 | -5.0  | 97    | -0.05    | 5.26 |
| 31 t Benzoic acid              | 0.257 | 0.307 | -19.5 | 88    | -0.03    | 5.39 |
| 32 t bis(2-Chloroethoxy)methan | 0.403 | 0.352 | 12.7  | 82    | -0.04    | 5.32 |
| 33 t 2,4-Dichlorophenol        | 0.313 | 0.286 | 8.6   | 83    | -0.06    | 5.42 |
| 34 t 2,6-Dichlorophenol        | 0.306 | 0.283 | 7.5   | 87    | -0.05    | 5.61 |
| 35 1,3,5-Trichlorobenzene      | 0.349 | 0.332 | 4.9   | 90    | -0.04    | 5.22 |
| 36 t 1,2,4-Trichlorobenzene    | 0.342 | 0.310 | 9.4   | 84    | -0.04    | 5.48 |
| 37 1,2,3-Trichlorobenzene      | 0.329 | 0.303 | 7.9   | 86    | -0.05    | 5.67 |
| 38 t Naphthalene               | 1.048 | 1.071 | -2.2  | 98    | -0.05    | 5.55 |
| 39 t 4-Chloroaniline           | 0.449 | 0.412 | 8.2   | 88    | -0.04    | 5.60 |
| 40 t 2,3-Dichloroaniline       | 0.366 | 0.353 | 3.6   | 91    | -0.05    | 6.47 |
| 41 t Caprolactam               | 0.197 | 0.157 | 20.3# | 72    | -0.03    | 5.94 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2211-CC2164  
**Lab FileID:** 6P472997.D

|      |                           |             |        |         |       |       |       |
|------|---------------------------|-------------|--------|---------|-------|-------|-------|
| 42 t | Hexachlorobutadiene       | 0.193       | 0.158  | 18.1    | 75    | -0.05 | 5.66  |
| 43 t | 4-Chloro-3-methylphenol   | 0.309       | 0.337  | -9.1    | 99    | -0.05 | 6.07  |
| 44 t | 2-Methylnaphthalene       | 0.613       | 0.609  | 0.7     | 94    | -0.05 | 6.18  |
| 45 t | 1-Methylnaphthalene       | 0.635       | 0.656  | -3.3    | 98    | -0.05 | 6.28  |
| 46 t | Dimethylnaphthalene       | 0.680       | 0.657  | 3.4     | 89    | -0.05 | 6.81  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000  | 0.0     | 88    | -0.05 | 7.25  |
| 48 t | Hexachlorocyclopentadiene | 0.370       | 0.226  | 38.9#   | 56    | -0.05 | 6.34  |
| 49 t | 2,4,6-Trichlorophenol     | 0.376       | 0.357  | 5.1     | 90    | -0.05 | 6.48  |
| 50 t | 2,4,5-Trichlorophenol     | 0.423       | 0.383  | 9.5     | 84    | -0.06 | 6.52  |
| 51 S | 2-Fluorobiphenyl          | 1.543       | 1.403  | 9.1     | 89    | -0.05 | 6.55  |
| 52 t | 2-Chloronaphthalene       | 1.267       | 1.150  | 9.2     | 89    | -0.05 | 6.67  |
| 53 t | Biphenyl                  | 1.712       | 1.590  | 7.1     | 92    | -0.05 | 6.65  |
| 54 t | 2-Nitroaniline            | 0.403       | 0.398  | 1.2     | 90    | -0.05 | 6.79  |
| 55 t | Dimethylphthalate         | 1.382       | 1.357  | 1.8     | 94    | -0.05 | 6.98  |
| 56 t | Acenaphthylene            | 1.947       | 1.891  | 2.9     | 94    | -0.05 | 7.10  |
| 57 t | 2,6-Dinitrotoluene        | 0.307       | 0.313  | -2.0    | 92    | -0.05 | 7.04  |
| 58 t | 3-Nitroaniline            | 0.383       | 0.318  | 17.0    | 76    | -0.05 | 7.22  |
| 59 t | Acenaphthene              | 1.357       | 1.258  | 7.3     | 91    | -0.05 | 7.29  |
|      |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 96.131 | 3.9     | 84    | -0.04 | 7.35  |
|      |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 61 t | 4-Nitrophenol             | 0.186       | 0.189  | -1.6    | 88    | -0.09 | 7.46  |
| 62 t | Dibenzofuran              | 1.755       | 1.617  | 7.9     | 91    | -0.05 | 7.48  |
| 63 t | 2,4-Dinitrotoluene        | 0.404       | 0.420  | -4.0    | 91    | -0.05 | 7.49  |
| 64   | 2,3,4,6-Tetrachlorophenol | 0.375       | 0.300  | 20.0    | 71    | -0.06 | 7.63  |
| 65 t | Diethylphthalate          | 1.324       | 1.337  | -1.0    | 96    | -0.05 | 7.76  |
| 66 t | Fluorene                  | 1.409       | 1.355  | 3.8     | 95    | -0.05 | 7.86  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.680       | 0.615  | 9.6     | 90    | -0.05 | 7.87  |
| 68 t | 4-Nitroaniline            | 0.396       | 0.282  | 28.8#   | 65    | -0.05 | 7.91  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000  | 0.0     | 83    | -0.06 | 8.94  |
| 70 t | 4,6-Dinitro-2-methylpheno | 0.135       | 0.154  | -14.1   | 85    | -0.04 | 7.96  |
| 71 t | n-Nitrosodiphenylamine    | 0.557       | 0.557  | 0.0     | 91    | -0.05 | 8.01  |
| 72 t | 1,2-Diphenylhydrazine     | 0.845       | 0.826  | 2.2     | 91    | -0.05 | 8.05  |
| 73 S | 2,4,6-Tribromophenol      | 0.150       | 0.113  | 24.7#   | 65    | -0.06 | 8.14  |
| 74 t | 4-Bromophenyl-phenylether | 0.246       | 0.202  | 17.9    | 75    | -0.06 | 8.43  |
| 75 t | Hexachlorobenzene         | 0.292       | 0.243  | 16.8    | 75    | -0.06 | 8.50  |
| 76 t | Pentachlorophenol         | 0.162       | 0.147  | 9.3     | 75    | -0.06 | 8.75  |
| 77 t | Phenanthrene              | 1.216       | 1.074  | 11.7    | 84    | -0.06 | 8.97  |
| 78 t | Anthracene                | 1.231       | 1.121  | 8.9     | 84    | -0.05 | 9.03  |
| 79 t | Carbazole                 | 1.145       | 1.008  | 12.0    | 81    | -0.06 | 9.24  |
| 80 t | Di-n-butylphthalate       | 1.255       | 1.336  | -6.5    | 96    | -0.06 | 9.69  |
| 81 t | Fluoranthene              | 1.318       | 1.153  | 12.5    | 79    | -0.06 | 10.39 |
| 82 t | Octadecane                | 0.579       | 0.543  | 6.2     | 87    | -0.06 | 8.87  |
| 83 I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 74    | -0.06 | 12.12 |
| 84 t | Pyrene                    | 1.337       | 1.298  | 2.9     | 78    | -0.06 | 10.65 |
| 85 S | Terphenyl-d14             | 0.956       | 0.857  | 10.4    | 72    | -0.06 | 10.87 |
| 86 t | Butylbenzylphthalate      | 0.529       | 0.641  | -21.2#  | 94    | -0.06 | 11.49 |
| 87 t | Benzo[a]anthracene        | 1.253       | 1.137  | 9.3     | 74    | -0.06 | 12.11 |
| 88 t | 3,3'-Dichlorobenzidine    | 0.477       | 0.410  | 14.0    | 67    | -0.06 | 12.10 |
| 89 t | Chrysene                  | 1.239       | 1.101  | 11.1    | 71    | -0.06 | 12.15 |
| 90 t | bis(2-Ethylhexyl)phthalat | 0.744       | 0.890  | -19.6   | 94    | -0.06 | 12.20 |
| 91 I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 71    | -0.06 | 13.72 |
| 92 t | Di-n-octylphthalate       | 1.221       | 1.525  | -24.9#  | 91    | -0.06 | 12.94 |
| 93 t | Benzo[b]fluoranthene      | 1.267       | 1.209  | 4.6     | 74    | -0.06 | 13.33 |



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2211-CC2164  
**Lab FileID:** 6P472997.D

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|     |   |                           |       |       |       |    |       |       |
|-----|---|---------------------------|-------|-------|-------|----|-------|-------|
| 94  | t | Benzo[k]fluoranthene      | 1.158 | 1.121 | 3.2   | 73 | -0.06 | 13.36 |
| 95  | t | Benzo[a]pyrene            | 1.122 | 1.063 | 5.3   | 72 | -0.06 | 13.66 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 1.477 | 1.394 | 5.6   | 71 | -0.07 | 14.84 |
| 97  | t | Dibenz(a,h)acridine       | 1.111 | 1.043 | 6.1   | 70 | -0.07 | 14.57 |
| 98  | t | Dibenz[a,h]anthracene     | 1.273 | 1.232 | 3.2   | 73 | -0.08 | 14.85 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.523 | 0.589 | -12.6 | 83 | -0.06 | 13.32 |
| 100 | t | Benzo[g,h,i]perylene      | 1.183 | 1.095 | 7.4   | 69 | -0.08 | 15.14 |

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(#) = Out of Range                      SPPC's out = 0    CCC's out = 0  
6p472794.d M6P2164.M                      Thu May 17 15:29:48 2018    MANAGER

8.9.52  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** E6P2211-CC2165  
**Lab FileID:** 6P472998.D

## Evaluate Continuing Calibration Report

Data File : Z:\svoa\completed\05...e1\6p2211\6p472998.d Vial: 3  
Acq On : 16 May 2018 12:20 pm Operator: christc2  
Sample : cc2165-50 Inst : MS6P  
Misc : op8717,e6p2211,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M6P2164.M (RTE Integrator)  
Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
Last Update : Fri May 11 07:49:12 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                      | AvgRF | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|-------------------------------|-------|--------|-------|-------|----------|-------|
| 101 1,4-Dichlorobenzene-d4a   | 1.000 | 1.000  | 0.0   | 74    | -0.04    | 4.51  |
| 102 Benzaldehyde              | 1.295 | 0.894  | 31.0# | 57    | -0.15    | 4.18  |
| 103 Acenaphthene-d10a         | 1.000 | 1.000  | 0.0   | 86    | -0.05    | 7.25  |
| 104 1,2,4,5-Tetrachlorobenzen | 0.690 | 0.532  | 22.9# | 73    | -0.18    | 6.35  |
| 105 Phenanthrene-d10a         | 1.000 | 1.000  | 0.0   | 80    | -0.06    | 8.94  |
| 106 S 1-chlorooctadecane      | 0.397 | 0.366  | 7.8   | 77    | -0.21    | 10.31 |
| 107 S o-terphenyl             | 0.689 | 0.569  | 17.4  | 74    | -0.21    | 9.42  |
| 108 Atrazine                  | 0.127 | 0.119  | 6.3   | 79    | -0.18    | 8.65  |
| 109 I Chrysene-d12a           | 1.000 | 1.000  | 0.0   | 74    | -0.07    | 12.11 |
| 110 T benzidine               | 0.758 | 0.358  | 52.8# | 43#   | -0.19    | 10.57 |
| 111 I Naphthalene-d8a         | 1.000 | 1.000  | 0.0   | 75    | -0.05    | 5.52  |
| 112 T Hydroquinone            | 0.355 | 0.308  | 13.2  | 64    | -0.15    | 5.93  |
| 113 Phenanthrene-d10b         | 1.000 | 1.000  | 0.0   | 80    | -0.06    | 8.94  |
| 114 Pentachloronitrobenzene   | 0.045 | 0.047# | -4.4  | 83    | -0.19    | 8.75  |

(#) = Out of Range SPPC's out = 0 CCC's out = 0  
6p472794.d M6P2164.M Thu May 17 15:25:48 2018 MANAGER

# Initial Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6168-ICC6168  
Lab FileID: M145276.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145280.D 5 =M145279.D 100 =M145274.D 50 =M145276.D  
1 =M145281.D 10 =M145278.D 80 =M145275.D 25 =M145277.D

| Compound  | 2              | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg   | %RSD  |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----   |                |       |       |       |       |       |       |       |       |       |
| 1) I 1,4-Dichlorobenzene-d                            | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2) 1,4-Dioxane  | 0.697          | 0.733 | 0.734 | 0.711 | 0.727 | 0.683 | 0.708 | 0.704 | 0.712 | 2.55  |
| 3) Pyridine   | 1.767          | 1.885 | 1.713 | 1.784 | 1.797 | 1.769 | 1.695 | 1.747 | 1.770 | 3.29  |
| 4) N-Nitrosodim                                       | 0.574          | 0.577 | 0.592 | 0.577 | 0.592 | 0.552 | 0.569 | 0.568 | 0.575 | 2.28  |
| 5) 2-Fluorophen                                       | 1.468          | 1.570 | 1.471 | 1.488 | 1.454 | 1.486 | 1.482 | 1.552 | 1.496 | 2.79  |
| 6) Indene   | 2.405          | 2.362 | 1.547 | 1.764 | 2.366 | 2.119 | 1.628 | 1.961 | 2.019 | 17.18 |
| 7) Cumene   | 3.799          | 3.925 | 2.881 | 3.183 | 3.902 | 3.514 | 2.986 | 3.454 | 3.455 | 11.81 |
| 8) Phenol-d5  | 1.856          | 1.932 | 1.682 | 1.771 | 1.635 | 1.833 | 1.710 | 1.830 | 1.781 | 5.60  |
| 9) Phenol   | 2.273          | 2.252 | 1.604 | 1.808 | 2.096 | 2.044 | 1.699 | 1.993 | 1.971 | 12.52 |
| 10) Aniline   | 2.429          | 2.364 | 1.594 | 1.733 | 2.507 | 2.207 | 1.685 | 1.983 | 2.063 | 17.58 |
| 11) bis(2-Chloro                                      | 1.539          | 1.448 | 1.065 | 1.128 | 1.494 | 1.286 | 1.073 | 1.216 | 1.281 | 14.96 |
| 12) 2-Chlorophen                                      | 1.588          | 1.612 | 1.183 | 1.272 | 1.545 | 1.511 | 1.205 | 1.395 | 1.414 | 12.34 |
| 13) Decane  | 1.144          | 1.039 |       | 0.735 | 1.110 | 0.898 | 0.683 | 0.831 | 0.920 | 19.78 |
| 14) 1,3-Dichloro                                      | 1.948          | 1.937 | 1.361 | 1.461 | 1.921 | 1.692 | 1.400 | 1.599 | 1.665 | 14.87 |
| 15) 1,4-Dichloro                                      | 1.779          | 1.760 | 1.296 | 1.391 | 1.894 | 1.593 | 1.329 | 1.493 | 1.567 | 14.39 |
| 16) Benzyl alcoh                                      | 0.893          | 0.904 | 0.822 | 0.842 | 0.851 | 0.898 | 0.823 | 0.900 | 0.867 | 4.11  |
| 17) 1,2-Dichloro                                      | 1.770          | 1.694 | 1.145 | 1.255 | 1.764 | 1.488 | 1.187 | 1.391 | 1.462 | 17.62 |
| 18) Acetophenone                                      | 2.096          | 1.973 | 1.247 | 1.397 | 1.938 | 1.728 | 1.302 | 1.599 | 1.660 | 19.60 |
| 19) 2-Methylphen                                      | 1.268          | 1.291 | 0.967 | 1.070 | 1.214 | 1.261 | 1.007 | 1.181 | 1.157 | 10.89 |
| 20) 2,2'-oxybis(                                      | 0.363          | 0.416 | 0.327 | 0.332 | 0.406 | 0.380 | 0.331 | 0.348 | 0.363 | 9.56  |
| 21) 3&4-Methylph                                      | 1.228          | 1.321 | 0.927 | 1.077 | 1.189 | 1.317 | 0.984 | 1.197 | 1.155 | 12.64 |
| 22) n-Nitroso-di                                      | 1.005          | 0.969 | 0.623 | 0.688 | 0.918 | 0.868 | 0.646 | 0.798 | 0.814 | 18.28 |
| 23) Hexachloroet                                      | 0.579          | 0.566 | 0.491 | 0.504 | 0.510 | 0.515 | 0.498 | 0.527 | 0.524 | 6.12  |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 24) I Naphthalene-d8                                  | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 25) Nitrobenzene                                      | 0.404          | 0.435 | 0.354 | 0.371 | 0.396 | 0.408 | 0.360 | 0.398 | 0.391 | 6.93  |
| 26) Nitrobenzene                                      | 0.426          | 0.406 | 0.302 | 0.326 | 0.387 | 0.379 | 0.310 | 0.359 | 0.362 | 12.61 |
| 27) Quinoline   | 0.757          | 0.794 | 0.711 | 0.738 | 0.682 | 0.753 | 0.718 | 0.771 | 0.740 | 4.84  |
| 28) Isophorone  | 0.737          | 0.729 | 0.613 | 0.644 | 0.685 | 0.683 | 0.621 | 0.686 | 0.675 | 6.80  |
| 29) 2-Nitropheno                                      | 0.160          | 0.184 | 0.197 | 0.204 | 0.139 | 0.188 | 0.200 | 0.208 | 0.185 | 13.06 |
| 30) 2,4-Dimethyl                                      | 0.316          | 0.357 | 0.304 | 0.321 | 0.251 | 0.359 | 0.309 | 0.331 | 0.319 | 10.67 |
| 31) Benzoic acid                                      | 0.061          | 0.122 | 0.269 | 0.242 |       | 0.149 | 0.252 | 0.208 | 0.186 | 41.60 |
| ---- Quadratic regression ---- Coefficient = 0.9996   |                |       |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01239 + 0.21741 *A + 0.02228 *A^2 |                |       |       |       |       |       |       |       |       |       |
| -----   |                |       |       |       |       |       |       |       |       |       |
| 32) bis(2-Chloro                                      | 0.429          | 0.417 | 0.324 | 0.345 | 0.407 | 0.387 | 0.326 | 0.373 | 0.376 | 10.89 |
| 33) 2,4-Dichloro                                      | 0.241          | 0.308 | 0.285 | 0.307 | 0.215 | 0.312 | 0.295 | 0.321 | 0.285 | 13.26 |
| 34) 2,6-Dichloro                                      | 0.296          | 0.308 | 0.250 | 0.277 | 0.259 | 0.300 | 0.263 | 0.301 | 0.282 | 7.92  |
| 35) 1,3,5-Trichl                                      | 0.436          | 0.418 | 0.290 | 0.326 | 0.451 | 0.382 | 0.303 | 0.356 | 0.370 | 16.57 |
| 36) 1,2,4-Trichl                                      | 0.444          | 0.416 | 0.304 | 0.332 | 0.457 | 0.377 | 0.312 | 0.362 | 0.375 | 15.67 |
| 37) 1,2,3-Trichl                                      | 0.385          | 0.376 | 0.273 | 0.296 | 0.405 | 0.342 | 0.279 | 0.327 | 0.335 | 15.01 |
| 38) Naphthalene                                       | 1.237          | 1.164 | 0.858 | 0.939 | 1.216 | 1.074 | 0.884 | 1.032 | 1.050 | 14.11 |
| 39) 4-Chloroanil                                      | 0.485          | 0.504 | 0.382 | 0.418 | 0.470 | 0.471 | 0.398 | 0.458 | 0.448 | 9.73  |
| 40) 2,3-Dichloro                                      | 0.430          | 0.429 | 0.345 | 0.371 | 0.403 | 0.410 | 0.352 | 0.404 | 0.393 | 8.40  |
| 41) Caprolactam                                       | 0.099          | 0.126 | 0.130 | 0.128 | 0.089 | 0.130 | 0.131 | 0.137 | 0.121 | 14.40 |
| 42) Hexachlorobu                                      | 0.222          | 0.200 | 0.157 | 0.167 | 0.231 | 0.182 | 0.159 | 0.176 | 0.187 | 15.01 |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

|     |                    |  |       |       |       |       |       |       |       |       |       |
|-----|--------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 43) | 4-Chloro-3-m       | 0.309  | 0.329 | 0.307 | 0.323 | 0.283 | 0.321 | 0.313 | 0.334 | 0.315 | 5.13  |
| 44) | 2-Methylnaph       | 0.700  | 0.700 | 0.539 | 0.597 | 0.669 | 0.645 | 0.556 | 0.639 | 0.631 | 9.72  |
| 45) | 1-Methylnaph       | 0.862  | 0.858 | 0.642 | 0.695 | 0.828 | 0.772 | 0.660 | 0.768 | 0.761 | 11.41 |
| 46) | Dimethylnaph       | 0.753  | 0.743 | 0.564 | 0.619 | 0.725 | 0.680 | 0.583 | 0.680 | 0.668 | 10.85 |
| 47) | I Acenaphthene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 48) | Hexachlorocy       | 0.278  | 0.307 | 0.301 | 0.312 | 0.250 | 0.318 | 0.308 | 0.330 | 0.300 | 8.39  |
| 49) | 2,4,6-Trichl       | 0.394  | 0.404 | 0.338 | 0.362 | 0.310 | 0.396 | 0.348 | 0.397 | 0.369 | 9.32  |
| 50) | 2,4,5-Trichl       | 0.426  | 0.424 | 0.390 | 0.407 | 0.358 | 0.433 | 0.395 | 0.427 | 0.408 | 6.30  |
| 51) | 2-Fluorobiph       | 1.850  | 1.694 | 1.249 | 1.366 | 1.882 | 1.609 | 1.292 | 1.485 | 1.553 | 15.75 |
| 52) | 2-Chloronaph       | 1.505  | 1.436 | 0.972 | 1.076 | 1.517 | 1.294 | 1.010 | 1.204 | 1.252 | 17.62 |
| 53) | Biphenyl           | 1.886  | 1.827 | 1.277 | 1.429 | 1.905 | 1.658 | 1.358 | 1.580 | 1.615 | 15.18 |
| 54) | 2-Nitroanili       | 0.230  | 0.289 | 0.304 | 0.308 | 0.204 | 0.286 | 0.300 | 0.318 | 0.280 | 14.51 |
| 55) | Dimethylphth       | 1.543  | 1.522 | 1.285 | 1.343 | 1.541 | 1.445 | 1.307 | 1.433 | 1.427 | 7.36  |
| 56) | Acenaphthyle       | 2.073  | 2.167 | 1.689 | 1.813 | 2.073 | 2.053 | 1.737 | 2.011 | 1.952 | 9.17  |
| 57) | 2,6-Dinitrot       | 0.209  | 0.244 | 0.305 | 0.306 | 0.174 | 0.272 | 0.303 | 0.305 | 0.264 | 19.32 |
| 58) | 3-Nitroanili       | 0.268  | 0.322 | 0.374 | 0.378 | 0.202 | 0.332 | 0.370 | 0.388 | 0.329 | 19.71 |
| 59) | Acenaphthene       | 1.474  | 1.334 | 1.040 | 1.109 | 1.371 | 1.227 | 1.066 | 1.202 | 1.228 | 12.64 |
| 60) | 2,4-Dinitrop       | 0.020  | 0.050 | 0.182 | 0.159 |       | 0.072 | 0.170 | 0.129 | 0.112 | 57.14 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9994    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.02314 + 0.13997 *A + 0.00934 *A^2  |       |       |       |       |       |       |       |       |       |
| 61) | 4-Nitropheno       | 0.097  | 0.143 | 0.200 | 0.190 |       | 0.157 | 0.194 | 0.193 | 0.168 | 22.53 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00483 + 0.18802 *A + 0.00508 *A^2  |       |       |       |       |       |       |       |       |       |
| 62) | Dibenzofuran       | 2.096  | 2.025 | 1.427 | 1.571 | 2.201 | 1.807 | 1.483 | 1.746 | 1.794 | 16.23 |
| 63) | 2,4-Dinitrot       | 0.212  | 0.326 | 0.354 | 0.379 | 0.145 | 0.371 | 0.358 | 0.402 | 0.318 | 28.49 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9997    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00787 + 0.41519 *A + -0.02419 *A^2 |       |       |       |       |       |       |       |       |       |
| 64) | 2,3,4,6-Tetr       | 0.286  | 0.332 | 0.346 | 0.346 | 0.222 | 0.333 | 0.340 | 0.360 | 0.321 | 14.14 |
| 65) | Diethylphtha       | 1.485  | 1.478 | 1.280 | 1.346 | 1.392 | 1.434 | 1.293 | 1.434 | 1.393 | 5.69  |
| 66) | Fluorene           | 1.570  | 1.575 | 1.243 | 1.335 | 1.522 | 1.496 | 1.268 | 1.472 | 1.435 | 9.33  |
| 67) | 4-Chlorophen       | 0.740  | 0.771 | 0.563 | 0.606 | 0.809 | 0.689 | 0.572 | 0.654 | 0.676 | 13.70 |
| 68) | 4-Nitroanili       | 0.255  | 0.341 | 0.345 | 0.340 | 0.197 | 0.342 | 0.341 | 0.350 | 0.314 | 18.00 |
| 69) | I Phenanthrene-d10 | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 70) | 4,6-Dinitro-       | 0.031  | 0.054 | 0.139 | 0.129 |       | 0.073 | 0.134 | 0.117 | 0.097 | 44.91 |
|     |                    | ---- Quadratic regression ---- Coefficient = 0.9996    |       |       |       |       |       |       |       |       |       |
|     |                    | Response Ratio = -0.00884 + 0.12702 *A + 0.00602 *A^2  |       |       |       |       |       |       |       |       |       |
| 71) | n-Nitrosodip       | 0.580  | 0.588 | 0.467 | 0.494 | 0.564 | 0.551 | 0.477 | 0.535 | 0.532 | 8.88  |
| 72) | 1,2-Diphenyl       | 0.823  | 0.833 | 0.590 | 0.635 | 0.790 | 0.753 | 0.595 | 0.703 | 0.715 | 13.90 |
| 73) | 2,4,6-Tribr        | 0.097  | 0.120 | 0.120 | 0.120 | 0.076 | 0.120 | 0.120 | 0.125 | 0.112 | 15.08 |
| 74) | 4-Bromopheny       | 0.232  | 0.235 | 0.210 | 0.217 | 0.221 | 0.221 | 0.210 | 0.227 | 0.222 | 4.21  |
| 75) | Hexachlorobe       | 0.329  | 0.315 | 0.237 | 0.249 | 0.314 | 0.280 | 0.239 | 0.267 | 0.279 | 13.13 |
| 76) | Pentachlorop       | 0.107  | 0.145 | 0.160 | 0.168 |       | 0.145 | 0.160 | 0.165 | 0.150 | 14.00 |
| 77) | Phenanthrene       | 1.299  | 1.235 | 0.861 | 0.954 | 1.329 | 1.137 | 0.895 | 1.048 | 1.095 | 16.71 |
| 78) | Anthracene         | 1.232  | 1.245 | 0.929 | 1.003 | 1.171 | 1.129 | 0.954 | 1.086 | 1.094 | 11.14 |
| 79) | Carbazole          | 1.224  | 1.223 | 0.984 | 1.058 | 1.125 | 1.148 | 1.011 | 1.143 | 1.114 | 8.08  |
| 80) | Di-n-butylph       | 1.073  | 1.251 | 1.204 | 1.290 | 0.892 | 1.273 | 1.218 | 1.350 | 1.194 | 12.23 |
| 81) | Fluoranthene       | 1.193  | 1.318 | 1.128 | 1.219 | 1.163 | 1.281 | 1.158 | 1.305 | 1.221 | 5.95  |
| 82) | Octadecane         | 0.328  | 0.356 | 0.274 | 0.301 | 0.295 | 0.340 | 0.286 | 0.330 | 0.314 | 9.21  |
| 83) | I Chrysene-d12     | -----ISTD-----   |       |       |       |       |       |       |       |       |       |
| 84) | Pyrene             | 1.486  | 1.556 | 1.353 | 1.377 | 1.352 | 1.443 | 1.339 | 1.439 | 1.418 | 5.41  |
| 85) | Terphenyl-d1       | 0.930  | 0.999 | 0.983 | 0.978 | 0.869 | 0.923 | 0.967 | 0.980 | 0.954 | 4.53  |
| 86) | Butylbenzylp       | 0.381  | 0.523 | 0.685 | 0.669 |       | 0.556 | 0.663 | 0.649 | 0.589 | 18.78 |
| 87) | Benzo[a]anth       | 1.114  | 1.175 | 1.244 | 1.206 | 1.099 | 1.113 | 1.213 | 1.200 | 1.170 | 4.67  |

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICC6168  
**Lab FileID:** M145276.D

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|      |                |   |       |       |               |       |        |       |       |       |       |
|------|----------------|---|-------|-------|---------------|-------|--------|-------|-------|-------|-------|
| 88)  | 3,3'-Dichlor   | 0.262   | 0.356 | 0.465 | 0.441         | 0.215 | 0.388  | 0.455 | 0.441 | 0.378 | 24.93 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9999 |       |       |       |       |
|      |                | Response Ratio = -0.00777 + 0.43234 *A + 0.01388 *A^2 |       |       |               |       |        |       |       |       |       |
| 89)  | Chrysene       | 1.221   | 1.213 | 1.061 | 1.056         | 1.223 | 1.107  | 1.046 | 1.104 | 1.129 | 6.89  |
| 90)  | bis(2-Ethylh   | 0.428   | 0.620 | 0.871 | 0.838         | 0.276 | 0.686  | 0.843 | 0.811 | 0.672 | 32.57 |
|      | ----           | Quadratic regression                                  |       | ----  | Coefficient = |       | 0.9998 |       |       |       |       |
|      |                | Response Ratio = -0.02041 + 0.81486 *A + 0.02422 *A^2 |       |       |               |       |        |       |       |       |       |
| 91)  | I Perylene-d12 | -----ISTD-----  |       |       |               |       |        |       |       |       |       |
| 92)  | Di-n-octylph   | 0.494   | 0.868 | 1.355 | 1.377         |       | 1.055  | 1.382 | 1.338 | 1.124 | 30.32 |
|      | ----           | Linear regression                                     |       | ----  | Coefficient = |       | 0.9995 |       |       |       |       |
|      |                | Response Ratio = -0.05189 + 1.39253 *A                |       |       |               |       |        |       |       |       |       |
| 93)  | Benzo[b]fluo   | 1.066   | 1.223 | 1.136 | 1.195         | 0.964 | 1.179  | 1.172 | 1.261 | 1.150 | 8.24  |
| 94)  | Benzo[k]fluo   | 1.234   | 1.278 | 0.942 | 1.029         | 0.953 | 1.170  | 0.998 | 1.090 | 1.087 | 11.81 |
| 95)  | Benzo[a]pyre   | 0.865   | 1.008 | 1.022 | 1.064         | 0.711 | 1.018  | 1.056 | 1.092 | 0.980 | 13.11 |
| 96)  | Indeno[1,2,3   | 0.797   | 0.951 | 1.009 | 1.033         | 0.591 | 0.979  | 1.020 | 1.102 | 0.935 | 17.58 |
| 97)  | Dibenz(a,h)a   | 0.724   | 0.910 | 0.960 | 1.018         | 0.561 | 0.950  | 0.996 | 1.064 | 0.898 | 18.93 |
| 98)  | Dibenz[a,h]a   | 0.905   | 1.084 | 0.986 | 1.048         | 0.771 | 1.057  | 1.018 | 1.121 | 0.999 | 11.31 |
| 99)  | 7,12-Dimethy   | 0.372   | 0.478 | 0.480 | 0.499         | 0.297 | 0.506  | 0.498 | 0.518 | 0.456 | 17.28 |
| 100) | Benzo[g,h,i]   | 0.920   | 1.014 | 0.989 | 1.009         | 0.762 | 1.033  | 1.003 | 1.107 | 0.980 | 10.38 |

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(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6168.M

Wed Apr 18 15:31:16 2018

MSM

8.9.54

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145282.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145282.D Vial: 10  
Acq On : 17 Apr 2018 8:03 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0  | 110   | 0.00     | 4.65  |
| 5 S  | 2-Fluorophenol         | 1.496 | 1.403 | 6.2  | 104   | 0.00     | 3.67  |
| 8 S  | Phenol-d5              | 1.781 | 1.649 | 7.4  | 102   | 0.00     | 4.38  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 25 S | Nitrobenzene-d5        | 0.391 | 0.375 | 4.1  | 107   | 0.00     | 5.10  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0  | 104   | 0.00     | 8.10  |
| 51 S | 2-Fluorobiphenyl       | 1.553 | 1.362 | 12.3 | 104   | 0.00     | 7.11  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 10.71 |
| 73 S | 2,4,6-Tribromophenol   | 0.112 | 0.120 | -7.1 | 94    | 0.00     | 9.45  |
| 83 I | Chrysene-d12           | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 15.85 |
| 85 S | Terphenyl-d14          | 0.954 | 0.926 | 2.9  | 92    | 0.00     | 13.88 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:22 2018 MSM

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145284.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145284.D Vial: 12  
Acq On : 17 Apr 2018 9:02 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | R.T.  |
|------|------------------------|-------|-------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0   | 97    | 0.00     | 4.66  |
| 3 t  | Pyridine               | 1.770 | 1.552 | 12.3  | 85    | 0.08     | 2.59  |
| 10 t | Aniline                | 2.063 | 2.300 | -11.5 | 129   | 0.00     | 4.41  |
| 16 t | Benzyl alcohol         | 0.867 | 0.960 | -10.7 | 111   | 0.00     | 4.76  |
| 24 I | Naphthalene-d8         | 1.000 | 1.000 | 0.0   | 107   | 0.00     | 5.78  |
| 39 t | 4-Chloroaniline        | 0.448 | 0.423 | 5.6   | 108   | 0.00     | 5.86  |
| 44 t | 2-Methylnaphthalene    | 0.631 | 0.563 | 10.8  | 101   | 0.00     | 6.61  |
| 47 I | Acenaphthene-d10       | 1.000 | 1.000 | 0.0   | 104   | 0.00     | 8.11  |
| 54 t | 2-Nitroaniline         | 0.280 | 0.295 | -5.4  | 99    | 0.00     | 7.42  |
| 58 t | 3-Nitroaniline         | 0.329 | 0.341 | -3.6  | 94    | 0.00     | 8.05  |
| 62 t | Dibenzofuran           | 1.794 | 1.676 | 6.6   | 111   | 0.00     | 8.44  |
| 68 t | 4-Nitroaniline         | 0.314 | 0.344 | -9.6  | 105   | -0.01    | 9.07  |
| 69 I | Phenanthrene-d10       | 1.000 | 1.000 | 0.0   | 101   | 0.00     | 10.70 |
| 79 t | Carbazole              | 1.114 | 1.087 | 2.4   | 103   | 0.00     | 11.18 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:24 2018 MSM

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145285.D Vial: 13  
 Acq On : 17 Apr 2018 9:31 am Operator: chriss2  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev | Area% | Dev(min) | R.T.  |
|--------------------------------|---------------------------|--------|--------|------|-------|----------|-------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0  | 100   | 0.00     | 4.66  |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.412  | 28.3 | 71    | 0.02     | 2.48  |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.294  | -1.0 | 114   | 0.00     | 4.45  |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.569  | 5.8  | 107   | 0.00     | 4.62  |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.393  | 11.1 | 100   | 0.00     | 4.67  |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.387  | 5.1  | 110   | 0.00     | 4.79  |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.381  | -5.0 | 114   | 0.00     | 4.87  |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.819  | -0.6 | 119   | 0.00     | 4.97  |
| 23 t                           | Hexachloroethane          | 0.524  | 0.483  | 7.8  | 96    | 0.00     | 5.07  |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0  | 95    | 0.00     | 5.78  |
| 26 t                           | Nitrobenzene              | 0.362  | 0.316  | 12.7 | 92    | 0.00     | 5.12  |
| 28 t                           | Isophorone                | 0.675  | 0.615  | 8.9  | 91    | 0.00     | 5.33  |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.383  | -1.9 | 105   | 0.00     | 5.53  |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.344  | 8.3  | 98    | 0.00     | 5.73  |
| 38 t                           | Naphthalene               | 1.050  | 0.948  | 9.7  | 96    | 0.00     | 5.81  |
| 42 t                           | Hexachlorobutadiene       | 0.187  | 0.176  | 5.9  | 100   | 0.00     | 5.95  |
| 47 I                           | Acenaphthene-d10          | 1.000  | 1.000  | 0.0  | 91    | 0.00     | 8.11  |
| 48 t                           | Hexachlorocyclopentadiene | 0.300  | 0.292  | 2.7  | 79    | 0.00     | 6.83  |
| 52 t                           | 2-Chloronaphthalene       | 1.252  | 1.211  | 3.3  | 102   | 0.00     | 7.26  |
| 55 t                           | Dimethylphthalate         | 1.427  | 1.329  | 6.9  | 90    | 0.00     | 7.72  |
| 56 t                           | Acenaphthylene            | 1.952  | 1.796  | 8.0  | 90    | 0.00     | 7.88  |
| 57 t                           | 2,6-Dinitrotoluene        | 0.264  | 0.243  | 8.0  | 72    | 0.00     | 7.80  |
| 59 t                           | Acenaphthene              | 1.228  | 1.100  | 10.4 | 90    | 0.00     | 8.16  |
| ----- True Calc. % Drift ----- |                           |        |        |      |       |          |       |
| 63 t                           | 2,4-Dinitrotoluene        | 50.000 | 37.179 | 25.6 | 68    | 0.00     | 8.44  |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |      |       |          |       |
| 65 t                           | Diethylphthalate          | 1.393  | 1.305  | 6.3  | 88    | -0.01    | 8.91  |
| 66 t                           | Fluorene                  | 1.435  | 1.301  | 9.3  | 89    | 0.00     | 9.03  |
| 67 t                           | 4-Chlorophenyl-phenylethe | 0.676  | 0.574  | 15.1 | 86    | 0.00     | 9.06  |
| 69 I                           | Phenanthrene-d10          | 1.000  | 1.000  | 0.0  | 89    | 0.00     | 10.70 |
| 71 t                           | n-Nitrosodiphenylamine    | 0.532  | 0.486  | 8.6  | 88    | 0.00     | 9.27  |
| 72 t                           | 1,2-Diphenylhydrazine     | 0.715  | 0.638  | 10.8 | 90    | 0.00     | 9.34  |
| 74 t                           | 4-Bromophenyl-phenylether | 0.222  | 0.208  | 6.3  | 86    | 0.00     | 9.93  |
| 75 t                           | Hexachlorobenzene         | 0.279  | 0.240  | 14.0 | 86    | 0.00     | 10.01 |
| 77 t                           | Phenanthrene              | 1.095  | 0.999  | 8.8  | 93    | 0.00     | 10.75 |
| 78 t                           | Anthracene                | 1.094  | 0.975  | 10.9 | 87    | 0.00     | 10.84 |

8.9.57

8



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145285.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 80  | t | Di-n-butylphthalate       | 1.194       | 1.203  | -0.8    | 83    | 0.00  | 12.01 |
| 81  | t | Fluoranthene              | 1.221       | 1.133  | 7.2     | 83    | 0.00  | 13.03 |
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 83    | 0.00  | 15.86 |
| 84  | t | Pyrene                    | 1.418       | 1.341  | 5.4     | 81    | 0.00  | 13.45 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.643  | -9.2    | 80    | 0.00  | 14.94 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.163  | 0.6     | 80    | 0.00  | 15.84 |
| 89  | t | Chrysene                  | 1.129       | 1.017  | 9.9     | 80    | 0.00  | 15.91 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 49.012 | 2.0     | 80    | 0.00  | 16.17 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 79    | 0.00  | 18.46 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 49.824 | 0.4     | 77    | 0.00  | 17.39 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.110  | 3.5     | 74    | 0.00  | 17.82 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.074  | 1.2     | 83    | -0.01 | 17.87 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.037  | -5.8    | 77    | 0.00  | 18.36 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 1.010  | -8.0    | 77    | 0.00  | 20.15 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 0.996  | 0.3     | 75    | 0.00  | 20.21 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 1.072  | -9.4    | 84    | -0.01 | 20.59 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Wed Apr 18 02:32:26 2018 MSM

8.9.57

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145286.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145286.D Vial: 14  
 Acq On : 17 Apr 2018 10:00 am Operator: chriss2  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T.  |
|------|---------------------------|-------|-------|------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4    | 1.000 | 1.000 | 0.0  | 105   | 0.00     | 4.66  |
| 2 t  | 1,4-Dioxane               | 0.712 | 0.627 | 11.9 | 93    | 0.01     | 2.20  |
| 6 t  | Indene                    | 2.019 | 2.192 | -8.6 | 131   | 0.00     | 4.86  |
| 7 t  | Cumene                    | 3.455 | 3.173 | 8.2  | 105   | 0.00     | 4.06  |
| 13 t | Decane                    | 0.920 | 0.781 | 15.1 | 112   | 0.00     | 4.54  |
| 18 t | Acetophenone              | 1.660 | 1.650 | 0.6  | 124   | 0.00     | 4.97  |
| 24 I | Naphthalene-d8            | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 5.78  |
| 27 t | Quinoline                 | 0.740 | 0.681 | 8.0  | 97    | -0.01    | 6.17  |
| 40 t | 2,3-Dichloroaniline       | 0.393 | 0.328 | 16.5 | 93    | 0.00     | 6.98  |
| 41 t | Caprolactam               | 0.121 | 0.103 | 14.9 | 85    | -0.03    | 6.23  |
| 45 t | 1-Methyl-naphthalene      | 0.761 | 0.626 | 17.7 | 95    | 0.00     | 6.73  |
| 46 t | Dimethyl-naphthalene      | 0.668 | 0.586 | 12.3 | 100   | 0.00     | 7.48  |
| 47 I | Acenaphthene-d10          | 1.000 | 1.000 | 0.0  | 91    | 0.00     | 8.11  |
| 53 t | Biphenyl                  | 1.615 | 1.610 | 0.3  | 103   | 0.00     | 7.25  |
| 69 I | Phenanthrene-d10          | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 10.71 |
| 82 t | Octadecane                | 0.314 | 0.337 | -7.3 | 101   | 0.00     | 10.73 |
| 91 I | Perylene-d12              | 1.000 | 1.000 | 0.0  | 77    | 0.00     | 18.46 |
| 99 t | 7,12-Dimethylbenz(a)anthr | 0.456 | 0.343 | 24.8 | 53    | -0.02    | 17.83 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Wed Apr 18 02:32:28 2018 MSM

8.9.58  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6168-ICV6168  
**Lab FileID:** M145287.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145287.D Vial: 15  
Acq On : 17 Apr 2018 10:30 am Operator: chriss2  
Sample : icv6168-50 Inst : Instrument #1  
Misc : op10492,em6168,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----------------------------|--------|--------|---------|-------|----------|-------|
| 83 I Chrysene-d12           | 1.000  | 1.000  | 0.0     | 120   | 0.00     | 15.85 |
|                             | True   | Calc.  | % Drift |       |          |       |
| 88 t 3,3'-Dichlorobenzidine | 50.000 | 40.829 | 18.3    | 98    | 0.00     | 15.87 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:30 2018 MSM

8.9.59  
8

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICC6169  
**Lab FileID:** M145291.D

## Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\MM6169.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Initial Calibration

### Calibration Files

2 =M145295.D 5 =M145294.D 100 =M145289.D 50 =M145291.D  
1 =M145296.D 10 =M145293.D 80 =M145290.D 25 =M145292.D

| Compound  | 2     | 5     | 100   | 50    | 1     | 10    | 80    | 25    | Avg    | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| 101) I 1,4-Dichlorobenzene-d  |       |       |       |       |       |       |       |       |        |       |
| 102) Benzaldehyde   | 1.324 | 1.294 | 0.907 | 1.038 | 1.291 | 1.171 | 0.983 | 1.156 | 1.145  | 13.63 |
| 103) I Acenaphthene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 104) 1,2,4,5-Tetr   | 0.715 | 0.765 | 0.581 | 0.607 | 0.682 | 0.685 | 0.614 | 0.672 | 0.665  | 9.24  |
| 105) Atrazine   | 0.134 | 0.180 | 0.207 | 0.213 | 0.120 | 0.183 | 0.212 | 0.215 | 0.183  | 20.31 |
| ---- Linear regression ---- Coefficient = 0.9995<br>Response Ratio = -0.00230 + 0.21095 *A                    |       |       |       |       |       |       |       |       |        |       |
| 106) I Chrysene-d12a  |       |       |       |       |       |       |       |       |        |       |
| 107) Benzidine  | 0.266 | 0.505 |       | 0.585 | 0.160 | 0.590 | 0.545 | 0.698 | 0.478  | 40.36 |
| ---- Quadratic regression ---- Coefficient = 0.9982<br>Response Ratio = -0.01964 + 0.73236 *A + -0.09033 *A^2 |       |       |       |       |       |       |       |       |        |       |
| 108) 1-chloroocta   | 0.196 | 0.231 | 0.244 | 0.253 |       | 0.237 | 0.252 | 0.271 | 0.241  | 9.70  |
| 109) I Phenanthrene-d10a  |       |       |       |       |       |       |       |       |        |       |
| 110) o-terphenyl  | 0.548 | 0.624 | 0.515 | 0.552 | 0.506 | 0.582 | 0.529 | 0.573 | 0.554  | 7.03  |
| 111) Pentachloron   |       | 0.023 | 0.041 | 0.040 |       | 0.030 | 0.041 | 0.039 | 0.036# | 20.56 |
| ---- Linear regression ---- Coefficient = 0.9999<br>Response Ratio = -0.00254 + 0.04234 *A                    |       |       |       |       |       |       |       |       |        |       |
| 112) I Naphthalene-d8a  |       |       |       |       |       |       |       |       |        |       |
| 113) Hydroquinone   |       | 0.230 | 0.372 | 0.374 |       | 0.299 | 0.358 | 0.354 | 0.331  | 17.09 |

(#) = Out of Range ###

Number of calibration levels exceeded format ###

MM6168.M

Wed Apr 18 15:32:44 2018

MSM

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145297.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145297.D Vial: 24  
Acq On : 17 Apr 2018 3:34 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound              | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|-----------------------|-------|-------|------|-------|----------|------|
| 112 I Naphthalene-d8a | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 5.79 |
| 113 Hydroquinone      | 0.331 | 0.350 | -5.7 | 91    | 0.00     | 6.23 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:32 2018 MSM

8.9.61

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145298.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145298.D Vial: 12  
Acq On : 17 Apr 2018 4:03 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                    | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-----------------------------|------------|--------|---------|-------|----------|-------|
| 109 I Phenanthrene-d10a     | 1.000      | 1.000  | 0.0     | 105   | 0.00     | 10.70 |
|                             | ----- True | Calc.  | % Drift | ----- |          |       |
| 111 Pentachloronitrobenzene | 50.000     | 51.100 | -2.2    | 107   | 0.00     | 10.42 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:34 2018 MSM

8.9.62  
8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145299.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145299.D Vial: 13  
Acq On : 17 Apr 2018 4:32 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound                        | AvgRF | CCRF  | %Dev | Area% | Dev(min) | R.T. |
|---------------------------------|-------|-------|------|-------|----------|------|
| 103 I Acenaphthene-d10a         | 1.000 | 1.000 | 0.0  | 96    | 0.00     | 8.11 |
| 104 I 1,2,4,5-Tetrachlorobenzen | 0.665 | 0.655 | 1.5  | 104   | 0.00     | 6.83 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:36 2018 MSM

8.9.63

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145300.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145300.D Vial: 14  
Acq On : 17 Apr 2018 5:02 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

|       | Compound                | AvgRF  | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|-------|-------------------------|--------|--------|---------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a | 1.000  | 1.000  | 0.0     | 94    | 0.00     | 4.65  |
| 102 t | Benzaldehyde            | 1.145  | 0.949  | 17.1    | 86    | 0.00     | 4.32  |
| 103 I | Acenaphthene-d10a       | 1.000  | 1.000  | 0.0     | 93    | 0.00     | 8.11  |
|       |                         | True   | Calc.  | % Drift |       |          |       |
| 105 t | Atrazine                | 50.000 | 50.874 | -1.7    | 93    | 0.00     | 10.31 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:32:38 2018 MSM

8.9.64

8



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6169-ICV6169  
**Lab FileID:** M145301.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6168\M145301.D Vial: 15  
Acq On : 17 Apr 2018 5:31 pm Operator: chriss2  
Sample : icv6169-50 Inst : Instrument #1  
Misc : op10492,em6169,1000,,,1,1 Multiplr: 1.00  
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
Last Update : Tue Apr 17 17:19:02 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 30% Max. Rel. Area : 200%

| Compound            | AvgRF      | CCRF   | %Dev    | Area% | Dev(min) | R.T.  |
|---------------------|------------|--------|---------|-------|----------|-------|
| 106 I Chrysene-d12a | 1.000      | 1.000  | 0.0     | 117   | 0.00     | 15.85 |
|                     | ----- True | Calc.  | % Drift | ----- |          |       |
| 107 t Benzidine     | 50.000     | 61.819 | -23.6   | 144   | 0.00     | 13.38 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
M145291a.D MM6168.M Wed Apr 18 02:15:55 2018 MSM

8.9.65

8

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6170-ICV6168  
**Lab FileID:** M145303.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6170\M145303.D Vial: 2  
 Acq On : 17 Apr 2018 8:55 pm Operator: sufiyana  
 Sample : icv6168-50 Inst : Instrument #1  
 Misc : op10492,em6170,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Tue Apr 17 17:19:02 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                       | AvgRF  | CCRF   | %Dev  | Area% | Dev(min) | R.T.  |
|------|--------------------------------|--------|--------|-------|-------|----------|-------|
| 1 I  | 1,4-Dichlorobenzene-d4         | 1.000  | 1.000  | 0.0   | 103   | 0.00     | 4.65  |
| 9 t  | Phenol                         | 1.971  | 1.806  | 8.4   | 103   | 0.00     | 4.39  |
| 12 t | 2-Chlorophenol                 | 1.414  | 1.382  | 2.3   | 112   | 0.00     | 4.49  |
| 19 t | 2-Methylphenol                 | 1.157  | 1.141  | 1.4   | 110   | 0.00     | 4.85  |
| 21 t | 3&4-Methylphenol               | 1.155  | 1.197  | -3.6  | 114   | 0.00     | 4.98  |
| 24 I | Naphthalene-d8                 | 1.000  | 1.000  | 0.0   | 92    | 0.00     | 5.78  |
| 29 t | 2-Nitrophenol                  | 0.185  | 0.222  | -20.0 | 100   | 0.00     | 5.41  |
| 30 t | 2,4-Dimethylphenol             | 0.319  | 0.345  | -8.2  | 99    | 0.00     | 5.45  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 31 t | Benzoic acid                   | 50.000 | 53.638 | -7.3  | 97    | 0.00     | 5.55  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 33 t | 2,4-Dichlorophenol             | 0.285  | 0.301  | -5.6  | 90    | 0.00     | 5.64  |
| 34 t | 2,6-Dichlorophenol             | 0.282  | 0.296  | -5.0  | 98    | 0.00     | 5.87  |
| 43 t | 4-Chloro-3-methylphenol        | 0.315  | 0.330  | -4.8  | 94    | 0.00     | 6.42  |
| 47 I | Acenaphthene-d10               | 1.000  | 1.000  | 0.0   | 85    | 0.00     | 8.10  |
| 49 t | 2,4,6-Trichlorophenol          | 0.369  | 0.429  | -16.3 | 100   | 0.00     | 6.98  |
| 50 t | 2,4,5-Trichlorophenol          | 0.408  | 0.422  | -3.4  | 88    | -0.01    | 7.03  |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 60 t | 2,4-Dinitrophenol              | 50.000 | 59.400 | -18.8 | 106   | 0.00     | 8.22  |
| 61 t | 4-Nitrophenol                  | 50.000 | 49.997 | 0.0   | 85    | 0.00     | 8.36  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 64 t | 2,3,4,6-Tetrachlorophenol      | 0.321  | 0.332  | -3.4  | 81    | 0.00     | 8.67  |
| 69 I | Phenanthrene-d10               | 1.000  | 1.000  | 0.0   | 82    | 0.00     | 10.71 |
|      | ----- True Calc. % Drift ----- |        |        |       |       |          |       |
| 70 t | 4,6-Dinitro-2-methylpheno      | 50.000 | 55.228 | -10.5 | 90    | 0.00     | 9.14  |
|      | ----- AvgRF CCRF % Dev -----   |        |        |       |       |          |       |
| 76 t | Pentachlorophenol              | 0.150  | 0.192  | -28.0 | 94    | 0.00     | 10.39 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Wed Apr 18 02:23:34 2018 MSM

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6192-CC6168  
 Lab FileID: M145714.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6192\M145714.D Vial: 2  
 Acq On : 3 May 2018 1:21 am Operator: chriss2  
 Sample : cc6168-50 Inst : Instrument #1  
 Misc : op10492,em6192,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 60    | 0.00     | 4.56 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.655  | 8.0    | 55    | -0.08    | 2.06 |
| 3 t                            | Pyridine                  | 1.770  | 1.524  | 13.9   | 51    | -0.06    | 2.40 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.728  | -26.6# | 76    | -0.06    | 2.36 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.411  | 5.7    | 57    | 0.00     | 3.59 |
| 6 t                            | Indene                    | 2.019  | 2.040  | -1.0   | 70    | -0.01    | 4.76 |
| 7 t                            | Cumene                    | 3.455  | 3.367  | 2.5    | 64    | -0.02    | 3.96 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.647  | 7.5    | 56    | 0.02     | 4.31 |
| 9 t                            | Phenol                    | 1.971  | 1.770  | 10.2   | 59    | 0.02     | 4.32 |
| 10 t                           | Aniline                   | 2.063  | 1.999  | 3.1    | 69    | 0.00     | 4.31 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.133  | 11.6   | 60    | 0.00     | 4.36 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.384  | 2.1    | 65    | 0.00     | 4.41 |
| 13 t                           | Decane                    | 0.920  | 0.957  | -4.0   | 78    | -0.01    | 4.44 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.542  | 7.4    | 63    | -0.01    | 4.52 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.456  | 7.1    | 63    | -0.01    | 4.57 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.857  | 1.2    | 61    | 0.00     | 4.67 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.430  | 2.2    | 69    | -0.01    | 4.69 |
| 18 t                           | Acetophenone              | 1.660  | 1.755  | -5.7   | 76    | 0.00     | 4.87 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.121  | 3.1    | 63    | 0.00     | 4.77 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.335  | 7.7    | 61    | 0.00     | 4.77 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.194  | -3.4   | 67    | 0.00     | 4.89 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.875  | -7.5   | 77    | 0.00     | 4.87 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.542  | -3.4   | 65    | -0.01    | 4.96 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 63    | -0.05    | 5.66 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.377  | 3.6    | 64    | -0.05    | 5.00 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.348  | 3.9    | 67    | -0.04    | 5.01 |
| 27 t                           | Quinoline                 | 0.740  | 0.743  | -0.4   | 63    | -0.06    | 6.04 |
| 28 t                           | Isophorone                | 0.675  | 0.661  | 2.1    | 64    | -0.05    | 5.22 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.216  | -16.8  | 66    | -0.05    | 5.30 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.354  | -11.0  | 69    | -0.04    | 5.34 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 64.058 | -28.1# | 82    | -0.02    | 5.47 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.343  | 8.8    | 62    | -0.05    | 5.42 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.312  | -9.5   | 64    | -0.04    | 5.53 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.292  | -3.5   | 66    | -0.05    | 5.75 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.352  | 4.9    | 68    | -0.05    | 5.31 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.337  | 10.1   | 64    | -0.05    | 5.60 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.327  | 2.4    | 69    | -0.06    | 5.83 |

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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6192-CC6168  
**Lab FileID:** M145714.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.960   | 8.6     | 64    | -0.06 | 5.68  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.438   | 2.2     | 66    | -0.05 | 5.74  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.411   | -4.6    | 69    | -0.05 | 6.84  |
| 41 t | Caprolactam               | 0.121       | 0.143   | -18.2   | 70    | -0.04 | 6.13  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.188   | -0.5    | 71    | -0.06 | 5.82  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.342   | -8.6    | 66    | -0.03 | 6.32  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.617   | 2.2     | 65    | -0.06 | 6.46  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.745   | 2.1     | 67    | -0.06 | 6.59  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.681   | -1.9    | 69    | -0.06 | 7.32  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 66    | -0.07 | 7.95  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.336   | -12.0   | 71    | -0.07 | 6.68  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.385   | -4.3    | 70    | -0.05 | 6.85  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.428   | -4.9    | 70    | -0.05 | 6.91  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.331   | 14.3    | 64    | -0.07 | 6.96  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.094   | 12.6    | 67    | -0.07 | 7.11  |
| 53 t | Biphenyl                  | 1.615       | 1.468   | 9.1     | 68    | -0.07 | 7.10  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.345   | -23.2#  | 74    | -0.06 | 7.28  |
| 55 t | Dimethylphthalate         | 1.427       | 1.386   | 2.9     | 68    | -0.07 | 7.57  |
| 56 t | Acenaphthylene            | 1.952       | 1.841   | 5.7     | 67    | -0.07 | 7.72  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.325   | -23.1#  | 70    | -0.06 | 7.65  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.375   | -14.0   | 66    | -0.05 | 7.91  |
| 59 t | Acenaphthene              | 1.228       | 1.136   | 7.5     | 68    | -0.07 | 8.00  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 119.554 | -19.6   | 80    | -0.04 | 8.09  |
| 61 t | 4-Nitrophenol             | 50.000      | 56.888  | -13.8   | 76    | 0.00  | 8.26  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.652   | 7.9     | 70    | -0.07 | 8.28  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 50.000      | 55.348  | -10.7   | 73    | -0.05 | 8.30  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.362   | -12.8   | 69    | -0.05 | 8.52  |
| 65 t | Diethylphthalate          | 1.393       | 1.419   | -1.9    | 70    | -0.06 | 8.75  |
| 66 t | Fluorene                  | 1.435       | 1.373   | 4.3     | 68    | -0.06 | 8.86  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.642   | 5.0     | 70    | -0.06 | 8.89  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.348   | -10.8   | 68    | -0.04 | 8.94  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 69    | -0.08 | 10.53 |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 56.050  | -12.1   | 77    | -0.07 | 9.00  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.528   | 0.8     | 74    | -0.08 | 9.11  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.621   | 13.1    | 67    | -0.09 | 9.17  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.123   | -9.8    | 70    | -0.08 | 9.29  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.221   | 0.5     | 70    | -0.09 | 9.76  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.258   | 7.5     | 71    | -0.08 | 9.85  |
| 76 t | Pentachlorophenol         | 0.150       | 0.160   | -6.7    | 65    | -0.07 | 10.24 |
| 77 t | Phenanthrene              | 1.095       | 0.982   | 10.3    | 71    | -0.08 | 10.58 |
| 78 t | Anthracene                | 1.094       | 1.039   | 5.0     | 71    | -0.08 | 10.68 |
| 79 t | Carbazole                 | 1.114       | 1.043   | 6.4     | 68    | -0.06 | 11.03 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.323   | -10.8   | 71    | -0.07 | 11.84 |
| 81 t | Fluoranthene              | 1.221       | 1.242   | -1.7    | 70    | -0.06 | 12.86 |
| 82 t | Octadecane                | 0.314       | 0.335   | -6.7    | 77    | -0.08 | 10.56 |

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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6192-CC6168  
**Lab FileID:** M145714.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 72    | -0.08 | 15.69 |
| 84  | t | Pyrene                    | 1.418       | 1.341  | 5.4     | 70    | -0.10 | 13.28 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.936  | 1.9     | 68    | -0.10 | 13.71 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.653  | -10.9   | 70    | -0.09 | 14.77 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.208  | -3.2    | 72    | -0.08 | 15.67 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 50.000      | 50.829 | -1.7    | 73    | -0.08 | 15.70 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.074  | 4.9     | 73    | -0.08 | 15.74 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 51.207 | -2.4    | 73    | -0.09 | 15.99 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 65    | -0.09 | 18.30 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 55.397 | -10.8   | 71    | -0.10 | 17.22 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.224  | -6.4    | 66    | -0.09 | 17.66 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.119  | -2.9    | 70    | -0.09 | 17.71 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.098  | -12.0   | 67    | -0.09 | 18.20 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 0.837  | 10.5    | 52    | -0.10 | 19.97 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.824  | 8.2     | 52    | -0.09 | 19.63 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 0.897  | 10.2    | 55    | -0.10 | 20.02 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.559  | -22.6#  | 72    | -0.10 | 17.68 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 0.825  | 15.8    | 53    | -0.12 | 20.39 |

(#) = Out of Range  
 M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 10:29:35 2018 MSM

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6194-CC6168  
 Lab FileID: M145757.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6194\M145757.D Vial: 2  
 Acq On : 4 May 2018 12:06 am Operator: sufiyana  
 Sample : cc6168-50 Inst : Instrument #1  
 Misc : op10492,em6194,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|                                | Compound                  | AvgRF  | CCRF   | %Dev   | Area% | Dev(min) | R.T. |
|--------------------------------|---------------------------|--------|--------|--------|-------|----------|------|
| 1 I                            | 1,4-Dichlorobenzene-d4    | 1.000  | 1.000  | 0.0    | 60    | -0.02    | 4.55 |
| 2 t                            | 1,4-Dioxane               | 0.712  | 0.643  | 9.7    | 54    | -0.09    | 2.05 |
| 3 t                            | Pyridine                  | 1.770  | 1.561  | 11.8   | 53    | -0.06    | 2.39 |
| 4 t                            | N-Nitrosodimethylamine    | 0.575  | 0.718  | -24.9# | 75    | -0.07    | 2.35 |
| 5 S                            | 2-Fluorophenol            | 1.496  | 1.435  | 4.1    | 58    | -0.01    | 3.57 |
| 6 t                            | Indene                    | 2.019  | 1.972  | 2.3    | 67    | -0.02    | 4.74 |
| 7 t                            | Cumene                    | 3.455  | 3.389  | 1.9    | 64    | -0.03    | 3.95 |
| 8 S                            | Phenol-d5                 | 1.781  | 1.642  | 7.8    | 56    | 0.00     | 4.30 |
| 9 t                            | Phenol                    | 1.971  | 1.718  | 12.8   | 57    | 0.00     | 4.31 |
| 10 t                           | Aniline                   | 2.063  | 1.945  | 5.7    | 67    | -0.02    | 4.31 |
| 11 t                           | bis(2-Chloroethyl)ether   | 1.281  | 1.128  | 11.9   | 60    | -0.02    | 4.35 |
| 12 t                           | 2-Chlorophenol            | 1.414  | 1.367  | 3.3    | 65    | 0.00     | 4.40 |
| 13 t                           | Decane                    | 0.920  | 0.946  | -2.8   | 77    | -0.02    | 4.43 |
| 14 t                           | 1,3-Dichlorobenzene       | 1.665  | 1.510  | 9.3    | 62    | -0.02    | 4.50 |
| 15 t                           | 1,4-Dichlorobenzene       | 1.567  | 1.450  | 7.5    | 63    | -0.02    | 4.56 |
| 16 t                           | Benzyl alcohol            | 0.867  | 0.845  | 2.5    | 60    | 0.00     | 4.66 |
| 17 t                           | 1,2-Dichlorobenzene       | 1.462  | 1.378  | 5.7    | 66    | -0.02    | 4.68 |
| 18 t                           | Acetophenone              | 1.660  | 1.681  | -1.3   | 72    | -0.02    | 4.86 |
| 19 t                           | 2-Methylphenol            | 1.157  | 1.083  | 6.4    | 61    | 0.00     | 4.76 |
| 20 t                           | 2,2'-oxybis(1-Chloropropa | 0.363  | 0.322  | 11.3   | 58    | -0.02    | 4.76 |
| 21 t                           | 3&4-Methylphenol          | 1.155  | 1.168  | -1.1   | 65    | 0.00     | 4.88 |
| 22 t                           | n-Nitroso-di-n-propylamin | 0.814  | 0.826  | -1.5   | 72    | -0.02    | 4.87 |
| 23 t                           | Hexachloroethane          | 0.524  | 0.531  | -1.3   | 63    | -0.02    | 4.95 |
| 24 I                           | Naphthalene-d8            | 1.000  | 1.000  | 0.0    | 61    | -0.06    | 5.65 |
| 25 S                           | Nitrobenzene-d5           | 0.391  | 0.368  | 5.9    | 60    | -0.05    | 4.99 |
| 26 t                           | Nitrobenzene              | 0.362  | 0.348  | 3.9    | 65    | -0.05    | 5.01 |
| 27 t                           | Quinoline                 | 0.740  | 0.751  | -1.5   | 62    | -0.07    | 6.03 |
| 28 t                           | Isophorone                | 0.675  | 0.647  | 4.1    | 61    | -0.06    | 5.21 |
| 29 t                           | 2-Nitrophenol             | 0.185  | 0.213  | -15.1  | 63    | -0.06    | 5.28 |
| 30 t                           | 2,4-Dimethylphenol        | 0.319  | 0.355  | -11.3  | 67    | -0.04    | 5.34 |
| ----- True Calc. % Drift ----- |                           |        |        |        |       |          |      |
| 31 t                           | Benzoic acid              | 50.000 | 63.841 | -27.7# | 78    | -0.03    | 5.45 |
| ----- AvgRF CCRF % Dev -----   |                           |        |        |        |       |          |      |
| 32 t                           | bis(2-Chloroethoxy)methan | 0.376  | 0.342  | 9.0    | 60    | -0.06    | 5.41 |
| 33 t                           | 2,4-Dichlorophenol        | 0.285  | 0.313  | -9.8   | 62    | -0.05    | 5.52 |
| 34 t                           | 2,6-Dichlorophenol        | 0.282  | 0.295  | -4.6   | 65    | -0.06    | 5.74 |
| 35 t                           | 1,3,5-Trichlorobenzene    | 0.370  | 0.349  | 5.7    | 65    | -0.06    | 5.29 |
| 36 t                           | 1,2,4-Trichlorobenzene    | 0.375  | 0.345  | 8.0    | 63    | -0.06    | 5.59 |
| 37 t                           | 1,2,3-Trichlorobenzene    | 0.335  | 0.326  | 2.7    | 67    | -0.07    | 5.82 |

8.68  
8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6168  
**Lab FileID:** M145757.D

|      |                           |             |         |         |       |       |       |
|------|---------------------------|-------------|---------|---------|-------|-------|-------|
| 38 t | Naphthalene               | 1.050       | 0.961   | 8.5     | 62    | -0.07 | 5.67  |
| 39 t | 4-Chloroaniline           | 0.448       | 0.440   | 1.8     | 64    | -0.06 | 5.73  |
| 40 t | 2,3-Dichloroaniline       | 0.393       | 0.409   | -4.1    | 67    | -0.07 | 6.82  |
| 41 t | Caprolactam               | 0.121       | 0.148   | -22.3#  | 70    | -0.06 | 6.12  |
| 42 t | Hexachlorobutadiene       | 0.187       | 0.190   | -1.6    | 69    | -0.07 | 5.81  |
| 43 t | 4-Chloro-3-methylphenol   | 0.315       | 0.346   | -9.8    | 65    | -0.05 | 6.30  |
| 44 t | 2-Methylnaphthalene       | 0.631       | 0.624   | 1.1     | 63    | -0.07 | 6.45  |
| 45 t | 1-Methylnaphthalene       | 0.761       | 0.750   | 1.4     | 65    | -0.07 | 6.58  |
| 46 t | Dimethylnaphthalene       | 0.668       | 0.680   | -1.8    | 66    | -0.08 | 7.30  |
| 47 I | Acenaphthene-d10          | 1.000       | 1.000   | 0.0     | 64    | -0.09 | 7.93  |
| 48 t | Hexachlorocyclopentadiene | 0.300       | 0.332   | -10.7   | 68    | -0.08 | 6.67  |
| 49 t | 2,4,6-Trichlorophenol     | 0.369       | 0.387   | -4.9    | 68    | -0.07 | 6.84  |
| 50 t | 2,4,5-Trichlorophenol     | 0.408       | 0.430   | -5.4    | 67    | -0.07 | 6.89  |
| 51 S | 2-Fluorobiphenyl          | 1.553       | 1.346   | 13.3    | 63    | -0.08 | 6.94  |
| 52 t | 2-Chloronaphthalene       | 1.252       | 1.090   | 12.9    | 65    | -0.08 | 7.10  |
| 53 t | Biphenyl                  | 1.615       | 1.497   | 7.3     | 67    | -0.08 | 7.08  |
| 54 t | 2-Nitroaniline            | 0.280       | 0.342   | -22.1#  | 71    | -0.07 | 7.26  |
| 55 t | Dimethylphthalate         | 1.427       | 1.404   | 1.6     | 67    | -0.08 | 7.55  |
| 56 t | Acenaphthylene            | 1.952       | 1.840   | 5.7     | 65    | -0.09 | 7.70  |
| 57 t | 2,6-Dinitrotoluene        | 0.264       | 0.318   | -20.5#  | 66    | -0.07 | 7.63  |
| 58 t | 3-Nitroaniline            | 0.329       | 0.379   | -15.2   | 64    | -0.07 | 7.89  |
| 59 t | Acenaphthene              | 1.228       | 1.134   | 7.7     | 65    | -0.08 | 7.98  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 60 t | 2,4-Dinitrophenol         | 100.000     | 119.952 | -20.0   | 77    | -0.06 | 8.07  |
| 61 t | 4-Nitrophenol             | 50.000      | 58.366  | -16.7   | 75    | -0.02 | 8.24  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 62 t | Dibenzofuran              | 1.794       | 1.659   | 7.5     | 67    | -0.09 | 8.26  |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 63 t | 2,4-Dinitrotoluene        | 50.000      | 56.465  | -12.9   | 71    | -0.07 | 8.28  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 64 t | 2,3,4,6-Tetrachlorophenol | 0.321       | 0.368   | -14.6   | 68    | -0.07 | 8.50  |
| 65 t | Diethylphthalate          | 1.393       | 1.417   | -1.7    | 67    | -0.08 | 8.73  |
| 66 t | Fluorene                  | 1.435       | 1.388   | 3.3     | 66    | -0.08 | 8.84  |
| 67 t | 4-Chlorophenyl-phenylethe | 0.676       | 0.656   | 3.0     | 69    | -0.08 | 8.88  |
| 68 t | 4-Nitroaniline            | 0.314       | 0.355   | -13.1   | 67    | -0.06 | 8.92  |
| 69 I | Phenanthrene-d10          | 1.000       | 1.000   | 0.0     | 69    | -0.10 | 10.52 |
|      |                           | ----- True  | Calc.   | % Drift | ----- |       |       |
| 70 t | 4,6-Dinitro-2-methylpheno | 50.000      | 53.816  | -7.6    | 74    | -0.09 | 8.98  |
|      |                           | ----- AvgRF | CCRF    | % Dev   | ----- |       |       |
| 71 t | n-Nitrosodiphenylamine    | 0.532       | 0.521   | 2.1     | 73    | -0.10 | 9.09  |
| 72 t | 1,2-Diphenylhydrazine     | 0.715       | 0.607   | 15.1    | 66    | -0.11 | 9.15  |
| 73 S | 2,4,6-Tribromophenol      | 0.112       | 0.125   | -11.6   | 71    | -0.10 | 9.27  |
| 74 t | 4-Bromophenyl-phenylether | 0.222       | 0.220   | 0.9     | 70    | -0.10 | 9.74  |
| 75 t | Hexachlorobenzene         | 0.279       | 0.250   | 10.4    | 69    | -0.10 | 9.83  |
| 76 t | Pentachlorophenol         | 0.150       | 0.159   | -6.0    | 65    | -0.09 | 10.21 |
| 77 t | Phenanthrene              | 1.095       | 0.966   | 11.8    | 70    | -0.10 | 10.56 |
| 78 t | Anthracene                | 1.094       | 1.019   | 6.9     | 70    | -0.10 | 10.66 |
| 79 t | Carbazole                 | 1.114       | 1.041   | 6.6     | 68    | -0.09 | 11.00 |
| 80 t | Di-n-butylphthalate       | 1.194       | 1.316   | -10.2   | 70    | -0.09 | 11.83 |
| 81 t | Fluoranthene              | 1.221       | 1.266   | -3.7    | 71    | -0.08 | 12.84 |
| 82 t | Octadecane                | 0.314       | 0.322   | -2.5    | 74    | -0.10 | 10.54 |

89.68

8

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** EM6194-CC6168  
**Lab FileID:** M145757.D

|     |   |                           |             |        |         |       |       |       |
|-----|---|---------------------------|-------------|--------|---------|-------|-------|-------|
| 83  | I | Chrysene-d12              | 1.000       | 1.000  | 0.0     | 74    | -0.11 | 15.67 |
| 84  | t | Pyrene                    | 1.418       | 1.300  | 8.3     | 70    | -0.12 | 13.26 |
| 85  | S | Terphenyl-d14             | 0.954       | 0.913  | 4.3     | 69    | -0.12 | 13.69 |
| 86  | t | Butylbenzylphthalate      | 0.589       | 0.645  | -9.5    | 71    | -0.11 | 14.75 |
| 87  | t | Benzo[a]anthracene        | 1.170       | 1.210  | -3.4    | 74    | -0.11 | 15.65 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 88  | t | 3,3'-Dichlorobenzidine    | 50.000      | 49.935 | 0.1     | 74    | -0.10 | 15.69 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 89  | t | Chrysene                  | 1.129       | 1.091  | 3.4     | 76    | -0.11 | 15.71 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 90  | t | bis(2-Ethylhexyl)phthalat | 50.000      | 49.508 | 1.0     | 72    | -0.10 | 15.98 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 91  | I | Perylene-d12              | 1.000       | 1.000  | 0.0     | 70    | -0.11 | 18.27 |
|     |   |                           | ----- True  | Calc.  | % Drift | ----- |       |       |
| 92  | t | Di-n-octylphthalate       | 50.000      | 51.666 | -3.3    | 71    | -0.12 | 17.20 |
|     |   |                           | ----- AvgRF | CCRF   | % Dev   | ----- |       |       |
| 93  | t | Benzo[b]fluoranthene      | 1.150       | 1.223  | -6.3    | 71    | -0.11 | 17.64 |
| 94  | t | Benzo[k]fluoranthene      | 1.087       | 1.100  | -1.2    | 75    | -0.11 | 17.69 |
| 95  | t | Benzo[a]pyrene            | 0.980       | 1.112  | -13.5   | 73    | -0.11 | 18.18 |
| 96  | t | Indeno[1,2,3-cd]pyrene    | 0.935       | 0.974  | -4.2    | 66    | -0.13 | 19.94 |
| 97  | t | Dibenz(a,h)acridine       | 0.898       | 0.945  | -5.2    | 65    | -0.11 | 19.61 |
| 98  | t | Dibenz[a,h]anthracene     | 0.999       | 1.024  | -2.5    | 68    | -0.13 | 19.99 |
| 99  | t | 7,12-Dimethylbenz(a)anthr | 0.456       | 0.548  | -20.2#  | 77    | -0.12 | 17.65 |
| 100 | t | Benzo[g,h,i]perylene      | 0.980       | 0.996  | -1.6    | 69    | -0.15 | 20.37 |

(#) = Out of Range  
M145291a.D MM6168.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 09:43:05 2018 MSM

8.9.68

8



# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: EM6194-CC6169  
 Lab FileID: M145759.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6194\M145759.D Vial: 3  
 Acq On : 4 May 2018 1:07 am Operator: sufiyana  
 Sample : cc6169-50 Inst : Instrument #1  
 Misc : op10492,em6194,1000,,,1,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6168.M (RTE Integrator)  
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 Last Update : Wed May 02 21:51:38 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                  | AvgRF  | CCRF    | %Dev  | Area% | Dev(min) | R.T.  |
|-------|---------------------------|--------|---------|-------|-------|----------|-------|
| 101 I | 1,4-Dichlorobenzene-d4a   | 1.000  | 1.000   | 0.0   | 68    | -0.05    | 4.55  |
| 102 t | Benzaldehyde              | 1.145  | 0.906   | 20.9# | 59    | -0.05    | 4.22  |
| 103 I | Acenaphthene-d10a         | 1.000  | 1.000   | 0.0   | 76    | -0.09    | 7.93  |
| 104 I | 1,2,4,5-Tetrachlorobenzen | 0.665  | 0.591   | 11.1  | 74    | -0.08    | 6.67  |
|       | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 105 t | Atrazine                  | 50.000 | 52.110  | -4.2  | 77    | -0.06    | 10.14 |
|       | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 106 I | Chrysene-d12a             | 1.000  | 1.000   | 0.0   | 84    | -0.12    | 15.66 |
|       | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 107 t | Benzidine                 | 50.000 | 33.314  | 33.4# | 60    | -0.12    | 13.19 |
|       | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 108 s | 1-chlorooctadecane        | 0.241  | 0.235   | 2.5   | 78    | -0.13    | 12.87 |
| 109 I | Phenanthrene-d10a         | 1.000  | 1.000   | 0.0   | 77    | -0.10    | 10.52 |
| 110 s | o-terphenyl               | 0.554  | 0.549   | 0.9   | 77    | -0.11    | 11.33 |
|       | ----- True                | Calc.  | % Drift | ----- |       |          |       |
| 111   | Pentachloronitrobenzene   | 50.000 | 56.027  | -12.1 | 87    | -0.10    | 10.23 |
|       | ----- AvgRF               | CCRF   | % Dev   | ----- |       |          |       |
| 112 I | Naphthalene-d8a           | 1.000  | 1.000   | 0.0   | 68    | -0.06    | 5.65  |
| 113   | Hydroquinone              | 0.331  | 0.388   | -17.2 | 71    | -0.02    | 6.12  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 M145291a.D MM6168.M Fri May 04 09:43:07 2018 MSM

8.6.6  
8

MS Semi-volatiles

Raw Data

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472436.D  
 Acq On : 2 May 2018 10:57 am  
 Operator : sufiyana  
 Sample : jc65157-1  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 11 13:45:37 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response  | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|-----------|--------|--------|----------|--------|
| Internal Standards           |        |      |           |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 498694    | 40.00  | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.660  | 136  | 1908575   | 40.00  | ppm    | 0.05     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 976753    | 40.00  | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.110  | 188  | 1693026   | 40.00  | ppm    | 0.06     |        |
| 83) Chrysene-d12             | 12.303 | 240  | 1736627   | 40.00  | ppm    | 0.09     |        |
| 91) Perylene-d12             | 13.913 | 264  | 1819311   | 40.00  | ppm    | 0.09     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 498694    | 40.00  | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 976753    | 40.00  | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.110  | 188  | 1693026   | 40.00  | ppm    | 0.06     |        |
| 109) Chrysene-d12a           | 12.303 | 240  | 1736627   | 40.00  | ppm    | 0.09     |        |
| 111) Naphthalene-d8a         | 5.660  | 136  | 1908330   | 40.00  | ppm    | 0.05     |        |
| 113) Phenanthrene-d10b       | 9.110  | 188  | 1693026   | 40.00  | ppm    | 0.06     |        |
| 115) Chrysene-d12b           | 12.303 | 240  | 1736627   | 40.00  | ppm    | 0.09     |        |
| System Monitoring Compounds  |        |      |           |        |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 532337    | 29.28  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 58.56% |          |        |
| 8) Phenol-d5                 | 4.371  | 99   | 646418    | 27.92  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 55.84% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 598353    | 28.88  | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 57.76% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1050883   | 27.89  | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 55.78% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.297  | 330  | 139858    | 21.96  | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 43.92% |          |        |
| 85) Terphenyl-d14            | 11.035 | 244  | 934845    | 22.53  | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 45.06% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d        | 0.00   | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d        | 0.00   | ppm    |          |        |
| Target Compounds             |        |      |           |        |        |          |        |
| 9) Phenol                    | 4.387  | 94   | 72107     | 2.76   | ppm    | 85       | Qvalue |
| 21) 3&4-Methylphenol         | 4.954  | 108  | 79581     | 4.57   | ppm    | 99       |        |
| 38) Naphthalene              | 5.671  | 128  | 18638561m | 372.67 | ppm    |          |        |
| 44) 2-Methylnaphthalene      | 6.323  | 141  | 6618434   | 226.14 | ppm    | 89       |        |
| 53) Biphenyl                 | 6.783  | 154  | 2427237   | 58.05  | ppm    | 97       |        |
| 56) Acenaphthylene           | 7.243  | 152  | 3065796   | 64.47  | ppm    | 97       |        |
| 59) Acenaphthene             | 7.436  | 153  | 1044894   | 31.52  | ppm    | 95       |        |
| 62) Dibenzofuran             | 7.634  | 168  | 9273455   | 216.40 | ppm    | 82       |        |
| 66) Fluorene                 | 8.013  | 166  | 3555580   | 103.31 | ppm    | 95       |        |
| 77) Phenanthrene             | 9.136  | 178  | 24250856m | 471.20 | ppm    |          |        |
| 78) Anthracene               | 9.206  | 178  | 12086835  | 232.05 | ppm    | 94       |        |
| 79) Carbazole                | 9.404  | 167  | 5097316   | 105.22 | ppm    | 99       |        |
| 81) Fluoranthene             | 10.570 | 202  | 20338218m | 364.46 | ppm    |          |        |
| 84) Pyrene                   | 10.837 | 202  | 20516656m | 353.51 | ppm    |          |        |
| 87) Benzo[a]anthracene       | 12.298 | 228  | 12794815  | 235.13 | ppm    | 100      |        |
| 89) Chrysene                 | 12.346 | 228  | 11851755  | 220.28 | ppm    | 96       |        |
| 93) Benzo[b]fluoranthene     | 13.533 | 252  | 15605795m | 270.88 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.554 | 252  | 4826238m  | 91.64  | ppm    |          |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472436.D  
 Acq On : 2 May 2018 10:57 am  
 Operator : sufiyana  
 Sample : jc65157-1  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 11 13:45:37 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018

QLast Update : Wed May 02 09:22:03 2018

Response via : Initial Calibration

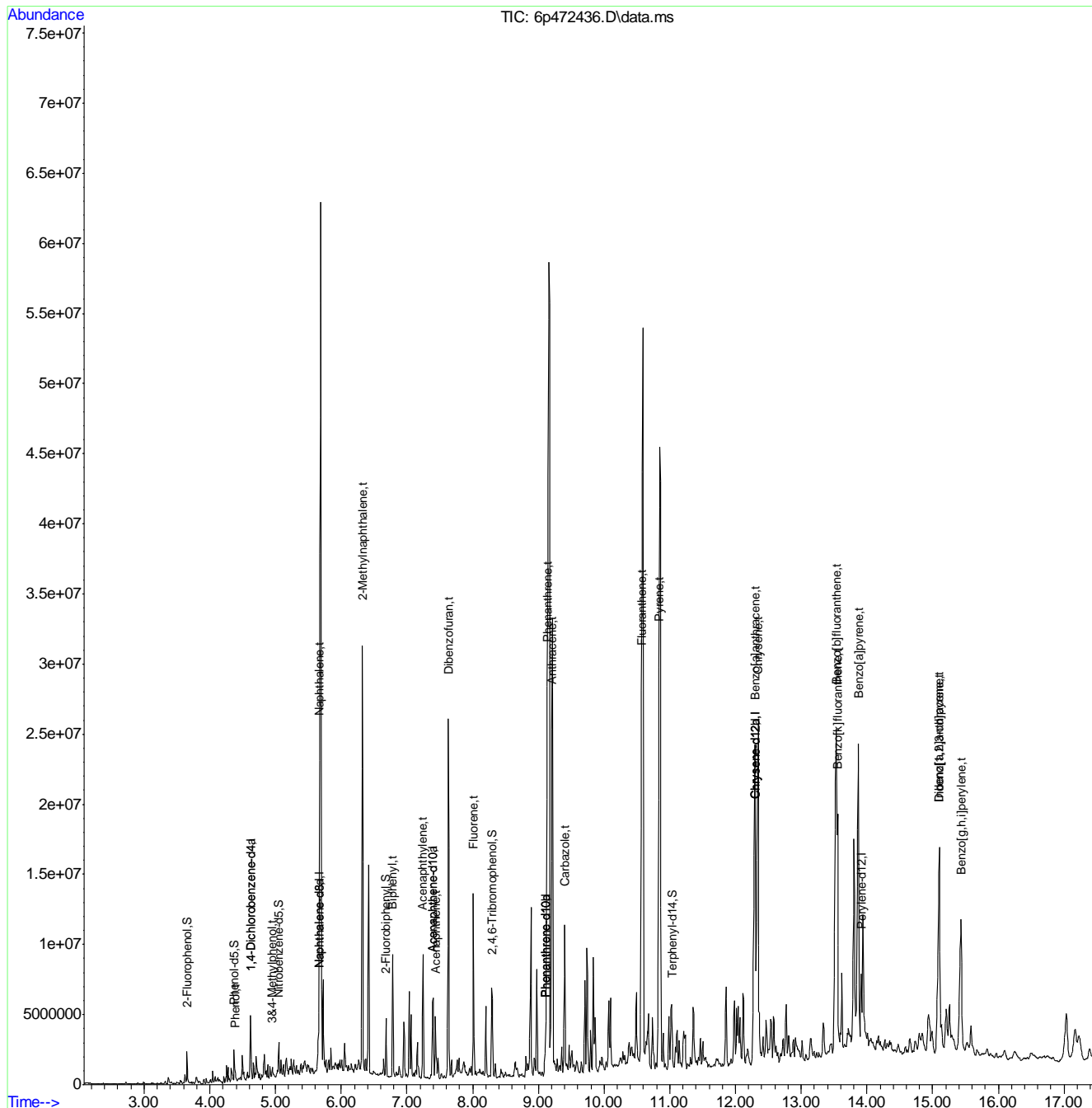
| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 95) Benzo[a]pyrene         | 13.870 | 252  | 10893061 | 213.47 | ppm   | 95       |
| 96) Indeno[1,2,3-cd]pyrene | 15.100 | 276  | 8994863  | 133.91 | ppm   | 81       |
| 98) Dibenz[a,h]anthracene  | 15.100 | 278  | 2356685  | 40.69  | ppm   | 89       |
| 100) Benzo[g,h,i]perylene  | 15.432 | 276  | 7617777  | 141.62 | ppm   | 92       |

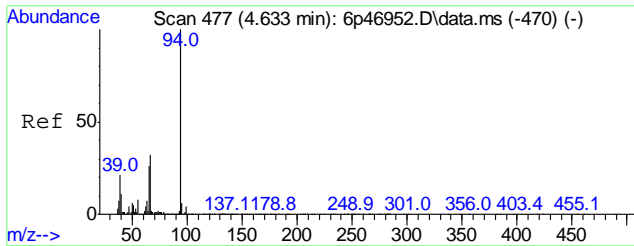
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472436.D  
 Acq On : 2 May 2018 10:57 am  
 Operator : sufiyana  
 Sample : jc65157-1  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 30 Sample Multiplier: 1

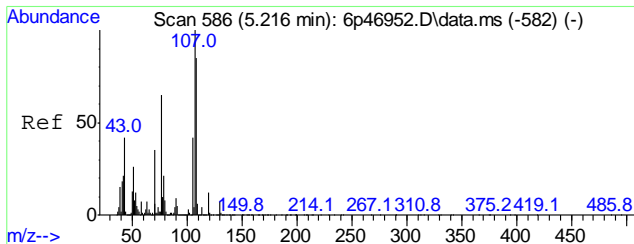
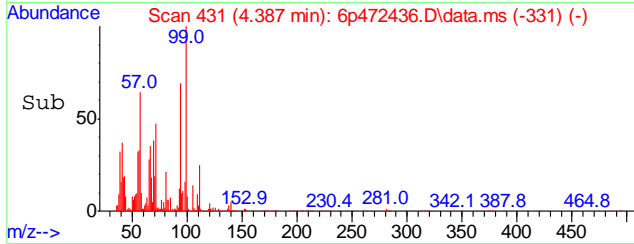
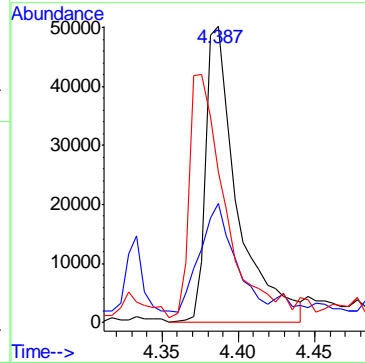
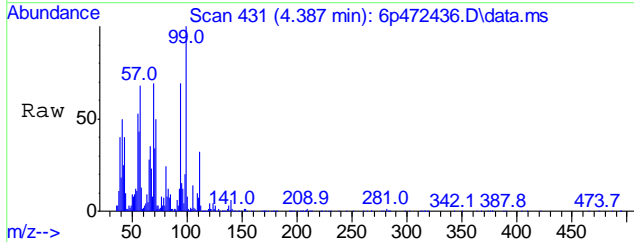
Quant Time: May 11 13:45:37 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration





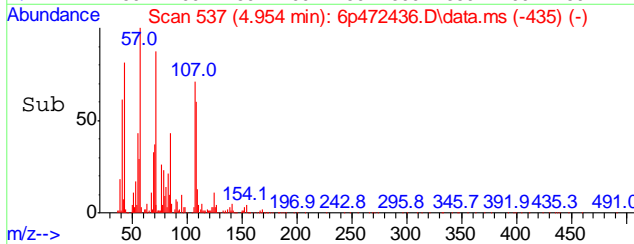
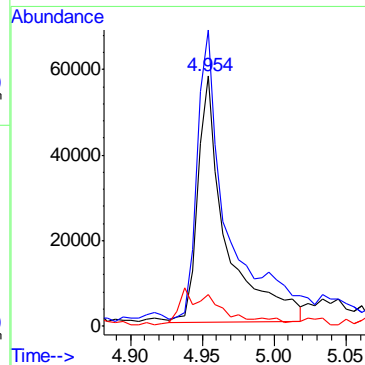
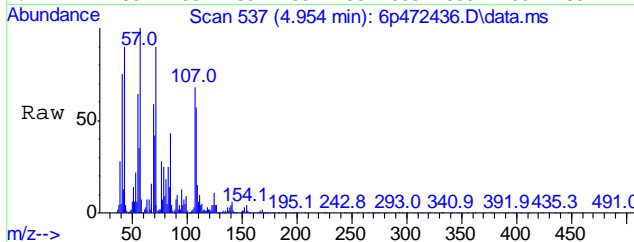
#9  
 Phenol  
 Concen: 2.76 ppm  
 RT: 4.387 min Scan# 431  
 Delta R.T. 0.037 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

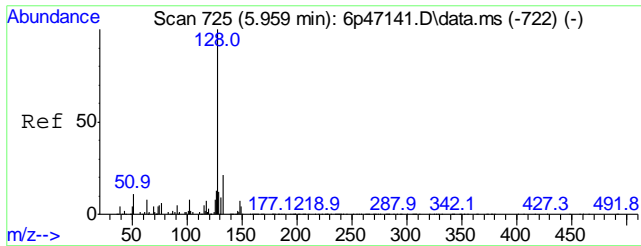
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 94      | 72107 | 100   |       |
| 65      | 36.7  | 0.0   | 58.8  |
| 66      | 47.3  | 8.4   | 68.4  |



#21  
 3&4-Methylphenol  
 Concen: 4.57 ppm  
 RT: 4.954 min Scan# 537  
 Delta R.T. 0.044 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

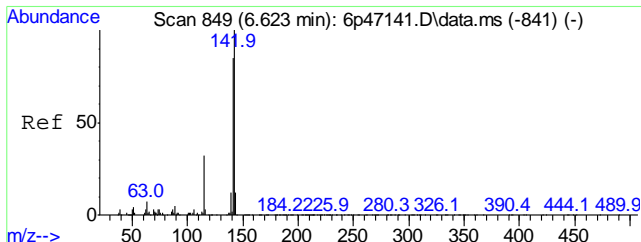
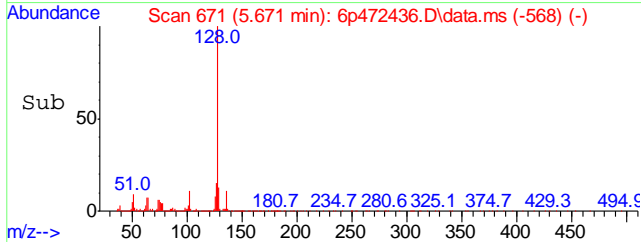
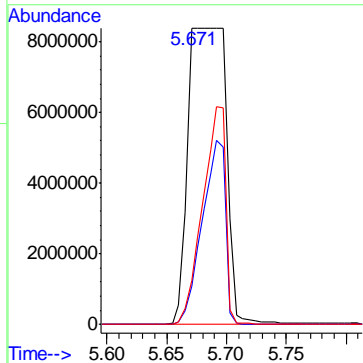
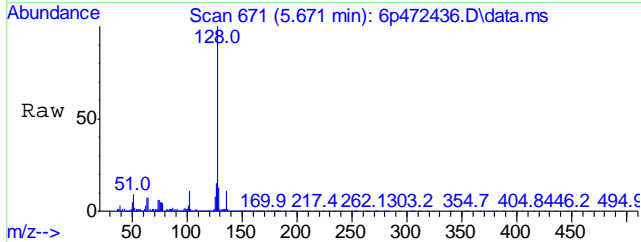
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 79581 | 100   |       |
| 107     | 116.7 | 87.0  | 147.0 |
| 90      | 11.6  | 0.0   | 40.0  |





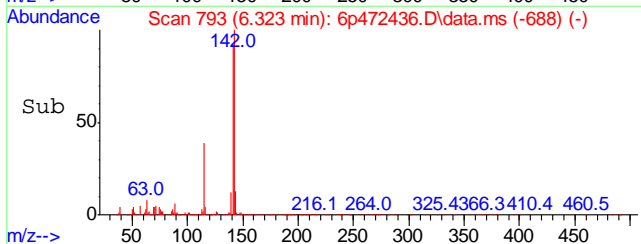
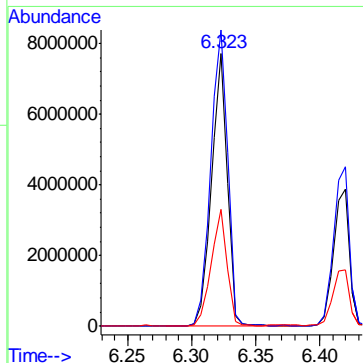
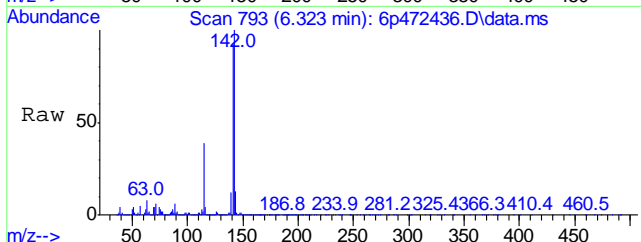
#38  
 Naphthalene  
 Concen: 372.67 ppm  
 RT: 5.671 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 12.8  | 0.0   | 41.1  |
| 127     | 14.9  | 0.0   | 43.2  |

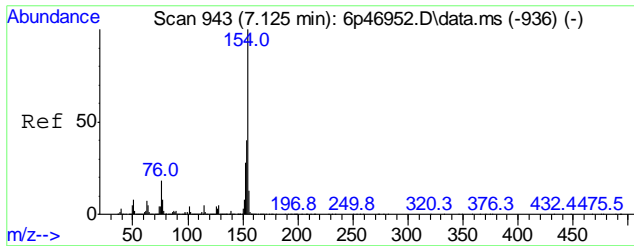


#44  
 2-Methylnaphthalene  
 Concen: 226.14 ppm  
 RT: 6.323 min Scan# 793  
 Delta R.T. 0.061 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 108.5 | 91.8  | 151.8 |
| 115     | 42.5  | 8.6   | 68.6  |

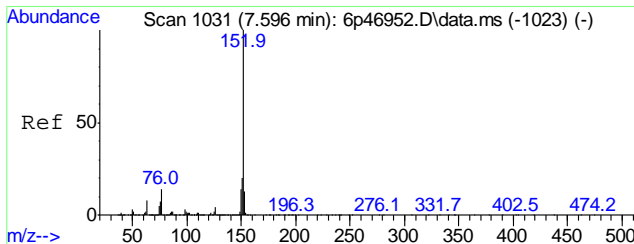
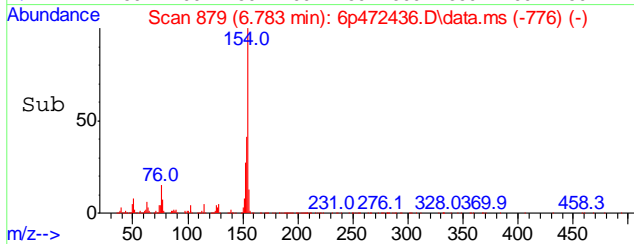
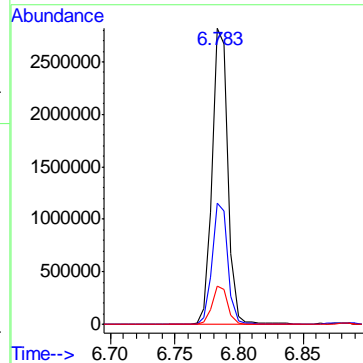
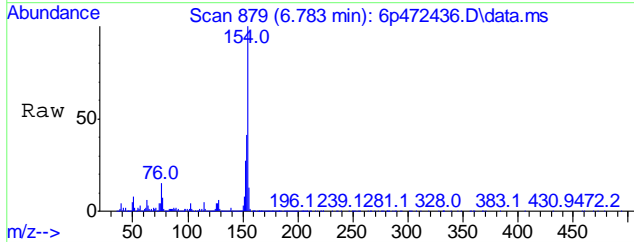


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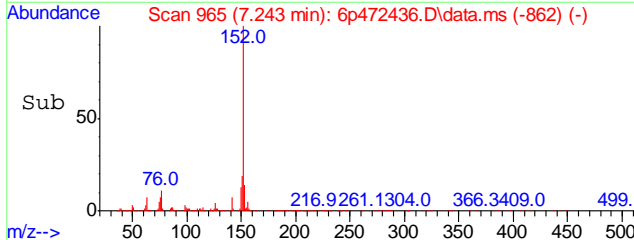
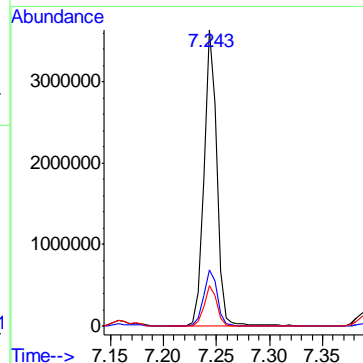
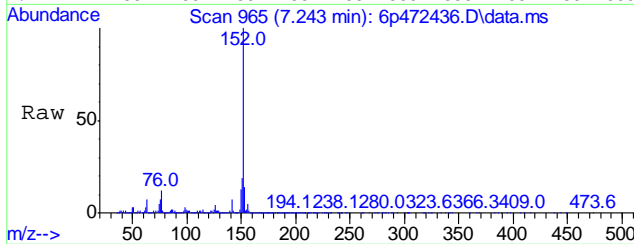
#53  
 Biphenyl  
 Concen: 58.05 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 40.7  | 8.7   | 68.7  |
| 155     | 12.9  | 0.0   | 43.0  |



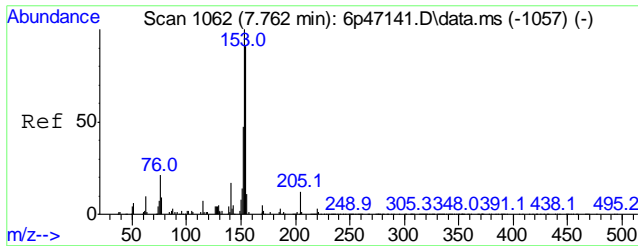
#56  
 Acenaphthylene  
 Concen: 64.47 ppm  
 RT: 7.243 min Scan# 965  
 Delta R.T. 0.053 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.0  | 0.0   | 50.2  |
| 153     | 13.6  | 0.0   | 44.8  |



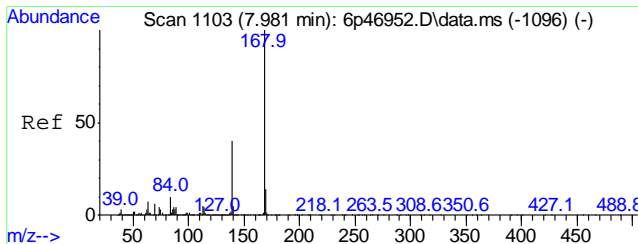
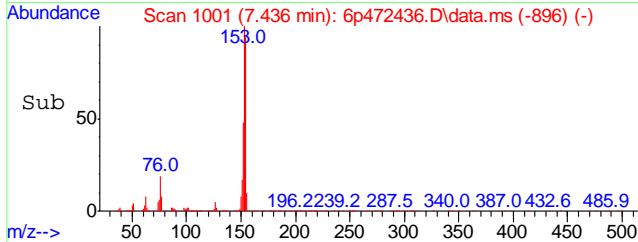
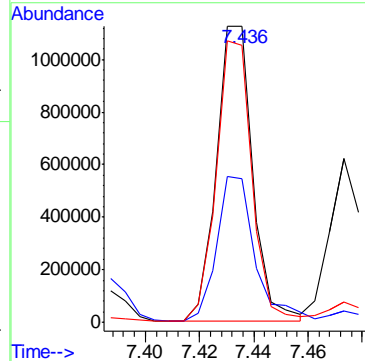
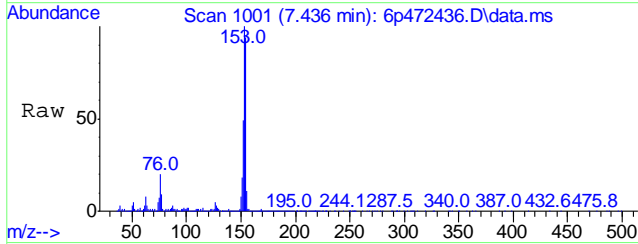
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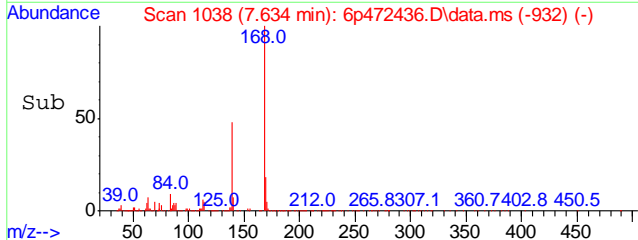
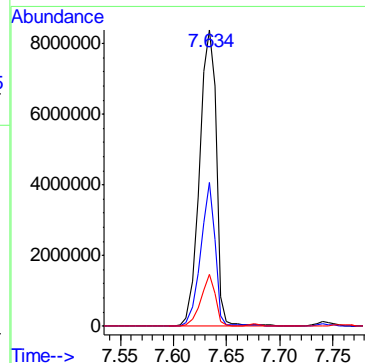
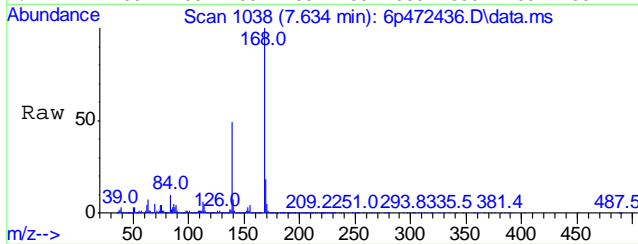
#59  
 Acenaphthene  
 Concen: 31.52 ppm  
 RT: 7.436 min Scan# 1001  
 Delta R.T. 0.059 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

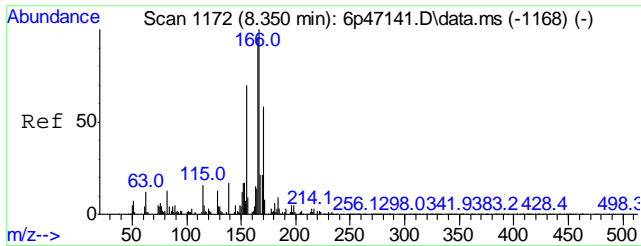
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 153     | 1044894 |       |       |
| 152     | 47.3    | 13.9  | 73.9  |
| 154     | 93.9    | 59.3  | 119.3 |



#62  
 Dibenzofuran  
 Concen: 216.40 ppm  
 RT: 7.634 min Scan# 1038  
 Delta R.T. 0.065 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

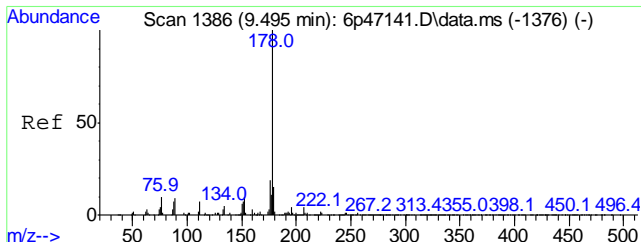
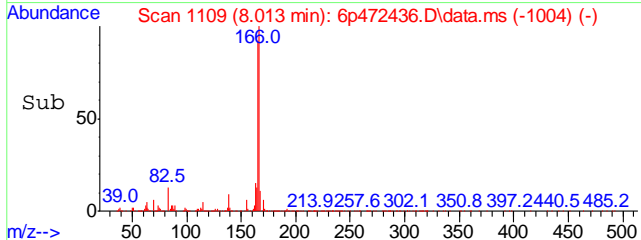
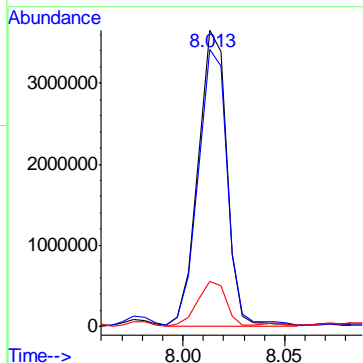
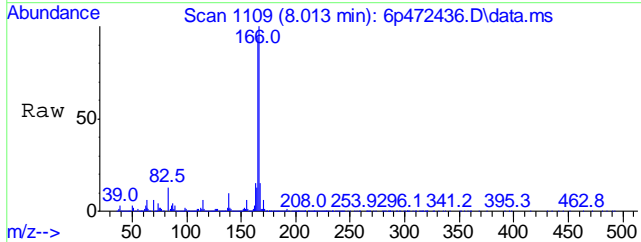
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 168     | 9273455 |       |       |
| 139     | 48.6    | 6.0   | 66.0  |
| 169     | 17.6    | 0.0   | 43.5  |





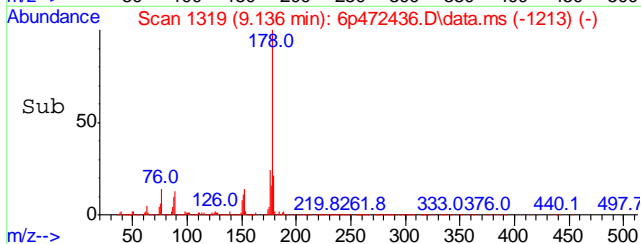
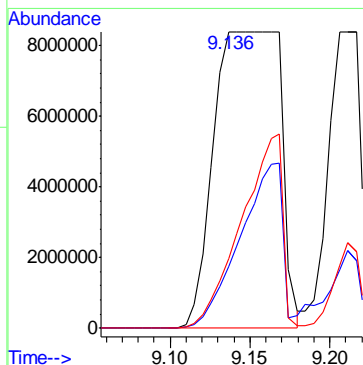
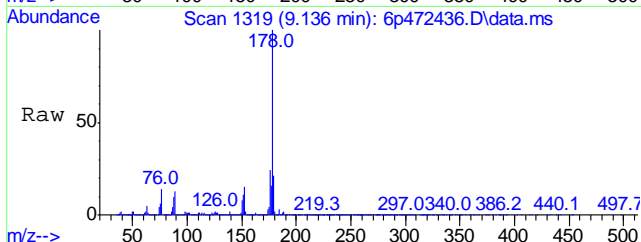
#66  
 Fluorene  
 Concen: 103.31 ppm  
 RT: 8.013 min Scan# 1109  
 Delta R.T. 0.061 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 93.6 | 59.3  | 119.3 |
| 167     | 15.1 | 0.0   | 43.1  |

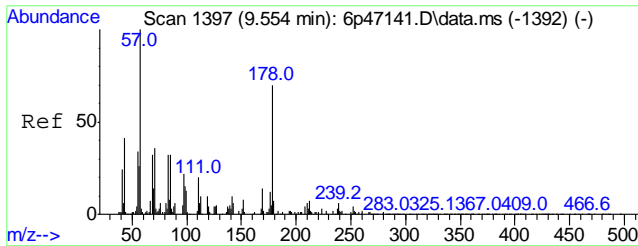


#77  
 Phenanthrene  
 Concen: 471.20 ppm m  
 RT: 9.136 min Scan# 1319  
 Delta R.T. 0.070 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 20.9 | 0.0   | 46.6  |
| 176     | 23.7 | 0.0   | 49.6  |

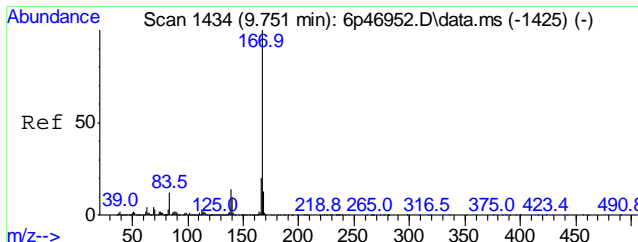
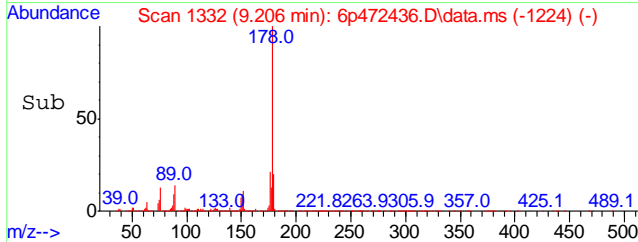
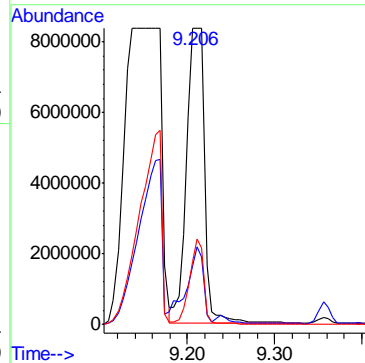
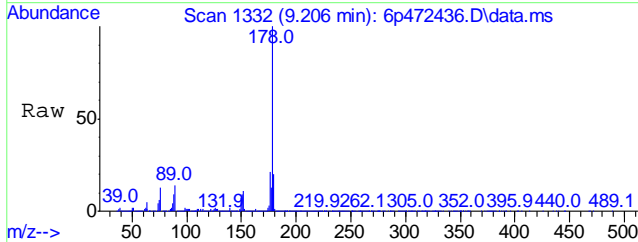


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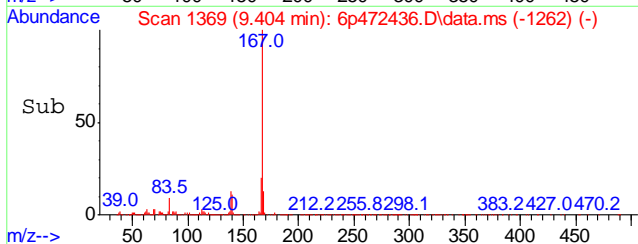
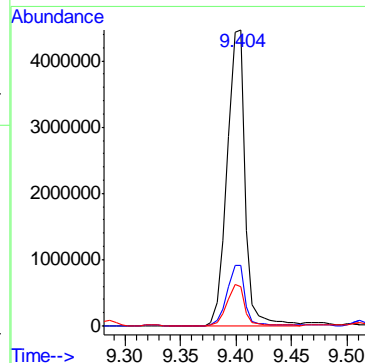
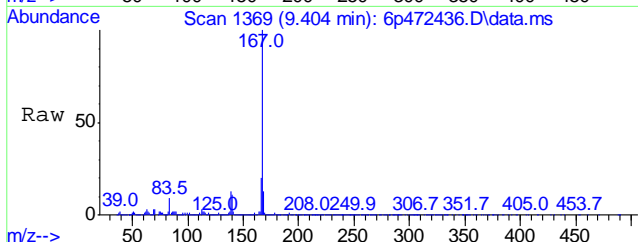
#78  
 Anthracene  
 Concen: 232.05 ppm  
 RT: 9.206 min Scan# 1332  
 Delta R.T. 0.075 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 18.0  | 0.0   | 45.3  |
| 176     | 21.2  | 0.0   | 48.4  |

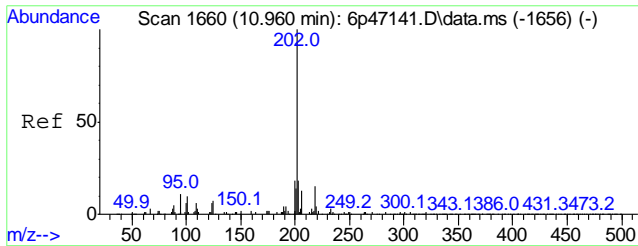


#79  
 Carbazole  
 Concen: 105.22 ppm  
 RT: 9.404 min Scan# 1369  
 Delta R.T. 0.070 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.3  | 0.0   | 50.0  |
| 139     | 13.4  | 0.0   | 42.3  |

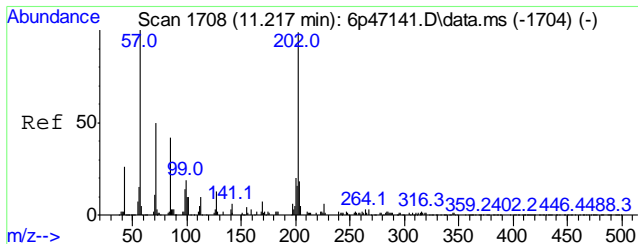
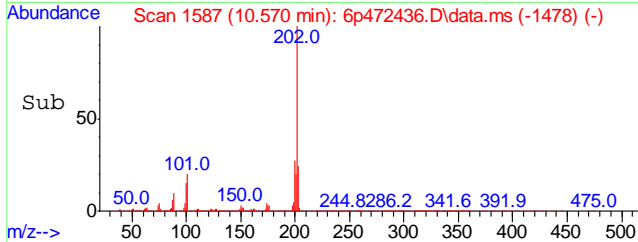
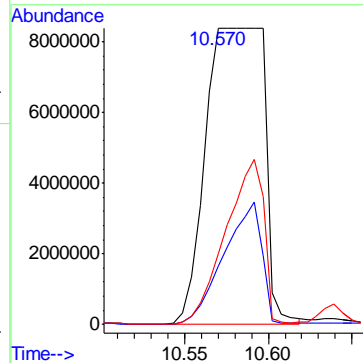
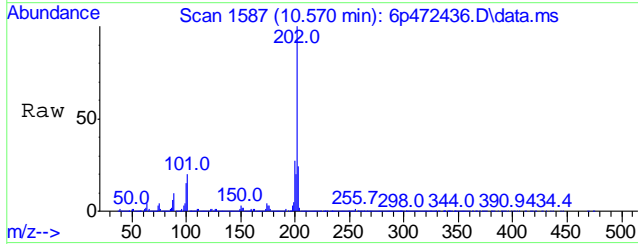


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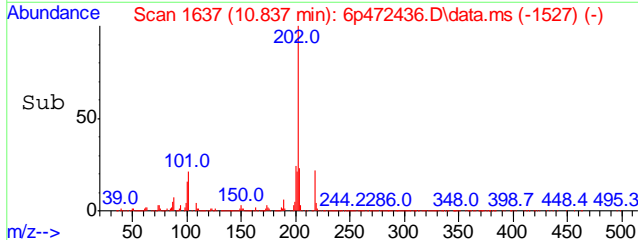
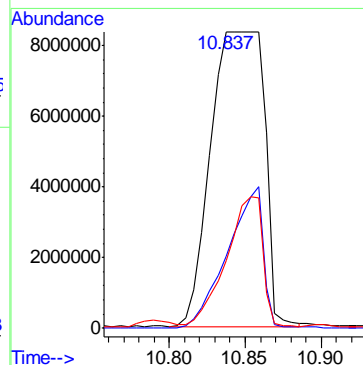
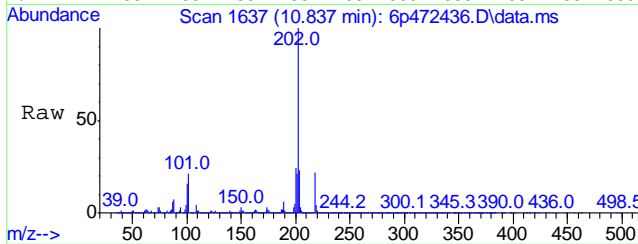
#81  
 Fluoranthene  
 Concen: 364.46 ppm m  
 RT: 10.570 min Scan# 1587  
 Delta R.T. 0.084 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

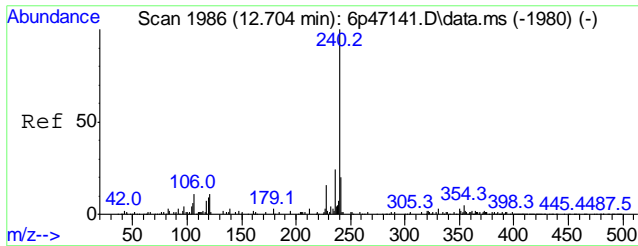
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 19.9 | 0.0   | 40.9  |
| 203     | 23.7 | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 353.51 ppm m  
 RT: 10.837 min Scan# 1637  
 Delta R.T. 0.087 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

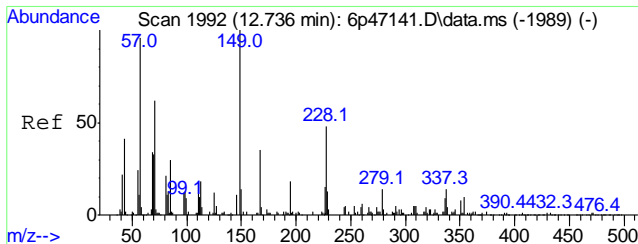
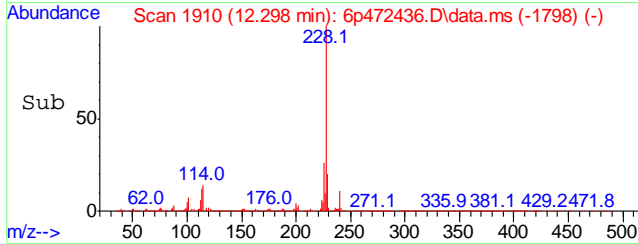
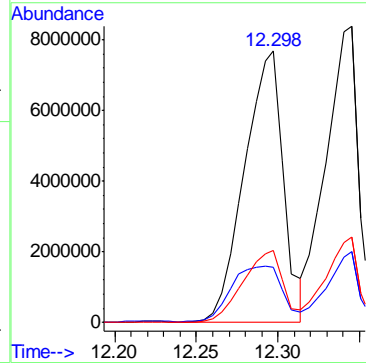
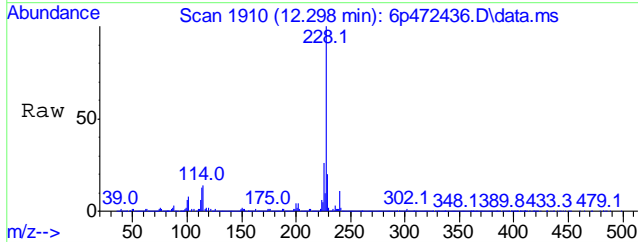
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 24.3 | 0.0   | 50.7  |
| 203     | 22.8 | 0.0   | 47.9  |





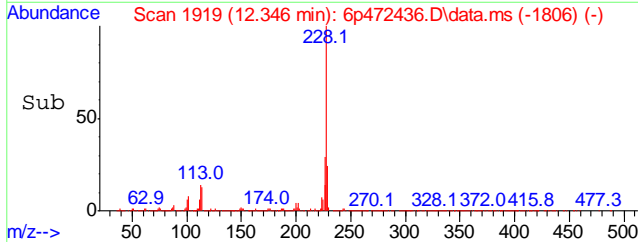
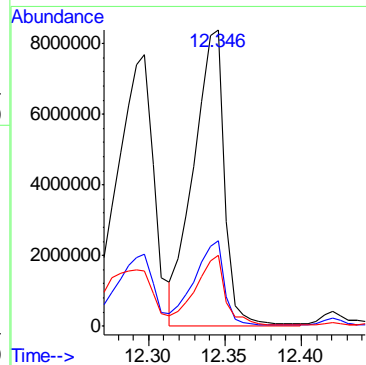
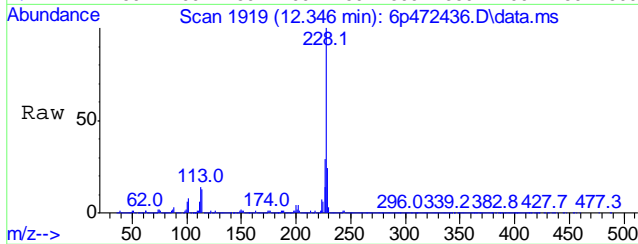
#87  
 Benzo[a]anthracene  
 Concen: 235.13 ppm  
 RT: 12.298 min Scan# 1910  
 Delta R.T. 0.102 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.8  | 0.0   | 49.8  |
| 226     | 26.3  | 0.0   | 56.0  |

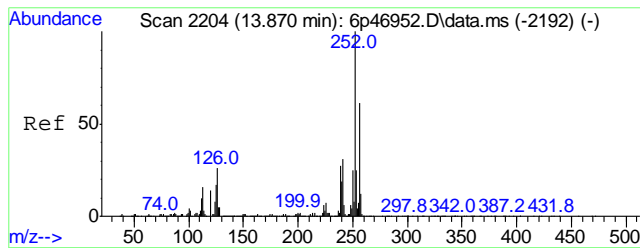


#89  
 Chrysene  
 Concen: 220.28 ppm  
 RT: 12.346 min Scan# 1919  
 Delta R.T. 0.102 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.0  | 0.0   | 59.5  |
| 229     | 23.9  | 0.0   | 49.6  |

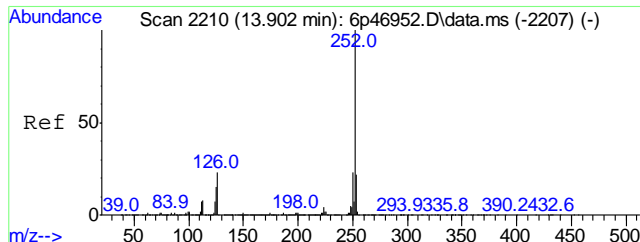
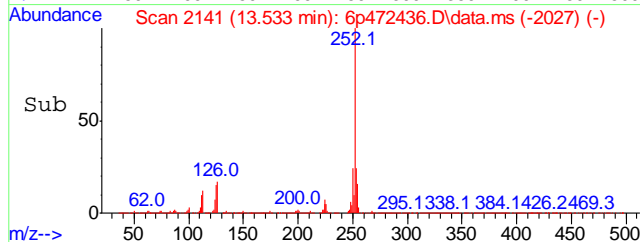
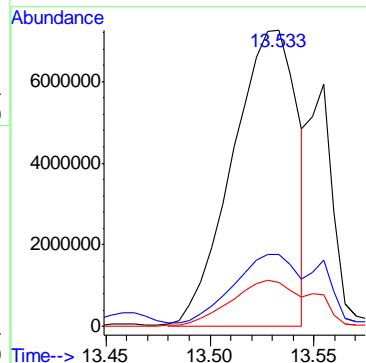
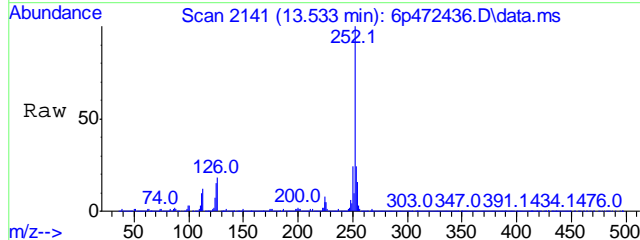


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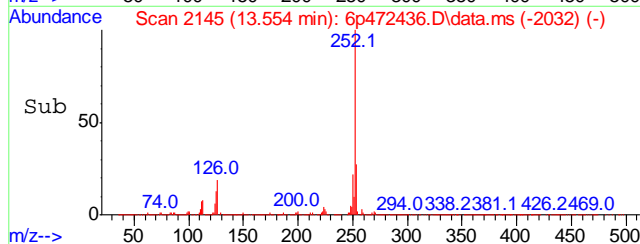
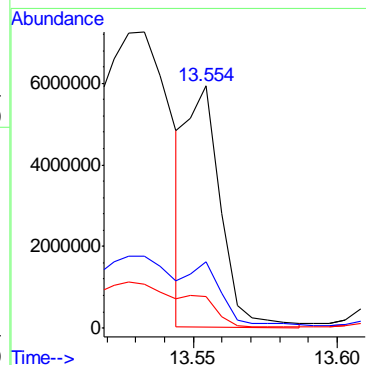
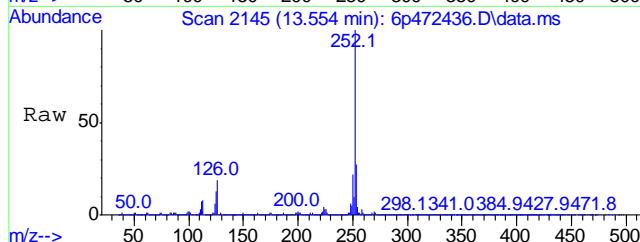
#93  
 Benzo[b]fluoranthene  
 Concen: 270.88 ppm m  
 RT: 13.533 min Scan# 2141  
 Delta R.T. 0.111 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.5 | 0.0   | 55.4  |
| 125     | 14.8 | 0.0   | 40.0  |

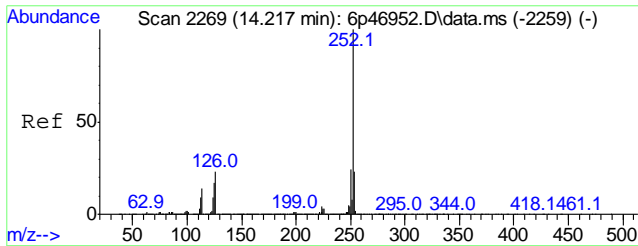


#94  
 Benzo[k]fluoranthene  
 Concen: 91.64 ppm m  
 RT: 13.554 min Scan# 2145  
 Delta R.T. 0.106 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 27.2 | 0.0   | 51.8  |
| 125     | 12.9 | 0.0   | 38.7  |

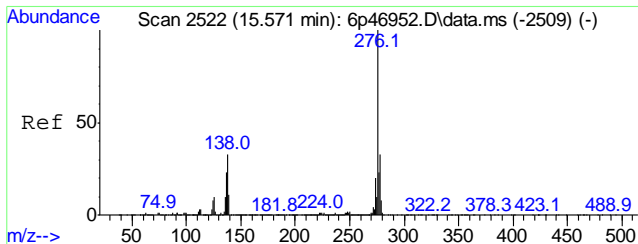
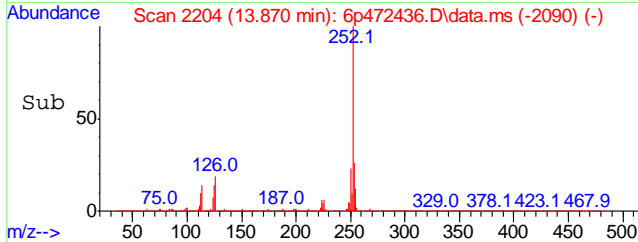
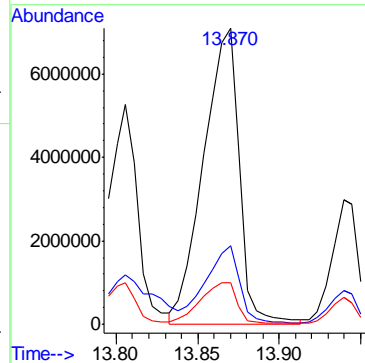
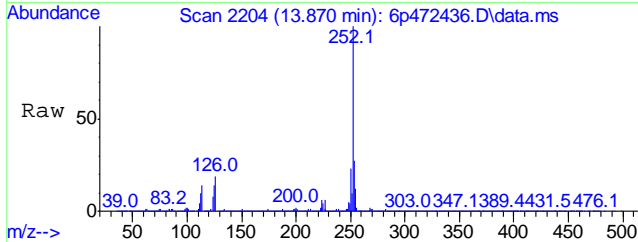


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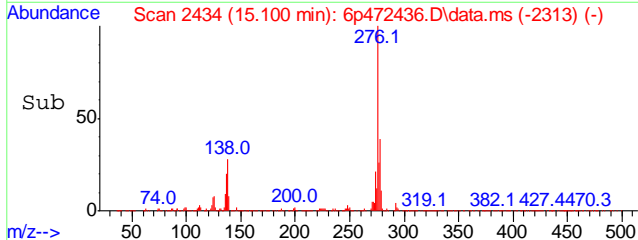
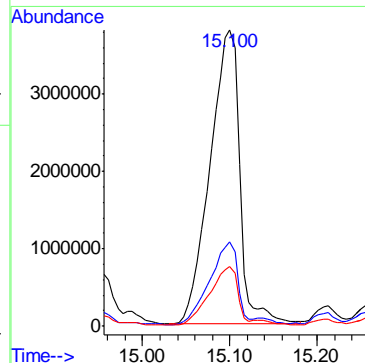
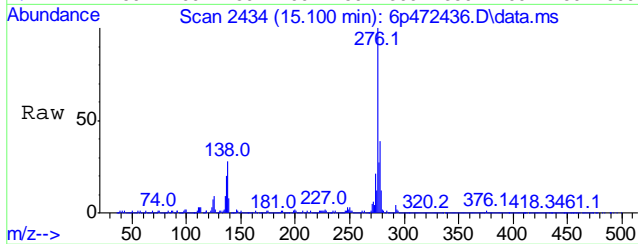
#95  
 Benzo[a]pyrene  
 Concen: 213.47 ppm  
 RT: 13.870 min Scan# 2204  
 Delta R.T. 0.112 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.9  | 0.0   | 52.5  |
| 125     | 13.8  | 0.0   | 40.0  |

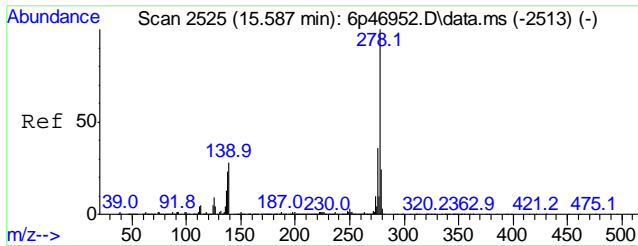


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 133.91 ppm  
 RT: 15.100 min Scan# 2434  
 Delta R.T. 0.147 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 28.2  | 0.0   | 48.9  |
| 137     | 19.9  | 0.0   | 43.2  |

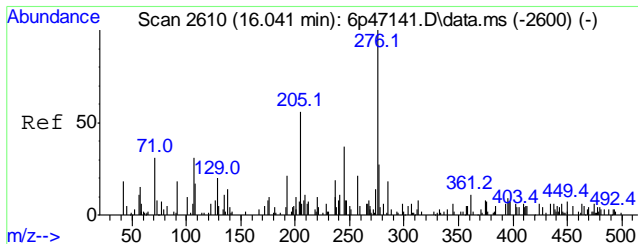
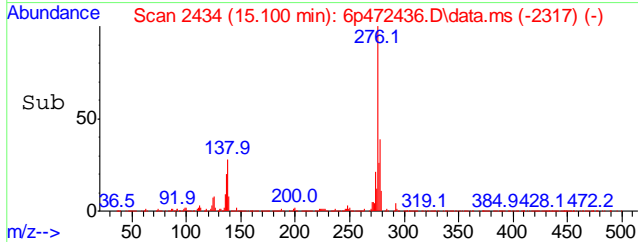
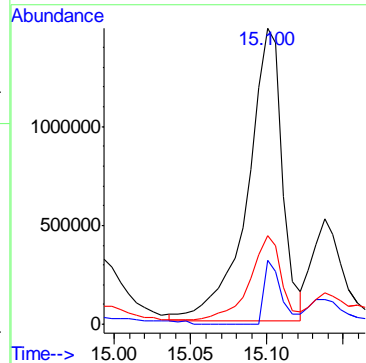
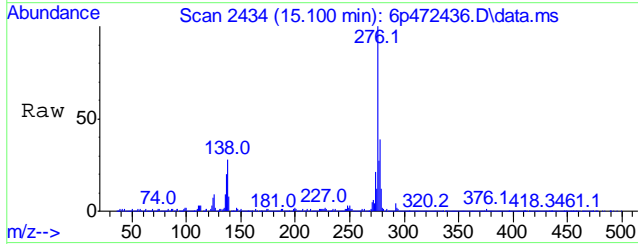


9.1.1  
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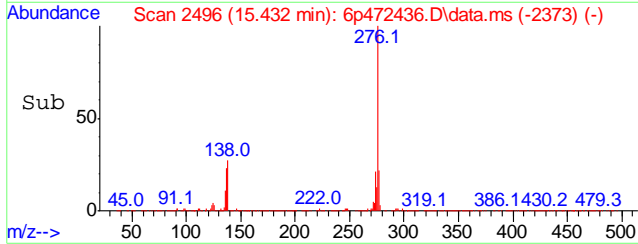
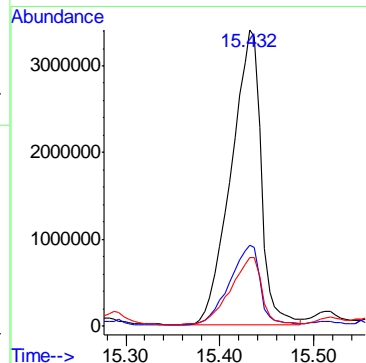
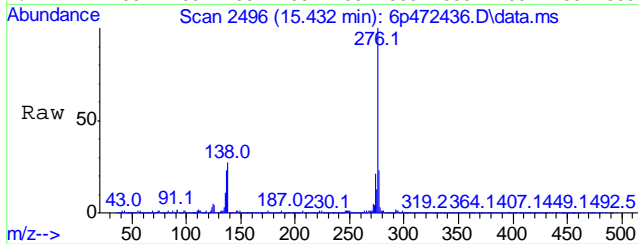
#98  
 Dibenz[a,h]anthracene  
 Concen: 40.69 ppm  
 RT: 15.100 min Scan# 2434  
 Delta R.T. 0.126 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 20.9  | 0.0   | 45.9  |
| 279     | 29.3  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 141.62 ppm  
 RT: 15.432 min Scan# 2496  
 Delta R.T. 0.159 min  
 Lab File: 6p472436.D  
 Acq: 2 May 2018 10:57 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 26.8  | 0.0   | 49.9  |
| 277     | 22.7  | 0.0   | 53.3  |



9.1.1  
 9



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472783.D  
 Acq On : 10 May 2018 7:05 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11665,e6p2202,30.5,,,1,50  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 13:55:47 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|-------|----------|--------|
| Internal Standards           |        |      |          |       |       |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.556  | 152  | 471785   | 40.00 | ppm   | -0.02    |        |
| 24) Naphthalene-d8           | 5.583  | 136  | 1963229  | 40.00 | ppm   | -0.02    |        |
| 47) Acenaphthene-d10         | 7.316  | 164  | 1025866  | 40.00 | ppm   | -0.03    |        |
| 69) Phenanthrene-d10         | 9.011  | 188  | 1837605  | 40.00 | ppm   | -0.03    |        |
| 83) Chrysene-d12             | 12.188 | 240  | 1664542  | 40.00 | ppm   | -0.03    |        |
| 91) Perylene-d12             | 13.793 | 264  | 1739480  | 40.00 | ppm   | -0.03    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.556  | 152  | 471785   | 40.00 | ppm   | -0.02    |        |
| 103) Acenaphthene-d10a       | 7.316  | 164  | 1025866  | 40.00 | ppm   | -0.03    |        |
| 105) Phenanthrene-d10a       | 9.011  | 188  | 1837605  | 40.00 | ppm   | -0.03    |        |
| 109) Chrysene-d12a           | 12.188 | 240  | 1664542  | 40.00 | ppm   | -0.03    |        |
| 111) Naphthalene-d8a         | 5.583  | 136  | 1963229  | 40.00 | ppm   | -0.02    |        |
| 113) Phenanthrene-d10b       | 9.011  | 188  | 1837605  | 40.00 | ppm   | -0.03    |        |
| 115) Chrysene-d12b           | 12.188 | 240  | 1664542  | 40.00 | ppm   | -0.03    |        |
| System Monitoring Compounds  |        |      |          |       |       |          |        |
| 5) 2-Fluorophenol            | 3.614  | 112  | 8075     | 0.47  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.94% |          |        |
| 8) Phenol-d5                 | 4.353  | 99   | 10422    | 0.48  | ppm   | 0.01     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.96% |          |        |
| 25) Nitrobenzene-d5          | 4.994  | 82   | 8035m    | 0.38  | ppm   | -0.01    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.76% |          |        |
| 51) 2-Fluorobiphenyl         | 6.604  | 172  | 22451    | 0.57  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 1.14% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.209  | 330  | 2448     | 0.35  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.70% |          |        |
| 85) Terphenyl-d14            | 10.937 | 244  | 23138    | 0.58  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 1.16% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm   |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm   |          |        |
| Target Compounds             |        |      |          |       |       |          |        |
| 38) Naphthalene              | 5.599  | 128  | 1402726  | 27.27 | ppm   | 98       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.241  | 141  | 153019   | 5.08  | ppm   | 96       |        |
| 53) Biphenyl                 | 6.706  | 154  | 53033    | 1.21  | ppm   | 98       |        |
| 56) Acenaphthylene           | 7.161  | 152  | 56559    | 1.13  | ppm   | 98       |        |
| 59) Acenaphthene             | 7.348  | 153  | 25625    | 0.74  | ppm   | 95       |        |
| 62) Dibenzofuran             | 7.540  | 168  | 219795   | 4.88  | ppm   | 89       |        |
| 66) Fluorene                 | 7.925  | 166  | 81031    | 2.24  | ppm   | 98       |        |
| 77) Phenanthrene             | 9.038  | 178  | 1237833  | 22.16 | ppm   | 98       |        |
| 78) Anthracene               | 9.097  | 178  | 335354   | 5.93  | ppm   | 92       |        |
| 79) Carbazole                | 9.305  | 167  | 107748   | 2.05  | ppm   | 96       |        |
| 81) Fluoranthene             | 10.455 | 202  | 947471   | 15.64 | ppm   | 97       |        |
| 84) Pyrene                   | 10.723 | 202  | 761282   | 13.69 | ppm   | 100      |        |
| 87) Benzo[a]anthracene       | 12.172 | 228  | 275506   | 5.28  | ppm   | 97       |        |
| 89) Chrysene                 | 12.215 | 228  | 263611   | 5.11  | ppm   | 96       |        |
| 93) Benzo[b]fluoranthene     | 13.392 | 252  | 304657m  | 5.53  | ppm   |          |        |
| 94) Benzo[k]fluoranthene     | 13.418 | 252  | 117060m  | 2.32  | ppm   |          |        |
| 95) Benzo[a]pyrene           | 13.729 | 252  | 204079   | 4.18  | ppm   | 96       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 14.911 | 276  | 170503   | 2.65  | ppm   | 93       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472783.D  
 Acq On : 10 May 2018 7:05 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11665,e6p2202,30.5,,,1,50  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 13:55:47 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

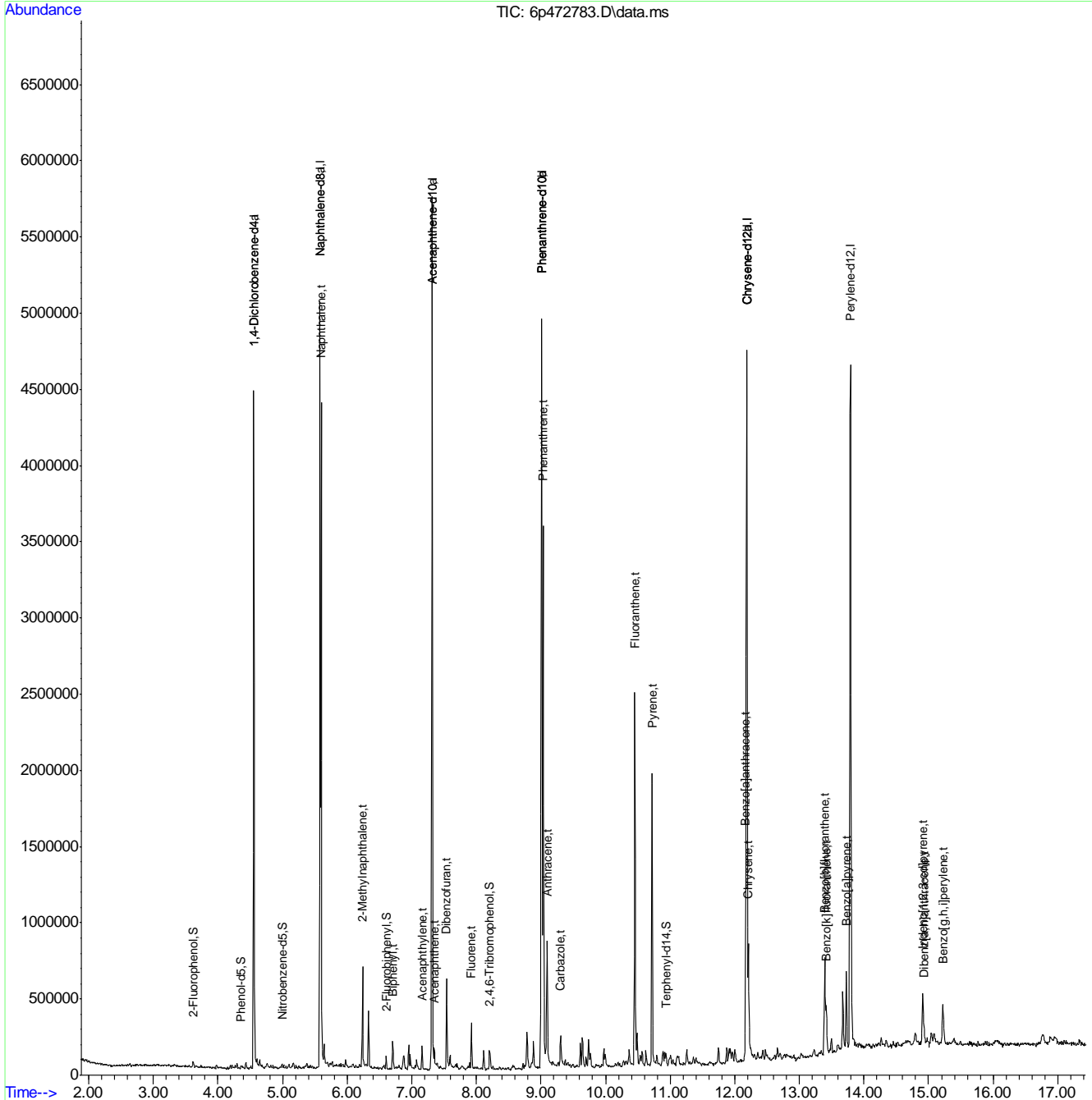
| Compound                  | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|--------|------|----------|------|-------|----------|
| 98) Dibenz[a,h]anthracene | 14.927 | 278  | 43267    | 0.78 | ppm   | 93       |
| 100) Benzo[g,h,i]perylene | 15.226 | 276  | 159555   | 3.10 | ppm   | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

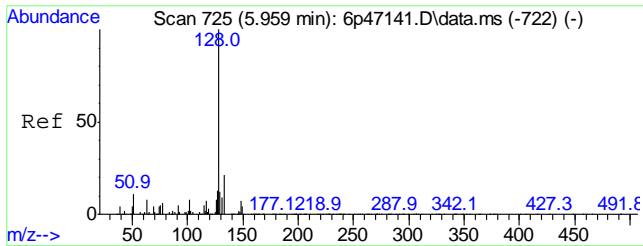
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472783.D  
 Acq On : 10 May 2018 7:05 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11665,e6p2202,30.5,,,1,50  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 13:55:47 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

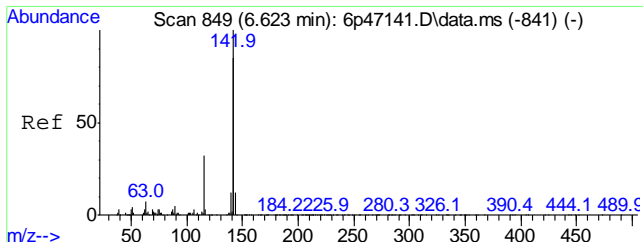
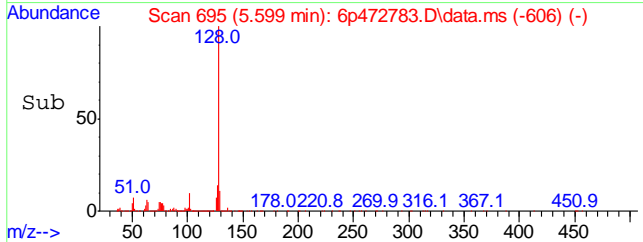
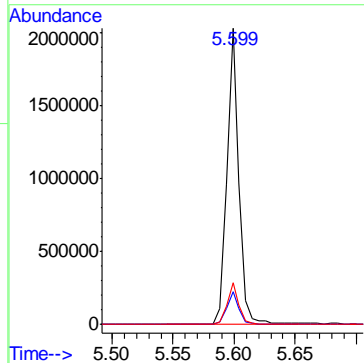
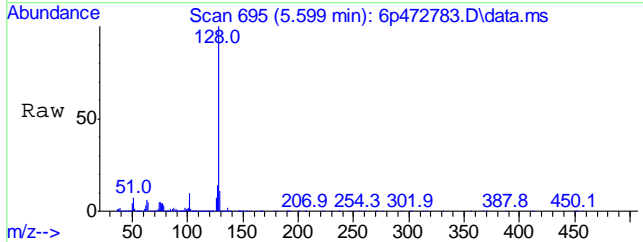


9.12  
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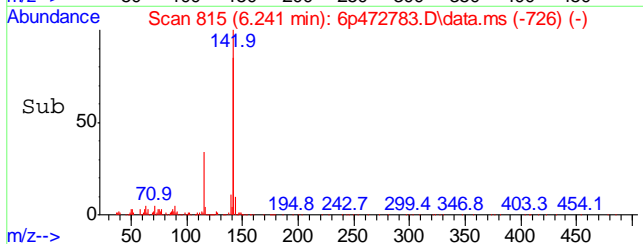
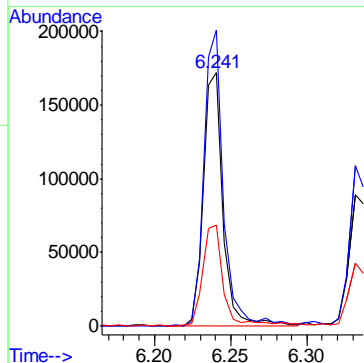
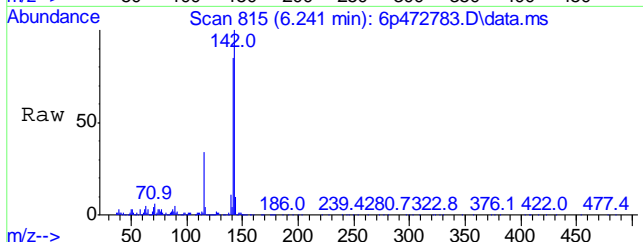
#38  
 Naphthalene  
 Concen: 27.27 ppm  
 RT: 5.599 min Scan# 695  
 Delta R.T. -0.024 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.9  | 0.0   | 41.1  |
| 127     | 14.1  | 0.0   | 43.2  |

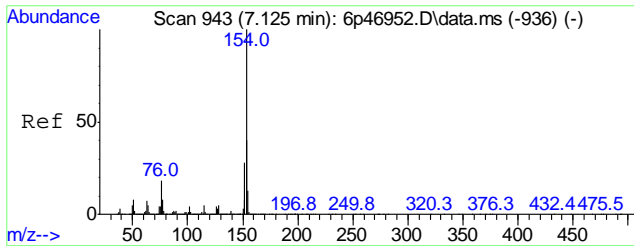


#44  
 2-Methylnaphthalene  
 Concen: 5.08 ppm  
 RT: 6.241 min Scan# 815  
 Delta R.T. -0.022 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 116.9 | 91.8  | 151.8 |
| 115     | 39.5  | 8.6   | 68.6  |

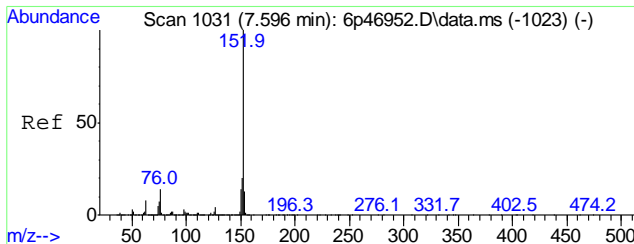
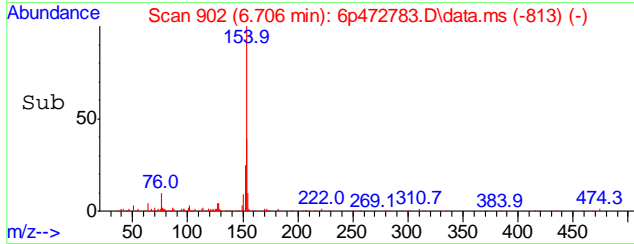
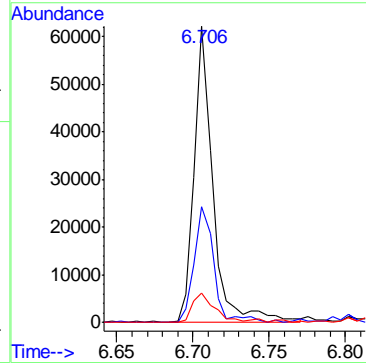
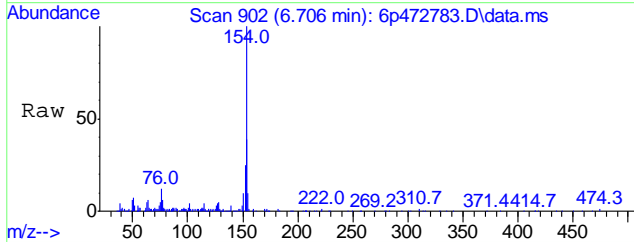


9.12  
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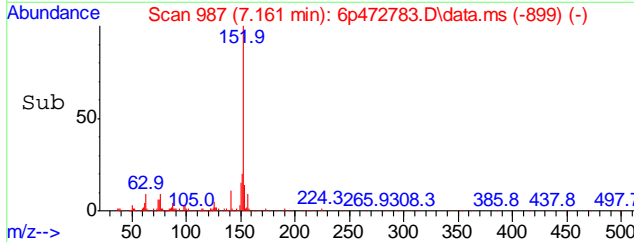
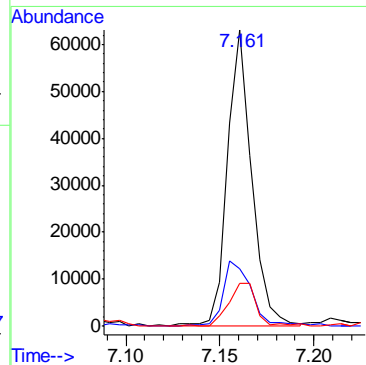
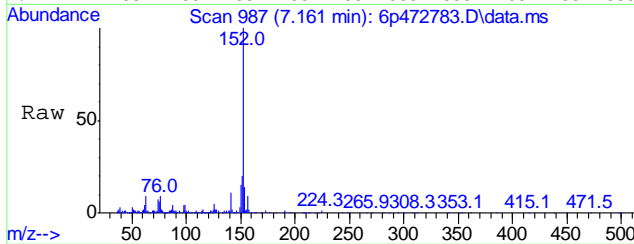
#53  
 Biphenyl  
 Concen: 1.21 ppm  
 RT: 6.706 min Scan# 902  
 Delta R.T. -0.025 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 53033 | 100   |       |
| 153     | 38.6  | 8.7   | 68.7  |
| 155     | 9.5   | 0.0   | 43.0  |

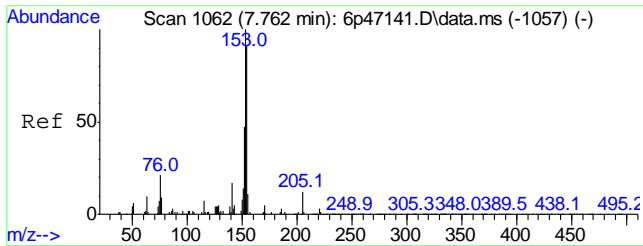


#56  
 Acenaphthylene  
 Concen: 1.13 ppm  
 RT: 7.161 min Scan# 987  
 Delta R.T. -0.029 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 56559 | 100   |       |
| 151     | 19.2  | 0.0   | 50.2  |
| 153     | 14.2  | 0.0   | 44.8  |

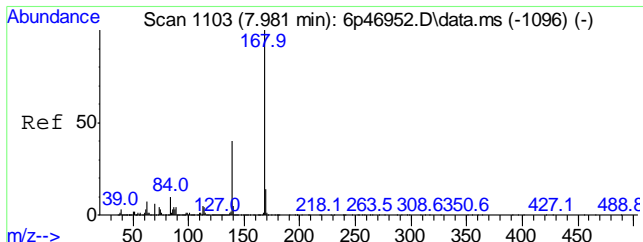
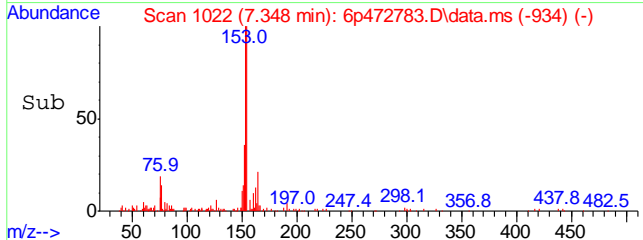
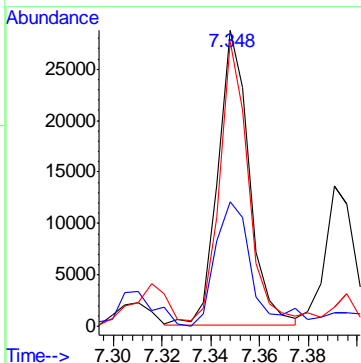
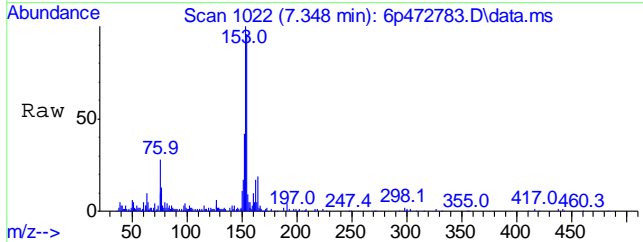


9.12  
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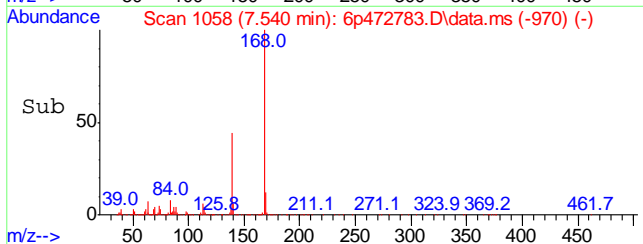
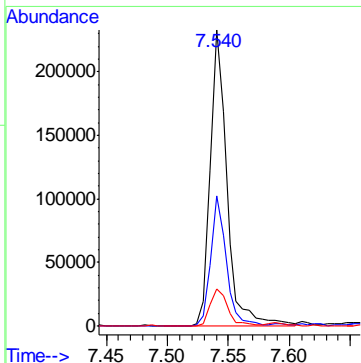
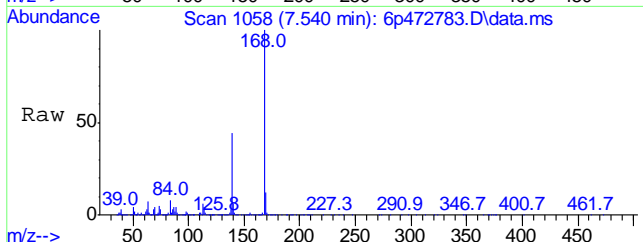
#59  
 Acenaphthene  
 Concen: 0.74 ppm  
 RT: 7.348 min Scan# 1022  
 Delta R.T. -0.029 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 153     | 100  |       |       |
| 152     | 35.9 | 13.9  | 73.9  |
| 154     | 90.5 | 59.3  | 119.3 |

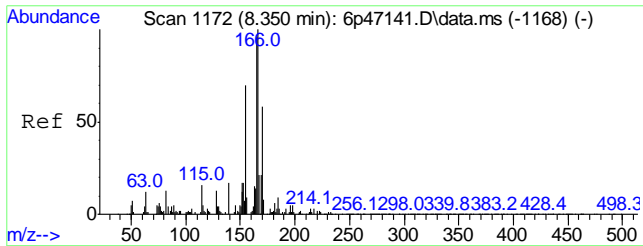


#62  
 Dibenzofuran  
 Concen: 4.88 ppm  
 RT: 7.540 min Scan# 1058  
 Delta R.T. -0.028 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 100  |       |       |
| 139     | 43.9 | 6.0   | 66.0  |
| 169     | 12.2 | 0.0   | 43.5  |

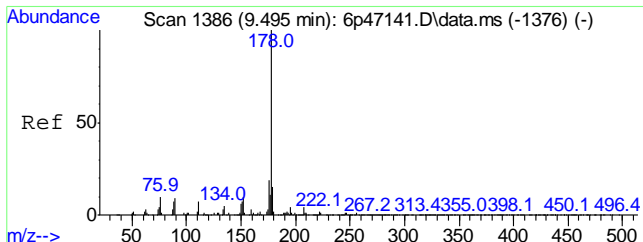
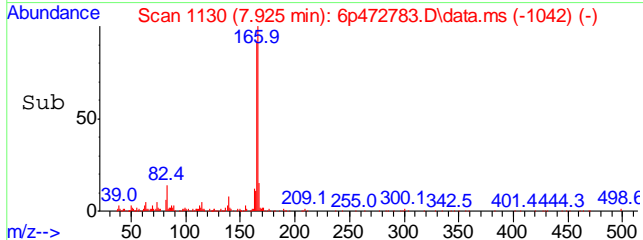
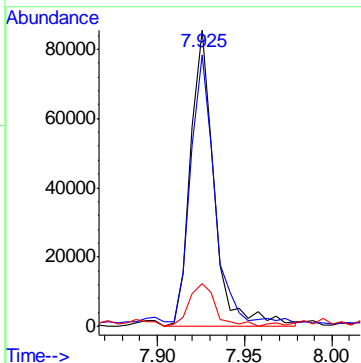
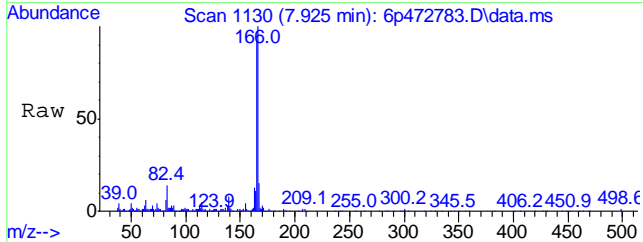


9.12  
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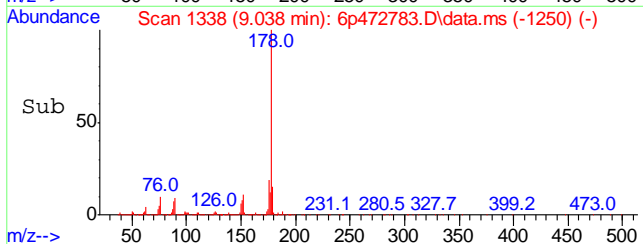
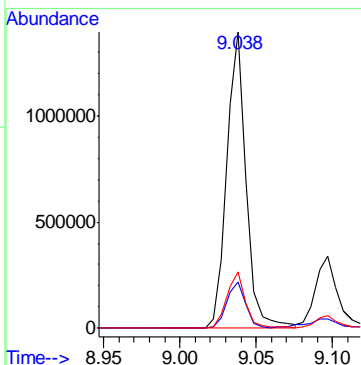
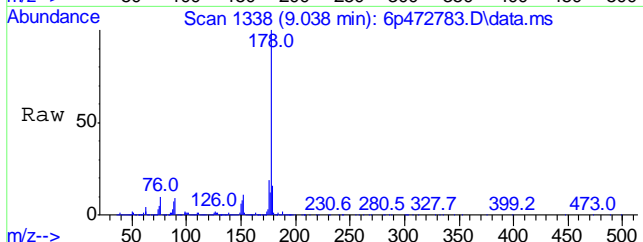
#66  
 Fluorene  
 Concen: 2.24 ppm  
 RT: 7.925 min Scan# 1130  
 Delta R.T. -0.027 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 90.9 | 59.3  | 119.3 |
| 167     | 14.1 | 0.0   | 43.1  |

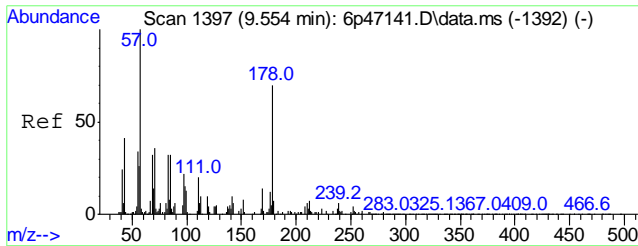


#77  
 Phenanthrene  
 Concen: 22.16 ppm  
 RT: 9.038 min Scan# 1338  
 Delta R.T. -0.029 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.0 | 0.0   | 46.6  |
| 176     | 19.0 | 0.0   | 49.6  |

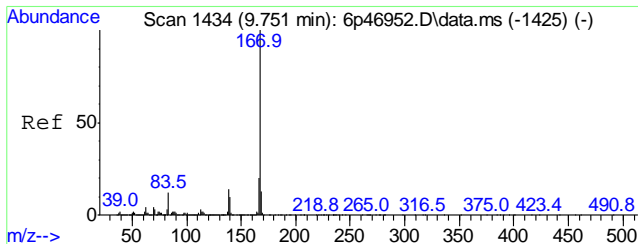
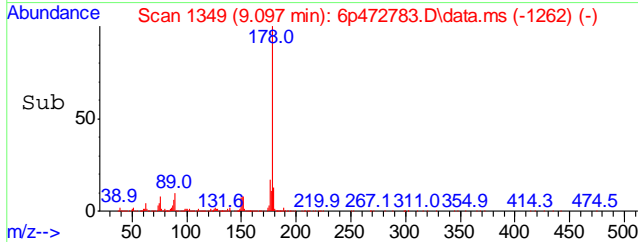
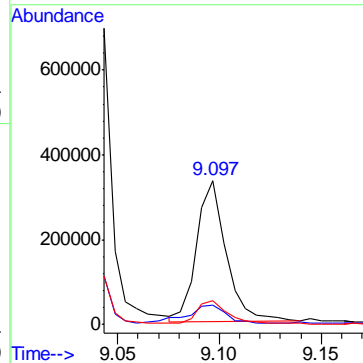
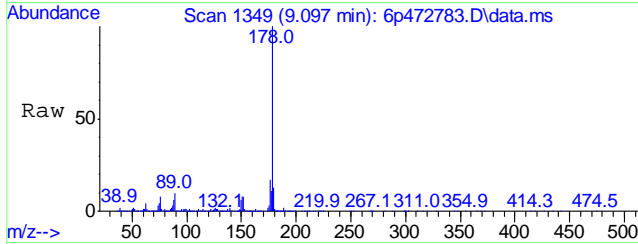


9.12  
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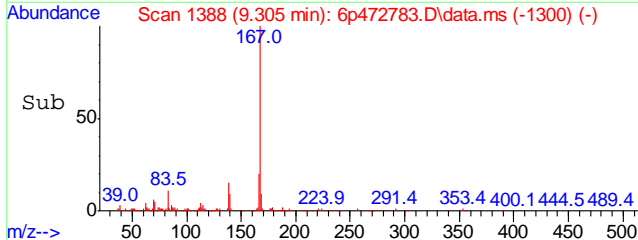
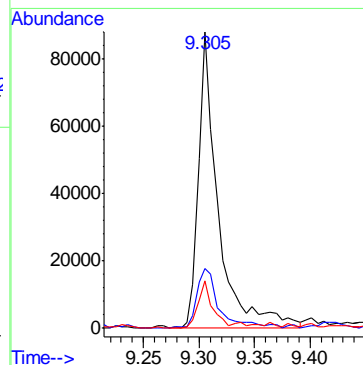
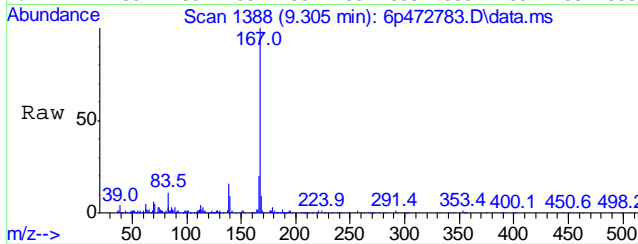
#78  
 Anthracene  
 Concen: 5.93 ppm  
 RT: 9.097 min Scan# 1349  
 Delta R.T. -0.034 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 10.5  | 0.0   | 45.3  |
| 176     | 16.5  | 0.0   | 48.4  |



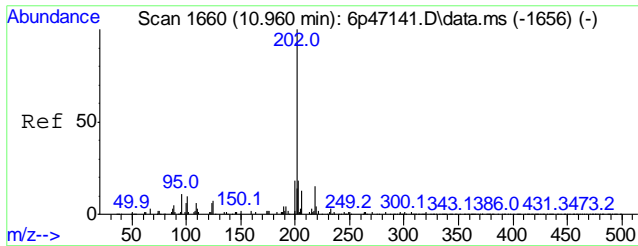
#79  
 Carbazole  
 Concen: 2.05 ppm  
 RT: 9.305 min Scan# 1388  
 Delta R.T. -0.028 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.4  | 0.0   | 50.0  |
| 139     | 15.7  | 0.0   | 42.3  |



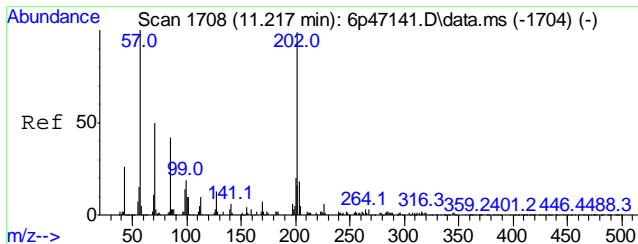
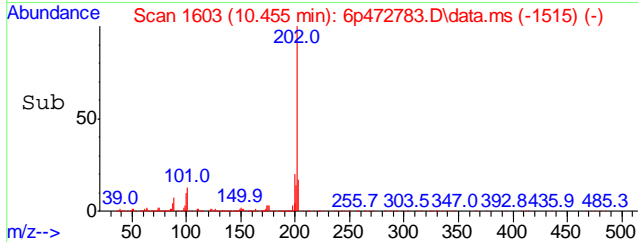
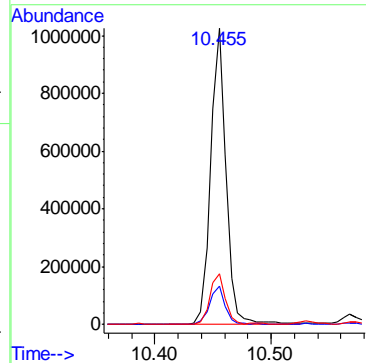
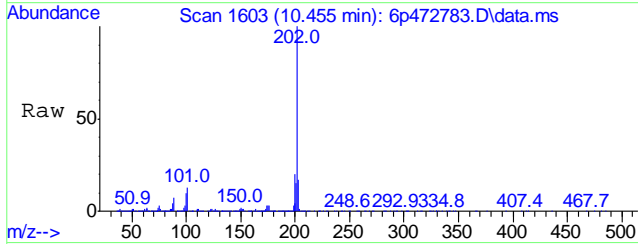
9.12  
 9





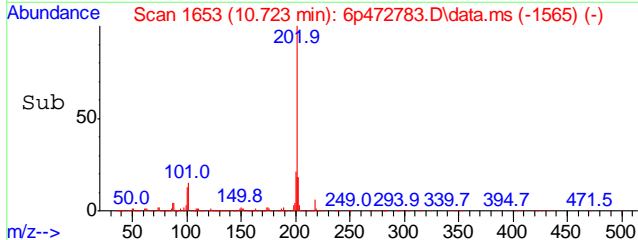
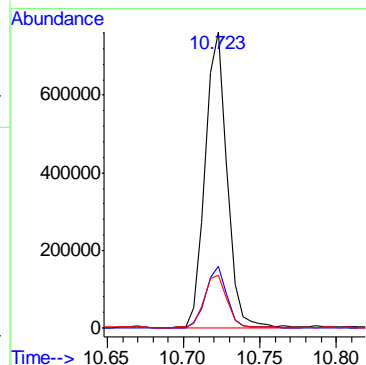
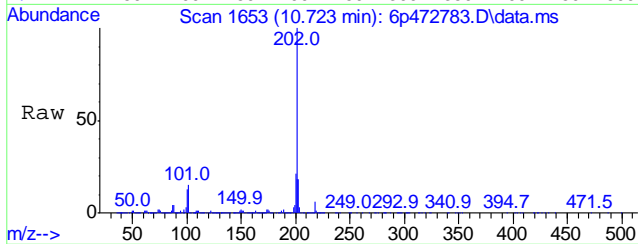
#81  
 Fluoranthene  
 Concen: 15.64 ppm  
 RT: 10.455 min Scan# 1603  
 Delta R.T. -0.031 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

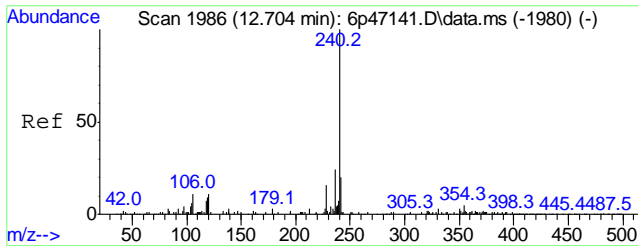
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 12.7 | 0.0   | 40.9  |
| 203     | 16.6 | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 13.69 ppm  
 RT: 10.723 min Scan# 1653  
 Delta R.T. -0.027 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

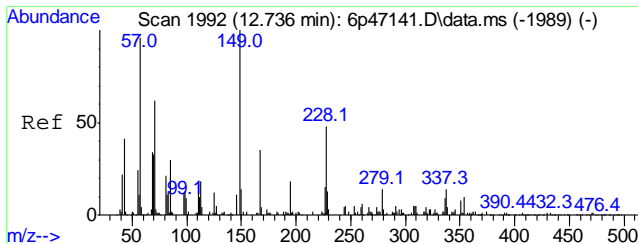
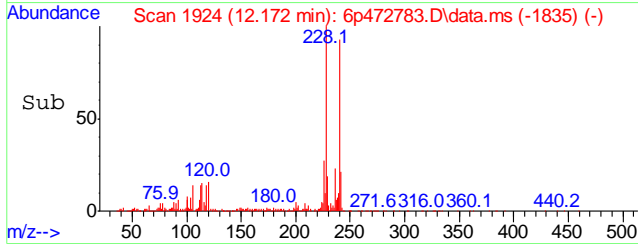
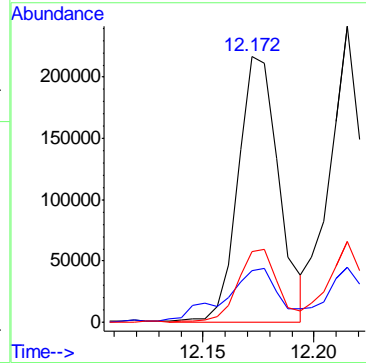
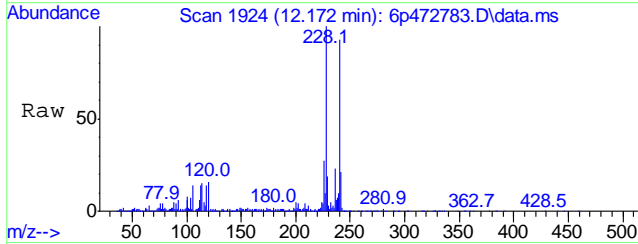
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 20.9 | 0.0   | 50.7  |
| 203     | 17.8 | 0.0   | 47.9  |





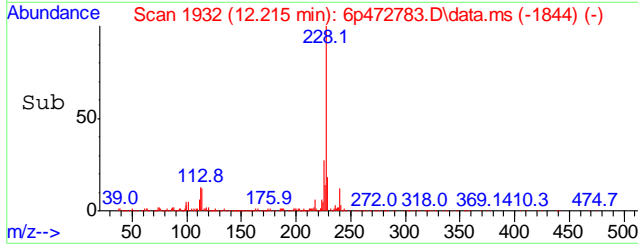
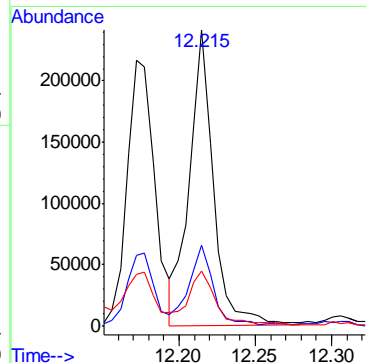
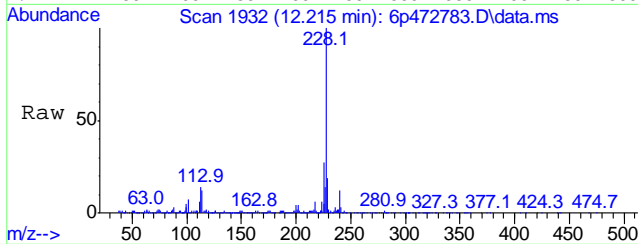
#87  
 Benzo[a]anthracene  
 Concen: 5.28 ppm  
 RT: 12.172 min Scan# 1924  
 Delta R.T. -0.024 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.0  | 0.0   | 49.8  |
| 226     | 26.9  | 0.0   | 56.0  |

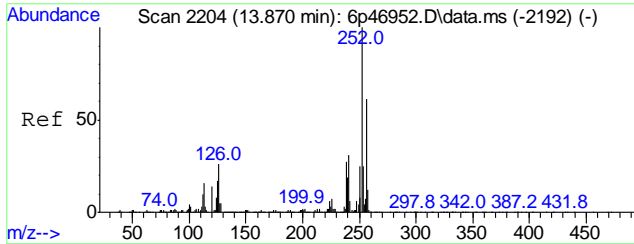


#89  
 Chrysene  
 Concen: 5.11 ppm  
 RT: 12.215 min Scan# 1932  
 Delta R.T. -0.029 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.4  | 0.0   | 59.5  |
| 229     | 17.6  | 0.0   | 49.6  |

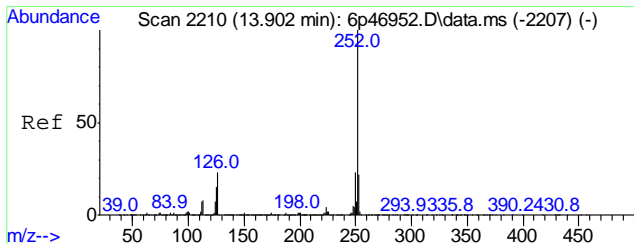
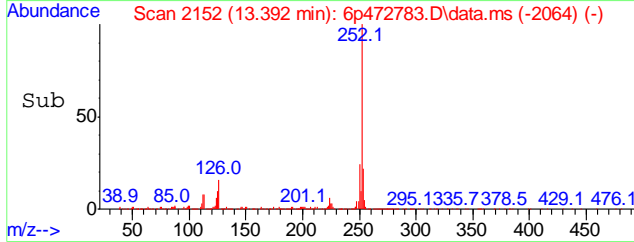
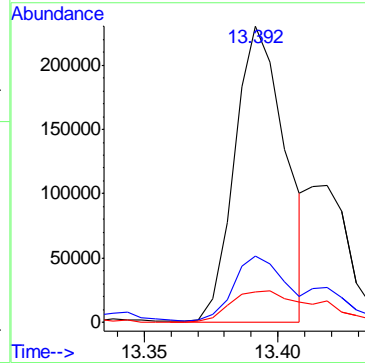
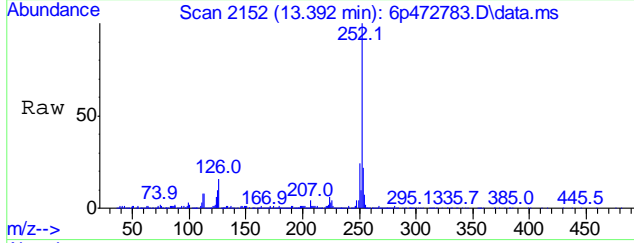


9.12  
9



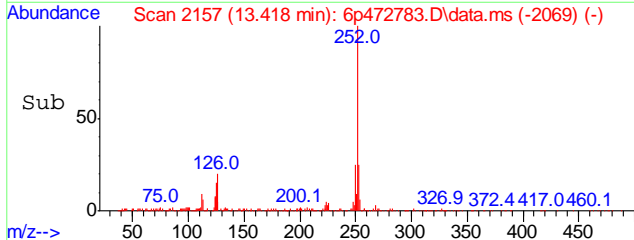
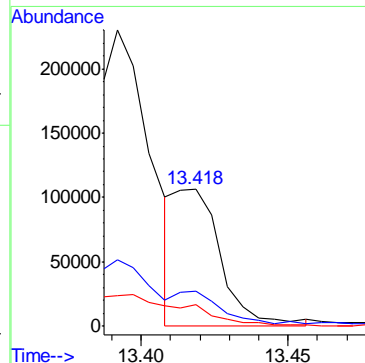
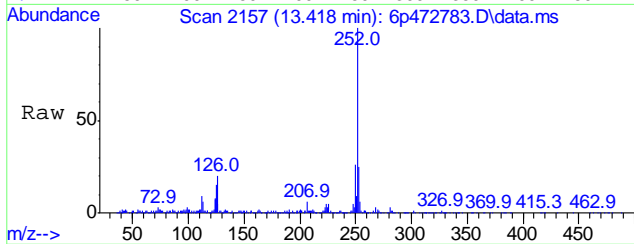
#93  
 Benzo[b]fluoranthene  
 Concen: 5.53 ppm m  
 RT: 13.392 min Scan# 2152  
 Delta R.T. -0.030 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

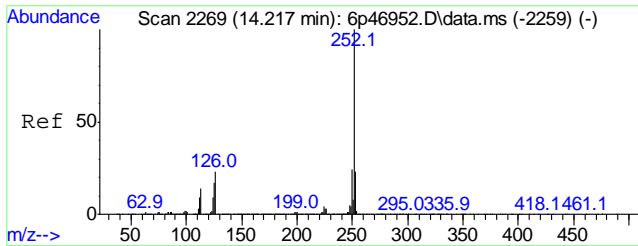
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.2 | 0.0   | 55.4  |
| 125     | 10.3 | 0.0   | 40.0  |



#94  
 Benzo[k]fluoranthene  
 Concen: 2.32 ppm m  
 RT: 13.418 min Scan# 2157  
 Delta R.T. -0.030 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

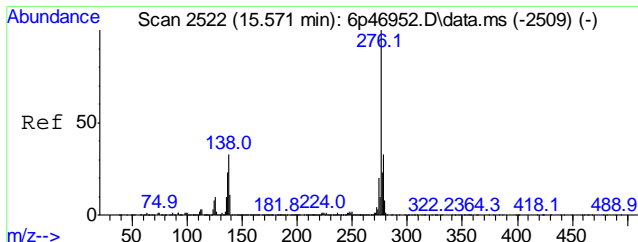
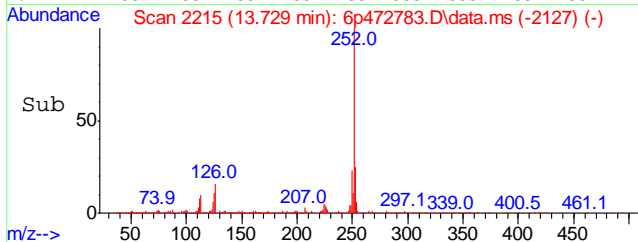
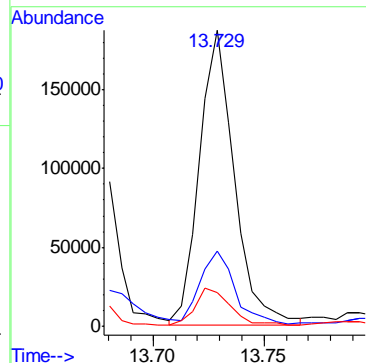
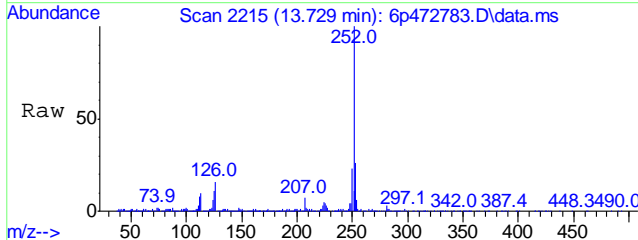
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.2 | 0.0   | 51.8  |
| 125     | 15.4 | 0.0   | 38.7  |





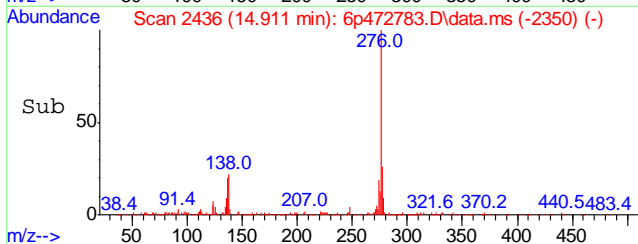
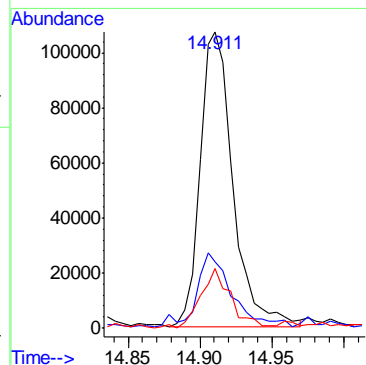
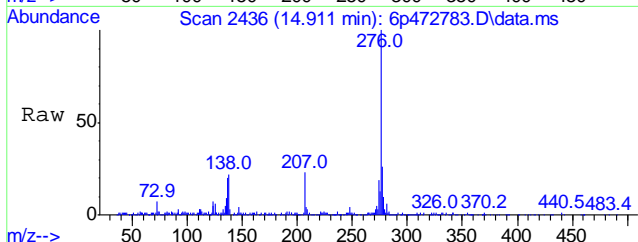
#95  
 Benzo[a]pyrene  
 Concen: 4.18 ppm  
 RT: 13.729 min Scan# 2215  
 Delta R.T. -0.029 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

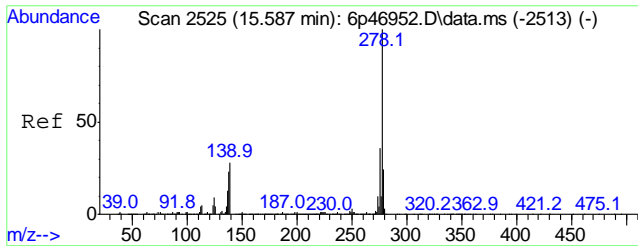
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.4  | 0.0   | 52.5  |
| 125     | 11.1  | 0.0   | 40.0  |



#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 2.65 ppm  
 RT: 14.911 min Scan# 2436  
 Delta R.T. -0.042 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

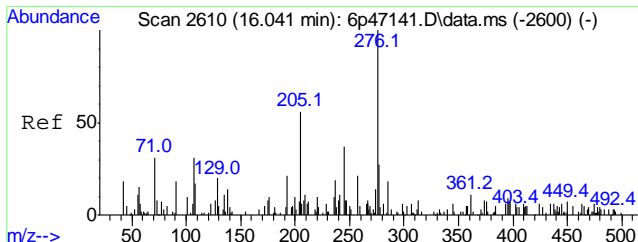
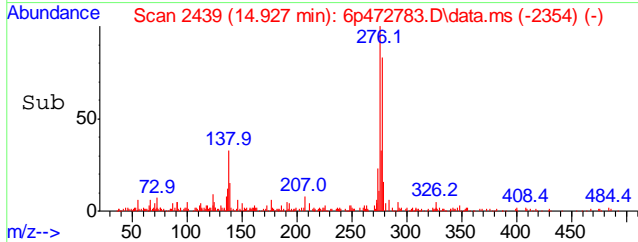
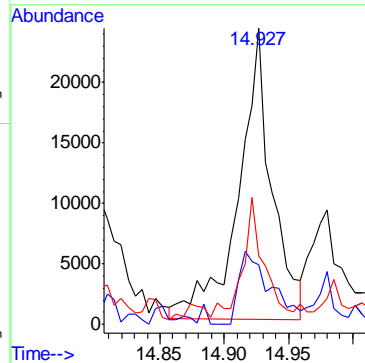
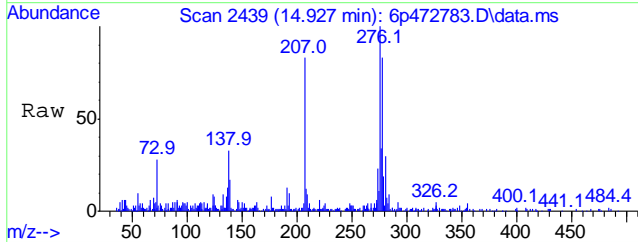
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 19.6  | 0.0   | 48.9  |
| 137     | 19.2  | 0.0   | 43.2  |





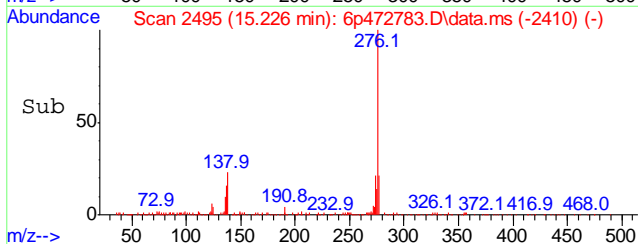
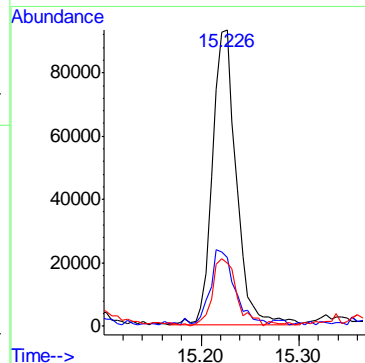
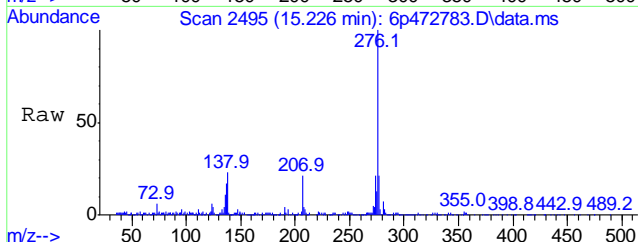
#98  
 Dibenz[a,h]anthracene  
 Concen: 0.78 ppm  
 RT: 14.927 min Scan# 2439  
 Delta R.T. -0.048 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 43267 | 100   |       |
| 139     | 18.9  | 0.0   | 45.9  |
| 279     | 20.9  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 3.10 ppm  
 RT: 15.226 min Scan# 2495  
 Delta R.T. -0.047 min  
 Lab File: 6p472783.D  
 Acq: 10 May 2018 7:05 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 159555 | 100   |       |
| 138     | 22.3   | 0.0   | 49.9  |
| 277     | 20.6   | 0.0   | 53.3  |



9.12  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472785.D  
 Acq On : 10 May 2018 7:54 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11655,e6p2202,30.5,,,1,10  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 10 11:44:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|------------------------------|--------|------|----------|--------|-------|----------|
| Internal Standards           |        |      |          |        |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.556  | 152  | 429634   | 40.00  | ppm   | -0.02    |
| 24) Naphthalene-d8           | 5.583  | 136  | 1700438  | 40.00  | ppm   | -0.02    |
| 47) Acenaphthene-d10         | 7.316  | 164  | 874670   | 40.00  | ppm   | -0.03    |
| 69) Phenanthrene-d10         | 9.011  | 188  | 1593956  | 40.00  | ppm   | -0.03    |
| 83) Chrysene-d12             | 12.188 | 240  | 1489444  | 40.00  | ppm   | -0.03    |
| 91) Perylene-d12             | 13.793 | 264  | 1600263  | 40.00  | ppm   | -0.03    |
| 101) 1,4-Dichlorobenzene-d4a | 4.556  | 152  | 429634   | 40.00  | ppm   | -0.02    |
| 103) Acenaphthene-d10a       | 7.316  | 164  | 874670   | 40.00  | ppm   | -0.03    |
| 105) Phenanthrene-d10a       | 9.011  | 188  | 1593956  | 40.00  | ppm   | -0.03    |
| 109) Chrysene-d12a           | 12.188 | 240  | 1489444  | 40.00  | ppm   | -0.03    |
| 111) Naphthalene-d8a         | 5.583  | 136  | 1700438  | 40.00  | ppm   | -0.02    |
| 113) Phenanthrene-d10b       | 9.011  | 188  | 1593956  | 40.00  | ppm   | -0.03    |
| 115) Chrysene-d12b           | 12.188 | 240  | 1489805  | 40.00  | ppm   | -0.03    |
| System Monitoring Compounds  |        |      |          |        |       |          |
| 5) 2-Fluorophenol            | 3.614  | 112  | 43090    | 2.75   | ppm   | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =      | 5.50% |          |
| 8) Phenol-d5                 | 4.353  | 99   | 50326    | 2.52   | ppm   | 0.01     |
| Spiked Amount                | 50.000 |      | Recovery | =      | 5.04% |          |
| 25) Nitrobenzene-d5          | 4.989  | 82   | 48813    | 2.64   | ppm   | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 5.28% |          |
| 51) 2-Fluorobiphenyl         | 6.604  | 172  | 102595   | 3.04   | ppm   | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 6.08% |          |
| 73) 2,4,6-Tribromophenol     | 8.209  | 330  | 13636    | 2.27   | ppm   | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 4.54% |          |
| 85) Terphenyl-d14            | 10.937 | 244  | 97064    | 2.73   | ppm   | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =      | 5.46% |          |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00   | ppm   |          |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00   | ppm   |          |
| Target Compounds             |        |      |          |        |       |          |
| 38) Naphthalene              | 5.604  | 128  | 5903744  | 132.49 | ppm   | 98       |
| 44) 2-Methylnaphthalene      | 6.241  | 141  | 638385   | 24.48  | ppm   | 98       |
| 53) Biphenyl                 | 6.706  | 154  | 228002   | 6.09   | ppm   | 99       |
| 56) Acenaphthylene           | 7.161  | 152  | 272648   | 6.40   | ppm   | 98       |
| 59) Acenaphthene             | 7.348  | 153  | 106144   | 3.58   | ppm   | 95       |
| 62) Dibenzofuran             | 7.540  | 168  | 959835   | 25.01  | ppm   | 92       |
| 66) Fluorene                 | 7.925  | 166  | 345725   | 11.22  | ppm   | 99       |
| 77) Phenanthrene             | 9.043  | 178  | 5247562  | 108.30 | ppm   | 97       |
| 78) Anthracene               | 9.097  | 178  | 1543509  | 31.48  | ppm   | 98       |
| 79) Carbazole                | 9.305  | 167  | 477078   | 10.46  | ppm   | 98       |
| 81) Fluoranthene             | 10.461 | 202  | 4081013  | 77.68  | ppm   | 97       |
| 84) Pyrene                   | 10.728 | 202  | 3166145  | 63.61  | ppm   | 99       |
| 87) Benzo[a]anthracene       | 12.178 | 228  | 1199401  | 25.70  | ppm   | 97       |
| 89) Chrysene                 | 12.215 | 228  | 1154038  | 25.01  | ppm   | 97       |
| 93) Benzo[b]fluoranthene     | 13.397 | 252  | 1344263m | 26.53  | ppm   |          |
| 94) Benzo[k]fluoranthene     | 13.418 | 252  | 476584m  | 10.29  | ppm   |          |
| 95) Benzo[a]pyrene           | 13.734 | 252  | 927714   | 20.67  | ppm   | 97       |
| 96) Indeno[1,2,3-cd]pyrene   | 14.916 | 276  | 793670   | 13.43  | ppm   | 94       |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472785.D  
 Acq On : 10 May 2018 7:54 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11655,e6p2202,30.5,,,1,10  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 10 11:44:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

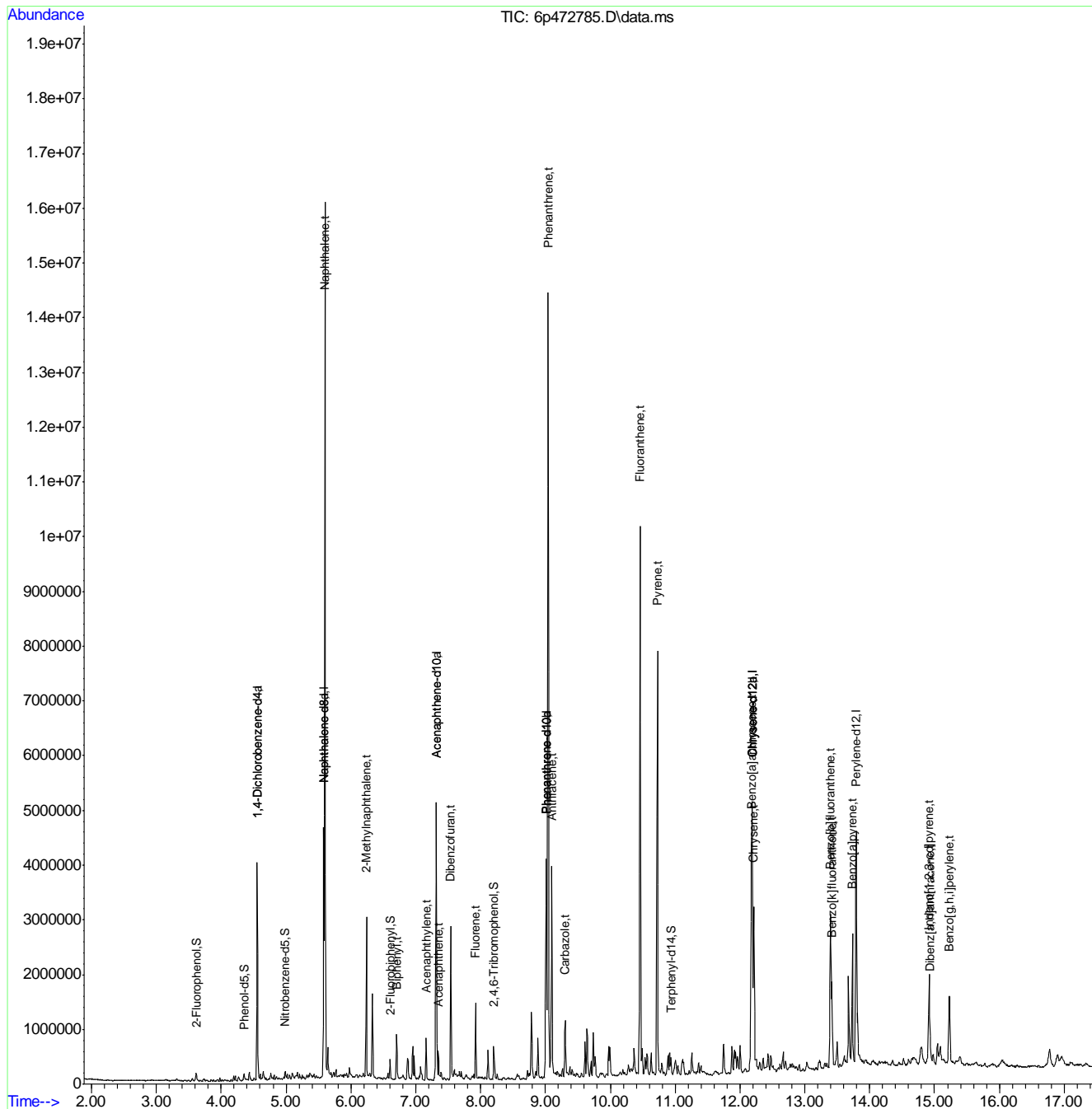
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 14.927 | 278  | 180659   | 3.55  | ppm   | 95       |
| 100) Benzo[g,h,i]perylene | 15.232 | 276  | 696844   | 14.73 | ppm   | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

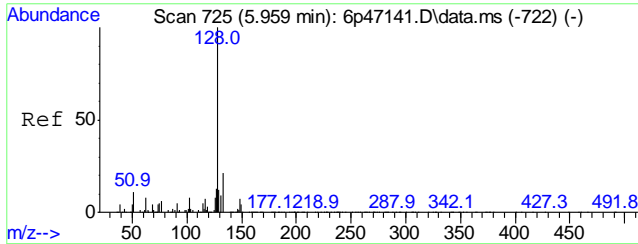
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472785.D  
 Acq On : 10 May 2018 7:54 am  
 Operator : chriss2  
 Sample : jc65157-1  
 Misc : op11655,e6p2202,30.5,,,1,10  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 10 11:44:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

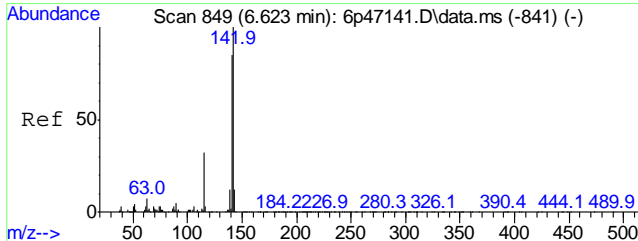
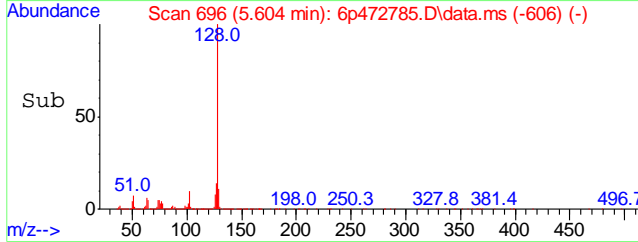
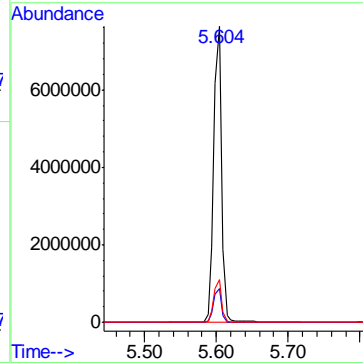
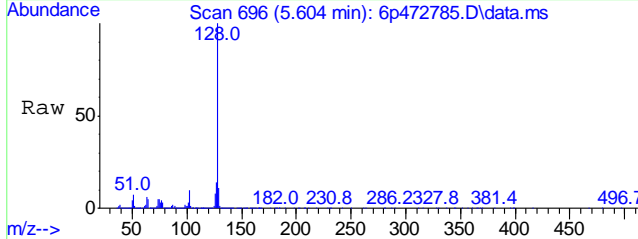






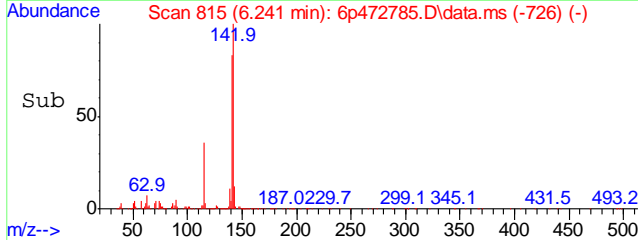
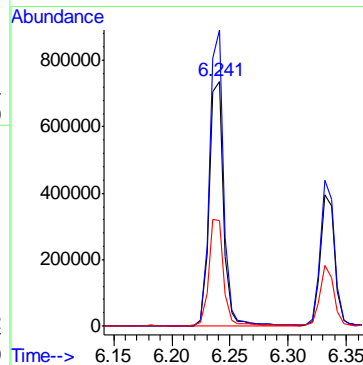
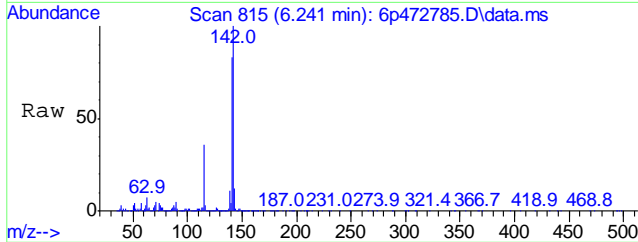
#38  
 Naphthalene  
 Concen: 132.49 ppm  
 RT: 5.604 min Scan# 696  
 Delta R.T. -0.018 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.3  | 0.0   | 41.1  |
| 127     | 14.4  | 0.0   | 43.2  |

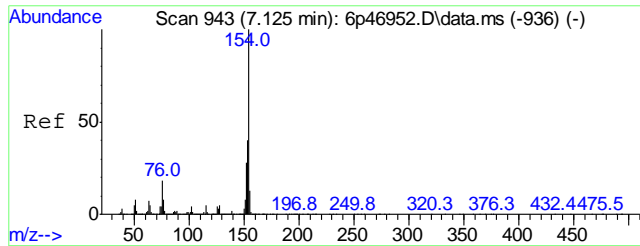


#44  
 2-Methylnaphthalene  
 Concen: 24.48 ppm  
 RT: 6.241 min Scan# 815  
 Delta R.T. -0.022 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 120.9 | 91.8  | 151.8 |
| 115     | 43.1  | 8.6   | 68.6  |

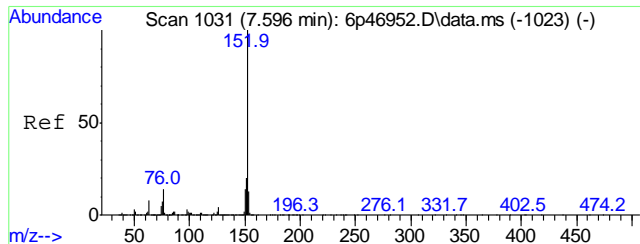
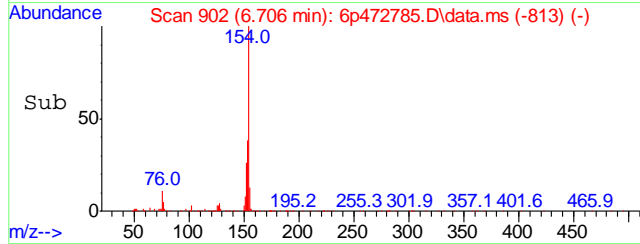
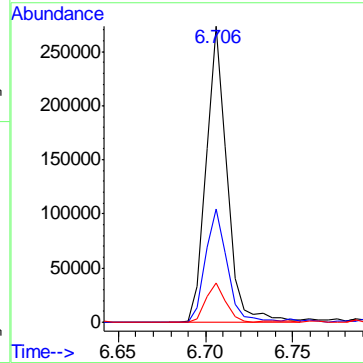
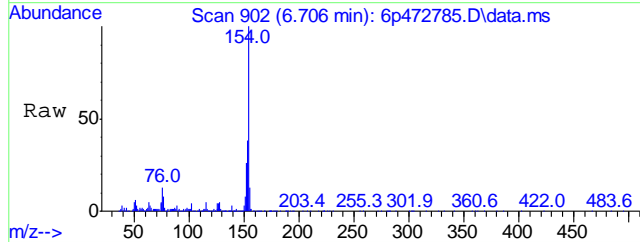


9.13  
9



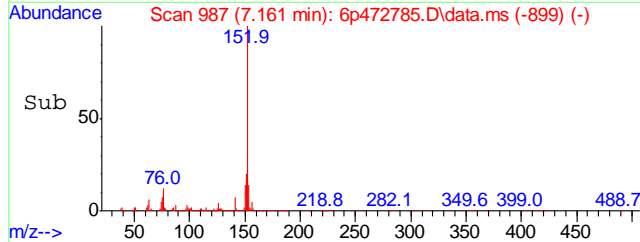
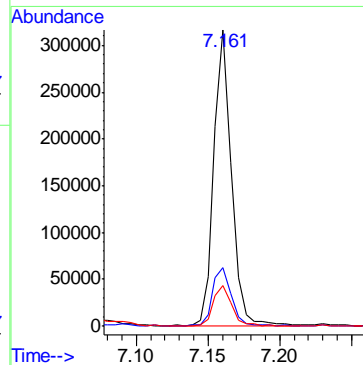
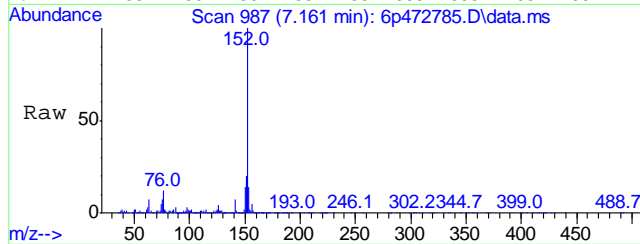
#53  
 Biphenyl  
 Concen: 6.09 ppm  
 RT: 6.706 min Scan# 902  
 Delta R.T. -0.025 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 38.2 | 8.7   | 68.7  |
| 155     | 13.5 | 0.0   | 43.0  |

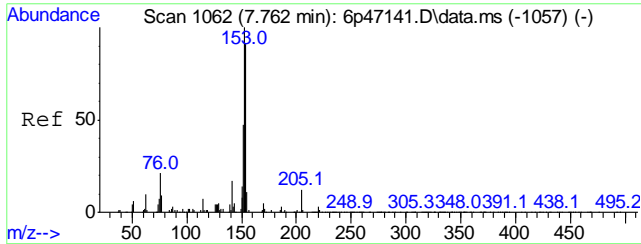


#56  
 Acenaphthylene  
 Concen: 6.40 ppm  
 RT: 7.161 min Scan# 987  
 Delta R.T. -0.029 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 19.8 | 0.0   | 50.2  |
| 153     | 13.5 | 0.0   | 44.8  |

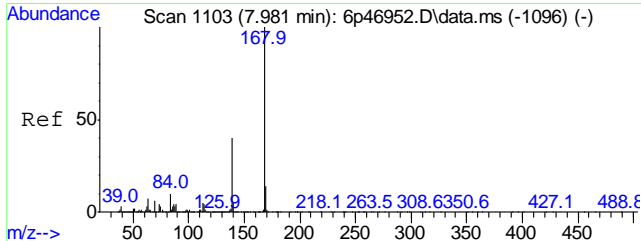
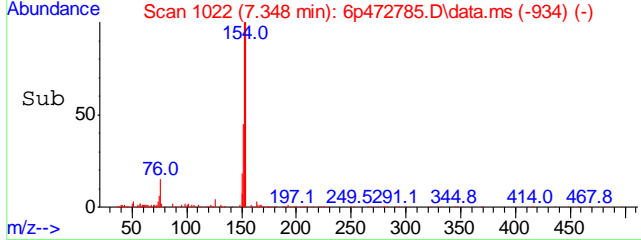
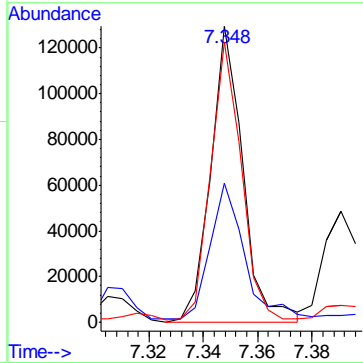
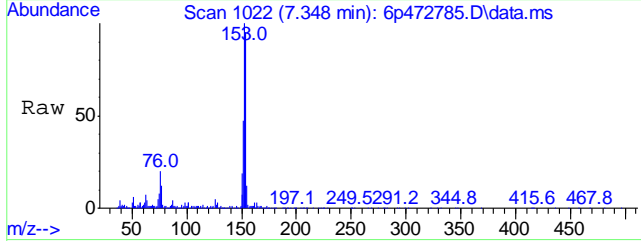


9.1.3  
 9



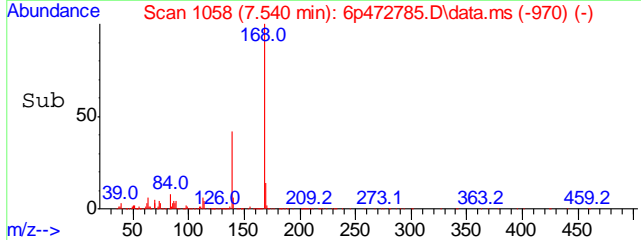
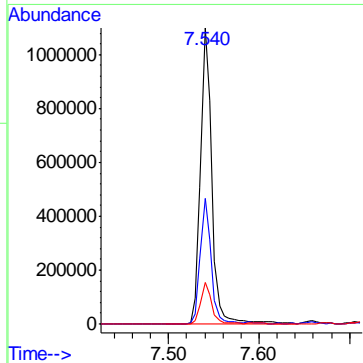
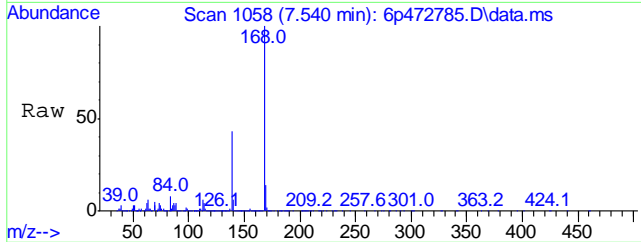
#59  
 Acenaphthene  
 Concen: 3.58 ppm  
 RT: 7.348 min Scan# 1022  
 Delta R.T. -0.029 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 106144 |       |       |
| 152     | 46.1   | 13.9  | 73.9  |
| 154     | 95.4   | 59.3  | 119.3 |

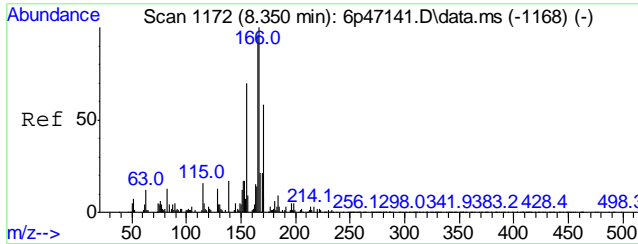


#62  
 Dibenzofuran  
 Concen: 25.01 ppm  
 RT: 7.540 min Scan# 1058  
 Delta R.T. -0.028 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 959835 |       |       |
| 168     | 100    |       |       |
| 139     | 42.6   | 6.0   | 66.0  |
| 169     | 14.0   | 0.0   | 43.5  |

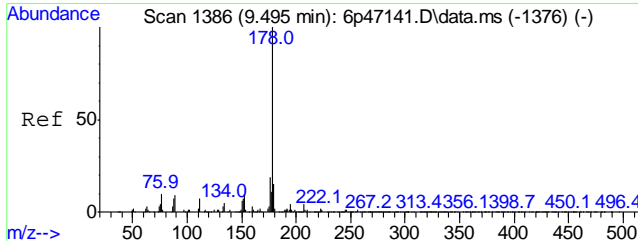
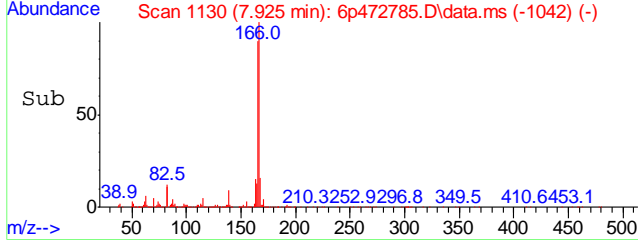
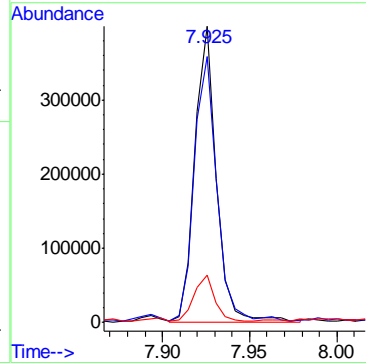
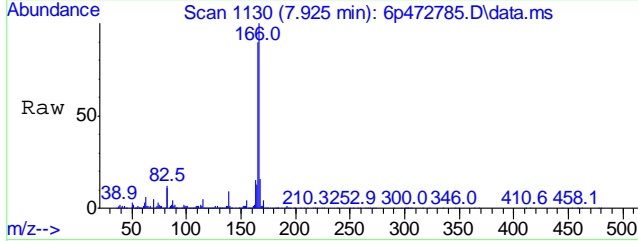


9.1.3  
 9



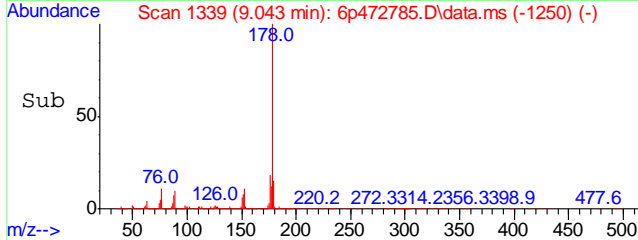
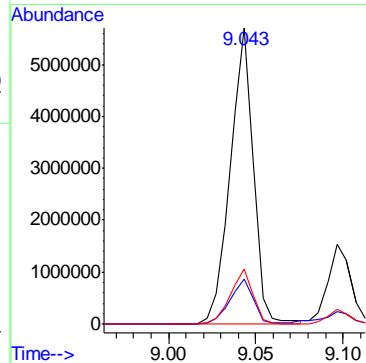
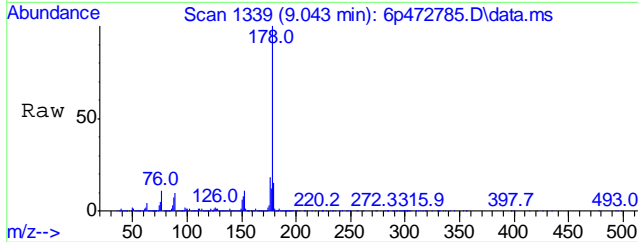
#66  
 Fluorene  
 Concen: 11.22 ppm  
 RT: 7.925 min Scan# 1130  
 Delta R.T. -0.027 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 89.6 | 59.3  | 119.3 |
| 167     | 15.3 | 0.0   | 43.1  |

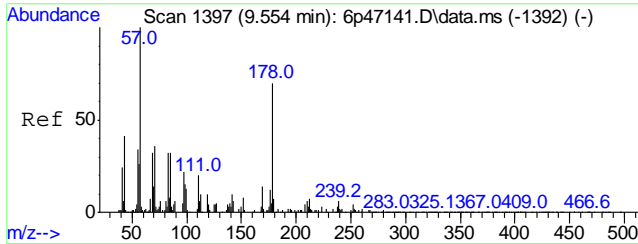


#77  
 Phenanthrene  
 Concen: 108.30 ppm  
 RT: 9.043 min Scan# 1339  
 Delta R.T. -0.024 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 14.8 | 0.0   | 46.6  |
| 176     | 18.5 | 0.0   | 49.6  |

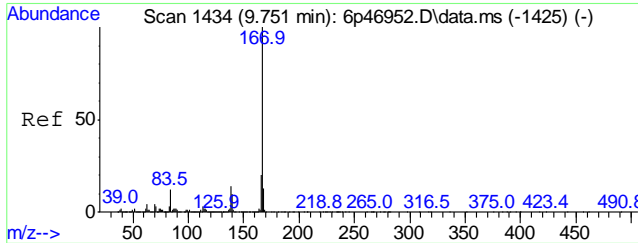
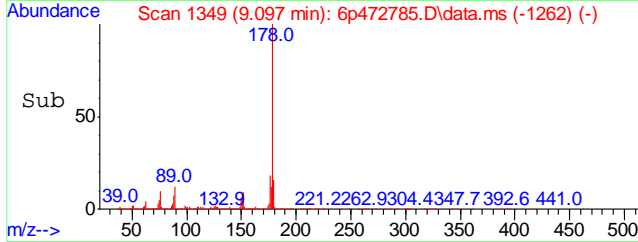
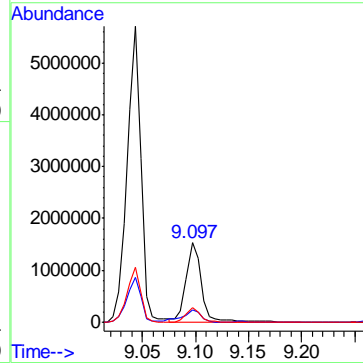
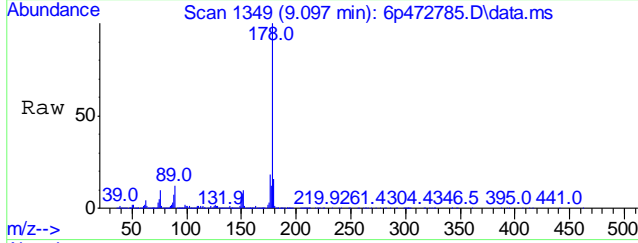


9.1.3  
 9



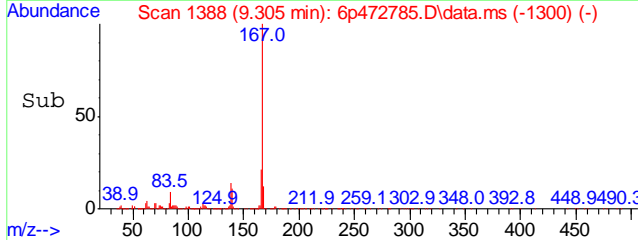
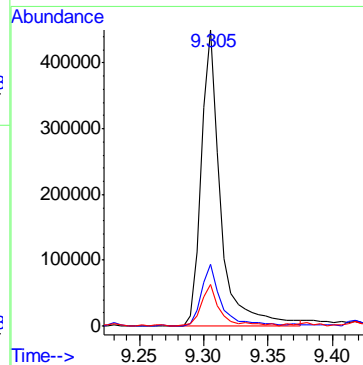
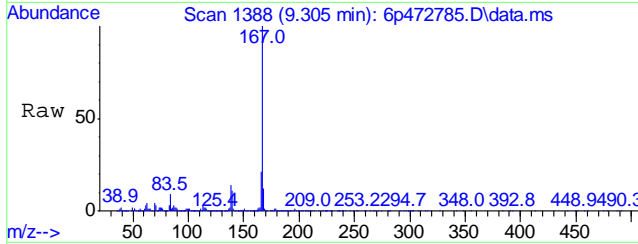
#78  
 Anthracene  
 Concen: 31.48 ppm  
 RT: 9.097 min Scan# 1349  
 Delta R.T. -0.034 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

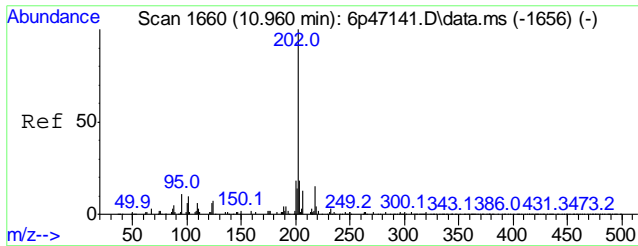
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 13.9  | 0.0   | 45.3  |
| 176     | 18.0  | 0.0   | 48.4  |



#79  
 Carbazole  
 Concen: 10.46 ppm  
 RT: 9.305 min Scan# 1388  
 Delta R.T. -0.028 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

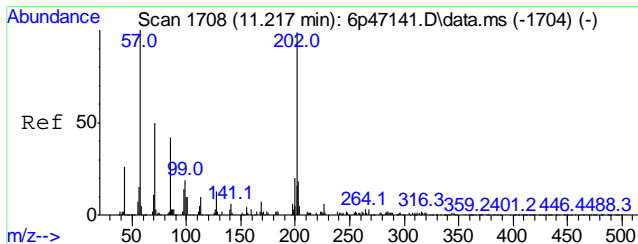
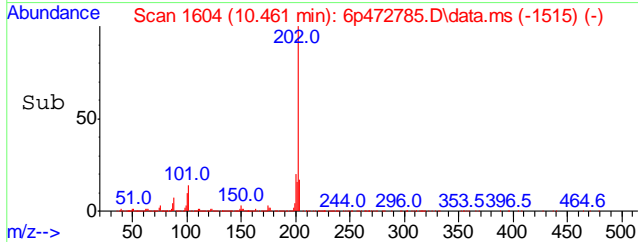
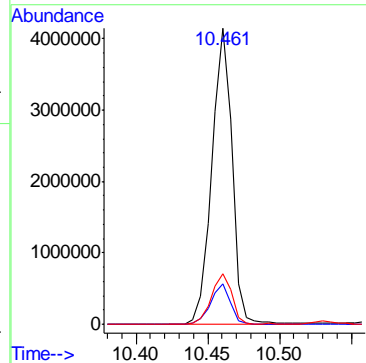
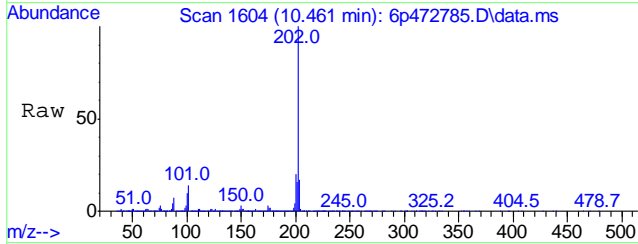
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 21.0  | 0.0   | 50.0  |
| 139     | 13.5  | 0.0   | 42.3  |





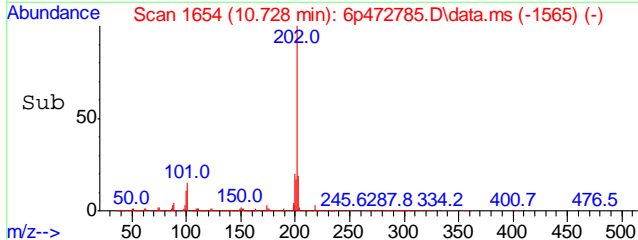
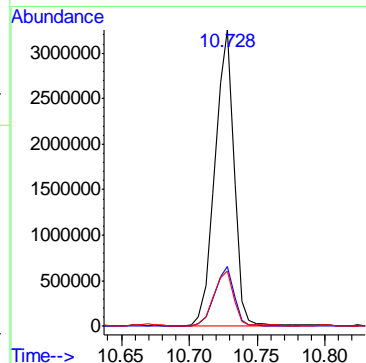
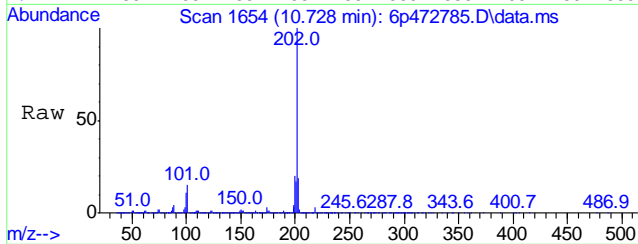
#81  
 Fluoranthene  
 Concen: 77.68 ppm  
 RT: 10.461 min Scan# 1604  
 Delta R.T. -0.026 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 13.7 | 0.0   | 40.9  |
| 203     | 17.1 | 0.0   | 47.4  |

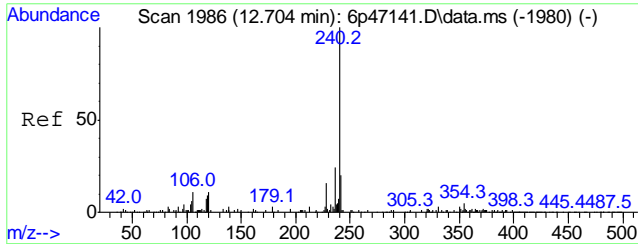


#84  
 Pyrene  
 Concen: 63.61 ppm  
 RT: 10.728 min Scan# 1654  
 Delta R.T. -0.022 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 20.1 | 0.0   | 50.7  |
| 203     | 18.6 | 0.0   | 47.9  |

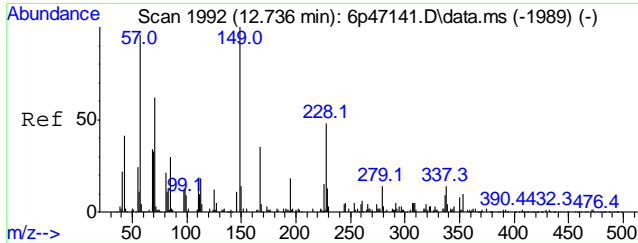
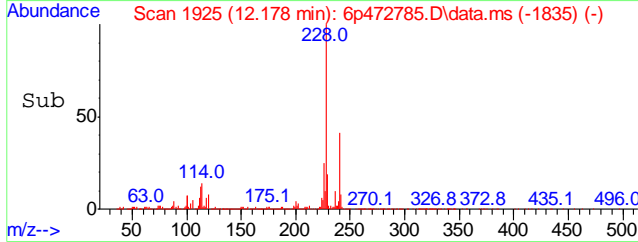
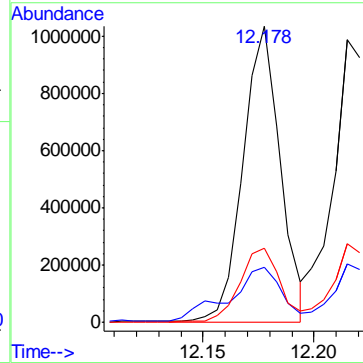
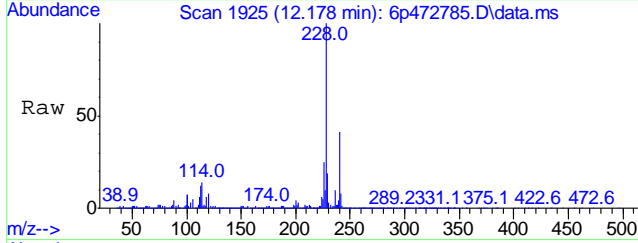


9.1.3  
9



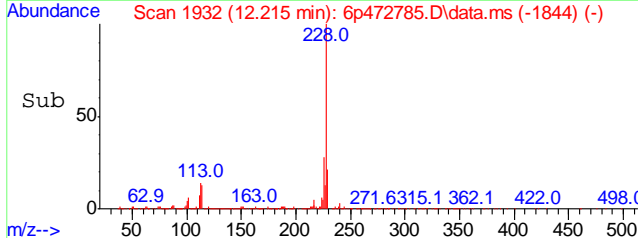
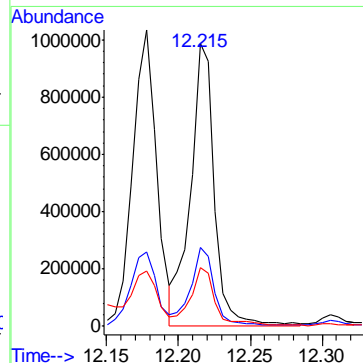
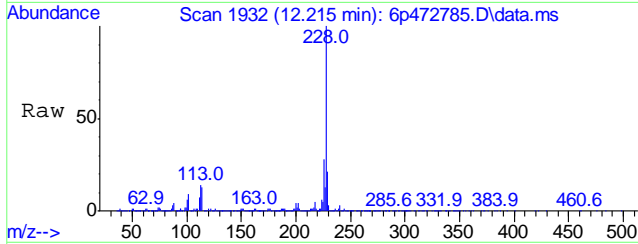
#87  
 Benzo[a]anthracene  
 Concen: 25.70 ppm  
 RT: 12.178 min Scan# 1925  
 Delta R.T. -0.018 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

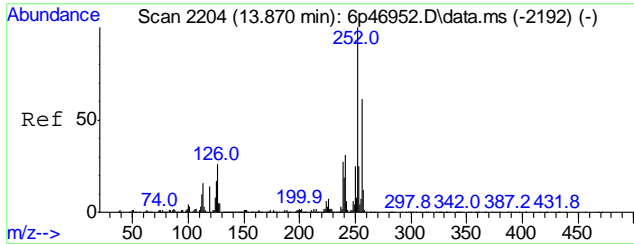
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.1  | 0.0   | 49.8  |
| 226     | 24.8  | 0.0   | 56.0  |



#89  
 Chrysene  
 Concen: 25.01 ppm  
 RT: 12.215 min Scan# 1932  
 Delta R.T. -0.029 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

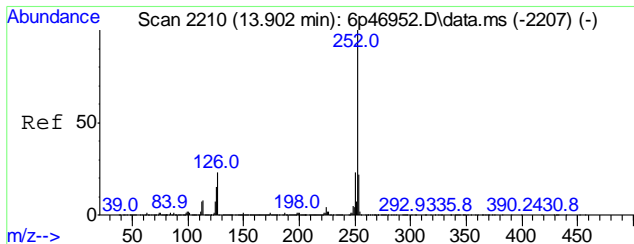
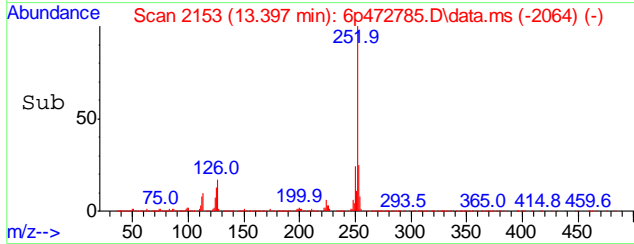
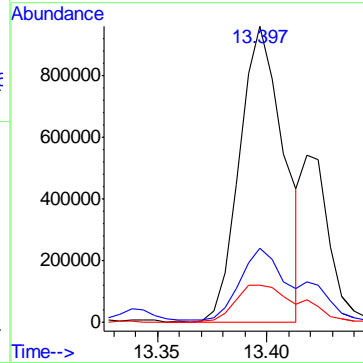
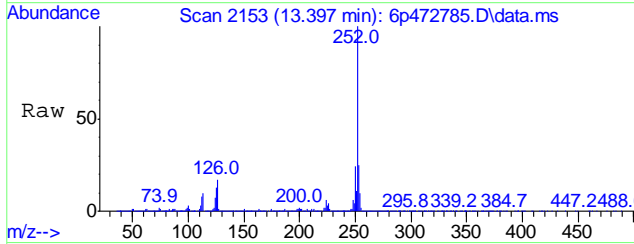
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.9  | 0.0   | 59.5  |
| 229     | 20.5  | 0.0   | 49.6  |





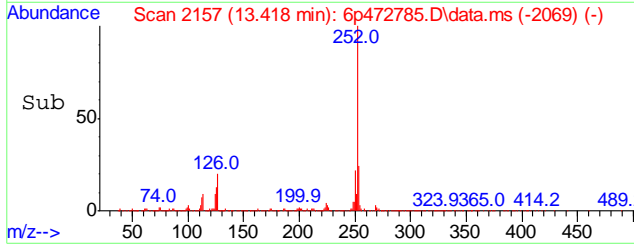
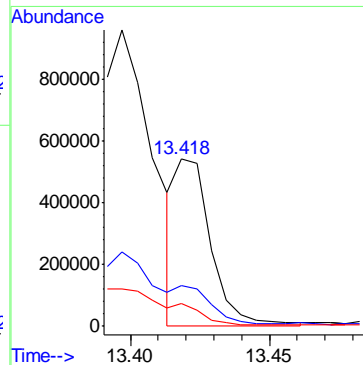
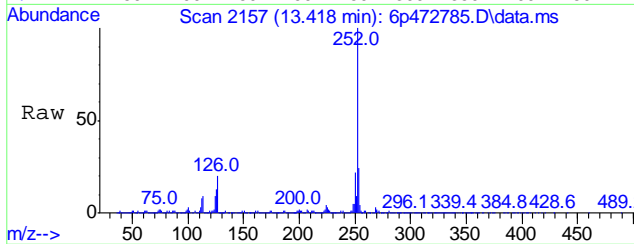
#93  
 Benzo[b]fluoranthene  
 Concen: 26.53 ppm m  
 RT: 13.397 min Scan# 2153  
 Delta R.T. -0.025 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1344263 |       |       |
| 253     | 24.9    | 0.0   | 55.4  |
| 125     | 12.6    | 0.0   | 40.0  |

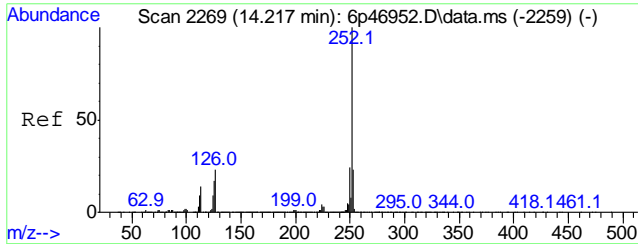


#94  
 Benzo[k]fluoranthene  
 Concen: 10.29 ppm m  
 RT: 13.418 min Scan# 2157  
 Delta R.T. -0.030 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 476584 |       |       |
| 253     | 24.1   | 0.0   | 51.8  |
| 125     | 13.4   | 0.0   | 38.7  |

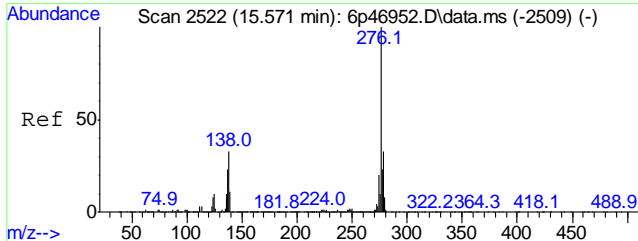
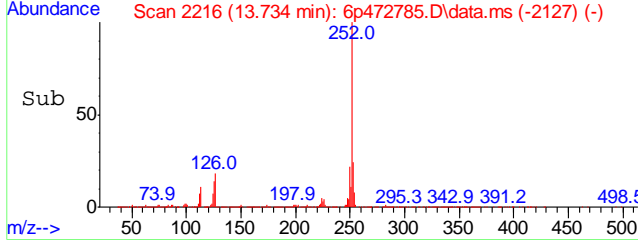
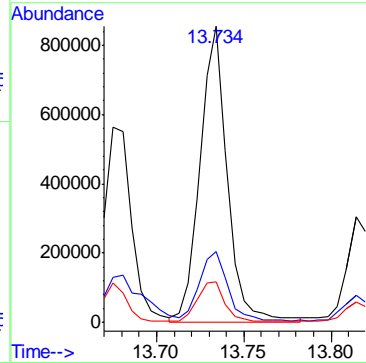
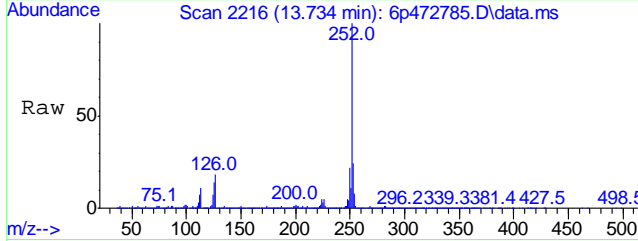






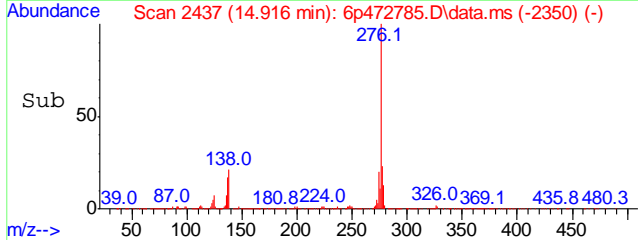
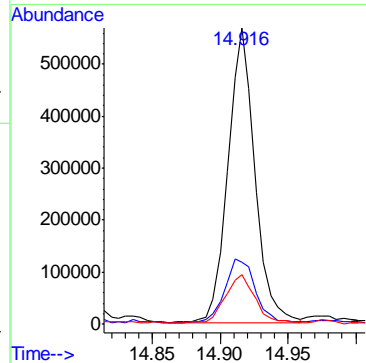
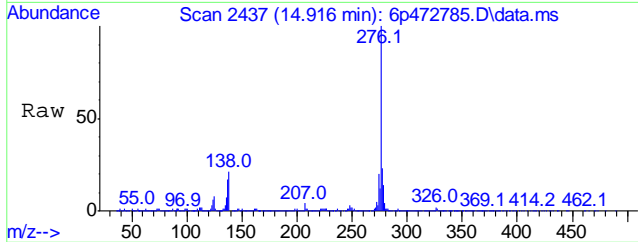
#95  
 Benzo[a]pyrene  
 Concen: 20.67 ppm  
 RT: 13.734 min Scan# 2216  
 Delta R.T. -0.024 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.8 | 0.0   | 52.5  |
| 125     | 13.5 | 0.0   | 40.0  |

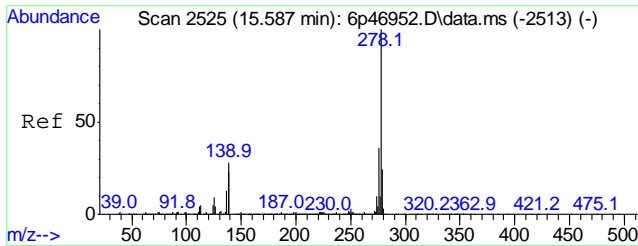


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 13.43 ppm  
 RT: 14.916 min Scan# 2437  
 Delta R.T. -0.037 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 20.8 | 0.0   | 48.9  |
| 137     | 16.4 | 0.0   | 43.2  |

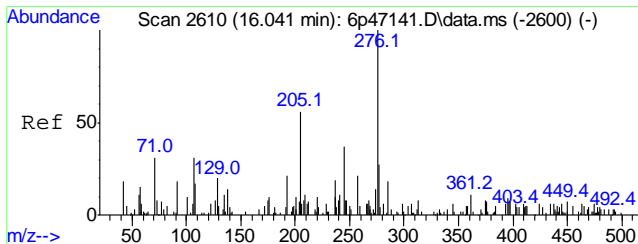
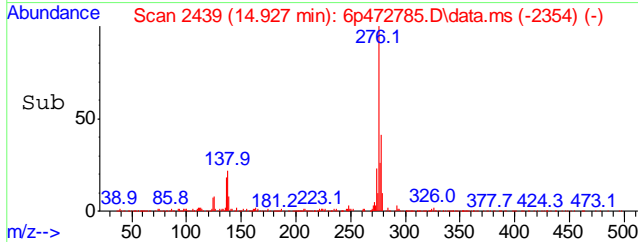
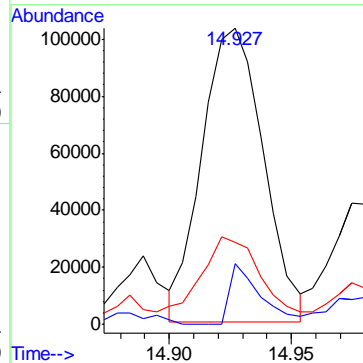
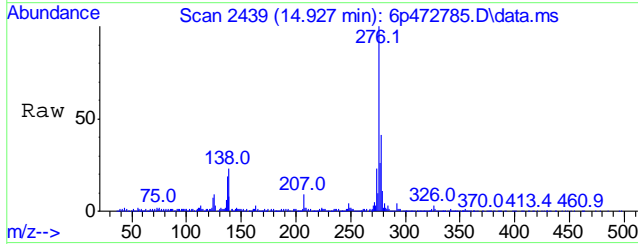


9.1.3  
 9



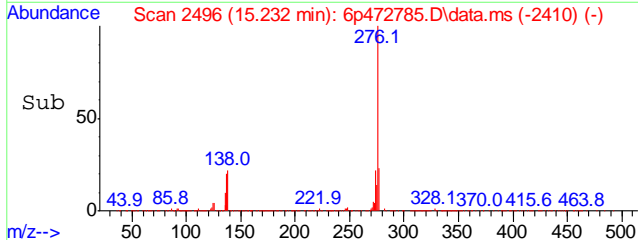
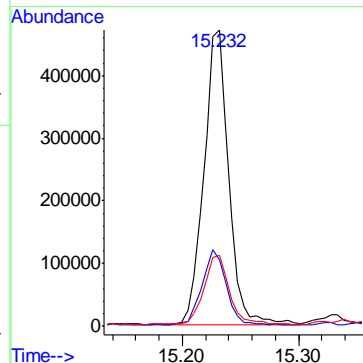
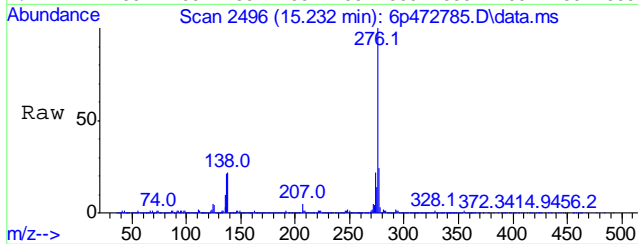
#98  
 Dibenz[a,h]anthracene  
 Concen: 3.55 ppm  
 RT: 14.927 min Scan# 2439  
 Delta R.T. -0.048 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 20.2  | 0.0   | 45.9  |
| 279     | 25.3  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 14.73 ppm  
 RT: 15.232 min Scan# 2496  
 Delta R.T. -0.042 min  
 Lab File: 6p472785.D  
 Acq: 10 May 2018 7:54 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 22.1  | 0.0   | 49.9  |
| 277     | 23.0  | 0.0   | 53.3  |



9.1.3  
9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472424.D  
 Acq On : 2 May 2018 6:00 am  
 Operator : sufiyana  
 Sample : jc65157-2  
 Misc : op11665,e6p2189,30.2,,,1,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 02 12:04:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

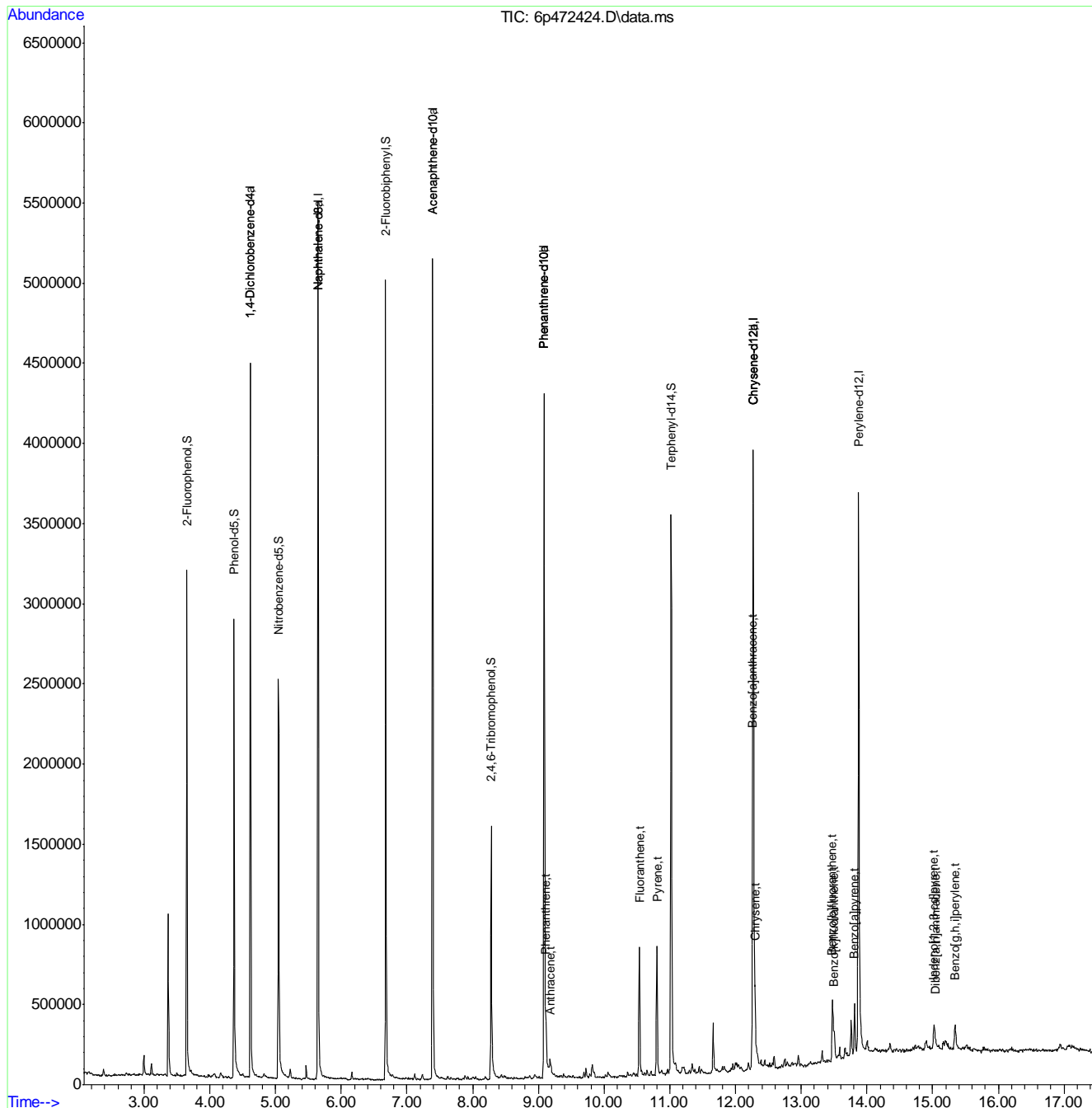
| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.617  | 152  | 512056   | 40.00 | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 1942674  | 40.00 | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.393  | 164  | 969718   | 40.00 | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.088  | 188  | 1665324  | 40.00 | ppm    | 0.05     |        |
| 83) Chrysene-d12             | 12.271 | 240  | 1477922  | 40.00 | ppm    | 0.06     |        |
| 91) Perylene-d12             | 13.875 | 264  | 1443562  | 40.00 | ppm    | 0.06     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.617  | 152  | 512056   | 40.00 | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.393  | 164  | 969718   | 40.00 | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.088  | 188  | 1665324  | 40.00 | ppm    | 0.05     |        |
| 109) Chrysene-d12a           | 12.271 | 240  | 1477922  | 40.00 | ppm    | 0.06     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1942674  | 40.00 | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.088  | 188  | 1665324  | 40.00 | ppm    | 0.05     |        |
| 115) Chrysene-d12b           | 12.271 | 240  | 1477922  | 40.00 | ppm    | 0.06     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.649  | 112  | 667292   | 35.75 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.50% |          |        |
| 8) Phenol-d5                 | 4.365  | 99   | 835794   | 35.16 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 70.32% |          |        |
| 25) Nitrobenzene-d5          | 5.045  | 82   | 757630   | 35.92 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 71.84% |          |        |
| 51) 2-Fluorobiphenyl         | 6.676  | 172  | 1366262  | 36.52 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 73.04% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.280  | 330  | 178551   | 28.51 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 57.02% |          |        |
| 85) Terphenyl-d14            | 11.019 | 244  | 1222709  | 34.63 | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 69.26% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 77) Phenanthrene             | 9.115  | 178  | 136633   | 2.70  | ppm    | 94       | Qvalue |
| 78) Anthracene               | 9.174  | 178  | 49125    | 0.96  | ppm    | 86       |        |
| 81) Fluoranthene             | 10.538 | 202  | 381216   | 6.95  | ppm    | 97       |        |
| 84) Pyrene                   | 10.805 | 202  | 328599   | 6.65  | ppm    | 100      |        |
| 87) Benzo[a]anthracene       | 12.260 | 228  | 166874   | 3.60  | ppm    | 96       |        |
| 89) Chrysene                 | 12.297 | 228  | 165838   | 3.62  | ppm    | 95       |        |
| 93) Benzo[b]fluoranthene     | 13.474 | 252  | 198083m  | 4.33  | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.495 | 252  | 78977m   | 1.89  | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.811 | 252  | 145094   | 3.58  | ppm    | 96       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 15.020 | 276  | 112483   | 2.11  | ppm    | 83       |        |
| 98) Dibenz[a,h]anthracene    | 15.041 | 278  | 20191m   | 0.44  | ppm    |          |        |
| 100) Benzo[g,h,i]perylene    | 15.341 | 276  | 103157   | 2.42  | ppm    | 87       |        |

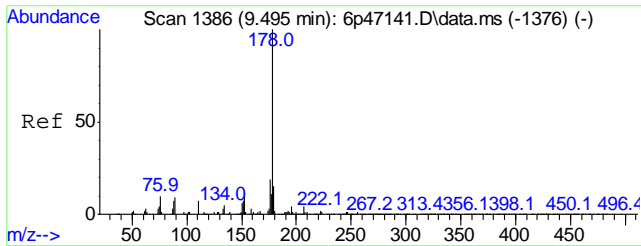
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472424.D  
 Acq On : 2 May 2018 6:00 am  
 Operator : sufiyana  
 Sample : jc65157-2  
 Misc : op11665,e6p2189,30.2,,,1,1  
 ALS Vial : 18 Sample Multiplier: 1

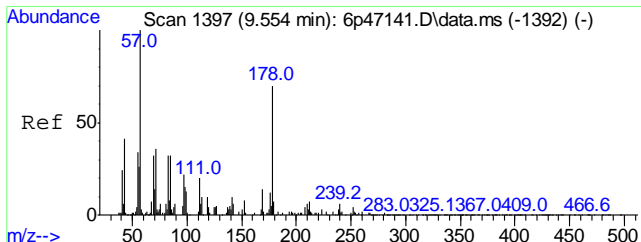
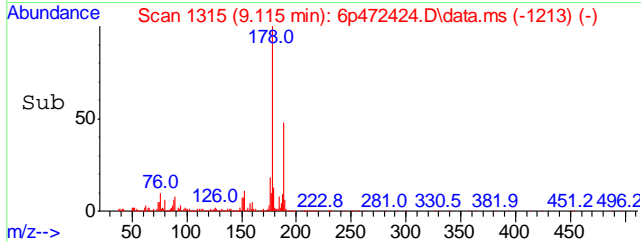
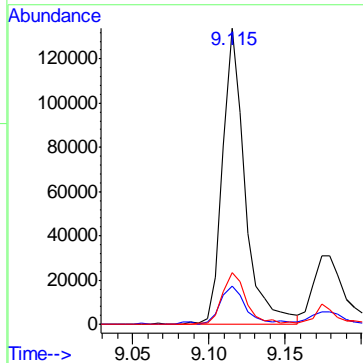
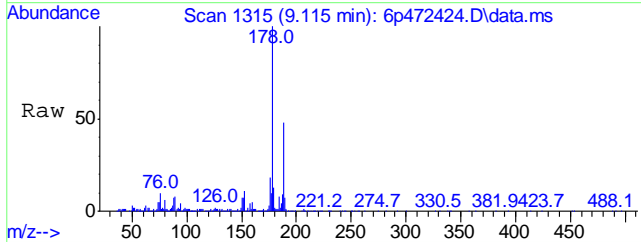
Quant Time: May 02 12:04:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration





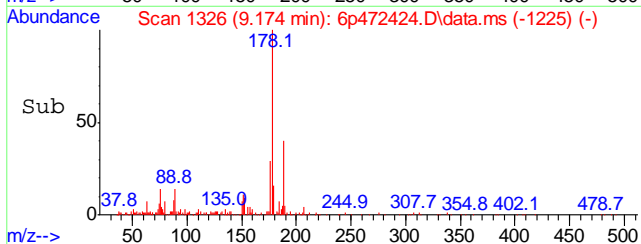
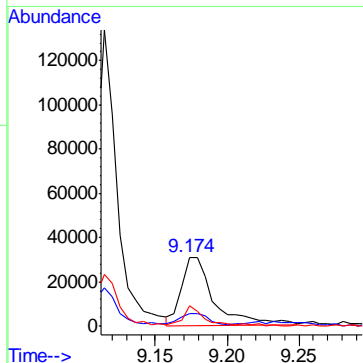
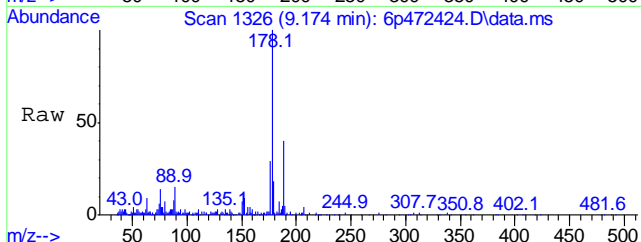
#77  
 Phenanthrene  
 Concen: 2.70 ppm  
 RT: 9.115 min Scan# 1315  
 Delta R.T. 0.048 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 136633 |       |       |
| 179     | 12.8   | 0.0   | 46.6  |
| 176     | 17.6   | 0.0   | 49.6  |

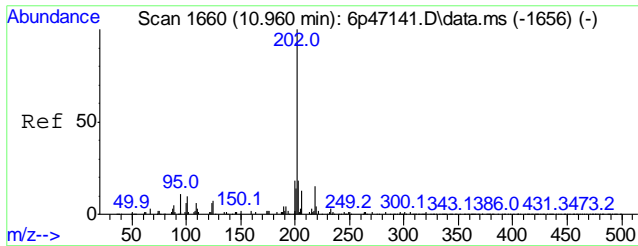


#78  
 Anthracene  
 Concen: 0.96 ppm  
 RT: 9.174 min Scan# 1326  
 Delta R.T. 0.043 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 49125 |       |       |
| 179     | 14.5  | 0.0   | 45.3  |
| 176     | 29.1  | 0.0   | 48.4  |

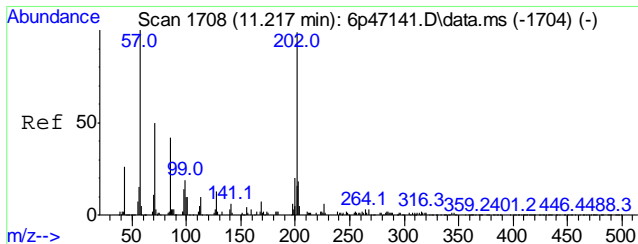
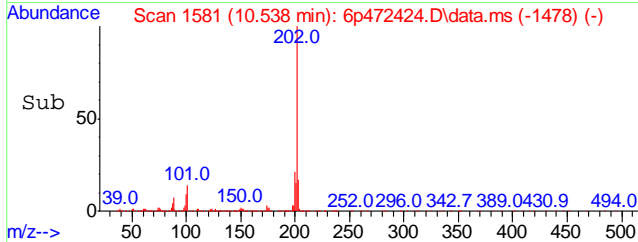
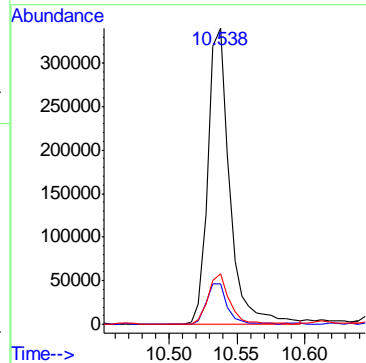
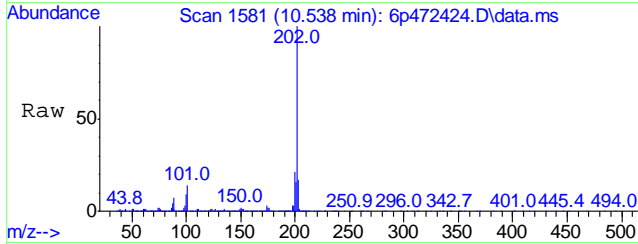


9.14  
 9



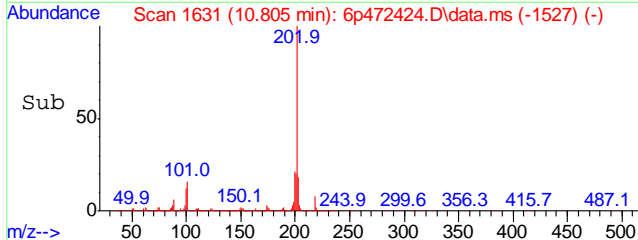
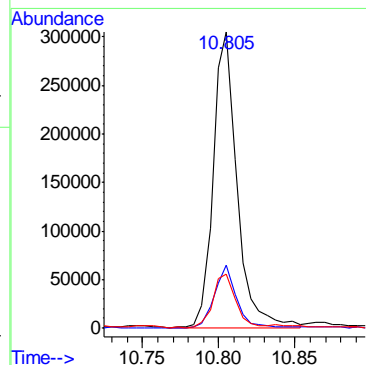
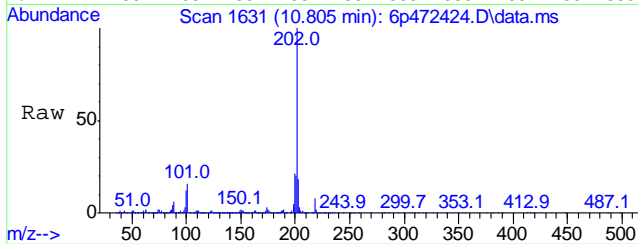
#81  
 Fluoranthene  
 Concen: 6.95 ppm  
 RT: 10.538 min Scan# 1581  
 Delta R.T. 0.051 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 13.7  | 0.0   | 40.9  |
| 203     | 17.0  | 0.0   | 47.4  |

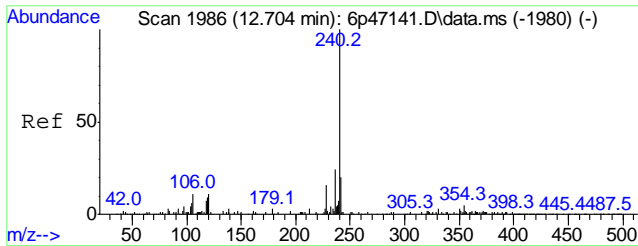


#84  
 Pyrene  
 Concen: 6.65 ppm  
 RT: 10.805 min Scan# 1631  
 Delta R.T. 0.055 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.0  | 0.0   | 50.7  |
| 203     | 18.0  | 0.0   | 47.9  |

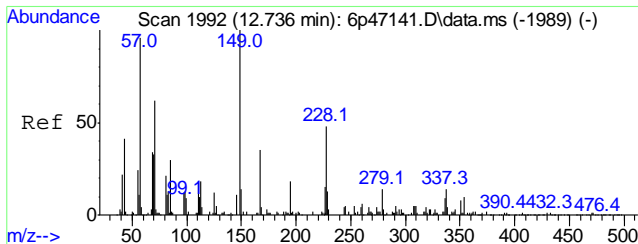
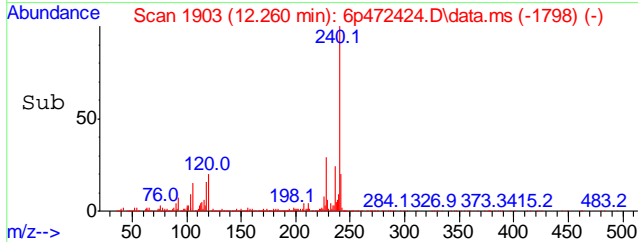
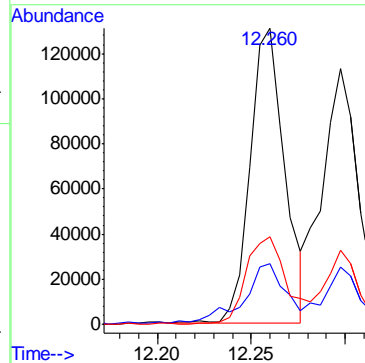
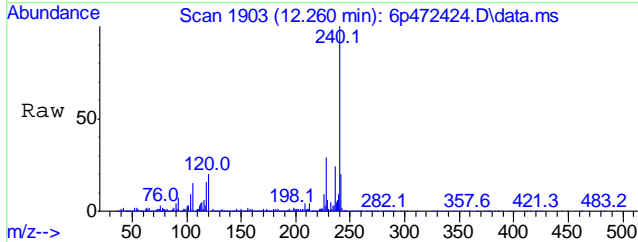


9.14  
 9



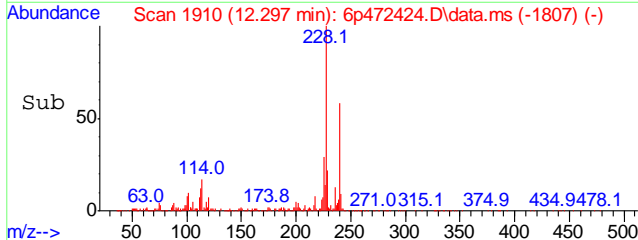
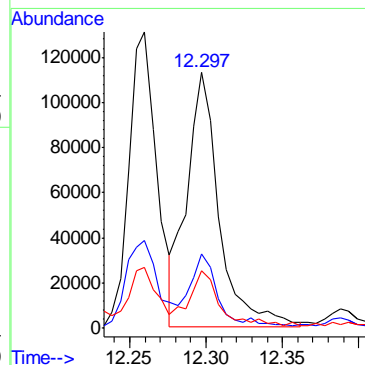
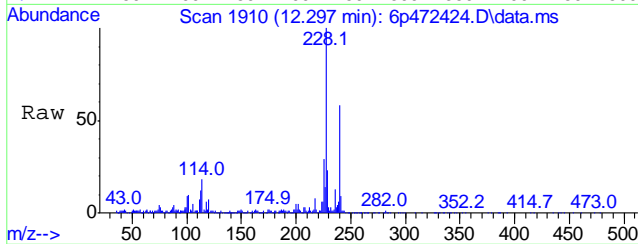
#87  
 Benzo[a]anthracene  
 Concen: 3.60 ppm  
 RT: 12.260 min Scan# 1903  
 Delta R.T. 0.064 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.4  | 0.0   | 49.8  |
| 226     | 28.7  | 0.0   | 56.0  |

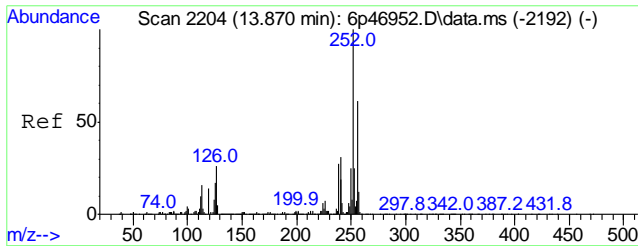


#89  
 Chrysene  
 Concen: 3.62 ppm  
 RT: 12.297 min Scan# 1910  
 Delta R.T. 0.053 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.5  | 0.0   | 59.5  |
| 229     | 22.9  | 0.0   | 49.6  |

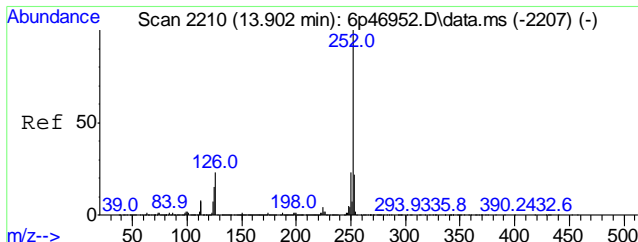
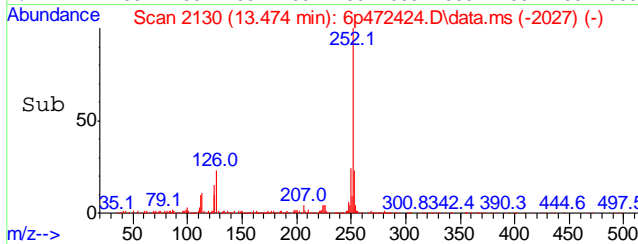
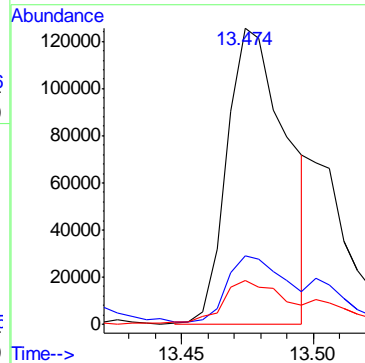
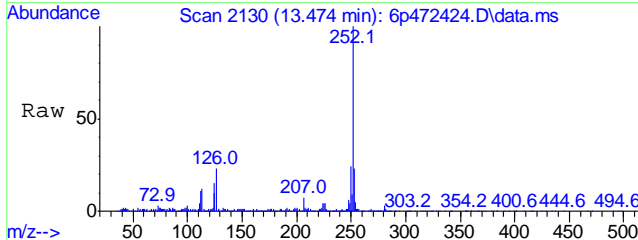


9.14  
 9



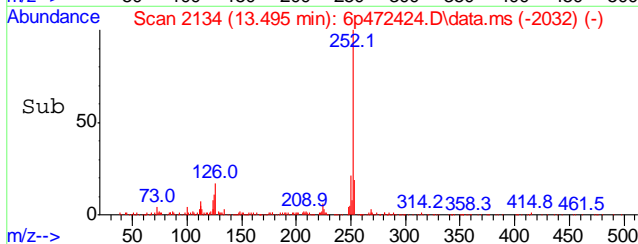
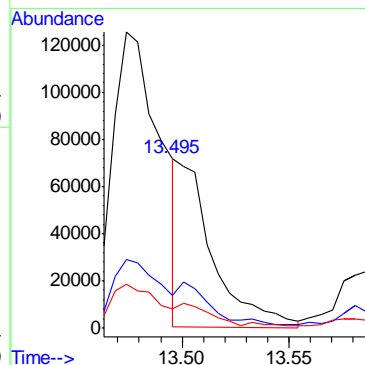
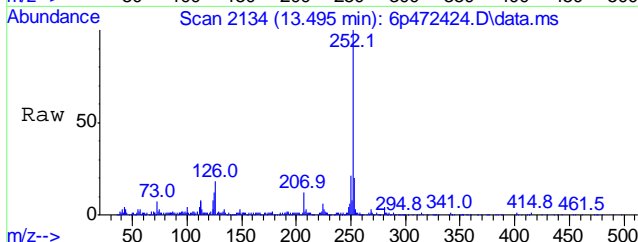
#93  
 Benzo[b]fluoranthene  
 Concen: 4.33 ppm m  
 RT: 13.474 min Scan# 2130  
 Delta R.T. 0.052 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 252  | Resp: | 198083 |
| Ion Ratio | 100  | Lower | Upper  |
| 252       | 100  |       |        |
| 253       | 23.2 | 0.0   | 55.4   |
| 125       | 14.8 | 0.0   | 40.0   |

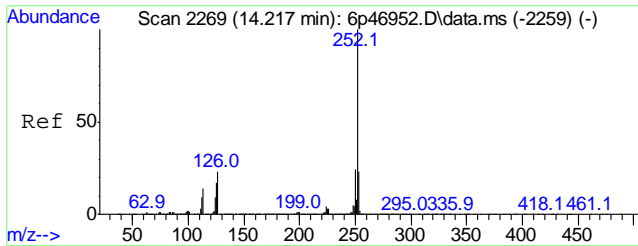


#94  
 Benzo[k]fluoranthene  
 Concen: 1.89 ppm m  
 RT: 13.495 min Scan# 2134  
 Delta R.T. 0.047 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 252  | Resp: | 78977 |
| Ion Ratio | 100  | Lower | Upper |
| 252       | 100  |       |       |
| 253       | 19.5 | 0.0   | 51.8  |
| 125       | 11.5 | 0.0   | 38.7  |

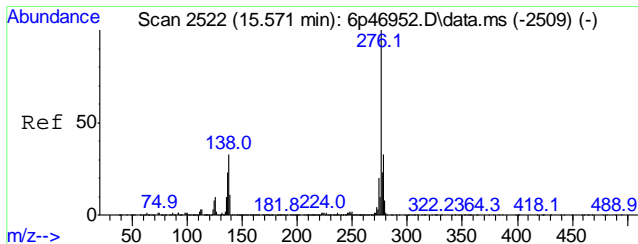
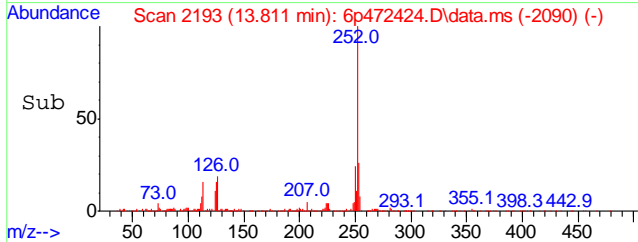
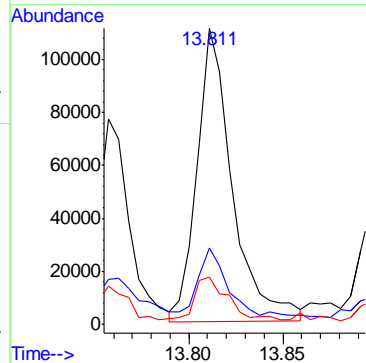
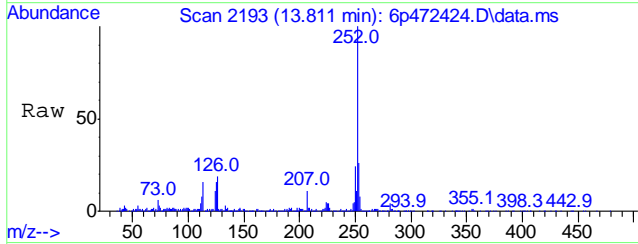






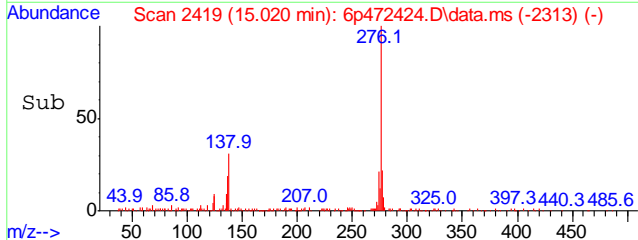
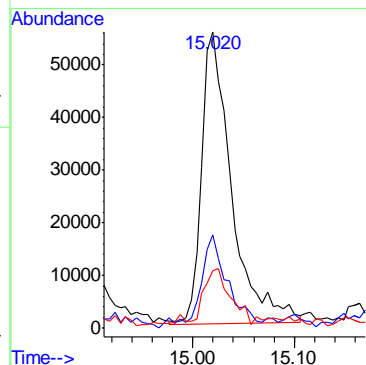
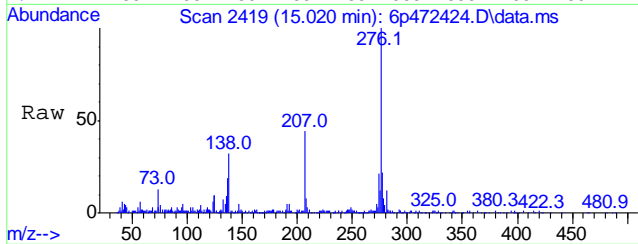
#95  
 Benzo[a]pyrene  
 Concen: 3.58 ppm  
 RT: 13.811 min Scan# 2193  
 Delta R.T. 0.053 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 145094 |       |       |
| 252     | 100    |       |       |
| 253     | 23.0   | 0.0   | 52.5  |
| 125     | 13.9   | 0.0   | 40.0  |

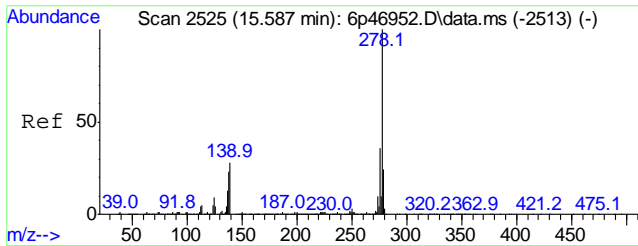


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 2.11 ppm  
 RT: 15.020 min Scan# 2419  
 Delta R.T. 0.067 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 112483 |       |       |
| 276     | 100    |       |       |
| 138     | 28.7   | 0.0   | 48.9  |
| 137     | 17.7   | 0.0   | 43.2  |

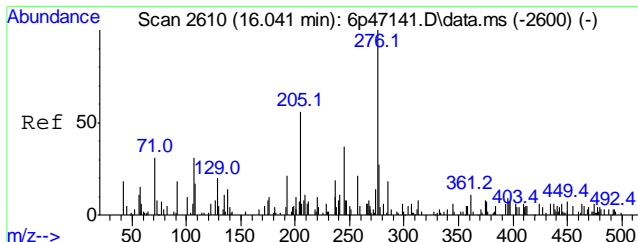
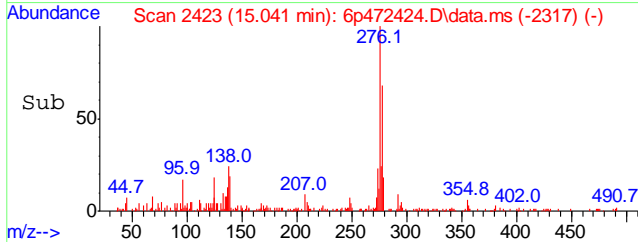
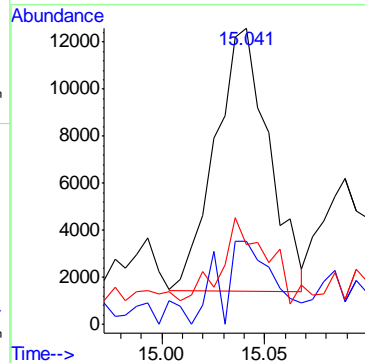
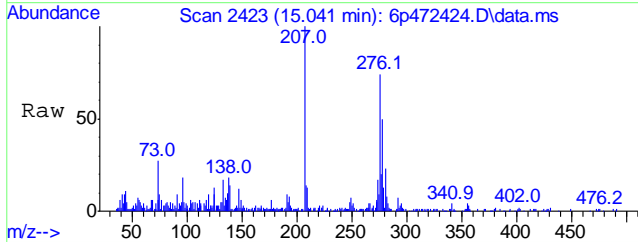


9.14  
 9



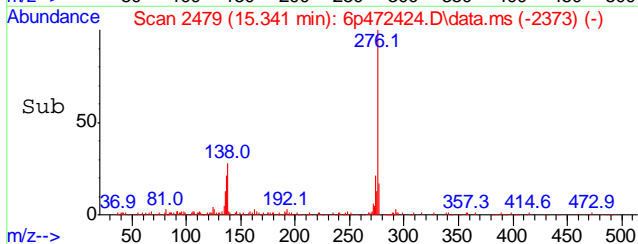
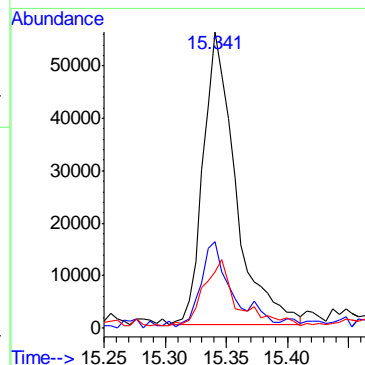
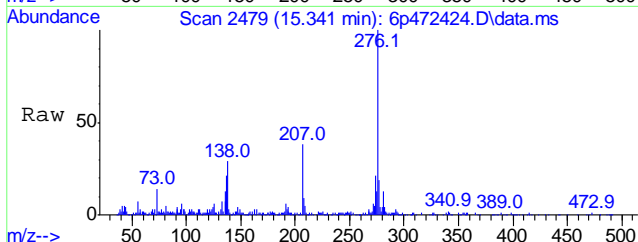
#98  
 Dibenz[a,h]anthracene  
 Concen: 0.44 ppm  
 RT: 15.041 min Scan# 2423  
 Delta R.T. 0.067 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 28.2  | 0.0   | 45.9  |
| 279     | 26.9  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 2.42 ppm  
 RT: 15.341 min Scan# 2479  
 Delta R.T. 0.067 min  
 Lab File: 6p472424.D  
 Acq: 2 May 2018 6:00 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.8  | 0.0   | 49.9  |
| 277     | 18.4  | 0.0   | 53.3  |



9.14  
**9**

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472425.D  
 Acq On : 2 May 2018 6:24 am  
 Operator : sufiyana  
 Sample : jc65157-3  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 02 12:06:03 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.617  | 152  | 496644   | 40.00 | ppm    | 0.04     |
| 24) Naphthalene-d8           | 5.649  | 136  | 1893500  | 40.00 | ppm    | 0.04     |
| 47) Acenaphthene-d10         | 7.393  | 164  | 981320   | 40.00 | ppm    | 0.05     |
| 69) Phenanthrene-d10         | 9.088  | 188  | 1663715  | 40.00 | ppm    | 0.05     |
| 83) Chrysene-d12             | 12.271 | 240  | 1503668  | 40.00 | ppm    | 0.06     |
| 91) Perylene-d12             | 13.875 | 264  | 1470035  | 40.00 | ppm    | 0.06     |
| 101) 1,4-Dichlorobenzene-d4a | 4.617  | 152  | 496644   | 40.00 | ppm    | 0.04     |
| 103) Acenaphthene-d10a       | 7.393  | 164  | 981320   | 40.00 | ppm    | 0.05     |
| 105) Phenanthrene-d10a       | 9.088  | 188  | 1663715  | 40.00 | ppm    | 0.05     |
| 109) Chrysene-d12a           | 12.271 | 240  | 1503668  | 40.00 | ppm    | 0.06     |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1893500  | 40.00 | ppm    | 0.04     |
| 113) Phenanthrene-d10b       | 9.088  | 188  | 1663715  | 40.00 | ppm    | 0.05     |
| 115) Chrysene-d12b           | 12.271 | 240  | 1503668  | 40.00 | ppm    | 0.06     |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.649  | 112  | 668051   | 36.90 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 73.80% |          |
| 8) Phenol-d5                 | 4.365  | 99   | 849938   | 36.86 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 73.72% |          |
| 25) Nitrobenzene-d5          | 5.045  | 82   | 801145   | 38.97 | ppm    | 0.04     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.94% |          |
| 51) 2-Fluorobiphenyl         | 6.676  | 172  | 1372267  | 36.25 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 72.50% |          |
| 73) 2,4,6-Tribromophenol     | 8.281  | 330  | 180172   | 28.79 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 57.58% |          |
| 85) Terphenyl-d14            | 11.019 | 244  | 1251170  | 34.83 | ppm    | 0.06     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 69.66% |          |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |

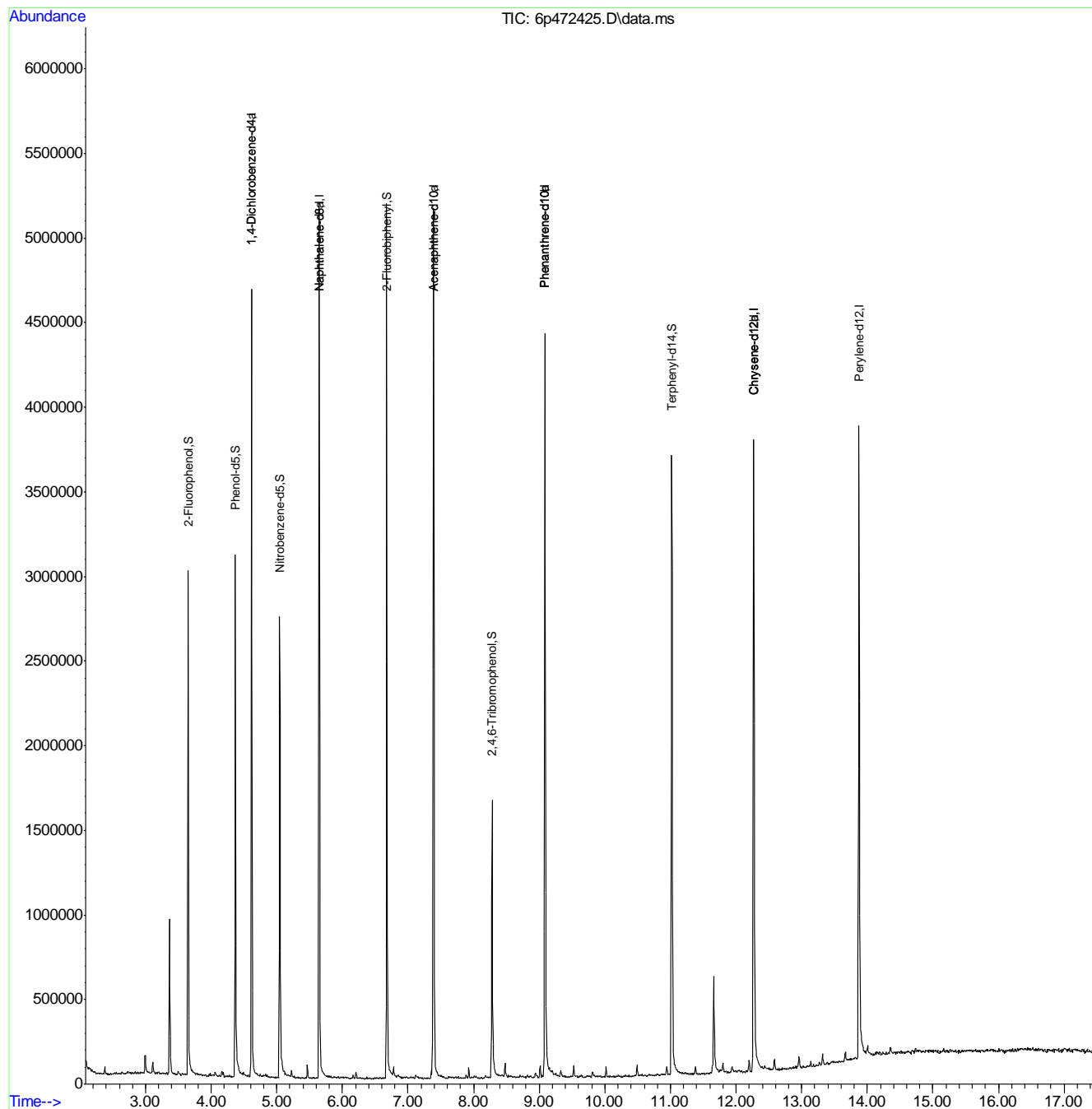
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
Data File : 6p472425.D  
Acq On : 2 May 2018 6:24 am  
Operator : sufiyana  
Sample : jc65157-3  
Misc : op11665,e6p2189,30.9,,,1,1  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 02 12:06:03 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
QLast Update : Tue May 01 23:41:47 2018  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472429.D  
 Acq On : 2 May 2018 8:03 am  
 Operator : sufiyana  
 Sample : jc65157-4  
 Misc : op11665,e6p2189,30.6,,,1,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 07 12:23:09 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 510073   | 40.00 | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 1926681  | 40.00 | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 972313   | 40.00 | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.099  | 188  | 1707634  | 40.00 | ppm    | 0.06     |        |
| 83) Chrysene-d12             | 12.287 | 240  | 1602224  | 40.00 | ppm    | 0.07     |        |
| 91) Perylene-d12             | 13.897 | 264  | 1731124  | 40.00 | ppm    | 0.08     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 510073   | 40.00 | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 972313   | 40.00 | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.099  | 188  | 1707634  | 40.00 | ppm    | 0.06     |        |
| 109) Chrysene-d12a           | 12.287 | 240  | 1602224  | 40.00 | ppm    | 0.07     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1926681  | 40.00 | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.099  | 188  | 1707634  | 40.00 | ppm    | 0.06     |        |
| 115) Chrysene-d12b           | 12.287 | 240  | 1602224  | 40.00 | ppm    | 0.07     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 400794   | 21.56 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.12% |          |        |
| 8) Phenol-d5                 | 4.371  | 99   | 519975   | 21.96 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.92% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 477271   | 22.82 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 45.64% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 868773   | 23.16 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 46.32% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.286  | 330  | 109638   | 17.07 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 34.14% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 716057   | 18.71 | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 37.42% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00  | ppm    |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 38) Naphthalene              | 5.671  | 128  | 737256   | 14.60 | ppm    | 99       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 225356   | 7.63  | ppm    | 96       |        |
| 53) Biphenyl                 | 6.783  | 154  | 71555    | 1.72  | ppm    | 96       |        |
| 56) Acenaphthylene           | 7.238  | 152  | 588065   | 12.42 | ppm    | 97       |        |
| 59) Acenaphthene             | 7.430  | 153  | 91985    | 2.79  | ppm    | 99       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 397816   | 9.33  | ppm    | 95       |        |
| 66) Fluorene                 | 8.008  | 166  | 308958   | 9.02  | ppm    | 97       |        |
| 77) Phenanthrene             | 9.126  | 178  | 3310786  | 63.78 | ppm    | 98       |        |
| 78) Anthracene               | 9.185  | 178  | 842320   | 16.03 | ppm    | 96       |        |
| 79) Carbazole                | 9.388  | 167  | 206667   | 4.23  | ppm    | 95       |        |
| 81) Fluoranthene             | 10.554 | 202  | 3528925  | 62.70 | ppm    | 97       |        |
| 84) Pyrene                   | 10.821 | 202  | 3076490  | 57.46 | ppm    | 99       |        |
| 87) Benzo[a]anthracene       | 12.271 | 228  | 1227143  | 24.44 | ppm    | 92       |        |
| 89) Chrysene                 | 12.314 | 228  | 1185666  | 23.89 | ppm    | 97       |        |
| 93) Benzo[b]fluoranthene     | 13.496 | 252  | 1594623m | 29.09 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.522 | 252  | 588884m  | 11.75 | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.833 | 252  | 1227944  | 25.29 | ppm    | 93       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 15.052 | 276  | 971372   | 15.20 | ppm    | 81       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472429.D  
 Acq On : 2 May 2018 8:03 am  
 Operator : sufiyana  
 Sample : jc65157-4  
 Misc : op11665,e6p2189,30.6,,,1,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 07 12:23:09 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

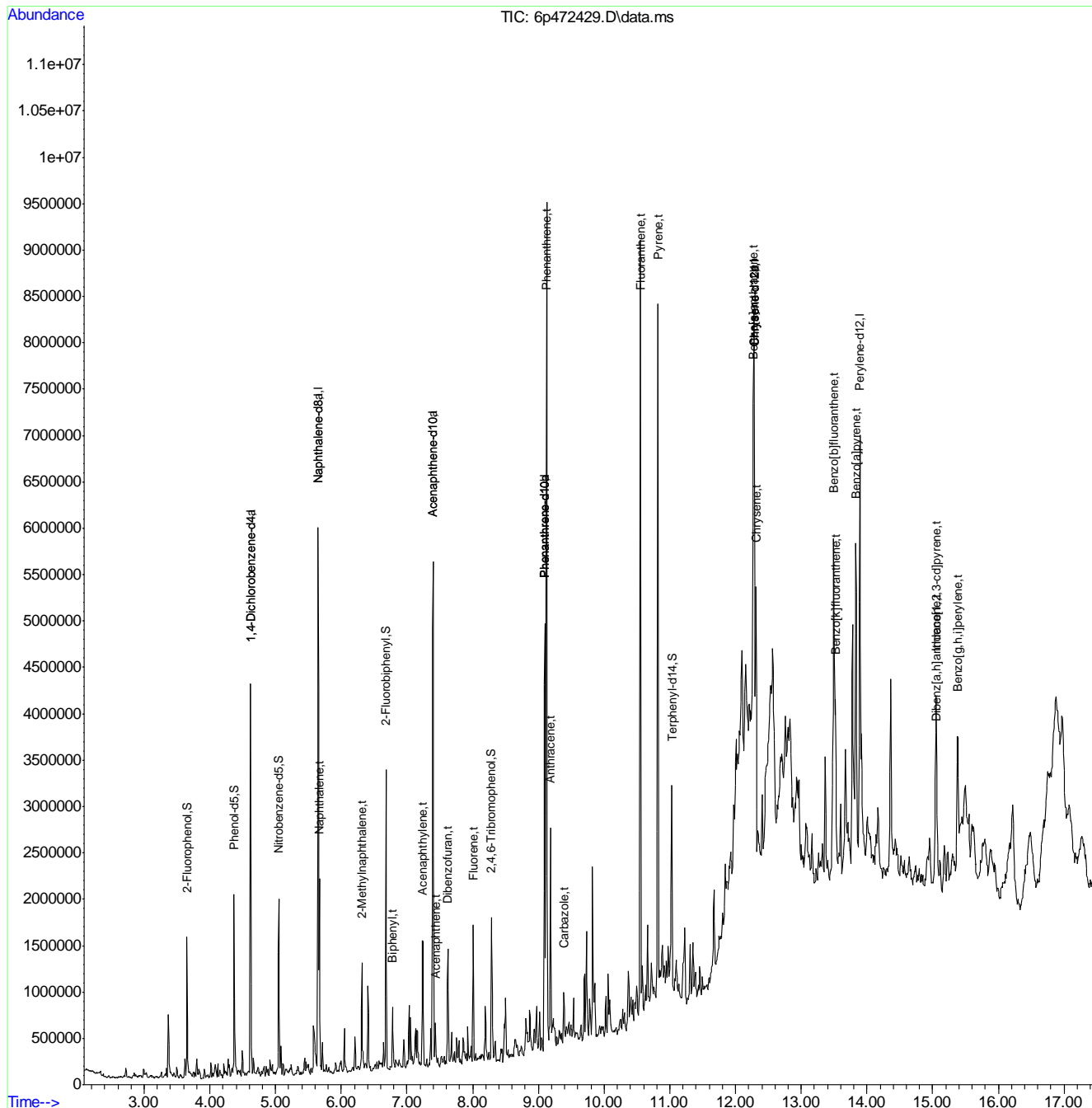
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 15.063 | 278  | 179066m  | 3.25  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 15.378 | 276  | 968021   | 18.91 | ppm   | 91       |

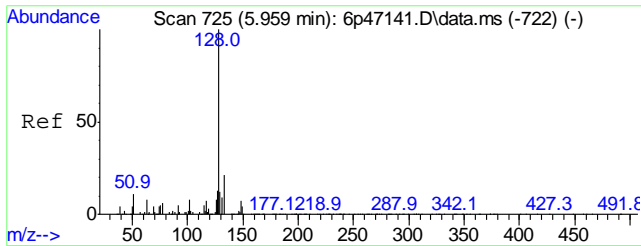
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472429.D  
 Acq On : 2 May 2018 8:03 am  
 Operator : sufiyana  
 Sample : jc65157-4  
 Misc : op11665,e6p2189,30.6,,,1,1  
 ALS Vial : 23 Sample Multiplier: 1

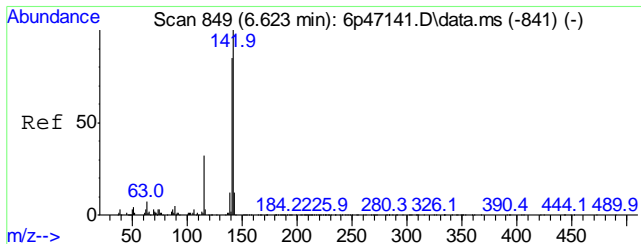
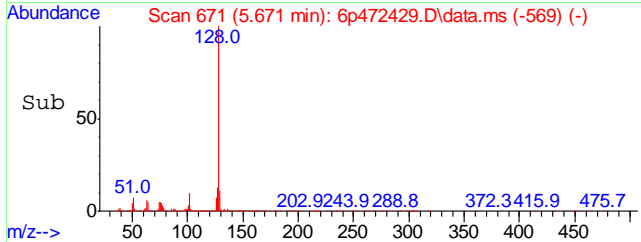
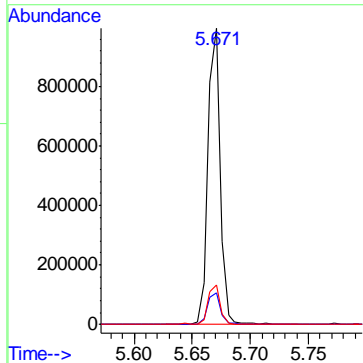
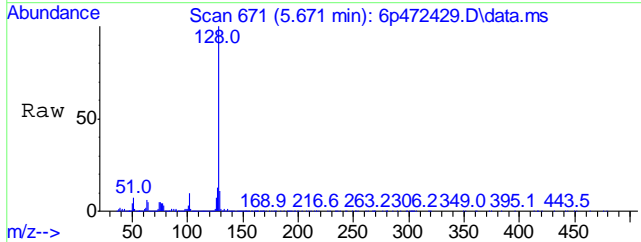
Quant Time: May 07 12:23:09 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration





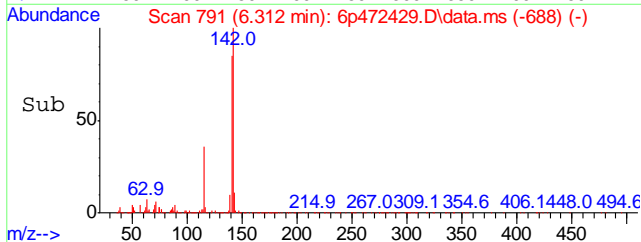
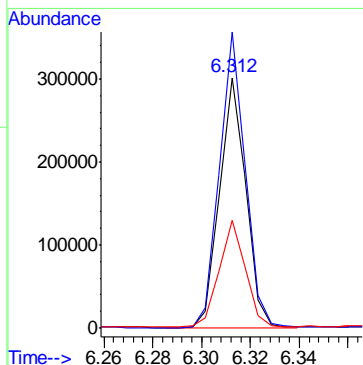
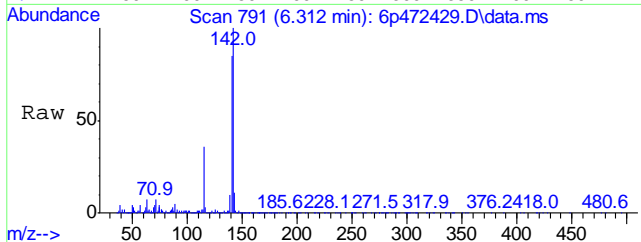
#38  
Naphthalene  
Concen: 14.60 ppm  
RT: 5.671 min Scan# 671  
Delta R.T. 0.048 min  
Lab File: 6p472429.D  
Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.7  | 0.0   | 41.1  |
| 127     | 13.3  | 0.0   | 43.2  |



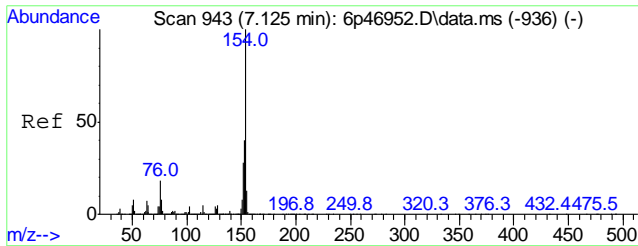
#44  
2-Methylnaphthalene  
Concen: 7.63 ppm  
RT: 6.312 min Scan# 791  
Delta R.T. 0.050 min  
Lab File: 6p472429.D  
Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 118.1 | 91.8  | 151.8 |
| 115     | 42.6  | 8.6   | 68.6  |



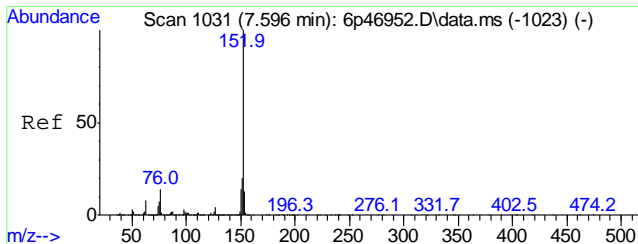
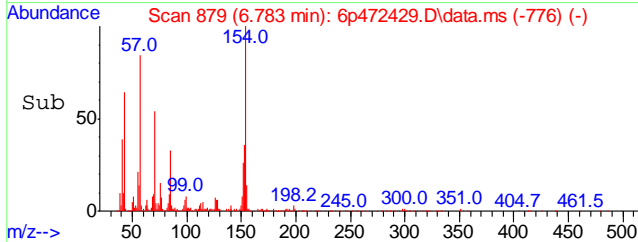
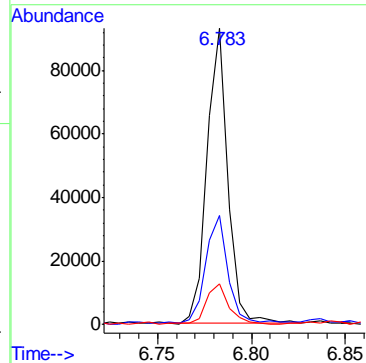
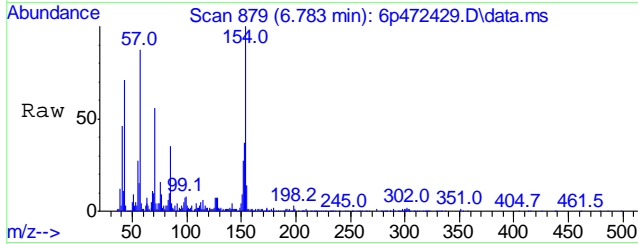
9.1.6  
9





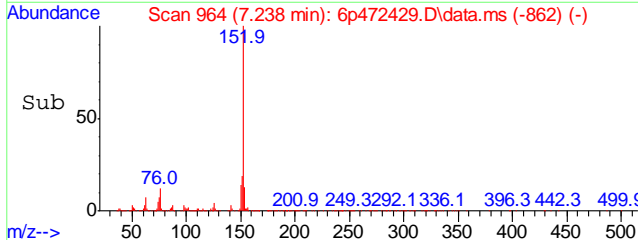
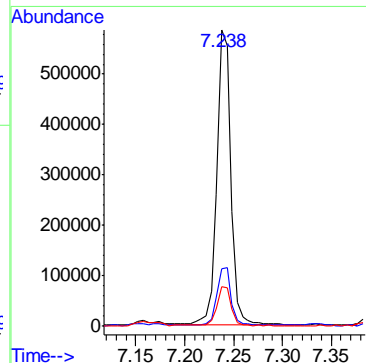
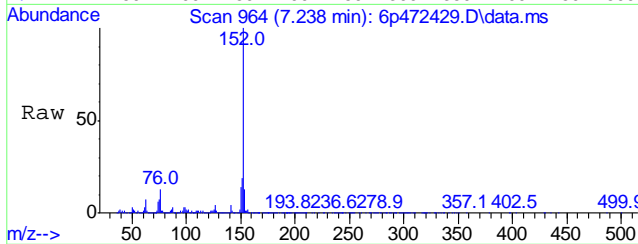
#53  
 Biphenyl  
 Concen: 1.72 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 71555 | 100   |       |
| 153     | 35.9  | 8.7   | 68.7  |
| 155     | 13.2  | 0.0   | 43.0  |

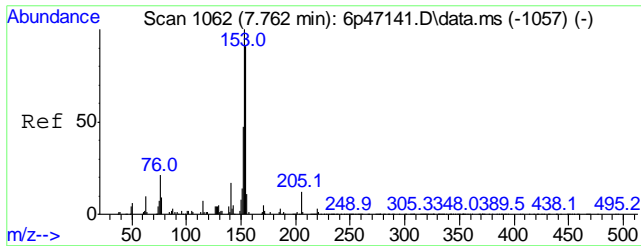


#56  
 Acenaphthylene  
 Concen: 12.42 ppm  
 RT: 7.238 min Scan# 964  
 Delta R.T. 0.048 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 588065 | 100   |       |
| 151     | 19.2   | 0.0   | 50.2  |
| 153     | 13.0   | 0.0   | 44.8  |

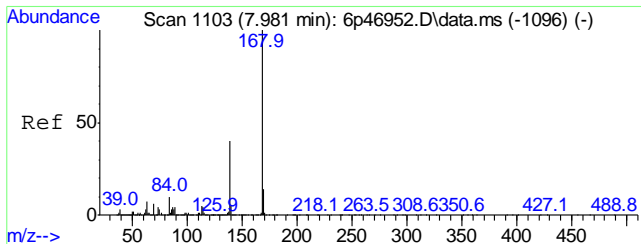
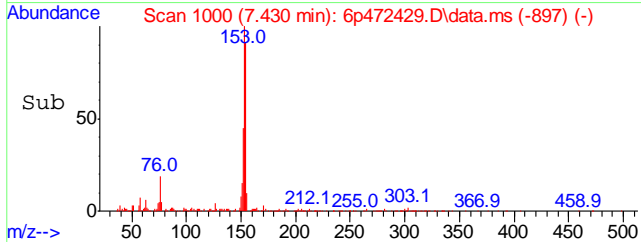
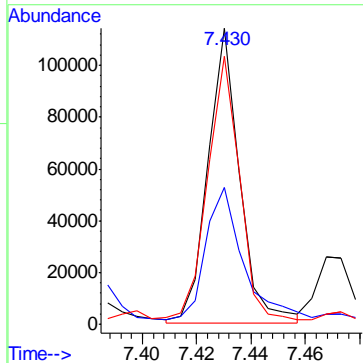
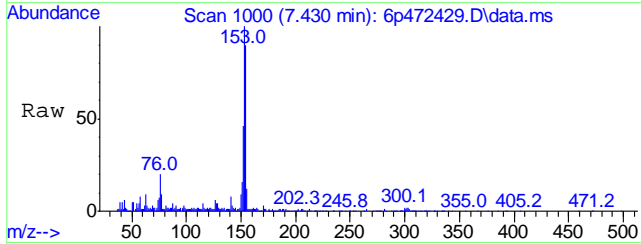


9.1.6  
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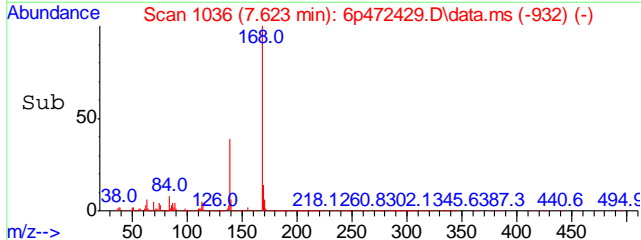
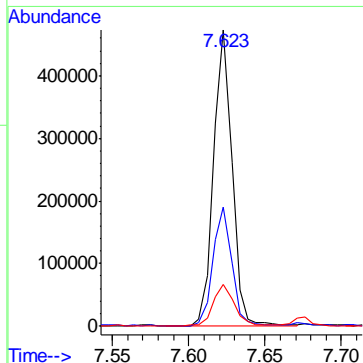
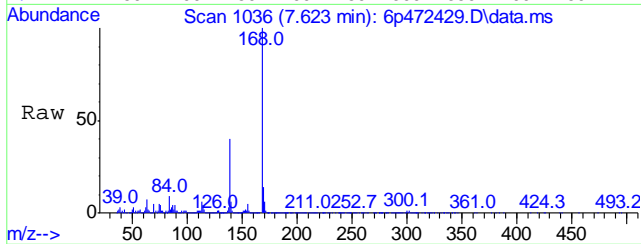
#59  
 Acenaphthene  
 Concen: 2.79 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.054 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 91985 | 100   |       |
| 152     | 44.6  | 13.9  | 73.9  |
| 154     | 90.8  | 59.3  | 119.3 |

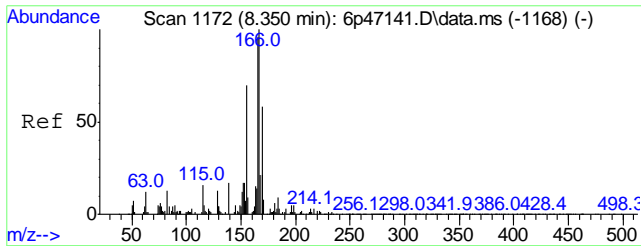


#62  
 Dibenzofuran  
 Concen: 9.33 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 397816 | 100   |       |
| 139     | 39.6   | 6.0   | 66.0  |
| 169     | 12.6   | 0.0   | 43.5  |

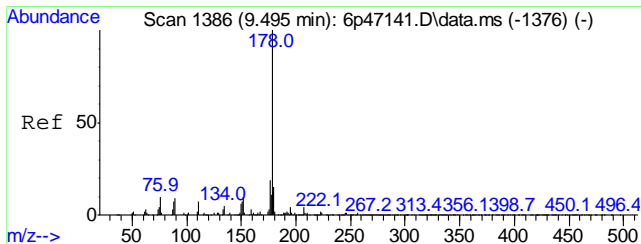
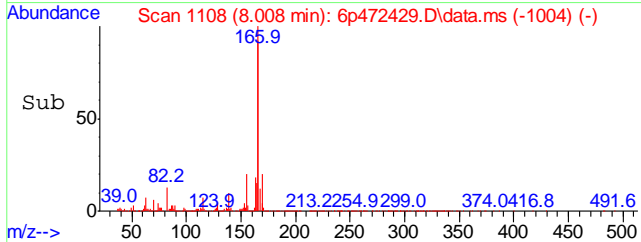
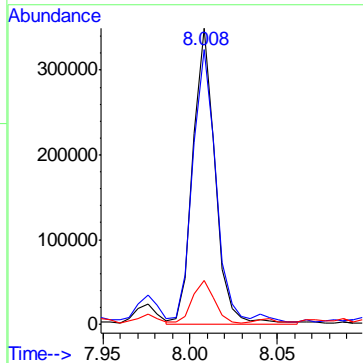
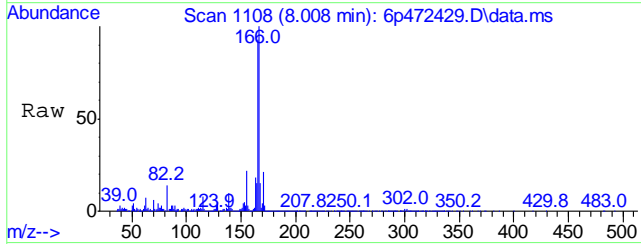


9.16  
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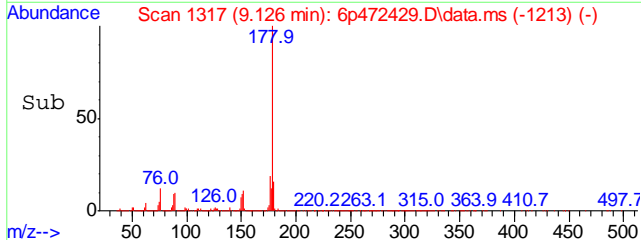
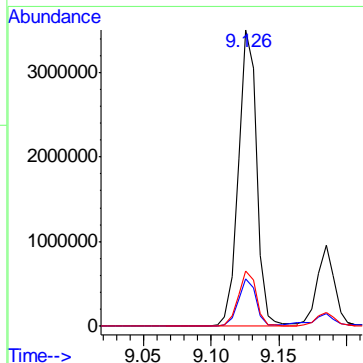
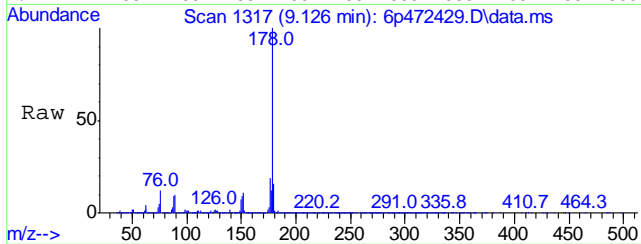
#66  
 Fluorene  
 Concen: 9.02 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 92.2 | 59.3  | 119.3 |
| 167     | 14.1 | 0.0   | 43.1  |

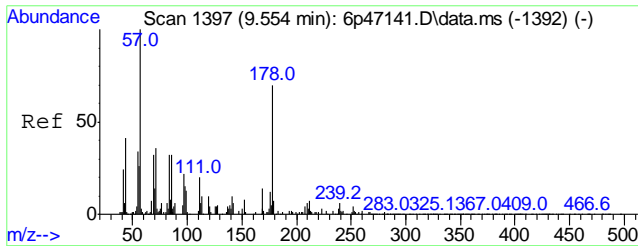


#77  
 Phenanthrene  
 Concen: 63.78 ppm  
 RT: 9.126 min Scan# 1317  
 Delta R.T. 0.059 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.5 | 0.0   | 46.6  |
| 176     | 18.7 | 0.0   | 49.6  |

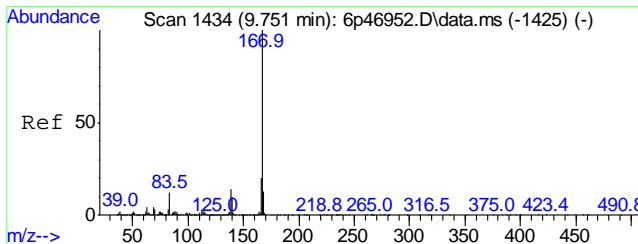
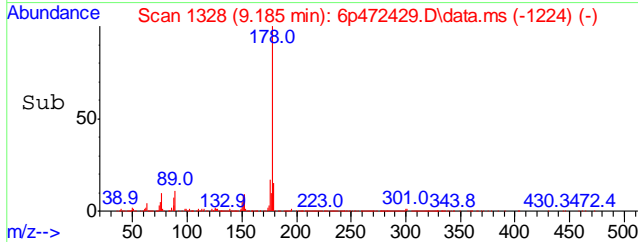
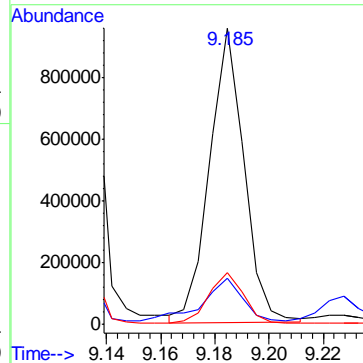
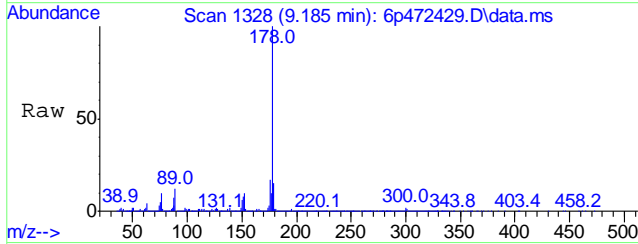


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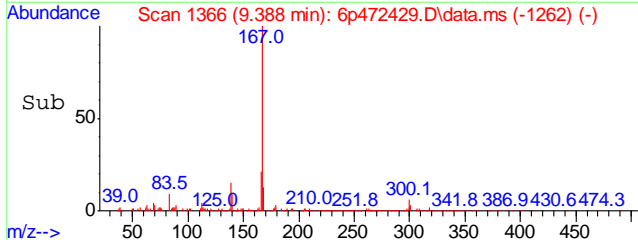
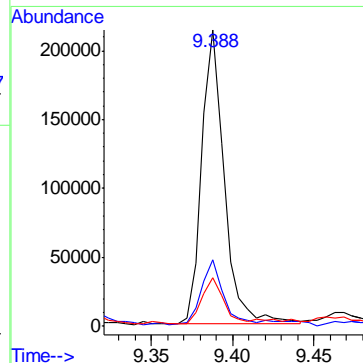
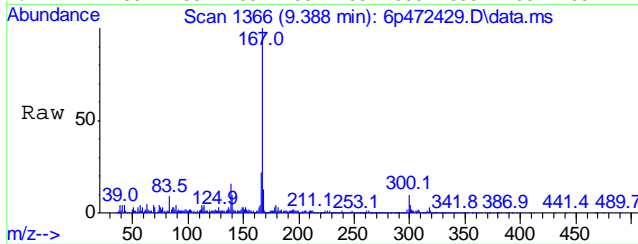
#78  
 Anthracene  
 Concen: 16.03 ppm  
 RT: 9.185 min Scan# 1328  
 Delta R.T. 0.054 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 13.0  | 0.0   | 45.3  |
| 176     | 17.3  | 0.0   | 48.4  |

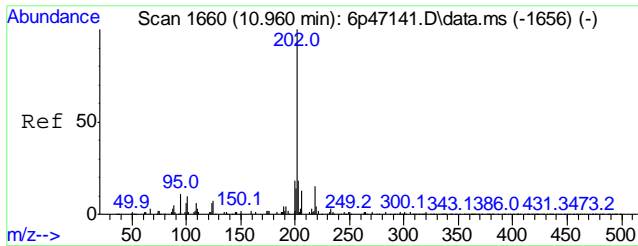


#79  
 Carbazole  
 Concen: 4.23 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 21.6  | 0.0   | 50.0  |
| 139     | 15.4  | 0.0   | 42.3  |

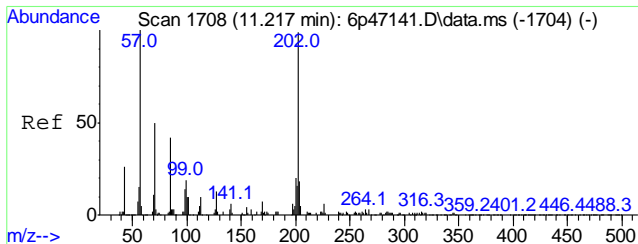
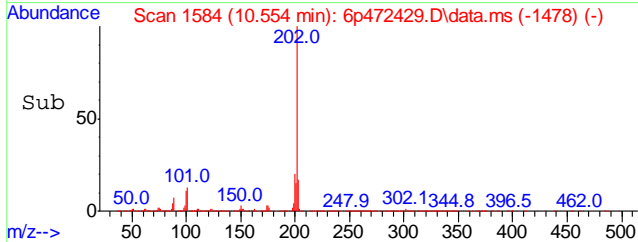
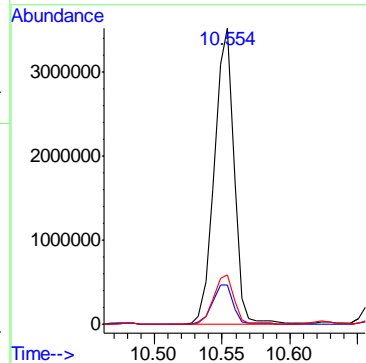
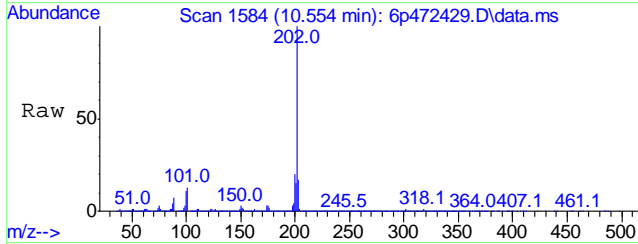


9.16  
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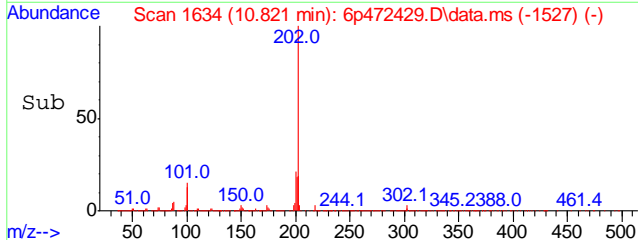
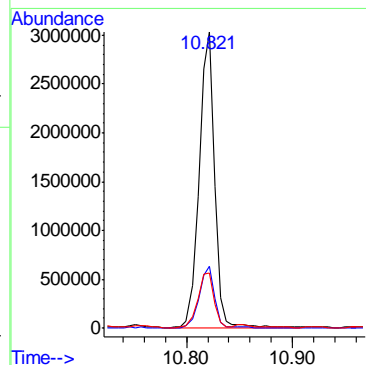
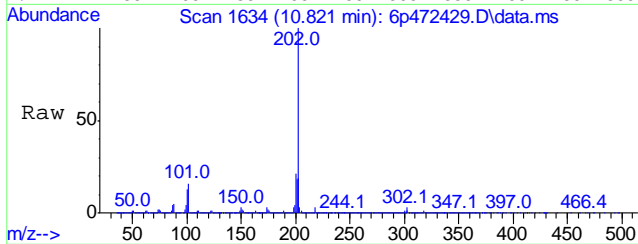
#81  
 Fluoranthene  
 Concen: 62.70 ppm  
 RT: 10.554 min Scan# 1584  
 Delta R.T. 0.068 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 13.2  | 0.0   | 40.9  |
| 203     | 16.6  | 0.0   | 47.4  |

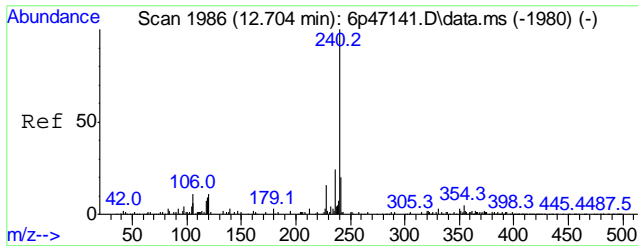


#84  
 Pyrene  
 Concen: 57.46 ppm  
 RT: 10.821 min Scan# 1634  
 Delta R.T. 0.071 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 20.8  | 0.0   | 50.7  |
| 203     | 18.6  | 0.0   | 47.9  |

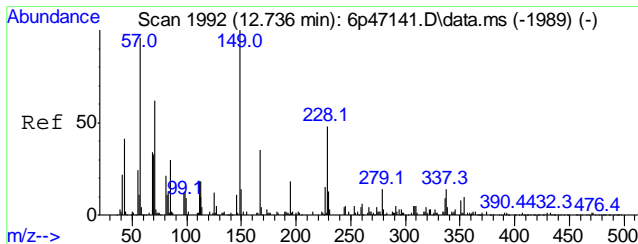
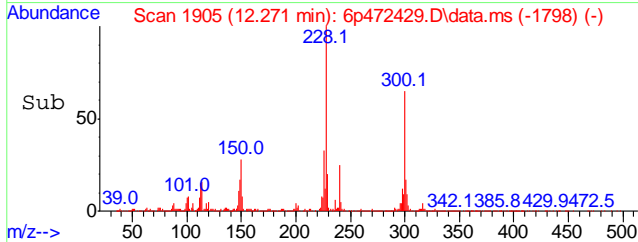
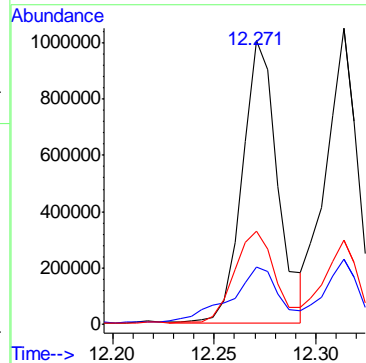
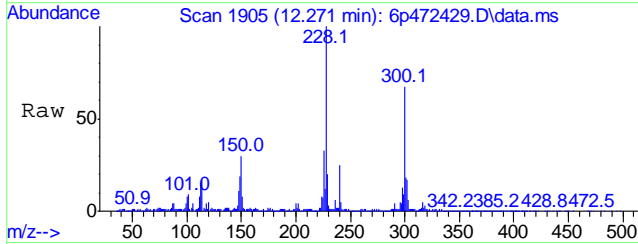


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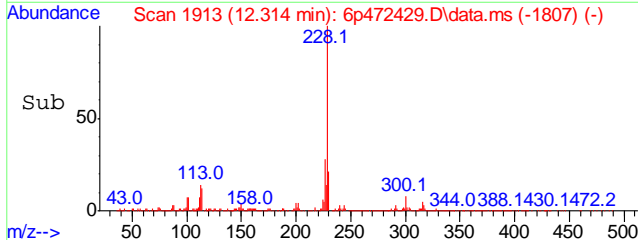
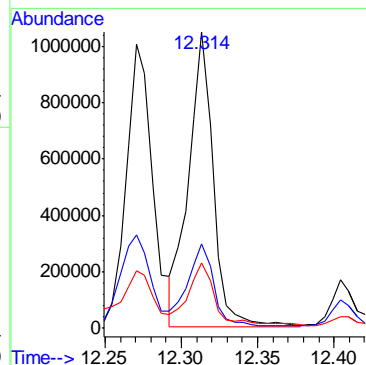
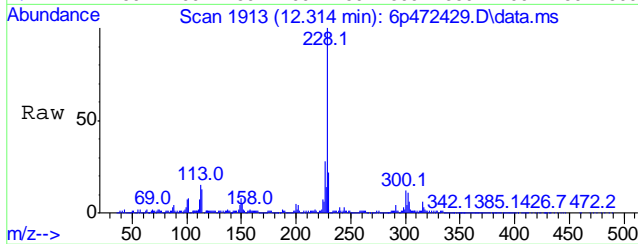
#87  
 Benzo[a]anthracene  
 Concen: 24.44 ppm  
 RT: 12.271 min Scan# 1905  
 Delta R.T. 0.075 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.1  | 0.0   | 49.8  |
| 226     | 32.8  | 0.0   | 56.0  |

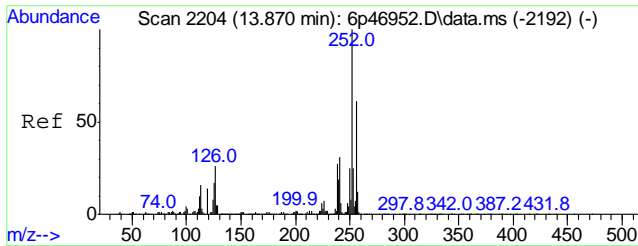


#89  
 Chrysene  
 Concen: 23.89 ppm  
 RT: 12.314 min Scan# 1913  
 Delta R.T. 0.070 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.8  | 0.0   | 59.5  |
| 229     | 21.2  | 0.0   | 49.6  |

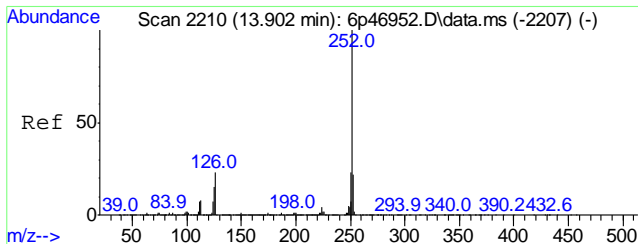
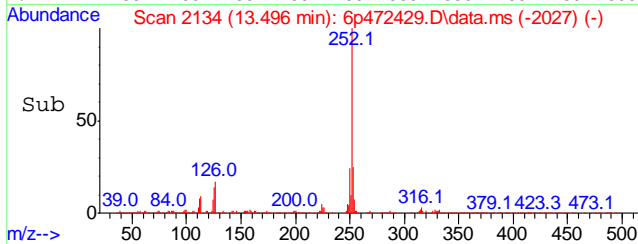
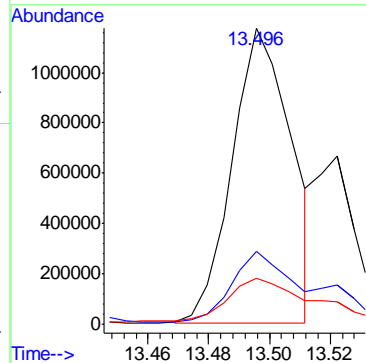
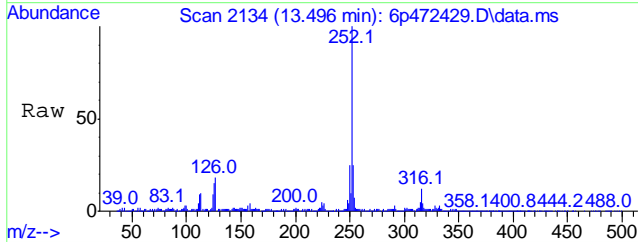


9.1.6  
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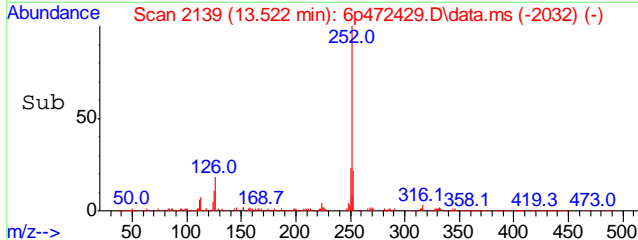
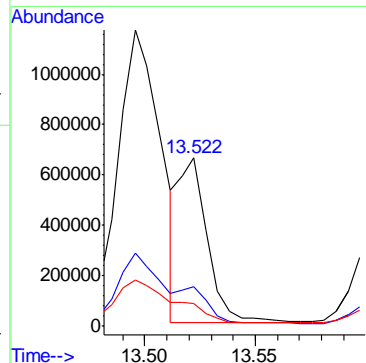
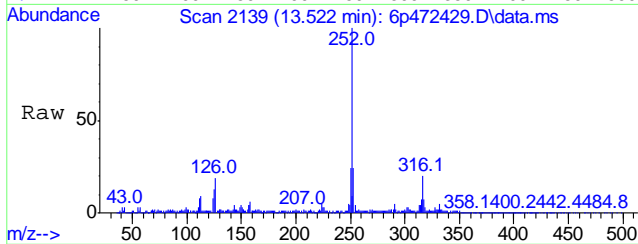
#93  
 Benzo[b]fluoranthene  
 Concen: 29.09 ppm m  
 RT: 13.496 min Scan# 2134  
 Delta R.T. 0.074 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1594623 |       |       |
| 253     | 24.7    | 0.0   | 55.4  |
| 125     | 15.4    | 0.0   | 40.0  |

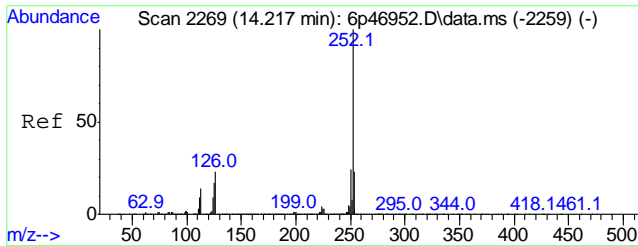


#94  
 Benzo[k]fluoranthene  
 Concen: 11.75 ppm m  
 RT: 13.522 min Scan# 2139  
 Delta R.T. 0.074 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 588884 |       |       |
| 253     | 23.6   | 0.0   | 51.8  |
| 125     | 13.5   | 0.0   | 38.7  |

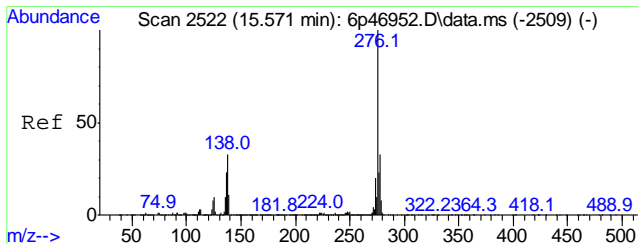
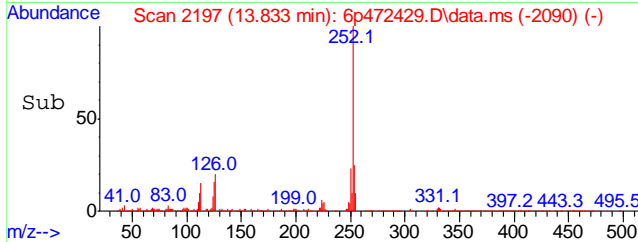
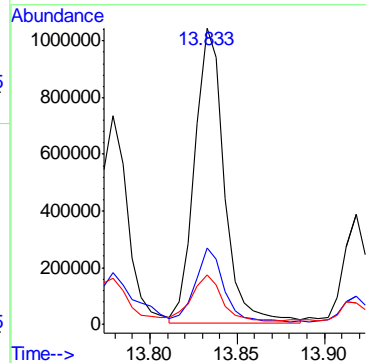
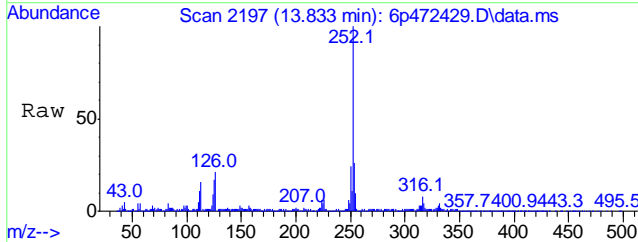


9.1.6  
**9**



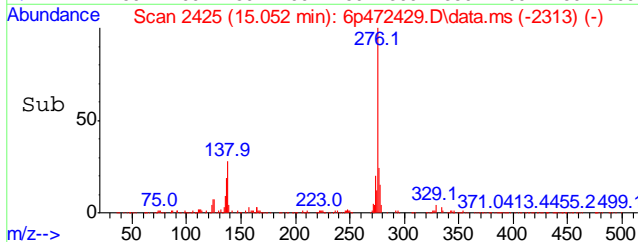
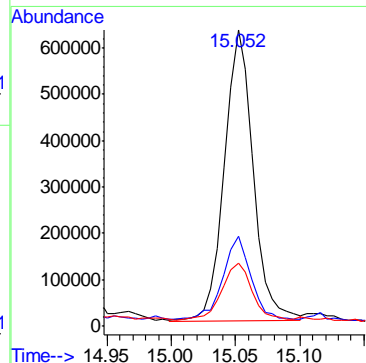
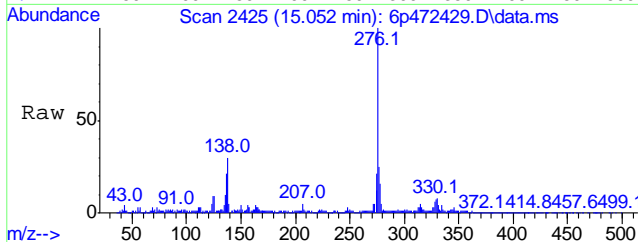
#95  
 Benzo[a]pyrene  
 Concen: 25.29 ppm  
 RT: 13.833 min Scan# 2197  
 Delta R.T. 0.075 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.7 | 0.0   | 52.5  |
| 125     | 15.1 | 0.0   | 40.0  |

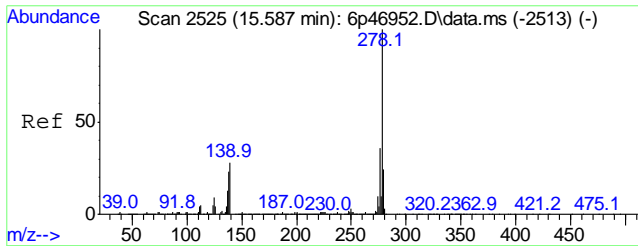


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 15.20 ppm  
 RT: 15.052 min Scan# 2425  
 Delta R.T. 0.099 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 28.8 | 0.0   | 48.9  |
| 137     | 18.9 | 0.0   | 43.2  |

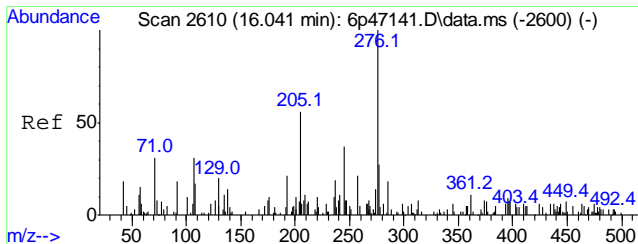
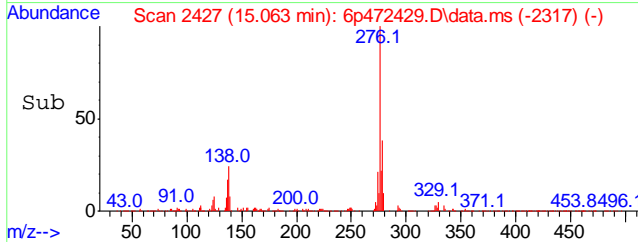
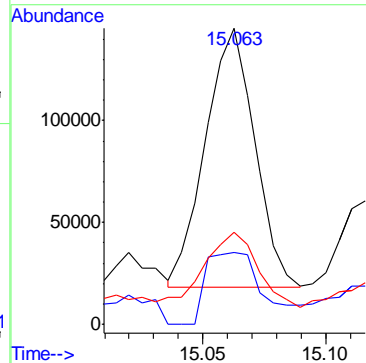
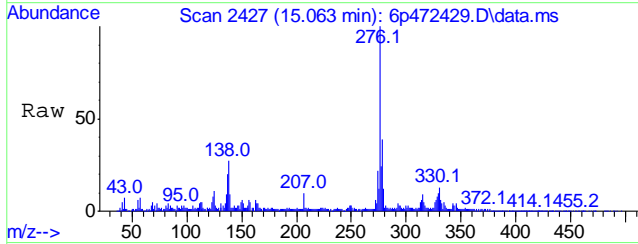






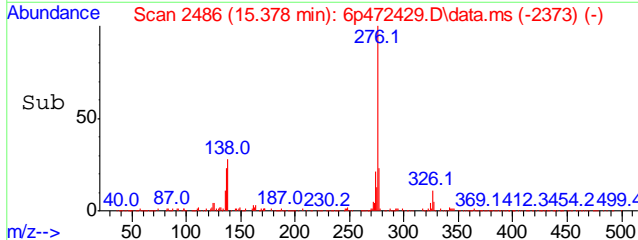
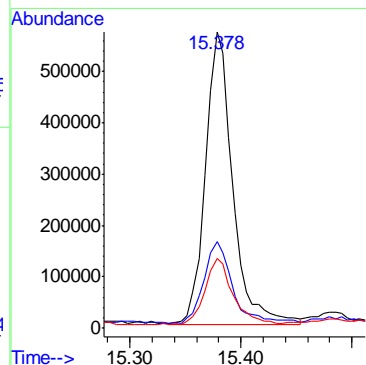
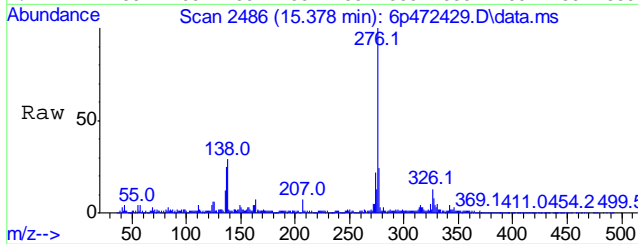
#98  
 Dibenz[a,h]anthracene  
 Concen: 3.25 ppm  
 RT: 15.063 min Scan# 2427  
 Delta R.T. 0.088 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 24.1  | 0.0   | 45.9  |
| 279     | 30.9  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 18.91 ppm  
 RT: 15.378 min Scan# 2486  
 Delta R.T. 0.105 min  
 Lab File: 6p472429.D  
 Acq: 2 May 2018 8:03 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 28.1  | 0.0   | 49.9  |
| 277     | 22.6  | 0.0   | 53.3  |



9.1.6  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472430.D  
 Acq On : 2 May 2018 8:27 am  
 Operator : sufiyana  
 Sample : jc65157-6  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 02 12:33:04 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|--------|--------|----------|--------|
| Internal Standards           |        |      |          |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 523871   | 40.00  | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.654  | 136  | 1961643  | 40.00  | ppm    | 0.05     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 1003752  | 40.00  | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.099  | 188  | 1707075  | 40.00  | ppm    | 0.06     |        |
| 83) Chrysene-d12             | 12.287 | 240  | 1567010  | 40.00  | ppm    | 0.07     |        |
| 91) Perylene-d12             | 13.891 | 264  | 1768842  | 40.00  | ppm    | 0.07     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 523871   | 40.00  | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 1003752  | 40.00  | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.099  | 188  | 1707075  | 40.00  | ppm    | 0.06     |        |
| 109) Chrysene-d12a           | 12.287 | 240  | 1567010  | 40.00  | ppm    | 0.07     |        |
| 111) Naphthalene-d8a         | 5.654  | 136  | 1961643  | 40.00  | ppm    | 0.05     |        |
| 113) Phenanthrene-d10b       | 9.099  | 188  | 1707075  | 40.00  | ppm    | 0.06     |        |
| 115) Chrysene-d12b           | 12.287 | 240  | 1567010  | 40.00  | ppm    | 0.07     |        |
| System Monitoring Compounds  |        |      |          |        |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 578373   | 30.29  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 60.58% |          |        |
| 8) Phenol-d5                 | 4.371  | 99   | 710785   | 29.22  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 58.44% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 657447   | 30.87  | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 61.74% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1189722  | 30.73  | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 61.46% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.291  | 330  | 153959   | 23.98  | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 47.96% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 1016472  | 27.15  | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 54.30% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00   | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00   | ppm    |          |        |
| Target Compounds             |        |      |          |        |        |          |        |
| 38) Naphthalene              | 5.670  | 128  | 10530536 | 204.86 | ppm    | 90       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.318  | 141  | 1956221  | 65.03  | ppm    | 97       |        |
| 53) Biphenyl                 | 6.783  | 154  | 676966   | 15.76  | ppm    | 97       |        |
| 56) Acenaphthylene           | 7.238  | 152  | 754997   | 15.45  | ppm    | 96       |        |
| 59) Acenaphthene             | 7.430  | 153  | 294681   | 8.65   | ppm    | 98       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 2711448  | 61.57  | ppm    | 95       |        |
| 66) Fluorene                 | 8.008  | 166  | 1009650  | 28.55  | ppm    | 92       |        |
| 77) Phenanthrene             | 9.131  | 178  | 11771359 | 226.84 | ppm    | 99       |        |
| 78) Anthracene               | 9.190  | 178  | 3134700  | 59.69  | ppm    | 98       |        |
| 79) Carbazole                | 9.388  | 167  | 1450040  | 29.69  | ppm    | 98       |        |
| 81) Fluoranthene             | 10.559 | 202  | 9837131  | 174.83 | ppm    | 93       |        |
| 84) Pyrene                   | 10.826 | 202  | 7874666  | 150.37 | ppm    | 100      |        |
| 87) Benzo[a]anthracene       | 12.276 | 228  | 3046459  | 62.04  | ppm    | 99       |        |
| 89) Chrysene                 | 12.319 | 228  | 2627986  | 54.13  | ppm    | 95       |        |
| 93) Benzo[b]fluoranthene     | 13.501 | 252  | 3956326m | 70.63  | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.522 | 252  | 1375360m | 26.86  | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.838 | 252  | 2722503  | 54.87  | ppm    | 93       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 15.057 | 276  | 2410743  | 36.91  | ppm    | 86       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472430.D  
 Acq On : 2 May 2018 8:27 am  
 Operator : sufiyana  
 Sample : jc65157-6  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 02 12:33:04 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018

QLast Update : Tue May 01 23:41:47 2018

Response via : Initial Calibration

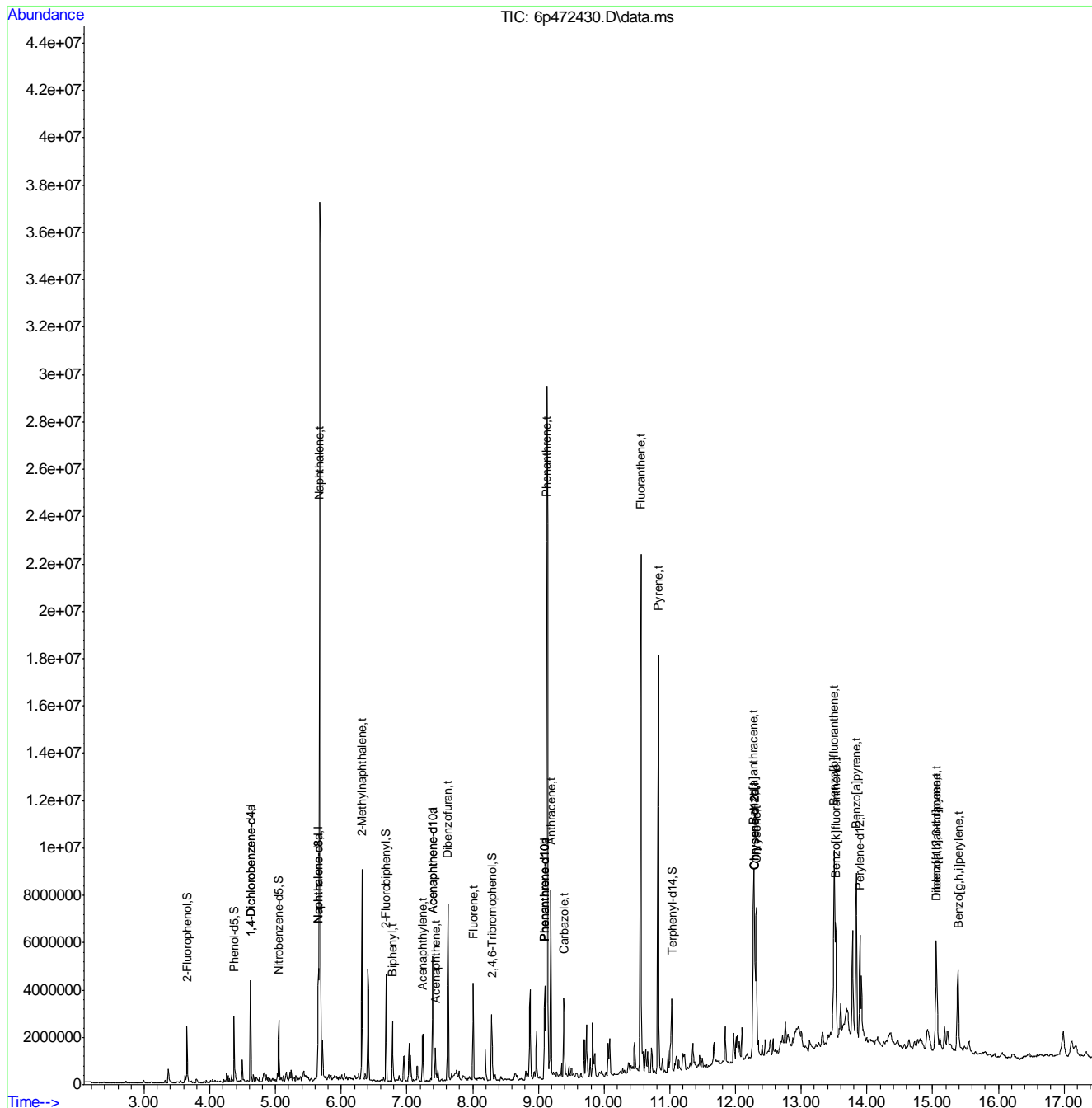
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 15.063 | 278  | 456050m  | 8.10  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 15.389 | 276  | 2198636  | 42.04 | ppm   | 94       |

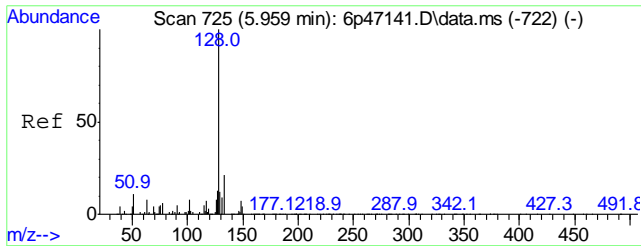
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472430.D  
 Acq On : 2 May 2018 8:27 am  
 Operator : sufiyana  
 Sample : jc65157-6  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 24 Sample Multiplier: 1

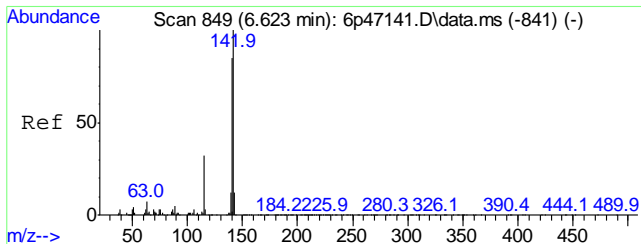
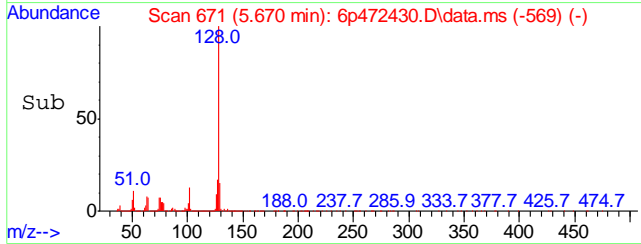
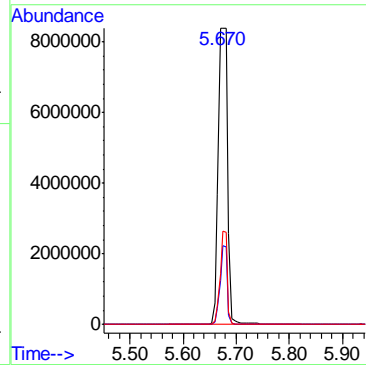
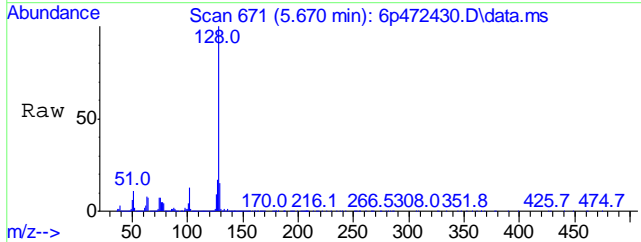
Quant Time: May 02 12:33:04 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration





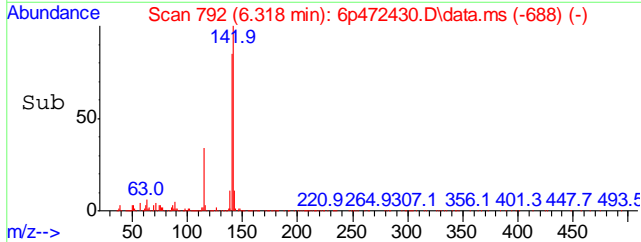
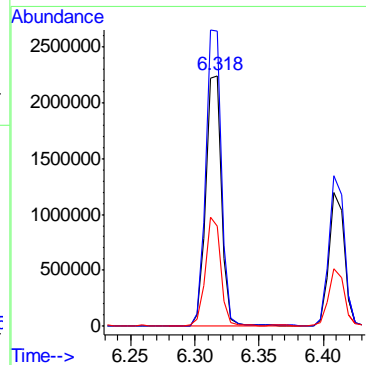
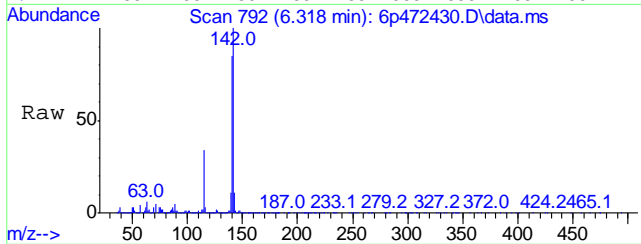
#38  
Naphthalene  
Concen: 204.86 ppm  
RT: 5.670 min Scan# 671  
Delta R.T. 0.048 min  
Lab File: 6p472430.D  
Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 14.8  | 0.0   | 41.1  |
| 127     | 17.2  | 0.0   | 43.2  |

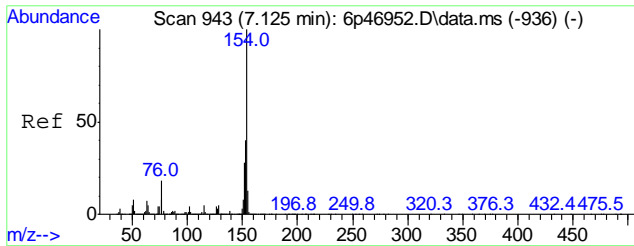


#44  
2-Methylnaphthalene  
Concen: 65.03 ppm  
RT: 6.318 min Scan# 792  
Delta R.T. 0.055 min  
Lab File: 6p472430.D  
Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 117.7 | 91.8  | 151.8 |
| 115     | 39.9  | 8.6   | 68.6  |

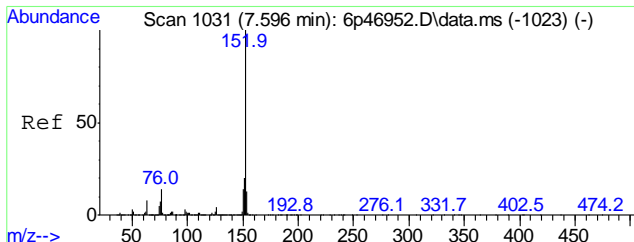
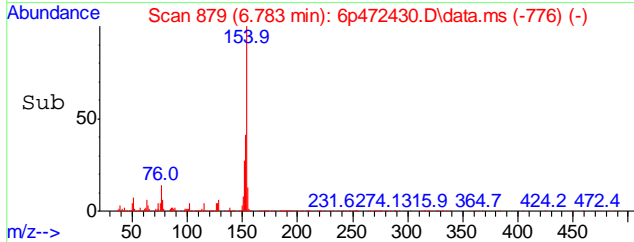
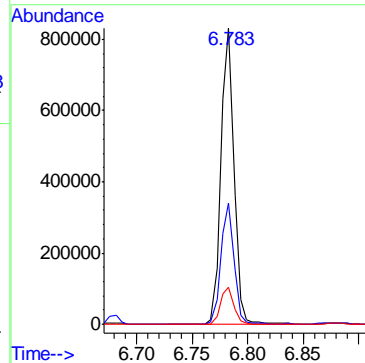
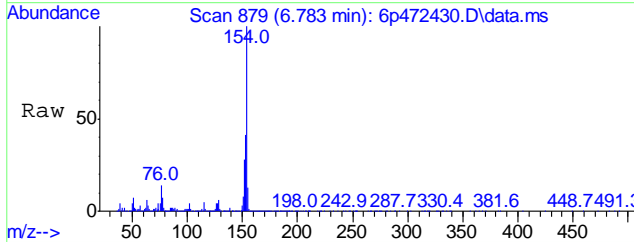


9.1.7  
9



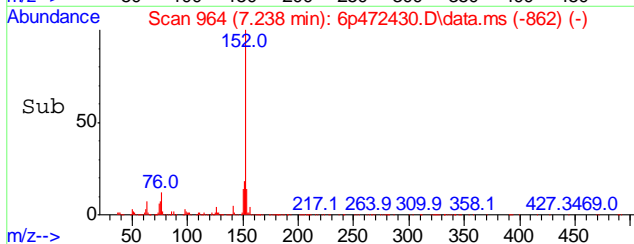
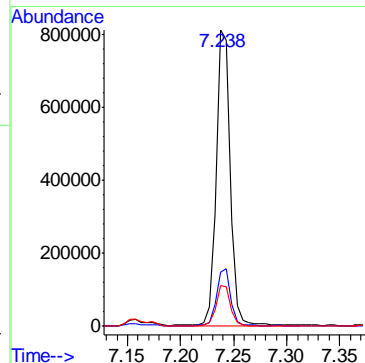
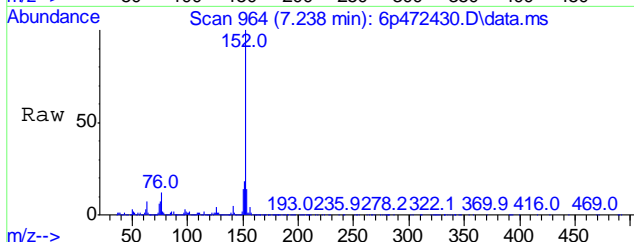
#53  
 Biphenyl  
 Concen: 15.76 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

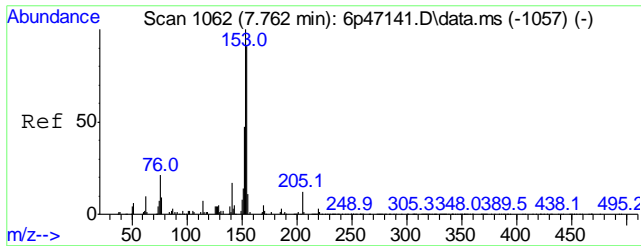
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 40.8 | 8.7   | 68.7  |
| 155     | 12.6 | 0.0   | 43.0  |



#56  
 Acenaphthylene  
 Concen: 15.45 ppm  
 RT: 7.238 min Scan# 964  
 Delta R.T. 0.048 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

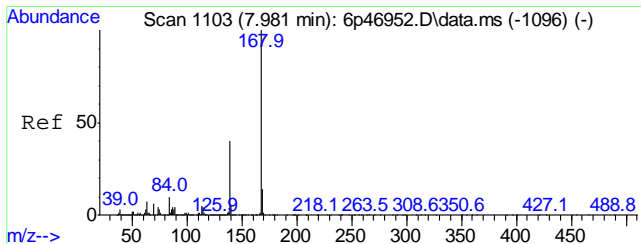
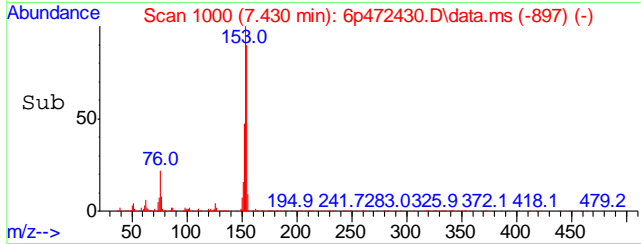
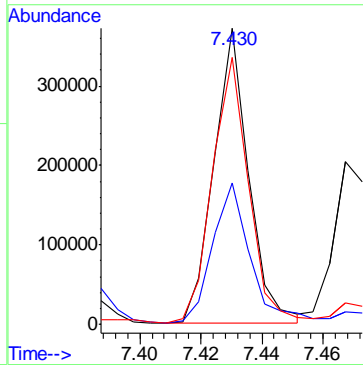
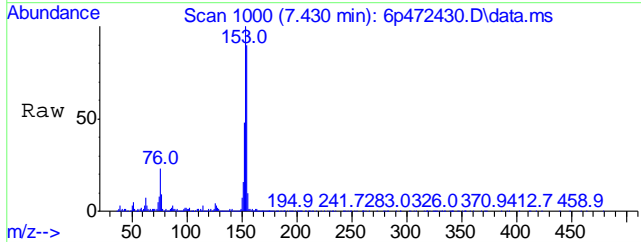
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 18.1 | 0.0   | 50.2  |
| 153     | 13.7 | 0.0   | 44.8  |





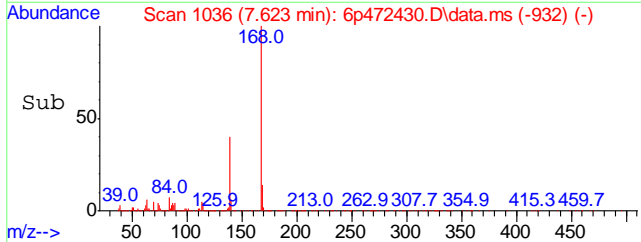
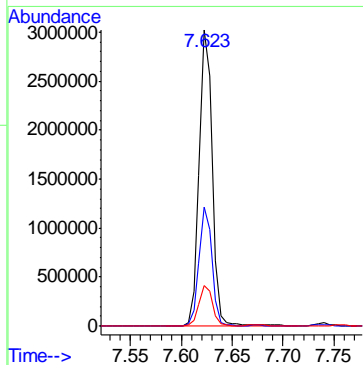
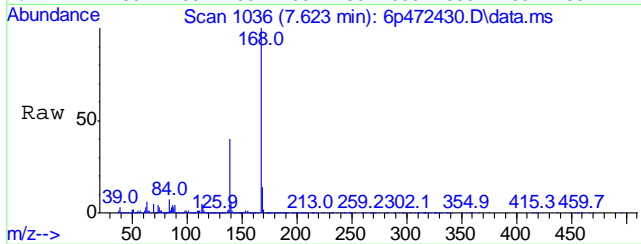
#59  
 Acenaphthene  
 Concen: 8.65 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

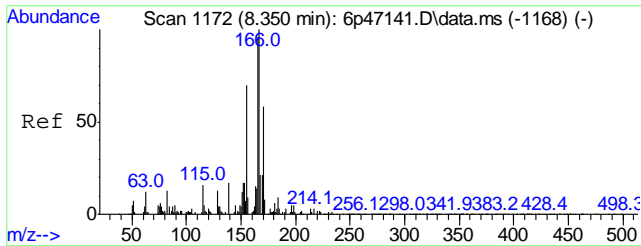
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 294681 | 100   |       |
| 152     | 46.6   | 13.9  | 73.9  |
| 154     | 90.5   | 59.3  | 119.3 |



#62  
 Dibenzofuran  
 Concen: 61.57 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

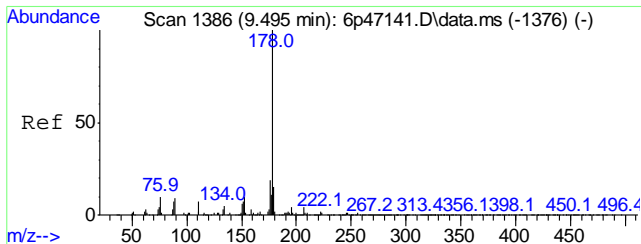
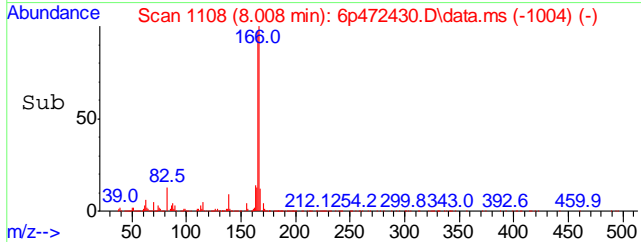
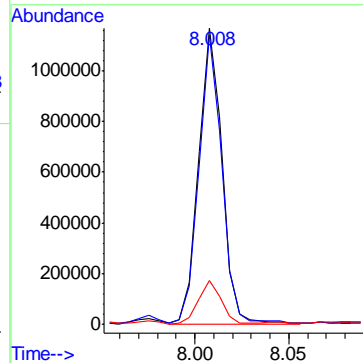
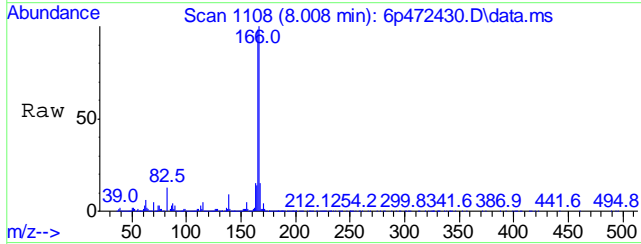
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 168     | 2711448 | 100   |       |
| 139     | 40.1    | 6.0   | 66.0  |
| 169     | 13.6    | 0.0   | 43.5  |





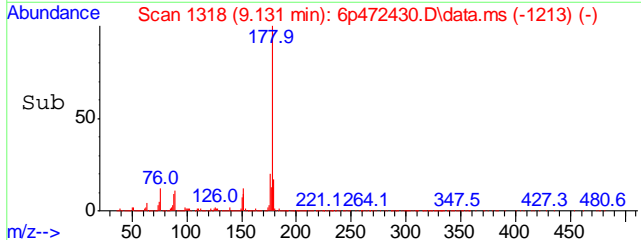
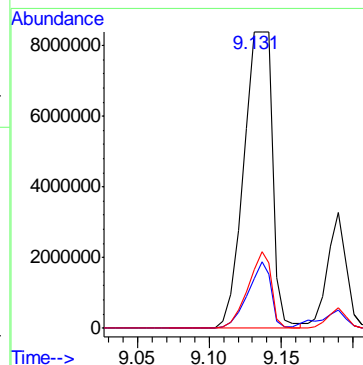
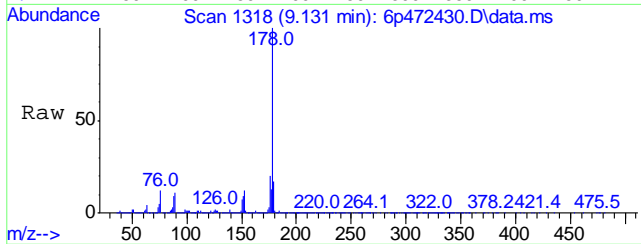
#66  
 Fluorene  
 Concen: 28.55 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 97.5 | 59.3  | 119.3 |
| 167     | 14.7 | 0.0   | 43.1  |



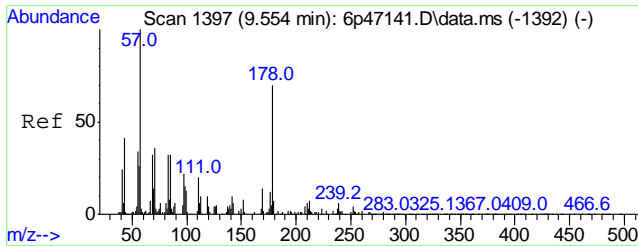
#77  
 Phenanthrene  
 Concen: 226.84 ppm  
 RT: 9.131 min Scan# 1318  
 Delta R.T. 0.064 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 16.1 | 0.0   | 46.6  |
| 176     | 19.7 | 0.0   | 49.6  |



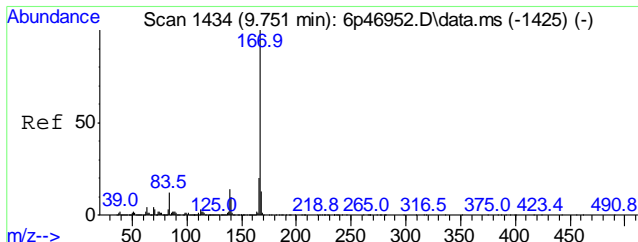
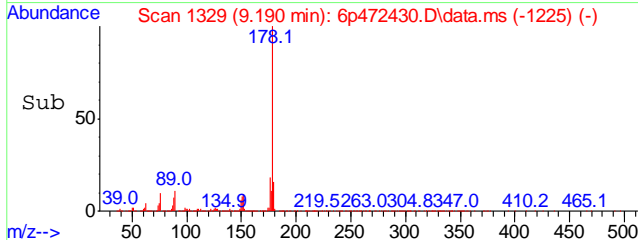
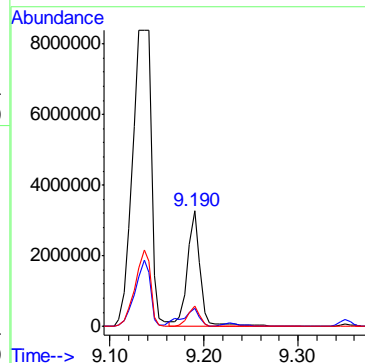
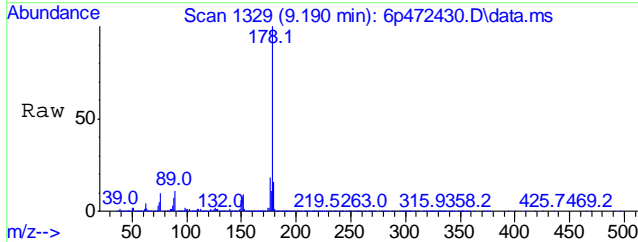
9.17  
 9





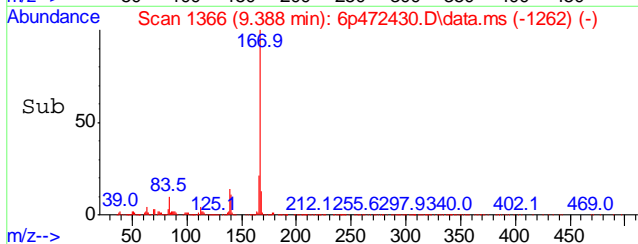
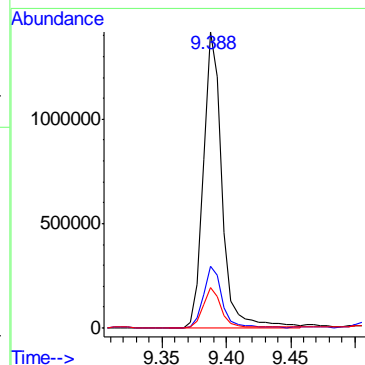
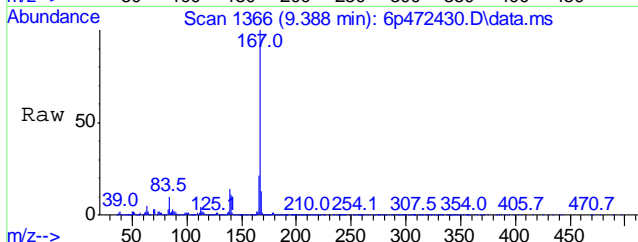
#78  
 Anthracene  
 Concen: 59.69 ppm  
 RT: 9.190 min Scan# 1329  
 Delta R.T. 0.059 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 13.9  | 0.0   | 45.3  |
| 176     | 18.0  | 0.0   | 48.4  |

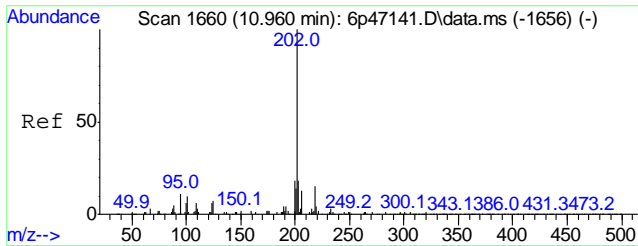


#79  
 Carbazole  
 Concen: 29.69 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.8  | 0.0   | 50.0  |
| 139     | 13.6  | 0.0   | 42.3  |

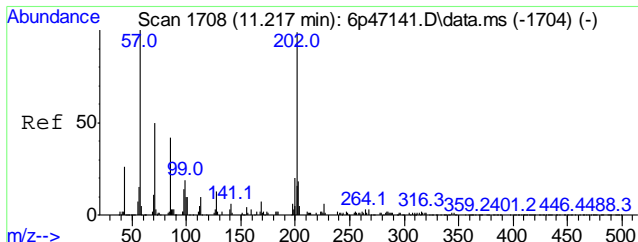
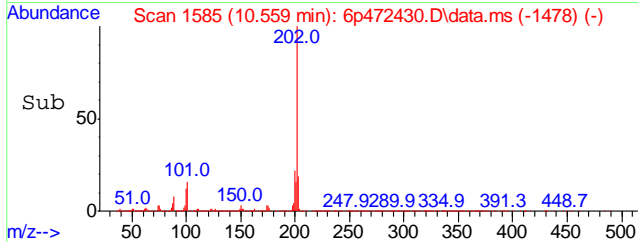
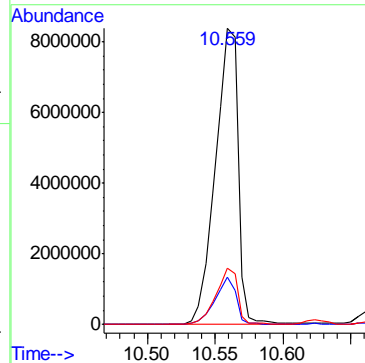
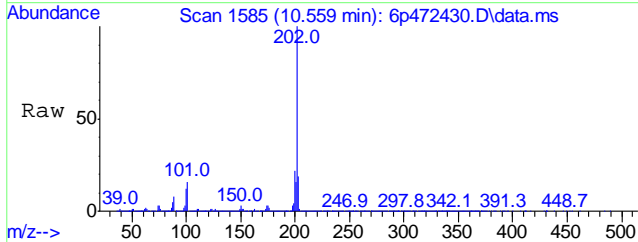


9.17  
9



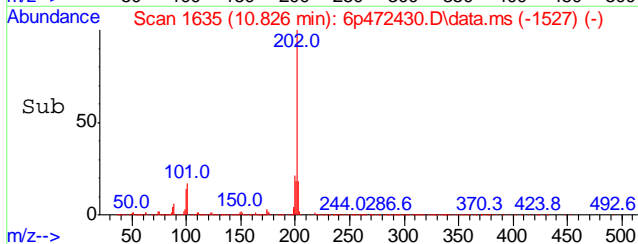
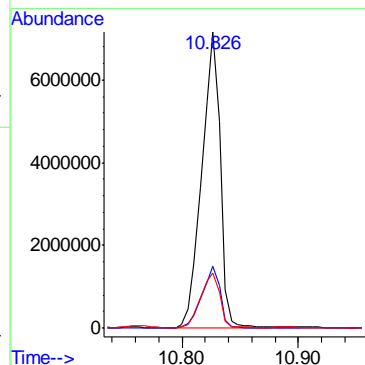
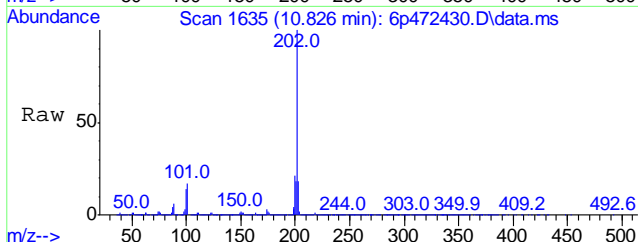
#81  
 Fluoranthene  
 Concen: 174.83 ppm  
 RT: 10.559 min Scan# 1585  
 Delta R.T. 0.073 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

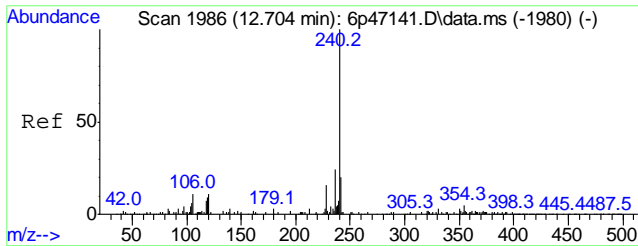
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 15.8 | 0.0   | 40.9  |
| 203     | 19.0 | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 150.37 ppm  
 RT: 10.826 min Scan# 1635  
 Delta R.T. 0.076 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

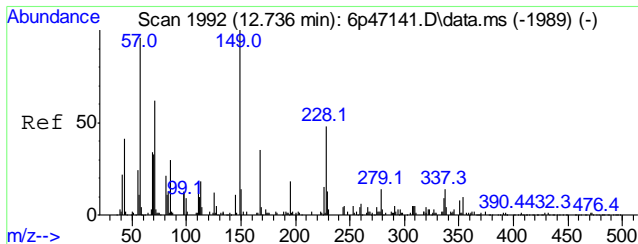
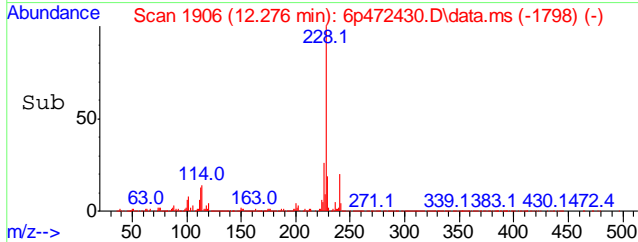
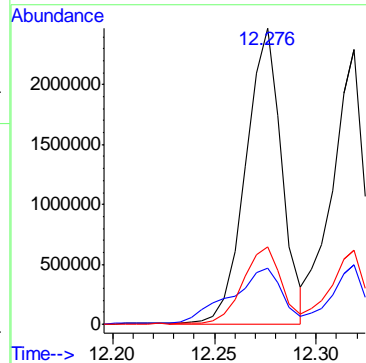
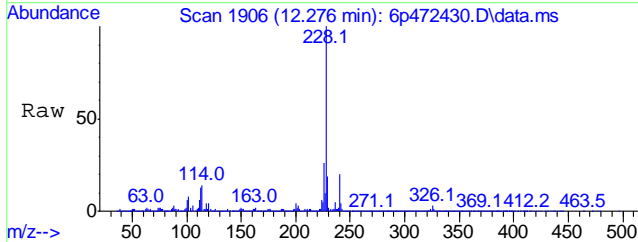
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 20.7 | 0.0   | 50.7  |
| 203     | 18.3 | 0.0   | 47.9  |





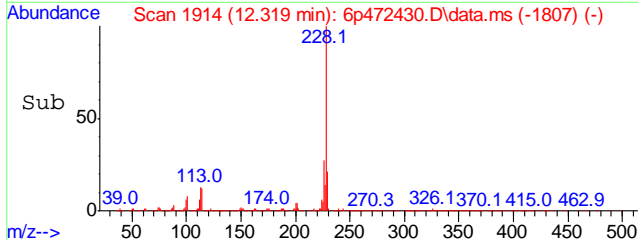
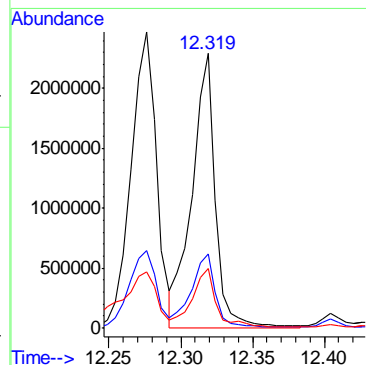
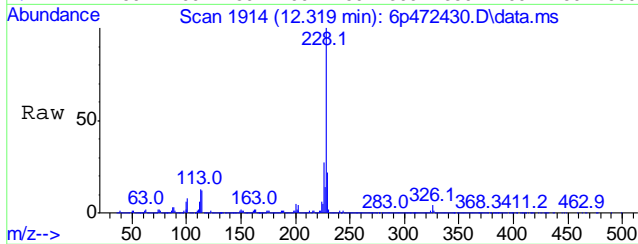
#87  
 Benzo[a]anthracene  
 Concen: 62.04 ppm  
 RT: 12.276 min Scan# 1906  
 Delta R.T. 0.080 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.6  | 0.0   | 49.8  |
| 226     | 26.0  | 0.0   | 56.0  |

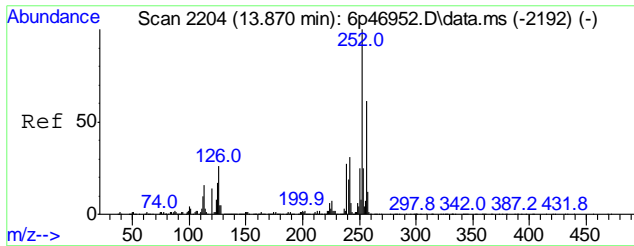


#89  
 Chrysene  
 Concen: 54.13 ppm  
 RT: 12.319 min Scan# 1914  
 Delta R.T. 0.075 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.7  | 0.0   | 59.5  |
| 229     | 21.5  | 0.0   | 49.6  |

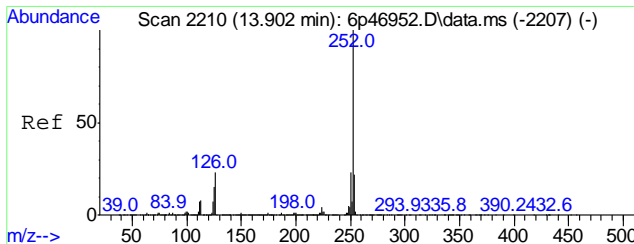
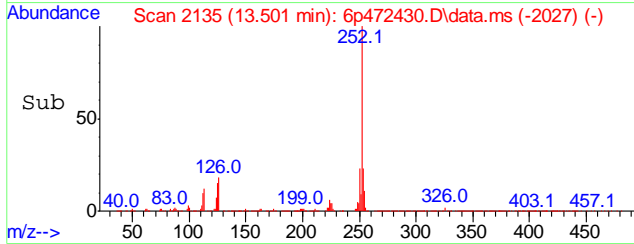
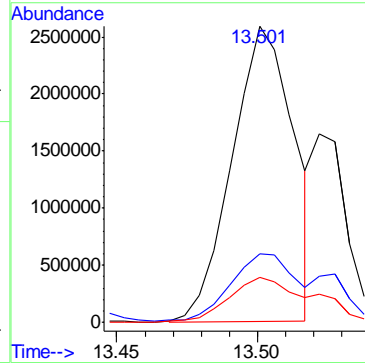
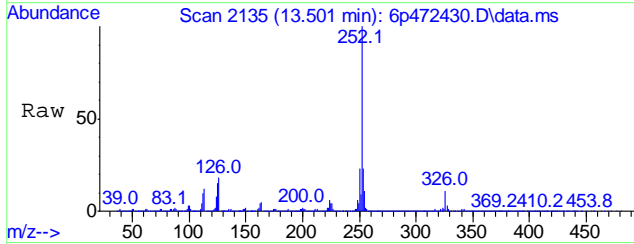


9.1.7  
 9



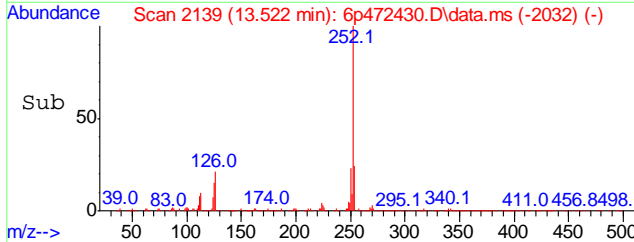
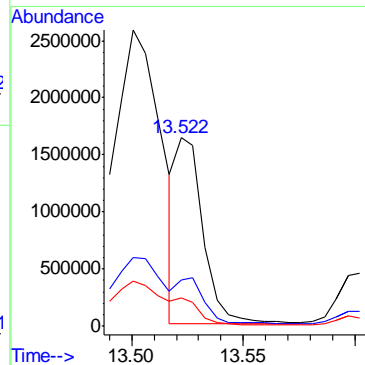
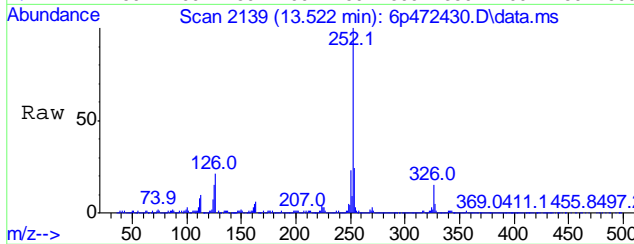
#93  
 Benzo[b]fluoranthene  
 Concen: 70.63 ppm m  
 RT: 13.501 min Scan# 2135  
 Delta R.T. 0.079 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.2 | 0.0   | 55.4  |
| 125     | 15.0 | 0.0   | 40.0  |

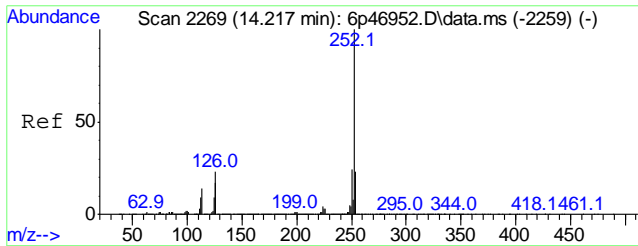


#94  
 Benzo[k]fluoranthene  
 Concen: 26.86 ppm m  
 RT: 13.522 min Scan# 2139  
 Delta R.T. 0.074 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.3 | 0.0   | 51.8  |
| 125     | 15.1 | 0.0   | 38.7  |

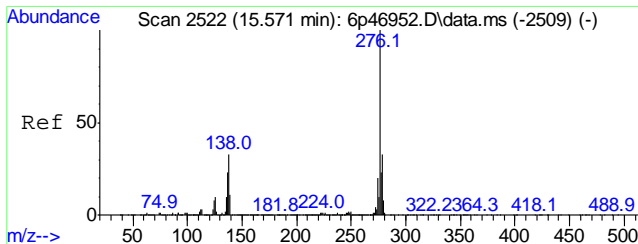
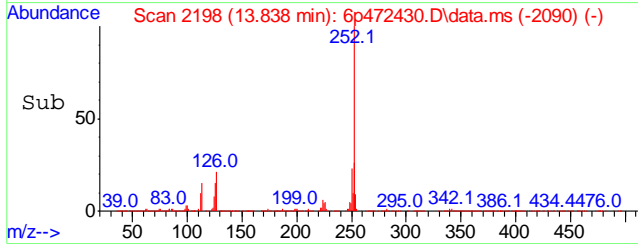
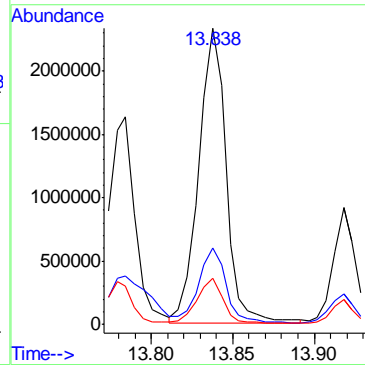
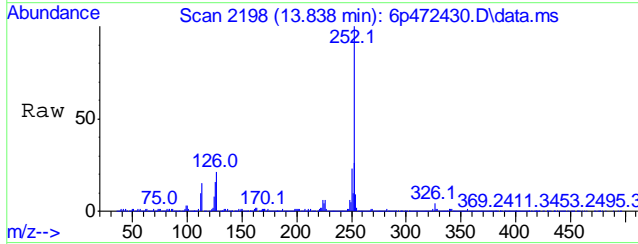


9.1.7  
 9



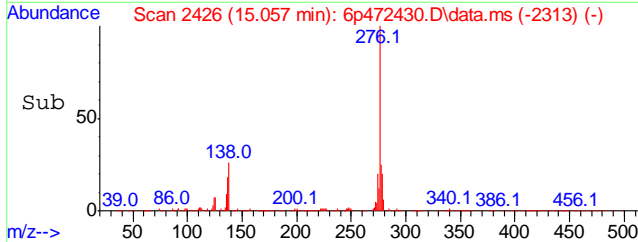
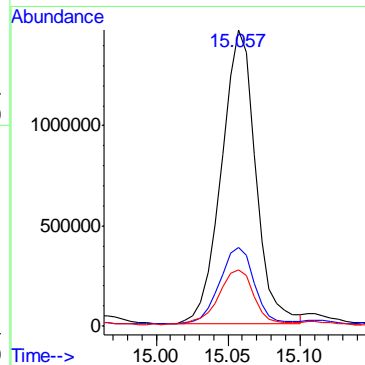
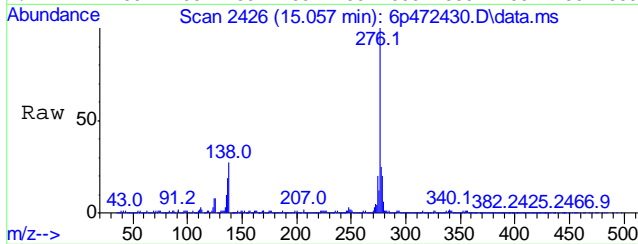
#95  
 Benzo[a]pyrene  
 Concen: 54.87 ppm  
 RT: 13.838 min Scan# 2198  
 Delta R.T. 0.080 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.5 | 0.0   | 52.5  |
| 125     | 15.2 | 0.0   | 40.0  |

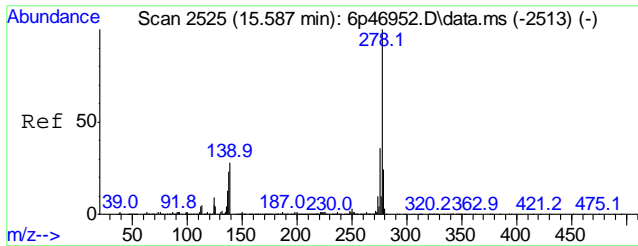


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 36.91 ppm  
 RT: 15.057 min Scan# 2426  
 Delta R.T. 0.104 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 25.9 | 0.0   | 48.9  |
| 137     | 18.3 | 0.0   | 43.2  |

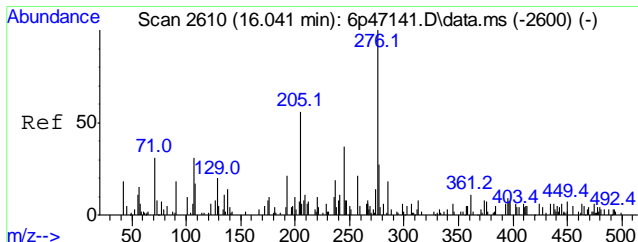
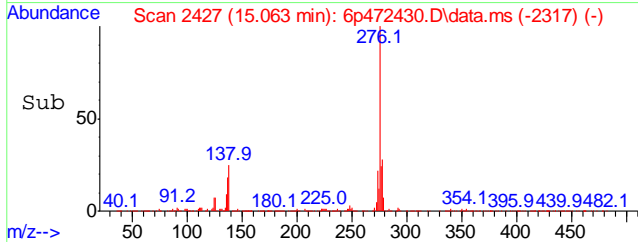
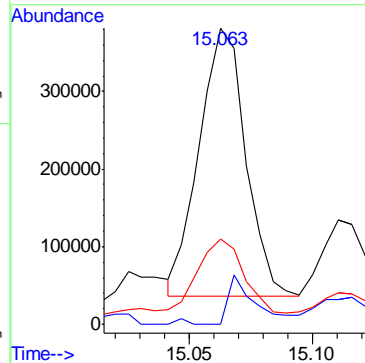
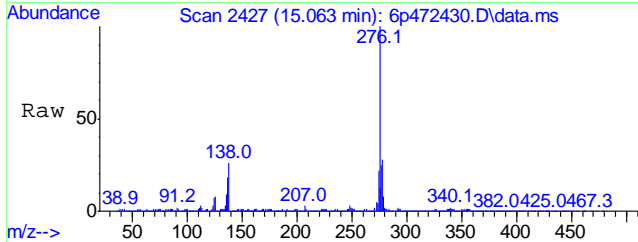


9.1.7  
 9



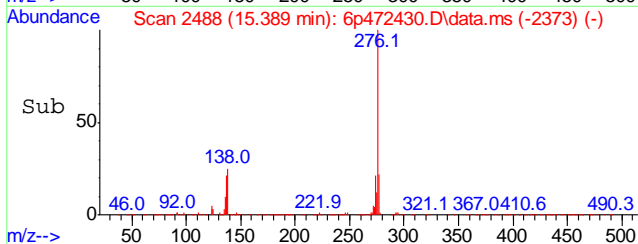
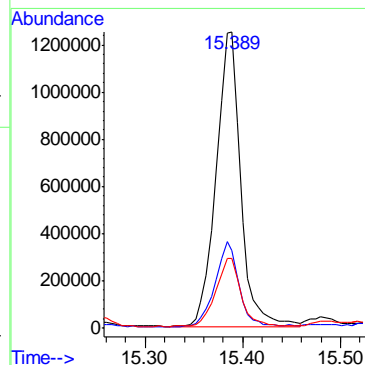
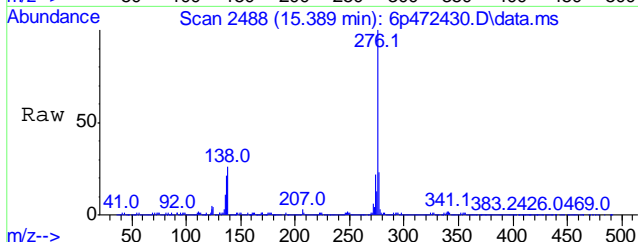
#98  
 Dibenz[a,h]anthracene  
 Concen: 8.10 ppm  
 RT: 15.063 min Scan# 2427  
 Delta R.T. 0.088 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 278     | 100  |       |       |
| 139     | 0.0  | 0.0   | 45.9  |
| 279     | 29.0 | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 42.04 ppm  
 RT: 15.389 min Scan# 2488  
 Delta R.T. 0.116 min  
 Lab File: 6p472430.D  
 Acq: 2 May 2018 8:27 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 25.6 | 0.0   | 49.9  |
| 277     | 23.1 | 0.0   | 53.3  |



9.1.7  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472786.D  
 Acq On : 10 May 2018 8:19 am  
 Operator : chriss2  
 Sample : jc65157-6  
 Misc : op11655,e6p2202,30.9,,,1,5  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 10 11:47:58 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS, zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.556  | 152  | 452010   | 40.00 | ppm    | -0.02    |        |
| 24) Naphthalene-d8           | 5.583  | 136  | 1800767  | 40.00 | ppm    | -0.02    |        |
| 47) Acenaphthene-d10         | 7.316  | 164  | 921910   | 40.00 | ppm    | -0.03    |        |
| 69) Phenanthrene-d10         | 9.011  | 188  | 1671157  | 40.00 | ppm    | -0.03    |        |
| 83) Chrysene-d12             | 12.188 | 240  | 1517320  | 40.00 | ppm    | -0.03    |        |
| 91) Perylene-d12             | 13.793 | 264  | 1616574  | 40.00 | ppm    | -0.03    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.556  | 152  | 452010   | 40.00 | ppm    | -0.02    |        |
| 103) Acenaphthene-d10a       | 7.316  | 164  | 921910   | 40.00 | ppm    | -0.03    |        |
| 105) Phenanthrene-d10a       | 9.011  | 188  | 1671157  | 40.00 | ppm    | -0.03    |        |
| 109) Chrysene-d12a           | 12.188 | 240  | 1517320  | 40.00 | ppm    | -0.03    |        |
| 111) Naphthalene-d8a         | 5.583  | 136  | 1800767  | 40.00 | ppm    | -0.02    |        |
| 113) Phenanthrene-d10b       | 9.011  | 188  | 1671157  | 40.00 | ppm    | -0.03    |        |
| 115) Chrysene-d12b           | 12.188 | 240  | 1517881  | 40.00 | ppm    | -0.03    |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.609  | 112  | 91576    | 5.56  | ppm    | -0.01    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.12% |          |        |
| 8) Phenol-d5                 | 4.347  | 99   | 120323   | 5.73  | ppm    | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.46% |          |        |
| 25) Nitrobenzene-d5          | 4.984  | 82   | 111799   | 5.72  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 11.44% |          |        |
| 51) 2-Fluorobiphenyl         | 6.604  | 172  | 230619   | 6.48  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 12.96% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.209  | 330  | 33868    | 5.39  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 10.78% |          |        |
| 85) Terphenyl-d14            | 10.937 | 244  | 221920   | 6.12  | ppm    | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 12.24% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 38) Naphthalene              | 5.599  | 128  | 3485868  | 73.87 | ppm    | 99       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.241  | 141  | 381621   | 13.82 | ppm    | 95       |        |
| 53) Biphenyl                 | 6.706  | 154  | 129825   | 3.29  | ppm    | 97       |        |
| 56) Acenaphthylene           | 7.160  | 152  | 140236   | 3.12  | ppm    | 98       |        |
| 59) Acenaphthene             | 7.348  | 153  | 59490    | 1.90  | ppm    | 89       |        |
| 62) Dibenzofuran             | 7.540  | 168  | 523140   | 12.93 | ppm    | 95       |        |
| 66) Fluorene                 | 7.925  | 166  | 194523   | 5.99  | ppm    | 90       |        |
| 77) Phenanthrene             | 9.038  | 178  | 2770329  | 54.53 | ppm    | 97       |        |
| 78) Anthracene               | 9.097  | 178  | 649265   | 12.63 | ppm    | 99       |        |
| 79) Carbazole                | 9.305  | 167  | 281439   | 5.89  | ppm    | 98       |        |
| 81) Fluoranthene             | 10.455 | 202  | 2161858  | 39.25 | ppm    | 96       |        |
| 84) Pyrene                   | 10.723 | 202  | 1674398  | 33.02 | ppm    | 98       |        |
| 87) Benzo[a]anthracene       | 12.172 | 228  | 662364   | 13.93 | ppm    | 98       |        |
| 89) Chrysene                 | 12.215 | 228  | 565735   | 12.03 | ppm    | 95       |        |
| 93) Benzo[b]fluoranthene     | 13.397 | 252  | 734538m  | 14.35 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.418 | 252  | 315133m  | 6.73  | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.729 | 252  | 518644   | 11.44 | ppm    | 94       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 14.911 | 276  | 471841   | 7.91  | ppm    | 87       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472786.D  
 Acq On : 10 May 2018 8:19 am  
 Operator : chriss2  
 Sample : jc65157-6  
 Misc : op11655,e6p2202,30.9,,,1,5  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 10 11:47:58 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                  | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|---------------------------|--------|------|----------|------|-------|----------|
| 98) Dibenz[a,h]anthracene | 14.927 | 278  | 101950   | 1.98 | ppm   | 97       |
| 100) Benzo[g,h,i]perylene | 15.226 | 276  | 425490   | 8.90 | ppm   | 90       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472786.D  
 Acq On : 10 May 2018 8:19 am  
 Operator : chriss2  
 Sample : jc65157-6  
 Misc : op11655,e6p2202,30.9,,,1,5  
 ALS Vial : 17 Sample Multiplier: 1

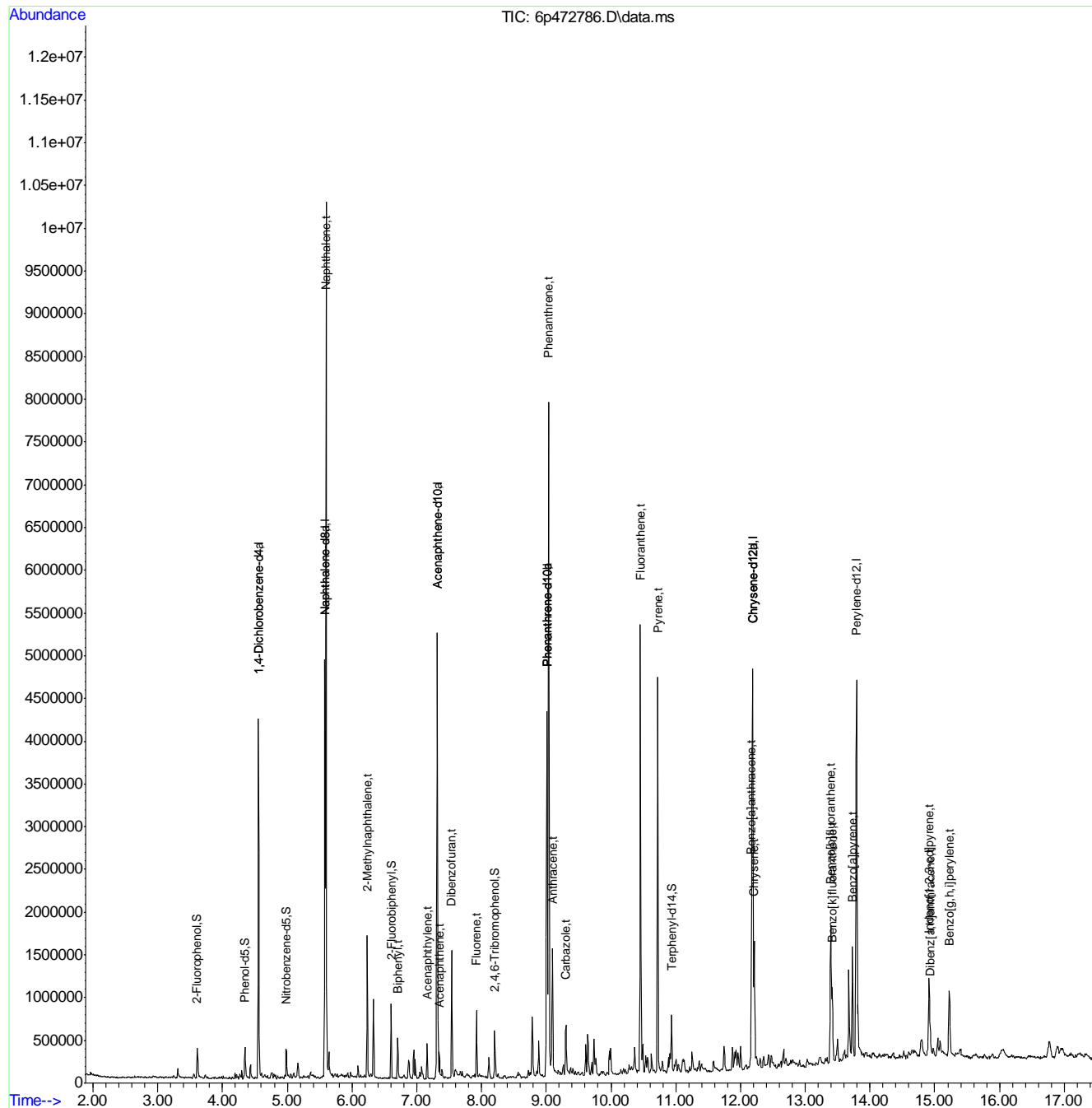
Quant Time: May 10 11:47:58 2018

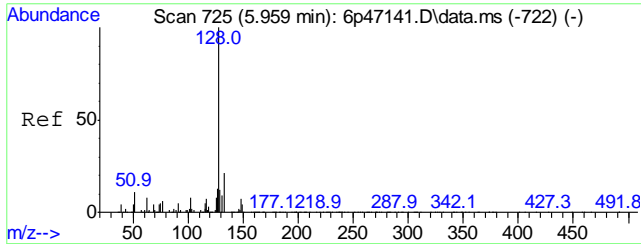
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018

QLast Update : Wed May 02 09:22:03 2018

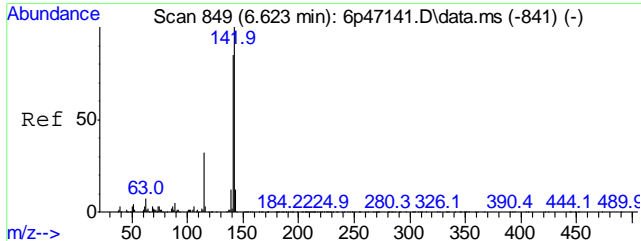
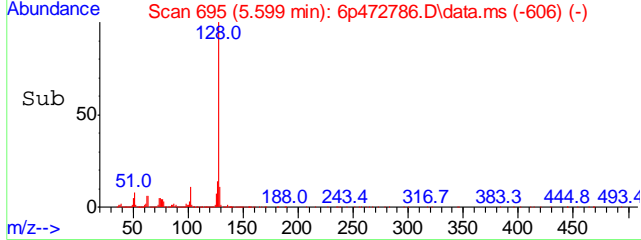
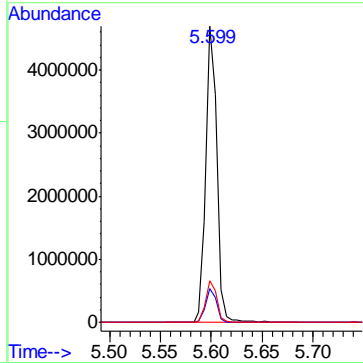
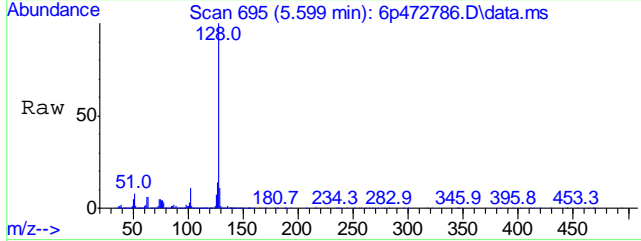
Response via : Initial Calibration





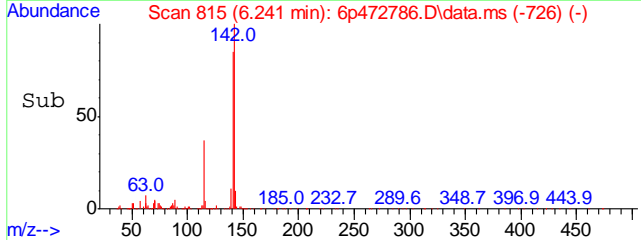
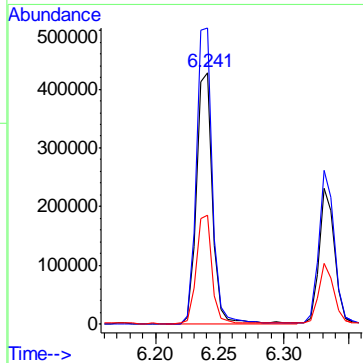
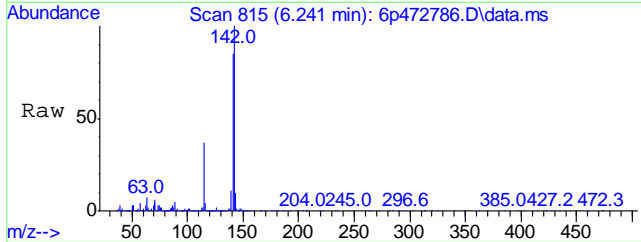
#38  
 Naphthalene  
 Concen: 73.87 ppm  
 RT: 5.599 min Scan# 695  
 Delta R.T. -0.024 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.4  | 0.0   | 41.1  |
| 127     | 14.0  | 0.0   | 43.2  |

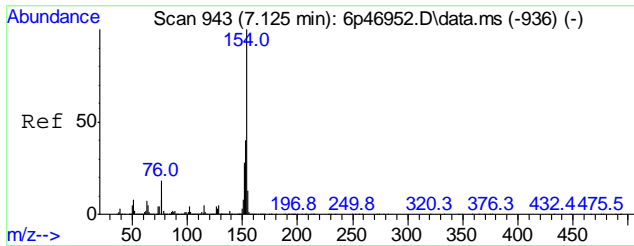


#44  
 2-Methylnaphthalene  
 Concen: 13.82 ppm  
 RT: 6.241 min Scan# 815  
 Delta R.T. -0.022 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 117.7 | 91.8  | 151.8 |
| 115     | 43.2  | 8.6   | 68.6  |

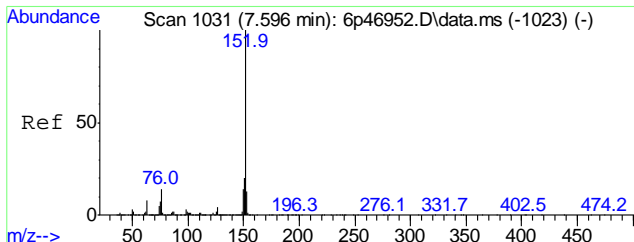
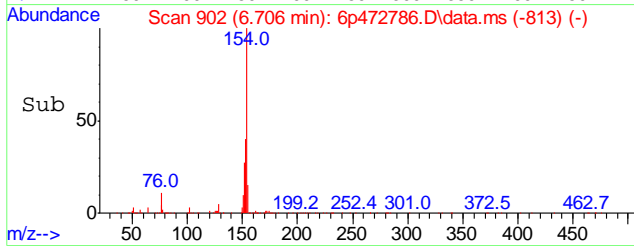
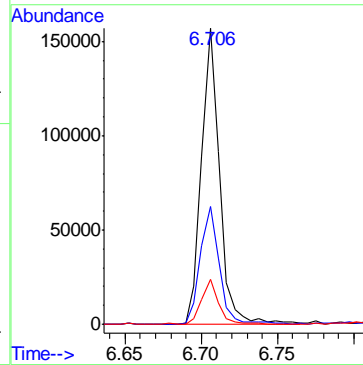
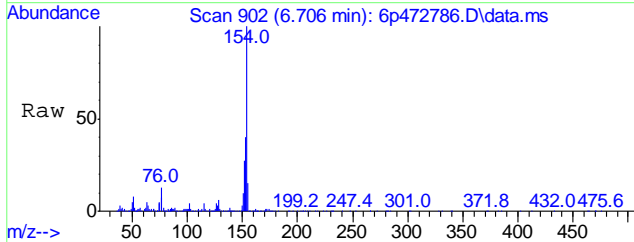


9.18  
 9



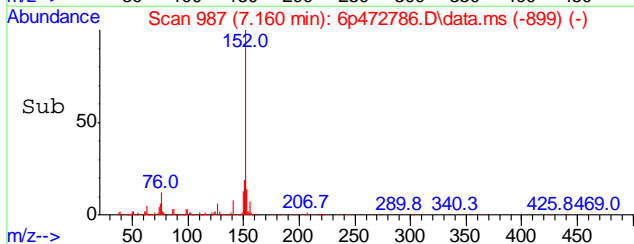
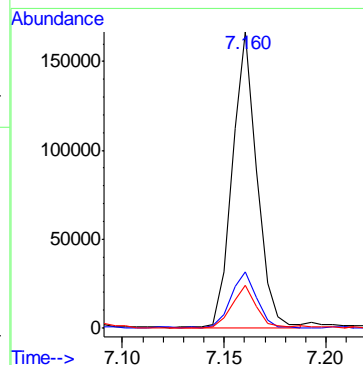
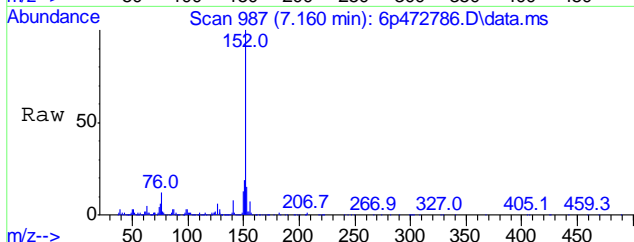
#53  
 Biphenyl  
 Concen: 3.29 ppm  
 RT: 6.706 min Scan# 902  
 Delta R.T. -0.025 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 39.8  | 8.7   | 68.7  |
| 155     | 15.2  | 0.0   | 43.0  |

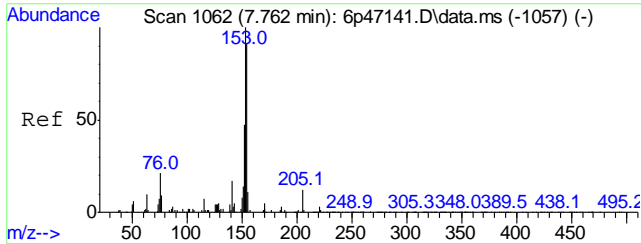


#56  
 Acenaphthylene  
 Concen: 3.12 ppm  
 RT: 7.160 min Scan# 987  
 Delta R.T. -0.029 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 19.1  | 0.0   | 50.2  |
| 153     | 14.2  | 0.0   | 44.8  |

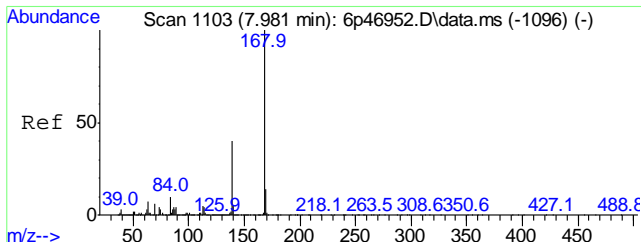
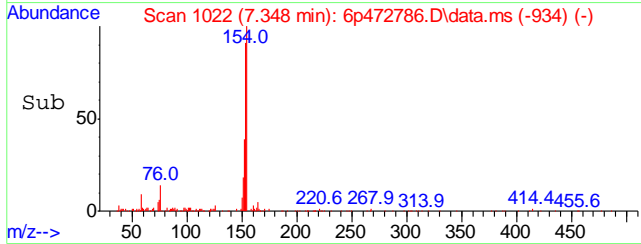
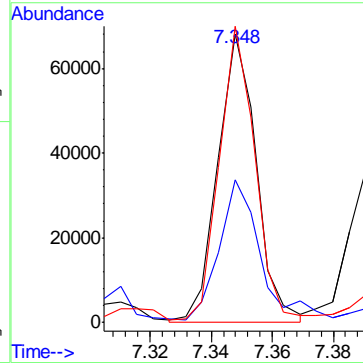
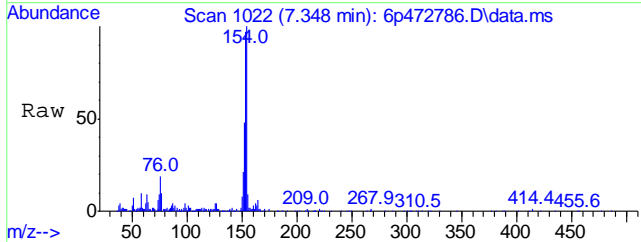


9.1.8  
 9



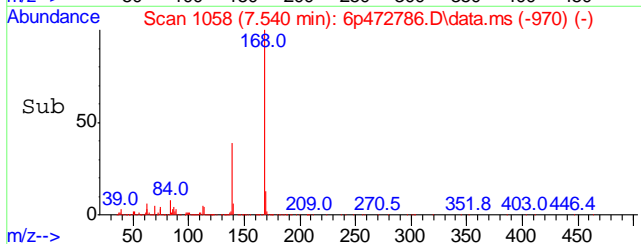
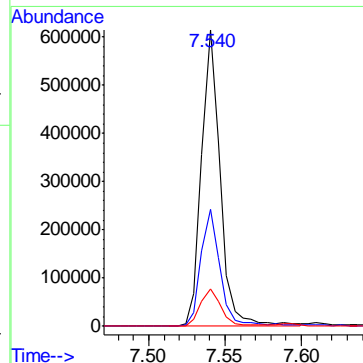
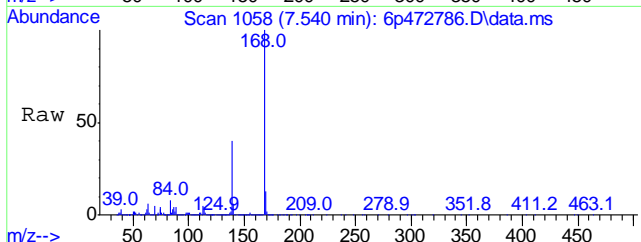
#59  
 Acenaphthene  
 Concen: 1.90 ppm  
 RT: 7.348 min Scan# 1022  
 Delta R.T. -0.029 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

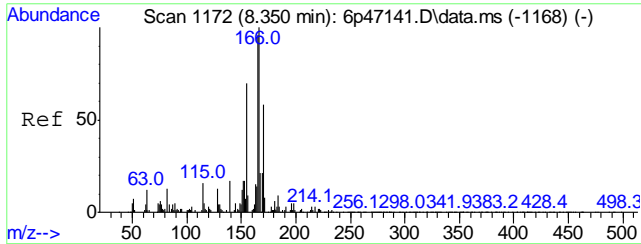
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 59490 | 100   |       |
| 152     | 45.8  | 13.9  | 73.9  |
| 154     | 102.9 | 59.3  | 119.3 |



#62  
 Dibenzofuran  
 Concen: 12.93 ppm  
 RT: 7.540 min Scan# 1058  
 Delta R.T. -0.028 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

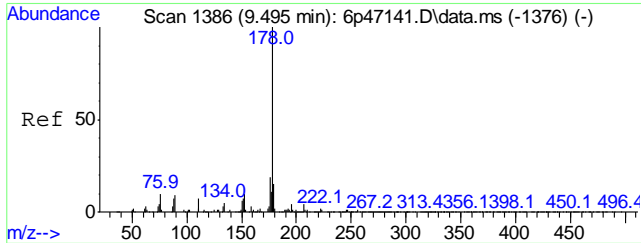
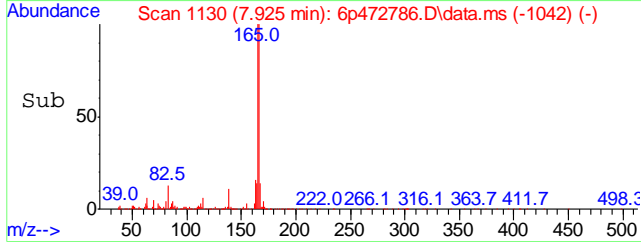
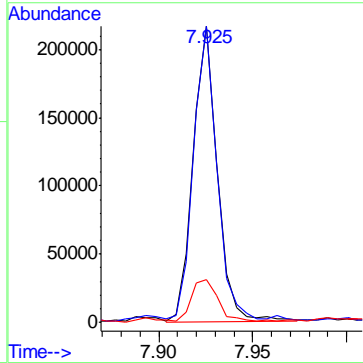
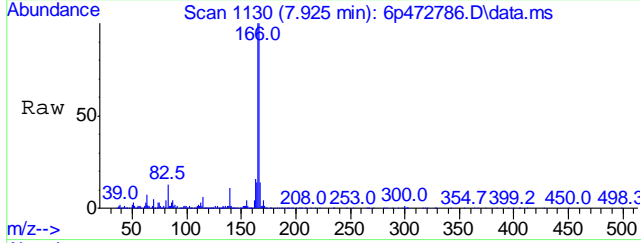
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 523140 | 100   |       |
| 139     | 39.5   | 6.0   | 66.0  |
| 169     | 12.5   | 0.0   | 43.5  |





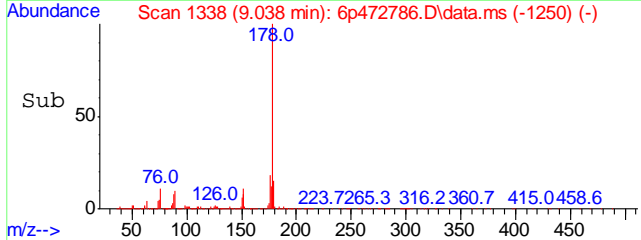
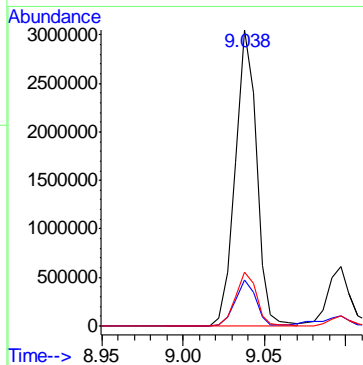
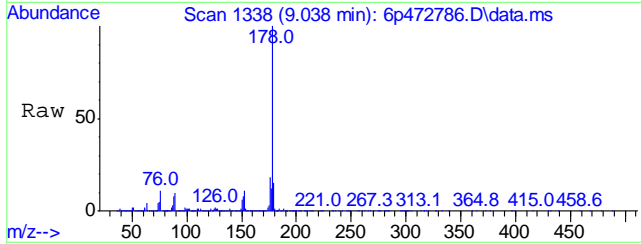
#66  
 Fluorene  
 Concen: 5.99 ppm  
 RT: 7.925 min Scan# 1130  
 Delta R.T. -0.027 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 166     | 194523 |       |       |
| 165     | 99.7   | 59.3  | 119.3 |
| 167     | 13.7   | 0.0   | 43.1  |

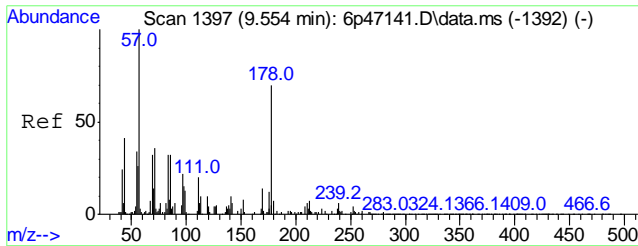


#77  
 Phenanthrene  
 Concen: 54.53 ppm  
 RT: 9.038 min Scan# 1338  
 Delta R.T. -0.029 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 2770329 |       |       |
| 179     | 15.2    | 0.0   | 46.6  |
| 176     | 18.0    | 0.0   | 49.6  |

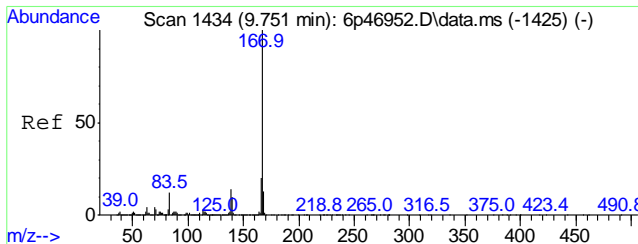
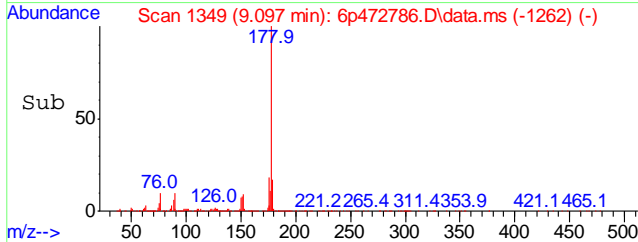
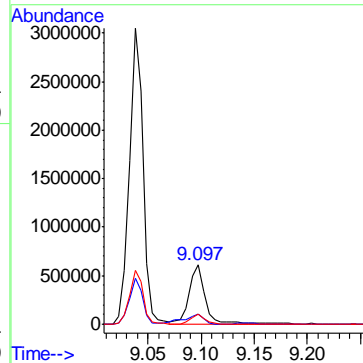
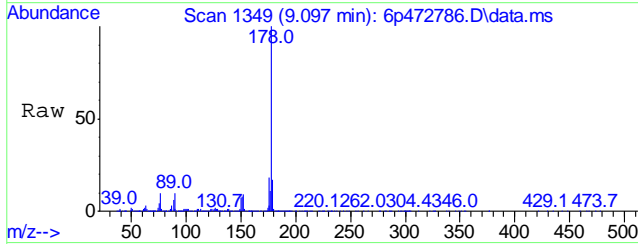


9.18  
9



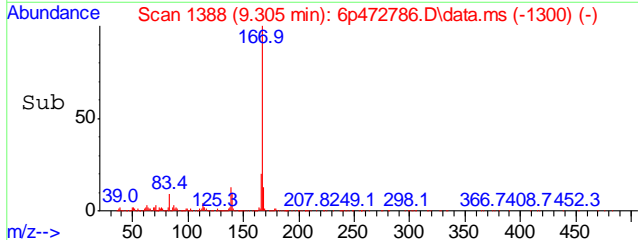
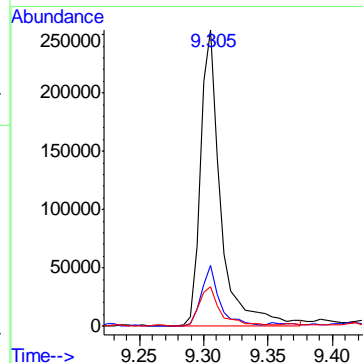
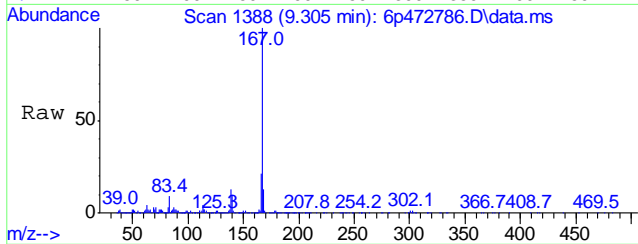
#78  
 Anthracene  
 Concen: 12.63 ppm  
 RT: 9.097 min Scan# 1349  
 Delta R.T. -0.034 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.0  | 0.0   | 45.3  |
| 176     | 17.6  | 0.0   | 48.4  |

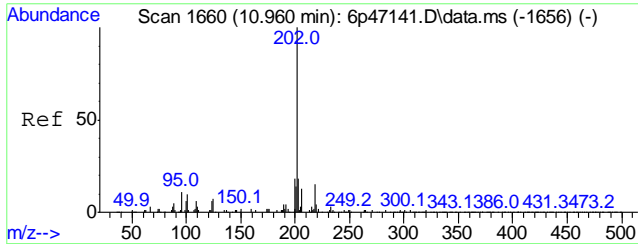


#79  
 Carbazole  
 Concen: 5.89 ppm  
 RT: 9.305 min Scan# 1388  
 Delta R.T. -0.028 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.5  | 0.0   | 50.0  |
| 139     | 13.3  | 0.0   | 42.3  |

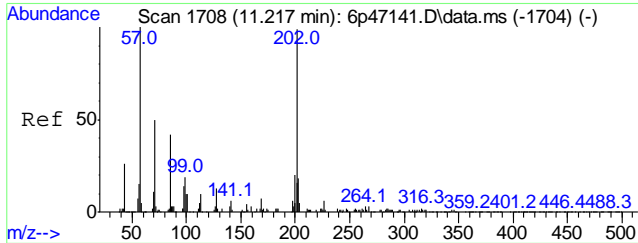
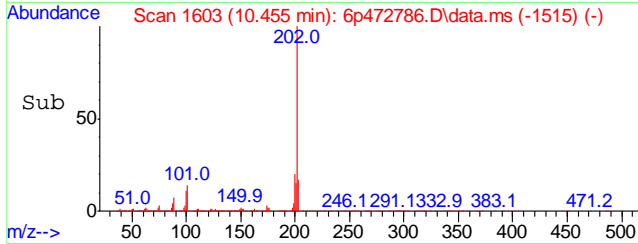
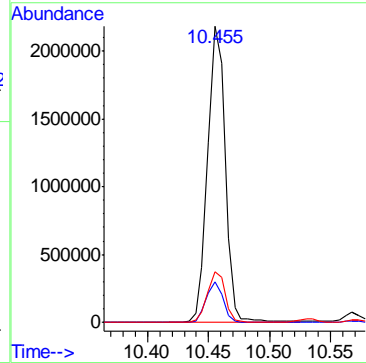
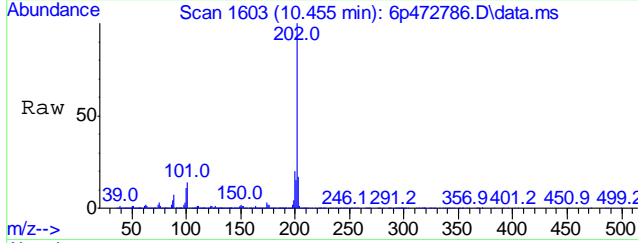


9.18  
 9



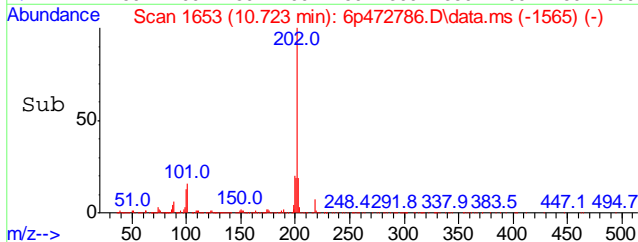
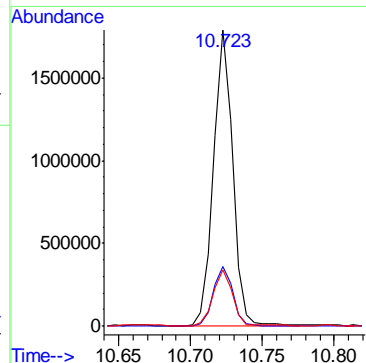
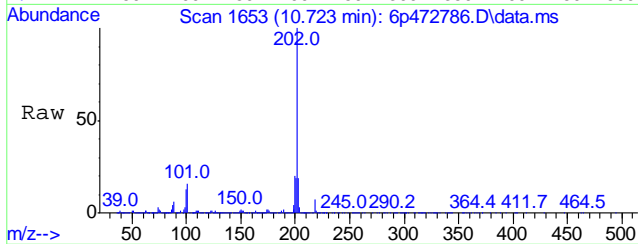
#81  
 Fluoranthene  
 Concen: 39.25 ppm  
 RT: 10.455 min Scan# 1603  
 Delta R.T. -0.031 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

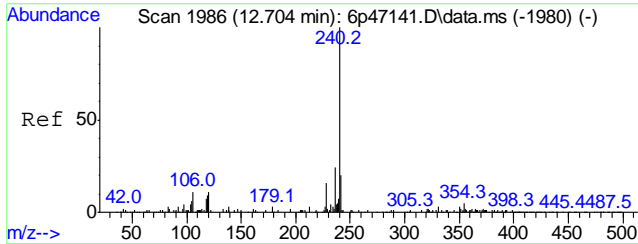
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 13.5 | 0.0   | 40.9  |
| 203     | 16.7 | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 33.02 ppm  
 RT: 10.723 min Scan# 1653  
 Delta R.T. -0.028 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

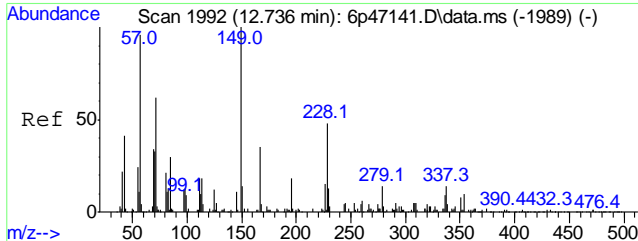
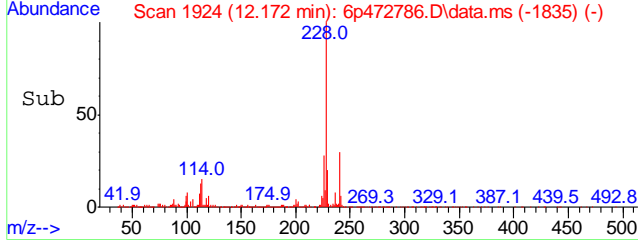
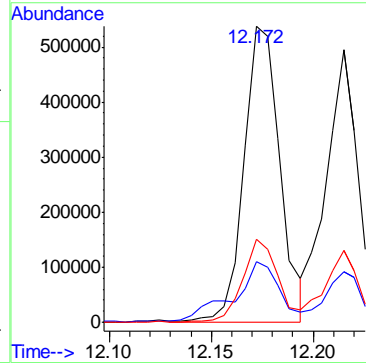
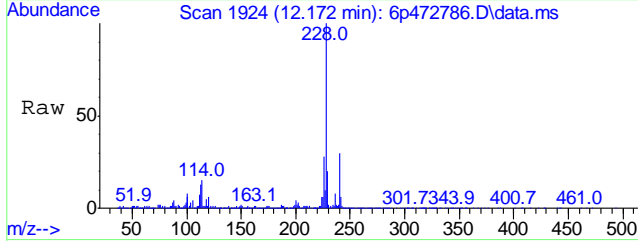
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 20.2 | 0.0   | 50.7  |
| 203     | 18.8 | 0.0   | 47.9  |





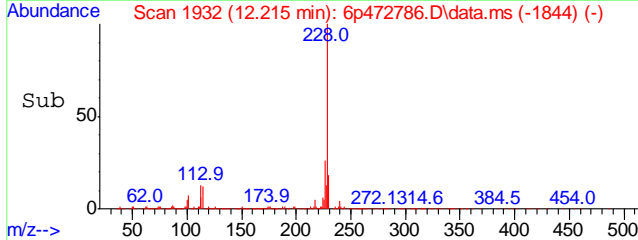
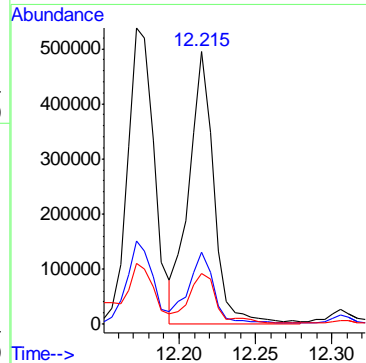
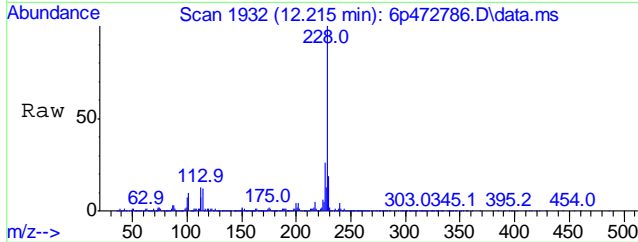
#87  
 Benzo[a]anthracene  
 Concen: 13.93 ppm  
 RT: 12.172 min Scan# 1924  
 Delta R.T. -0.024 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.9  | 0.0   | 49.8  |
| 226     | 28.0  | 0.0   | 56.0  |

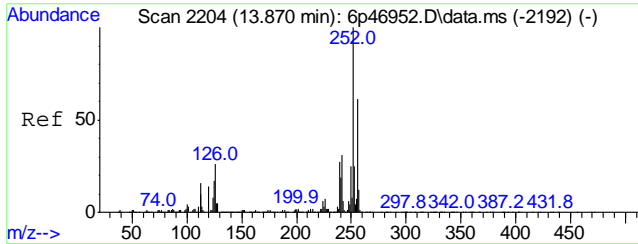


#89  
 Chrysene  
 Concen: 12.03 ppm  
 RT: 12.215 min Scan# 1932  
 Delta R.T. -0.029 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.4  | 0.0   | 59.5  |
| 229     | 18.1  | 0.0   | 49.6  |

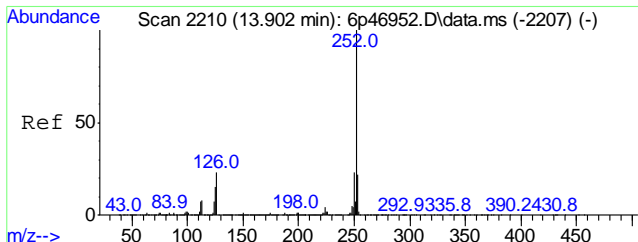
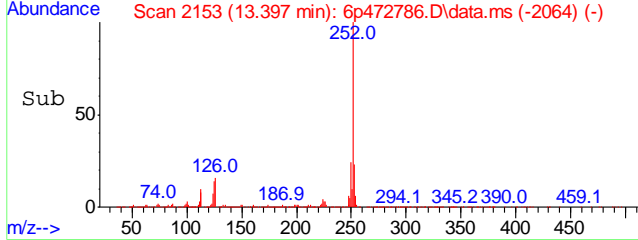
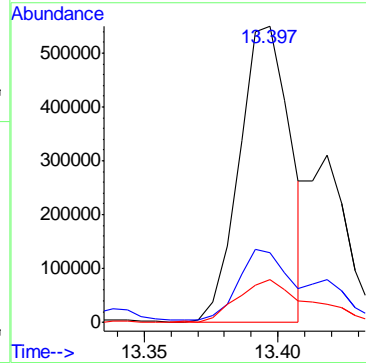
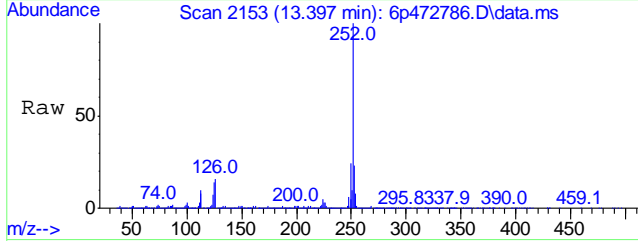






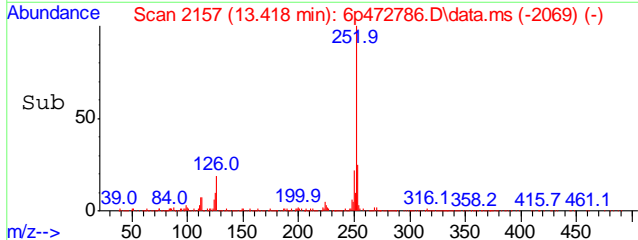
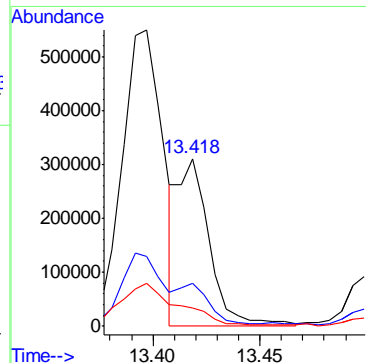
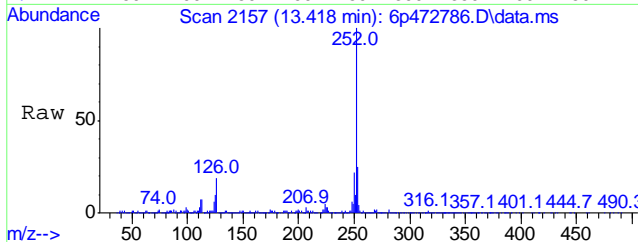
#93  
 Benzo[b]fluoranthene  
 Concen: 14.35 ppm m  
 RT: 13.397 min Scan# 2153  
 Delta R.T. -0.025 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

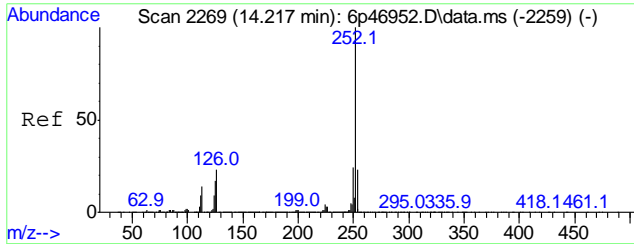
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.3 | 0.0   | 55.4  |
| 125     | 14.4 | 0.0   | 40.0  |



#94  
 Benzo[k]fluoranthene  
 Concen: 6.73 ppm m  
 RT: 13.418 min Scan# 2157  
 Delta R.T. -0.030 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

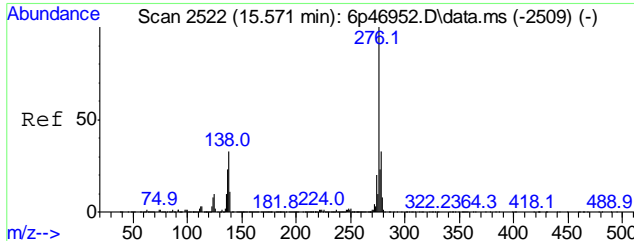
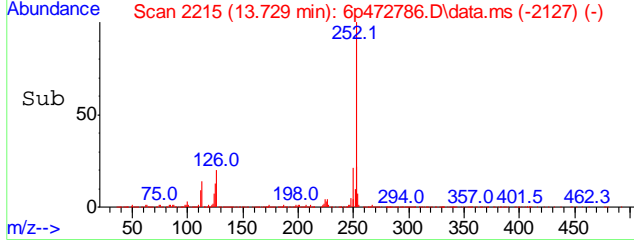
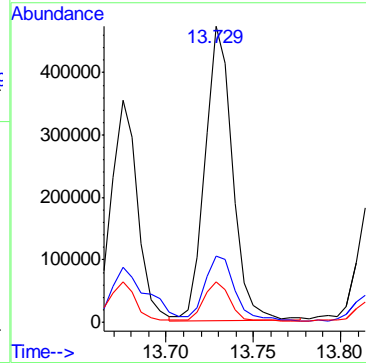
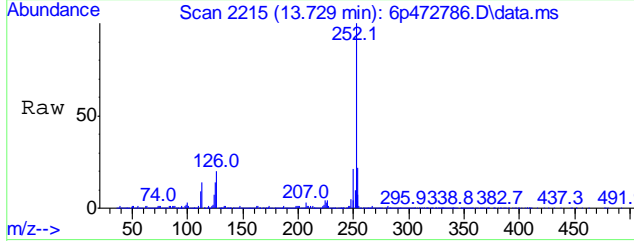
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.3 | 0.0   | 51.8  |
| 125     | 10.5 | 0.0   | 38.7  |





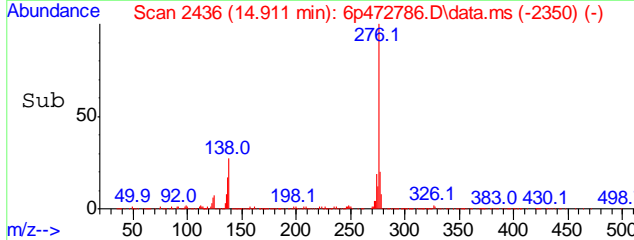
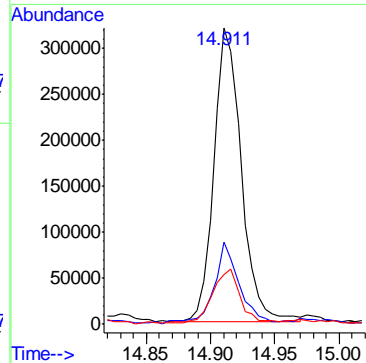
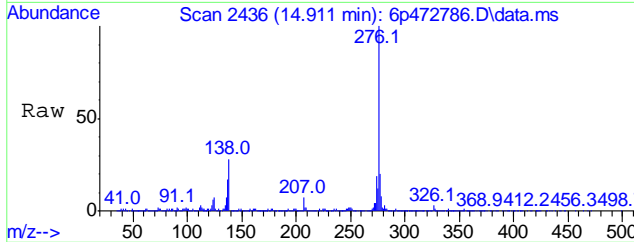
#95  
 Benzo[a]pyrene  
 Concen: 11.44 ppm  
 RT: 13.729 min Scan# 2215  
 Delta R.T. -0.029 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

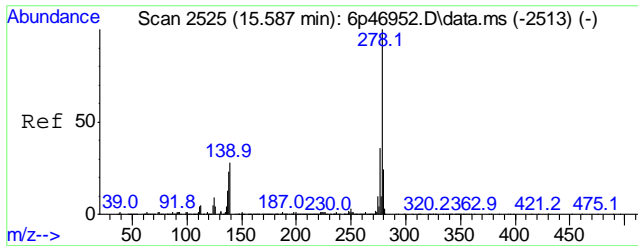
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 20.6 | 0.0   | 52.5  |
| 125     | 13.4 | 0.0   | 40.0  |



#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 7.91 ppm  
 RT: 14.911 min Scan# 2436  
 Delta R.T. -0.042 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

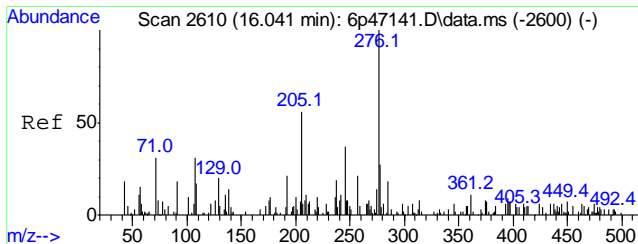
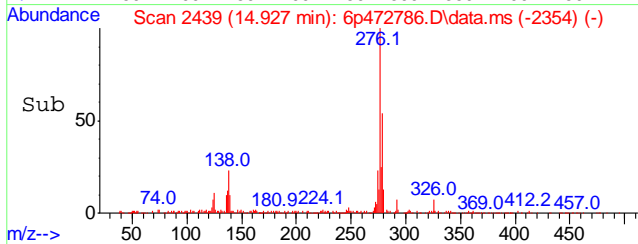
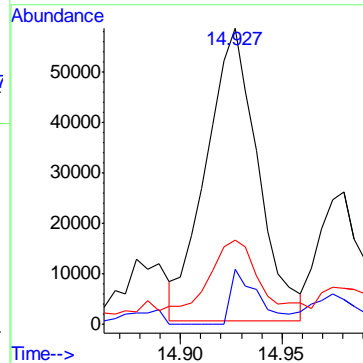
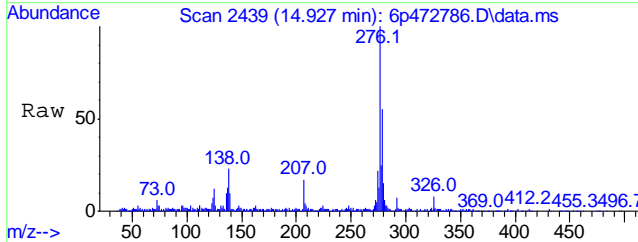
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 26.5 | 0.0   | 48.9  |
| 137     | 16.2 | 0.0   | 43.2  |





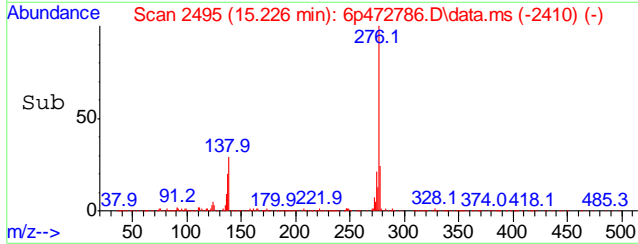
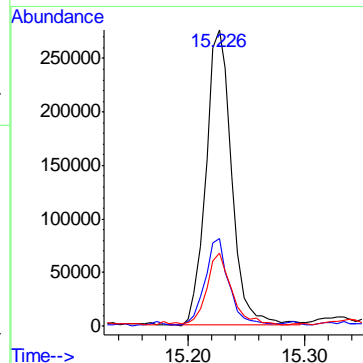
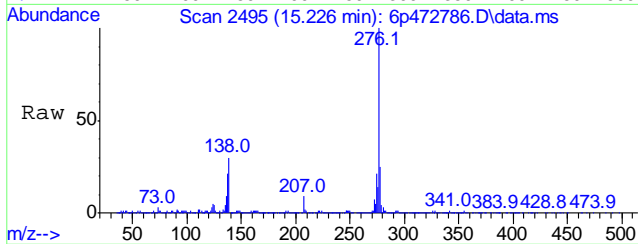
#98  
 Dibenz[a,h]anthracene  
 Concen: 1.98 ppm  
 RT: 14.927 min Scan# 2439  
 Delta R.T. -0.048 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 101950 |       |       |
| 139     | 18.6   | 0.0   | 45.9  |
| 279     | 24.5   | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 8.90 ppm  
 RT: 15.226 min Scan# 2495  
 Delta R.T. -0.047 min  
 Lab File: 6p472786.D  
 Acq: 10 May 2018 8:19 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 425490 |       |       |
| 138     | 29.3   | 0.0   | 49.9  |
| 277     | 24.1   | 0.0   | 53.3  |



9.18  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472431.D  
 Acq On : 2 May 2018 8:52 am  
 Operator : sufiyana  
 Sample : jc65157-7  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 02 12:36:03 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 525741   | 40.00 | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 1892977  | 40.00 | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.393  | 164  | 973028   | 40.00 | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.094  | 188  | 1664058  | 40.00 | ppm    | 0.05     |        |
| 83) Chrysene-d12             | 12.281 | 240  | 1537524  | 40.00 | ppm    | 0.07     |        |
| 91) Perylene-d12             | 13.891 | 264  | 1704634  | 40.00 | ppm    | 0.07     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 525741   | 40.00 | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.393  | 164  | 973028   | 40.00 | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.094  | 188  | 1664058  | 40.00 | ppm    | 0.05     |        |
| 109) Chrysene-d12a           | 12.281 | 240  | 1537524  | 40.00 | ppm    | 0.07     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1892977  | 40.00 | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.094  | 188  | 1664058  | 40.00 | ppm    | 0.05     |        |
| 115) Chrysene-d12b           | 12.281 | 240  | 1537524  | 40.00 | ppm    | 0.07     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 462876   | 24.15 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 48.30% |          |        |
| 8) Phenol-d5                 | 4.376  | 99   | 620509   | 25.42 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 50.84% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 579909   | 28.22 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 56.44% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1024001  | 27.28 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 54.56% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.286  | 330  | 136549   | 21.82 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.64% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 884976   | 24.09 | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 48.18% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00  | ppm    |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 18) Acetophenone             | 4.927  | 105  | 27608    | 1.09  | ppm    | 79       | Qvalue |
| 38) Naphthalene              | 5.670  | 128  | 409556   | 8.26  | ppm    | 99       |        |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 194645   | 6.71  | ppm    | 92       |        |
| 53) Biphenyl                 | 6.783  | 154  | 61247    | 1.47  | ppm    | 94       |        |
| 56) Acenaphthylene           | 7.238  | 152  | 207021   | 4.37  | ppm    | 96       |        |
| 59) Acenaphthene             | 7.430  | 153  | 33044    | 1.00  | ppm    | 99       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 224499   | 5.26  | ppm    | 92       |        |
| 66) Fluorene                 | 8.008  | 166  | 77817    | 2.27  | ppm    | 85       |        |
| 77) Phenanthrene             | 9.126  | 178  | 1614372  | 31.91 | ppm    | 97       |        |
| 78) Anthracene               | 9.179  | 178  | 504078   | 9.85  | ppm    | 99       |        |
| 79) Carbazole                | 9.388  | 167  | 74406    | 1.56  | ppm    | 97       |        |
| 81) Fluoranthene             | 10.548 | 202  | 2983168  | 54.39 | ppm    | 96       |        |
| 84) Pyrene                   | 10.816 | 202  | 2736200  | 53.25 | ppm    | 99       |        |
| 87) Benzo[a]anthracene       | 12.271 | 228  | 1507776  | 31.30 | ppm    | 95       |        |
| 89) Chrysene                 | 12.313 | 228  | 1726747  | 36.25 | ppm    | 96       |        |
| 93) Benzo[b]fluoranthene     | 13.495 | 252  | 2268240m | 42.02 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.522 | 252  | 823947m  | 16.70 | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.832 | 252  | 1600524  | 33.47 | ppm    | 94       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472431.D  
 Acq On : 2 May 2018 8:52 am  
 Operator : sufiyana  
 Sample : jc65157-7  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 02 12:36:03 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

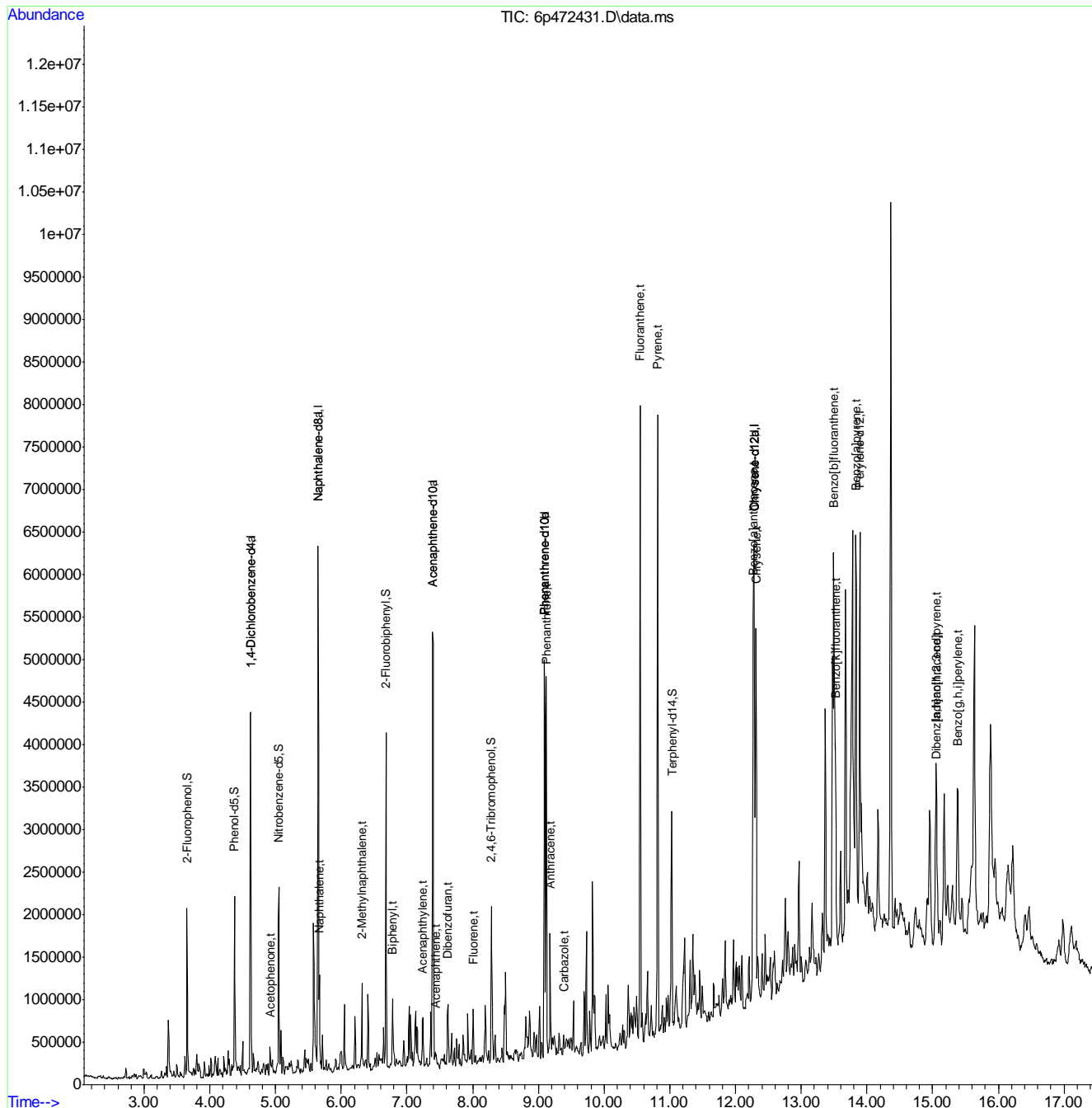
| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| 96) Indeno[1,2,3-cd]pyrene | 15.052 | 276  | 1150066  | 18.27 | ppm   | 82       |
| 98) Dibenz[a,h]anthracene  | 15.063 | 278  | 267582m  | 4.93  | ppm   |          |
| 100) Benzo[g,h,i]perylene  | 15.384 | 276  | 996202   | 19.77 | ppm   | 92       |

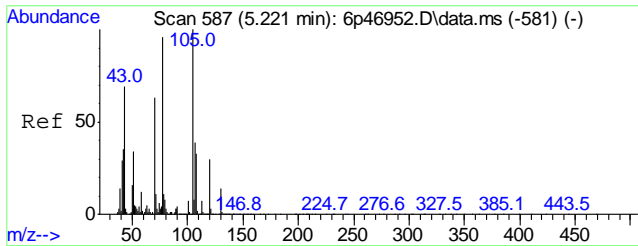
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472431.D  
 Acq On : 2 May 2018 8:52 am  
 Operator : sufiyana  
 Sample : jc65157-7  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 25 Sample Multiplier: 1

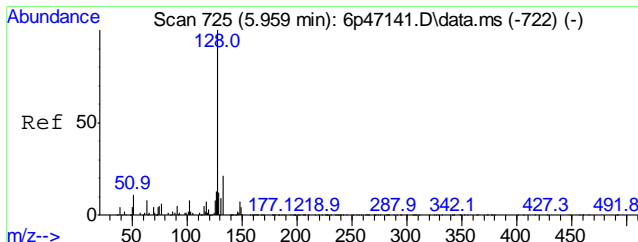
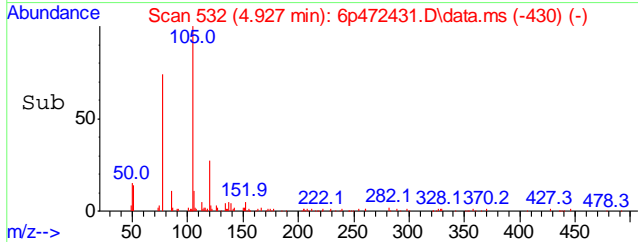
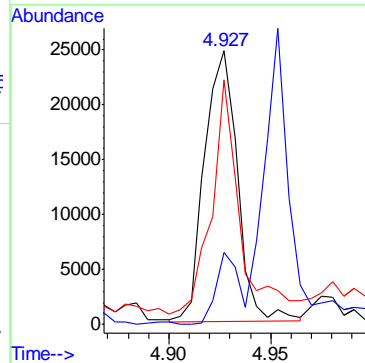
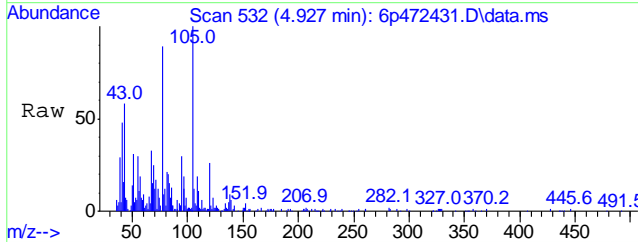
Quant Time: May 02 12:36:03 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration





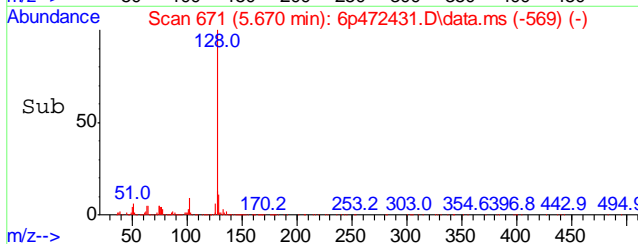
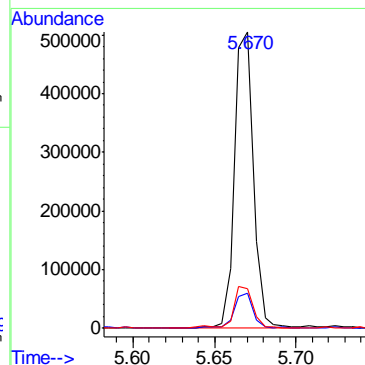
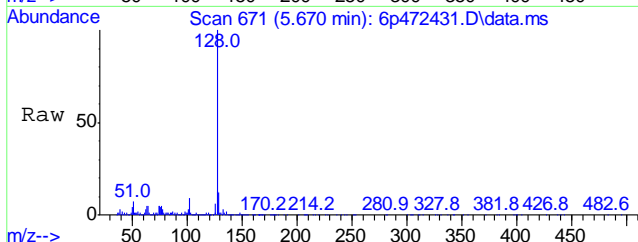
#18  
 Acetophenone  
 Concen: 1.09 ppm  
 RT: 4.927 min Scan# 532  
 Delta R.T. 0.044 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

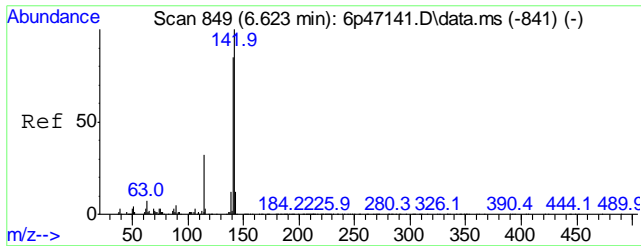
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 27608 | 100   |       |
| 120     | 19.2  | 0.0   | 58.4  |
| 77      | 85.0  | 78.1  | 138.1 |



#38  
 Naphthalene  
 Concen: 8.26 ppm  
 RT: 5.670 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

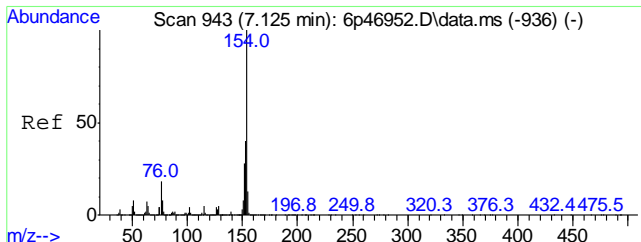
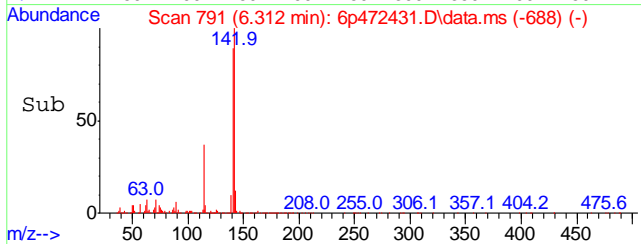
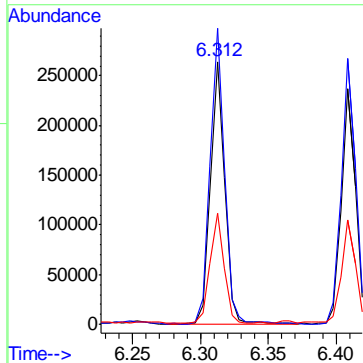
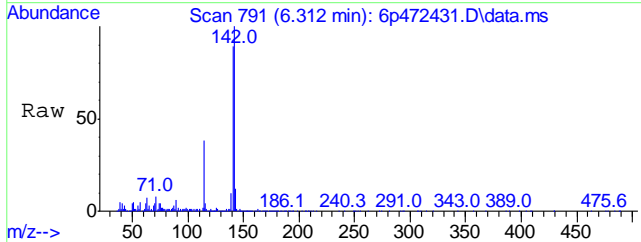
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 409556 | 100   |       |
| 129     | 11.5   | 0.0   | 41.1  |
| 127     | 13.4   | 0.0   | 43.2  |





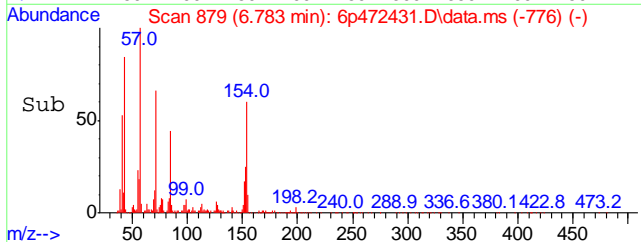
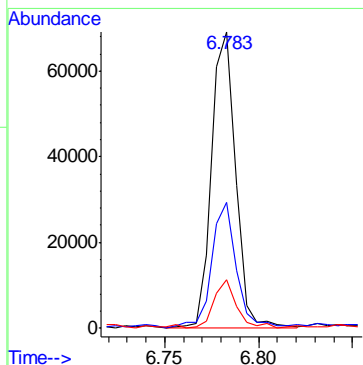
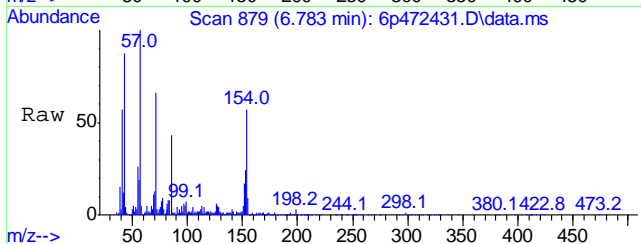
#44  
 2-Methylnaphthalene  
 Concen: 6.71 ppm  
 RT: 6.312 min Scan# 791  
 Delta R.T. 0.050 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 112.4 | 91.8  | 151.8 |
| 115     | 41.9  | 8.6   | 68.6  |

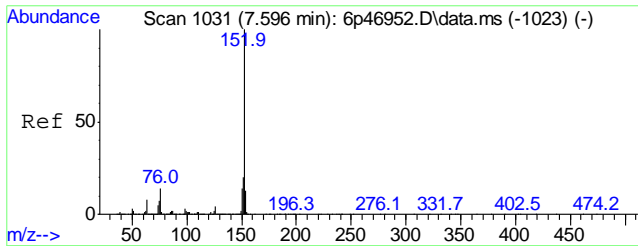


#53  
 Biphenyl  
 Concen: 1.47 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 41.9  | 8.7   | 68.7  |
| 155     | 15.6  | 0.0   | 43.0  |

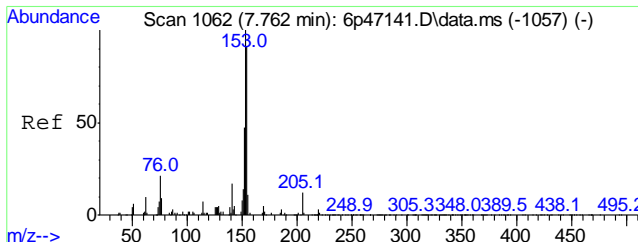
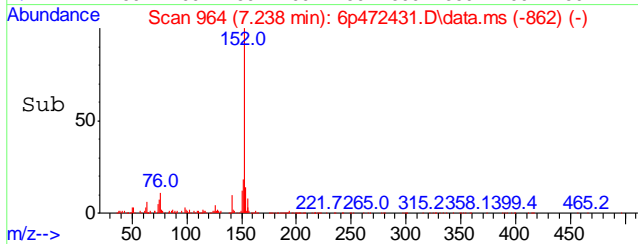
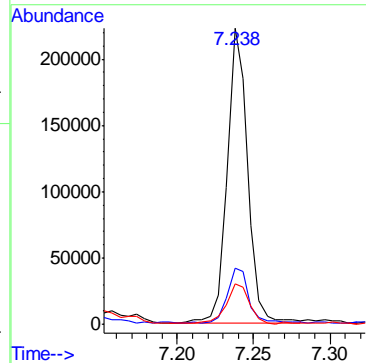
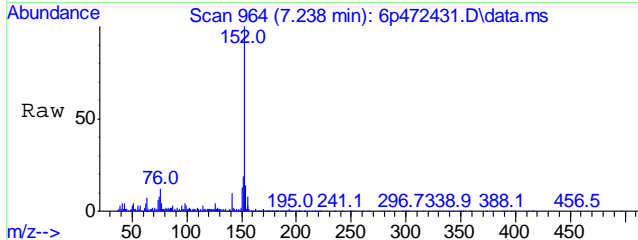






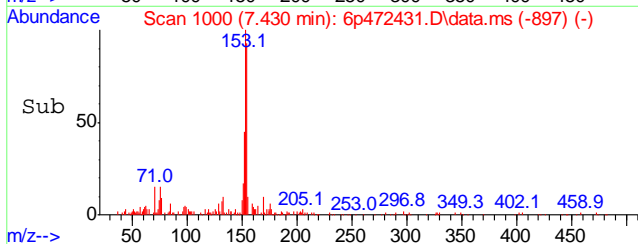
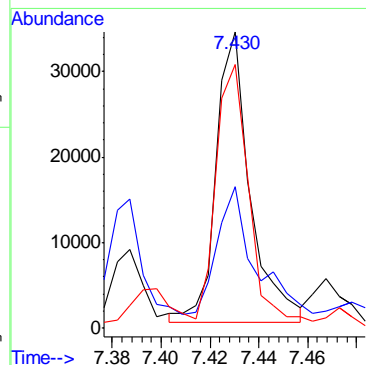
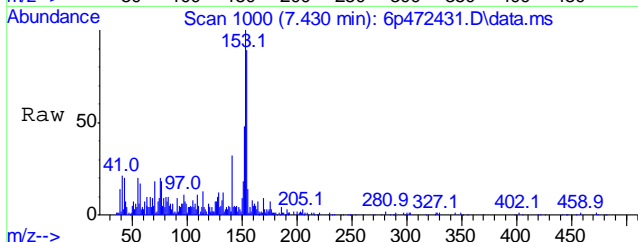
#56  
 Acenaphthylene  
 Concen: 4.37 ppm  
 RT: 7.238 min Scan# 964  
 Delta R.T. 0.048 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 18.3  | 0.0   | 50.2  |
| 153     | 13.5  | 0.0   | 44.8  |

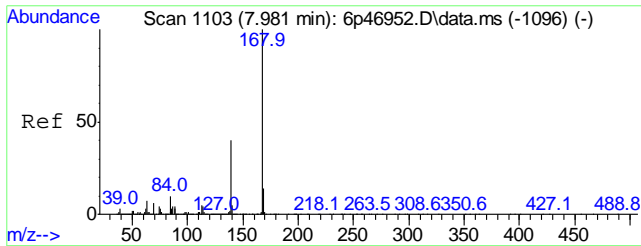


#59  
 Acenaphthene  
 Concen: 1.00 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 42.7  | 13.9  | 73.9  |
| 154     | 88.8  | 59.3  | 119.3 |

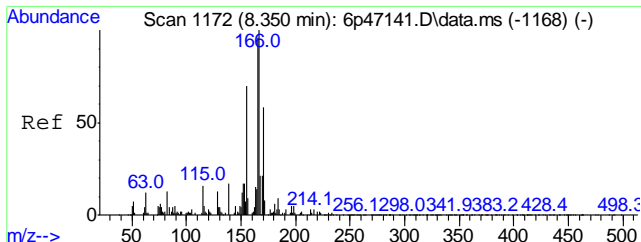
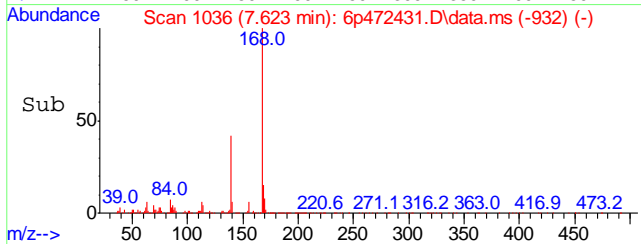
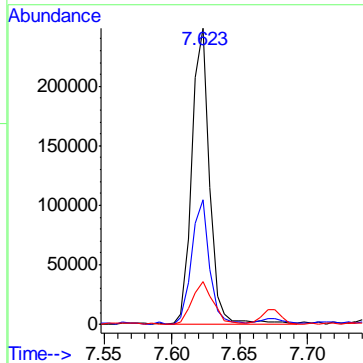
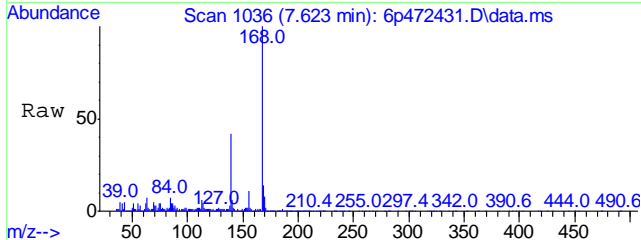


9.1.9  
 9



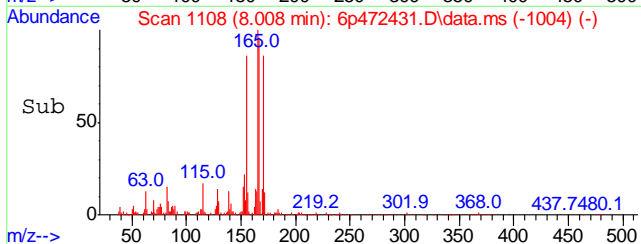
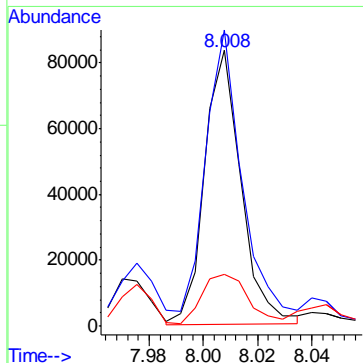
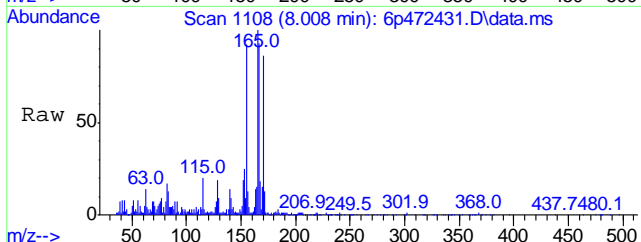
#62  
 Dibenzofuran  
 Concen: 5.26 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 42.0  | 6.0   | 66.0  |
| 169     | 14.4  | 0.0   | 43.5  |

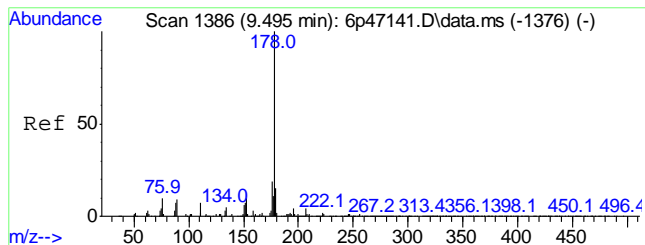


#66  
 Fluorene  
 Concen: 2.27 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 104.2 | 59.3  | 119.3 |
| 167     | 16.2  | 0.0   | 43.1  |

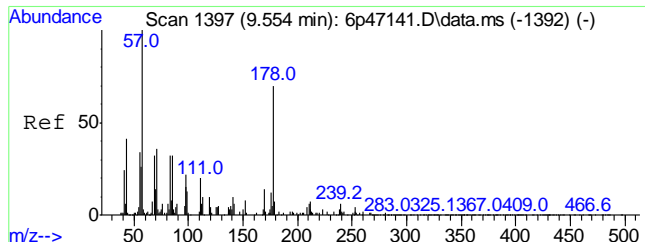
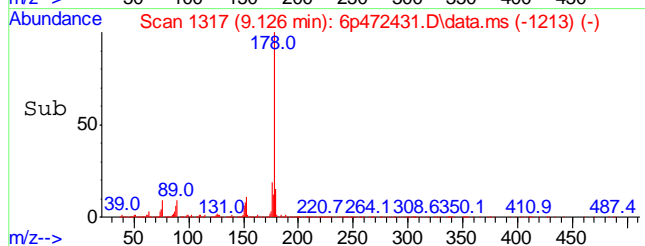
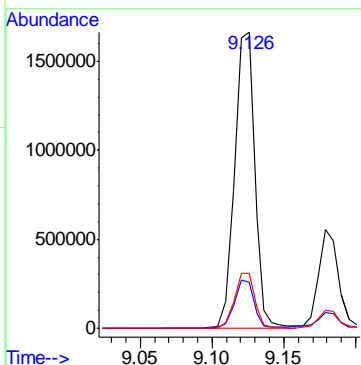
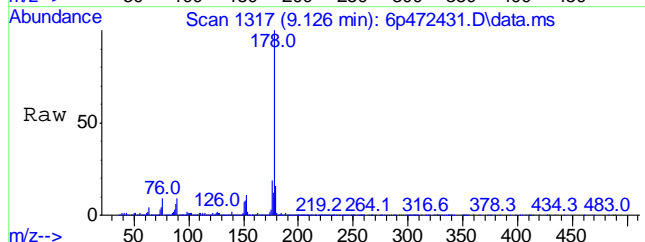


9.1.9  
 9



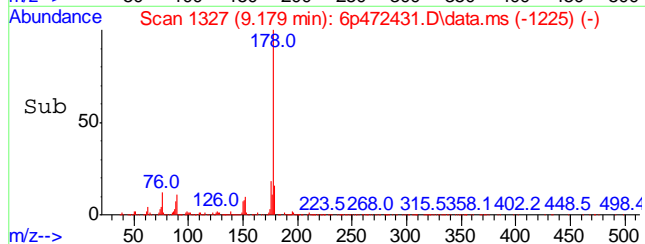
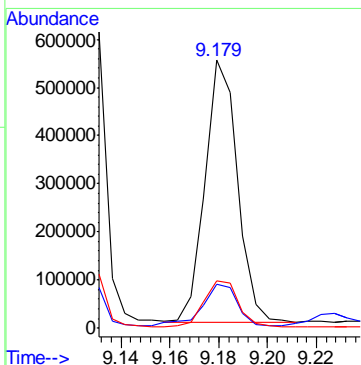
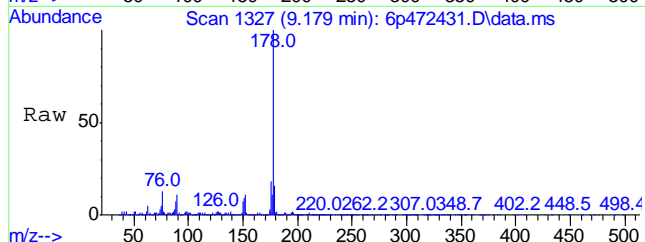
#77  
 Phenanthrene  
 Concen: 31.91 ppm  
 RT: 9.126 min Scan# 1317  
 Delta R.T. 0.059 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 1614372 |       |       |
| 178     | 100     |       |       |
| 179     | 15.2    | 0.0   | 46.6  |
| 176     | 18.5    | 0.0   | 49.6  |

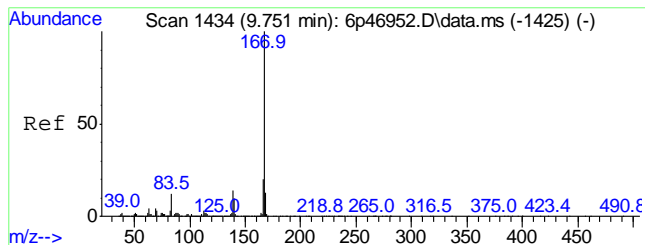


#78  
 Anthracene  
 Concen: 9.85 ppm  
 RT: 9.179 min Scan# 1327  
 Delta R.T. 0.048 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 504078 |       |       |
| 178     | 100    |       |       |
| 179     | 15.1   | 0.0   | 45.3  |
| 176     | 17.8   | 0.0   | 48.4  |

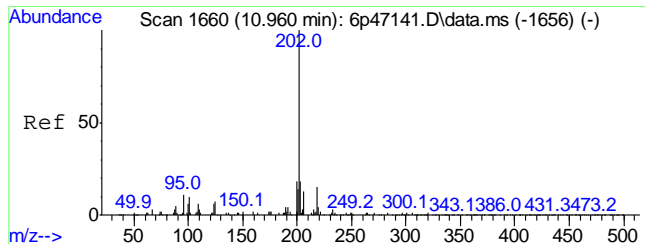
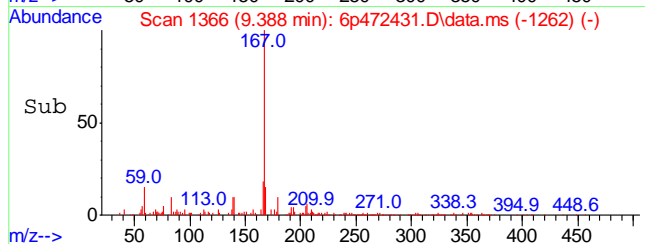
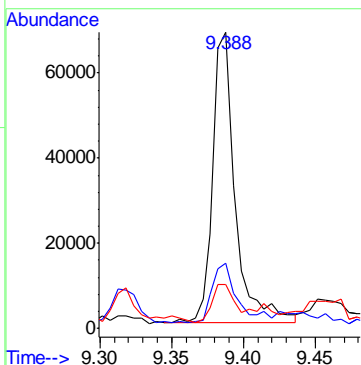
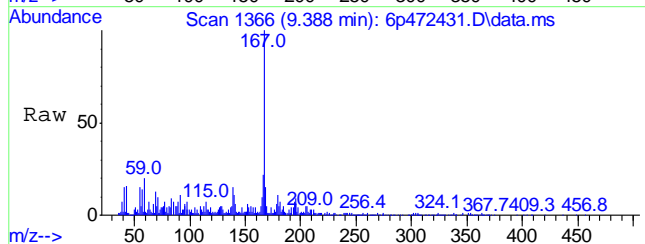


9.19  
 9



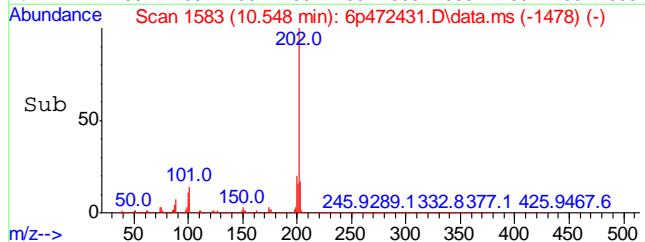
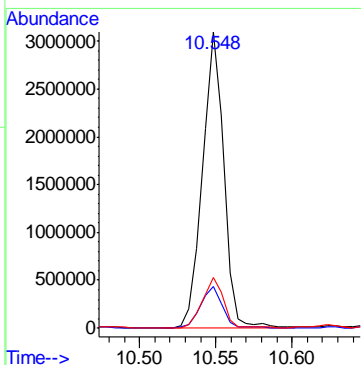
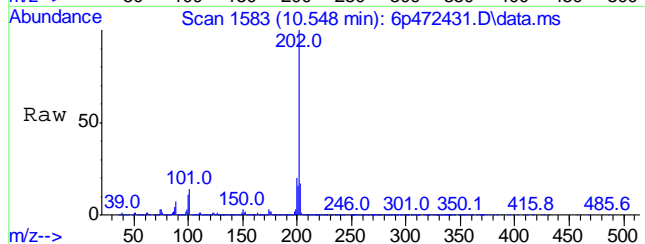
#79  
 Carbazole  
 Concen: 1.56 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

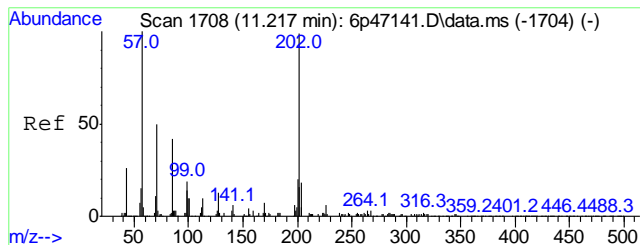
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 74406 | 100   |       |
| 166     | 19.2  | 0.0   | 50.0  |
| 139     | 10.6  | 0.0   | 42.3  |



#81  
 Fluoranthene  
 Concen: 54.39 ppm  
 RT: 10.548 min Scan# 1583  
 Delta R.T. 0.062 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

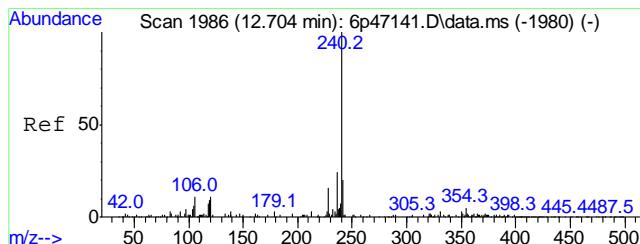
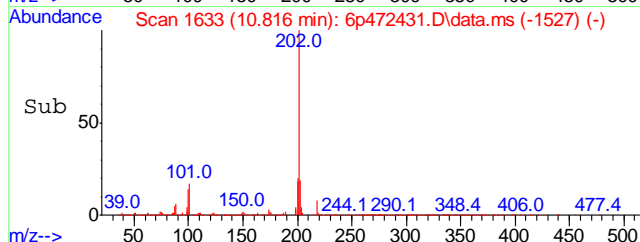
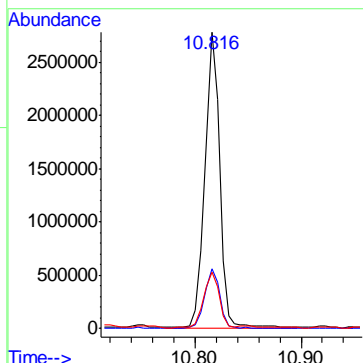
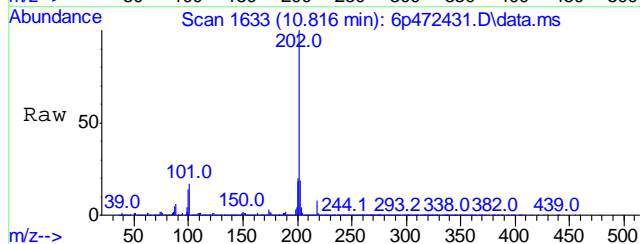
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 2983168 | 100   |       |
| 101     | 13.9    | 0.0   | 40.9  |
| 203     | 16.9    | 0.0   | 47.4  |





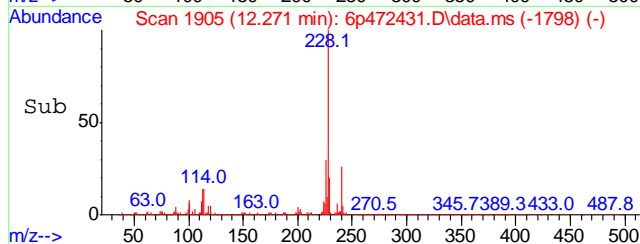
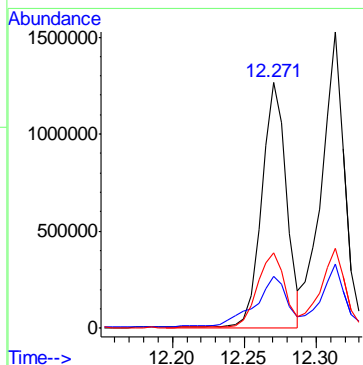
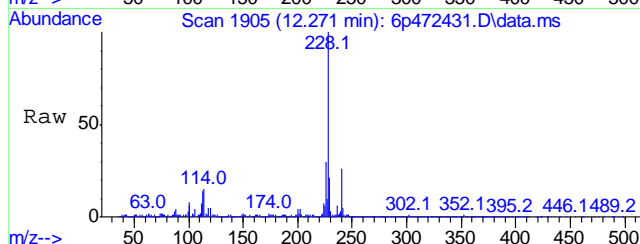
#84  
 Pyrene  
 Concen: 53.25 ppm  
 RT: 10.816 min Scan# 1633  
 Delta R.T. 0.066 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 2736200 | 100   |       |
| 200     | 20.3    | 0.0   | 50.7  |
| 203     | 18.7    | 0.0   | 47.9  |

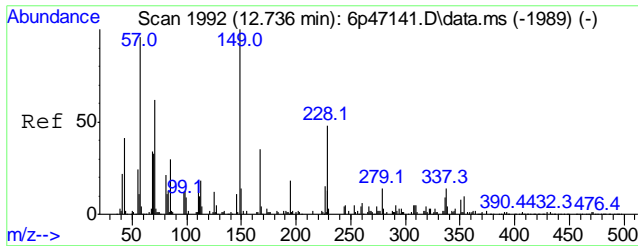


#87  
 Benzo[a]anthracene  
 Concen: 31.30 ppm  
 RT: 12.271 min Scan# 1905  
 Delta R.T. 0.075 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 228     | 1507776 | 100   |       |
| 229     | 19.7    | 0.0   | 49.8  |
| 226     | 30.3    | 0.0   | 56.0  |

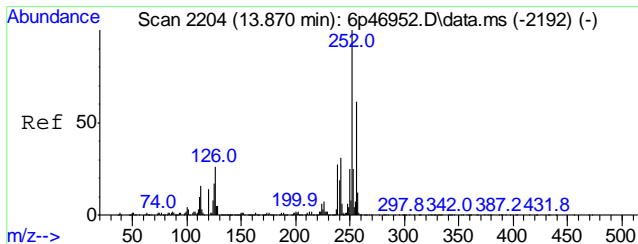
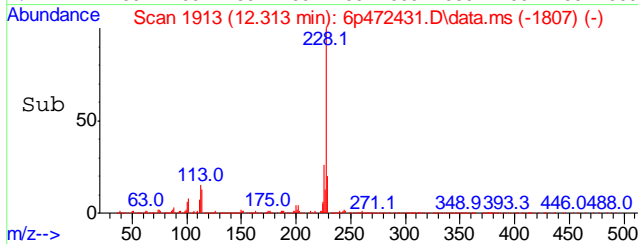
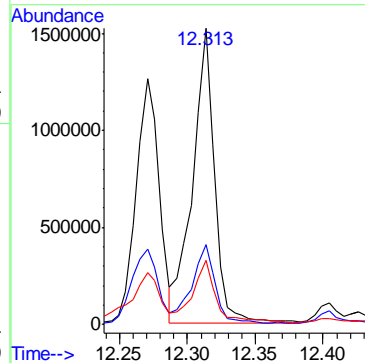
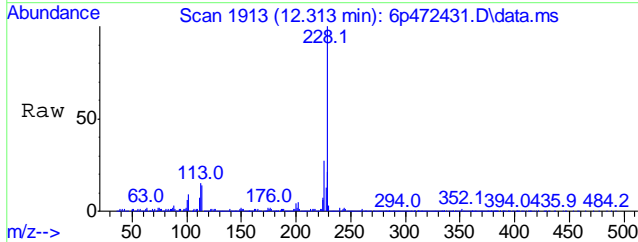


9.1.9  
 9



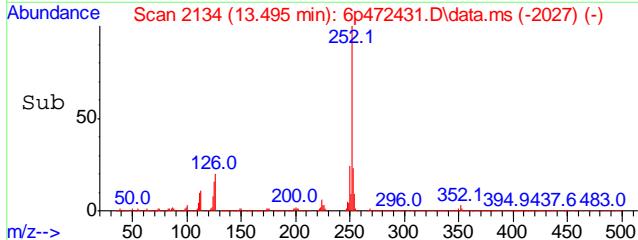
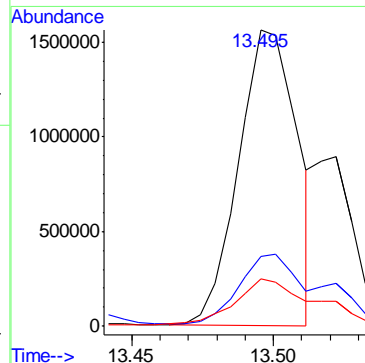
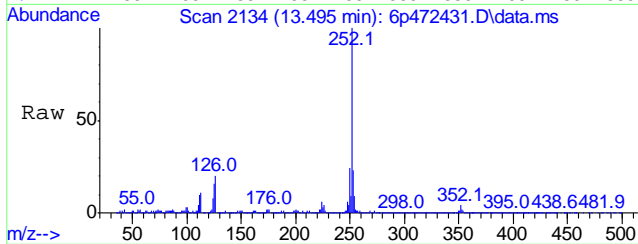
#89  
 Chrysene  
 Concen: 36.25 ppm  
 RT: 12.313 min Scan# 1913  
 Delta R.T. 0.070 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

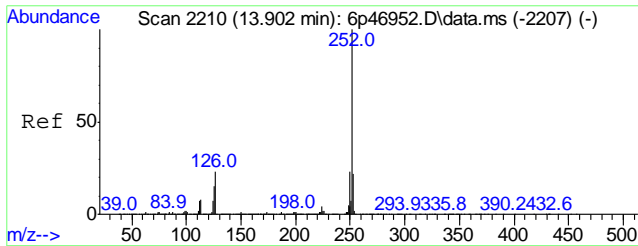
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.4  | 0.0   | 59.5  |
| 229     | 20.5  | 0.0   | 49.6  |



#93  
 Benzo[b]fluoranthene  
 Concen: 42.02 ppm m  
 RT: 13.495 min Scan# 2134  
 Delta R.T. 0.074 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

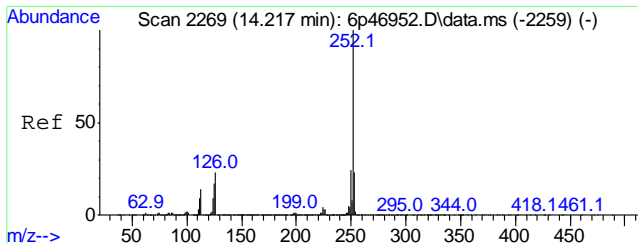
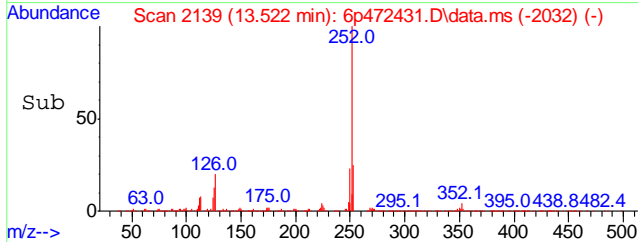
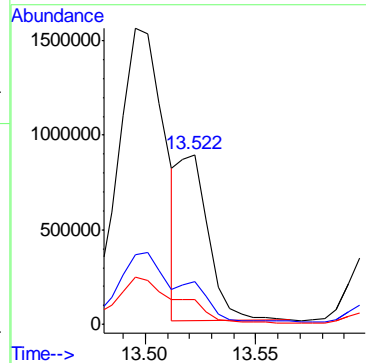
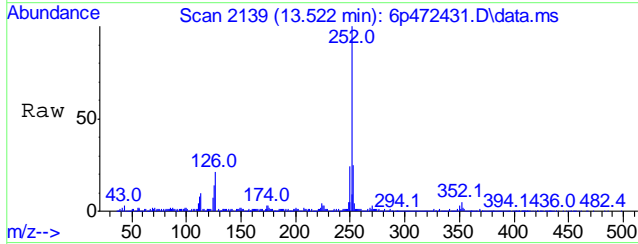
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 23.4  | 0.0   | 55.4  |
| 125     | 15.9  | 0.0   | 40.0  |





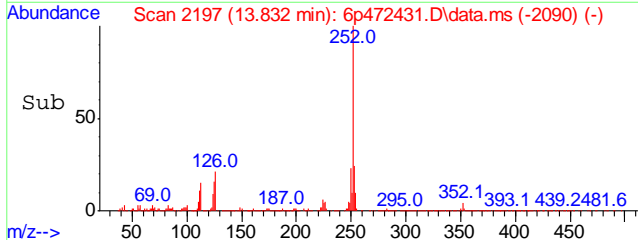
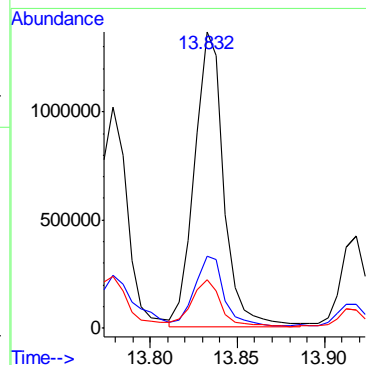
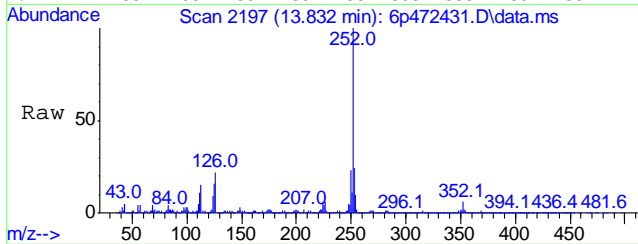
#94  
 Benzo[k]fluoranthene  
 Concen: 16.70 ppm  
 RT: 13.522 min Scan# 2139  
 Delta R.T. 0.074 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

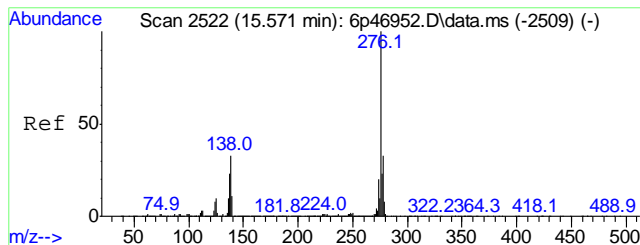
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.3 | 0.0   | 51.8  |
| 125     | 14.3 | 0.0   | 38.7  |



#95  
 Benzo[a]pyrene  
 Concen: 33.47 ppm  
 RT: 13.832 min Scan# 2197  
 Delta R.T. 0.075 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

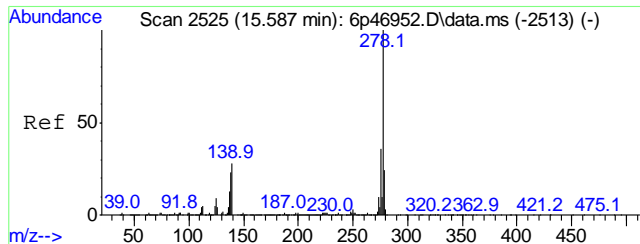
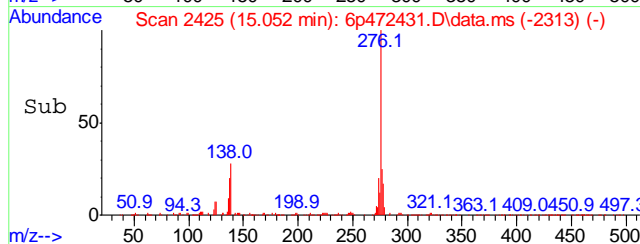
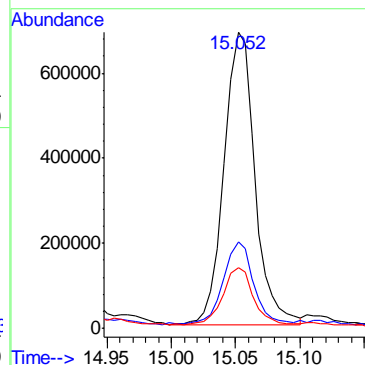
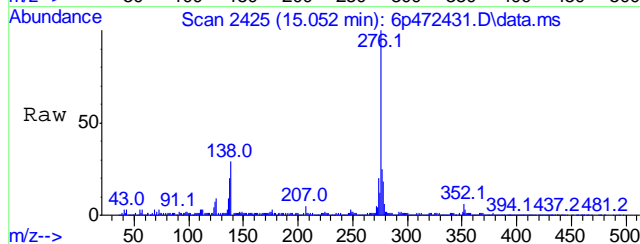
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.5 | 0.0   | 52.5  |
| 125     | 15.1 | 0.0   | 40.0  |





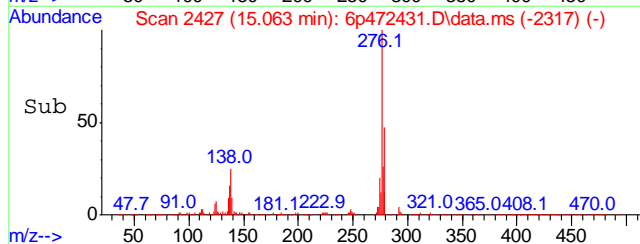
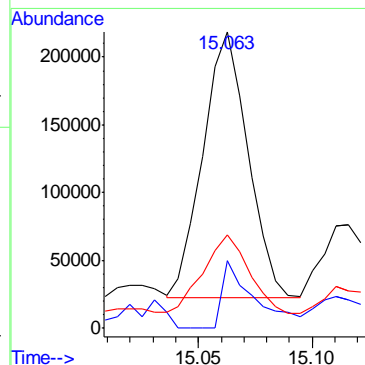
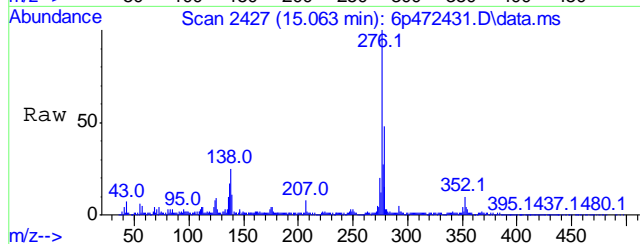
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 18.27 ppm  
 RT: 15.052 min Scan# 2425  
 Delta R.T. 0.099 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.5  | 0.0   | 48.9  |
| 137     | 19.6  | 0.0   | 43.2  |



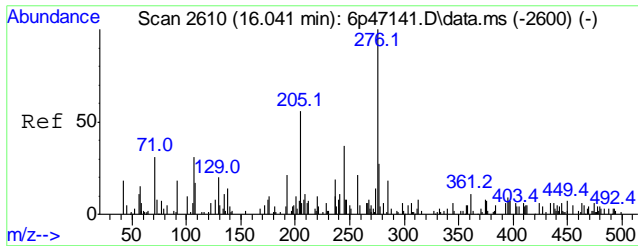
#98  
 Dibenz[a,h]anthracene  
 Concen: 4.93 ppm m  
 RT: 15.063 min Scan# 2427  
 Delta R.T. 0.088 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 22.7  | 0.0   | 45.9  |
| 279     | 31.4  | 0.0   | 54.3  |

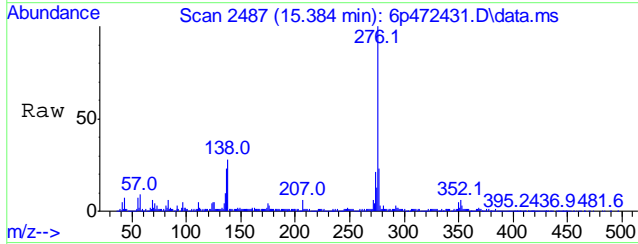


9.19  
9

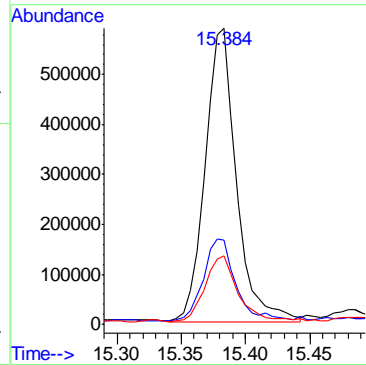
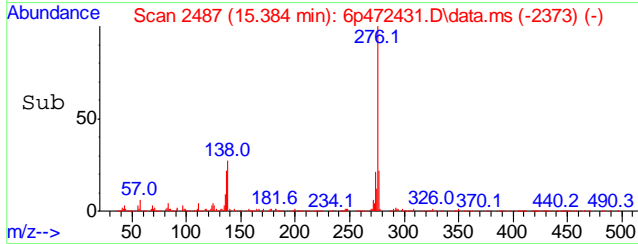




#100  
 Benzo[g,h,i]perylene  
 Concen: 19.77 ppm  
 RT: 15.384 min Scan# 2487  
 Delta R.T. 0.110 min  
 Lab File: 6p472431.D  
 Acq: 2 May 2018 8:52 am



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 26.9  | 0.0   | 49.9  |
| 277     | 22.2  | 0.0   | 53.3  |



9.1.9  
 9

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472432.D  
 Acq On : 2 May 2018 9:17 am  
 Operator : sufiyana  
 Sample : jc65157-8  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 02 13:35:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response  | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|-----------|--------|--------|----------|--------|
| Internal Standards           |        |      |           |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 516043    | 40.00  | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 1961825   | 40.00  | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 984326    | 40.00  | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.104  | 188  | 1651432   | 40.00  | ppm    | 0.06     |        |
| 83) Chrysene-d12             | 12.303 | 240  | 1767856   | 40.00  | ppm    | 0.09     |        |
| 91) Perylene-d12             | 13.913 | 264  | 1937795   | 40.00  | ppm    | 0.09     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 516043    | 40.00  | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 984326    | 40.00  | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.104  | 188  | 1651432   | 40.00  | ppm    | 0.06     |        |
| 109) Chrysene-d12a           | 12.303 | 240  | 1767856   | 40.00  | ppm    | 0.09     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1961825   | 40.00  | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.104  | 188  | 1651432   | 40.00  | ppm    | 0.06     |        |
| 115) Chrysene-d12b           | 12.303 | 240  | 1767856   | 40.00  | ppm    | 0.09     |        |
| System Monitoring Compounds  |        |      |           |        |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 541703    | 28.80  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 57.60% |          |        |
| 8) Phenol-d5                 | 4.371  | 99   | 682614    | 28.49  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 56.98% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 648484    | 30.45  | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 60.90% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1151541   | 30.33  | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 60.66% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.291  | 330  | 141568    | 22.79  | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 45.58% |          |        |
| 85) Terphenyl-d14            | 11.035 | 244  | 1011343   | 23.95  | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery  | =      | 47.90% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d        | 0.00   | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d        | 0.00   | ppm    |          |        |
| Target Compounds             |        |      |           |        |        |          |        |
|                              |        |      |           |        |        |          | Qvalue |
| 9) Phenol                    | 4.381  | 94   | 57915     | 2.14   | ppm    |          | 90     |
| 21) 3&4-Methylphenol         | 4.948  | 108  | 62830     | 3.49   | ppm    |          | 93     |
| 30) 2,4-Dimethylphenol       | 5.371  | 107  | 35817     | 2.15   | ppm    |          | 83     |
| 38) Naphthalene              | 5.670  | 128  | 3306033   | 64.31  | ppm    |          | 99     |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 470865    | 15.65  | ppm    |          | 97     |
| 53) Biphenyl                 | 6.783  | 154  | 226512    | 5.38   | ppm    |          | 97     |
| 56) Acenaphthylene           | 7.243  | 152  | 1110217   | 23.17  | ppm    |          | 98     |
| 59) Acenaphthene             | 7.430  | 153  | 662988    | 19.85  | ppm    |          | 96     |
| 62) Dibenzofuran             | 7.623  | 168  | 1691739   | 39.17  | ppm    |          | 93     |
| 66) Fluorene                 | 8.008  | 166  | 1328019   | 38.29  | ppm    |          | 91     |
| 77) Phenanthrene             | 9.136  | 178  | 19074162  | 379.95 | ppm    |          | 85     |
| 78) Anthracene               | 9.200  | 178  | 7512278   | 147.86 | ppm    |          | 98     |
| 79) Carbazole                | 9.393  | 167  | 2903123   | 61.44  | ppm    |          | 98     |
| 81) Fluoranthene             | 10.559 | 202  | 23616761m | 433.87 | ppm    |          |        |
| 84) Pyrene                   | 10.671 | 202  | 676757    | 11.45  | ppm    |          | 95     |
| 87) Benzo[a]anthracene       | 12.297 | 228  | 14976956  | 270.37 | ppm    |          | 95     |
| 89) Chrysene                 | 12.340 | 228  | 12917326  | 235.84 | ppm    |          | 94     |
| 93) Benzo[b]fluoranthene     | 13.527 | 252  | 18242330m | 297.28 | ppm    |          |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472432.D  
 Acq On : 2 May 2018 9:17 am  
 Operator : sufiyana  
 Sample : jc65157-8  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 02 13:35:24 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018

QLast Update : Wed May 02 09:22:03 2018

Response via : Initial Calibration

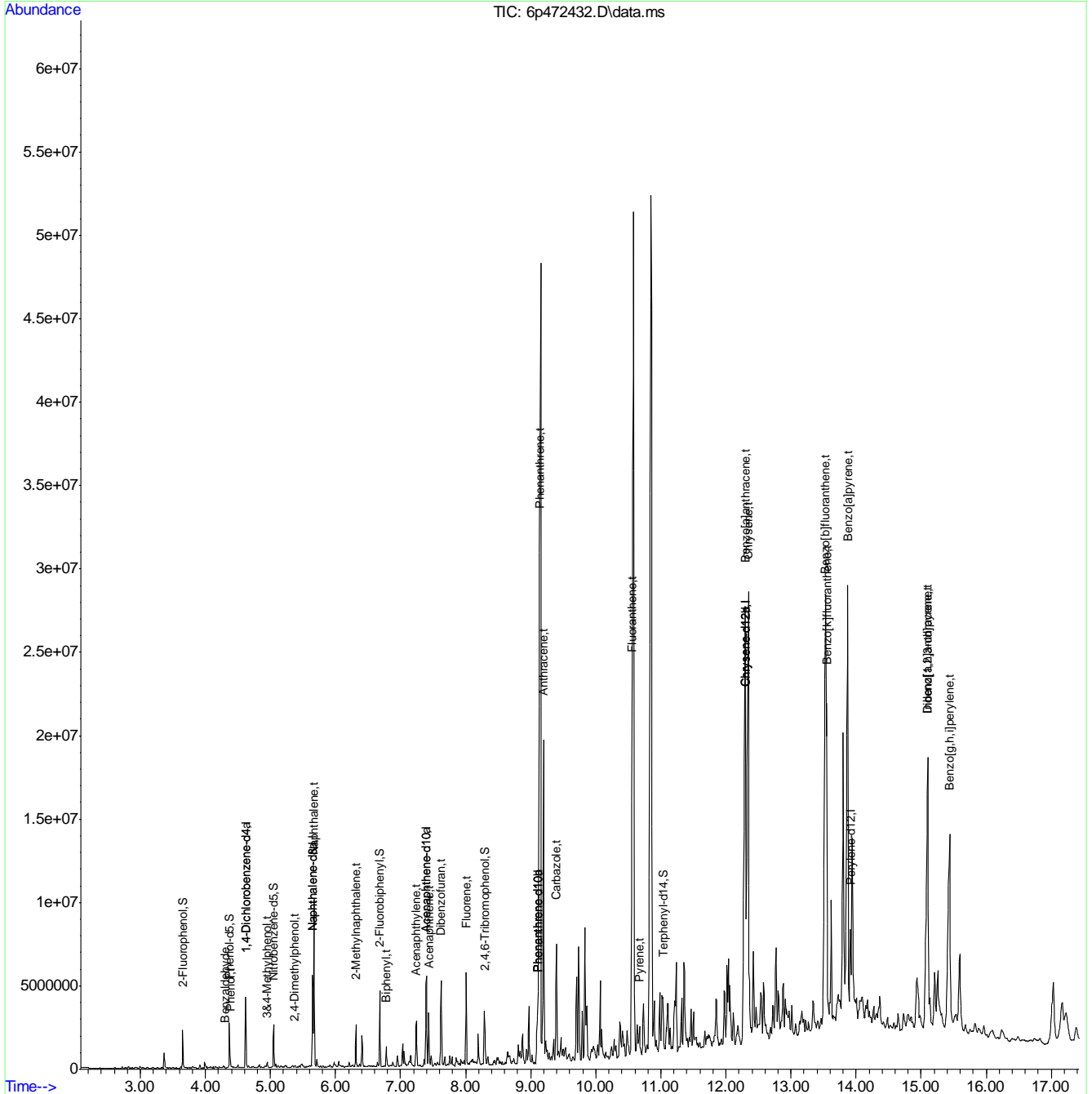
| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 94) Benzo[k]fluoranthene   | 13.554 | 252  | 5659594m | 100.90 | ppm   |          |
| 95) Benzo[a]pyrene         | 13.875 | 252  | 13929486 | 256.28 | ppm   | 92       |
| 96) Indeno[1,2,3-cd]pyrene | 15.100 | 276  | 10565849 | 147.68 | ppm   | 82       |
| 98) Dibenz[a,h]anthracene  | 15.100 | 278  | 2652780  | 43.01  | ppm   | 90       |
| 100) Benzo[g,h,i]perylene  | 15.437 | 276  | 9577838  | 167.17 | ppm   | 93       |
| 102) Benzaldehyde          | 4.296  | 105  | 14858    | 0.89   | ppm # | 74       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

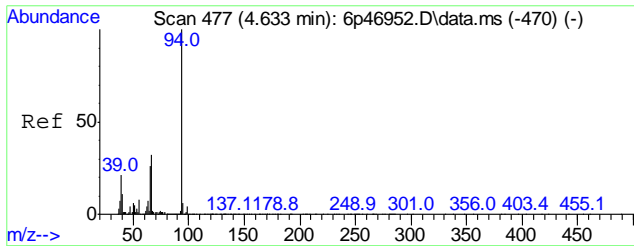
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
Data File : 6p472432.D  
Acq On : 2 May 2018 9:17 am  
Operator : sufiyana  
Sample : jc65157-8  
Misc : op11665,e6p2189,30.0,,,1,1  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 02 13:35:24 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
QLast Update : Wed May 02 09:22:03 2018  
Response via : Initial Calibration

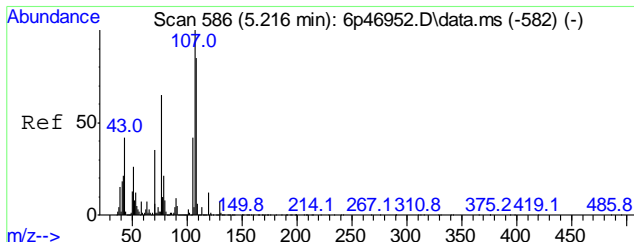
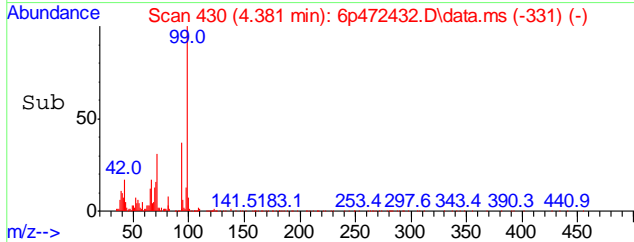
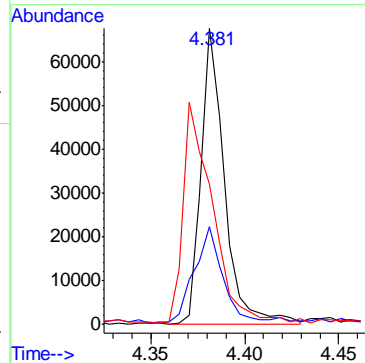
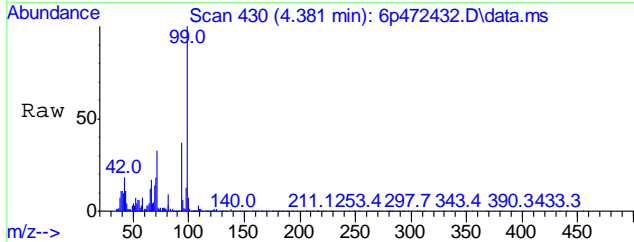


9.1.10  
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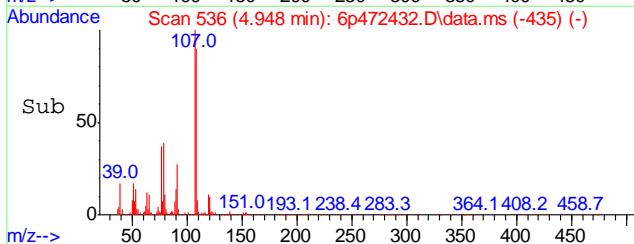
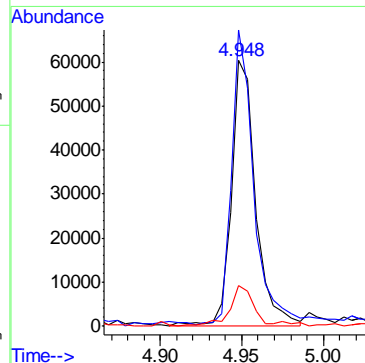
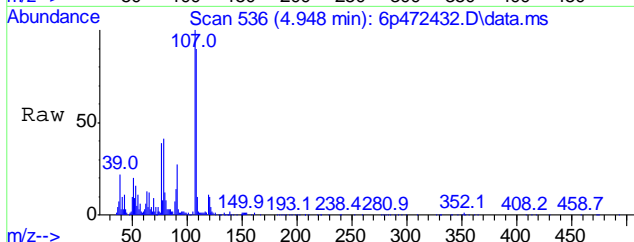
#9  
 Phenol  
 Concen: 2.14 ppm  
 RT: 4.381 min Scan# 430  
 Delta R.T. 0.031 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

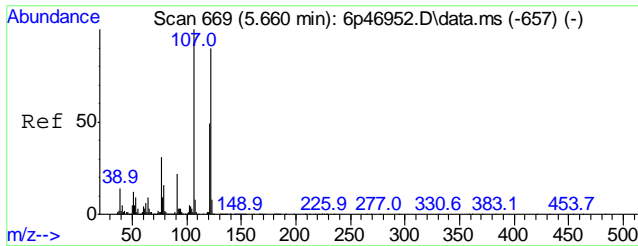
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 94      | 100   |       |       |
| 65      | 32.1  | 0.0   | 58.8  |
| 66      | 46.2  | 8.4   | 68.4  |



#21  
 3&4-Methylphenol  
 Concen: 3.49 ppm  
 RT: 4.948 min Scan# 536  
 Delta R.T. 0.038 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

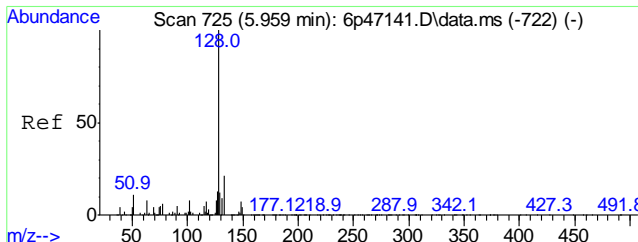
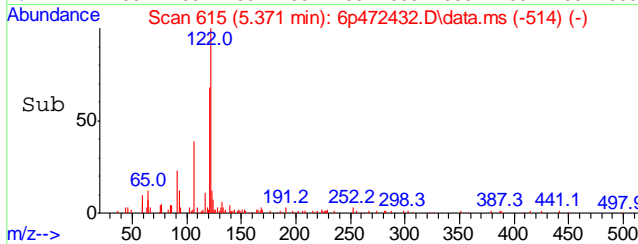
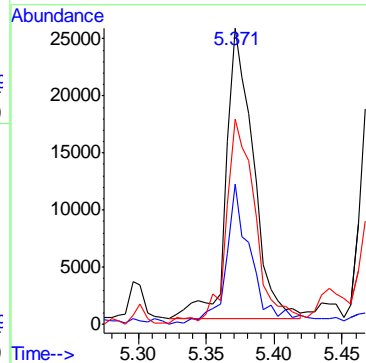
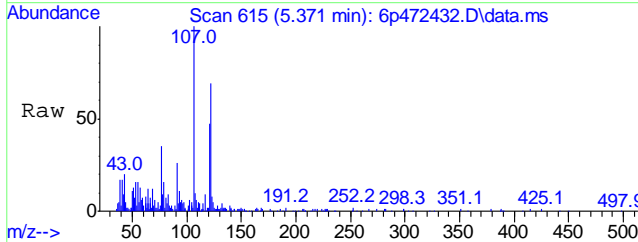
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 100   |       |       |
| 107     | 110.2 | 87.0  | 147.0 |
| 90      | 14.4  | 0.0   | 40.0  |





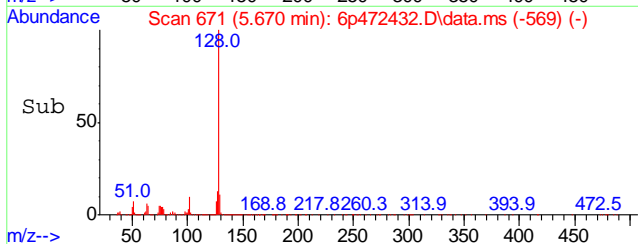
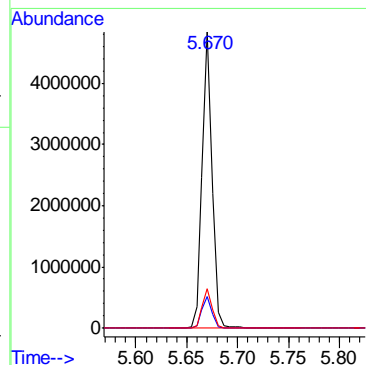
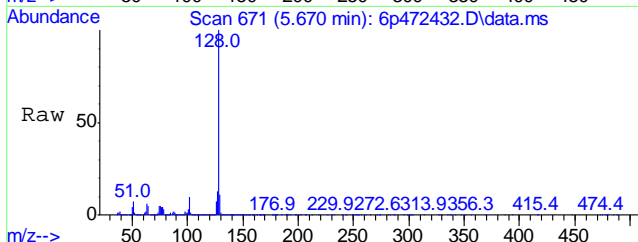
#30  
 2,4-Dimethylphenol  
 Concen: 2.15 ppm  
 RT: 5.371 min Scan# 615  
 Delta R.T. 0.042 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 107     | 100  |       |       |
| 121     | 47.0 | 21.8  | 81.8  |
| 122     | 69.5 | 60.7  | 120.7 |

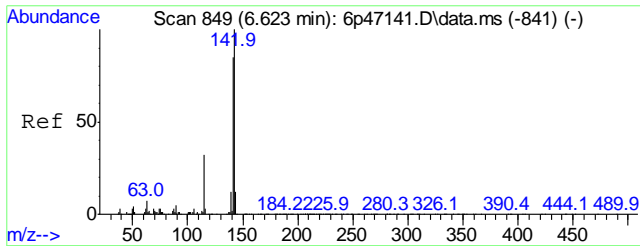


#38  
 Naphthalene  
 Concen: 64.31 ppm  
 RT: 5.670 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 128     | 100  |       |       |
| 129     | 10.6 | 0.0   | 41.1  |
| 127     | 13.2 | 0.0   | 43.2  |

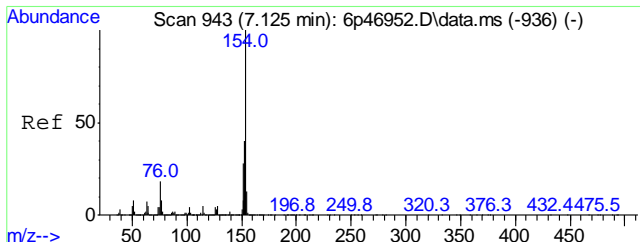
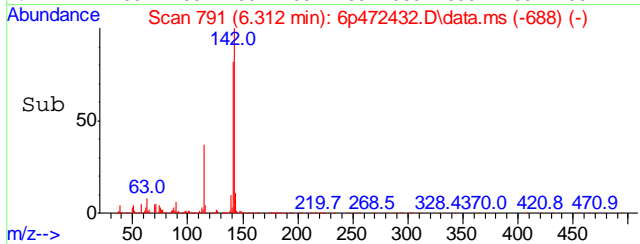
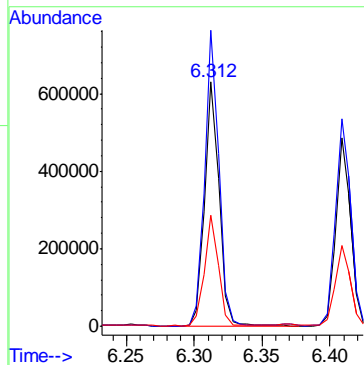
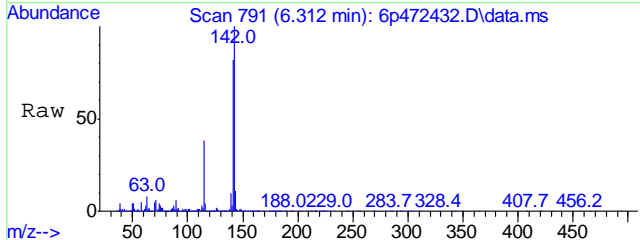


9.1.10  
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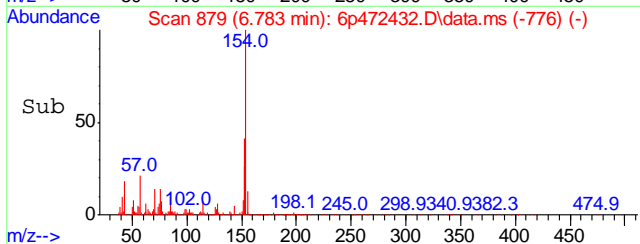
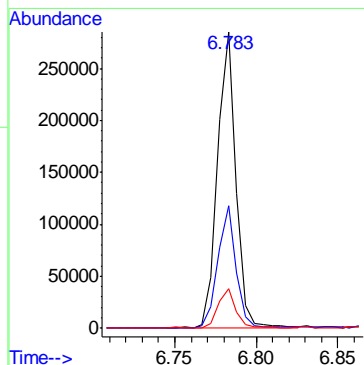
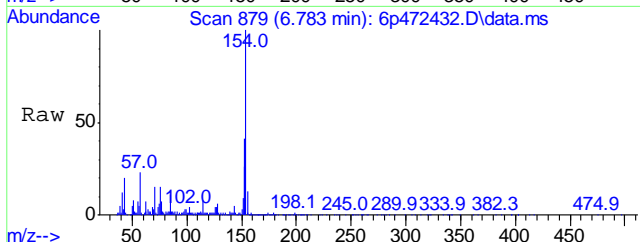
#44  
 2-Methylnaphthalene  
 Concen: 15.65 ppm  
 RT: 6.312 min Scan# 791  
 Delta R.T. 0.050 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 121.1 | 91.8  | 151.8 |
| 115     | 45.2  | 8.6   | 68.6  |

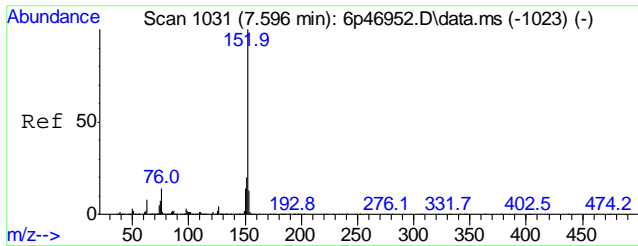


#53  
 Biphenyl  
 Concen: 5.38 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.051 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 41.0  | 8.7   | 68.7  |
| 155     | 13.1  | 0.0   | 43.0  |

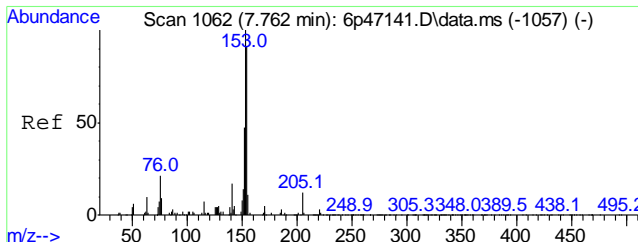
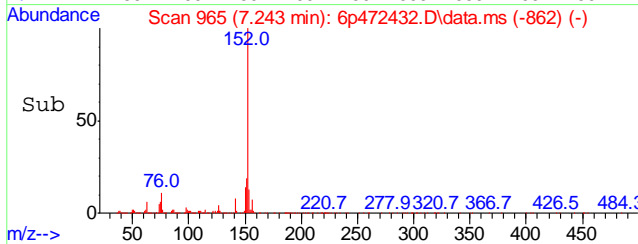
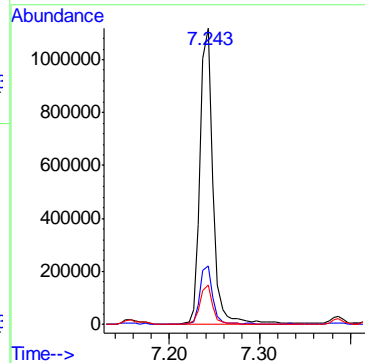
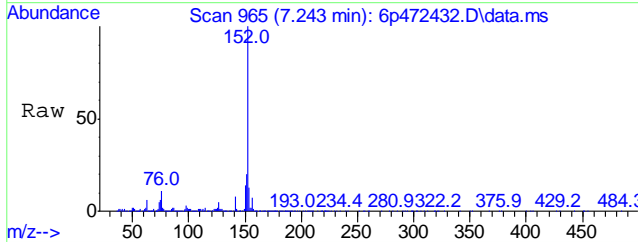


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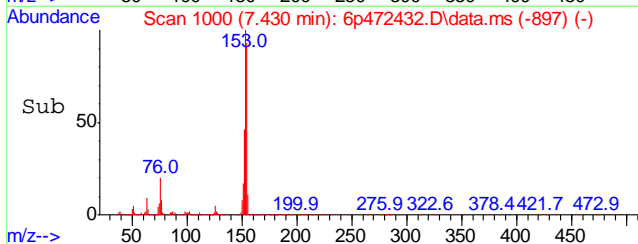
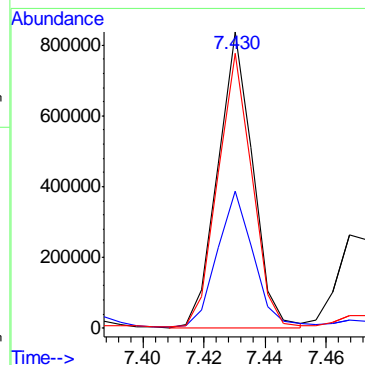
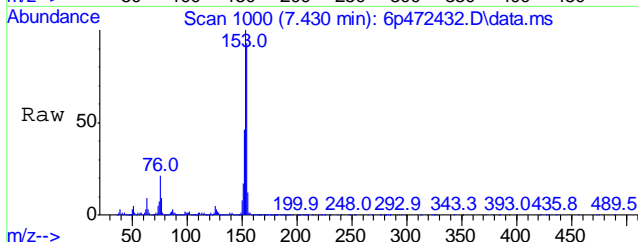
#56  
 Acenaphthylene  
 Concen: 23.17 ppm  
 RT: 7.243 min Scan# 965  
 Delta R.T. 0.053 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 152     | 1110217 |       |       |
| 152     | 100     |       |       |
| 151     | 19.5    | 0.0   | 50.2  |
| 153     | 13.4    | 0.0   | 44.8  |



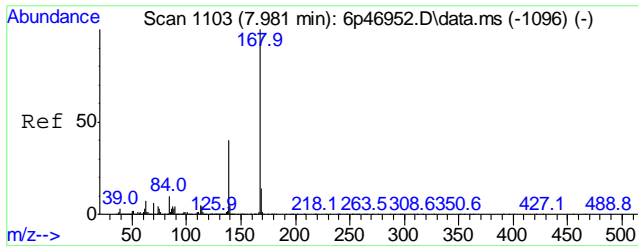
#59  
 Acenaphthene  
 Concen: 19.85 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 662988 |       |       |
| 153     | 100    |       |       |
| 152     | 45.8   | 13.9  | 73.9  |
| 154     | 93.1   | 59.3  | 119.3 |



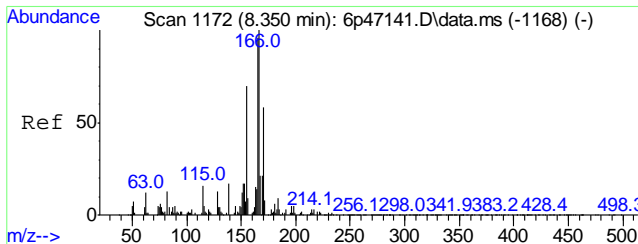
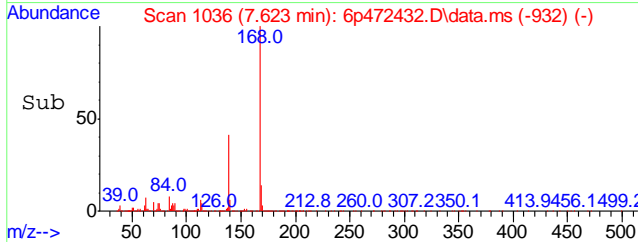
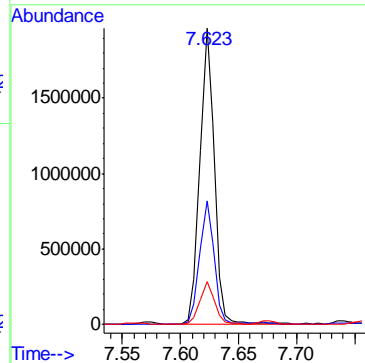
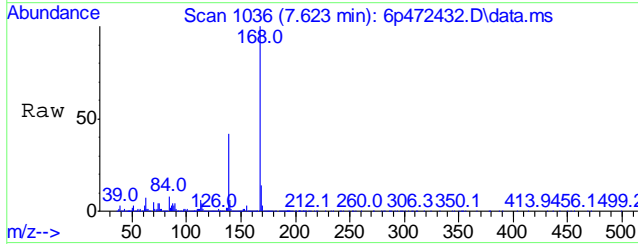
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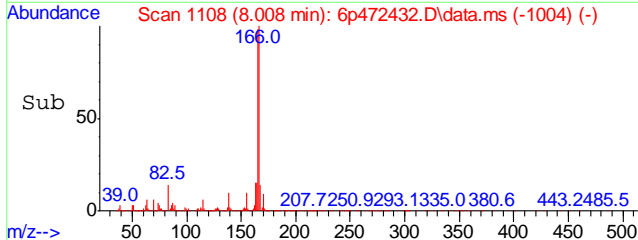
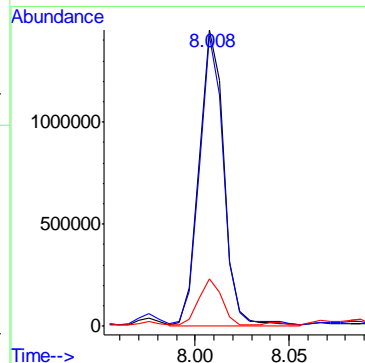
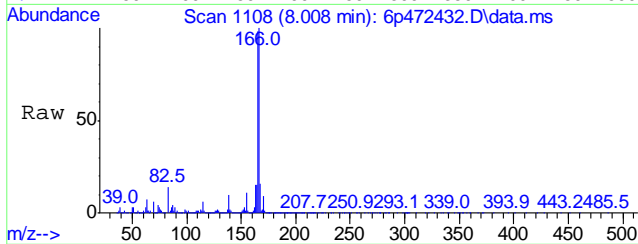
#62  
 Dibenzofuran  
 Concen: 39.17 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 41.5  | 6.0   | 66.0  |
| 169     | 14.3  | 0.0   | 43.5  |

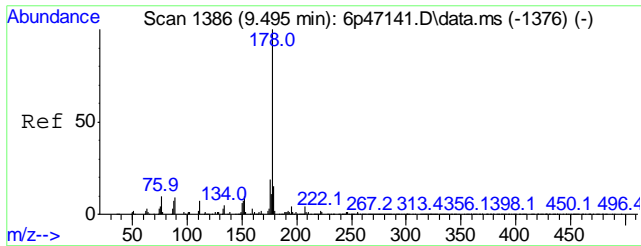


#66  
 Fluorene  
 Concen: 38.29 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 97.9  | 59.3  | 119.3 |
| 167     | 15.7  | 0.0   | 43.1  |

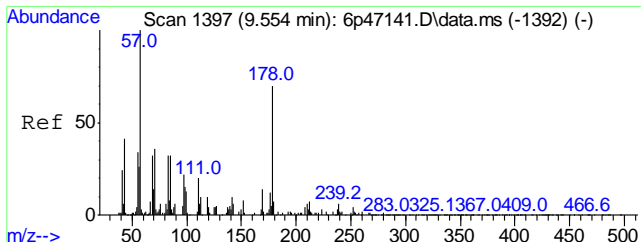
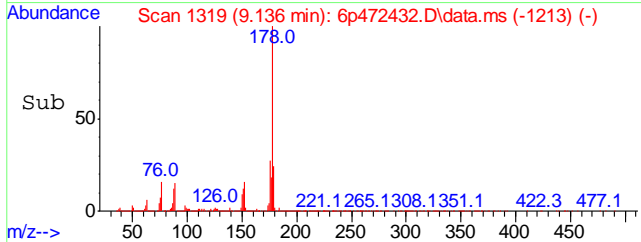
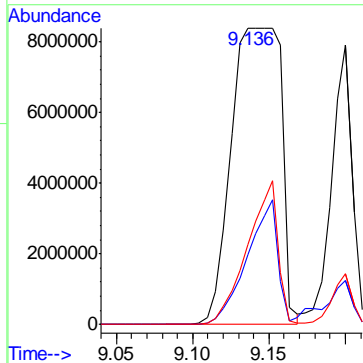
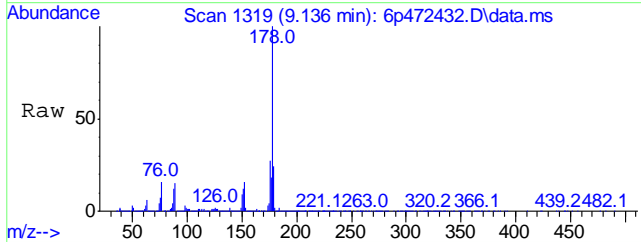


9.1.10  
**9**



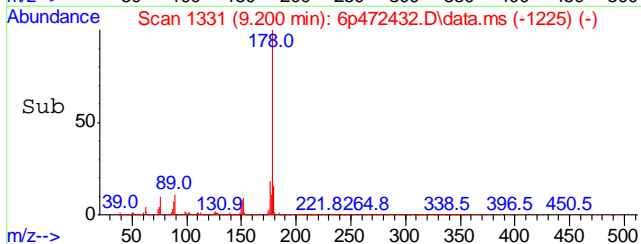
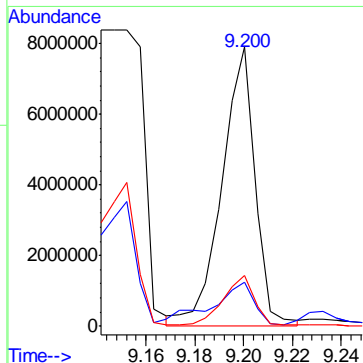
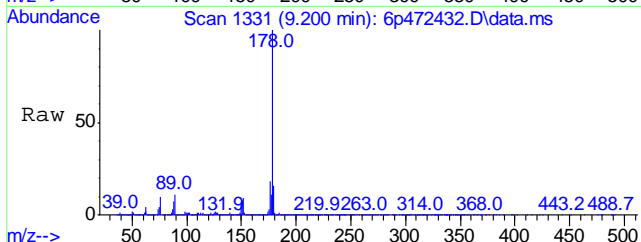
#77  
 Phenanthrene  
 Concen: 379.95 ppm  
 RT: 9.136 min Scan# 1319  
 Delta R.T. 0.069 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 22.7  | 0.0   | 46.6  |
| 176     | 27.1  | 0.0   | 49.6  |

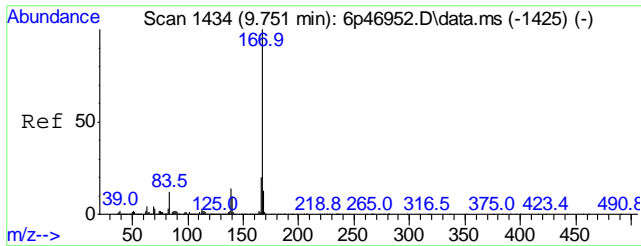


#78  
 Anthracene  
 Concen: 147.86 ppm  
 RT: 9.200 min Scan# 1331  
 Delta R.T. 0.070 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 13.9  | 0.0   | 45.3  |
| 176     | 18.1  | 0.0   | 48.4  |

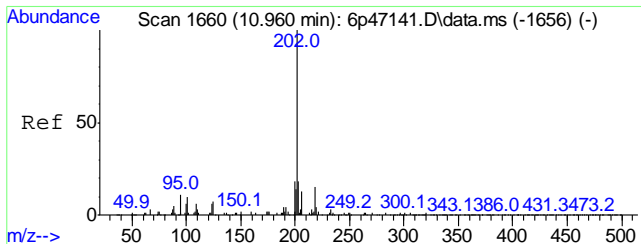
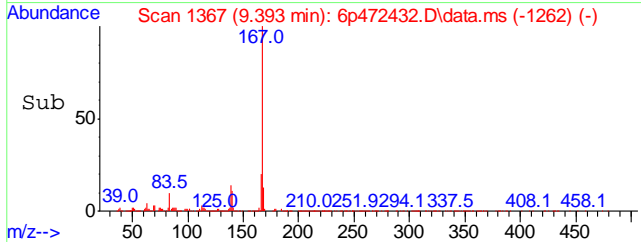
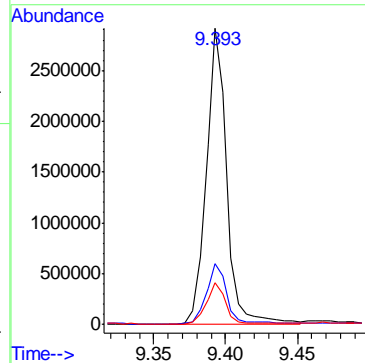
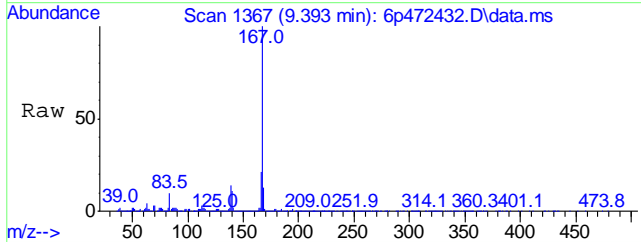


9.1.10  
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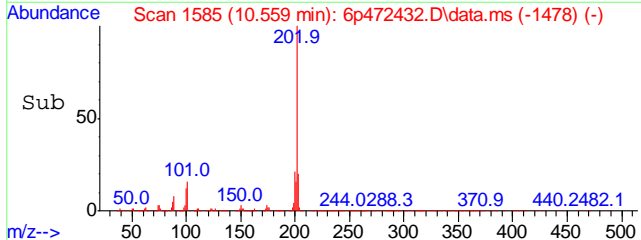
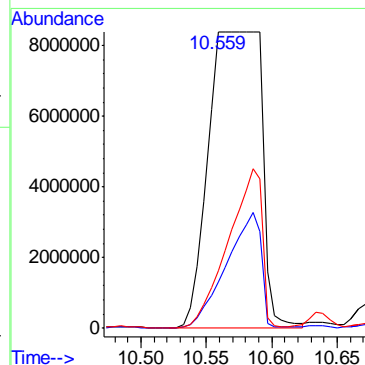
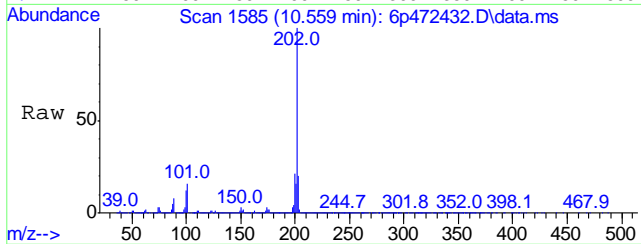
#79  
 Carbazole  
 Concen: 61.44 ppm  
 RT: 9.393 min Scan# 1367  
 Delta R.T. 0.059 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.4  | 0.0   | 50.0  |
| 139     | 13.9  | 0.0   | 42.3  |

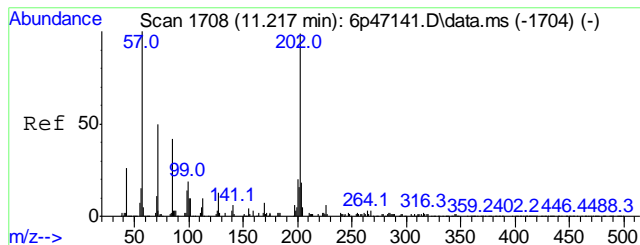


#81  
 Fluoranthene  
 Concen: 433.87 ppm m  
 RT: 10.559 min Scan# 1585  
 Delta R.T. 0.073 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 15.7  | 0.0   | 40.9  |
| 203     | 19.5  | 0.0   | 47.4  |

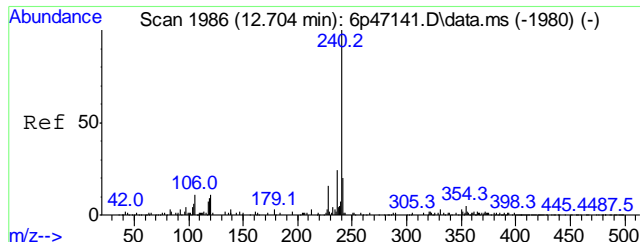
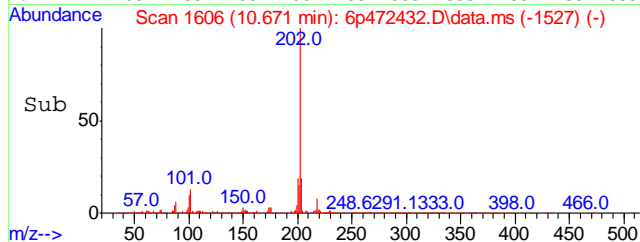
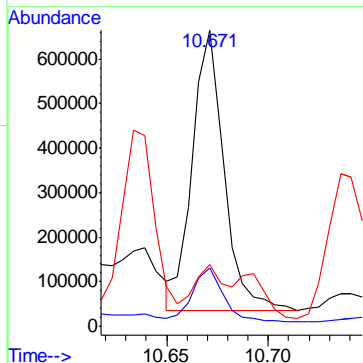
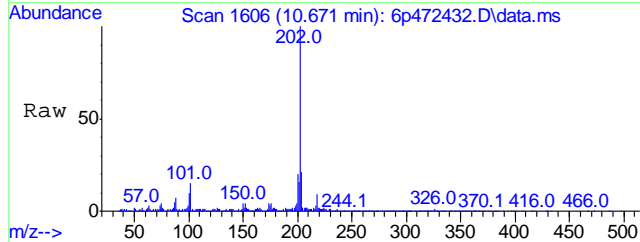


9.1.10  
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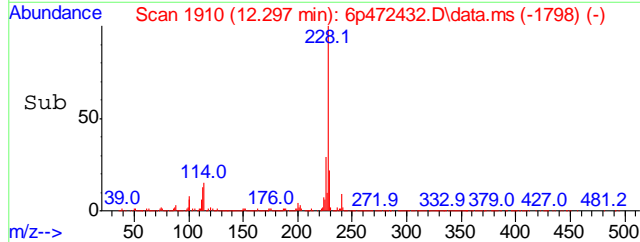
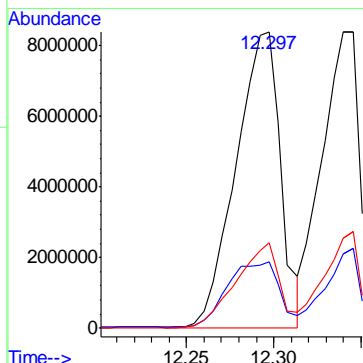
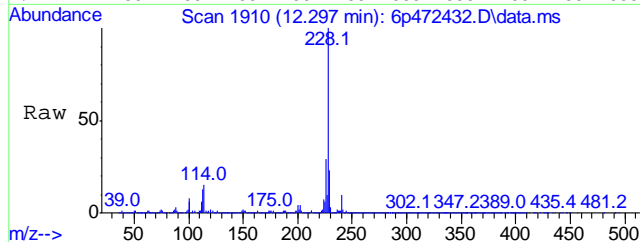
#84  
 Pyrene  
 Concen: 11.45 ppm  
 RT: 10.671 min Scan# 1606  
 Delta R.T. -0.079 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 19.4 | 0.0   | 50.7  |
| 203     | 14.2 | 0.0   | 47.9  |

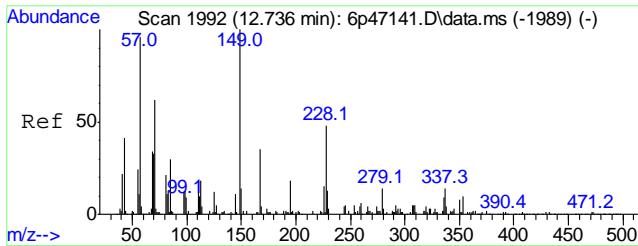


#87  
 Benzo[a]anthracene  
 Concen: 270.37 ppm  
 RT: 12.297 min Scan# 1910  
 Delta R.T. 0.101 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 228     | 100  |       |       |
| 229     | 22.2 | 0.0   | 49.8  |
| 226     | 28.8 | 0.0   | 56.0  |

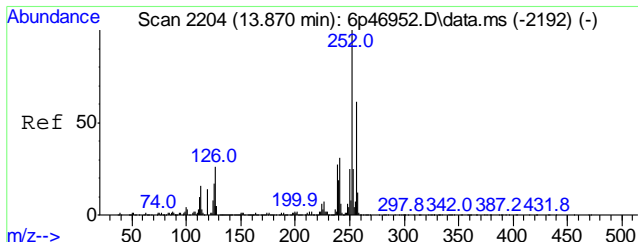
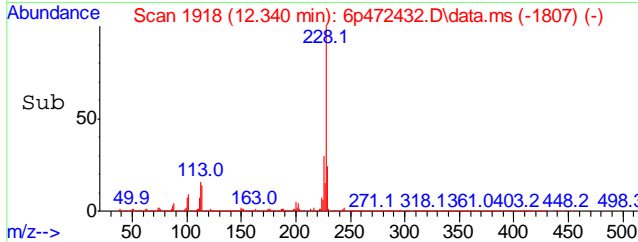
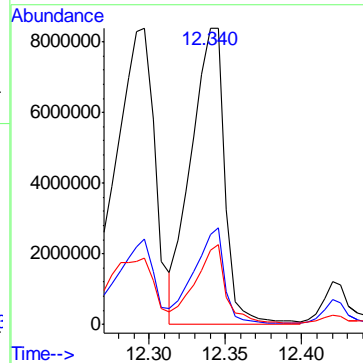
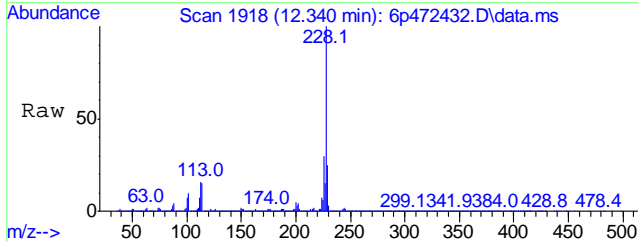


9.1.10  
 9



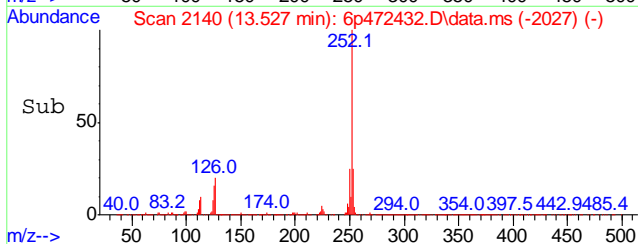
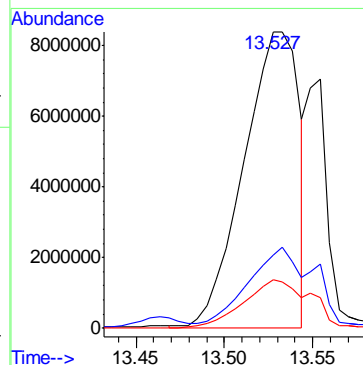
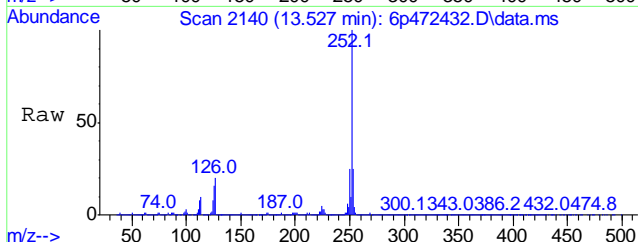
#89  
 Chrysene  
 Concen: 235.84 ppm  
 RT: 12.340 min Scan# 1918  
 Delta R.T. 0.096 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 30.2  | 0.0   | 59.5  |
| 229     | 25.1  | 0.0   | 49.6  |

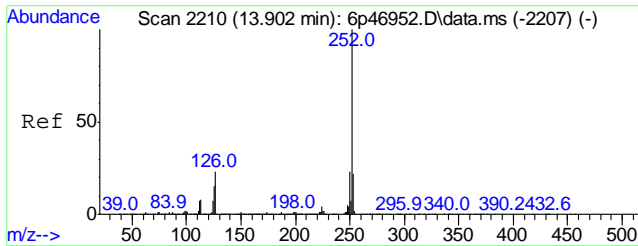


#93  
 Benzo[b]fluoranthene  
 Concen: 297.28 ppm m  
 RT: 13.527 min Scan# 2140  
 Delta R.T. 0.106 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.8  | 0.0   | 55.4  |
| 125     | 16.1  | 0.0   | 40.0  |

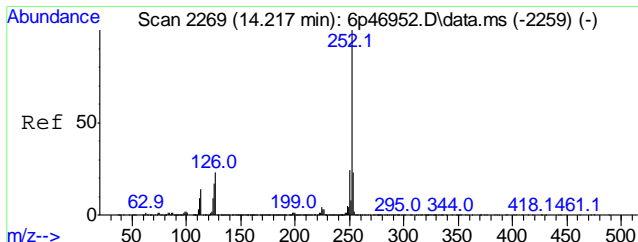
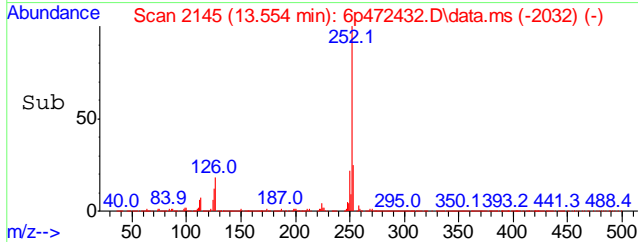
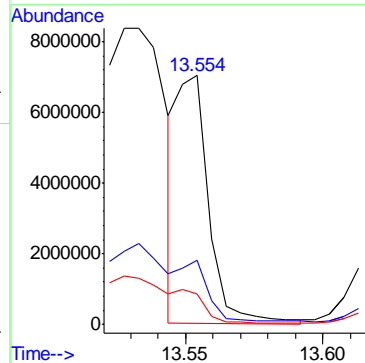
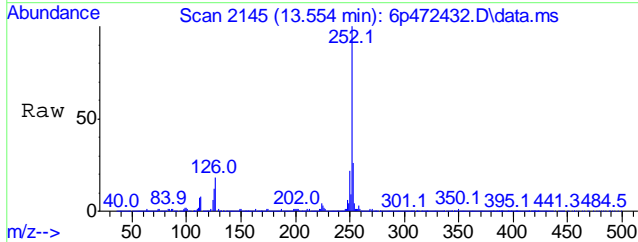


9.1.10  
 9



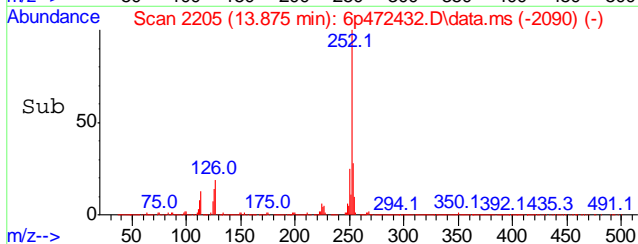
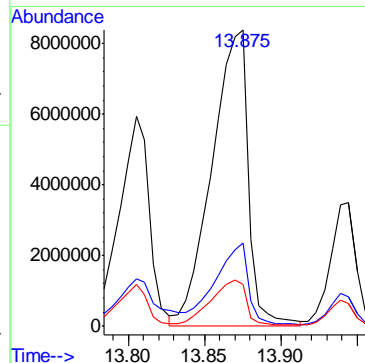
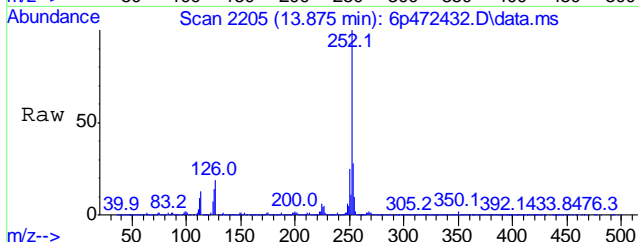
#94  
 Benzo[k]fluoranthene  
 Concen: 100.90 ppm  
 RT: 13.554 min Scan# 2145  
 Delta R.T. 0.106 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.9 | 0.0   | 51.8  |
| 125     | 12.3 | 0.0   | 38.7  |

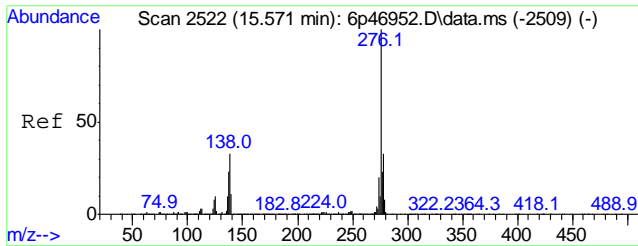


#95  
 Benzo[a]pyrene  
 Concen: 256.28 ppm  
 RT: 13.875 min Scan# 2205  
 Delta R.T. 0.117 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.9 | 0.0   | 52.5  |
| 125     | 13.7 | 0.0   | 40.0  |

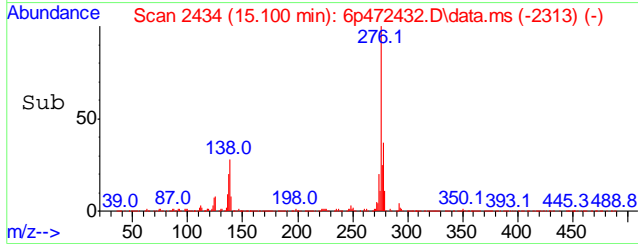
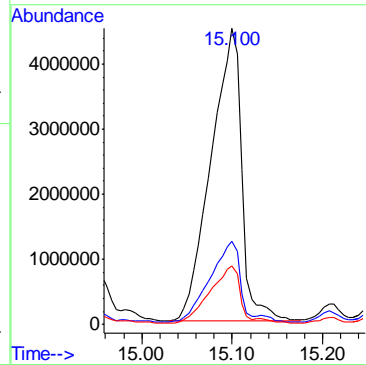
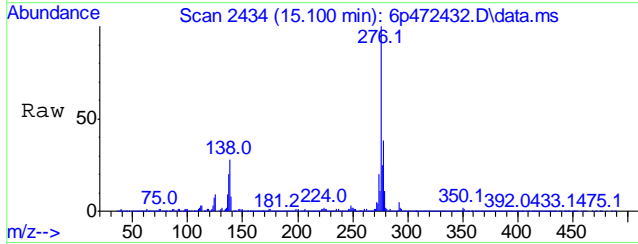


9.1.10  
 9



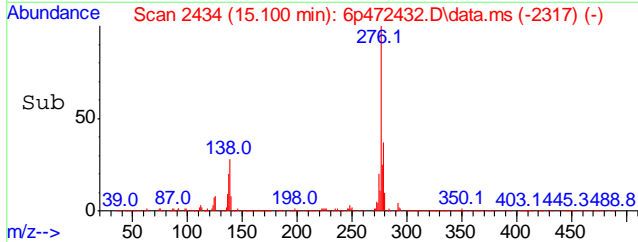
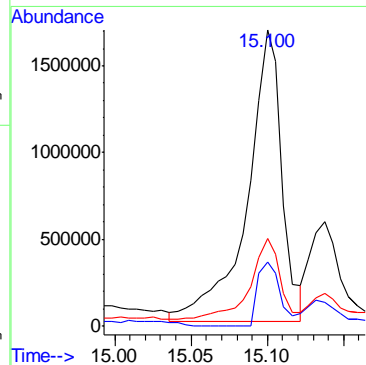
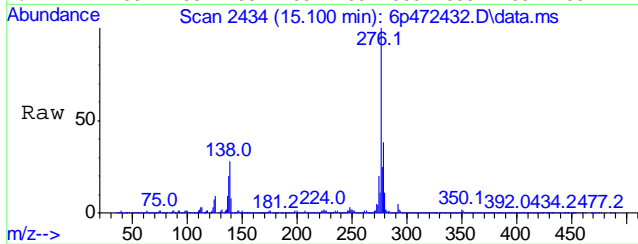
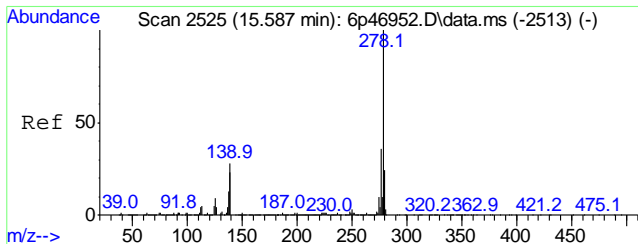
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 147.68 ppm  
 RT: 15.100 min Scan# 2434  
 Delta R.T. 0.147 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.5  | 0.0   | 48.9  |
| 137     | 19.7  | 0.0   | 43.2  |

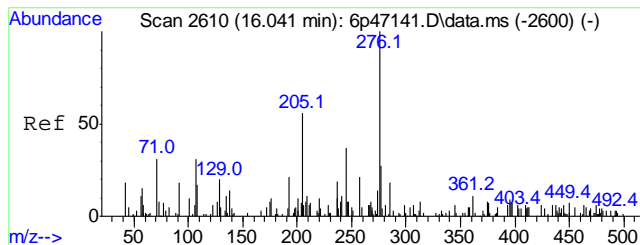


#98  
 Dibenz[a,h]anthracene  
 Concen: 43.01 ppm  
 RT: 15.100 min Scan# 2434  
 Delta R.T. 0.125 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 20.9  | 0.0   | 45.9  |
| 279     | 28.8  | 0.0   | 54.3  |

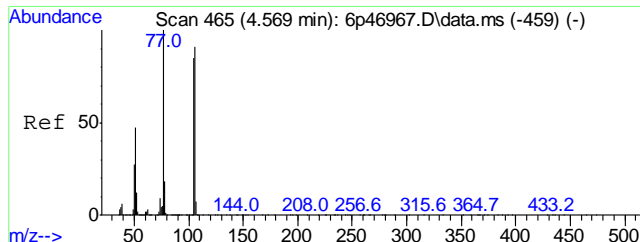
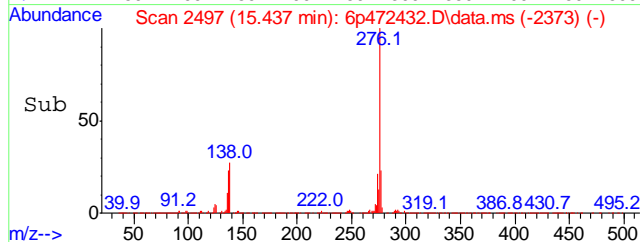
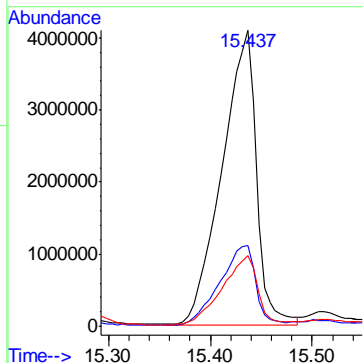
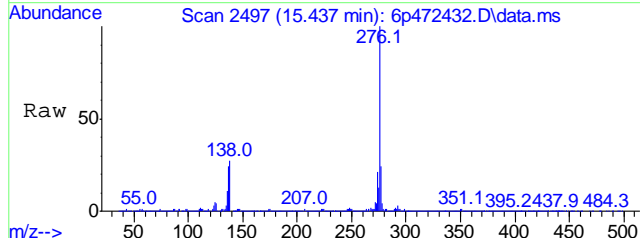


9.1.10  
 9



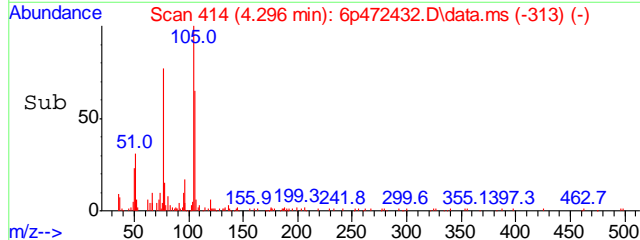
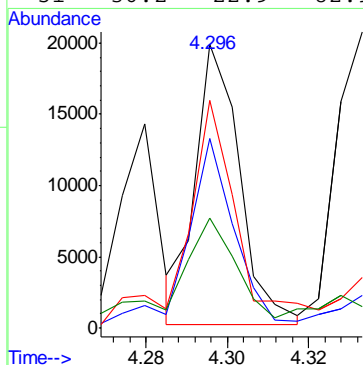
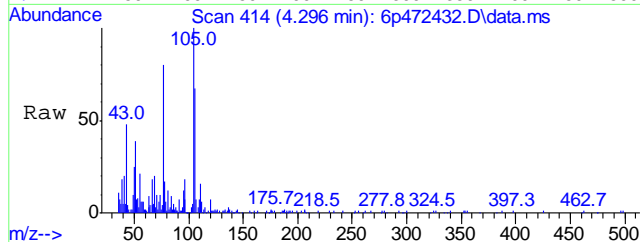
#100  
 Benzo[g,h,i]perylene  
 Concen: 167.17 ppm  
 RT: 15.437 min Scan# 2497  
 Delta R.T. 0.164 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 27.0  | 0.0   | 49.9  |
| 277     | 23.3  | 0.0   | 53.3  |



#102  
 Benzaldehyde  
 Concen: 0.89 ppm  
 RT: 4.296 min Scan# 414  
 Delta R.T. 0.043 min  
 Lab File: 6p472432.D  
 Acq: 2 May 2018 9:17 am

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 105     | 100   |       |        |
| 106     | 71.1  | 74.4  | 134.4# |
| 77      | 81.9  | 73.1  | 133.1  |
| 51      | 36.2  | 22.9  | 82.9   |



9.1.10  
 9



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472784.D  
 Acq On : 10 May 2018 7:30 am  
 Operator : chriss2  
 Sample : jc65157-8  
 Misc : op11655,e6p2202,30.0,,,1,10  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 10 11:40:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|-------|----------|--------|
| Internal Standards           |        |      |          |       |       |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.556  | 152  | 400718   | 40.00 | ppm   | -0.02    |        |
| 24) Naphthalene-d8           | 5.583  | 136  | 1670537  | 40.00 | ppm   | -0.02    |        |
| 47) Acenaphthene-d10         | 7.316  | 164  | 855331   | 40.00 | ppm   | -0.03    |        |
| 69) Phenanthrene-d10         | 9.011  | 188  | 1539738  | 40.00 | ppm   | -0.03    |        |
| 83) Chrysene-d12             | 12.188 | 240  | 1424899  | 40.00 | ppm   | -0.03    |        |
| 91) Perylene-d12             | 13.793 | 264  | 1503783  | 40.00 | ppm   | -0.03    |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.556  | 152  | 400718   | 40.00 | ppm   | -0.02    |        |
| 103) Acenaphthene-d10a       | 7.316  | 164  | 855331   | 40.00 | ppm   | -0.03    |        |
| 105) Phenanthrene-d10a       | 9.011  | 188  | 1539738  | 40.00 | ppm   | -0.03    |        |
| 109) Chrysene-d12a           | 12.188 | 240  | 1424899  | 40.00 | ppm   | -0.03    |        |
| 111) Naphthalene-d8a         | 5.583  | 136  | 1670537  | 40.00 | ppm   | -0.02    |        |
| 113) Phenanthrene-d10b       | 9.011  | 188  | 1539738  | 40.00 | ppm   | -0.03    |        |
| 115) Chrysene-d12b           | 12.188 | 240  | 1424899  | 40.00 | ppm   | -0.03    |        |
| System Monitoring Compounds  |        |      |          |       |       |          |        |
| 5) 2-Fluorophenol            | 3.614  | 112  | 35612    | 2.44  | ppm   | 0.00     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 4.88% |          |        |
| 8) Phenol-d5                 | 4.352  | 99   | 51171    | 2.75  | ppm   | 0.01     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 5.50% |          |        |
| 25) Nitrobenzene-d5          | 4.989  | 82   | 45899    | 2.53  | ppm   | -0.02    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 5.06% |          |        |
| 51) 2-Fluorobiphenyl         | 6.604  | 172  | 96671    | 2.93  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 5.86% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.209  | 330  | 13582    | 2.35  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 4.70% |          |        |
| 85) Terphenyl-d14            | 10.937 | 244  | 97701    | 2.87  | ppm   | -0.03    |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 5.74% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm   |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm   |          |        |
| Target Compounds             |        |      |          |       |       |          |        |
| 38) Naphthalene              | 5.599  | 128  | 290315   | 6.63  | ppm   | 97       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.240  | 141  | 40591    | 1.58  | ppm   | 95       |        |
| 53) Biphenyl                 | 6.706  | 154  | 17300    | 0.47  | ppm   | 85       |        |
| 56) Acenaphthylene           | 7.160  | 152  | 78609    | 1.89  | ppm   | 85       |        |
| 59) Acenaphthene             | 7.348  | 153  | 58895    | 2.03  | ppm   | 91       |        |
| 62) Dibenzofuran             | 7.540  | 168  | 154880   | 4.13  | ppm   | 94       |        |
| 66) Fluorene                 | 7.925  | 166  | 126546   | 4.20  | ppm   | 90       |        |
| 77) Phenanthrene             | 9.038  | 178  | 3034517  | 64.83 | ppm   | 96       |        |
| 78) Anthracene               | 9.097  | 178  | 749947   | 15.83 | ppm   | 98       |        |
| 79) Carbazole                | 9.305  | 167  | 268676   | 6.10  | ppm   | 97       |        |
| 81) Fluoranthene             | 10.461 | 202  | 4416895  | 87.03 | ppm   | 97       |        |
| 84) Pyrene                   | 10.728 | 202  | 3753473  | 78.82 | ppm   | 99       |        |
| 87) Benzo[a]anthracene       | 12.177 | 228  | 1366056  | 30.60 | ppm   | 98       |        |
| 89) Chrysene                 | 12.215 | 228  | 1249946  | 28.31 | ppm   | 98       |        |
| 93) Benzo[b]fluoranthene     | 13.397 | 252  | 1596458m | 33.52 | ppm   |          |        |
| 94) Benzo[k]fluoranthene     | 13.418 | 252  | 510140m  | 11.72 | ppm   |          |        |
| 95) Benzo[a]pyrene           | 13.734 | 252  | 1212709  | 28.75 | ppm   | 97       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 14.916 | 276  | 881128   | 15.87 | ppm   | 92       |        |

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472784.D  
 Acq On : 10 May 2018 7:30 am  
 Operator : chriss2  
 Sample : jc65157-8  
 Misc : op11655,e6p2202,30.0,,,1,10  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 10 11:40:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

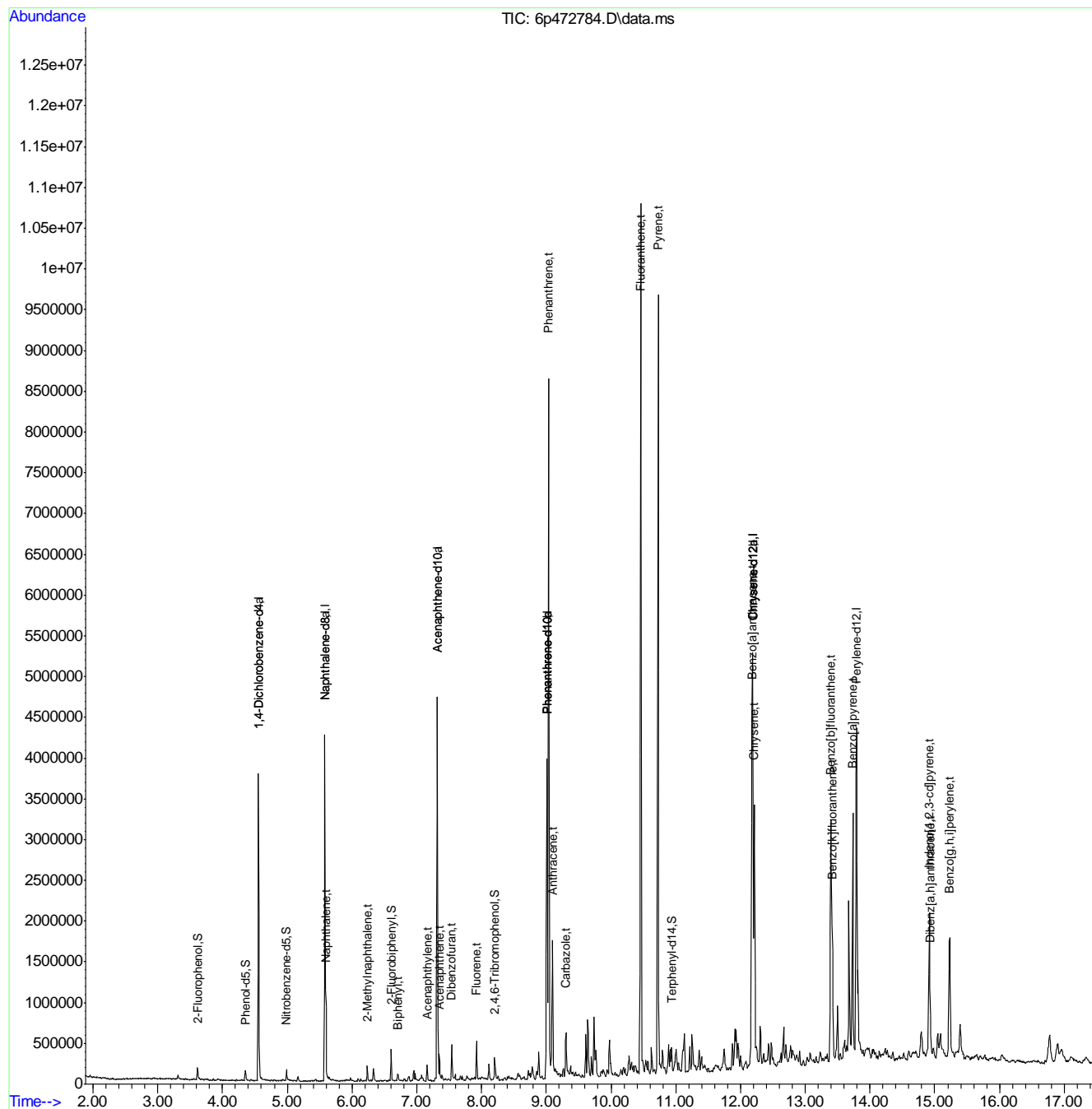
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 14.927 | 278  | 193012   | 4.03  | ppm   | 94       |
| 100) Benzo[g,h,i]perylene | 15.231 | 276  | 851044   | 19.14 | ppm   | 92       |

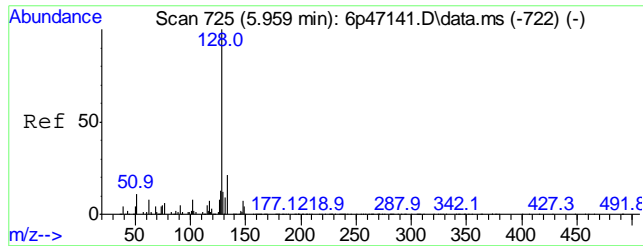
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2202\  
 Data File : 6p472784.D  
 Acq On : 10 May 2018 7:30 am  
 Operator : chriss2  
 Sample : jc65157-8  
 Misc : op11655,e6p2202,30.0,,,1,10  
 ALS Vial : 15 Sample Multiplier: 1

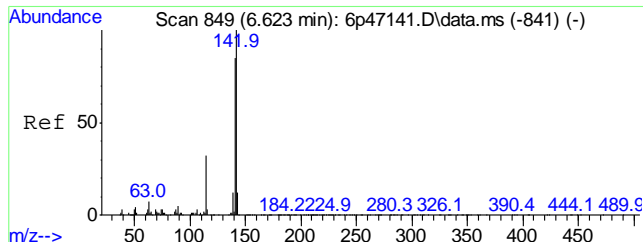
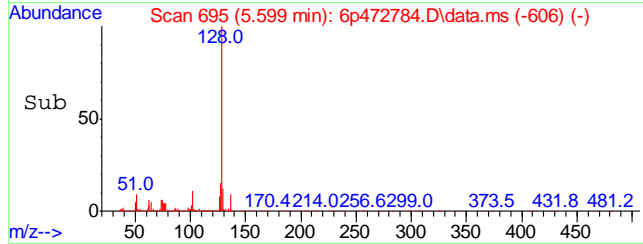
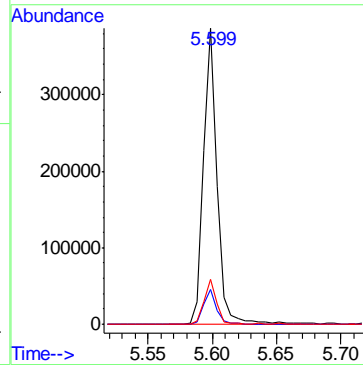
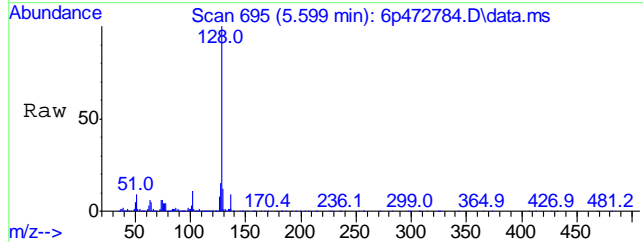
Quant Time: May 10 11:40:44 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration





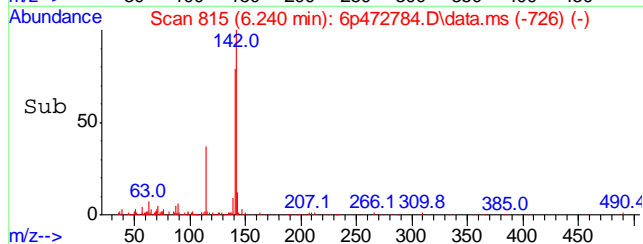
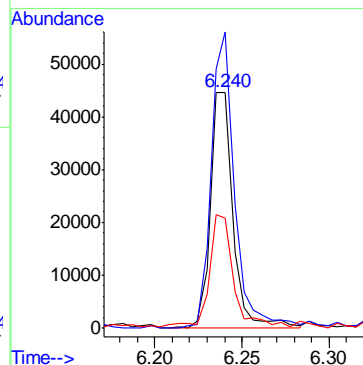
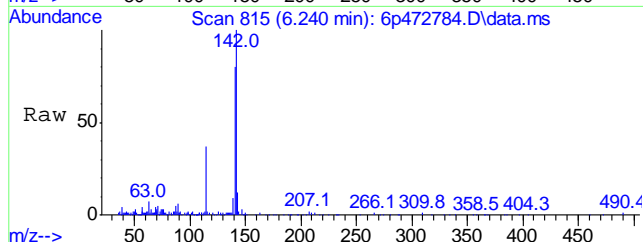
#38  
 Naphthalene  
 Concen: 6.63 ppm  
 RT: 5.599 min Scan# 695  
 Delta R.T. -0.024 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.7  | 0.0   | 41.1  |
| 127     | 15.1  | 0.0   | 43.2  |

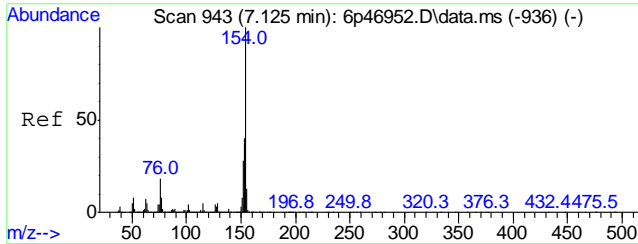


#44  
 2-Methylnaphthalene  
 Concen: 1.58 ppm  
 RT: 6.240 min Scan# 815  
 Delta R.T. -0.022 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 125.4 | 91.8  | 151.8 |
| 115     | 44.5  | 8.6   | 68.6  |

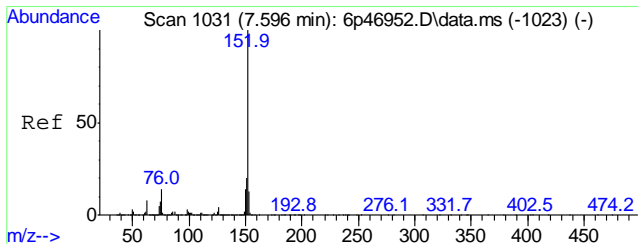
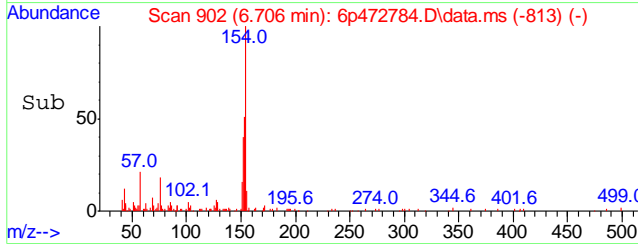
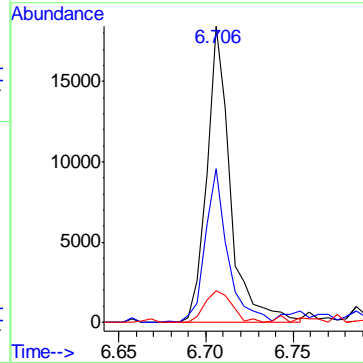
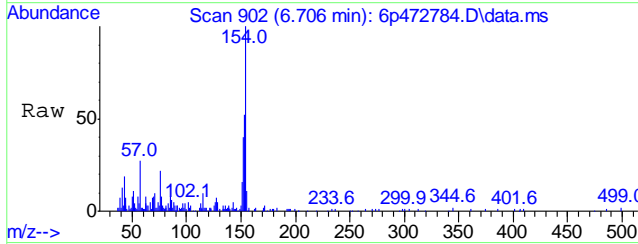


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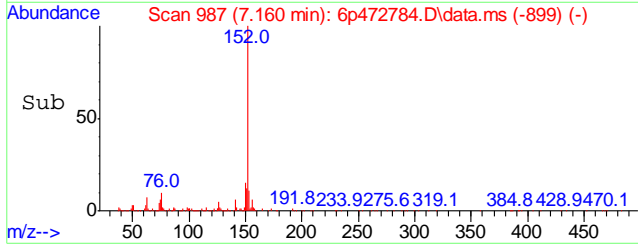
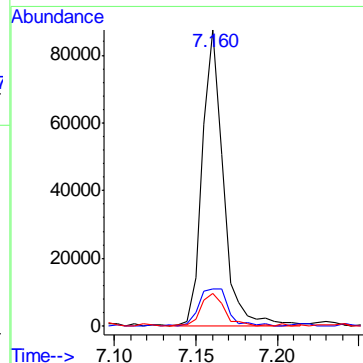
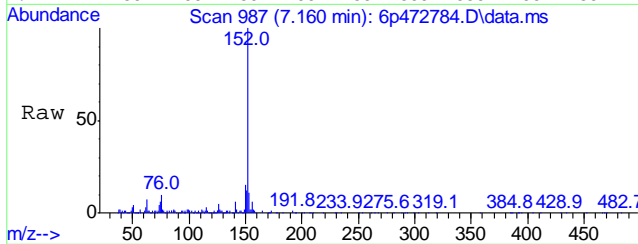
#53  
 Biphenyl  
 Concen: 0.47 ppm  
 RT: 6.706 min Scan# 902  
 Delta R.T. -0.026 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

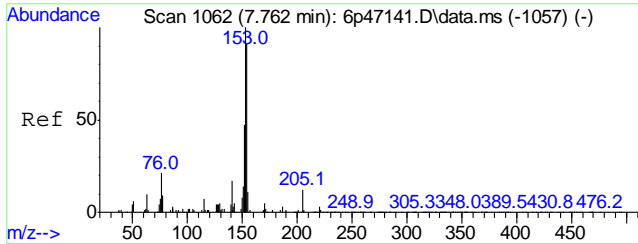
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 49.6  | 8.7   | 68.7  |
| 155     | 10.0  | 0.0   | 43.0  |



#56  
 Acenaphthylene  
 Concen: 1.89 ppm  
 RT: 7.160 min Scan# 987  
 Delta R.T. -0.030 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

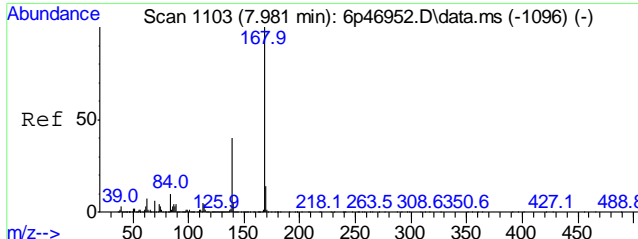
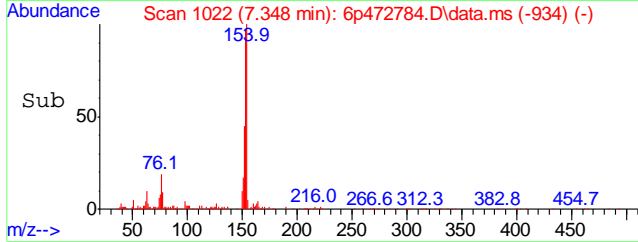
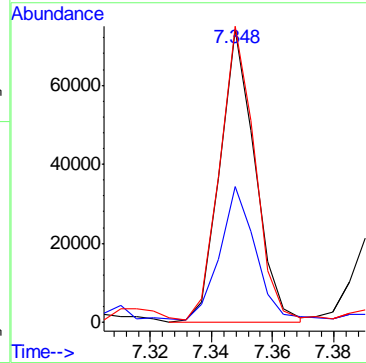
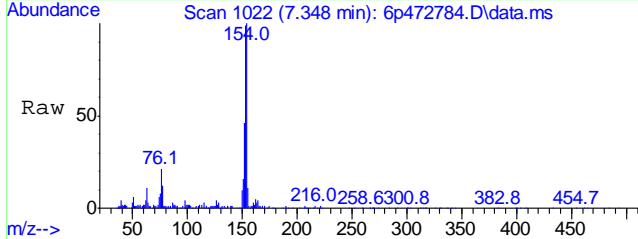
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 11.9  | 0.0   | 50.2  |
| 153     | 10.7  | 0.0   | 44.8  |





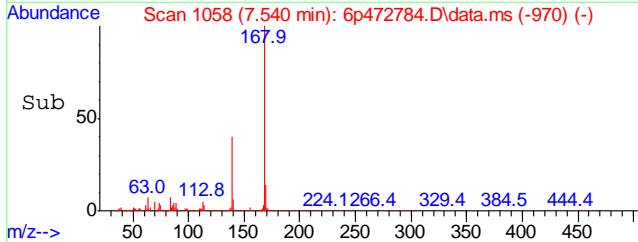
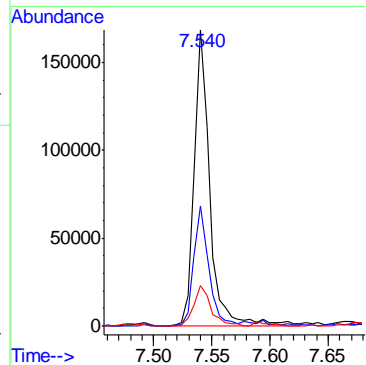
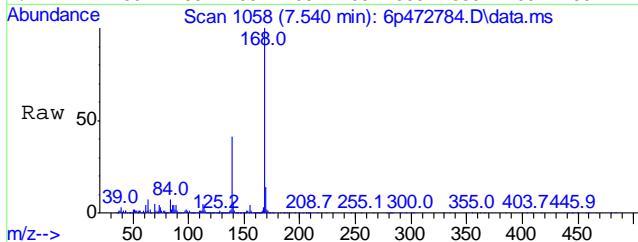
#59  
 Acenaphthene  
 Concen: 2.03 ppm  
 RT: 7.348 min Scan# 1022  
 Delta R.T. -0.029 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 100   |       |       |
| 152     | 45.1  | 13.9  | 73.9  |
| 154     | 100.6 | 59.3  | 119.3 |

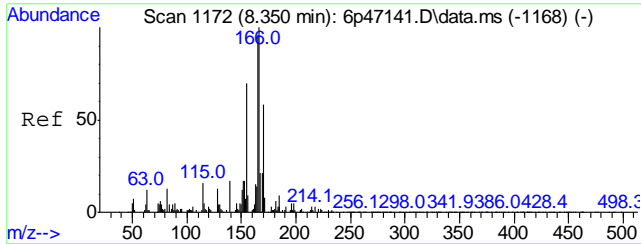


#62  
 Dibenzofuran  
 Concen: 4.13 ppm  
 RT: 7.540 min Scan# 1058  
 Delta R.T. -0.029 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 100  |       |       |
| 139     | 40.5 | 6.0   | 66.0  |
| 169     | 13.7 | 0.0   | 43.5  |

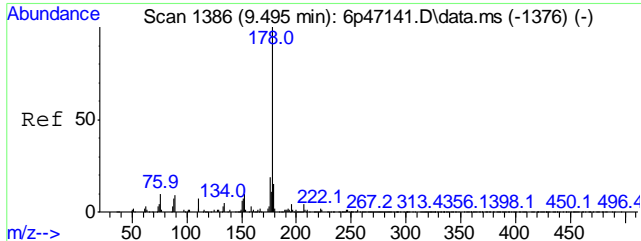
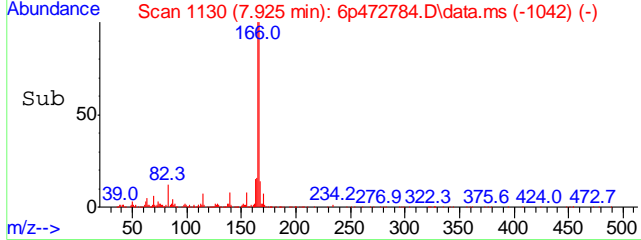
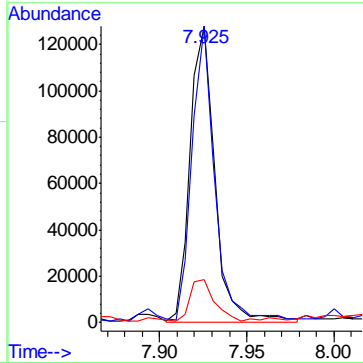
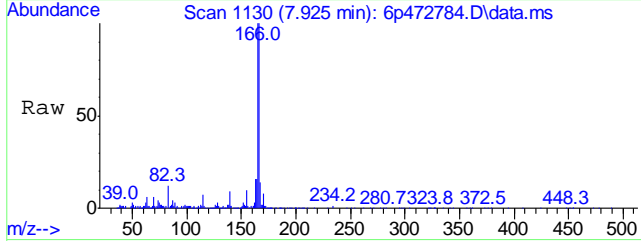


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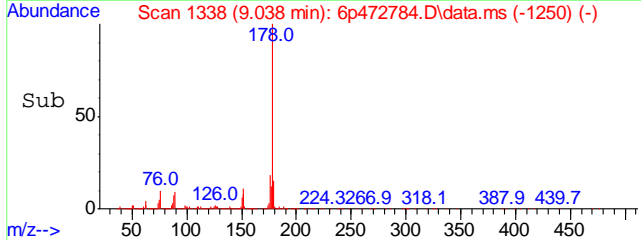
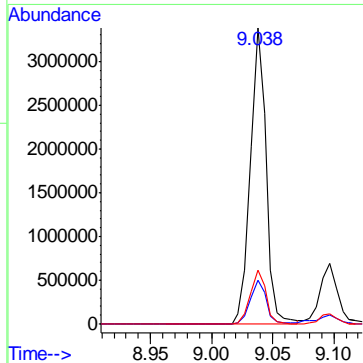
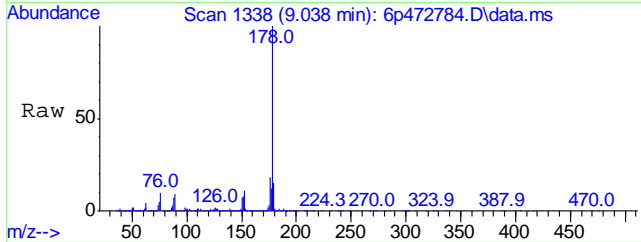
#66  
 Fluorene  
 Concen: 4.20 ppm  
 RT: 7.925 min Scan# 1130  
 Delta R.T. -0.027 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 166     | 126546 |       |       |
| 165     | 99.7   | 59.3  | 119.3 |
| 167     | 13.6   | 0.0   | 43.1  |

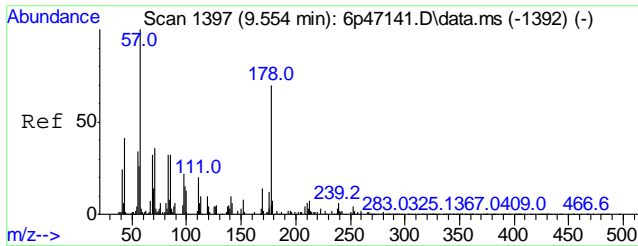


#77  
 Phenanthrene  
 Concen: 64.83 ppm  
 RT: 9.038 min Scan# 1338  
 Delta R.T. -0.029 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 3034517 |       |       |
| 179     | 14.7    | 0.0   | 46.6  |
| 176     | 18.3    | 0.0   | 49.6  |

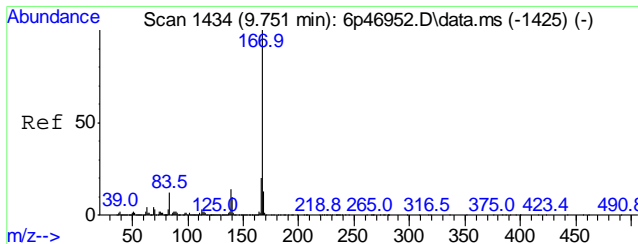
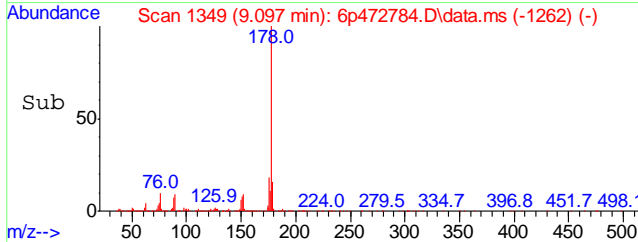
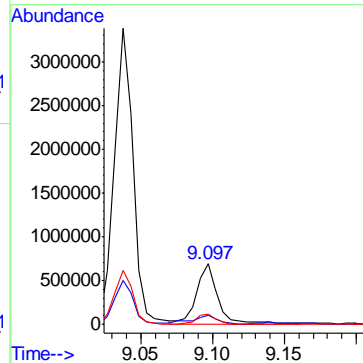
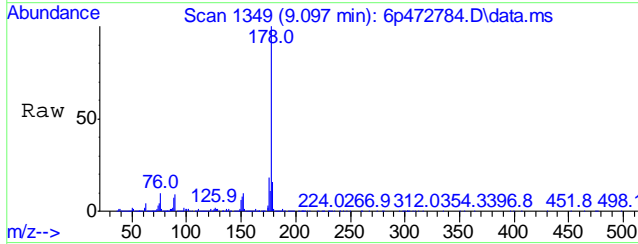


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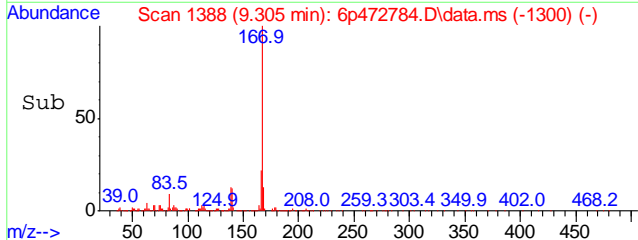
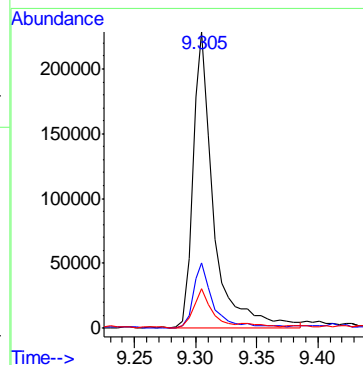
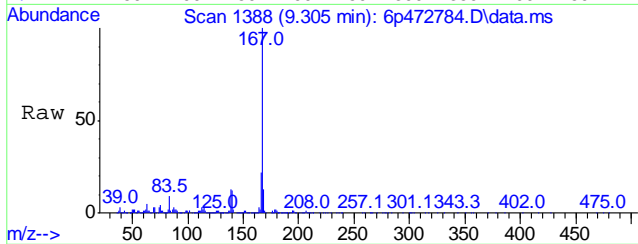
#78  
 Anthracene  
 Concen: 15.83 ppm  
 RT: 9.097 min Scan# 1349  
 Delta R.T. -0.034 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.2  | 0.0   | 45.3  |
| 176     | 17.6  | 0.0   | 48.4  |



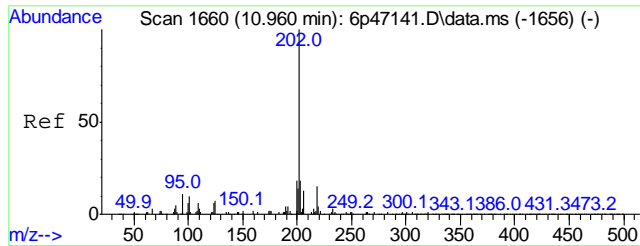
#79  
 Carbazole  
 Concen: 6.10 ppm  
 RT: 9.305 min Scan# 1388  
 Delta R.T. -0.028 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 21.8  | 0.0   | 50.0  |
| 139     | 13.2  | 0.0   | 42.3  |



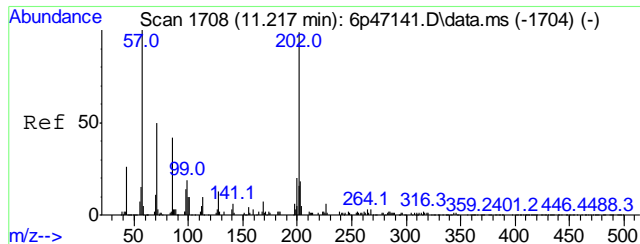
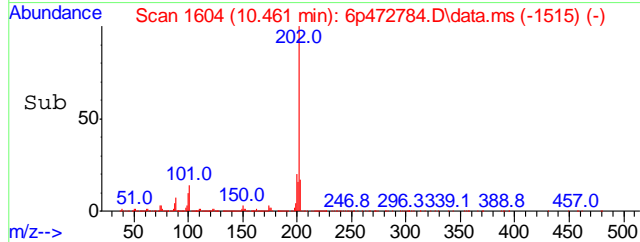
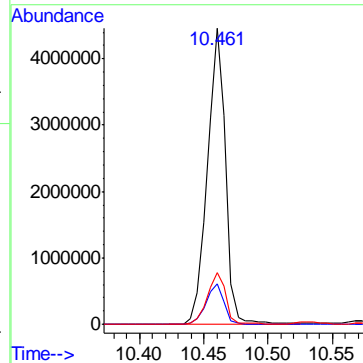
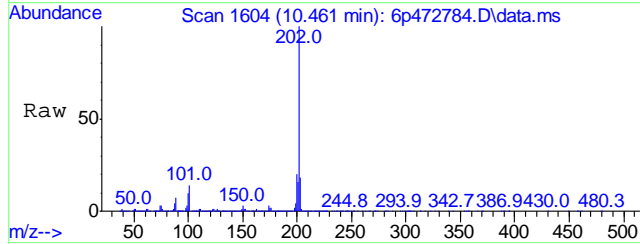
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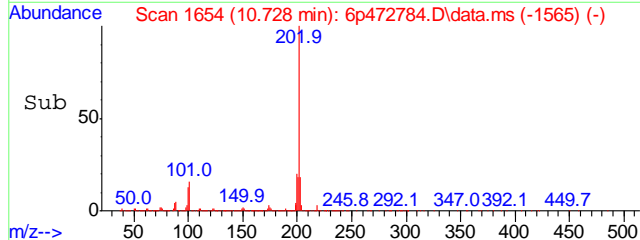
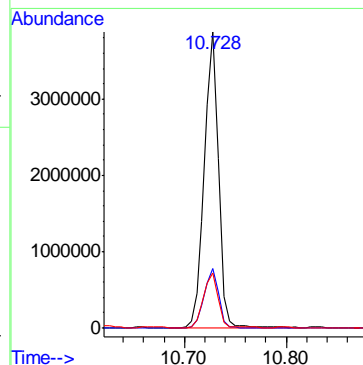
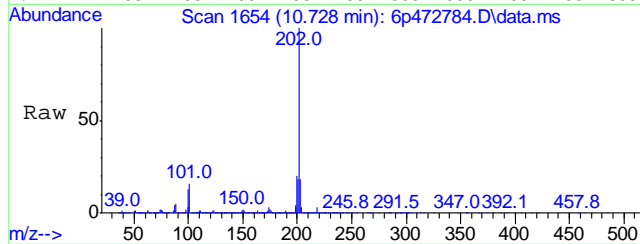
#81  
 Fluoranthene  
 Concen: 87.03 ppm  
 RT: 10.461 min Scan# 1604  
 Delta R.T. -0.026 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

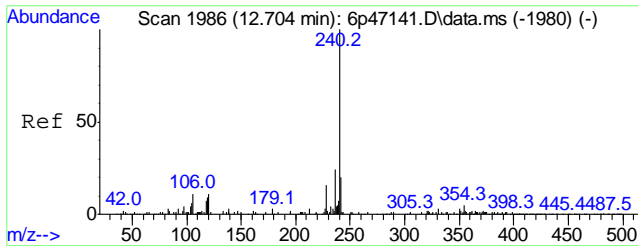
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 13.7 | 0.0   | 40.9  |
| 203     | 17.3 | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 78.82 ppm  
 RT: 10.728 min Scan# 1654  
 Delta R.T. -0.022 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

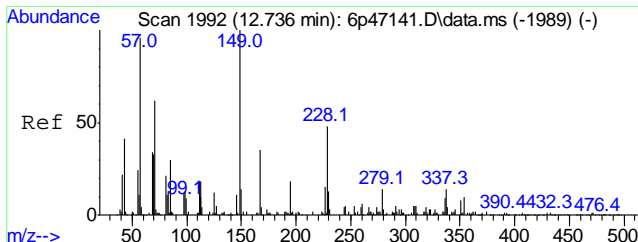
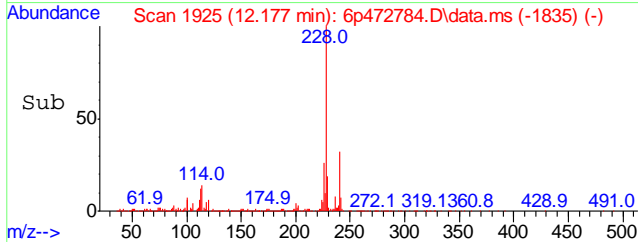
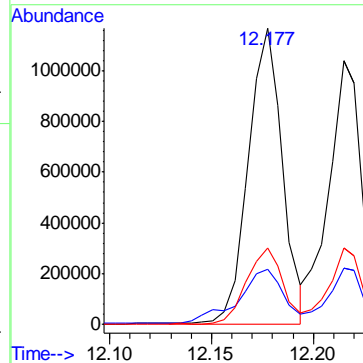
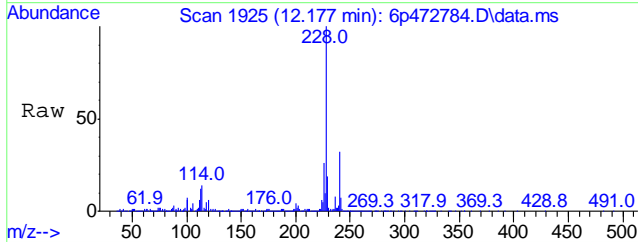
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 20.3 | 0.0   | 50.7  |
| 203     | 18.3 | 0.0   | 47.9  |





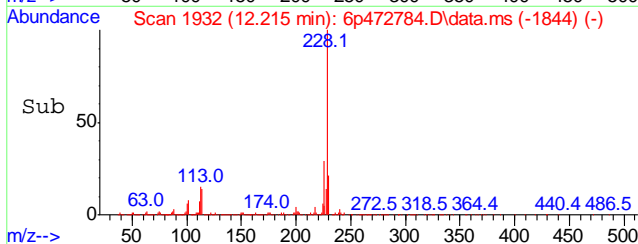
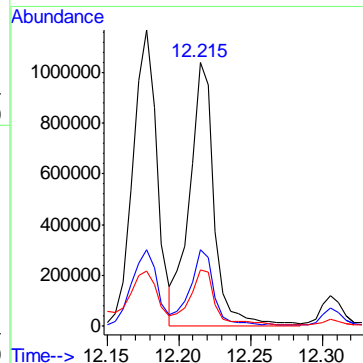
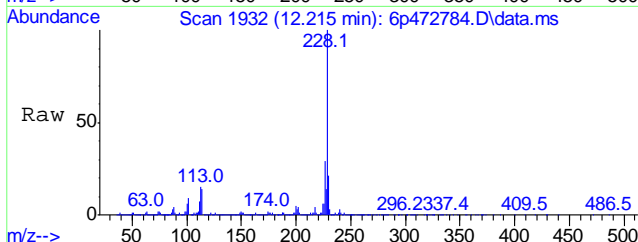
#87  
 Benzo[a]anthracene  
 Concen: 30.60 ppm  
 RT: 12.177 min Scan# 1925  
 Delta R.T. -0.018 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.0  | 0.0   | 49.8  |
| 226     | 25.3  | 0.0   | 56.0  |

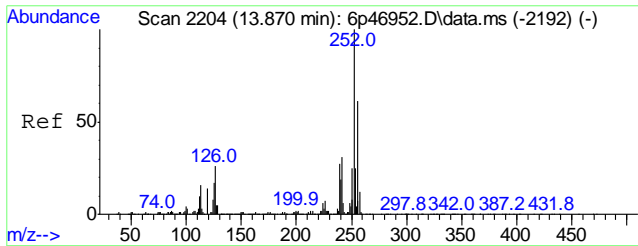


#89  
 Chrysene  
 Concen: 28.31 ppm  
 RT: 12.215 min Scan# 1932  
 Delta R.T. -0.029 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.7  | 0.0   | 59.5  |
| 229     | 20.8  | 0.0   | 49.6  |

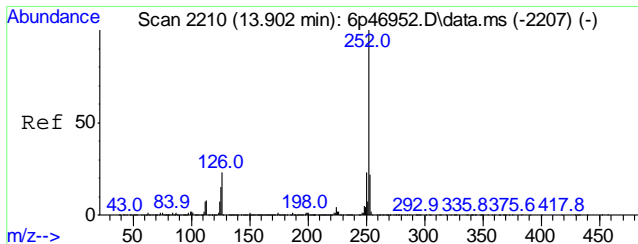
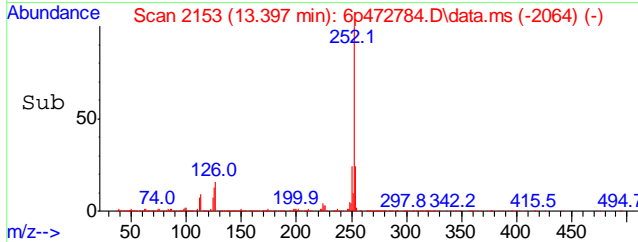
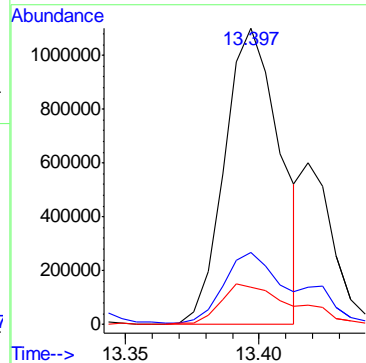
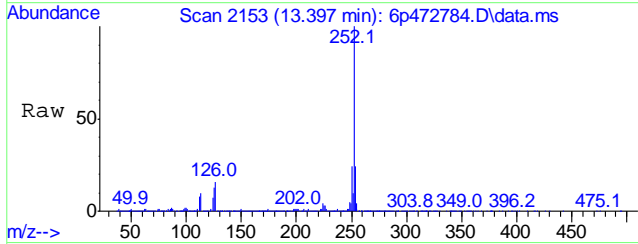


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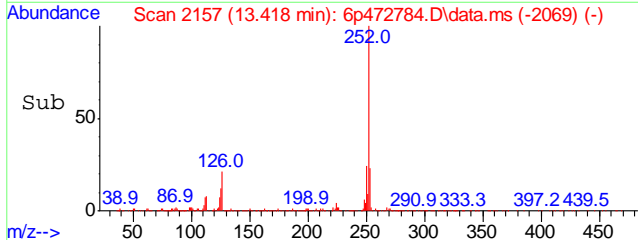
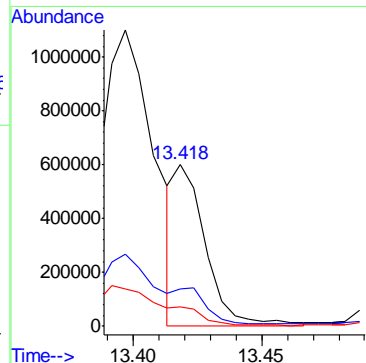
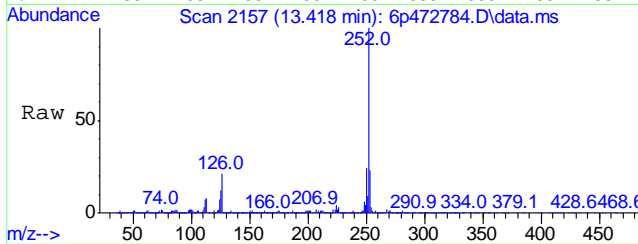
#93  
 Benzo[b]fluoranthene  
 Concen: 33.52 ppm m  
 RT: 13.397 min Scan# 2153  
 Delta R.T. -0.025 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1596458 |       |       |
| 252     | 100     |       |       |
| 253     | 24.3    | 0.0   | 55.4  |
| 125     | 12.6    | 0.0   | 40.0  |

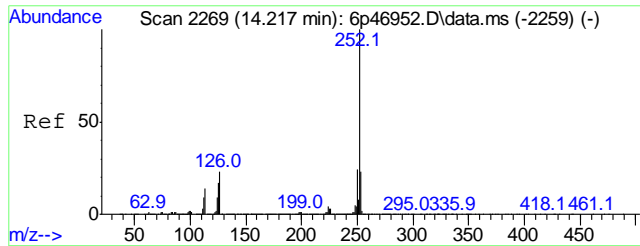


#94  
 Benzo[k]fluoranthene  
 Concen: 11.72 ppm m  
 RT: 13.418 min Scan# 2157  
 Delta R.T. -0.030 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 510140 |       |       |
| 252     | 100    |       |       |
| 253     | 23.1   | 0.0   | 51.8  |
| 125     | 12.1   | 0.0   | 38.7  |

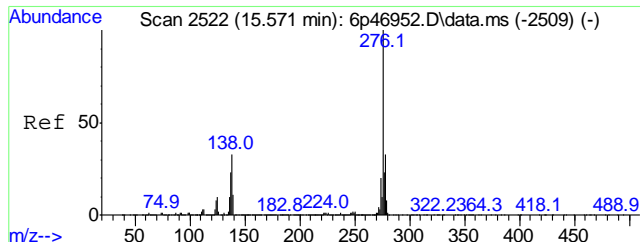
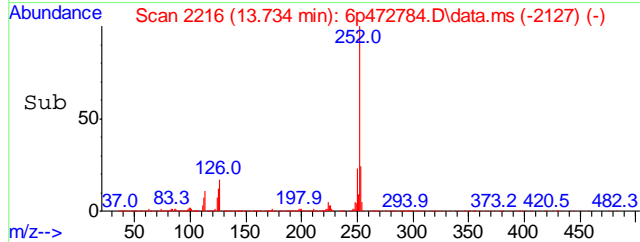
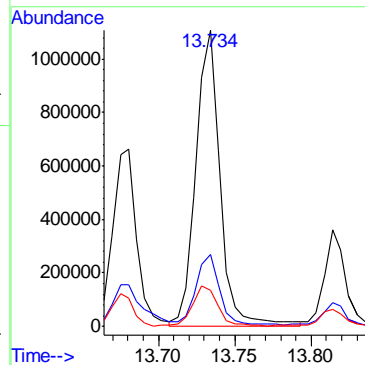
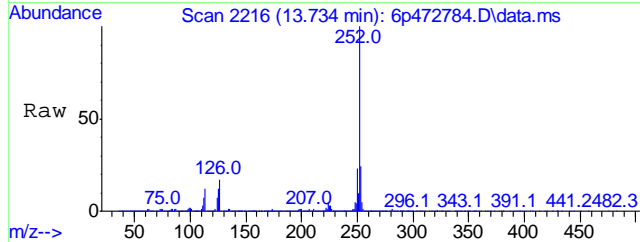


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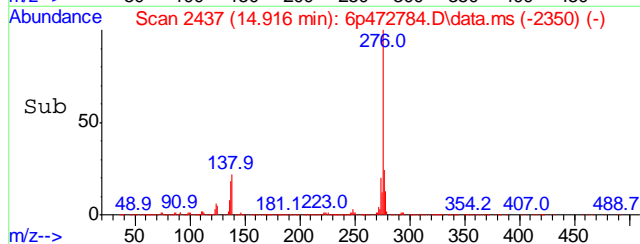
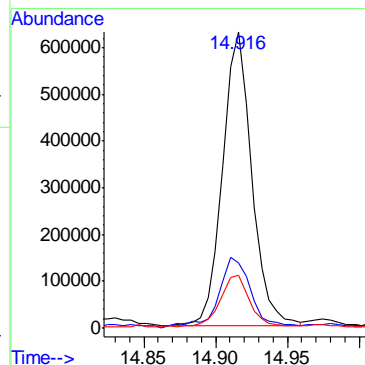
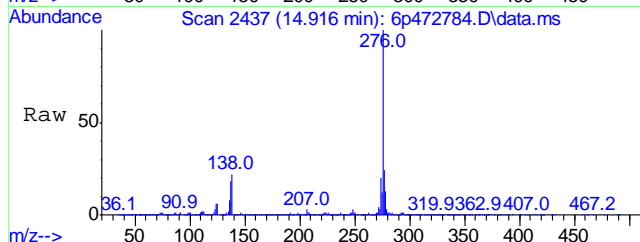
#95  
 Benzo[a]pyrene  
 Concen: 28.75 ppm  
 RT: 13.734 min Scan# 2216  
 Delta R.T. -0.024 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.5 | 0.0   | 52.5  |
| 125     | 11.8 | 0.0   | 40.0  |

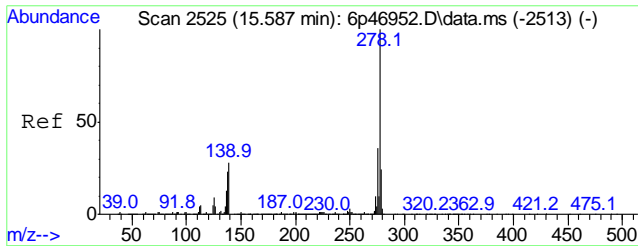


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 15.87 ppm  
 RT: 14.916 min Scan# 2437  
 Delta R.T. -0.037 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 21.6 | 0.0   | 48.9  |
| 137     | 17.4 | 0.0   | 43.2  |

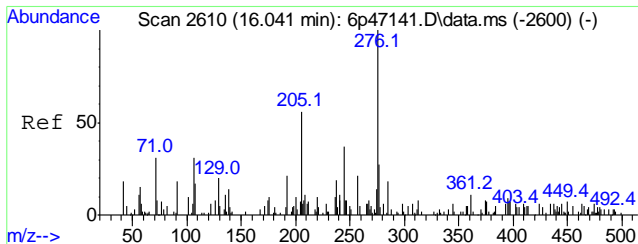
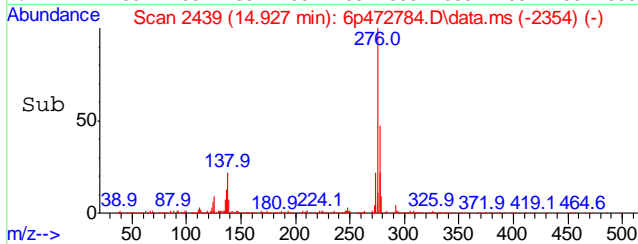
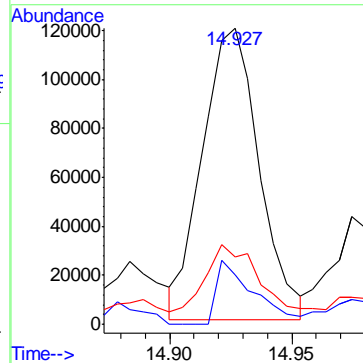
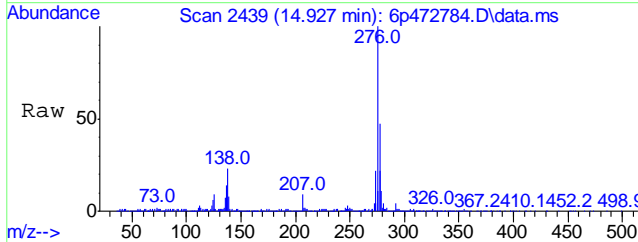


9.1.11  
**9**



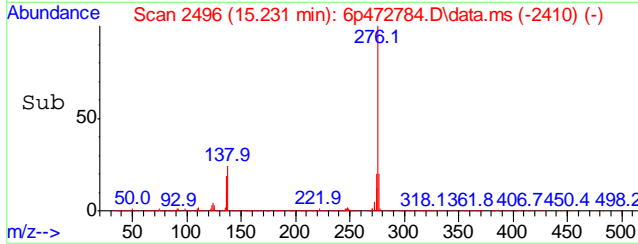
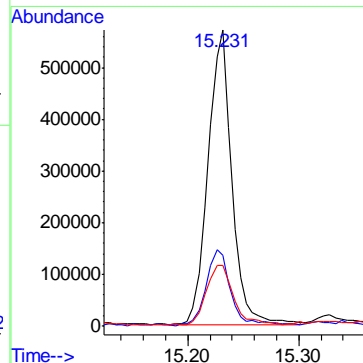
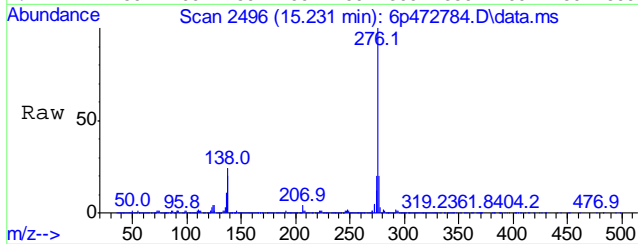
#98  
 Dibenz[a,h]anthracene  
 Concen: 4.03 ppm  
 RT: 14.927 min Scan# 2439  
 Delta R.T. -0.048 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 278     | 100   |       |       |
| 139     | 17.2  | 0.0   | 45.9  |
| 279     | 20.5  | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 19.14 ppm  
 RT: 15.231 min Scan# 2496  
 Delta R.T. -0.042 min  
 Lab File: 6p472784.D  
 Acq: 10 May 2018 7:30 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 276     | 100   |       |       |
| 138     | 23.6  | 0.0   | 49.9  |
| 277     | 19.6  | 0.0   | 53.3  |



9.1.11  
**9**

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472426.D  
 Acq On : 2 May 2018 6:49 am  
 Operator : sufiyana  
 Sample : jc65157-9  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 02 12:07:33 2018

Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M

Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018

QLast Update : Tue May 01 23:41:47 2018

Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.617  | 152  | 486743   | 40.00 | ppm    | 0.04     |
| 24) Naphthalene-d8           | 5.649  | 136  | 1888763  | 40.00 | ppm    | 0.04     |
| 47) Acenaphthene-d10         | 7.393  | 164  | 968221   | 40.00 | ppm    | 0.05     |
| 69) Phenanthrene-d10         | 9.088  | 188  | 1658725  | 40.00 | ppm    | 0.05     |
| 83) Chrysene-d12             | 12.271 | 240  | 1478210  | 40.00 | ppm    | 0.06     |
| 91) Perylene-d12             | 13.875 | 264  | 1411880  | 40.00 | ppm    | 0.06     |
| 101) 1,4-Dichlorobenzene-d4a | 4.617  | 152  | 486743   | 40.00 | ppm    | 0.04     |
| 103) Acenaphthene-d10a       | 7.393  | 164  | 968221   | 40.00 | ppm    | 0.05     |
| 105) Phenanthrene-d10a       | 9.088  | 188  | 1658725  | 40.00 | ppm    | 0.05     |
| 109) Chrysene-d12a           | 12.271 | 240  | 1478210  | 40.00 | ppm    | 0.06     |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1888763  | 40.00 | ppm    | 0.04     |
| 113) Phenanthrene-d10b       | 9.088  | 188  | 1658725  | 40.00 | ppm    | 0.05     |
| 115) Chrysene-d12b           | 12.271 | 240  | 1478210  | 40.00 | ppm    | 0.06     |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.649  | 112  | 568075   | 32.02 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 64.04% |          |
| 8) Phenol-d5                 | 4.365  | 99   | 721691   | 31.94 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 63.88% |          |
| 25) Nitrobenzene-d5          | 5.045  | 82   | 667838   | 32.57 | ppm    | 0.04     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 65.14% |          |
| 51) 2-Fluorobiphenyl         | 6.676  | 172  | 1194977  | 32.00 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 64.00% |          |
| 73) 2,4,6-Tribromophenol     | 8.280  | 330  | 147139   | 23.59 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 47.18% |          |
| 85) Terphenyl-d14            | 11.019 | 244  | 1062902  | 30.10 | ppm    | 0.06     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 60.20% |          |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |

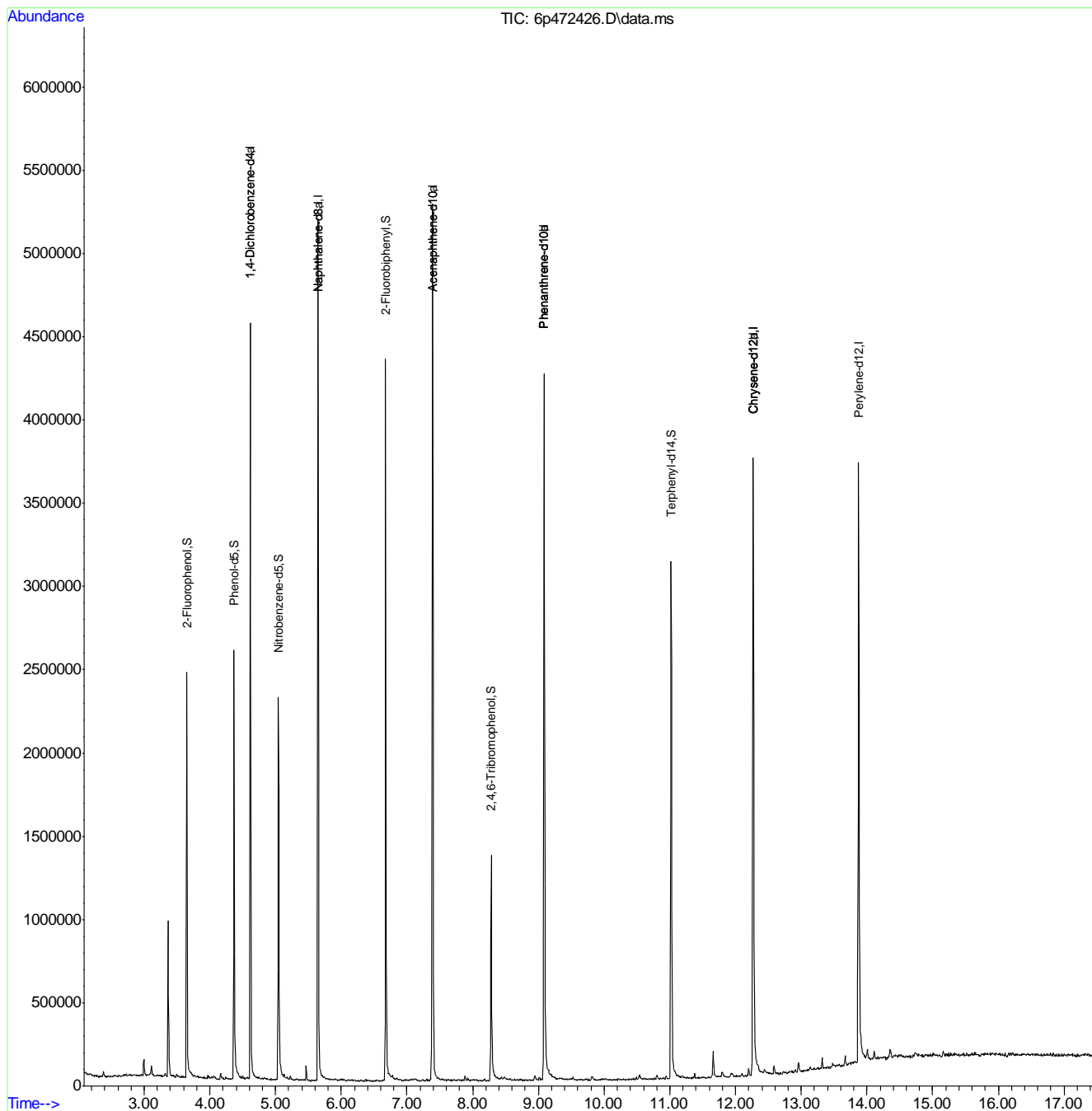
Target Compounds Qvalue

(#)= qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
Data File : 6p472426.D  
Acq On : 2 May 2018 6:49 am  
Operator : sufiyana  
Sample : jc65157-9  
Misc : op11665,e6p2189,30.9,,,1,1  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 02 12:07:33 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
QLast Update : Tue May 01 23:41:47 2018  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472433.D  
 Acq On : 2 May 2018 9:42 am  
 Operator : sufiyana  
 Sample : jc65157-10  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 02 12:43:59 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 533279   | 40.00 | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 1994783  | 40.00 | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 1020410  | 40.00 | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.094  | 188  | 1715591  | 40.00 | ppm    | 0.05     |        |
| 83) Chrysene-d12             | 12.287 | 240  | 1575562  | 40.00 | ppm    | 0.07     |        |
| 91) Perylene-d12             | 13.891 | 264  | 1747668  | 40.00 | ppm    | 0.07     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 533279   | 40.00 | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 1020410  | 40.00 | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.094  | 188  | 1715591  | 40.00 | ppm    | 0.05     |        |
| 109) Chrysene-d12a           | 12.287 | 240  | 1575562  | 40.00 | ppm    | 0.07     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 1994783  | 40.00 | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.094  | 188  | 1715591  | 40.00 | ppm    | 0.05     |        |
| 115) Chrysene-d12b           | 12.287 | 240  | 1575562  | 40.00 | ppm    | 0.07     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 599860   | 30.86 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 61.72% |          |        |
| 8) Phenol-d5                 | 4.376  | 99   | 745885   | 30.13 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 60.26% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 700289   | 32.34 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 64.68% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1215638  | 30.88 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 61.76% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.291  | 330  | 164305   | 25.46 | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 50.92% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 1050434  | 27.91 | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 55.82% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00  | ppm    |          |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 21) 3&4-Methylphenol         | 4.954  | 108  | 9148     | 0.49  | ppm    | 75       | Qvalue |
| 38) Naphthalene              | 5.670  | 128  | 177684   | 3.40  | ppm    | 98       |        |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 29202    | 0.95  | ppm    | 97       |        |
| 56) Acenaphthylene           | 7.238  | 152  | 316700   | 6.38  | ppm    | 98       |        |
| 59) Acenaphthene             | 7.430  | 153  | 27646    | 0.80  | ppm    | 99       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 51013    | 1.14  | ppm    | 94       |        |
| 66) Fluorene                 | 8.008  | 166  | 41690    | 1.16  | ppm    | 92       |        |
| 77) Phenanthrene             | 9.120  | 178  | 774383   | 14.85 | ppm    | 97       |        |
| 78) Anthracene               | 9.179  | 178  | 310080   | 5.87  | ppm    | 96       |        |
| 79) Carbazole                | 9.388  | 167  | 87208    | 1.78  | ppm    | 96       |        |
| 81) Fluoranthene             | 10.548 | 202  | 2963682  | 52.41 | ppm    | 96       |        |
| 84) Pyrene                   | 10.816 | 202  | 2834153  | 53.83 | ppm    | 96       |        |
| 87) Benzo[a]anthracene       | 12.271 | 228  | 1697105  | 34.38 | ppm    | 96       |        |
| 89) Chrysene                 | 12.313 | 228  | 1514066  | 31.02 | ppm    | 95       |        |
| 93) Benzo[b]fluoranthene     | 13.501 | 252  | 2514468m | 45.43 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.522 | 252  | 1049921m | 20.75 | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.838 | 252  | 1889790  | 38.55 | ppm    | 96       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 15.057 | 276  | 1847665  | 28.63 | ppm    | 85       |        |

9.1.13  
9



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472433.D  
 Acq On : 2 May 2018 9:42 am  
 Operator : sufiyana  
 Sample : jc65157-10  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 02 12:43:59 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

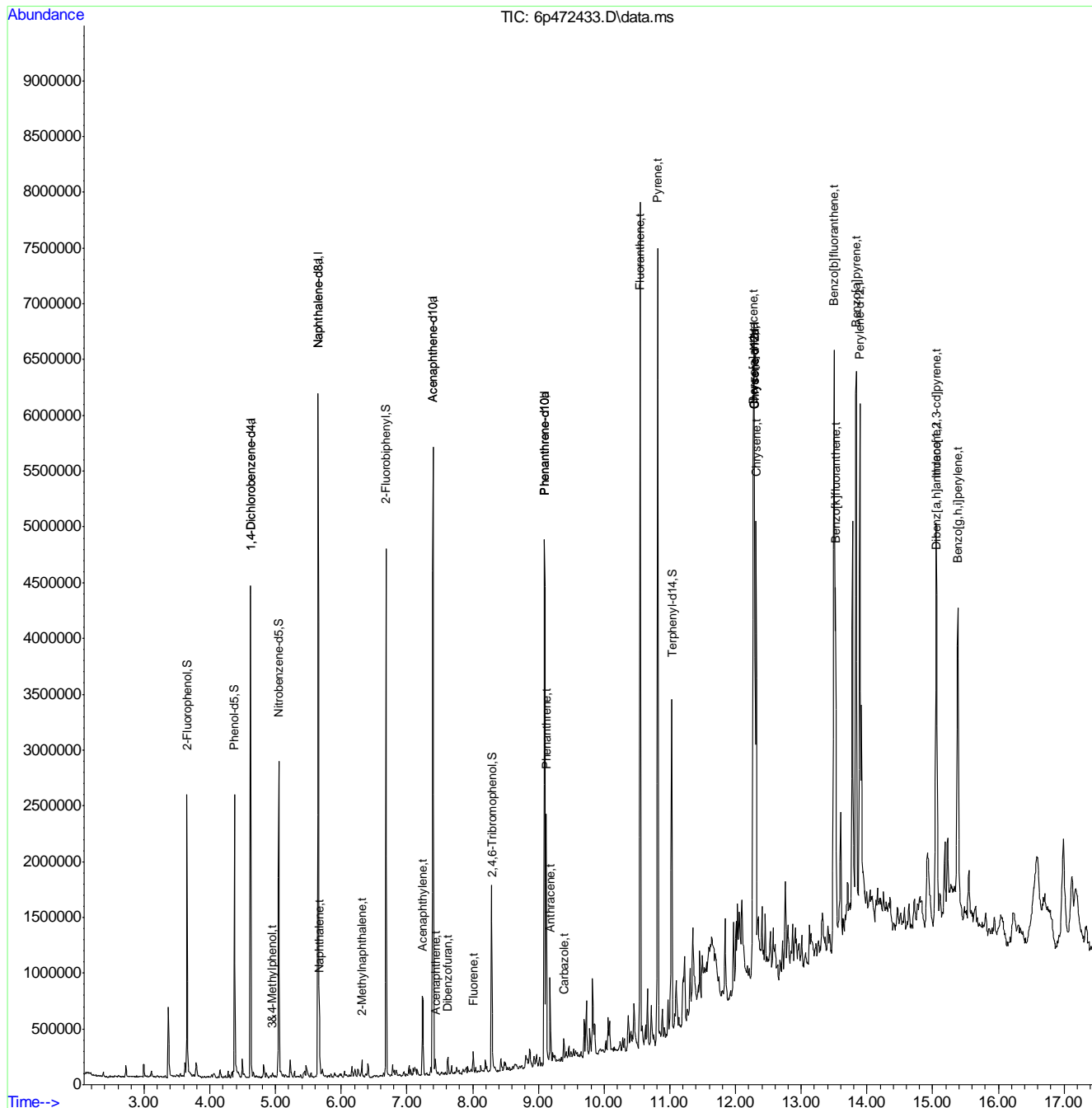
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 15.063 | 278  | 338795m  | 6.09  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 15.384 | 276  | 1641431  | 31.77 | ppm   | 90       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

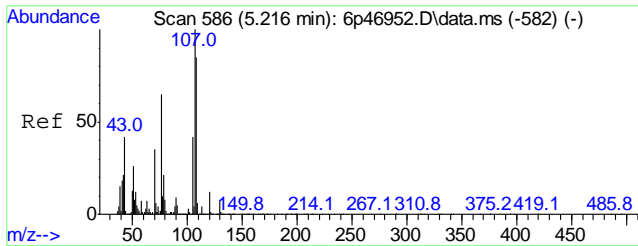
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472433.D  
 Acq On : 2 May 2018 9:42 am  
 Operator : sufiyana  
 Sample : jc65157-10  
 Misc : op11665,e6p2189,30.5,,,1,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: May 02 12:43:59 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

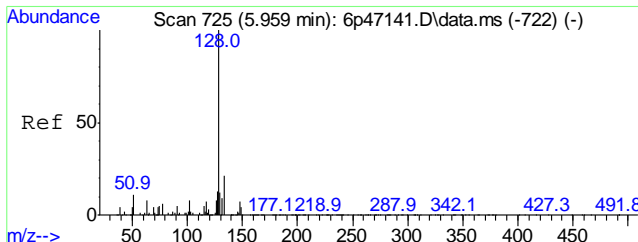
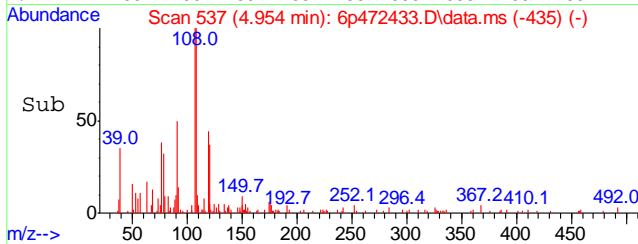
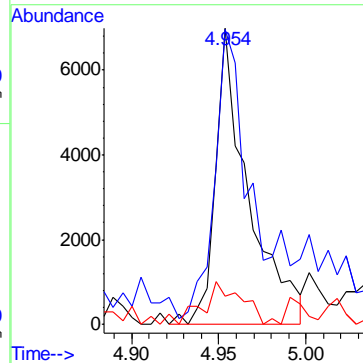
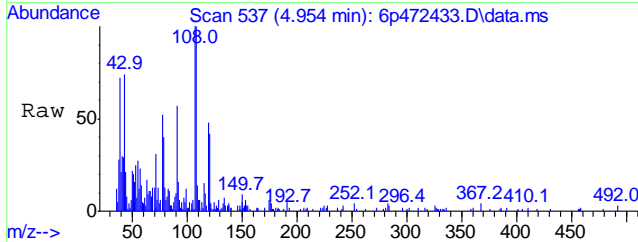


9.1.13  
9



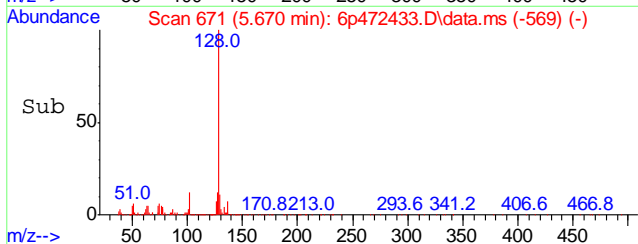
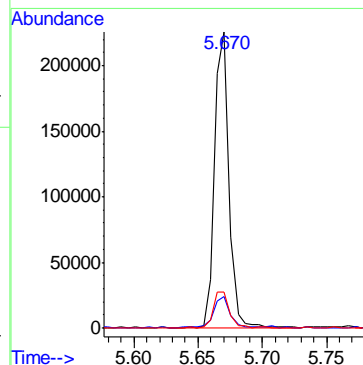
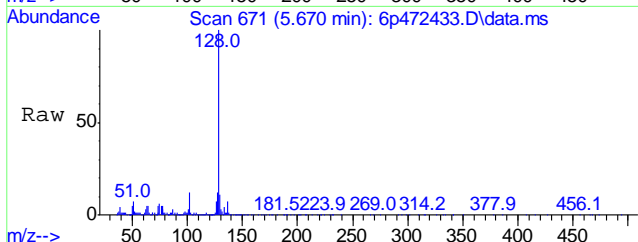
#21  
 3&4-Methylphenol  
 Concen: 0.49 ppm  
 RT: 4.954 min Scan# 537  
 Delta R.T. 0.044 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 108     | 100   |       |       |
| 107     | 88.6  | 87.0  | 147.0 |
| 90      | 4.5   | 0.0   | 40.0  |

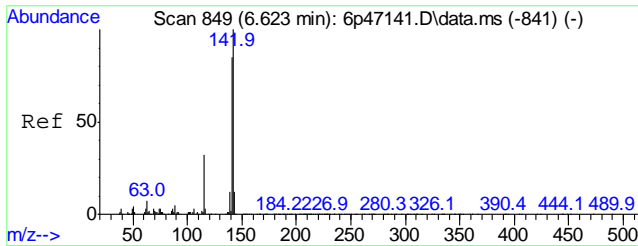


#38  
 Naphthalene  
 Concen: 3.40 ppm  
 RT: 5.670 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 10.4  | 0.0   | 41.1  |
| 127     | 12.3  | 0.0   | 43.2  |

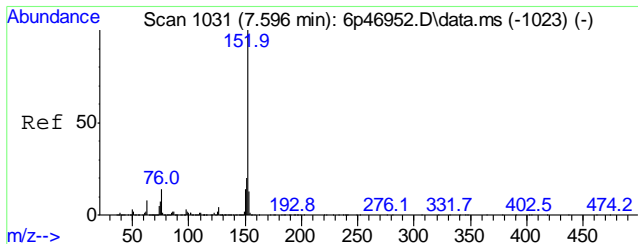
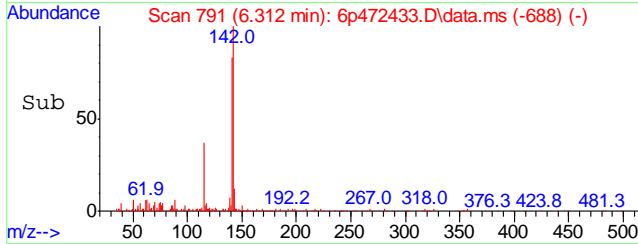
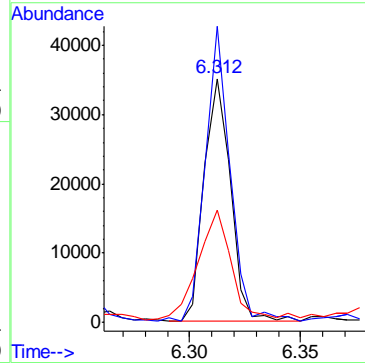
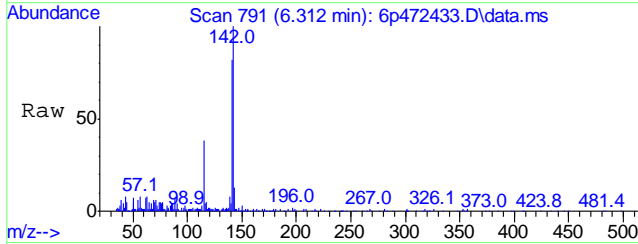


9.1.13  
 9



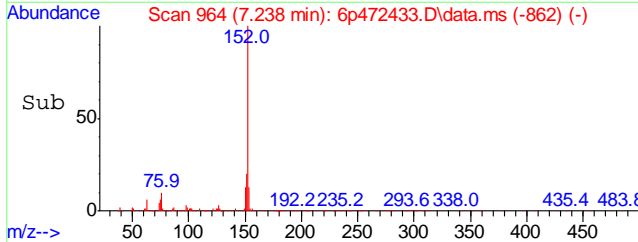
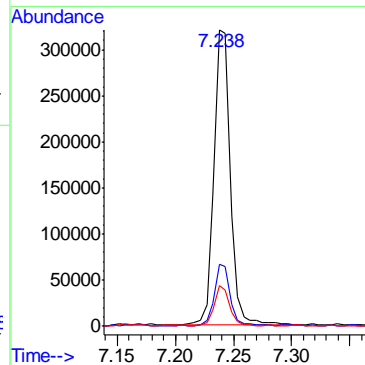
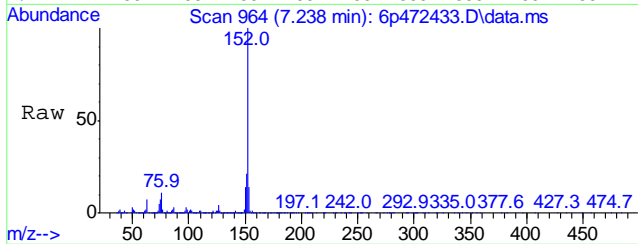
#44  
 2-Methylnaphthalene  
 Concen: 0.95 ppm  
 RT: 6.312 min Scan# 791  
 Delta R.T. 0.050 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

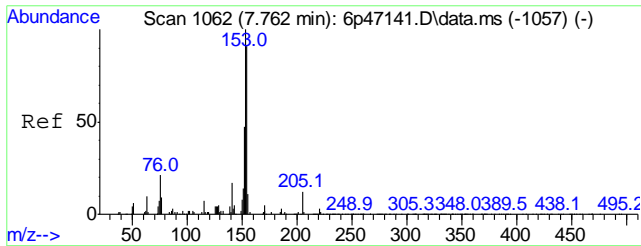
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 120.8 | 91.8  | 151.8 |
| 115     | 43.7  | 8.6   | 68.6  |



#56  
 Acenaphthylene  
 Concen: 6.38 ppm  
 RT: 7.238 min Scan# 964  
 Delta R.T. 0.048 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

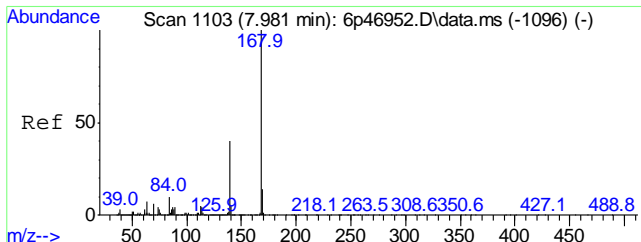
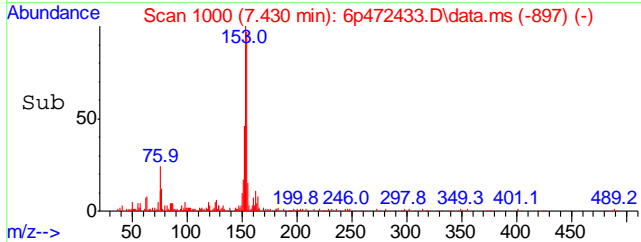
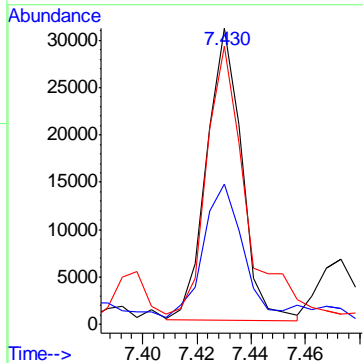
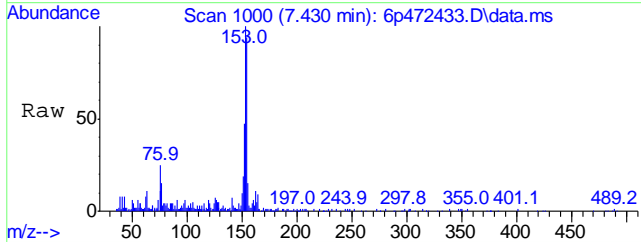
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 151     | 20.9  | 0.0   | 50.2  |
| 153     | 13.3  | 0.0   | 44.8  |





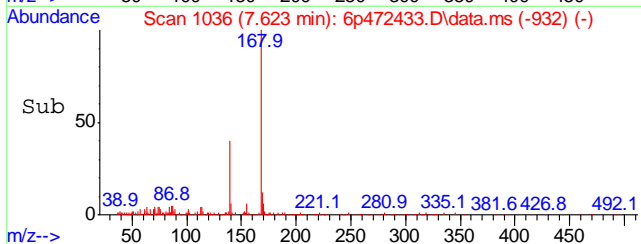
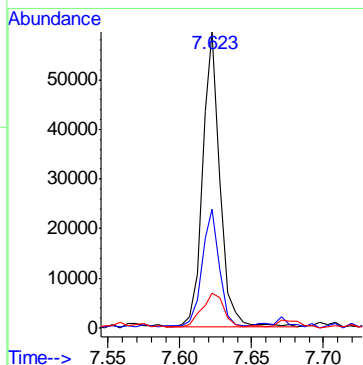
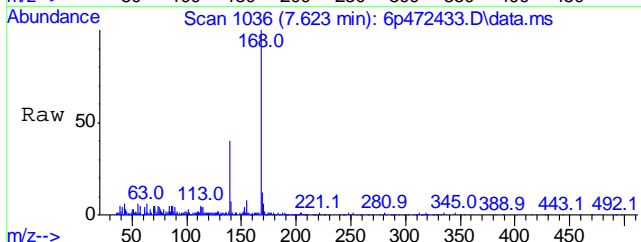
#59  
 Acenaphthene  
 Concen: 0.80 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 27646 | 100   |       |
| 152     | 44.0  | 13.9  | 73.9  |
| 154     | 90.5  | 59.3  | 119.3 |

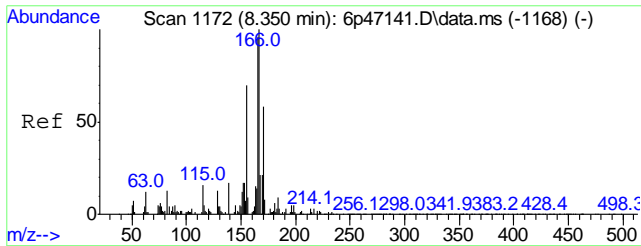


#62  
 Dibenzofuran  
 Concen: 1.14 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 51013 | 100   |       |
| 139     | 39.4  | 6.0   | 66.0  |
| 169     | 10.6  | 0.0   | 43.5  |

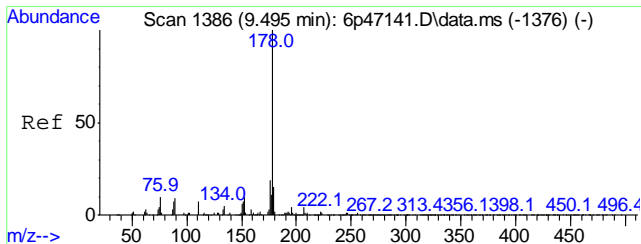
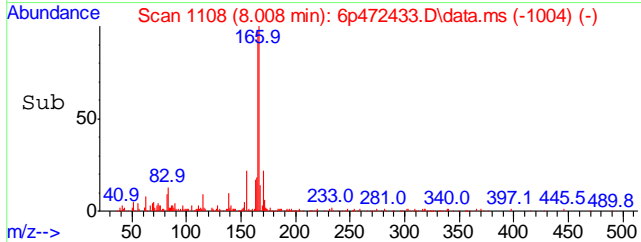
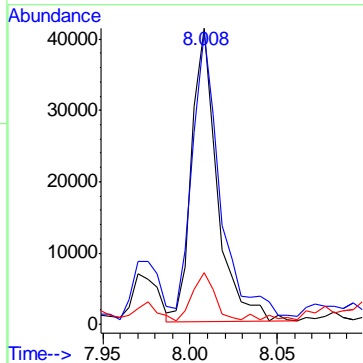
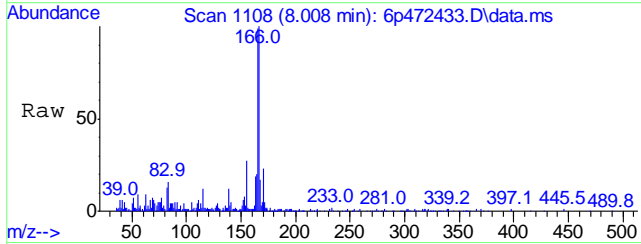


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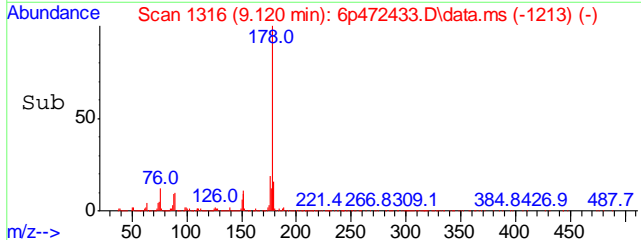
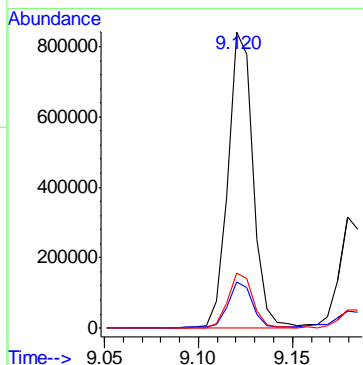
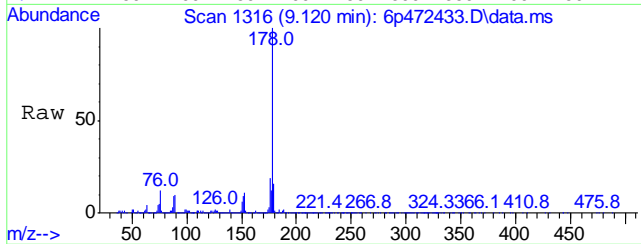
#66  
 Fluorene  
 Concen: 1.16 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 41690 | 100   |       |
| 165     | 96.6  | 59.3  | 119.3 |
| 167     | 15.5  | 0.0   | 43.1  |

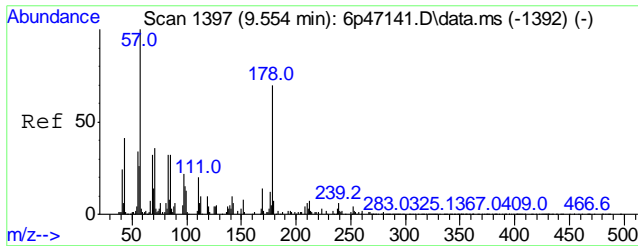


#77  
 Phenanthrene  
 Concen: 14.85 ppm  
 RT: 9.120 min Scan# 1316  
 Delta R.T. 0.053 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 178     | 774383 | 100   |       |
| 179     | 15.3   | 0.0   | 46.6  |
| 176     | 18.5   | 0.0   | 49.6  |

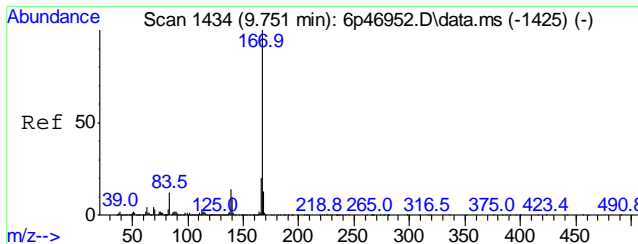
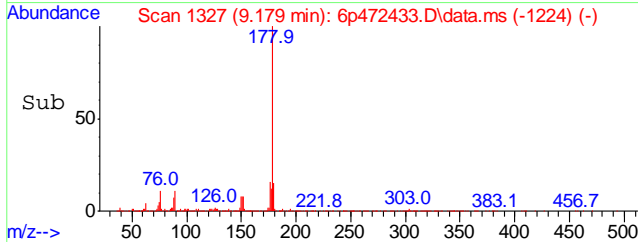
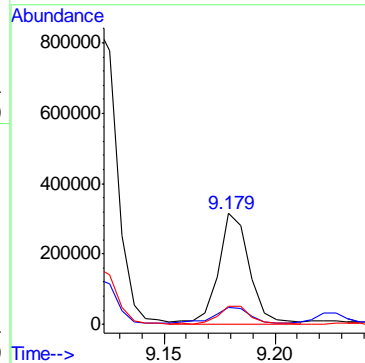
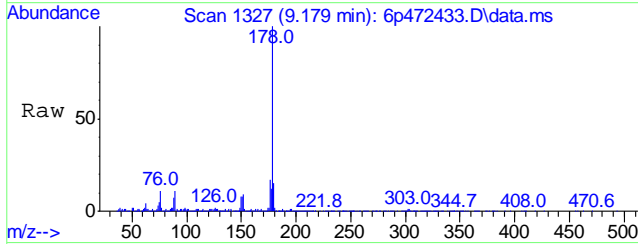


9.113  
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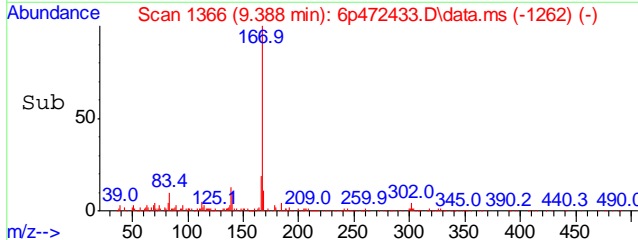
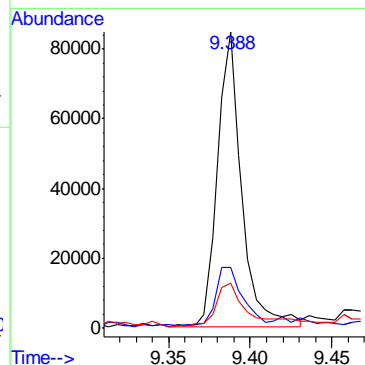
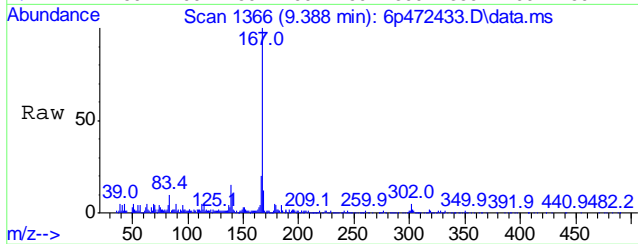
#78  
 Anthracene  
 Concen: 5.87 ppm  
 RT: 9.179 min Scan# 1327  
 Delta R.T. 0.048 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.1  | 0.0   | 45.3  |
| 176     | 16.5  | 0.0   | 48.4  |

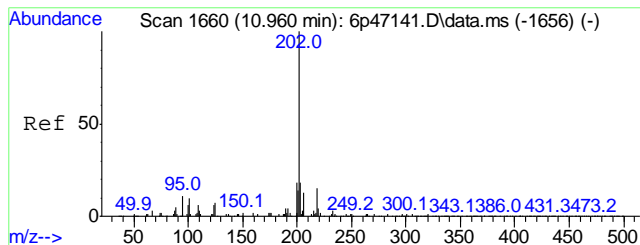


#79  
 Carbazole  
 Concen: 1.78 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 18.5  | 0.0   | 50.0  |
| 139     | 14.0  | 0.0   | 42.3  |

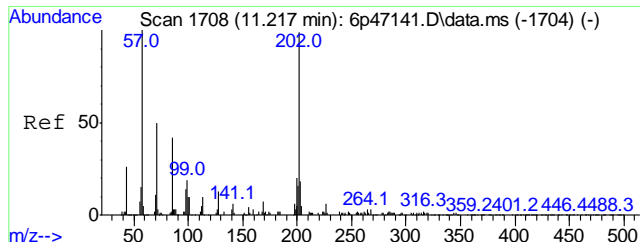
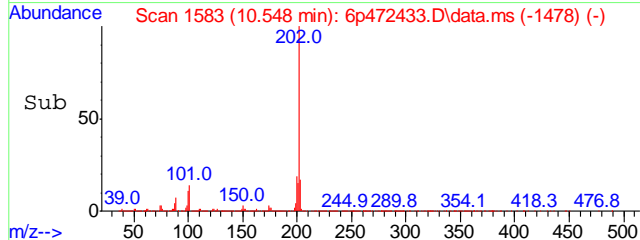
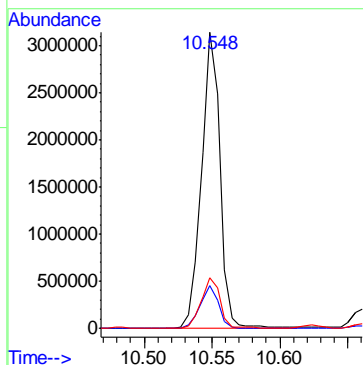
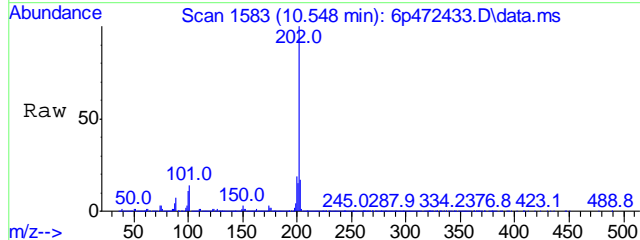


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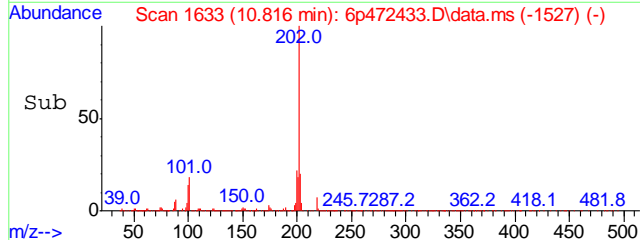
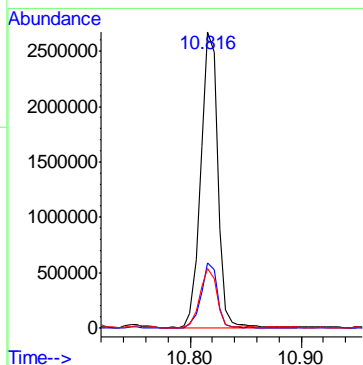
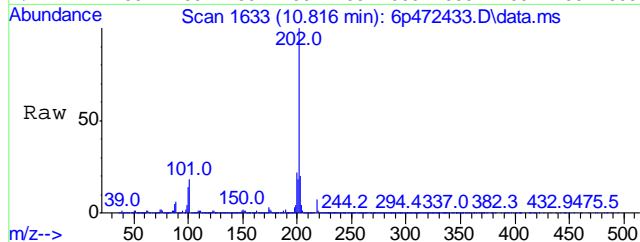
#81  
 Fluoranthene  
 Concen: 52.41 ppm  
 RT: 10.548 min Scan# 1583  
 Delta R.T. 0.062 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 101     | 14.4 | 0.0   | 40.9  |
| 203     | 17.0 | 0.0   | 47.4  |



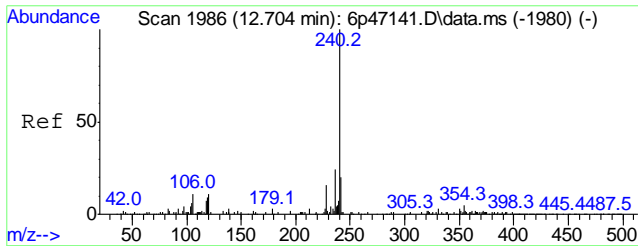
#84  
 Pyrene  
 Concen: 53.83 ppm  
 RT: 10.816 min Scan# 1633  
 Delta R.T. 0.066 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 22.0 | 0.0   | 50.7  |
| 203     | 19.9 | 0.0   | 47.9  |



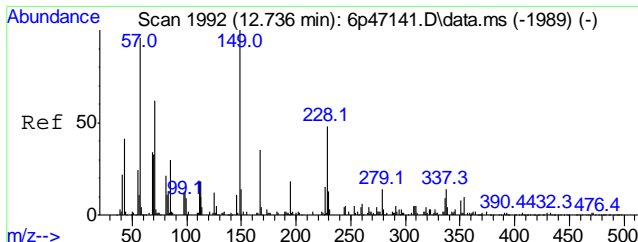
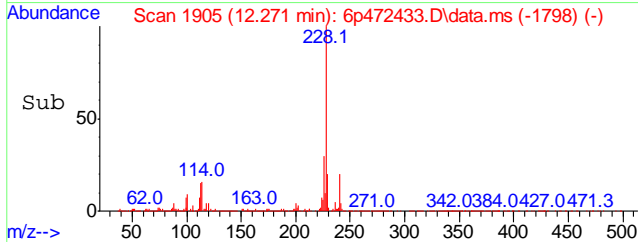
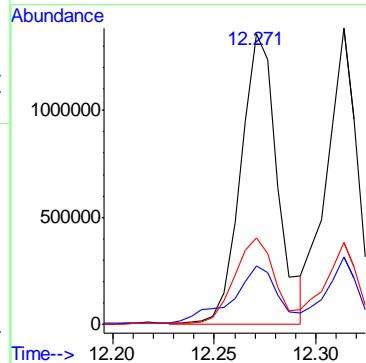
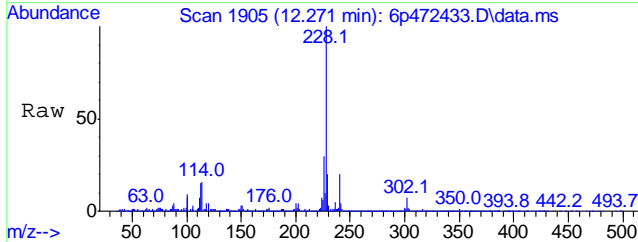
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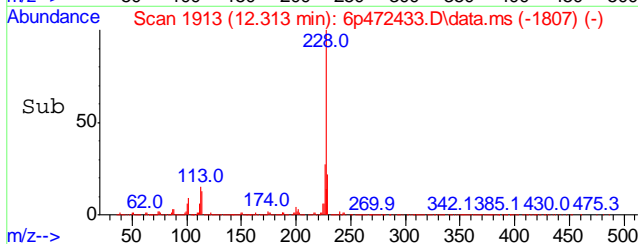
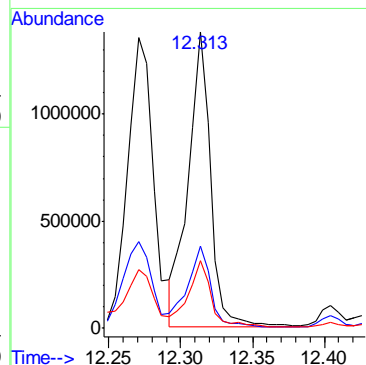
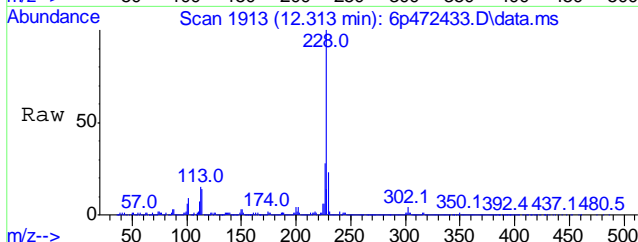
#87  
 Benzo[a]anthracene  
 Concen: 34.38 ppm  
 RT: 12.271 min Scan# 1905  
 Delta R.T. 0.075 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.6  | 0.0   | 49.8  |
| 226     | 29.5  | 0.0   | 56.0  |

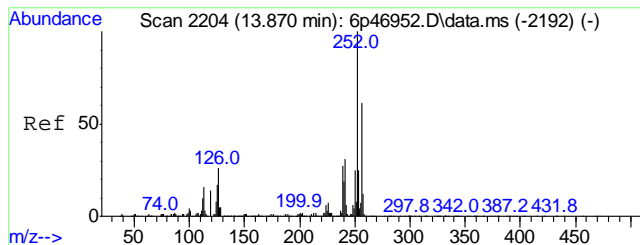


#89  
 Chrysene  
 Concen: 31.02 ppm  
 RT: 12.313 min Scan# 1913  
 Delta R.T. 0.070 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.2  | 0.0   | 59.5  |
| 229     | 22.5  | 0.0   | 49.6  |

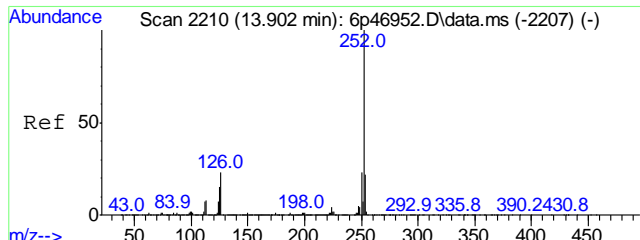
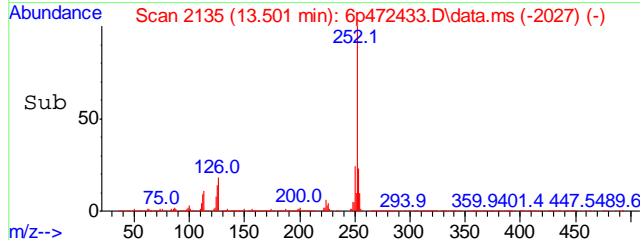
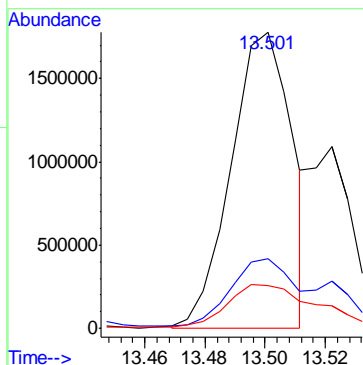
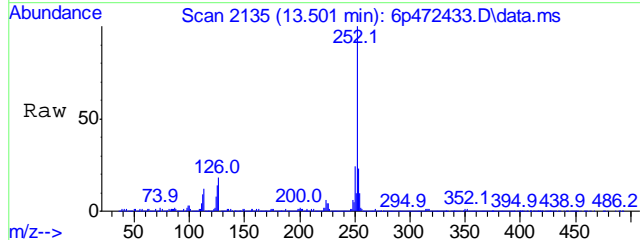


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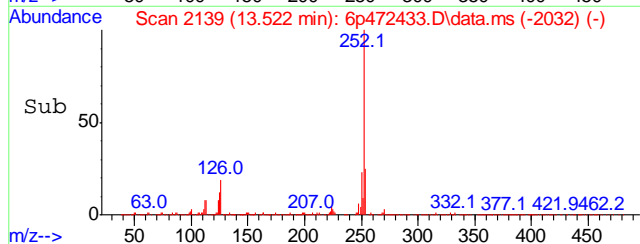
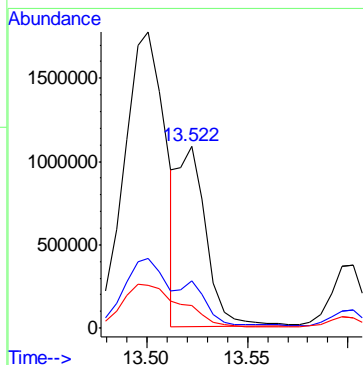
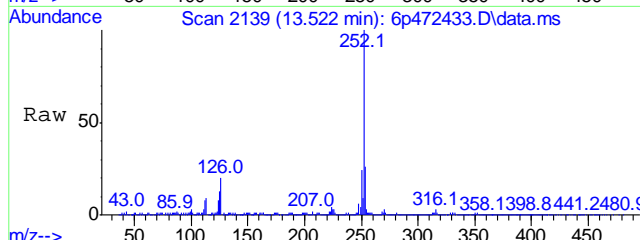
#93  
 Benzo[b]fluoranthene  
 Concen: 45.43 ppm m  
 RT: 13.501 min Scan# 2135  
 Delta R.T. 0.079 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.5 | 0.0   | 55.4  |
| 125     | 14.5 | 0.0   | 40.0  |

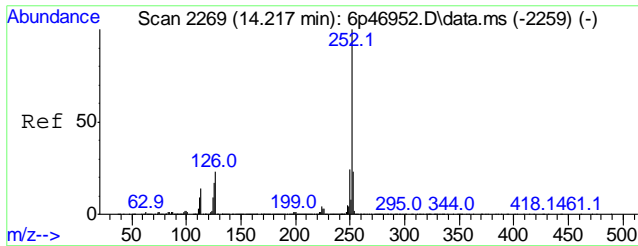


#94  
 Benzo[k]fluoranthene  
 Concen: 20.75 ppm m  
 RT: 13.522 min Scan# 2139  
 Delta R.T. 0.074 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 25.8 | 0.0   | 51.8  |
| 125     | 12.6 | 0.0   | 38.7  |

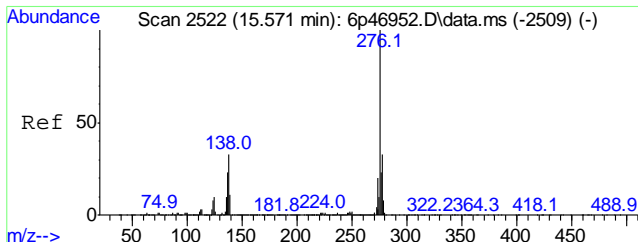
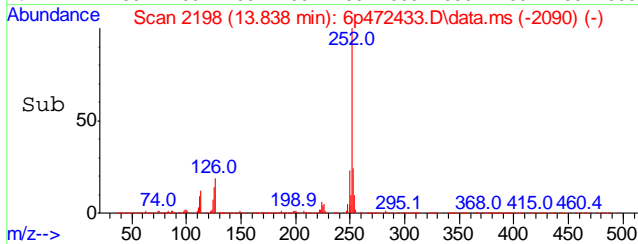
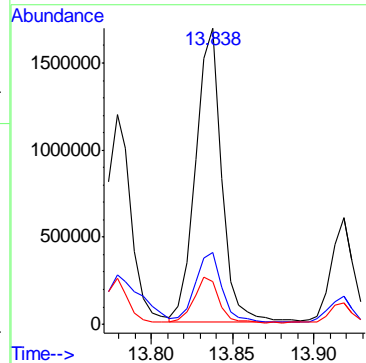
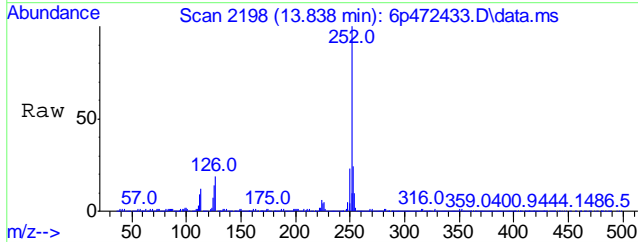


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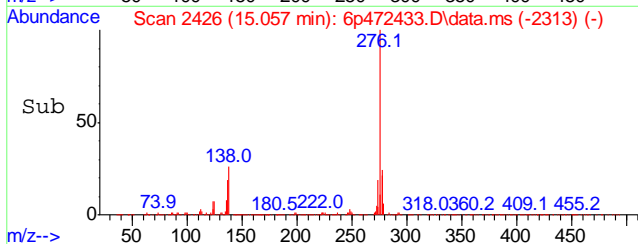
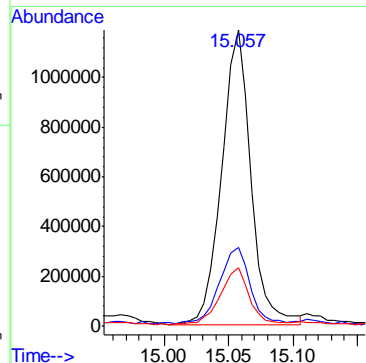
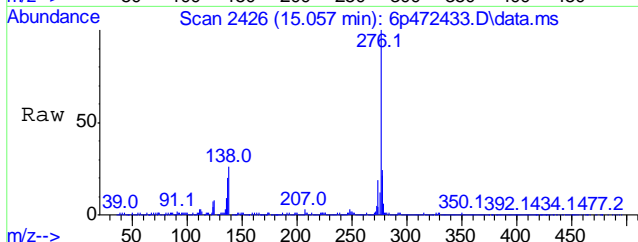
#95  
 Benzo[a]pyrene  
 Concen: 38.55 ppm  
 RT: 13.838 min Scan# 2198  
 Delta R.T. 0.080 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 1889790 | 100   |       |
| 253     | 23.4    | 0.0   | 52.5  |
| 125     | 13.9    | 0.0   | 40.0  |

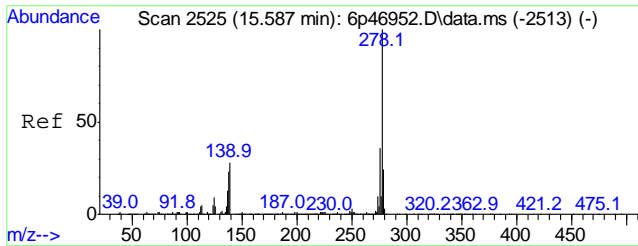


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 28.63 ppm  
 RT: 15.057 min Scan# 2426  
 Delta R.T. 0.104 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 276     | 1847665 | 100   |       |
| 138     | 25.6    | 0.0   | 48.9  |
| 137     | 19.2    | 0.0   | 43.2  |

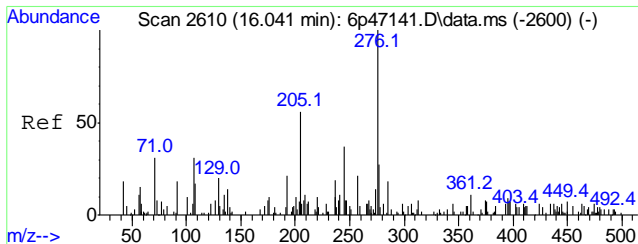
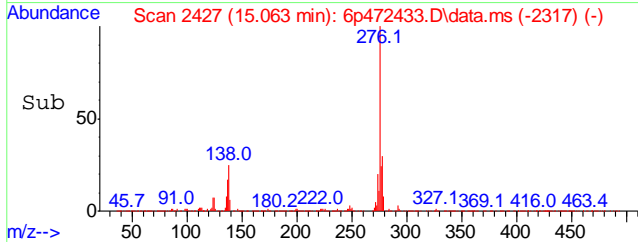
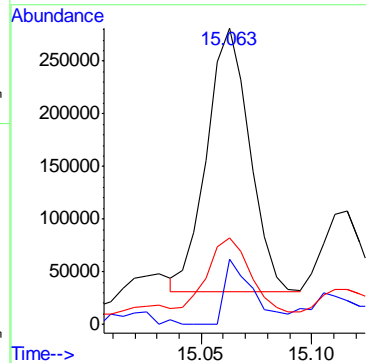
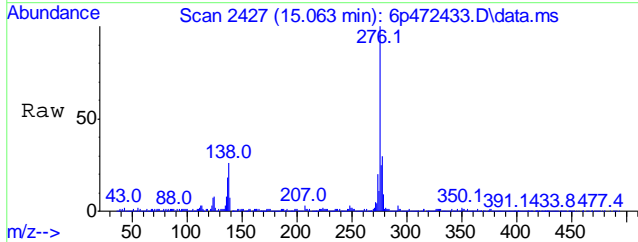


9.1.13  
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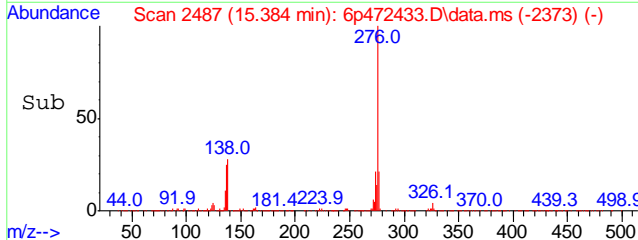
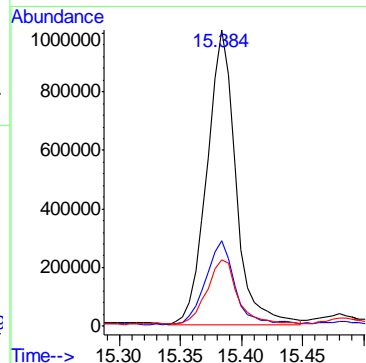
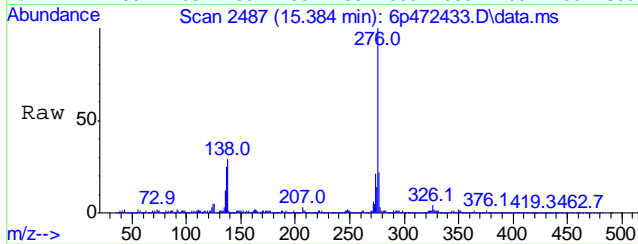
#98  
 Dibenz[a,h]anthracene  
 Concen: 6.09 ppm  
 RT: 15.063 min Scan# 2427  
 Delta R.T. 0.088 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 278     | 100  |       |       |
| 139     | 21.9 | 0.0   | 45.9  |
| 279     | 29.4 | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 31.77 ppm  
 RT: 15.384 min Scan# 2487  
 Delta R.T. 0.110 min  
 Lab File: 6p472433.D  
 Acq: 2 May 2018 9:42 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 28.2 | 0.0   | 49.9  |
| 277     | 21.8 | 0.0   | 53.3  |



9.1.13  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472434.D  
 Acq On : 2 May 2018 10:07 am  
 Operator : sufiyana  
 Sample : jc65157-11  
 Misc : op11665,e6p2189,30.3,,,1,1  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 02 12:48:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|-------|--------|----------|--------|
| Internal Standards           |        |      |          |       |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 552541   | 40.00 | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 2041290  | 40.00 | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 1051632  | 40.00 | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.094  | 188  | 1734933  | 40.00 | ppm    | 0.05     |        |
| 83) Chrysene-d12             | 12.281 | 240  | 1540058  | 40.00 | ppm    | 0.06     |        |
| 91) Perylene-d12             | 13.891 | 264  | 1692496  | 40.00 | ppm    | 0.07     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 552541   | 40.00 | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 1051632  | 40.00 | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.094  | 188  | 1734933  | 40.00 | ppm    | 0.05     |        |
| 109) Chrysene-d12a           | 12.281 | 240  | 1540058  | 40.00 | ppm    | 0.06     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 2041290  | 40.00 | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.094  | 188  | 1734933  | 40.00 | ppm    | 0.05     |        |
| 115) Chrysene-d12b           | 12.281 | 240  | 1540058  | 40.00 | ppm    | 0.06     |        |
| System Monitoring Compounds  |        |      |          |       |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 432426   | 21.47 | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 42.94% |          |        |
| 8) Phenol-d5                 | 4.376  | 99   | 555373   | 21.65 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.30% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 514125   | 23.20 | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 46.40% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 912296   | 22.49 | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 44.98% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.291  | 330  | 120039   | 18.40 | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 36.80% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 745499   | 20.26 | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =     | 40.52% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |        |
| 107) o-terphenyl             | 9.564  | 230  | 1053     | 0.04  | ppm    | 0.04     |        |
| Target Compounds             |        |      |          |       |        |          |        |
| 38) Naphthalene              | 5.670  | 128  | 320078   | 5.98  | ppm    | 99       | Qvalue |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 147762   | 4.72  | ppm    | 95       |        |
| 53) Biphenyl                 | 6.783  | 154  | 48471    | 1.08  | ppm    | 94       |        |
| 56) Acenaphthylene           | 7.243  | 152  | 174110   | 3.40  | ppm    | 97       |        |
| 59) Acenaphthene             | 7.430  | 153  | 15473    | 0.43  | ppm    | 92       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 150654   | 3.27  | ppm    | 90       |        |
| 66) Fluorene                 | 8.008  | 166  | 23814    | 0.64  | ppm    | 93       |        |
| 77) Phenanthrene             | 9.120  | 178  | 689913   | 13.08 | ppm    | 99       |        |
| 78) Anthracene               | 9.184  | 178  | 208682   | 3.91  | ppm    | 95       |        |
| 79) Carbazole                | 9.388  | 167  | 42785    | 0.86  | ppm    | 98       |        |
| 81) Fluoranthene             | 10.548 | 202  | 1412852  | 24.71 | ppm    | 97       |        |
| 84) Pyrene                   | 10.816 | 202  | 1308739  | 25.43 | ppm    | 100      |        |
| 87) Benzo[a]anthracene       | 12.271 | 228  | 737312   | 15.28 | ppm    | 95       |        |
| 89) Chrysene                 | 12.313 | 228  | 827921   | 17.35 | ppm    | 98       |        |
| 93) Benzo[b]fluoranthene     | 13.495 | 252  | 1205875m | 22.50 | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.517 | 252  | 343839m  | 7.02  | ppm    |          |        |
| 95) Benzo[a]pyrene           | 13.832 | 252  | 778026   | 16.39 | ppm    | 98       |        |
| 96) Indeno[1,2,3-cd]pyrene   | 15.047 | 276  | 624069   | 9.99  | ppm    | 84       |        |

9.1.14  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472434.D  
 Acq On : 2 May 2018 10:07 am  
 Operator : sufiyana  
 Sample : jc65157-11  
 Misc : op11665,e6p2189,30.3,,,1,1  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 02 12:48:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

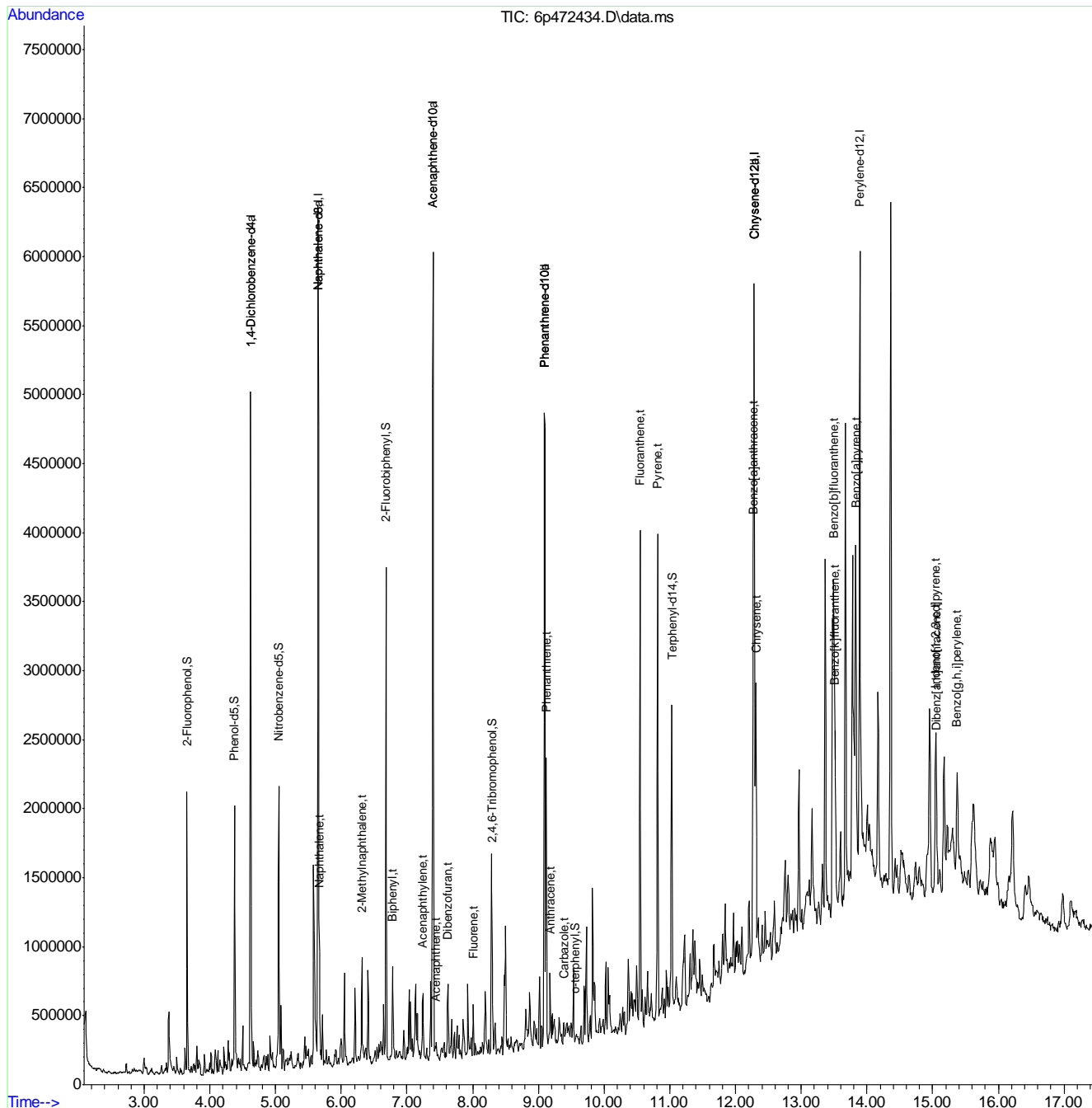
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 15.057 | 278  | 137470m  | 2.55  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 15.373 | 276  | 542587   | 10.84 | ppm   | 90       |

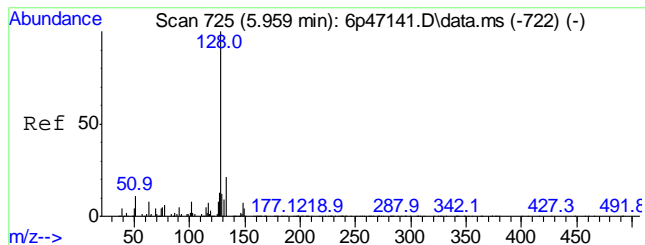
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472434.D  
 Acq On : 2 May 2018 10:07 am  
 Operator : sufiyana  
 Sample : jc65157-11  
 Misc : op11665,e6p2189,30.3,,,1,1  
 ALS Vial : 28 Sample Multiplier: 1

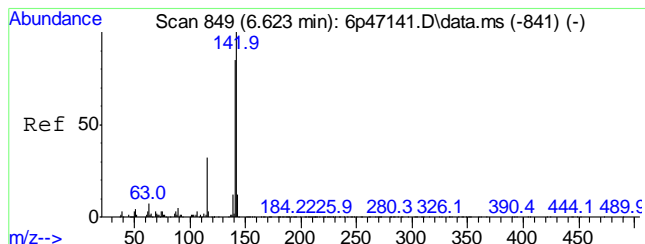
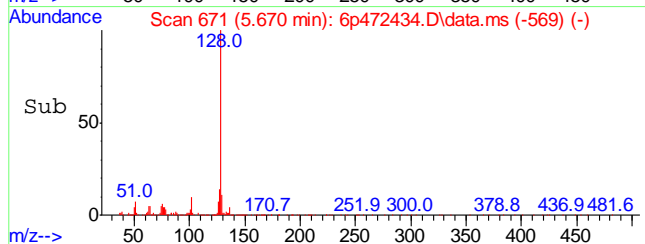
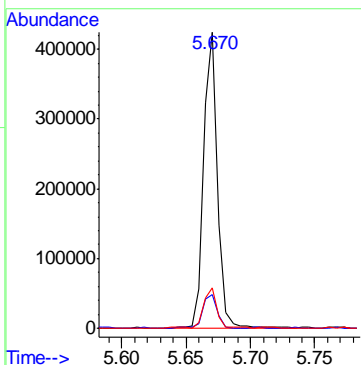
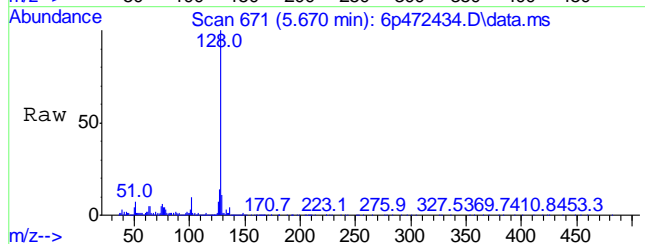
Quant Time: May 02 12:48:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration





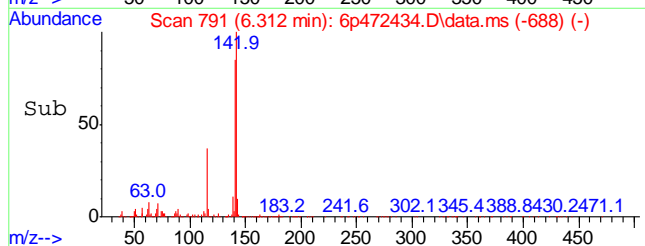
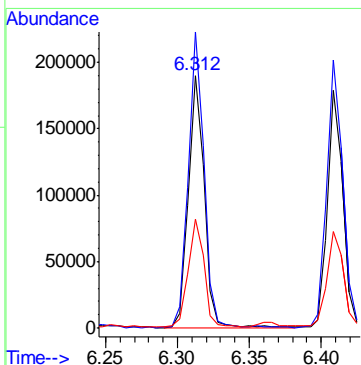
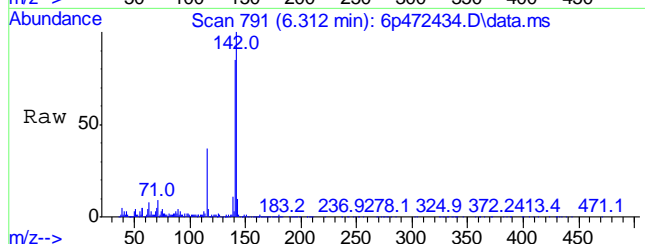
#38  
 Naphthalene  
 Concen: 5.98 ppm  
 RT: 5.670 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 11.2  | 0.0   | 41.1  |
| 127     | 13.7  | 0.0   | 43.2  |



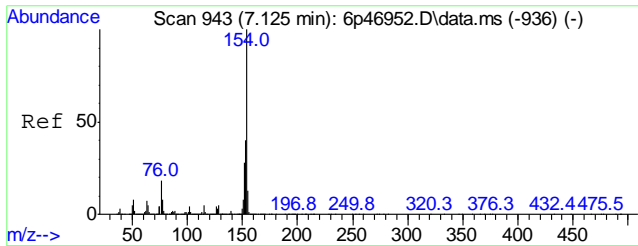
#44  
 2-Methylnaphthalene  
 Concen: 4.72 ppm  
 RT: 6.312 min Scan# 791  
 Delta R.T. 0.050 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 117.1 | 91.8  | 151.8 |
| 115     | 42.5  | 8.6   | 68.6  |



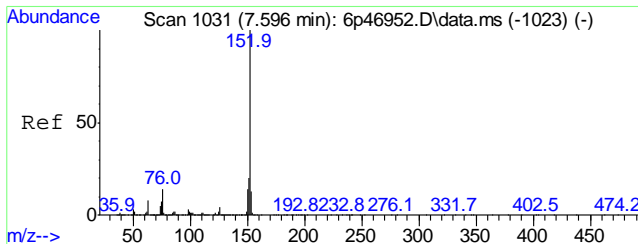
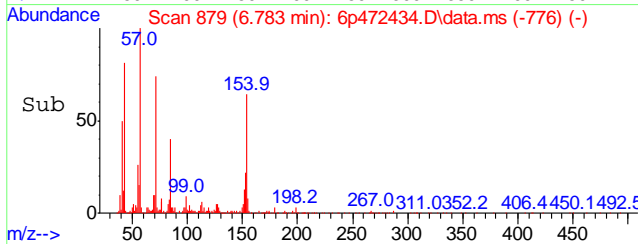
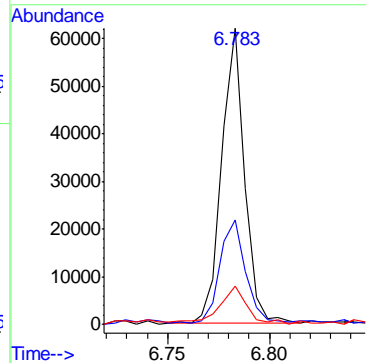
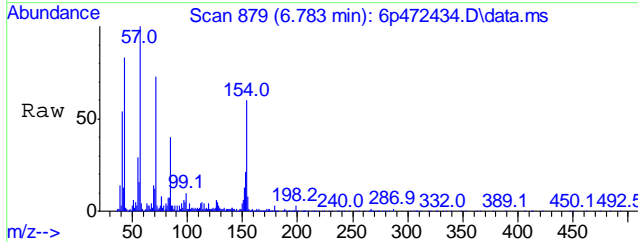
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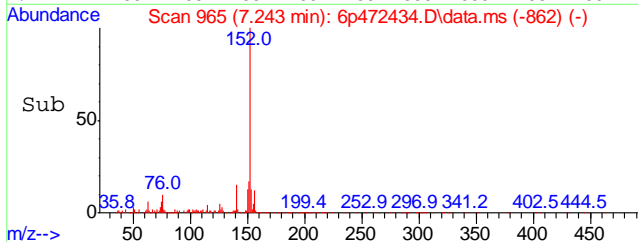
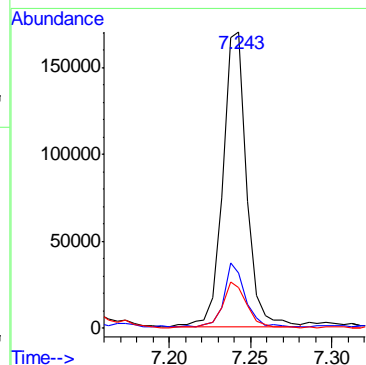
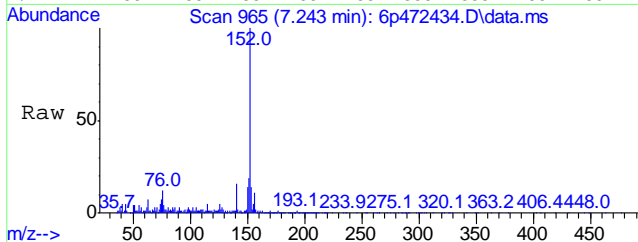
#53  
 Biphenyl  
 Concen: 1.08 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

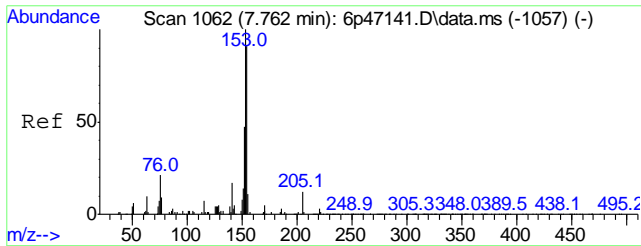
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 34.6 | 8.7   | 68.7  |
| 155     | 11.9 | 0.0   | 43.0  |



#56  
 Acenaphthylene  
 Concen: 3.40 ppm  
 RT: 7.243 min Scan# 965  
 Delta R.T. 0.053 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

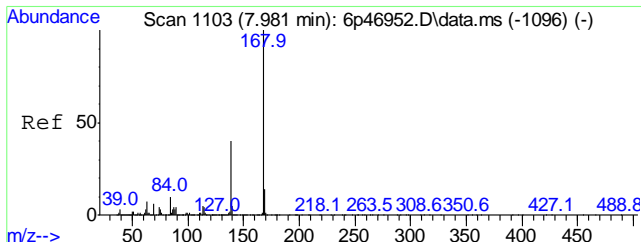
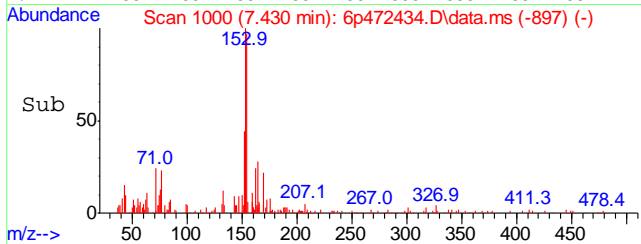
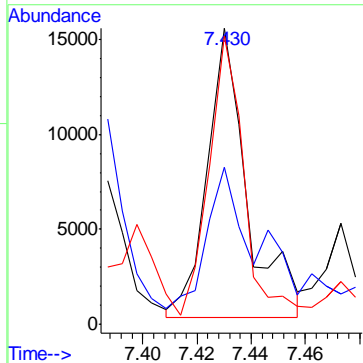
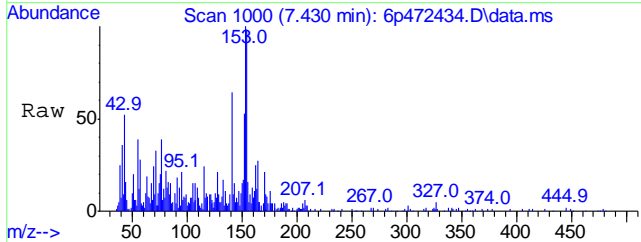
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 18.4 | 0.0   | 50.2  |
| 153     | 13.6 | 0.0   | 44.8  |





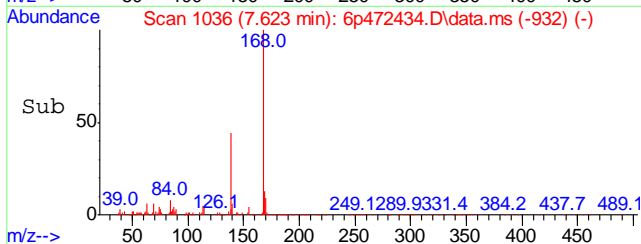
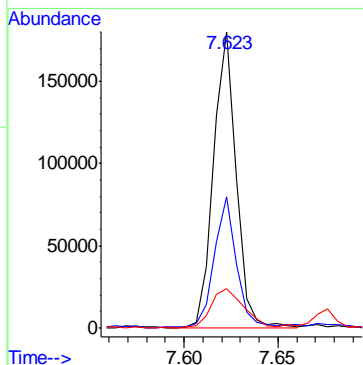
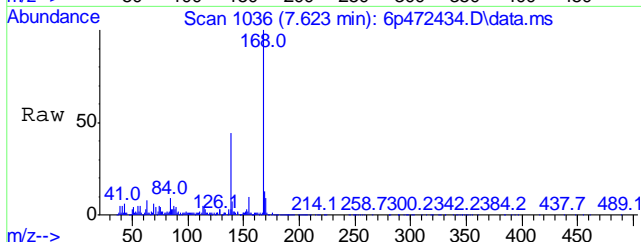
#59  
 Acenaphthene  
 Concen: 0.43 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 153     | 15473 | 100   |       |
| 152     | 49.5  | 13.9  | 73.9  |
| 154     | 97.1  | 59.3  | 119.3 |

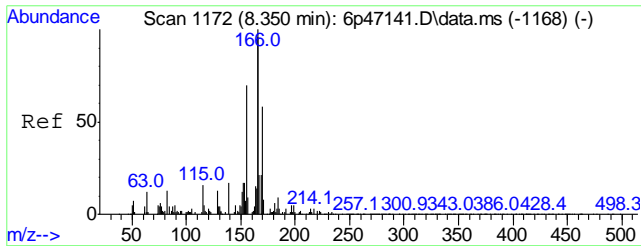


#62  
 Dibenzofuran  
 Concen: 3.27 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 168     | 150654 | 100   |       |
| 139     | 43.7   | 6.0   | 66.0  |
| 169     | 12.9   | 0.0   | 43.5  |

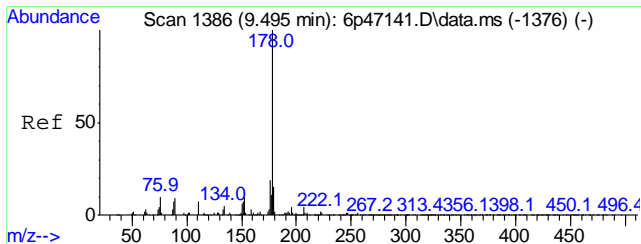
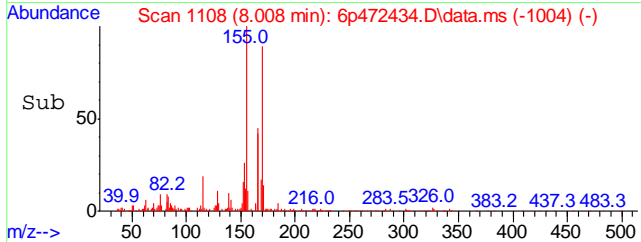
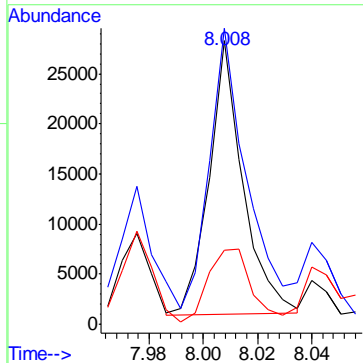
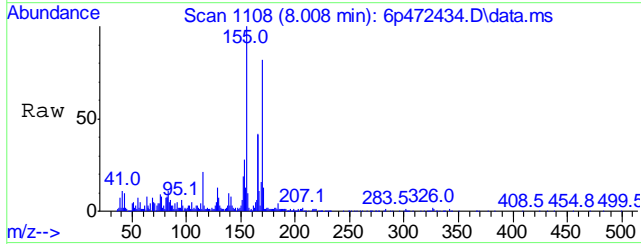


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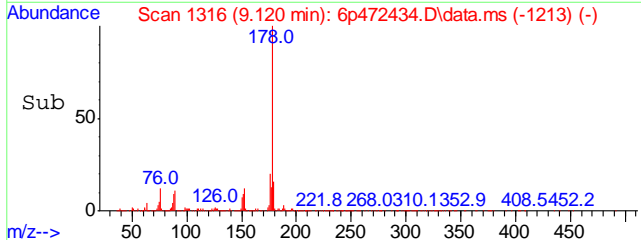
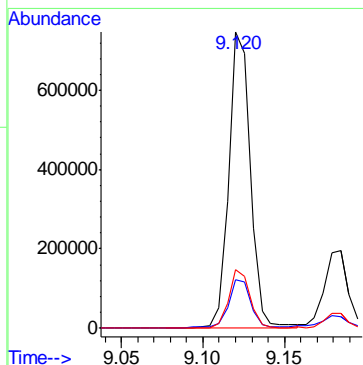
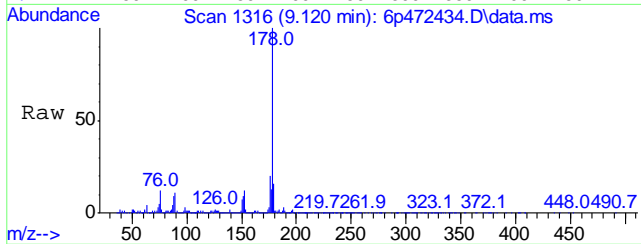
#66  
 Fluorene  
 Concen: 0.64 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 166     | 100  |       |       |
| 165     | 93.9 | 59.3  | 119.3 |
| 167     | 21.5 | 0.0   | 43.1  |

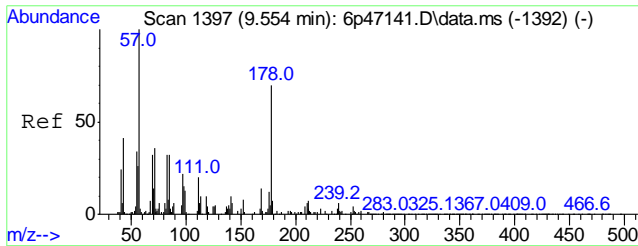


#77  
 Phenanthrene  
 Concen: 13.08 ppm  
 RT: 9.120 min Scan# 1316  
 Delta R.T. 0.053 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 15.8 | 0.0   | 46.6  |
| 176     | 19.5 | 0.0   | 49.6  |

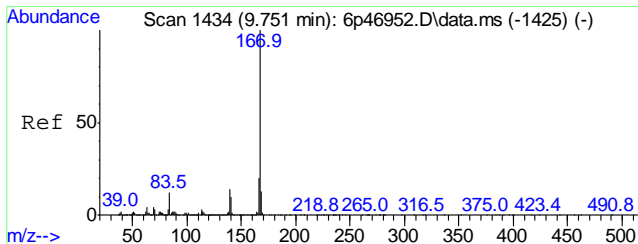
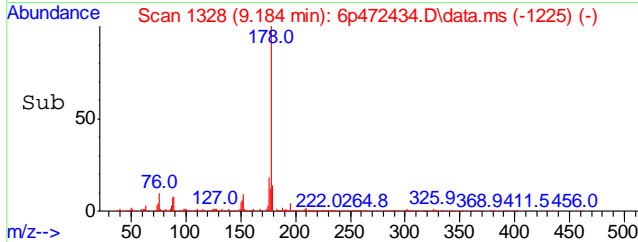
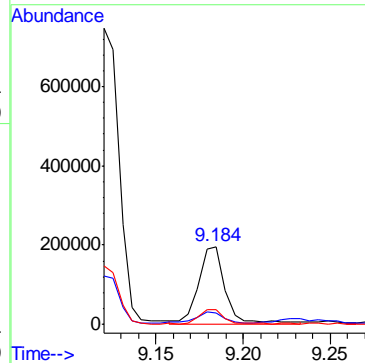
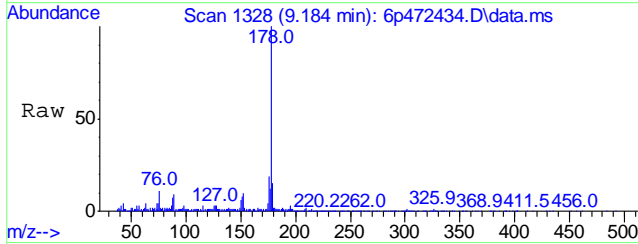


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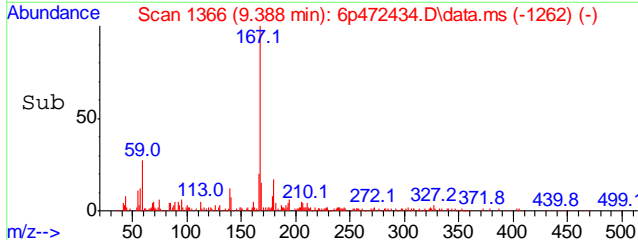
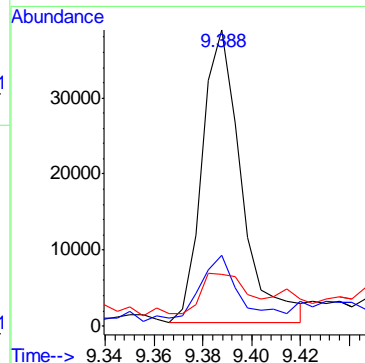
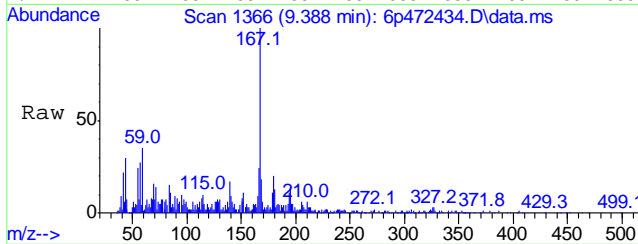
#78  
 Anthracene  
 Concen: 3.91 ppm  
 RT: 9.184 min Scan# 1328  
 Delta R.T. 0.054 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 10.6  | 0.0   | 45.3  |
| 176     | 18.5  | 0.0   | 48.4  |

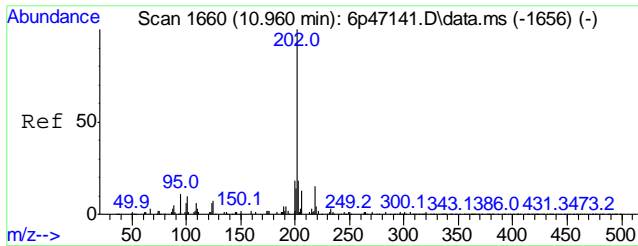


#79  
 Carbazole  
 Concen: 0.86 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 19.4  | 0.0   | 50.0  |
| 139     | 11.2  | 0.0   | 42.3  |

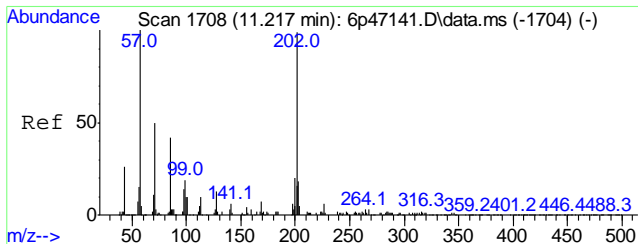
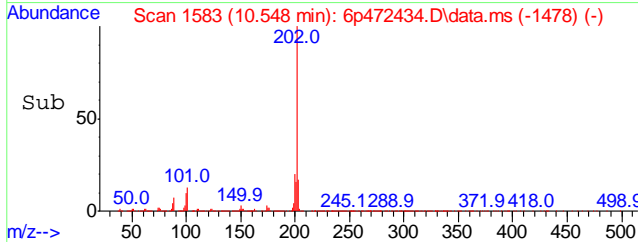
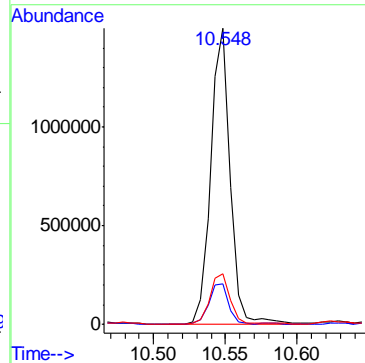
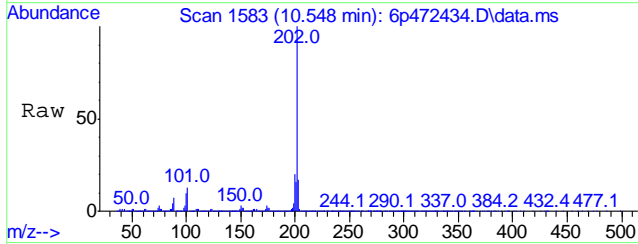


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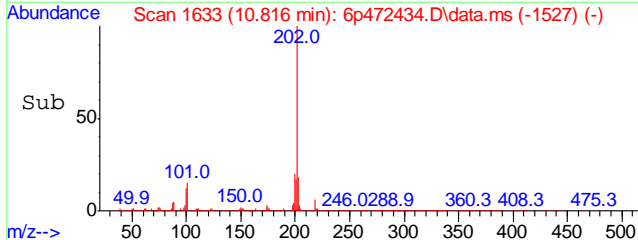
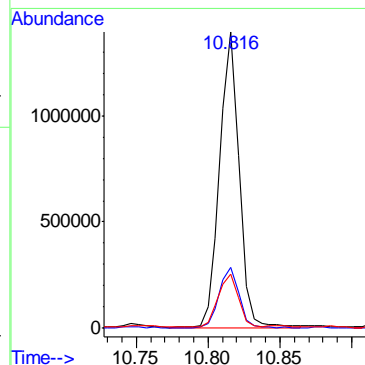
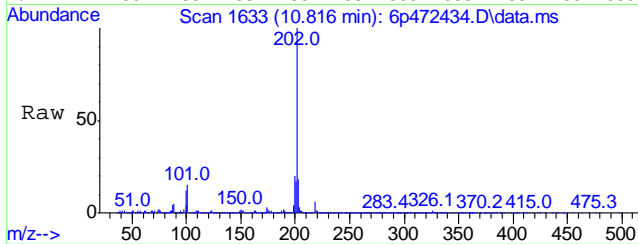
#81  
 Fluoranthene  
 Concen: 24.71 ppm  
 RT: 10.548 min Scan# 1583  
 Delta R.T. 0.062 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

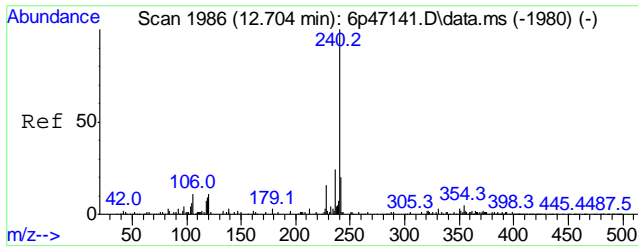
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1412852 |       |       |
| 101     | 13.4    | 0.0   | 40.9  |
| 203     | 16.9    | 0.0   | 47.4  |



#84  
 Pyrene  
 Concen: 25.43 ppm  
 RT: 10.816 min Scan# 1633  
 Delta R.T. 0.066 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

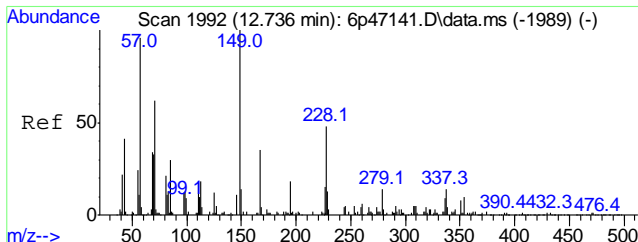
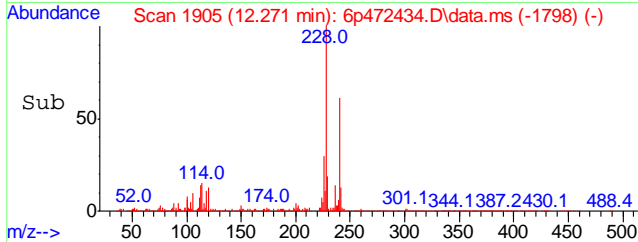
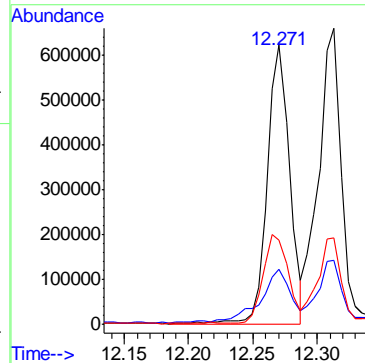
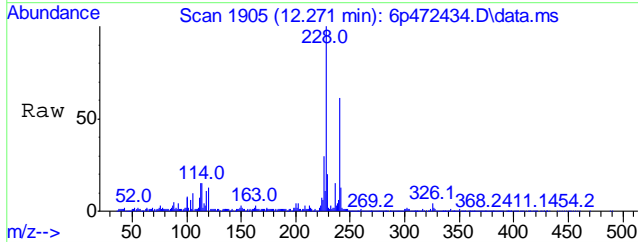
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 202     | 1308739 |       |       |
| 200     | 20.4    | 0.0   | 50.7  |
| 203     | 17.9    | 0.0   | 47.9  |





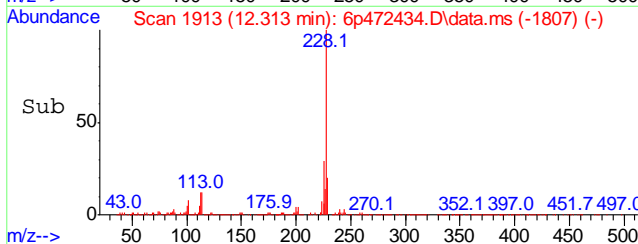
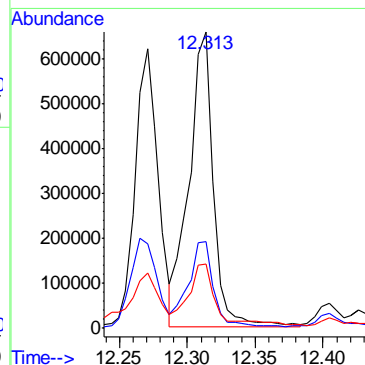
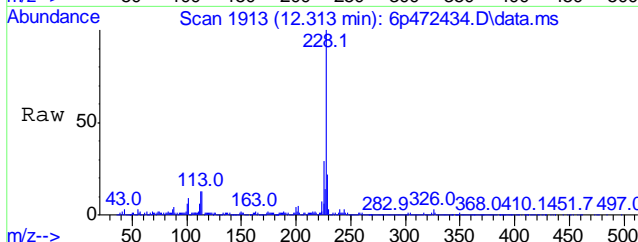
#87  
 Benzo[a]anthracene  
 Concen: 15.28 ppm  
 RT: 12.271 min Scan# 1905  
 Delta R.T. 0.075 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 18.7  | 0.0   | 49.8  |
| 226     | 29.9  | 0.0   | 56.0  |

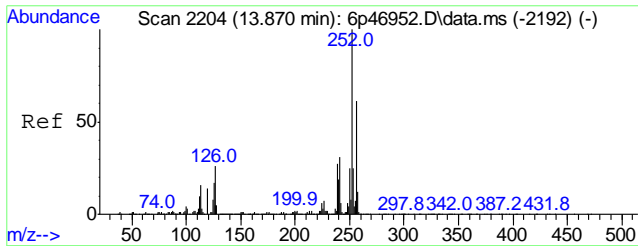


#89  
 Chrysene  
 Concen: 17.35 ppm  
 RT: 12.313 min Scan# 1913  
 Delta R.T. 0.070 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 29.0  | 0.0   | 59.5  |
| 229     | 20.6  | 0.0   | 49.6  |

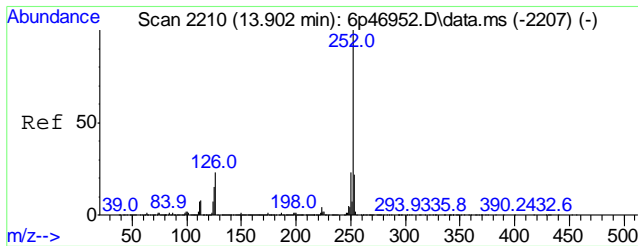
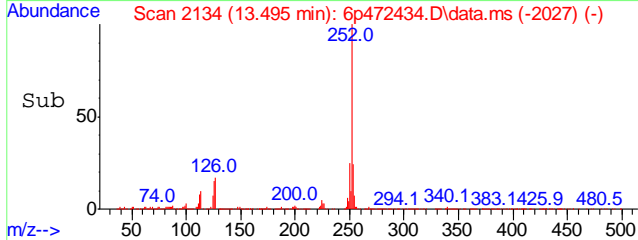
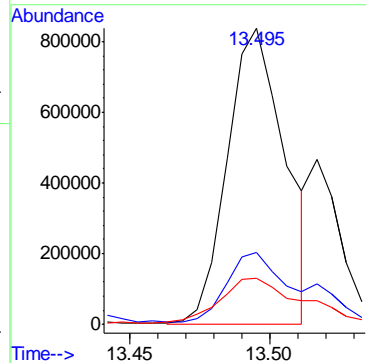
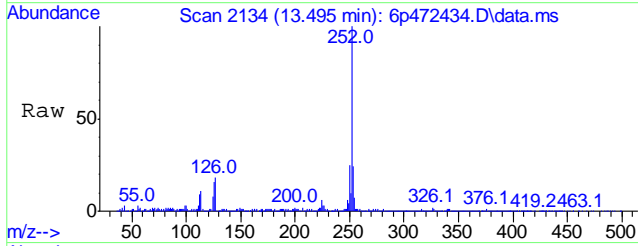


9.1.14  
 9



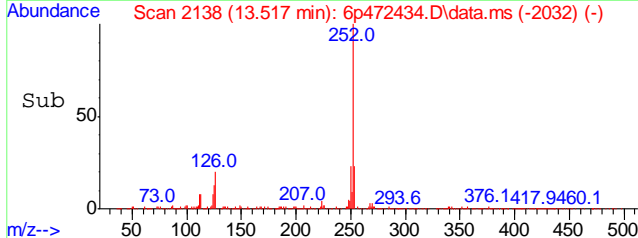
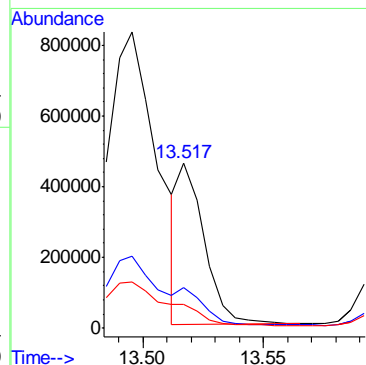
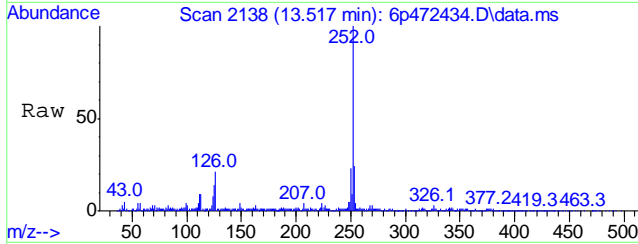
#93  
 Benzo[b]fluoranthene  
 Concen: 22.50 ppm m  
 RT: 13.495 min Scan# 2134  
 Delta R.T. 0.074 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

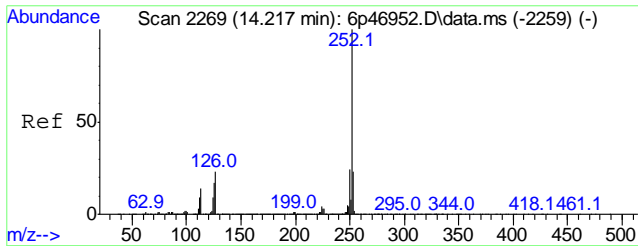
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.2 | 0.0   | 55.4  |
| 125     | 15.5 | 0.0   | 40.0  |



#94  
 Benzo[k]fluoranthene  
 Concen: 7.02 ppm m  
 RT: 13.517 min Scan# 2138  
 Delta R.T. 0.069 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

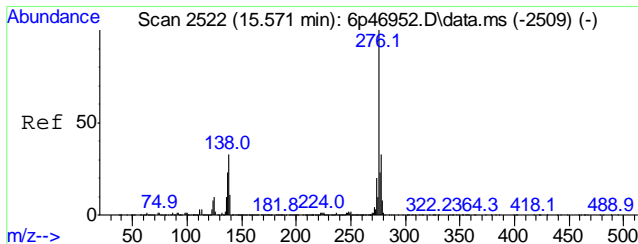
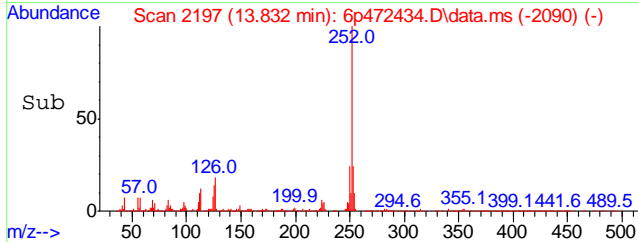
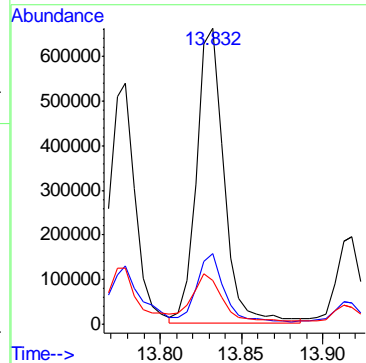
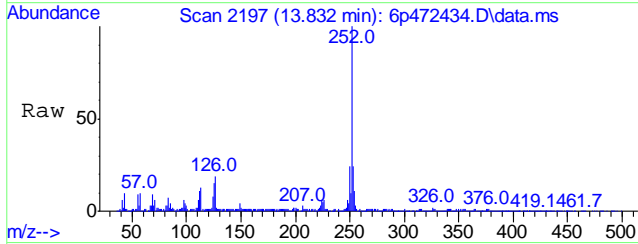
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.3 | 0.0   | 51.8  |
| 125     | 14.0 | 0.0   | 38.7  |





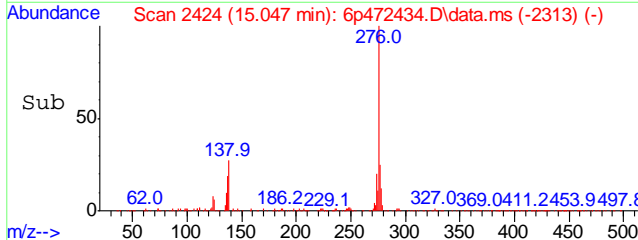
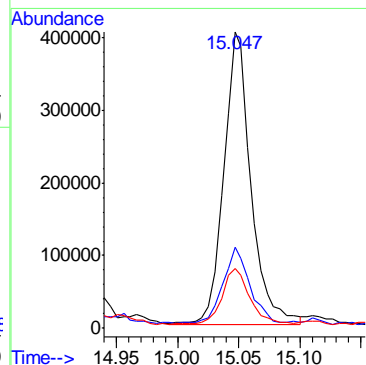
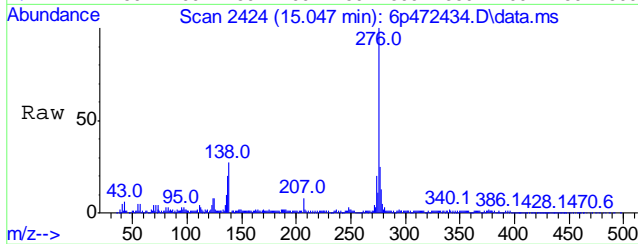
#95  
 Benzo[a]pyrene  
 Concen: 16.39 ppm  
 RT: 13.832 min Scan# 2197  
 Delta R.T. 0.075 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 22.6 | 0.0   | 52.5  |
| 125     | 12.6 | 0.0   | 40.0  |



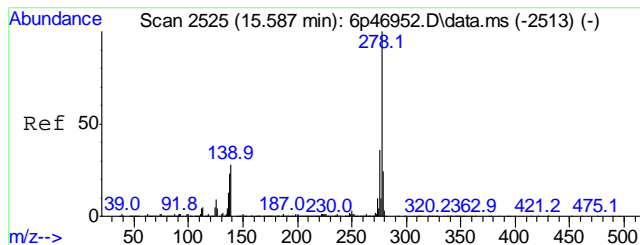
#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 9.99 ppm  
 RT: 15.047 min Scan# 2424  
 Delta R.T. 0.093 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 26.2 | 0.0   | 48.9  |
| 137     | 19.2 | 0.0   | 43.2  |



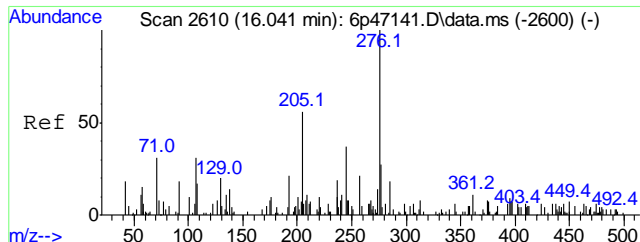
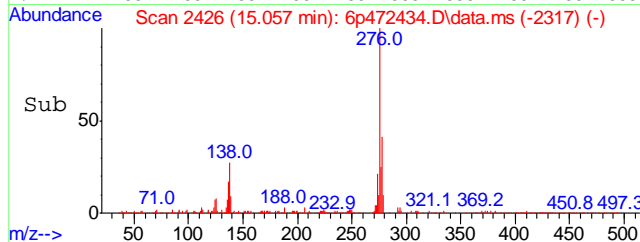
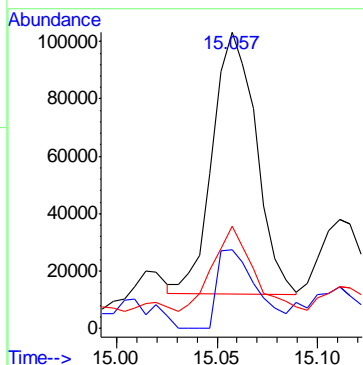
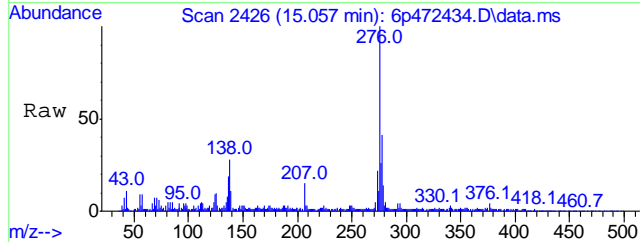
9.1.14  
 9





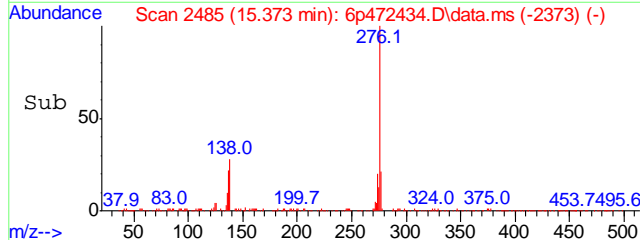
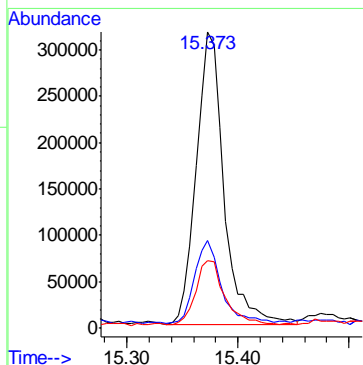
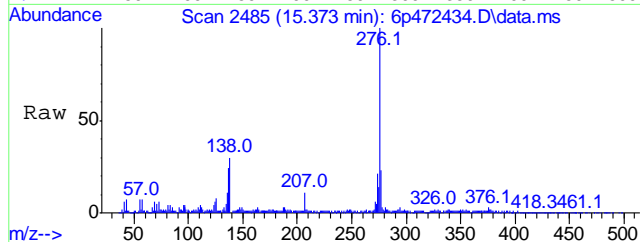
#98  
 Dibenz[a,h]anthracene  
 Concen: 2.55 ppm  
 RT: 15.057 min Scan# 2426  
 Delta R.T. 0.083 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 137470 | 100   |       |
| 139     | 26.6   | 0.0   | 45.9  |
| 279     | 34.4   | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 10.84 ppm  
 RT: 15.373 min Scan# 2485  
 Delta R.T. 0.100 min  
 Lab File: 6p472434.D  
 Acq: 2 May 2018 10:07 am

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 276     | 542587 | 100   |       |
| 138     | 28.2   | 0.0   | 49.9  |
| 277     | 22.0   | 0.0   | 53.3  |



9.1.14  
**9**

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472435.D  
 Acq On : 2 May 2018 10:32 am  
 Operator : sufiyana  
 Sample : jc65157-12  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 17 12:52:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |        |
|------------------------------|--------|------|----------|--------|--------|----------|--------|
| Internal Standards           |        |      |          |        |        |          |        |
| 1) 1,4-Dichlorobenzene-d4    | 4.622  | 152  | 543299   | 40.00  | ppm    | 0.04     |        |
| 24) Naphthalene-d8           | 5.649  | 136  | 2028324  | 40.00  | ppm    | 0.04     |        |
| 47) Acenaphthene-d10         | 7.398  | 164  | 1016538  | 40.00  | ppm    | 0.05     |        |
| 69) Phenanthrene-d10         | 9.099  | 188  | 1746772  | 40.00  | ppm    | 0.05     |        |
| 83) Chrysene-d12             | 12.287 | 240  | 1654717  | 40.00  | ppm    | 0.07     |        |
| 91) Perylene-d12             | 13.897 | 264  | 1765450  | 40.00  | ppm    | 0.07     |        |
| 101) 1,4-Dichlorobenzene-d4a | 4.622  | 152  | 543299   | 40.00  | ppm    | 0.04     |        |
| 103) Acenaphthene-d10a       | 7.398  | 164  | 1016538  | 40.00  | ppm    | 0.05     |        |
| 105) Phenanthrene-d10a       | 9.099  | 188  | 1746772  | 40.00  | ppm    | 0.05     |        |
| 109) Chrysene-d12a           | 12.287 | 240  | 1654717  | 40.00  | ppm    | 0.07     |        |
| 111) Naphthalene-d8a         | 5.649  | 136  | 2028324  | 40.00  | ppm    | 0.04     |        |
| 113) Phenanthrene-d10b       | 9.099  | 188  | 1746772  | 40.00  | ppm    | 0.05     |        |
| 115) Chrysene-d12b           | 12.287 | 240  | 1654717  | 40.00  | ppm    | 0.07     |        |
| System Monitoring Compounds  |        |      |          |        |        |          |        |
| 5) 2-Fluorophenol            | 3.654  | 112  | 551104   | 27.83  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 55.66% |          |        |
| 8) Phenol-d5                 | 4.371  | 99   | 684563   | 27.14  | ppm    | 0.03     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 54.28% |          |        |
| 25) Nitrobenzene-d5          | 5.050  | 82   | 636897   | 28.92  | ppm    | 0.04     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 57.84% |          |        |
| 51) 2-Fluorobiphenyl         | 6.681  | 172  | 1178423  | 30.05  | ppm    | 0.05     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 60.10% |          |        |
| 73) 2,4,6-Tribromophenol     | 8.291  | 330  | 152469   | 23.21  | ppm    | 0.06     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 46.42% |          |        |
| 85) Terphenyl-d14            | 11.030 | 244  | 1046121  | 26.46  | ppm    | 0.07     |        |
| Spiked Amount                | 50.000 |      | Recovery | =      | 52.92% |          |        |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00   | ppm    |          |        |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00   | ppm    |          |        |
| Target Compounds             |        |      |          |        |        |          |        |
| 18) Acetophenone             | 4.927  | 105  | 10567    | 0.40   | ppm    | 84       | Qvalue |
| 38) Naphthalene              | 5.670  | 128  | 336809   | 6.34   | ppm    | 97       |        |
| 44) 2-Methylnaphthalene      | 6.312  | 141  | 121727   | 3.91   | ppm    | 97       |        |
| 53) Biphenyl                 | 6.783  | 154  | 48577    | 1.12   | ppm    | 98       |        |
| 56) Acenaphthylene           | 7.243  | 152  | 687388   | 13.89  | ppm    | 98       |        |
| 59) Acenaphthene             | 7.430  | 153  | 131257   | 3.80   | ppm    | 88       |        |
| 62) Dibenzofuran             | 7.623  | 168  | 291111   | 6.53   | ppm    | 93       |        |
| 66) Fluorene                 | 8.008  | 166  | 316426   | 8.83   | ppm    | 89       |        |
| 77) Phenanthrene             | 9.131  | 178  | 4631611  | 87.22  | ppm    | 98       |        |
| 78) Anthracene               | 9.184  | 178  | 1123939  | 20.91  | ppm    | 98       |        |
| 79) Carbazole                | 9.388  | 167  | 343205   | 6.87   | ppm    | 97       |        |
| 81) Fluoranthene             | 10.554 | 202  | 6431258  | 111.70 | ppm    | 95       |        |
| 84) Pyrene                   | 10.826 | 202  | 5854337  | 105.87 | ppm    | 98       |        |
| 86) Butylbenzylphthalate     | 11.639 | 149  | 22524    | 1.03   | ppm    | 86       |        |
| 87) Benzo[a]anthracene       | 12.276 | 228  | 2609802  | 50.33  | ppm    | 99       |        |
| 89) Chrysene                 | 12.319 | 228  | 2505134  | 48.87  | ppm    | 95       |        |
| 93) Benzo[b]fluoranthene     | 13.506 | 252  | 4522696m | 80.90  | ppm    |          |        |
| 94) Benzo[k]fluoranthene     | 13.528 | 252  | 1266394m | 24.78  | ppm    |          |        |

9.1.15  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472435.D  
 Acq On : 2 May 2018 10:32 am  
 Operator : sufiyana  
 Sample : jc65157-12  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 17 12:52:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration

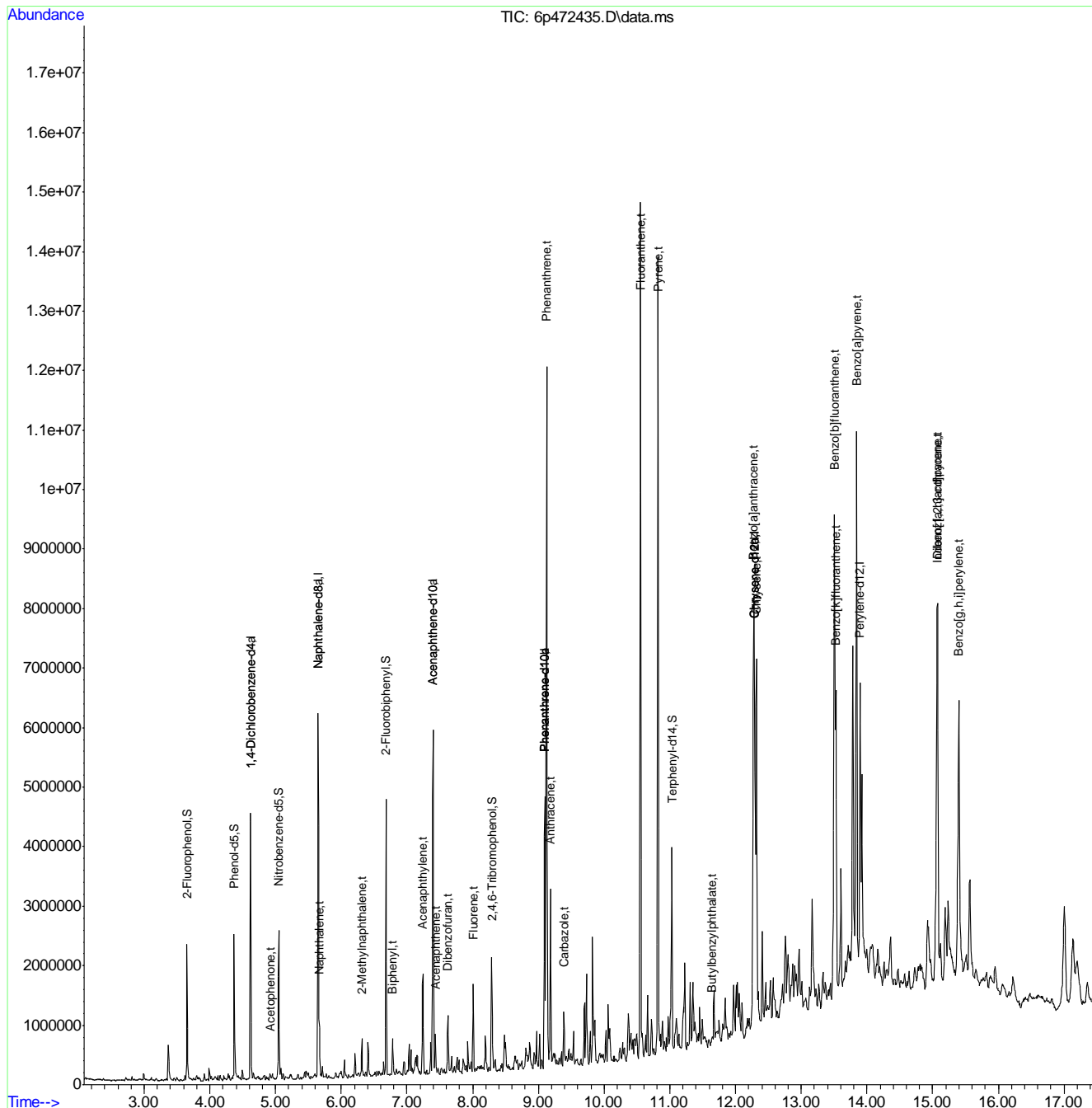
| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| 95) Benzo[a]pyrene         | 13.843 | 252  | 3664502  | 74.00 | ppm   | 94       |
| 96) Indeno[1,2,3-cd]pyrene | 15.068 | 276  | 3443179  | 52.82 | ppm   | 79       |
| 98) Dibenz[a,h]anthracene  | 15.073 | 278  | 638816m  | 11.37 | ppm   |          |
| 100) Benzo[g,h,i]perylene  | 15.400 | 276  | 3175896  | 60.84 | ppm   | 91       |

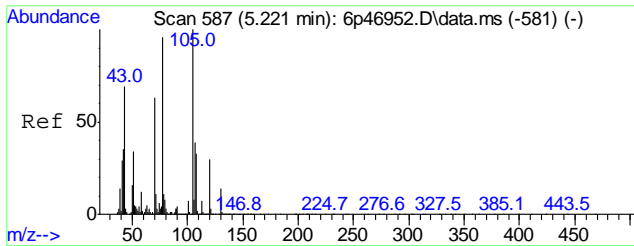
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472435.D  
 Acq On : 2 May 2018 10:32 am  
 Operator : sufiyana  
 Sample : jc65157-12  
 Misc : op11665,e6p2189,30.9,,,1,1  
 ALS Vial : 29 Sample Multiplier: 1

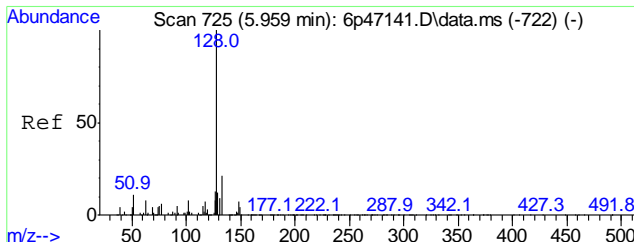
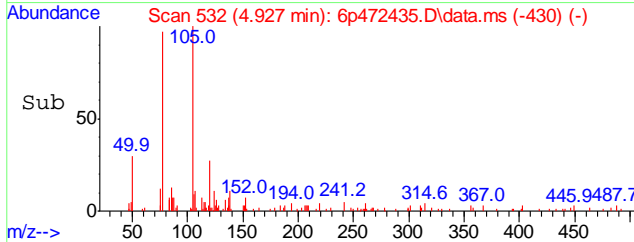
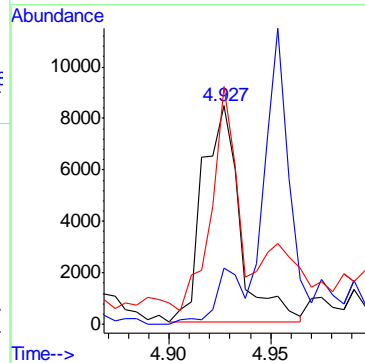
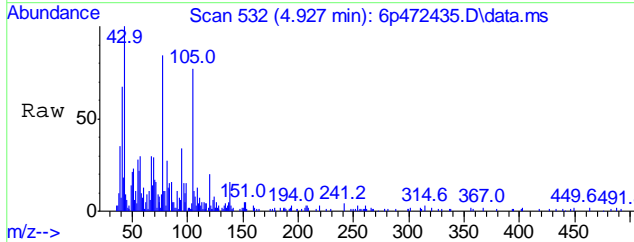
Quant Time: May 17 12:52:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuWed May 02 09:22:03 2018  
 QLast Update : Wed May 02 09:22:03 2018  
 Response via : Initial Calibration





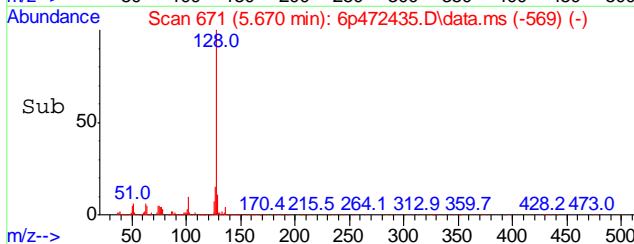
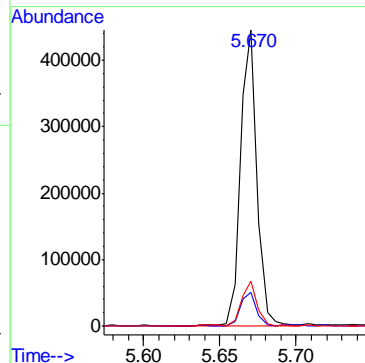
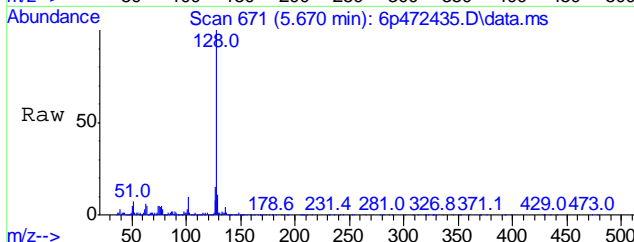
#18  
 Acetophenone  
 Concen: 0.40 ppm  
 RT: 4.927 min Scan# 532  
 Delta R.T. 0.044 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

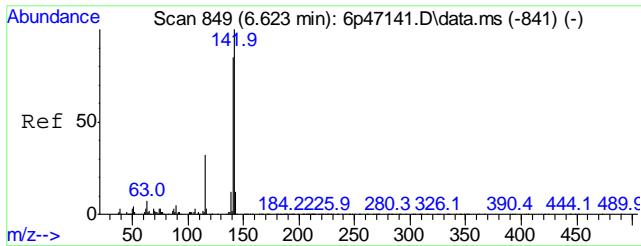
| Tgt Ion | Resp  | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 10567 | 100   |       |
| 120     | 15.7  | 0.0   | 58.4  |
| 77      | 93.3  | 78.1  | 138.1 |



#38  
 Naphthalene  
 Concen: 6.34 ppm  
 RT: 5.670 min Scan# 671  
 Delta R.T. 0.048 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

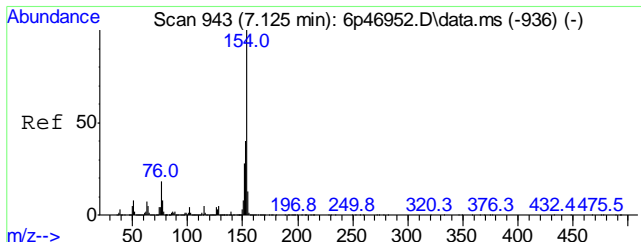
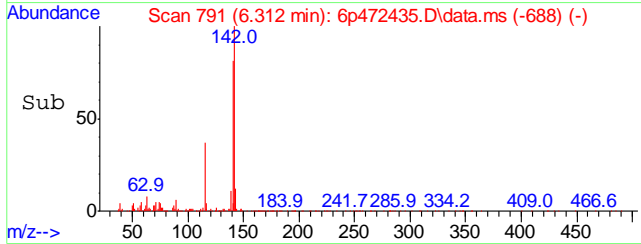
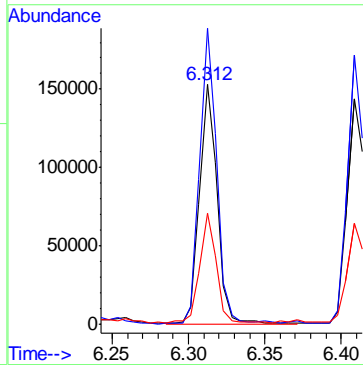
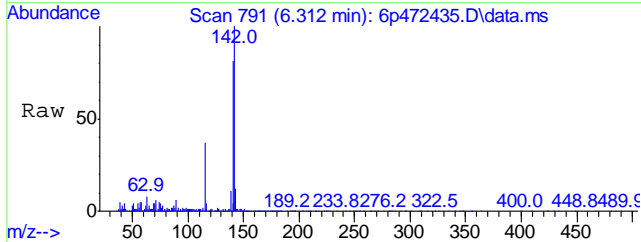
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 336809 | 100   |       |
| 129     | 11.1   | 0.0   | 41.1  |
| 127     | 15.1   | 0.0   | 43.2  |





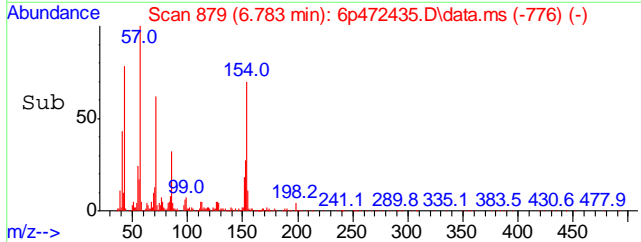
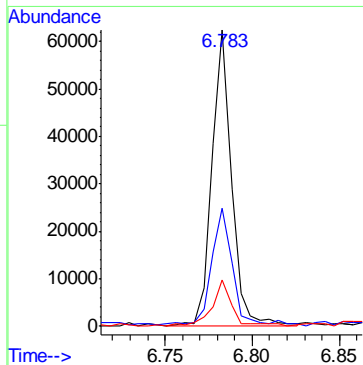
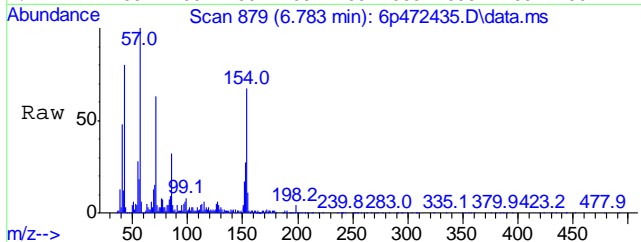
#44  
 2-Methylnaphthalene  
 Concen: 3.91 ppm  
 RT: 6.312 min Scan# 791  
 Delta R.T. 0.050 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 141     | 100   |       |       |
| 142     | 122.9 | 91.8  | 151.8 |
| 115     | 45.1  | 8.6   | 68.6  |

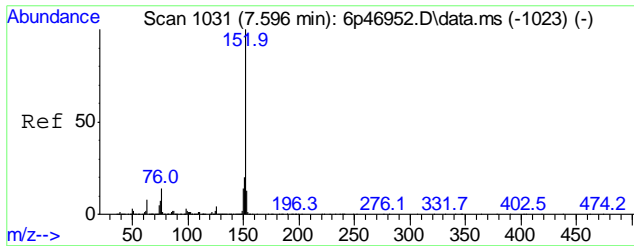


#53  
 Biphenyl  
 Concen: 1.12 ppm  
 RT: 6.783 min Scan# 879  
 Delta R.T. 0.052 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 39.1  | 8.7   | 68.7  |
| 155     | 15.5  | 0.0   | 43.0  |

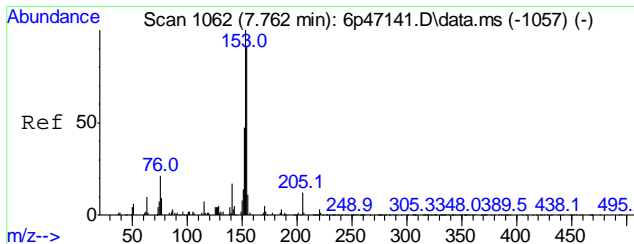
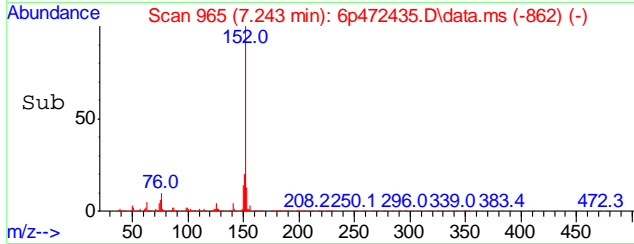
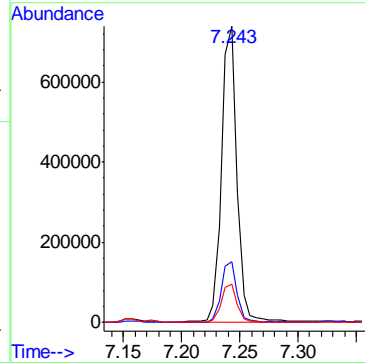
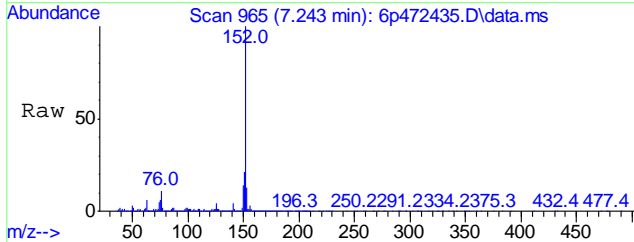


9.1.15  
**9**



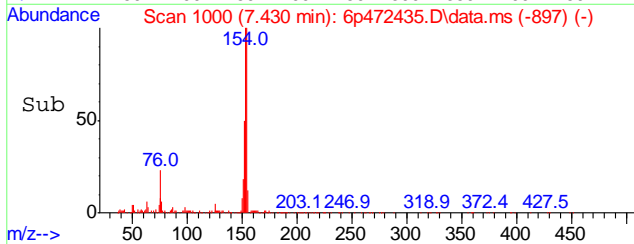
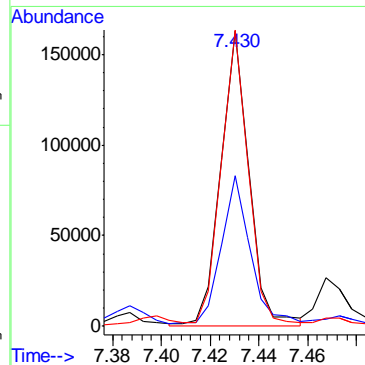
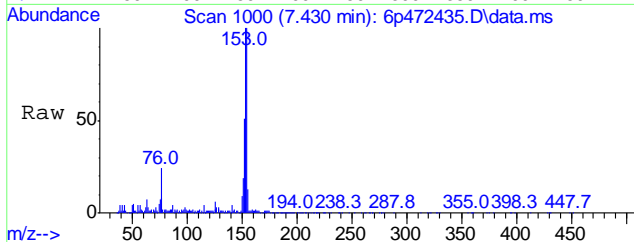
#56  
 Acenaphthylene  
 Concen: 13.89 ppm  
 RT: 7.243 min Scan# 965  
 Delta R.T. 0.053 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

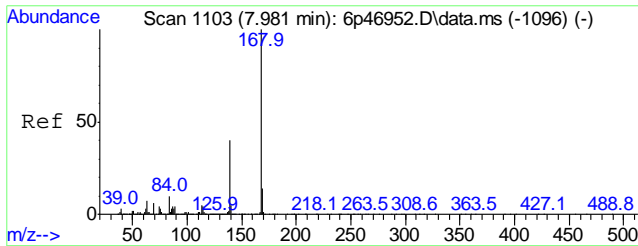
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 152     | 687388 |       |       |
| 152     | 100    |       |       |
| 151     | 20.5   | 0.0   | 50.2  |
| 153     | 12.8   | 0.0   | 44.8  |



#59  
 Acenaphthene  
 Concen: 3.80 ppm  
 RT: 7.430 min Scan# 1000  
 Delta R.T. 0.053 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

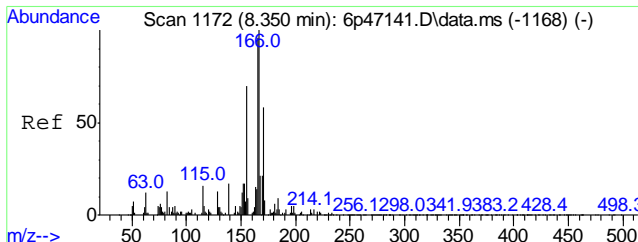
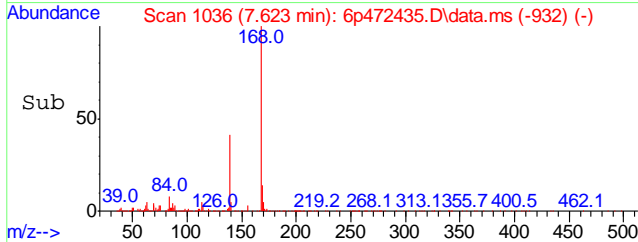
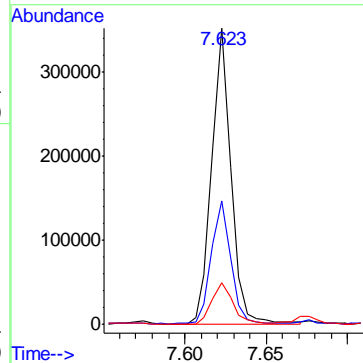
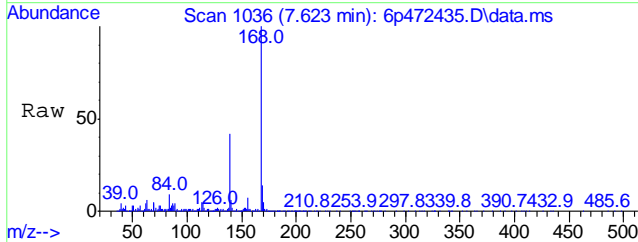
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 153     | 131257 |       |       |
| 153     | 100    |       |       |
| 152     | 50.6   | 13.9  | 73.9  |
| 154     | 100.7  | 59.3  | 119.3 |





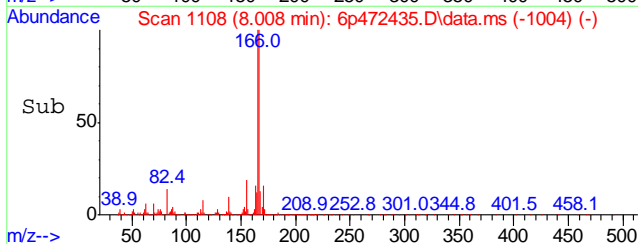
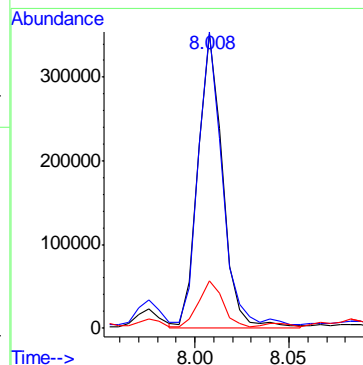
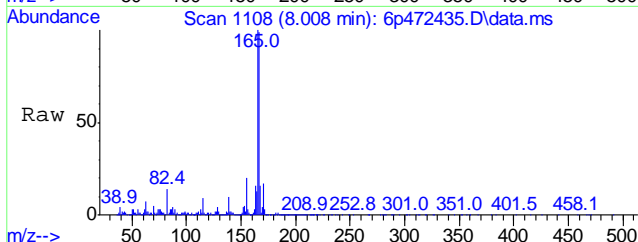
#62  
 Dibenzofuran  
 Concen: 6.53 ppm  
 RT: 7.623 min Scan# 1036  
 Delta R.T. 0.054 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 168     | 100   |       |       |
| 139     | 41.2  | 6.0   | 66.0  |
| 169     | 12.8  | 0.0   | 43.5  |



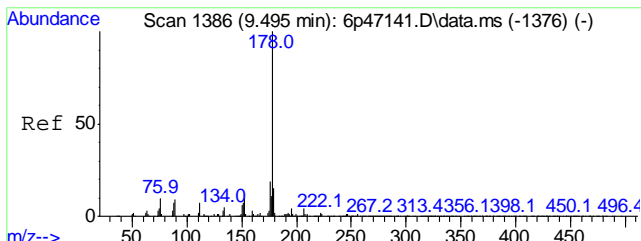
#66  
 Fluorene  
 Concen: 8.83 ppm  
 RT: 8.008 min Scan# 1108  
 Delta R.T. 0.055 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 100.2 | 59.3  | 119.3 |
| 167     | 15.6  | 0.0   | 43.1  |



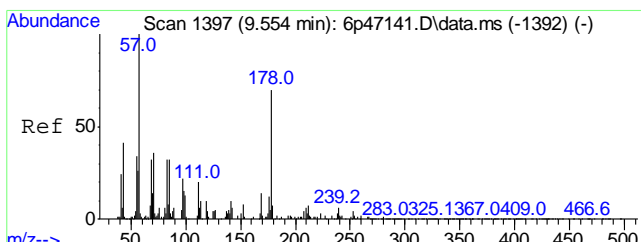
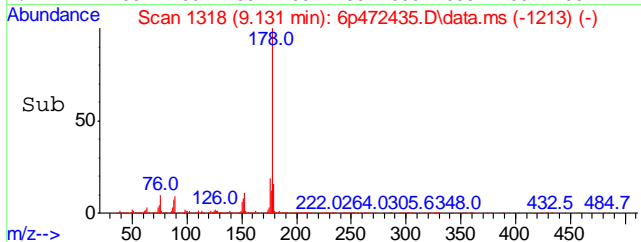
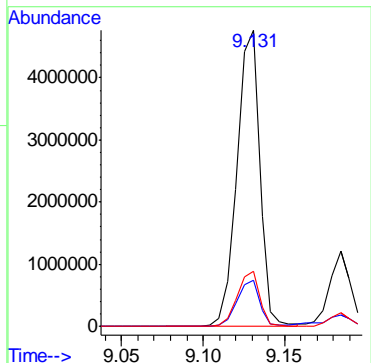
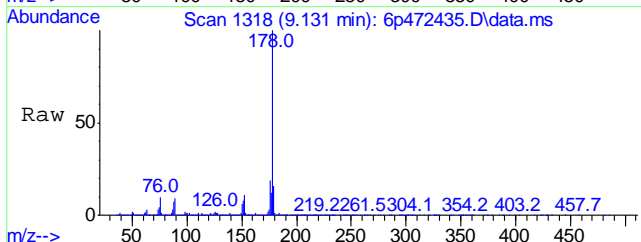
9.1.15  
**9**





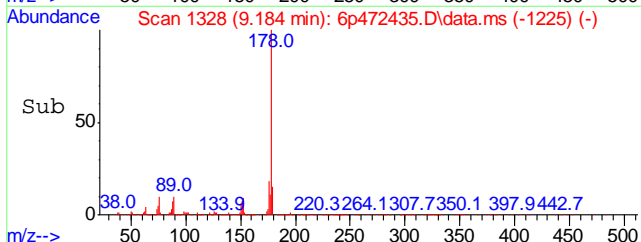
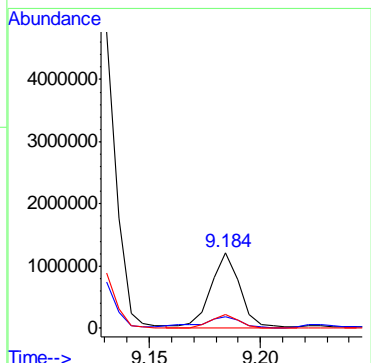
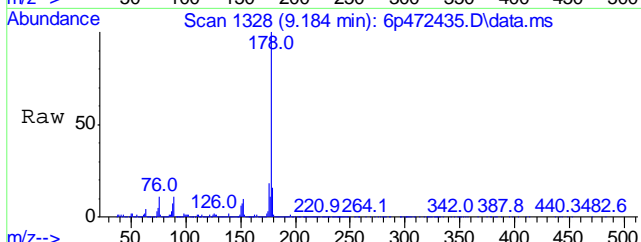
#77  
 Phenanthrene  
 Concen: 87.22 ppm  
 RT: 9.131 min Scan# 1318  
 Delta R.T. 0.064 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 4631611 |       |       |
| 179     | 15.3    | 0.0   | 46.6  |
| 176     | 18.6    | 0.0   | 49.6  |

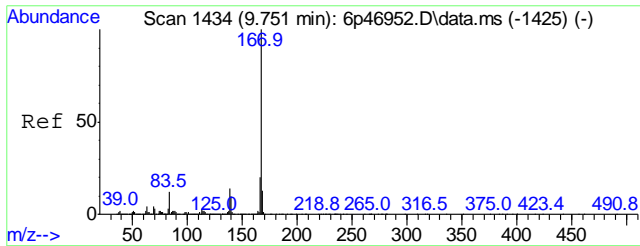


#78  
 Anthracene  
 Concen: 20.91 ppm  
 RT: 9.184 min Scan# 1328  
 Delta R.T. 0.054 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 178     | 1123939 |       |       |
| 179     | 13.9    | 0.0   | 45.3  |
| 176     | 17.9    | 0.0   | 48.4  |

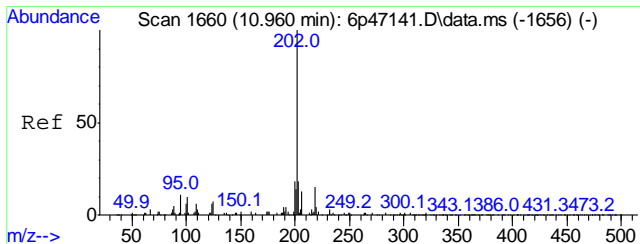
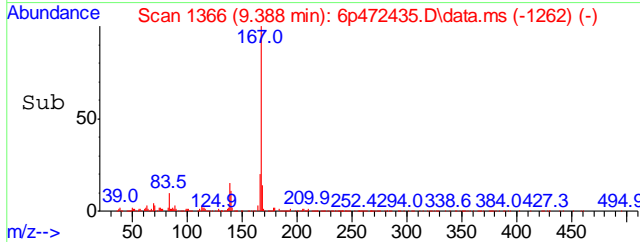
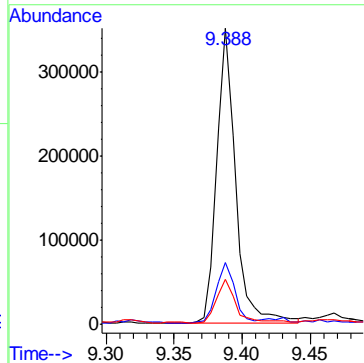
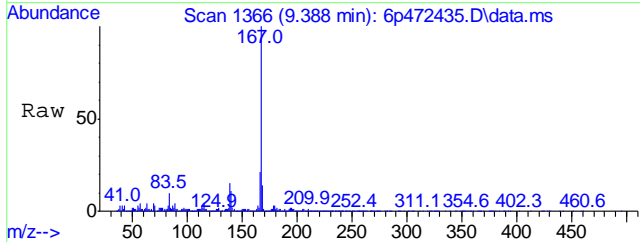


9.1.15  
 9



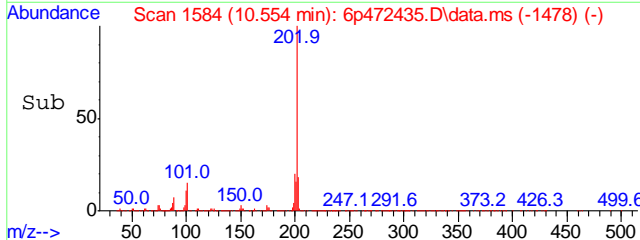
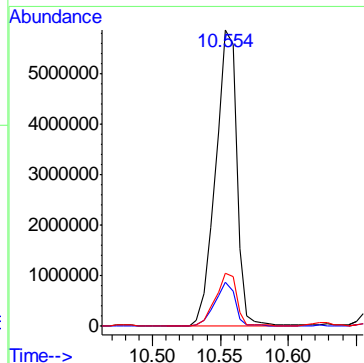
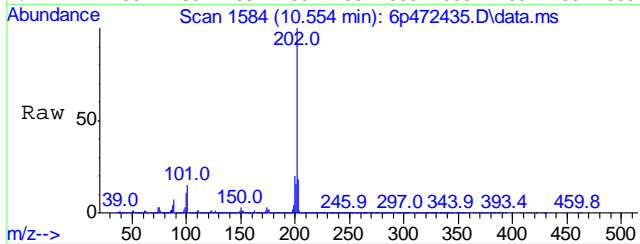
#79  
 Carbazole  
 Concen: 6.87 ppm  
 RT: 9.388 min Scan# 1366  
 Delta R.T. 0.054 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

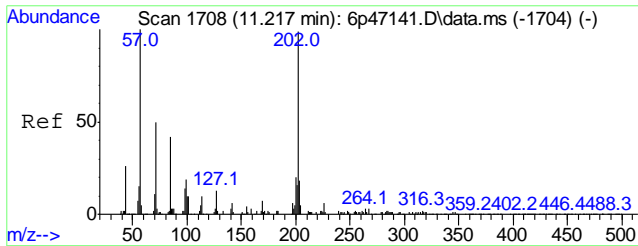
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 167     | 100   |       |       |
| 166     | 20.3  | 0.0   | 50.0  |
| 139     | 14.7  | 0.0   | 42.3  |



#81  
 Fluoranthene  
 Concen: 111.70 ppm  
 RT: 10.554 min Scan# 1584  
 Delta R.T. 0.067 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

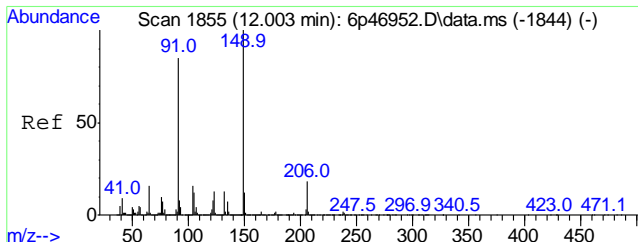
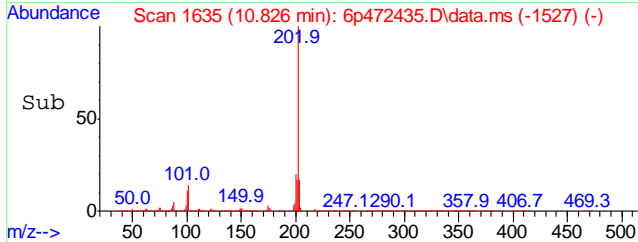
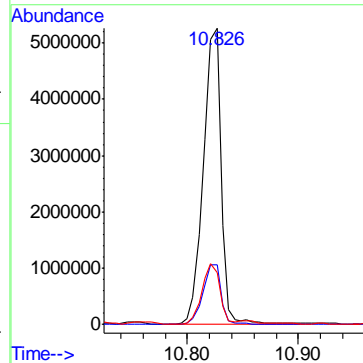
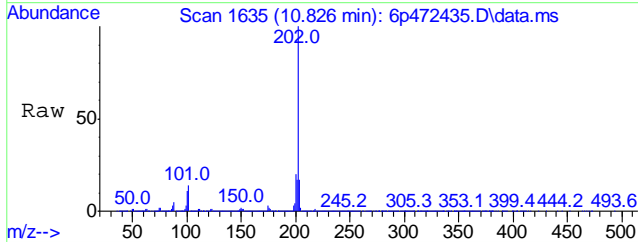
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 14.9  | 0.0   | 40.9  |
| 203     | 17.7  | 0.0   | 47.4  |





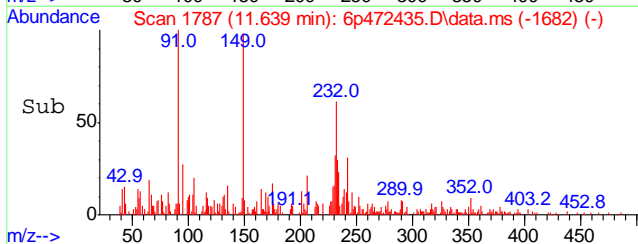
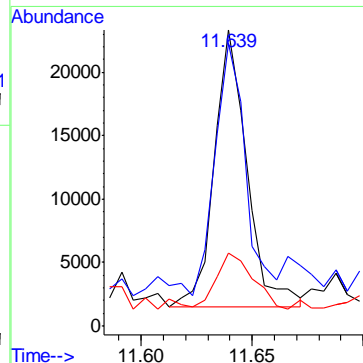
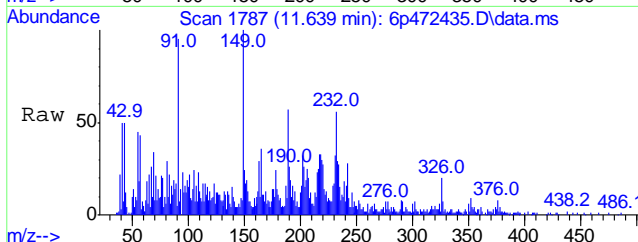
#84  
 Pyrene  
 Concen: 105.87 ppm  
 RT: 10.826 min Scan# 1635  
 Delta R.T. 0.076 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 19.9  | 0.0   | 50.7  |
| 203     | 17.2  | 0.0   | 47.9  |

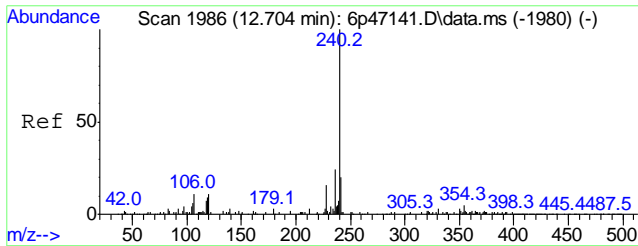


#86  
 Butylbenzylphthalate  
 Concen: 1.03 ppm  
 RT: 11.639 min Scan# 1787  
 Delta R.T. 0.062 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 91      | 85.2  | 43.9  | 103.9 |
| 206     | 17.2  | 0.0   | 54.6  |

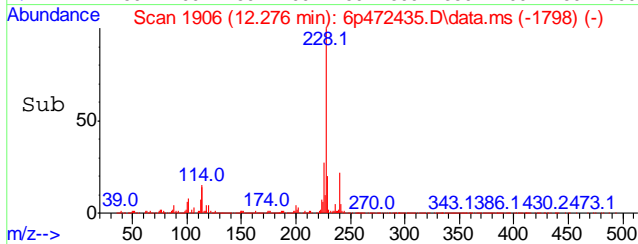
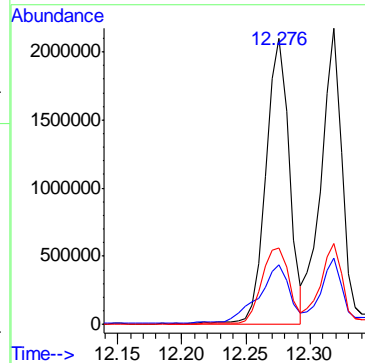
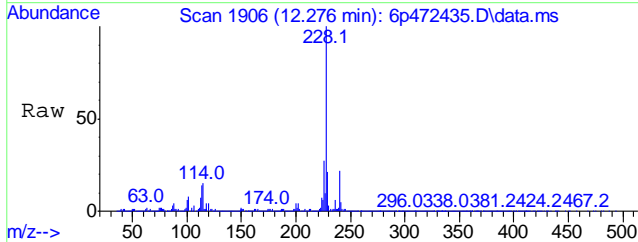


9.1.15  
 9



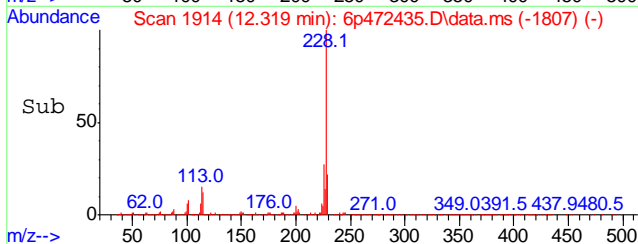
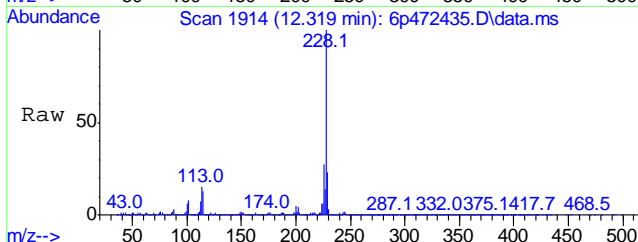
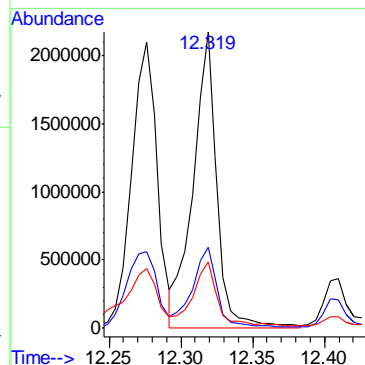
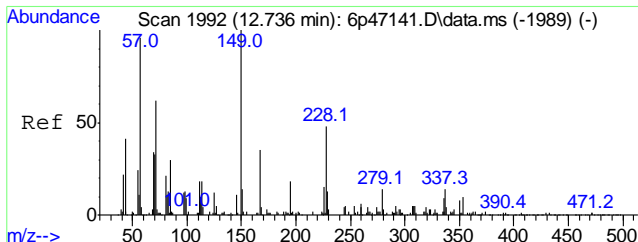
#87  
 Benzo[a]anthracene  
 Concen: 50.33 ppm  
 RT: 12.276 min Scan# 1906  
 Delta R.T. 0.080 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 19.9  | 0.0   | 49.8  |
| 226     | 26.4  | 0.0   | 56.0  |

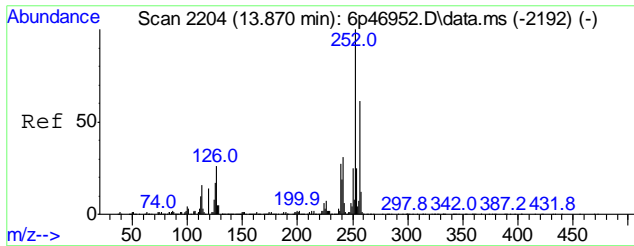


#89  
 Chrysene  
 Concen: 48.87 ppm  
 RT: 12.319 min Scan# 1914  
 Delta R.T. 0.075 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.0  | 0.0   | 59.5  |
| 229     | 21.8  | 0.0   | 49.6  |

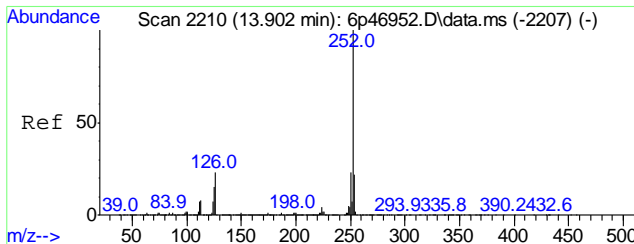
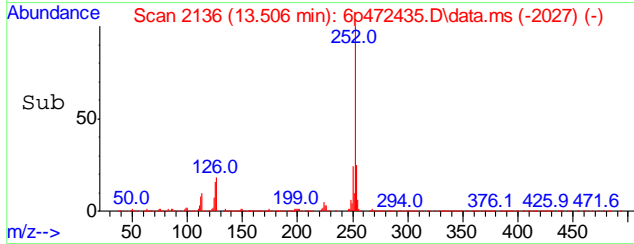
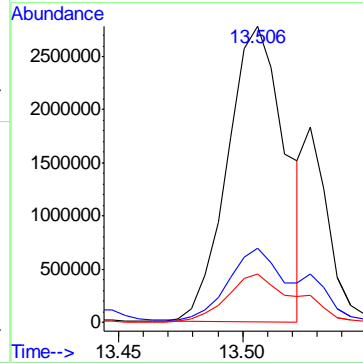
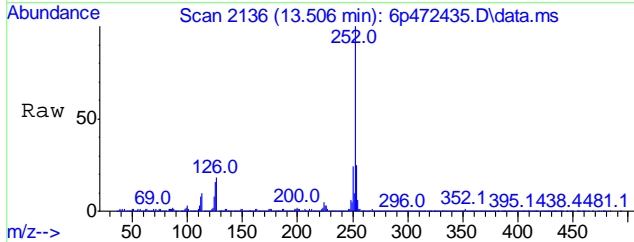


9.1.15  
 9



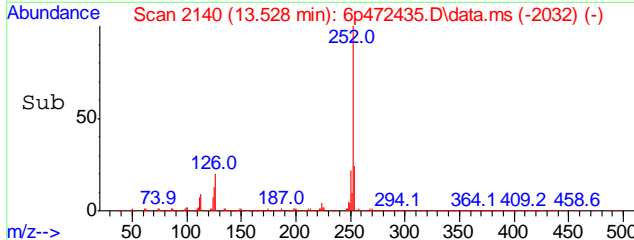
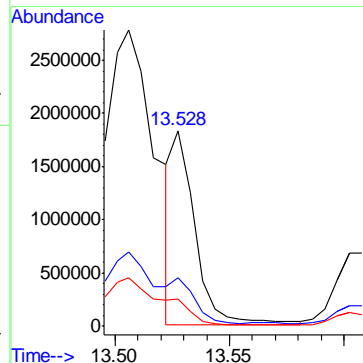
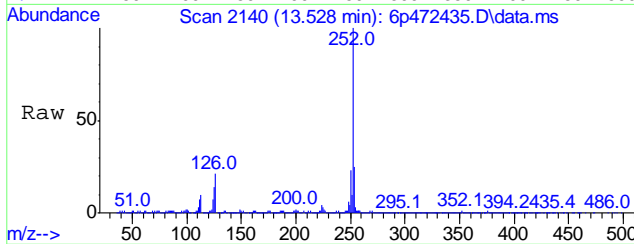
#93  
 Benzo[b]fluoranthene  
 Concen: 80.90 ppm m  
 RT: 13.506 min Scan# 2136  
 Delta R.T. 0.084 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

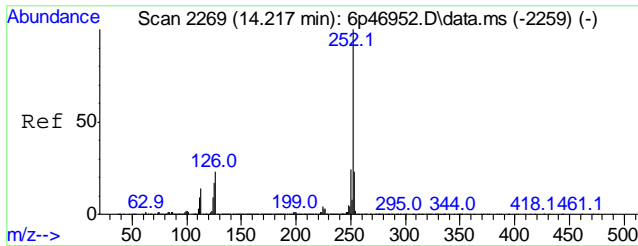
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.9 | 0.0   | 55.4  |
| 125     | 16.1 | 0.0   | 40.0  |



#94  
 Benzo[k]fluoranthene  
 Concen: 24.78 ppm m  
 RT: 13.528 min Scan# 2140  
 Delta R.T. 0.079 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

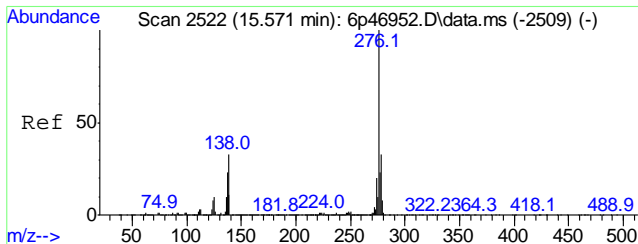
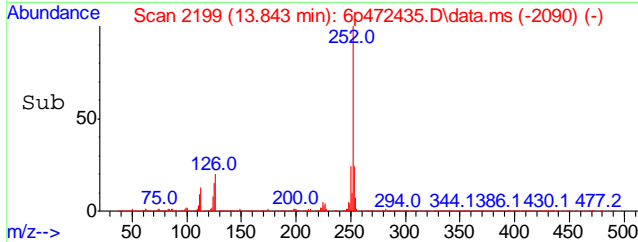
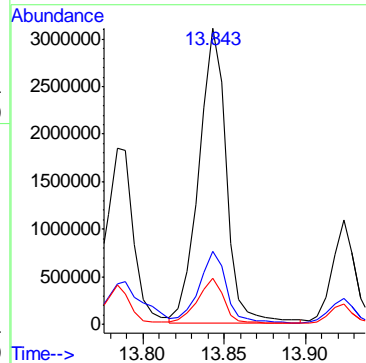
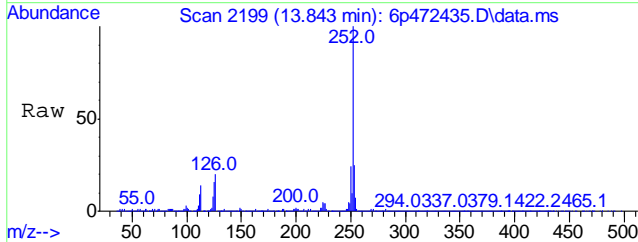
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 24.8 | 0.0   | 51.8  |
| 125     | 13.8 | 0.0   | 38.7  |





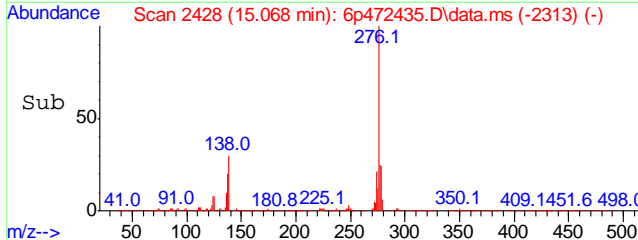
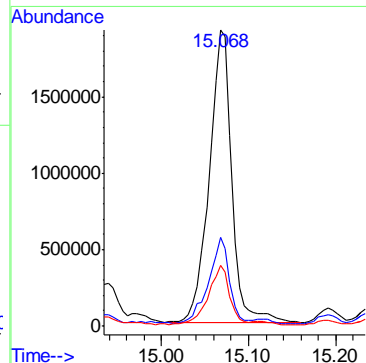
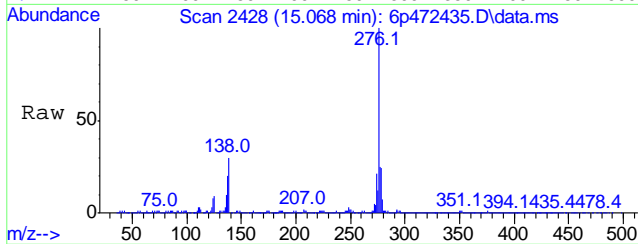
#95  
 Benzo[a]pyrene  
 Concen: 74.00 ppm  
 RT: 13.843 min Scan# 2199  
 Delta R.T. 0.085 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 23.6 | 0.0   | 52.5  |
| 125     | 15.3 | 0.0   | 40.0  |

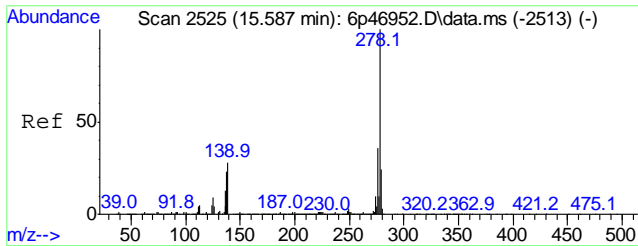


#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 52.82 ppm  
 RT: 15.068 min Scan# 2428  
 Delta R.T. 0.115 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 29.3 | 0.0   | 48.9  |
| 137     | 20.1 | 0.0   | 43.2  |

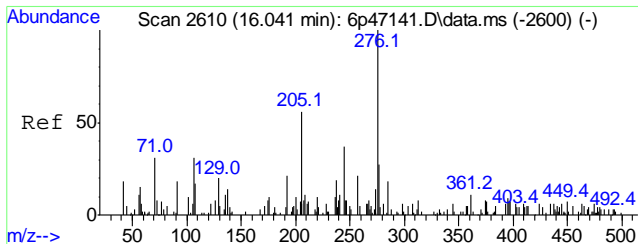
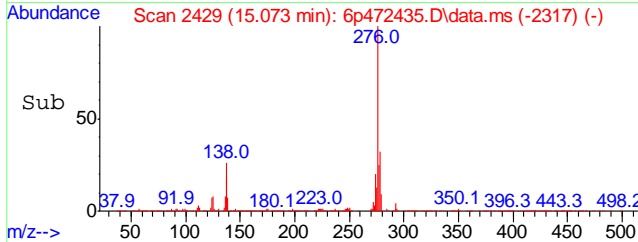
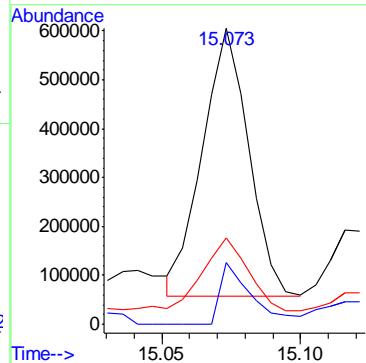
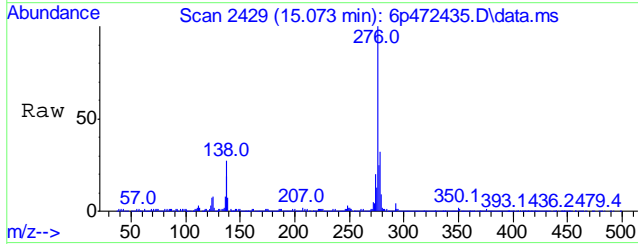


9.1.15  
 9



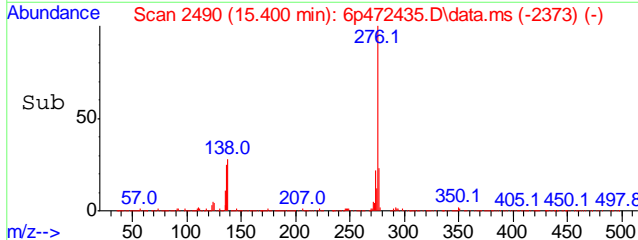
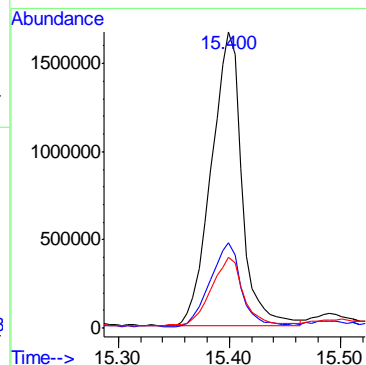
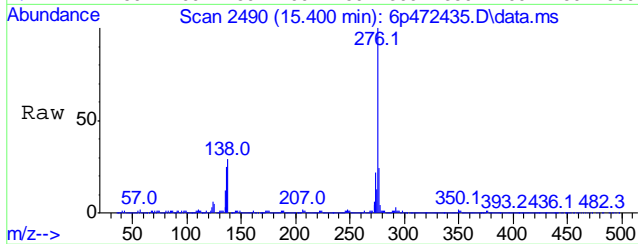
#98  
 Dibenz[a,h]anthracene  
 Concen: 11.37 ppm  
 RT: 15.073 min Scan# 2429  
 Delta R.T. 0.099 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 278     | 100  |       |       |
| 139     | 20.7 | 0.0   | 45.9  |
| 279     | 29.2 | 0.0   | 54.3  |



#100  
 Benzo[g,h,i]perylene  
 Concen: 60.84 ppm  
 RT: 15.400 min Scan# 2490  
 Delta R.T. 0.126 min  
 Lab File: 6p472435.D  
 Acq: 2 May 2018 10:32 am

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 28.6 | 0.0   | 49.9  |
| 277     | 22.9 | 0.0   | 53.3  |



9.1.15  
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## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\  
 Data File : 6p473005.d  
 Acq On : 16 May 2018 3:21 pm  
 Operator : christc2  
 Sample : jc65157-12  
 Misc : op11665,e6p2211,30.9,,,1,2  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:53:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
 QLast Update : Wed May 16 22:45:08 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.508  | 152  | 499328   | 40.00 | ppm    | 0.00     |
| 24) Naphthalene-d8           | 5.524  | 136  | 2000951  | 40.00 | ppm    | 0.00     |
| 47) Acenaphthene-d10         | 7.252  | 164  | 1034066  | 40.00 | ppm    | 0.00     |
| 69) Phenanthrene-d10         | 8.942  | 188  | 1773367  | 40.00 | ppm    | 0.00     |
| 83) Chrysene-d12             | 12.119 | 240  | 1615939  | 40.00 | ppm    | 0.00     |
| 91) Perylene-d12             | 13.723 | 264  | 1802205  | 40.00 | ppm    | 0.00     |
| 101) 1,4-Dichlorobenzene-d4a | 4.508  | 152  | 499328   | 40.00 | ppm    | 0.00     |
| 103) Acenaphthene-d10a       | 7.252  | 164  | 1034066  | 40.00 | ppm    | 0.00     |
| 105) Phenanthrene-d10a       | 8.942  | 188  | 1773367  | 40.00 | ppm    | 0.00     |
| 109) Chrysene-d12a           | 12.119 | 240  | 1615939  | 40.00 | ppm    | 0.00     |
| 111) Naphthalene-d8a         | 5.524  | 136  | 2000951  | 40.00 | ppm    | 0.00     |
| 113) Phenanthrene-d10b       | 8.942  | 188  | 1773367  | 40.00 | ppm    | 0.00     |
| 115) Chrysene-d12b           | 12.119 | 240  | 1615939  | 40.00 | ppm    | 0.00     |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.545  | 112  | 239511   | 13.16 | ppm    | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 26.32% |          |
| 8) Phenol-d5                 | 4.272  | 99   | 297852   | 12.85 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 25.70% |          |
| 25) Nitrobenzene-d5          | 4.936  | 82   | 274104   | 12.62 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 25.24% |          |
| 51) 2-Fluorobiphenyl         | 6.540  | 172  | 584360   | 14.65 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 29.30% |          |
| 73) 2,4,6-Tribromophenol     | 8.139  | 330  | 84057    | 12.60 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 25.20% |          |
| 85) Terphenyl-d14            | 10.867 | 244  | 528706   | 13.70 | ppm    | -0.02    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 27.40% |          |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| 107) o-terphenyl             | 0.000  | 230  | 0d       | 0.00  | ppm    |          |
| Target Compounds             |        |      |          |       |        |          |
| 38) Naphthalene              | 5.540  | 128  | 168214   | 3.21  | ppm    | 97       |
| 44) 2-Methylnaphthalene      | 6.176  | 141  | 60283    | 1.96  | ppm    | # 1      |
| 53) Biphenyl                 | 6.647  | 154  | 21855    | 0.49  | ppm    | 86       |
| 56) Acenaphthylene           | 7.096  | 152  | 293718   | 5.83  | ppm    | 99       |
| 59) Acenaphthene             | 7.284  | 153  | 66262    | 1.89  | ppm    | 95       |
| 62) Dibenzofuran             | 7.476  | 168  | 145904   | 3.22  | ppm    | 98       |
| 66) Fluorene                 | 7.856  | 166  | 159606   | 4.38  | ppm    | 93       |
| 77) Phenanthrene             | 8.968  | 178  | 2328729  | 43.20 | ppm    | # 1      |
| 78) Anthracene               | 9.027  | 178  | 556329   | 10.20 | ppm    | 99       |
| 79) Carbazole                | 9.236  | 167  | 149378   | 2.94  | ppm    | 97       |
| 81) Fluoranthene             | 10.386 | 202  | 3218578m | 55.06 | ppm    |          |
| 84) Pyrene                   | 10.653 | 202  | 2893568  | 53.58 | ppm    | 89       |
| 87) Benzo[a]anthracene       | 12.103 | 228  | 1274527  | 25.17 | ppm    | 84       |
| 89) Chrysene                 | 12.146 | 228  | 1183902  | 23.65 | ppm    | 71       |
| 93) Benzo[b]fluoranthene     | 13.328 | 252  | 2111540m | 37.00 | ppm    |          |
| 94) Benzo[k]fluoranthene     | 13.349 | 252  | 638789m  | 12.24 | ppm    |          |
| 95) Benzo[a]pyrene           | 13.665 | 252  | 1744632  | 34.51 | ppm    | 93       |
| 96) Indeno[1,2,3-cd]pyrene   | 14.831 | 276  | 1672595  | 25.14 | ppm    | 92       |



## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\  
Data File : 6p473005.d  
Acq On : 16 May 2018 3:21 pm  
Operator : christc2  
Sample : jc65157-12  
Misc : op11665,6p2211,30.9,,,1,2  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 17 12:53:42 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
QLast Update : Wed May 16 22:45:08 2018  
Response via : Initial Calibration

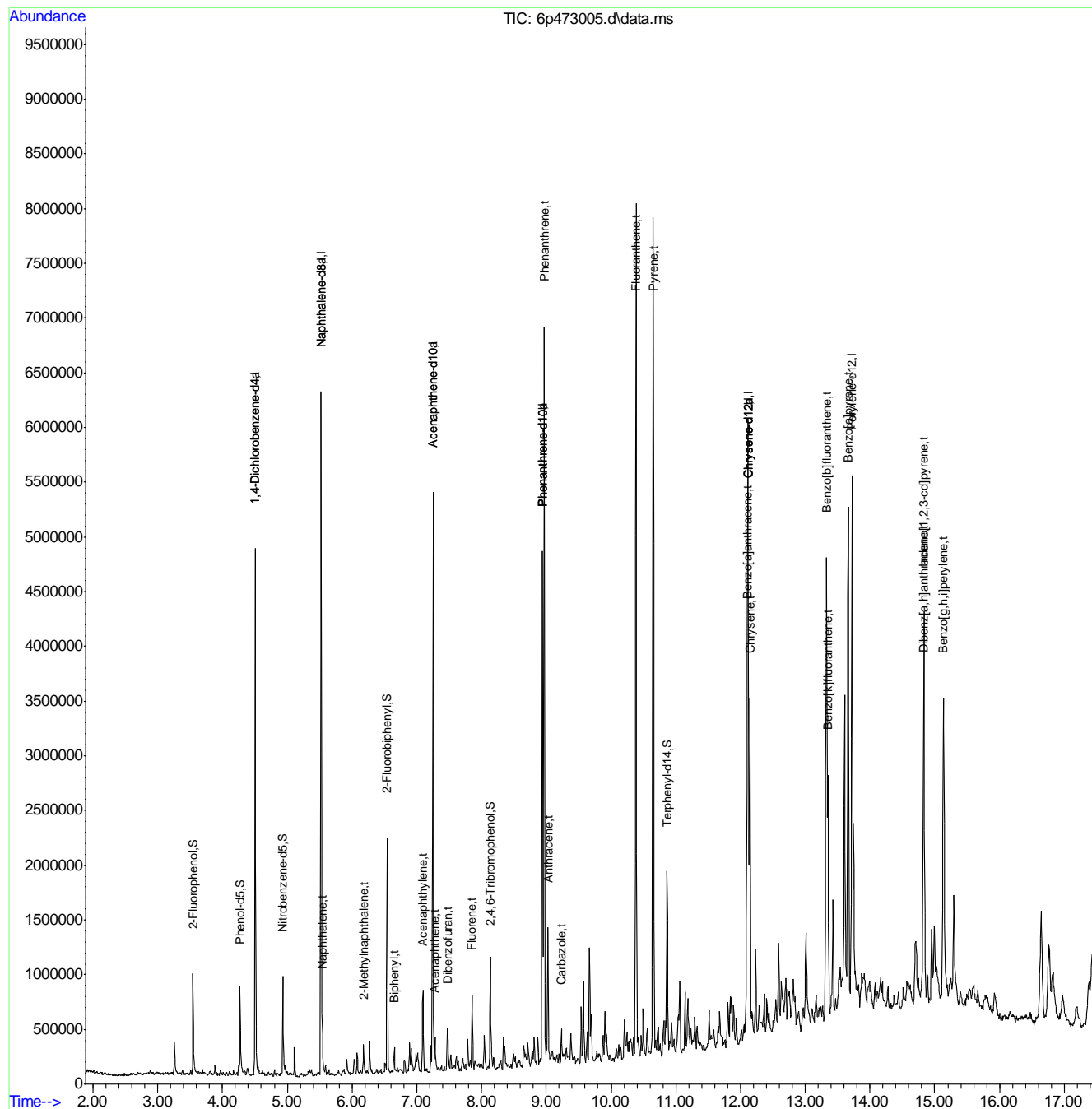
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| 98) Dibenz[a,h]anthracene | 14.836 | 278  | 334407m  | 5.83  | ppm   |          |
| 100) Benzo[g,h,i]perylene | 15.135 | 276  | 1625502  | 30.51 | ppm   | 77       |

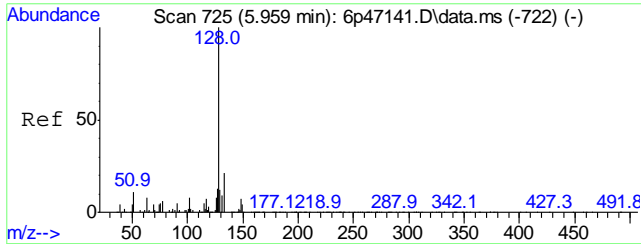
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : Z:\svoa\completed\05-17-18\aimeel\6p2211\  
Data File : 6p473005.d  
Acq On : 16 May 2018 3:21 pm  
Operator : christc2  
Sample : jc65157-12  
Misc : op11665,6p2211,30.9,,,1,2  
ALS Vial : 10 Sample Multiplier: 1

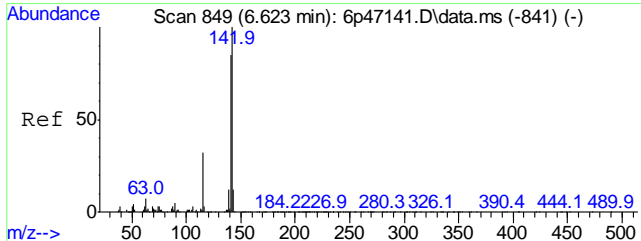
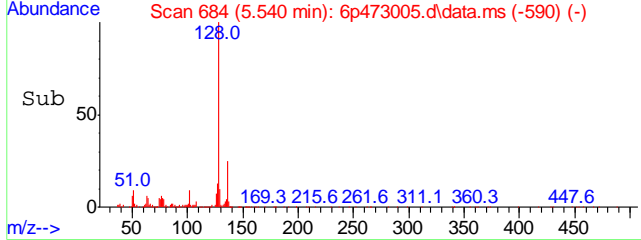
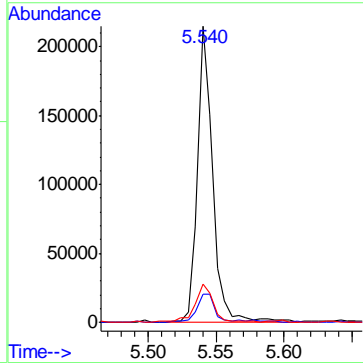
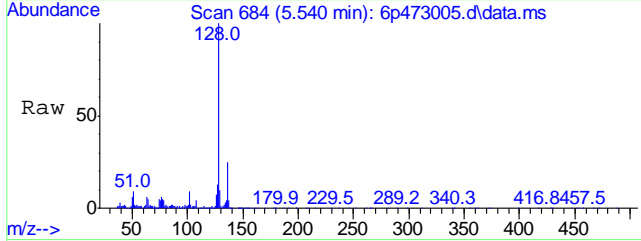
Quant Time: May 17 12:53:42 2018  
Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuMon Apr 16 10:13:29 2018  
QLast Update : Wed May 16 22:45:08 2018  
Response via : Initial Calibration





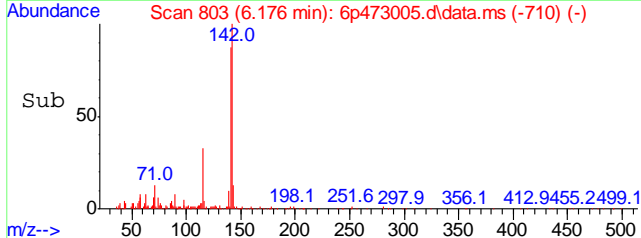
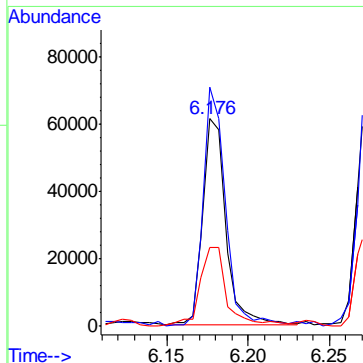
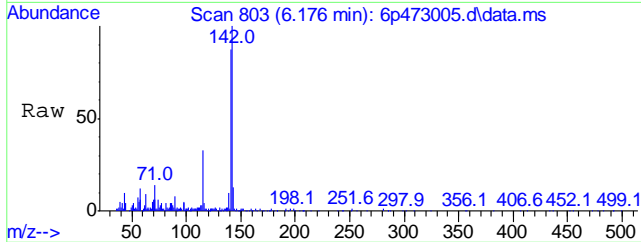
#38  
Naphthalene  
Concen: 3.21 ppm  
RT: 5.540 min Scan# 684  
Delta R.T. 0.005 min  
Lab File: 6p473005.d  
Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 128     | 168214 |       |       |
| 129     | 9.4    | 0.0   | 41.2  |
| 127     | 12.8   | 0.0   | 43.3  |

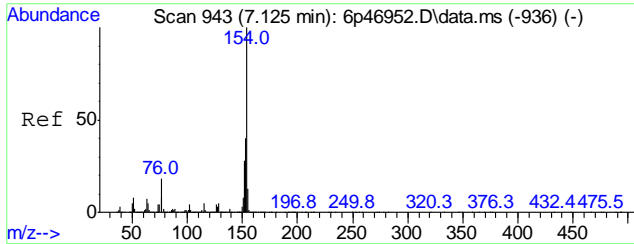


#44  
2-Methylnaphthalene  
Concen: 1.96 ppm  
RT: 6.176 min Scan# 803  
Delta R.T. -0.001 min  
Lab File: 6p473005.d  
Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp  | Lower | Upper  |
|---------|-------|-------|--------|
| 141     | 60283 |       |        |
| 142     | 114.7 | 791.6 | 851.6# |
| 115     | 37.1  | 0.0   | 32.9#  |

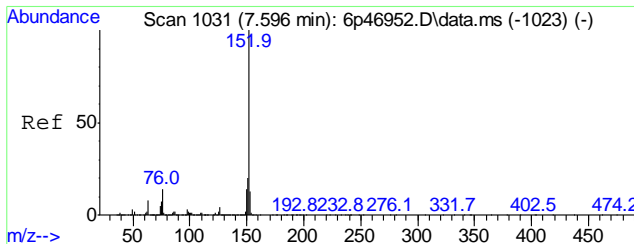
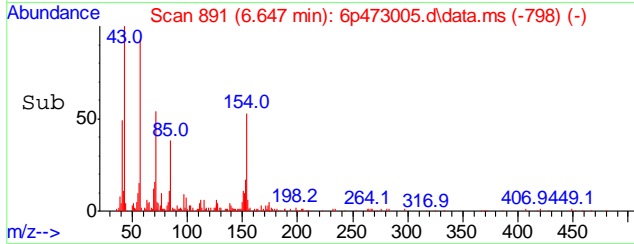
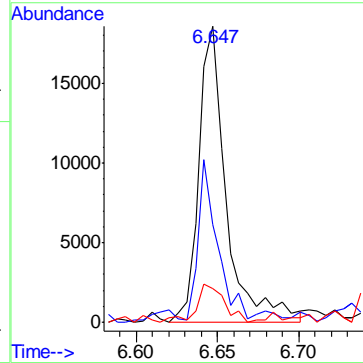
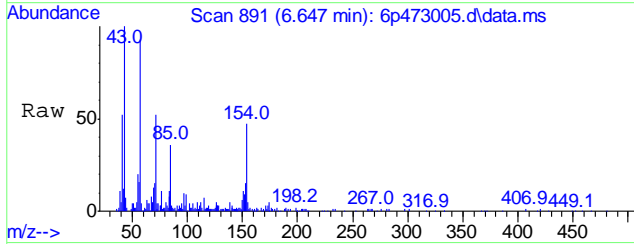


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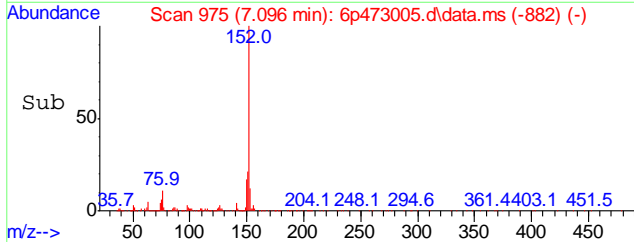
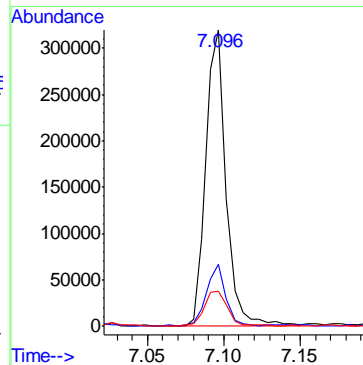
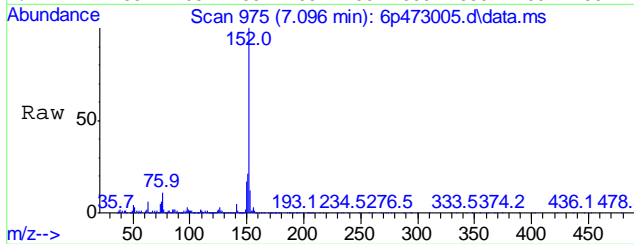
#53  
 Biphenyl  
 Concen: 0.49 ppm  
 RT: 6.647 min Scan# 891  
 Delta R.T. -0.003 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

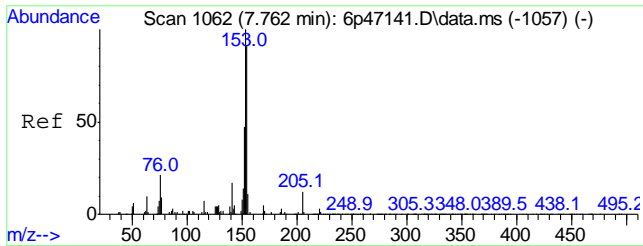
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 154     | 100  |       |       |
| 153     | 29.8 | 9.4   | 69.4  |
| 155     | 9.9  | 0.0   | 42.6  |



#56  
 Acenaphthylene  
 Concen: 5.83 ppm  
 RT: 7.096 min Scan# 975  
 Delta R.T. -0.002 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

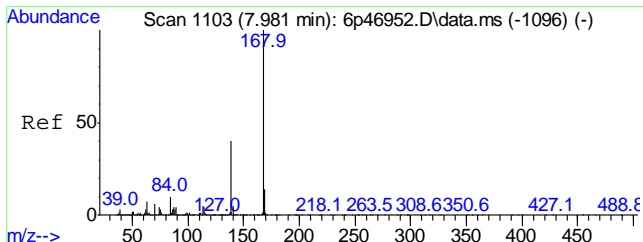
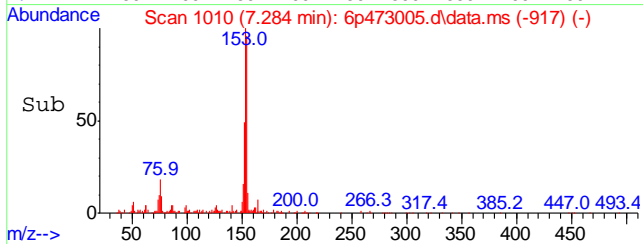
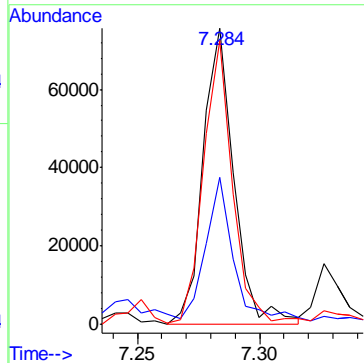
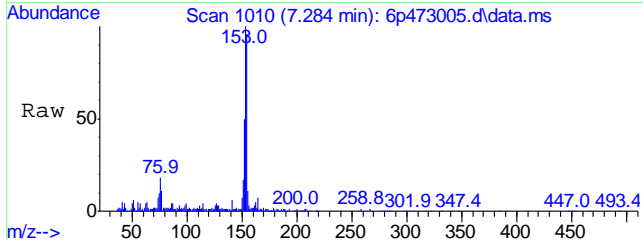
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 152     | 100  |       |       |
| 151     | 20.8 | 0.0   | 50.8  |
| 153     | 11.8 | 0.0   | 42.6  |





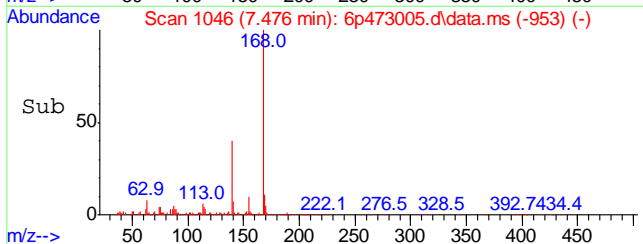
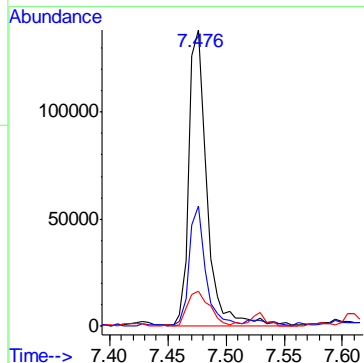
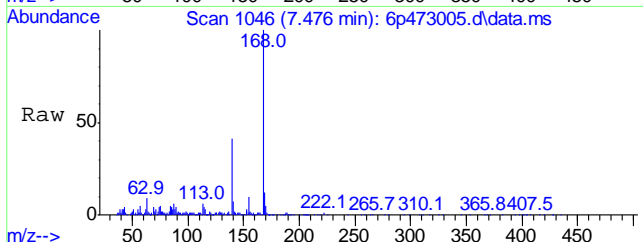
#59  
 Acenaphthene  
 Concen: 1.89 ppm  
 RT: 7.284 min Scan# 1010  
 Delta R.T. -0.005 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 153     | 100  |       |       |
| 152     | 47.5 | 15.4  | 75.4  |
| 154     | 96.0 | 60.5  | 120.5 |

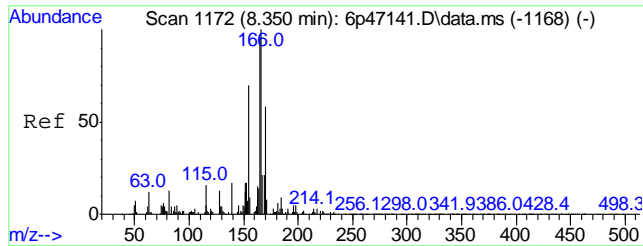


#62  
 Dibenzofuran  
 Concen: 3.22 ppm  
 RT: 7.476 min Scan# 1046  
 Delta R.T. -0.002 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 168     | 100  |       |       |
| 139     | 40.1 | 10.5  | 70.5  |
| 169     | 11.5 | 0.0   | 43.5  |

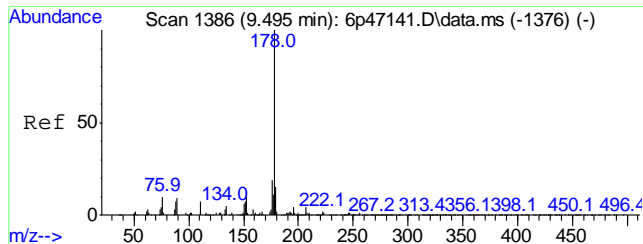
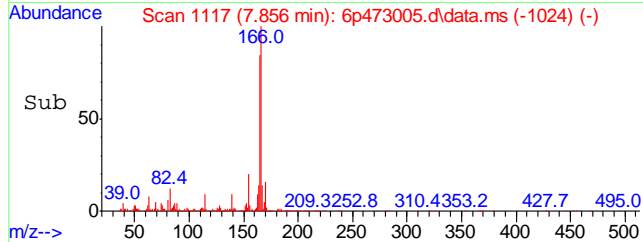
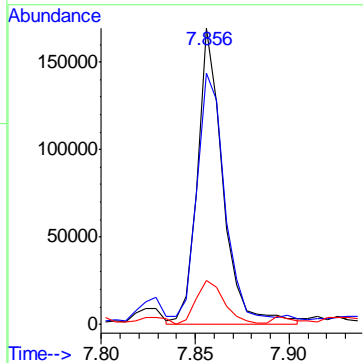
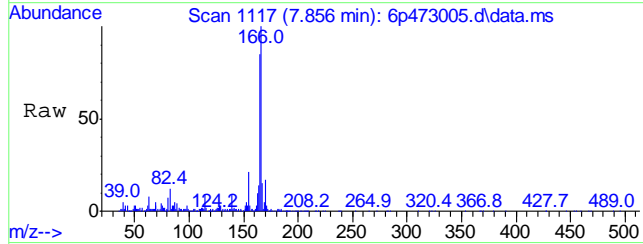


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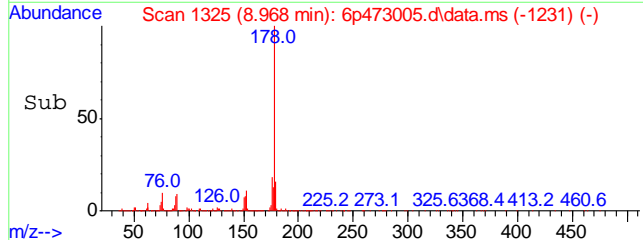
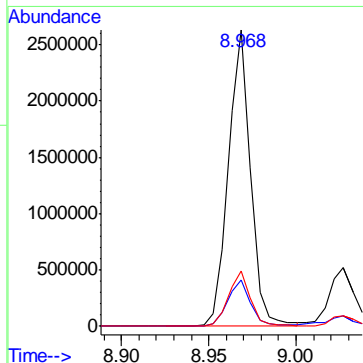
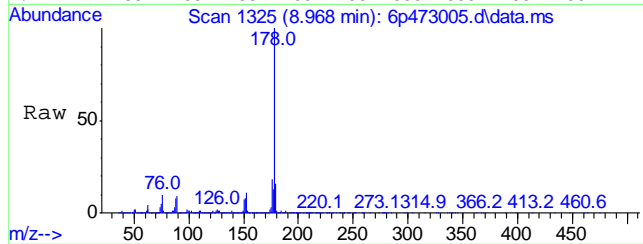
#66  
 Fluorene  
 Concen: 4.38 ppm  
 RT: 7.856 min Scan# 1117  
 Delta R.T. -0.003 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 83.8  | 61.4  | 121.4 |
| 167     | 13.1  | 0.0   | 43.3  |

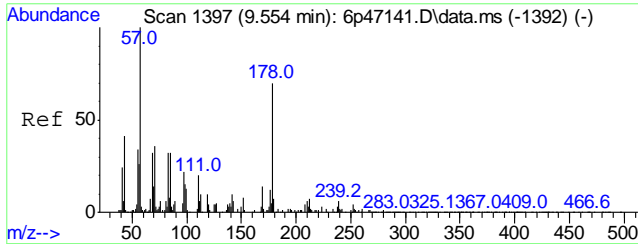


#77  
 Phenanthrene  
 Concen: 43.20 ppm  
 RT: 8.968 min Scan# 1325  
 Delta R.T. 0.000 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Ratio | Lower  | Upper   |
|---------|-------|--------|---------|
| 178     | 100   |        |         |
| 179     | 15.5  | 1186.3 | 1246.3# |
| 176     | 18.5  | 0.0    | 30.0    |

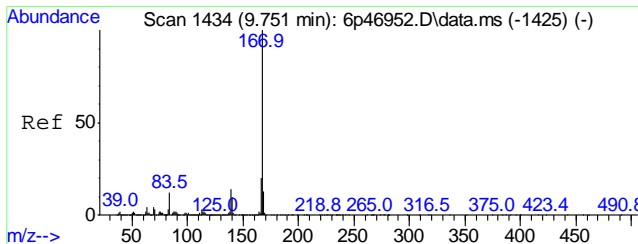
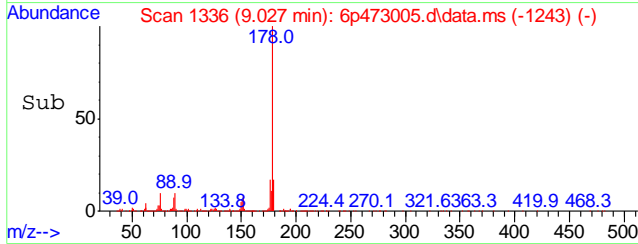
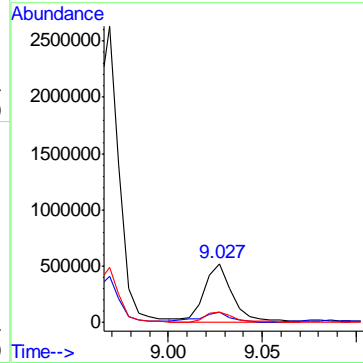
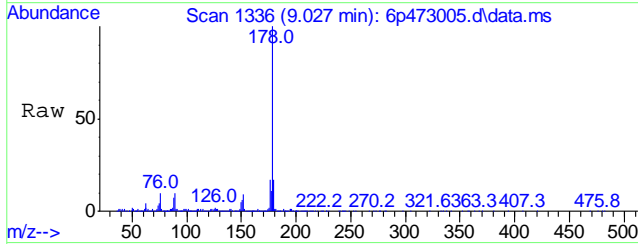


9.1.16  
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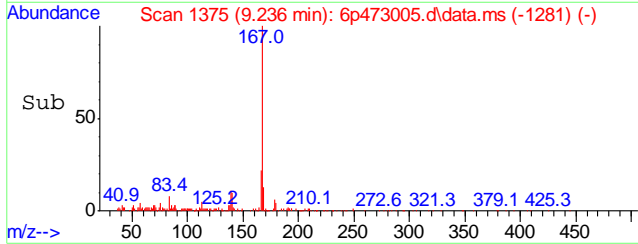
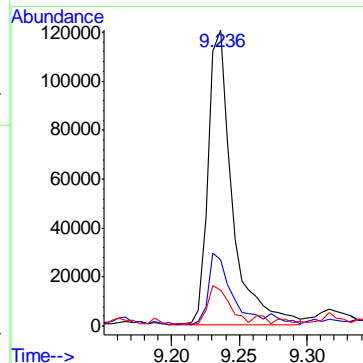
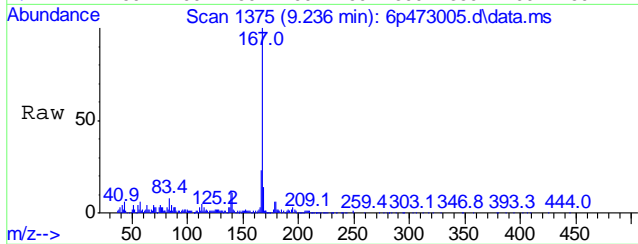
#78  
 Anthracene  
 Concen: 10.20 ppm  
 RT: 9.027 min Scan# 1336  
 Delta R.T. -0.004 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

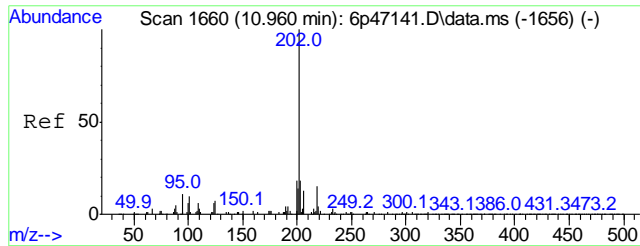
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 178     | 100  |       |       |
| 179     | 14.6 | 0.0   | 44.5  |
| 176     | 17.0 | 0.0   | 47.5  |



#79  
 Carbazole  
 Concen: 2.94 ppm  
 RT: 9.236 min Scan# 1375  
 Delta R.T. 0.003 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

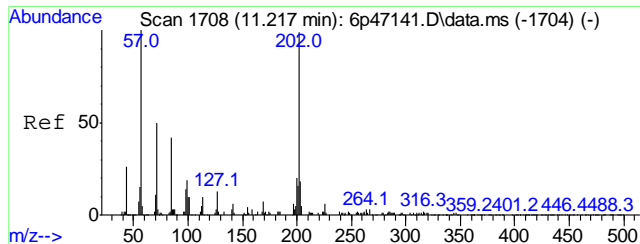
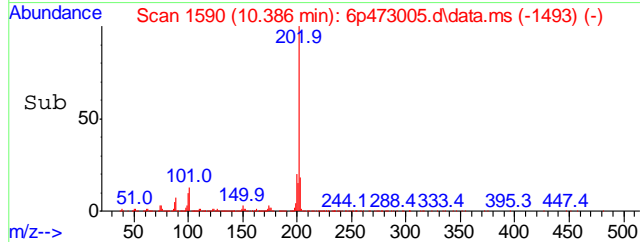
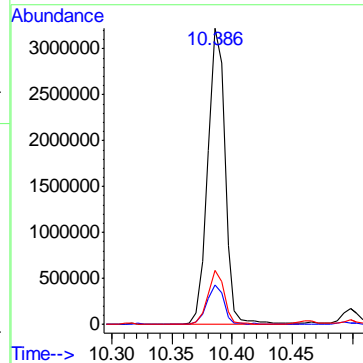
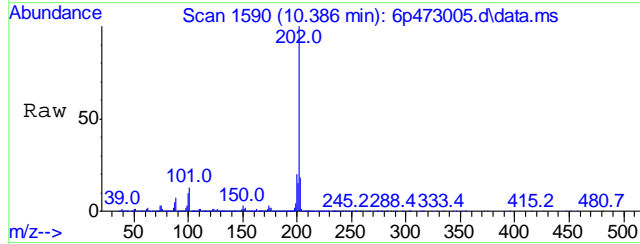
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 167     | 100  |       |       |
| 166     | 21.8 | 0.0   | 51.2  |
| 139     | 11.3 | 0.0   | 43.7  |





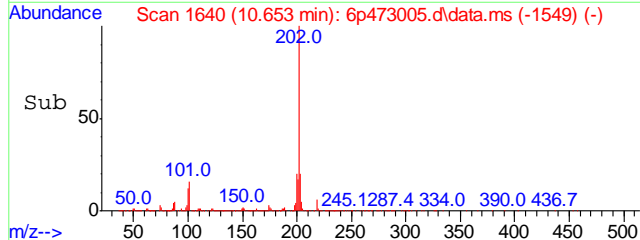
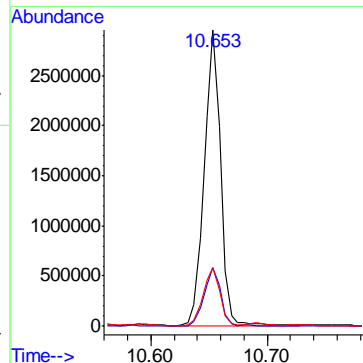
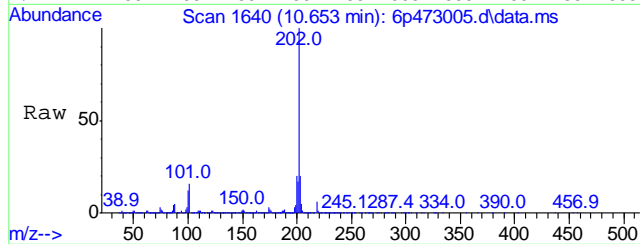
#81  
 Fluoranthene  
 Concen: 55.06 ppm  
 RT: 10.386 min Scan# 1590  
 Delta R.T. 0.016 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp | Lower | Upper  |
|---------|------|-------|--------|
| 202     | 100  |       |        |
| 101     | 13.3 | 0.0   | 38.6   |
| 203     | 18.2 | 178.5 | 238.5# |



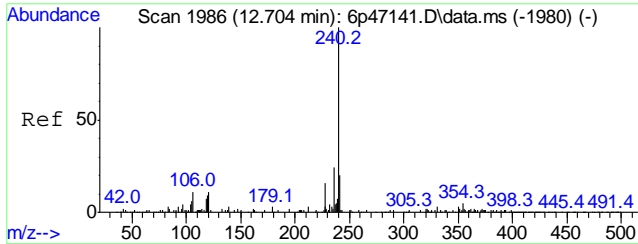
#84  
 Pyrene  
 Concen: 53.58 ppm  
 RT: 10.653 min Scan# 1640  
 Delta R.T. -0.012 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 202     | 100  |       |       |
| 200     | 19.7 | 0.0   | 30.0  |
| 203     | 19.5 | 0.0   | 44.9  |



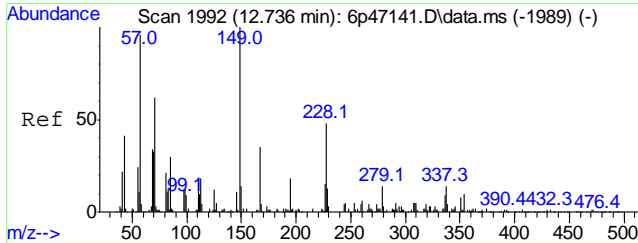
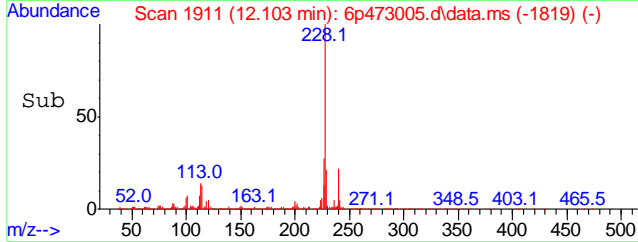
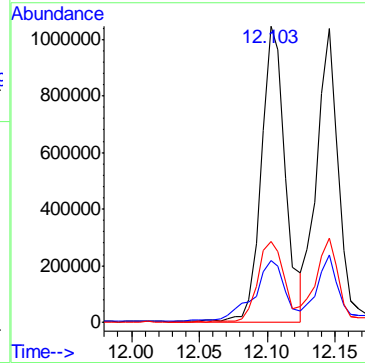
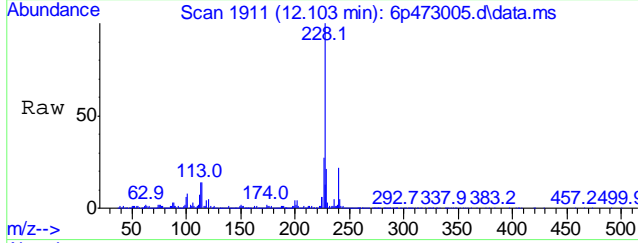
9.1.16  
 9





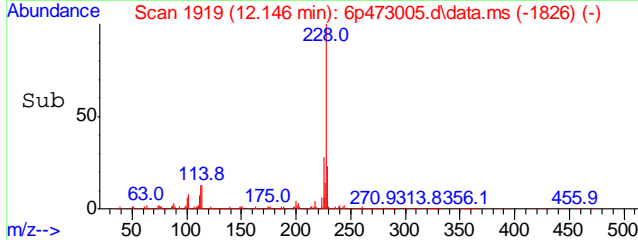
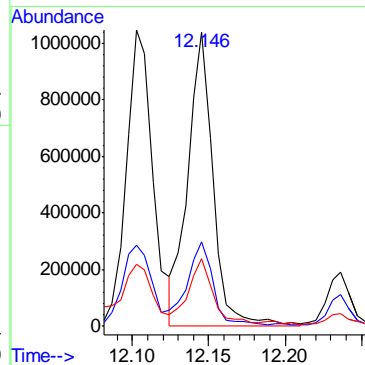
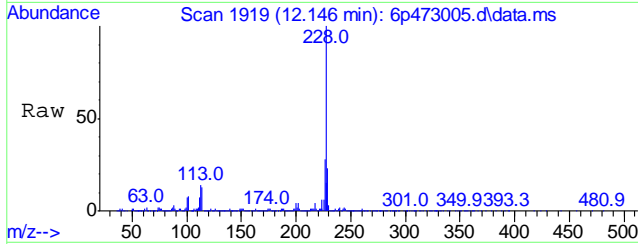
#87  
 Benzo[a]anthracene  
 Concen: 25.17 ppm  
 RT: 12.103 min Scan# 1911  
 Delta R.T. -0.005 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

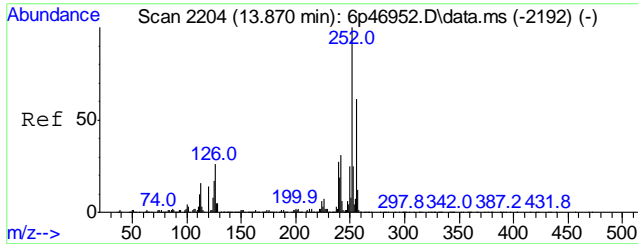
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 229     | 20.6  | 0.0   | 52.0  |
| 226     | 27.0  | 0.0   | 41.0  |



#89  
 Chrysene  
 Concen: 23.65 ppm  
 RT: 12.146 min Scan# 1919  
 Delta R.T. -0.005 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

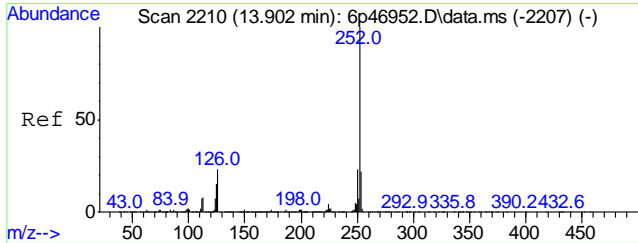
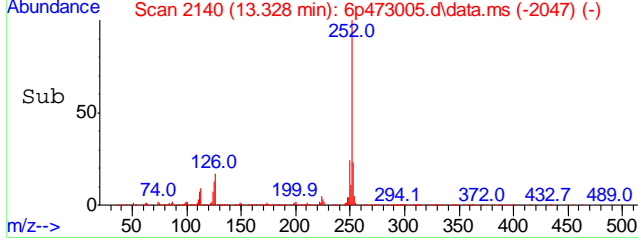
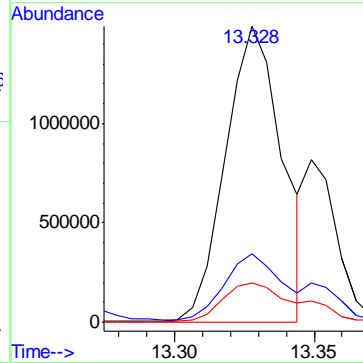
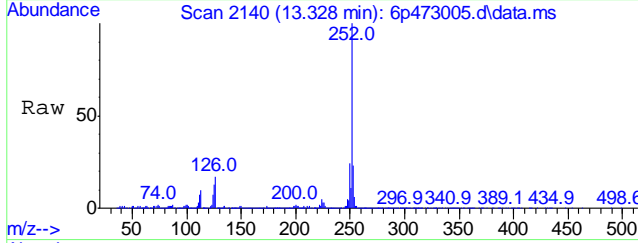
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.0  | 0.0   | 30.0  |
| 229     | 22.9  | 11.0  | 71.0  |





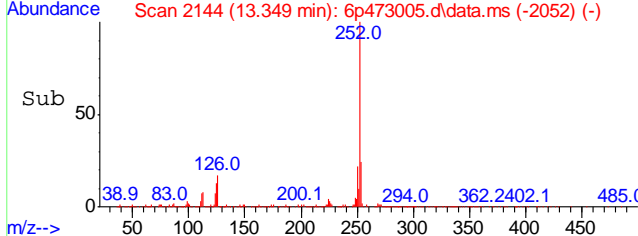
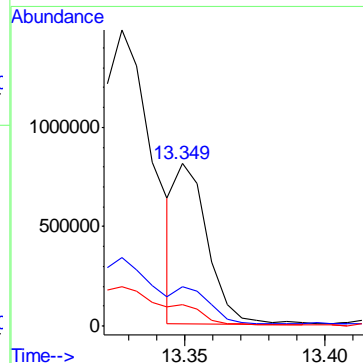
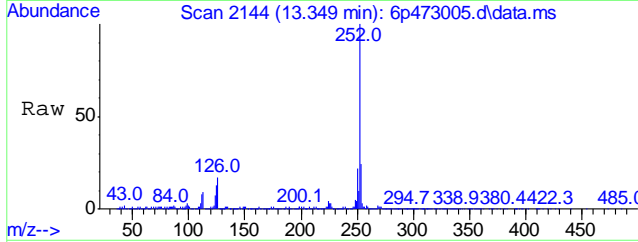
#93  
 Benzo[b]fluoranthene  
 Concen: 37.00 ppm m  
 RT: 13.328 min Scan# 2140  
 Delta R.T. -0.003 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

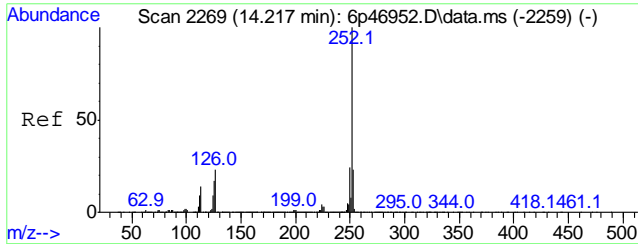
| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 252     | 2111540 |       |       |
| 253     | 23.1    | 2.6   | 62.6  |
| 125     | 13.1    | 6.7   | 66.7  |



#94  
 Benzo[k]fluoranthene  
 Concen: 12.24 ppm m  
 RT: 13.349 min Scan# 2144  
 Delta R.T. -0.008 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

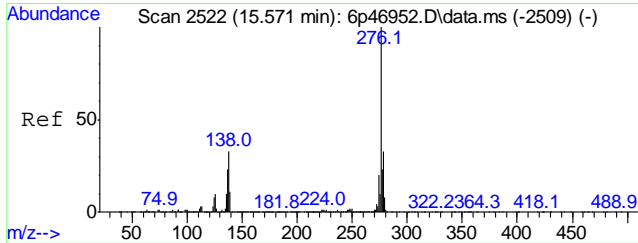
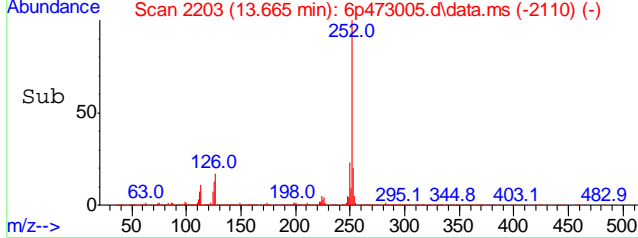
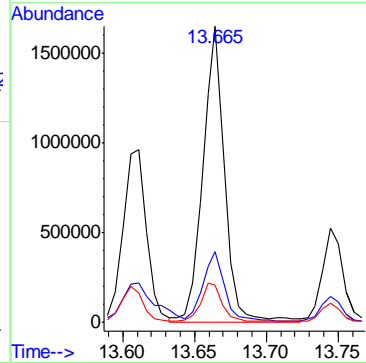
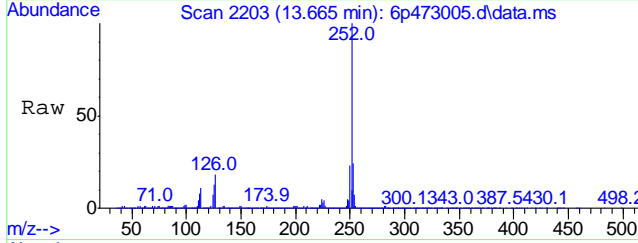
| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 252     | 638789 |       |       |
| 253     | 24.4   | 0.0   | 30.0  |
| 125     | 13.1   | 0.0   | 44.0  |





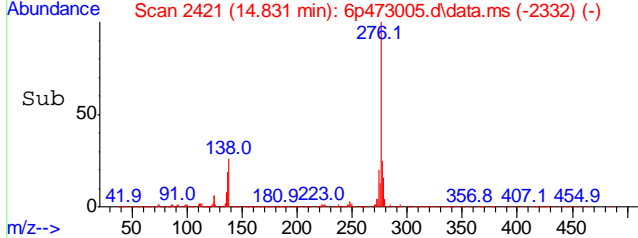
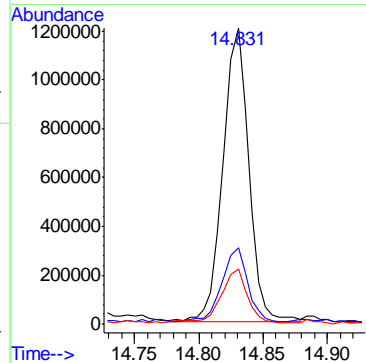
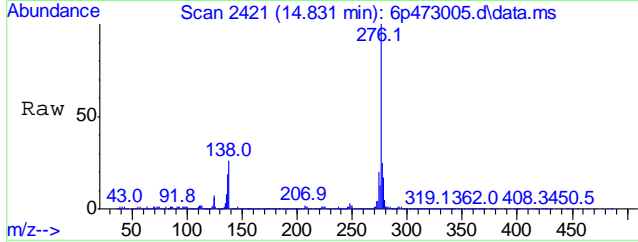
#95  
 Benzo[a]pyrene  
 Concen: 34.51 ppm  
 RT: 13.665 min Scan# 2203  
 Delta R.T. -0.001 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

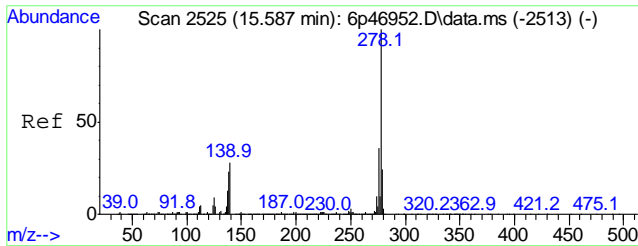
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 252     | 100  |       |       |
| 253     | 21.8 | 0.0   | 53.9  |
| 125     | 12.3 | 0.0   | 34.5  |



#96  
 Indeno[1,2,3-cd]pyrene  
 Concen: 25.14 ppm  
 RT: 14.831 min Scan# 2421  
 Delta R.T. -0.024 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

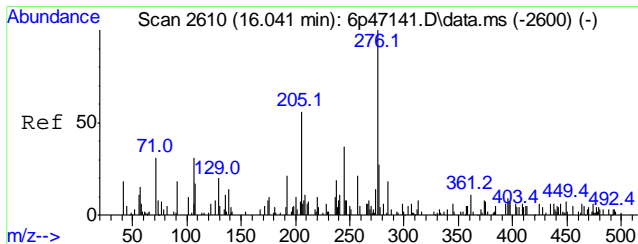
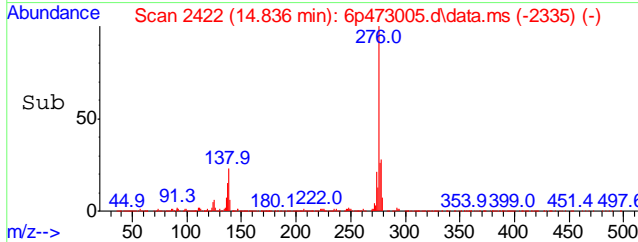
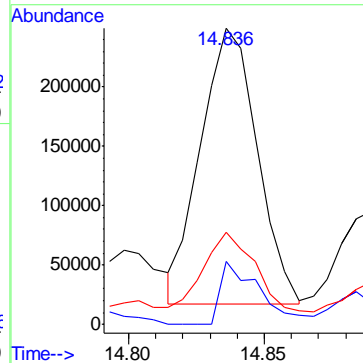
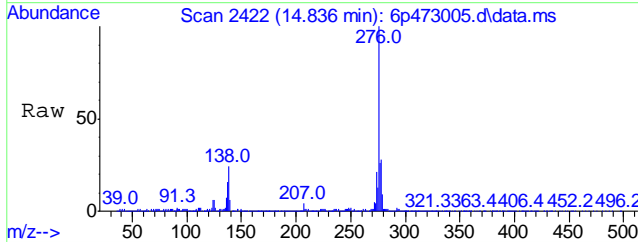
| Tgt Ion | Resp | Lower | Upper |
|---------|------|-------|-------|
| 276     | 100  |       |       |
| 138     | 25.1 | 0.0   | 30.0  |
| 137     | 18.2 | 0.0   | 45.0  |





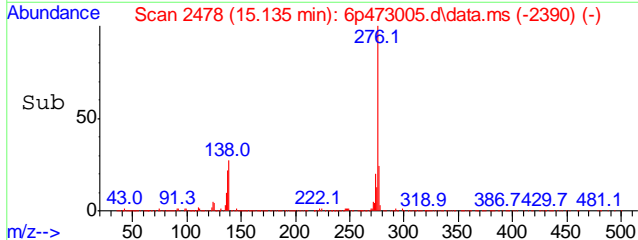
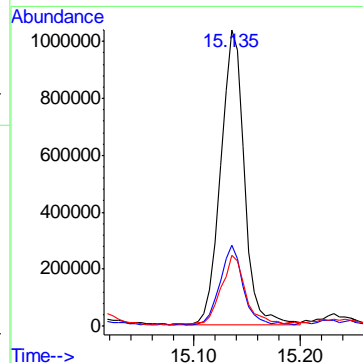
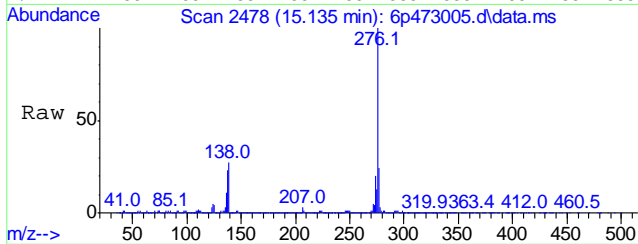
#98  
 Dibenz[a,h]anthracene  
 Concen: 5.83 ppm  
 RT: 14.836 min Scan# 2422  
 Delta R.T. -0.034 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp   | Lower | Upper |
|---------|--------|-------|-------|
| 278     | 334407 | 100   |       |
| 139     | 21.3   | 0.0   | 30.0  |
| 279     | 31.1   | 0.0   | 30.0# |



#100  
 Benzo[g,h,i]perylene  
 Concen: 30.51 ppm  
 RT: 15.135 min Scan# 2478  
 Delta R.T. -0.032 min  
 Lab File: 6p473005.d  
 Acq: 16 May 2018 3:21 pm

| Tgt Ion | Resp    | Lower | Upper |
|---------|---------|-------|-------|
| 276     | 1625502 | 100   |       |
| 138     | 26.7    | 0.0   | 36.1  |
| 277     | 23.4    | 2.5   | 62.5  |



9.1.16  
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2p3489\  
 Data File : 2p79179.d  
 Acq On : 6 May 2018 2:45 am  
 Operator : seanbl  
 Sample : jc65157-12A Inst : MS2P  
 Misc : op11697,e2p3489,100,,,1,1  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
 Quant Results File: M2P3484.RES  
 Quant Time: May 08 00:10:43 2018  
 Quant Title : Semi Volatile Extractables by GC/MS  
 QLast Update : Mon May 07 21:27:43 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon          | Response   | Conc     | Units | Dev(Min) |
|------------------------------|--------|---------------|------------|----------|-------|----------|
| Internal Standards           |        |               |            |          |       |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.593  | 152           | 751827     | 40.00    | ppm   | -0.02    |
| 24) Naphthalene-d8           | 5.652  | 136           | 2727452    | 40.00    | ppm   | -0.01    |
| 47) Acenaphthene-d10         | 7.080  | 164           | 1258348    | 40.00    | ppm   | -0.01    |
| 69) Phenanthrene-d10         | 8.353  | 188           | 2337841    | 40.00    | ppm   | -0.01    |
| 83) Chrysene-d12             | 11.535 | 240           | 2276053    | 40.00    | ppm   | -0.03    |
| 91) Perylene-d12             | 13.514 | 264           | 2169917    | 40.00    | ppm   | -0.02    |
| 101) 1,4-Dichlorobenzene-d4a | 4.593  | 152           | 751827     | 40.00    | ppm   | -0.01    |
| 103) Naphthalene-d8a         | 5.652  | 136           | 2727452    | 40.00    | ppm   | -0.01    |
| 105) Acenaphthene-d10a       | 7.080  | 164           | 1258348    | 40.00    | ppm   | -0.01    |
| 108) Chrysene-d12a           | 11.535 | 240           | 2276053    | 40.00    | ppm   | -0.02    |
| 110) Phenanthrene-d10a       | 8.353  | 188           | 2337841    | 40.00    | ppm   | -0.01    |
| 114) Chrysene-d12b           | 11.535 | 240           | 2276053    | 40.00    | ppm   | -0.02    |
| System Monitoring Compounds  |        |               |            |          |       |          |
| 5) 2-Fluorophenol            | 3.571  | 112           | 629070     | 21.20    | ppm   | -0.01    |
| Spiked Amount                | 50.000 | Range 11 - 58 | Recovery = | 42.40%   |       |          |
| 8) Phenol-d5                 | 4.400  | 99            | 490145     | 15.94    | ppm   | -0.02    |
| Spiked Amount                | 50.000 | Range 10 - 59 | Recovery = | 31.88%   |       |          |
| 25) Nitrobenzene-d5          | 5.085  | 82            | 970275     | 38.60    | ppm   | -0.01    |
| Spiked Amount                | 50.000 | Range 19 - 61 | Recovery = | 77.20%#  |       |          |
| 51) 2-Fluorobiphenyl         | 6.540  | 172           | 1878538    | 43.52    | ppm   | -0.01    |
| Spiked Amount                | 50.000 | Range 21 - 58 | Recovery = | 87.04%#  |       |          |
| 73) 2,4,6-Tribromophenol     | 7.738  | 330           | 365428     | 51.18    | ppm   | -0.02    |
| Spiked Amount                | 50.000 | Range 12 - 68 | Recovery = | 102.36%# |       |          |
| 85) Terphenyl-d14            | 10.123 | 244           | 2281217    | 46.09    | ppm   | -0.02    |
| Spiked Amount                | 50.000 | Range 16 - 65 | Recovery = | 92.18%#  |       |          |
| 111) 1-Chlorooctadecane      | 0.000  | 57            | 0          | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00%#   |       |          |
| 112) o-terphenyl             | 0.000  | 230           | 0          | 0.00     | ppm   |          |
| Spiked Amount                | 50.000 | Range 20 - 70 | Recovery = | 0.00%#   |       |          |

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

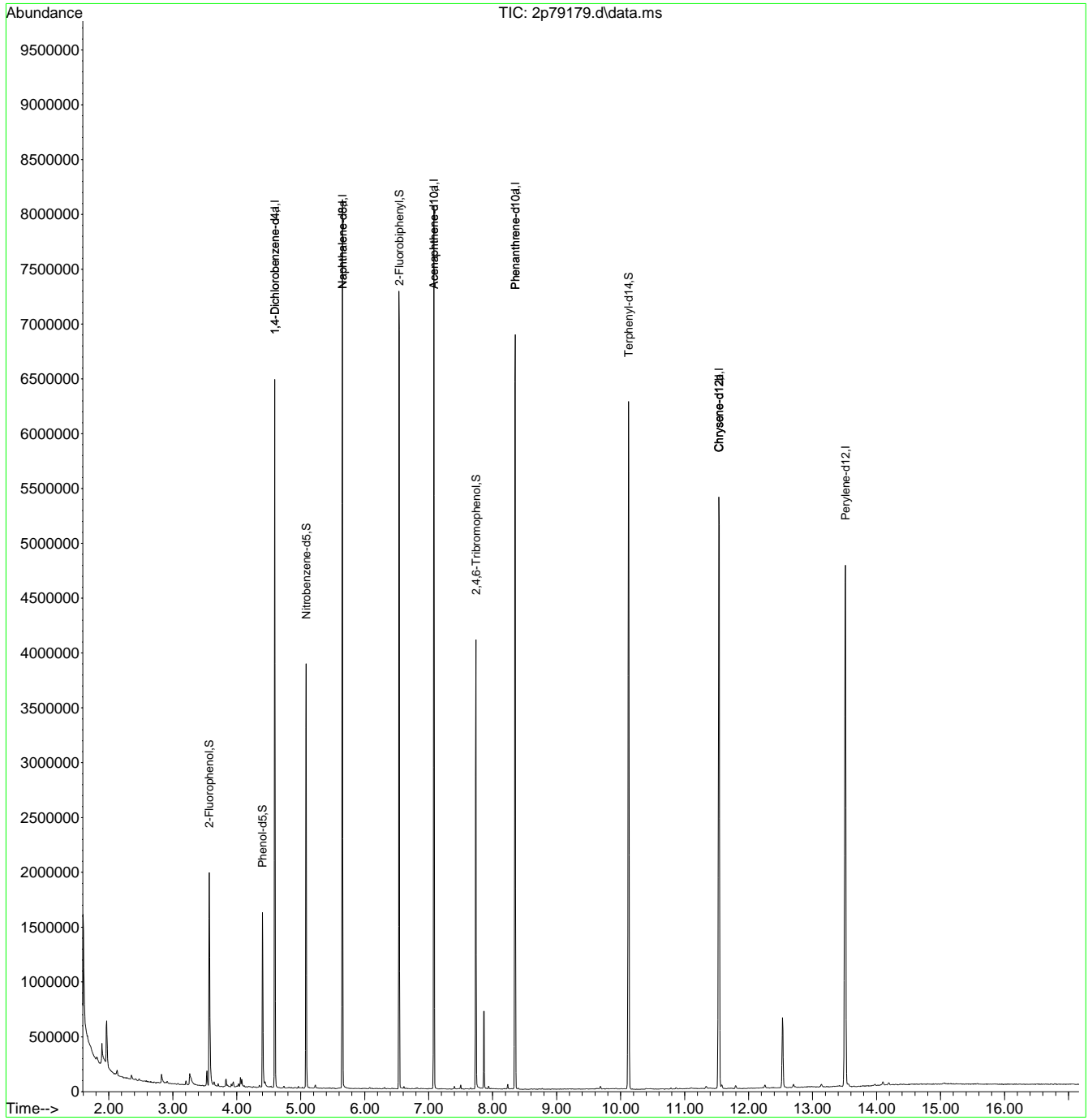
9.1.17  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2p3489\  
Data File : 2p79179.d  
Acq On : 6 May 2018 2:45 am  
Operator : seanbl  
Sample : jc65157-12A  
Misc : op11697,e2p3489,100,,,1,1  
ALS Vial : 21 Sample Multiplier: 1

Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3484.M  
Quant Results File: M2P3484.RES  
Quant Time: May 08 00:10:43 2018  
Quant Title : Semi Volatile Extractables by GC/MS  
QLast Update : Mon May 07 21:27:43 2018  
Response via : Initial Calibration



9.1.17  
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2381\  
 Data File : 5p49863.D  
 Acq On : 2 May 2018 12:15 am  
 Operator : sufiyana  
 Sample : op11665-mb1  
 Misc : op11665,e5p2381,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 02 08:51:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M5P2318.M  
 Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 QLast Update : Fri Apr 27 14:25:35 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.319  | 152  | 362595   | 40.00 | ppm    | -0.06    |
| 24) Naphthalene-d8           | 5.515  | 136  | 1410075  | 40.00 | ppm    | -0.06    |
| 47) Acenaphthene-d10         | 7.220  | 164  | 717056   | 40.00 | ppm    | -0.06    |
| 69) Phenanthrene-d10         | 8.699  | 188  | 1200479  | 40.00 | ppm    | -0.07    |
| 83) Chrysene-d12             | 12.145 | 240  | 1067545  | 40.00 | ppm    | -0.10    |
| 91) Perylene-d12             | 14.175 | 264  | 896715   | 40.00 | ppm    | -0.11    |
| 101) 1,4-Dichlorobenzene-d4b | 4.319  | 152  | 362595   | 40.00 | ppm    | -0.06    |
| 103) Acenaphthene-d10a       | 7.220  | 164  | 717056   | 40.00 | ppm    | -0.06    |
| 105) Chrysene-d12a           | 12.145 | 240  | 1067474  | 40.00 | ppm    | -0.10    |
| 108) Phenanthrene-d10a       | 8.699  | 188  | 1200479  | 40.00 | ppm    | -0.07    |
| 112) Naphthalene-d8a         | 5.515  | 136  | 1410075  | 40.00 | ppm    | -0.06    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.176  | 112  | 294577   | 21.78 | ppm    | -0.04    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 43.56% |          |
| 8) Phenol-d5                 | 4.041  | 99   | 388438   | 23.24 | ppm    | -0.03    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 46.48% |          |
| 25) Nitrobenzene-d5          | 4.853  | 82   | 391020   | 28.53 | ppm    | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 57.06% |          |
| 51) 2-Fluorobiphenyl         | 6.573  | 172  | 771453   | 25.92 | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 51.84% |          |
| 73) 2,4,6-Tribromophenol     | 8.005  | 330  | 115270   | 27.02 | ppm    | -0.06    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 54.04% |          |
| 85) Terphenyl-d14            | 10.676 | 244  | 745470   | 27.58 | ppm    | -0.09    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 55.16% |          |
| 107) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 109) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |

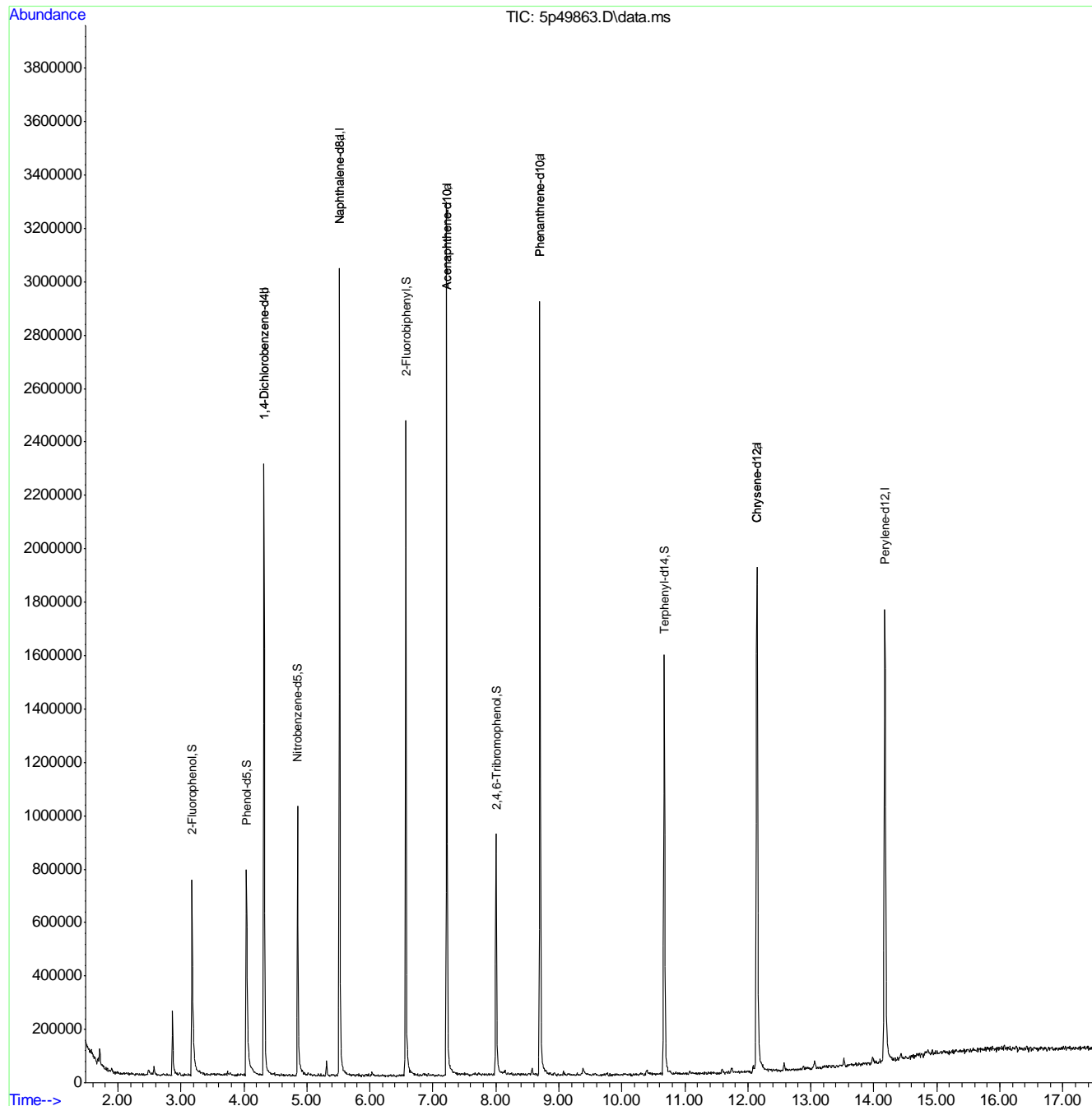
Target Compounds Qvalue  
 -----  
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1  
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\E5P2381\  
 Data File : 5p49863.D  
 Acq On : 2 May 2018 12:15 am  
 Operator : sufiyana  
 Sample : op11665-mb1  
 Misc : op11665,e5p2381,30.0,,,1,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 02 08:51:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M5P2318.M  
 Quant Title : Semi Volatile GC/MS, zb-5msi 30mx .25mmx .25um  
 QLast Update : Fri Apr 27 14:25:35 2018  
 Response via : Initial Calibration



9.2.1  
9



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472413.D  
 Acq On : 2 May 2018 1:27 am  
 Operator : sufiyana  
 Sample : opl1665-mb1  
 Misc : opl1665,e6p2189,30.0,,,1,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 02 11:00:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.617  | 152  | 512199   | 40.00 | ppm    | 0.04     |
| 24) Naphthalene-d8           | 5.649  | 136  | 2008609  | 40.00 | ppm    | 0.04     |
| 47) Acenaphthene-d10         | 7.393  | 164  | 1022603  | 40.00 | ppm    | 0.05     |
| 69) Phenanthrene-d10         | 9.088  | 188  | 1709547  | 40.00 | ppm    | 0.05     |
| 83) Chrysene-d12             | 12.271 | 240  | 1605841  | 40.00 | ppm    | 0.06     |
| 91) Perylene-d12             | 13.875 | 264  | 1558686  | 40.00 | ppm    | 0.06     |
| 101) 1,4-Dichlorobenzene-d4a | 4.617  | 152  | 512199   | 40.00 | ppm    | 0.04     |
| 103) Acenaphthene-d10a       | 7.393  | 164  | 1022603  | 40.00 | ppm    | 0.05     |
| 105) Phenanthrene-d10a       | 9.088  | 188  | 1709547  | 40.00 | ppm    | 0.05     |
| 109) Chrysene-d12a           | 12.271 | 240  | 1605841  | 40.00 | ppm    | 0.06     |
| 111) Naphthalene-d8a         | 5.649  | 136  | 2008609  | 40.00 | ppm    | 0.04     |
| 113) Phenanthrene-d10b       | 9.088  | 188  | 1709547  | 40.00 | ppm    | 0.05     |
| 115) Chrysene-d12b           | 12.271 | 240  | 1605841  | 40.00 | ppm    | 0.06     |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.649  | 112  | 730515   | 39.13 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.26% |          |
| 8) Phenol-d5                 | 4.365  | 99   | 931526   | 39.17 | ppm    | 0.03     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 78.34% |          |
| 25) Nitrobenzene-d5          | 5.045  | 82   | 870479   | 39.92 | ppm    | 0.04     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 79.84% |          |
| 51) 2-Fluorobiphenyl         | 6.676  | 172  | 1532086  | 38.84 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 77.68% |          |
| 73) 2,4,6-Tribromophenol     | 8.281  | 330  | 213220   | 33.16 | ppm    | 0.05     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 66.32% |          |
| 85) Terphenyl-d14            | 11.024 | 244  | 1452587  | 37.86 | ppm    | 0.06     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 75.72% |          |
| 106) 1-chlorooctadecane      | 0.000  | 57   | 0d       | 0.00  | ppm    |          |
| 107) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |

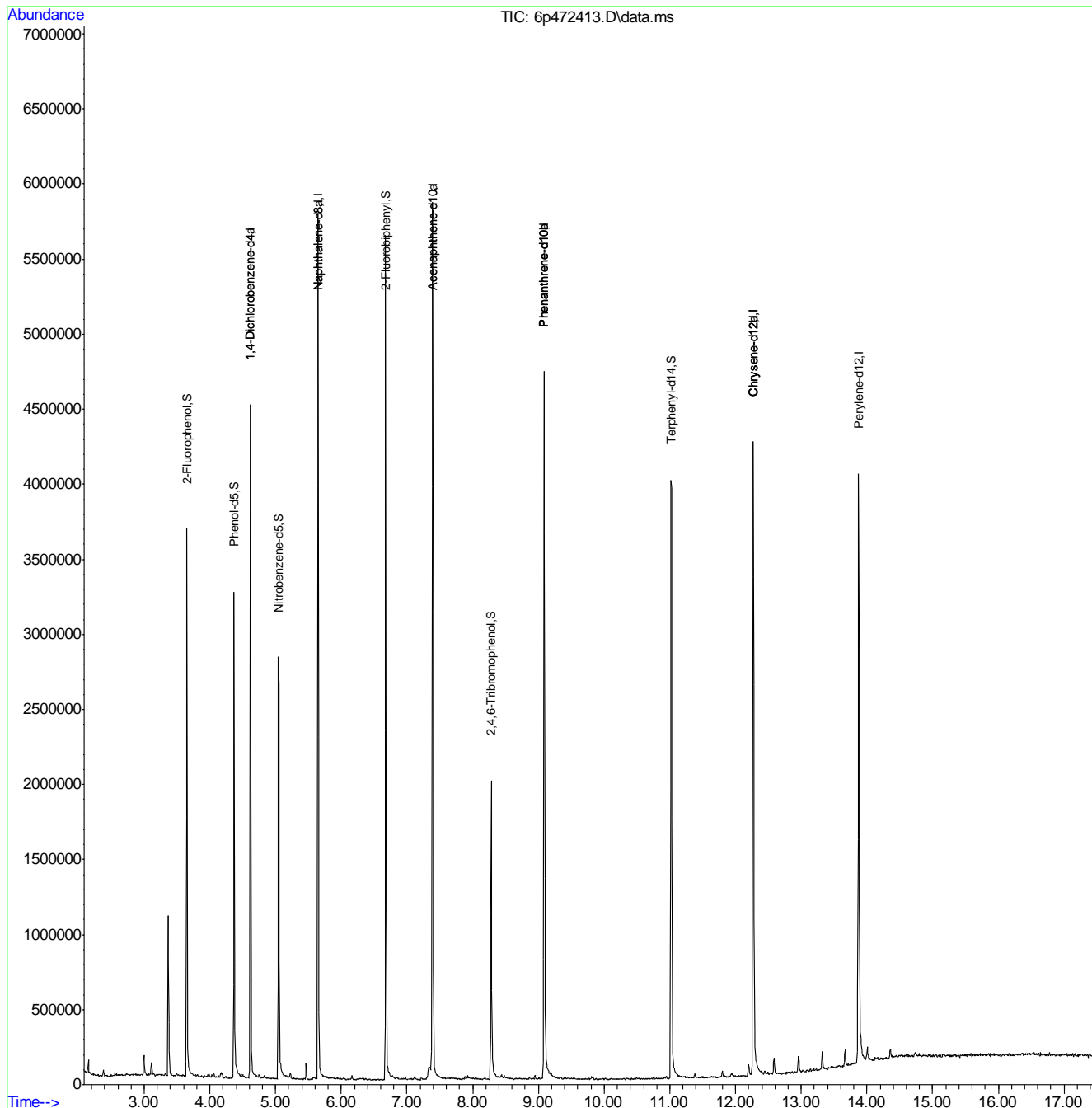
Target Compounds Qvalue  
 -----  
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

9.22  
9

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\E6P2189\  
 Data File : 6p472413.D  
 Acq On : 2 May 2018 1:27 am  
 Operator : sufiyana  
 Sample : op11665-mb1  
 Misc : op11665,e6p2189,30.0,,,1,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 02 11:00:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\M6P2164.M  
 Quant Title : Semi Volatile GC/MS,zb-5msi 30m x .25mm x .25MoTuTue May 01 23:41:47 2018  
 QLast Update : Tue May 01 23:41:47 2018  
 Response via : Initial Calibration



9.2.2  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6192\  
 Data File : M145715.D  
 Acq On : 3 May 2018 1:55 am  
 Operator : chriss2  
 Sample : op11697-mb1  
 Misc : op11697,em6192,1000,,,1,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 03 10:32:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um  
 QLast Update : Wed May 02 21:51:38 2018  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|------------------------------|--------|------|----------|-------|--------|----------|
| Internal Standards           |        |      |          |       |        |          |
| 1) 1,4-Dichlorobenzene-d4    | 4.553  | 152  | 133871   | 40.00 | ppm    | -0.01    |
| 24) Naphthalene-d8           | 5.654  | 136  | 472582   | 40.00 | ppm    | -0.06    |
| 47) Acenaphthene-d10         | 7.945  | 164  | 266168   | 40.00 | ppm    | -0.07    |
| 69) Phenanthrene-d10         | 10.535 | 188  | 515131   | 40.00 | ppm    | -0.08    |
| 83) Chrysene-d12             | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| 91) Perylene-d12             | 18.296 | 264  | 467114   | 40.00 | ppm    | -0.09    |
| 101) 1,4-Dichlorobenzene-d4a | 4.553  | 152  | 133871   | 40.00 | ppm    | -0.04    |
| 103) Acenaphthene-d10a       | 7.945  | 164  | 266168   | 40.00 | ppm    | -0.07    |
| 106) Chrysene-d12a           | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| 109) Phenanthrene-d10a       | 10.535 | 188  | 515131   | 40.00 | ppm    | -0.08    |
| 112) Naphthalene-d8a         | 5.654  | 136  | 472582   | 40.00 | ppm    | -0.06    |
| 114) Chrysene-d12b           | 15.679 | 240  | 518826   | 40.00 | ppm    | -0.09    |
| System Monitoring Compounds  |        |      |          |       |        |          |
| 5) 2-Fluorophenol            | 3.587  | 112  | 74707    | 14.92 | ppm    | 0.00     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 29.84% |          |
| 8) Phenol-d5                 | 4.318  | 99   | 65675    | 11.02 | ppm    | 0.02     |
| Spiked Amount                | 50.000 |      | Recovery | =     | 22.04% |          |
| 25) Nitrobenzene-d5          | 4.991  | 82   | 172246   | 37.32 | ppm    | -0.05    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 74.64% |          |
| 51) 2-Fluorobiphenyl         | 6.957  | 172  | 355652   | 34.41 | ppm    | -0.07    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 68.82% |          |
| 73) 2,4,6-Tribromophenol     | 9.286  | 330  | 63216    | 43.75 | ppm    | -0.08    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 87.50% |          |
| 85) Terphenyl-d14            | 13.703 | 244  | 265132   | 21.43 | ppm    | -0.10    |
| Spiked Amount                | 50.000 |      | Recovery | =     | 42.86% |          |
| 108) 1-chlorooctadecane      | 0.000  | 57   | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |
| 110) o-terphenyl             | 0.000  | 230  | 0        | 0.00  | ppm    |          |
| Spiked Amount                | 50.000 |      | Recovery | =     | 0.00%  |          |

Target Compounds Qvalue

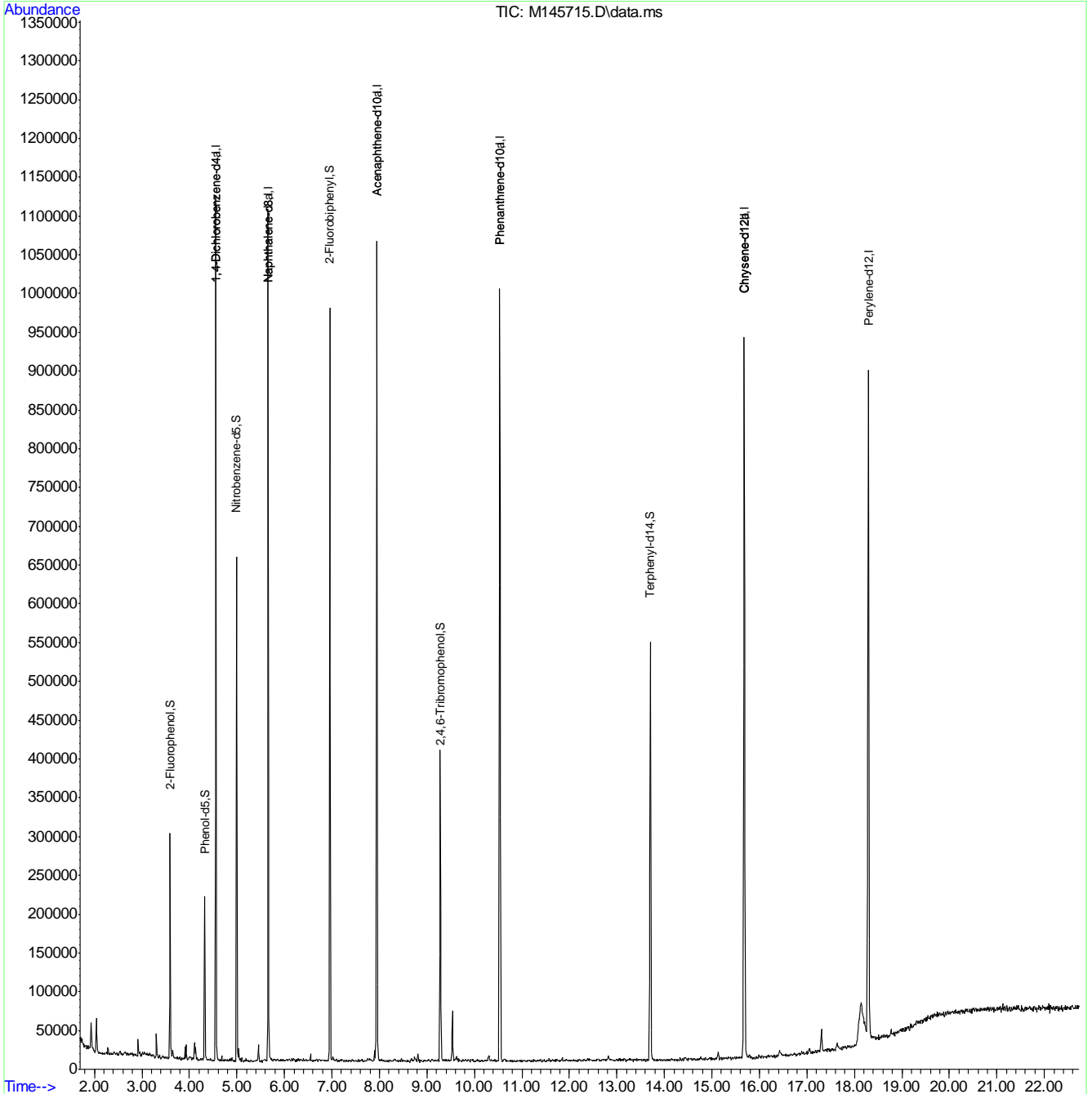
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.3  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6192\  
 Data File : M145715.D  
 Acq On : 3 May 2018 1:55 am  
 Operator : chriss2  
 Sample : op11697-mb1  
 Misc : op11697,em6192,1000,,,1,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 03 10:32:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MM6168.M  
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um  
 QLast Update : Wed May 02 21:51:38 2018  
 Response via : Initial Calibration



## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4599-MB2 | PF145584.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 81% 70-116% |

## Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4599-MB1 | PF145574.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

GPF4599-BS, JC64996-5QMS, JC64996-5QMSD

| CAS No. | Compound         | Result | RL | MDL | Units | Q |
|---------|------------------|--------|----|-----|-------|---|
|         | TPH-GRO (C6-C10) | ND     | 10 | 5.0 | mg/kg |   |

| CAS No. | Surrogate Recoveries | Limits      |
|---------|----------------------|-------------|
| 98-08-8 | aaa-Trifluorotoluene | 80% 70-116% |

10.1.2  
10

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| GPF4599-BS | PF145581.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound         | Spike<br>mg/kg | BSP<br>mg/kg | BSP<br>% | Limits |
|---------|------------------|----------------|--------------|----------|--------|
|         | TPH-GRO (C6-C10) | 400            | 334          | 84       | 75-126 |

| CAS No. | Surrogate Recoveries | BSP | Limits  |
|---------|----------------------|-----|---------|
| 98-08-8 | aaa-Trifluorotoluene | 94% | 70-116% |

10.2.1  
10

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|------------|----|----------|----|-----------|------------|------------------|
| JC64996-5QMS  | PF145579.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |
| JC64996-5QMSD | PF145580.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |
| JC64996-5Q    | PF145575.D | 1  | 04/30/18 | KC | n/a       | n/a        | GPF4599          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound         | JC64996-5Q Spike<br>mg/kg | MS<br>mg/kg | MS<br>mg/kg | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|------------------|---------------------------|-------------|-------------|----------------|--------------|--------------|----------|-----|-------------------|
|         | TPH-GRO (C6-C10) | ND                        | 632         | 584         | 92             | 632          | 640          | 101      | 9   | 68-128/11         |

| CAS No. | Surrogate Recoveries | MS  | MSD | JC64996-5Q Limits |
|---------|----------------------|-----|-----|-------------------|
| 98-08-8 | aaa-Trifluorotoluene | 91% | 93% | 78% 70-116%       |

10.3.1  
10

\* = Outside of Control Limits.

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> |
|---------------|-------------|-----------------|
| JC65157-6     | PF145585.D  | 78              |
| JC65157-7     | PF145586.D  | 84              |
| JC65157-8     | PF145587.D  | 83              |
| JC65157-9     | PF145588.D  | 83              |
| GPF4599-BS    | PF145581.D  | 94              |
| GPF4599-MB2   | PF145584.D  | 81              |
| JC64996-5QMS  | PF145579.D  | 91              |
| JC64996-5QMSD | PF145580.D  | 93              |
| GPF4599-MB1   | PF145574.D  | 80              |

| Surrogate Compounds       | Recovery Limits |
|---------------------------|-----------------|
| S1 = aaa-Trifluorotoluene | 70-116%         |

(a) Recovery from GC signal #1

10.4.1  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4599-CC4589 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> PF145572.D   | <b>Injection Time:</b> 09:01    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

S1<sup>a</sup>  
RT

|           |       |
|-----------|-------|
| Check Std | 11.10 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4599-MB1   | PF145574.D  | 04/30/18      | 10:01         | 11.08              |
| JC64996-5Q    | PF145575.D  | 04/30/18      | 10:36         | 11.08              |
| ZZZZZZ        | PF145576.D  | 04/30/18      | 11:02         | 11.07              |
| ZZZZZZ        | PF145577.D  | 04/30/18      | 11:28         | 11.08              |
| ZZZZZZ        | PF145578.D  | 04/30/18      | 11:54         | 11.07              |
| JC64996-5QMS  | PF145579.D  | 04/30/18      | 12:20         | 11.07              |
| JC64996-5QMSD | PF145580.D  | 04/30/18      | 12:46         | 11.07              |
| GPF4599-BS    | PF145581.D  | 04/30/18      | 13:12         | 11.07              |

## Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.1  
10

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GPF4599-CC4589 | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> PF145582.D   | <b>Injection Time:</b> 13:38    |
| <b>Instrument ID:</b> GCPF       | <b>Method:</b> SW846 8015C      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 11.07 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| GPF4599-MB2   | PF145584.D  | 04/30/18      | 14:38         | 11.07              |
| JC65157-6     | PF145585.D  | 04/30/18      | 15:03         | 11.07              |
| JC65157-7     | PF145586.D  | 04/30/18      | 15:30         | 11.07              |
| JC65157-8     | PF145587.D  | 04/30/18      | 15:56         | 11.07              |
| JC65157-9     | PF145588.D  | 04/30/18      | 16:23         | 11.07              |

### Surrogate Compounds

S1 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

10.5.2  
10

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICC4589  
**Lab FileID:** PF145432.D

---

## Response Factor Report GCPF

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration

### Calibration Files

0.2 =PF145429.d 0.8 =PF145430.d 4 =PF145431.d 8 =PF145432.d  
20 =PF145433.d 40 =PF145435.d 30 =PF145434.d

| Compound              | 0.2   | 0.8   | 4     | 8     | 20    | 40    | 30    | Avg   | %RSD     |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)H TPH-GRO (C6-C10)  | 2.740 | 2.369 | 2.659 | 2.692 | 2.680 | 2.564 | 2.763 | 2.638 | E5 5.10  |
| 2)H TPH-GRO (C6-C12)  | 2.750 | 2.290 | 2.535 | 2.573 | 2.504 | 2.384 | 2.599 | 2.519 | E5 5.93  |
| 3)S a,a,a-Trifluoroto | 2.247 | 2.207 | 2.472 | 2.834 | 3.042 | 3.316 | 3.273 | 2.770 | E5 16.86 |

(#) = Out of Range

MPF4589.M

Tue Apr 24 09:12:15 2018

10.6.1  
10

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4589-ICV4589  
**Lab FileID:** PF145456.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145456.d Vial: 5  
Acq On : 19 Apr 2018 11:36 am Operator: KRIZHKAC  
Sample : ICV4589-8000 Inst : GCPF  
Misc : GC52331,GPF4589,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 275.420 E3 | -4.4  | 102   | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 265.226 E3 | -5.3  | 103   | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 318.961 E3 | -15.1 | 113   | 0.00     | 11.01 | 11.16  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145432.d MPF4589.M Tue Apr 24 09:16:15 2018

10.6.2  
10

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145572.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145572.d Vial: 4  
Acq On : 30 Apr 2018 9:01 am Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52331,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT Window   |
|-----|------------------------|---------|------------|------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 249.473 E3 | 5.4  | 94    | 0.00     | 8.04-13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 240.868 E3 | 4.4  | 95    | 0.00     | 7.72-14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 259.109 E3 | 6.5  | 105   | 0.00     | 11.02-11.17 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Tue May 01 08:31:15 2018

10.6.3  
10

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145582.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145582.d Vial: 14  
Acq On : 30 Apr 2018 13:38 pm Operator: KRIZHKAC  
Sample : CC4589-8000 Inst : GCPF  
Misc : GC52438,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|------------------------|---------|------------|------|-------|----------|-------|--------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 248.064 E3 | 6.0  | 92    | 0.00     | 8.04  | 13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 235.759 E3 | 6.4  | 92    | 0.00     | 7.72  | 14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 277.684 E3 | -0.2 | 98    | -0.02    | 11.00 | 11.15  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145432.d MPF4589.M Tue May 01 08:32:47 2018

10.6.4  
10



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GPF4599-CC4589  
**Lab FileID:** PF145589.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\PF145589.d Vial: 21  
Acq On : 30 Apr 2018 16:49 pm Operator: KRIZHKAC  
Sample : CC4589-4000 Inst : GCPF  
Misc : GC52447,GPF4599,10.0,,100,10,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\msdchem\1\methods\MPF4589.M (ChemStation Integrator)  
Title : Method SW846 8015C (GRO)  
Last Update : Tue Apr 24 09:10:18 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT Window   |
|-----|------------------------|---------|------------|------|-------|----------|-------------|
| 1 H | TPH-GRO (C6-C10)       | 263.810 | 250.180 E3 | 5.2  | 94    | 0.00     | 8.04-13.97  |
| 2 H | TPH-GRO (C6-C12)       | 251.923 | 239.728 E3 | 4.8  | 95    | 0.00     | 7.72-14.28  |
| 3 S | a,a,a-Trifluorotoluene | 277.007 | 265.250 E3 | 4.2  | 107   | -0.01    | 11.00-11.15 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
PF145431.d MPF4589.M Tue May 01 08:32:07 2018

10.6.5  
10

GC Volatiles

Raw Data

Data Path : C:\msdchem\1\data\  
 Data File : PF145585.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 15:03 pm  
 Operator : KRIZHKAC  
 Sample : JC65157-6  
 Misc : GC52447,GPF4599,10.24,,100,10,1  
 ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:36:19 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.067 | 64666838   | 233.448 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 77.82%       |
| Target Compounds            |        |            |              |
| 1) H TPH-GRO (C6-C10)       | 11.000 | 112473243  | 426.342 ug/l |
| -----                       |        |            |              |

(f)=RT Delta > 1/2 Window

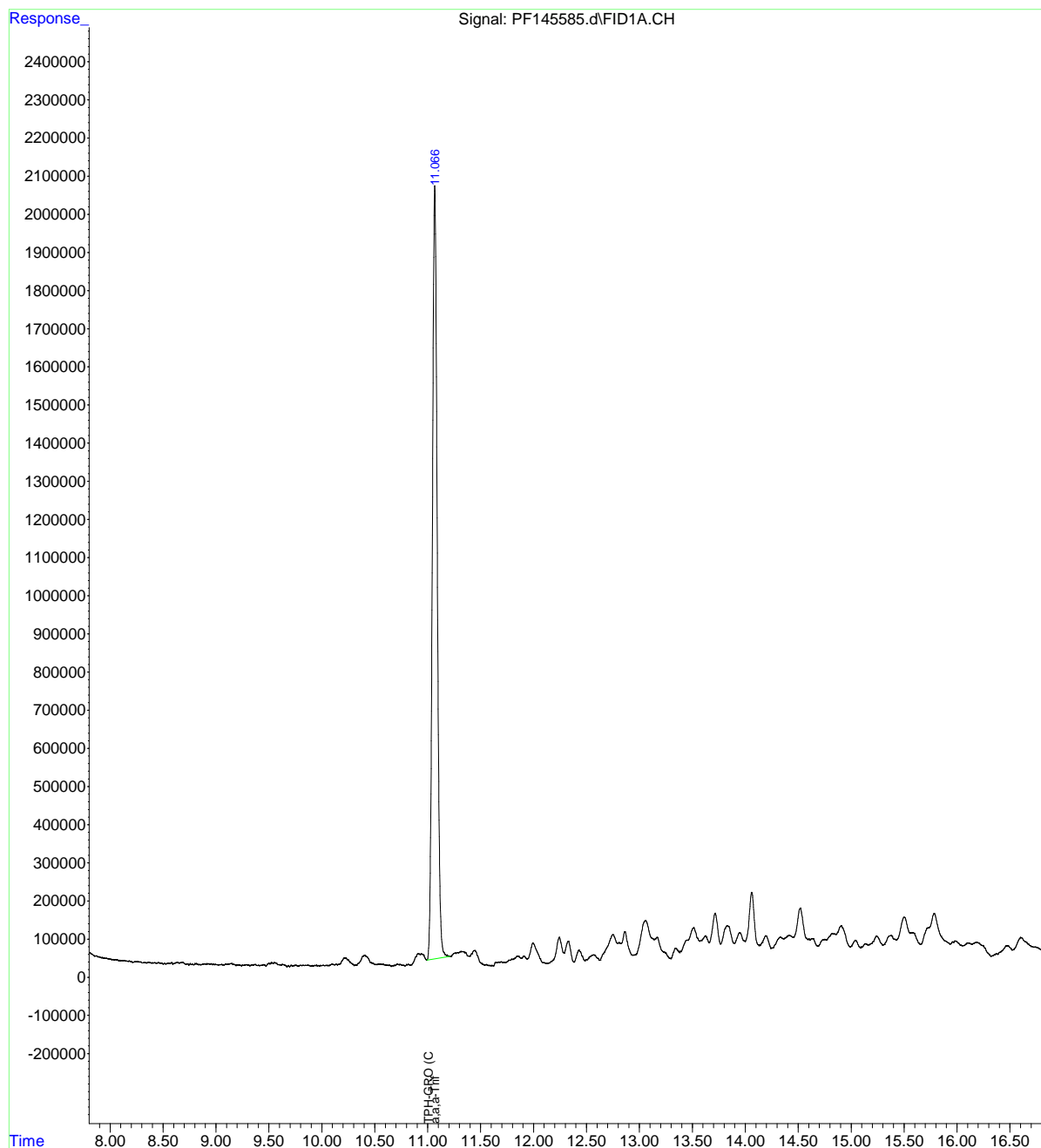
(m)=manual int.

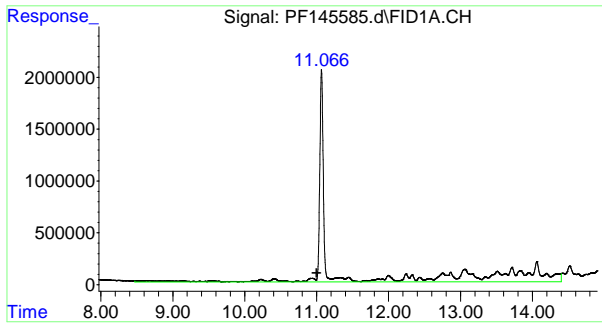
11.11  
11

Data Path : C:\msdchem\1\data\  
Data File : PF145585.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 15:03 pm  
Operator : KRIZHKAC  
Sample : JC65157-6  
Misc : GC52447,GPF4599,10.24,,100,10,1  
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:36:19 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um





#1 TPH-GRO (C6-C10)

R.T.: 11.000 min  
Delta R.T.: 0.000 min  
Response: 112473243  
Conc: 426.34 ug/l

11.11

Data Path : C:\msdchem\1\data\  
 Data File : PF145586.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 15:30 pm  
 Operator : KRIZHKAC  
 Sample : JC65157-7  
 Misc : GC52447,GPF4599,9.43,,100,10,1  
 ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 09:16:33 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.067 | 70118157   | 253.128 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 84.38%       |

Target Compounds

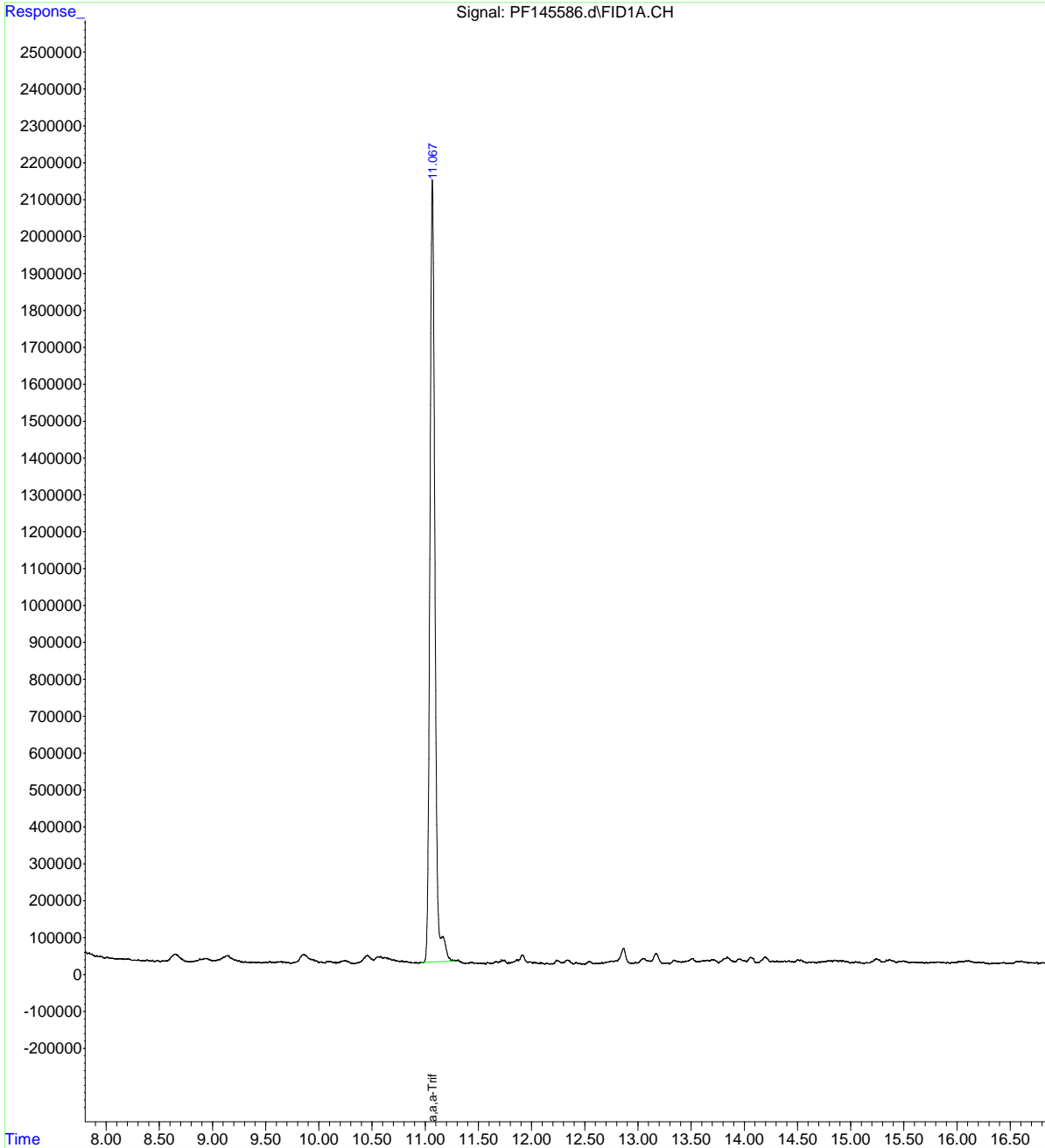
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\msdchem\1\data\  
Data File : PF145586.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 15:30 pm  
Operator : KRIZHKAC  
Sample : JC65157-7  
Misc : GC52447,GPF4599,9.43,,100,10,1  
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 09:16:33 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.12  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145587.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 15:56 pm  
 Operator : KRIZHKAC  
 Sample : JC65157-8  
 Misc : GC52447,GPF4599,9.13,,100,10,1  
 ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:37:13 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.075 | 69178331   | 249.735 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 83.25%       |

Target Compounds

(f)=RT Delta > 1/2 Window

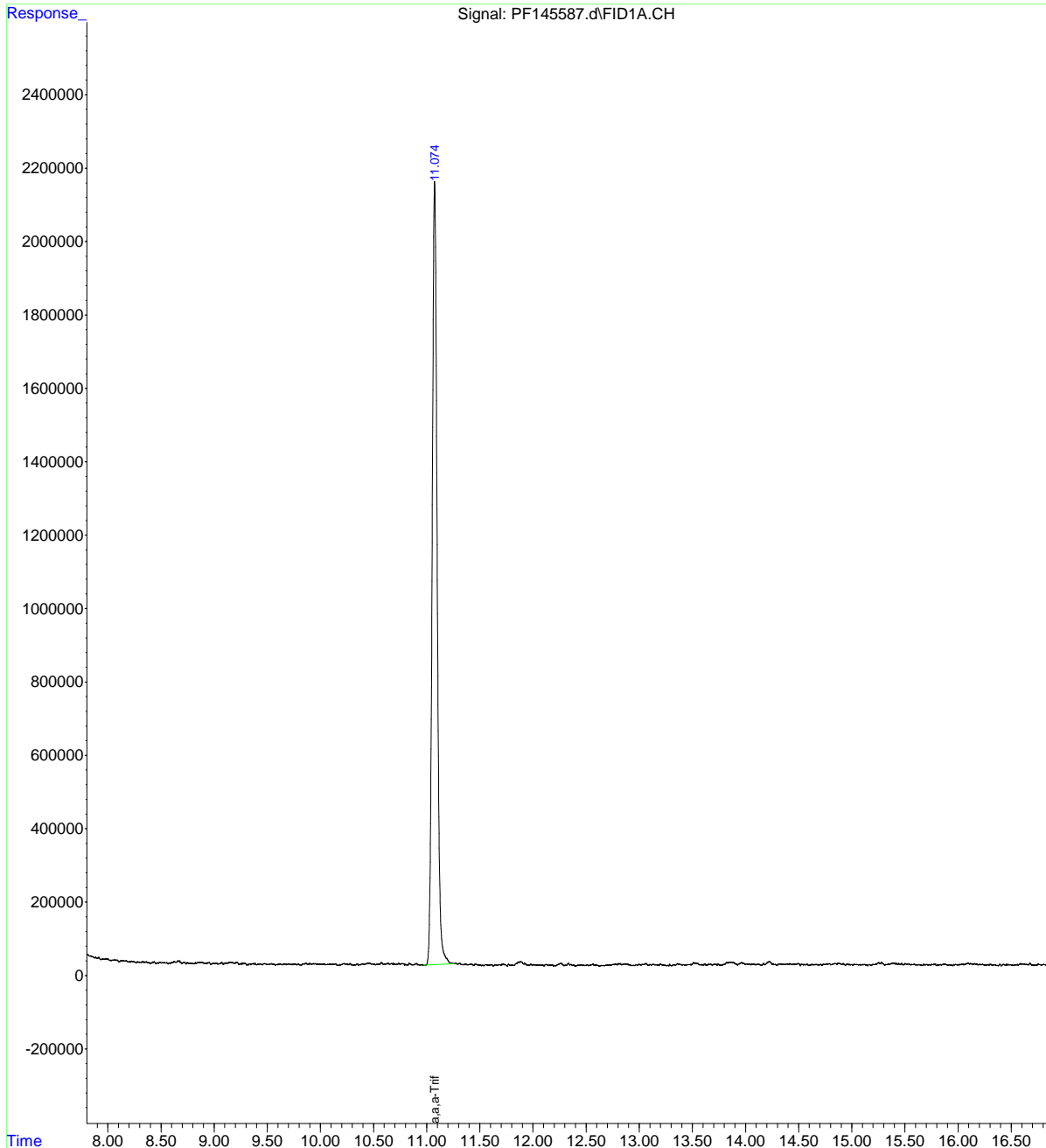
(m)=manual int.



Data Path : C:\msdchem\1\data\  
Data File : PF145587.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 15:56 pm  
Operator : KRIZHKAC  
Sample : JC65157-8  
Misc : GC52447,GPF4599,9.13,,100,10,1  
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:37:13 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.13  
11



Data Path : C:\msdchem\1\data\  
 Data File : PF145588.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 16:23 pm  
 Operator : KRIZHKAC  
 Sample : JC65157-9  
 Misc : GC52447,GPF4599,9.56,,100,10,1  
 ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:38:26 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| -----                       |        |            |              |
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.071 | 69216805   | 249.874 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 83.29%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

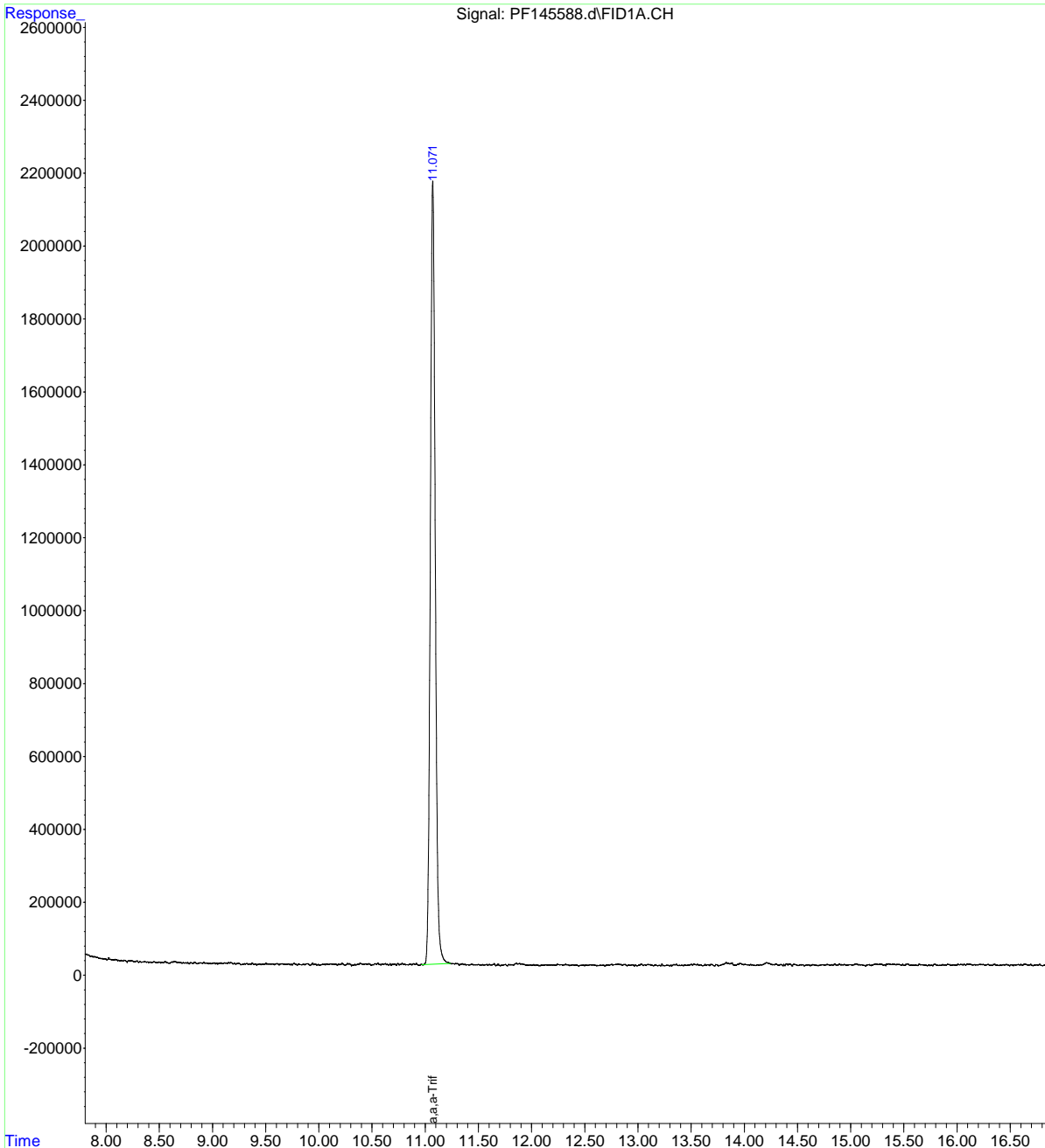
11.14

11

Data Path : C:\msdchem\1\data\  
Data File : PF145588.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 16:23 pm  
Operator : KRIZHKAC  
Sample : JC65157-9  
Misc : GC52447,GPF4599,9.56,,100,10,1  
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:38:26 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.14  
11

Data Path : C:\msdchem\1\data\  
 Data File : PF145584.d  
 Signal(s) : FID1A.CH  
 Acq On : 30 Apr 2018 14:38 pm  
 Operator : KRIZHKAC  
 Sample : MB2  
 Misc : GC52438,GPF4599,10.0,,100,10,1  
 ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 01 08:35:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
 Quant Title : Method SW846 8015C (GRO)  
 QLast Update : Tue Apr 24 09:10:18 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
 Signal Phase : crossbond phenylmethyl polysiloxane  
 Signal Info : HP-VOC 105m x 0.53mm x 3.0um

| Compound                    | R.T.   | Response   | Conc Units   |
|-----------------------------|--------|------------|--------------|
| System Monitoring Compounds |        |            |              |
| 3) S a,a,a-Trifluorotoluene | 11.070 | 67055271   | 242.071 ug/l |
| Spiked Amount 300.000       |        | Recovery = | 80.69%       |

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

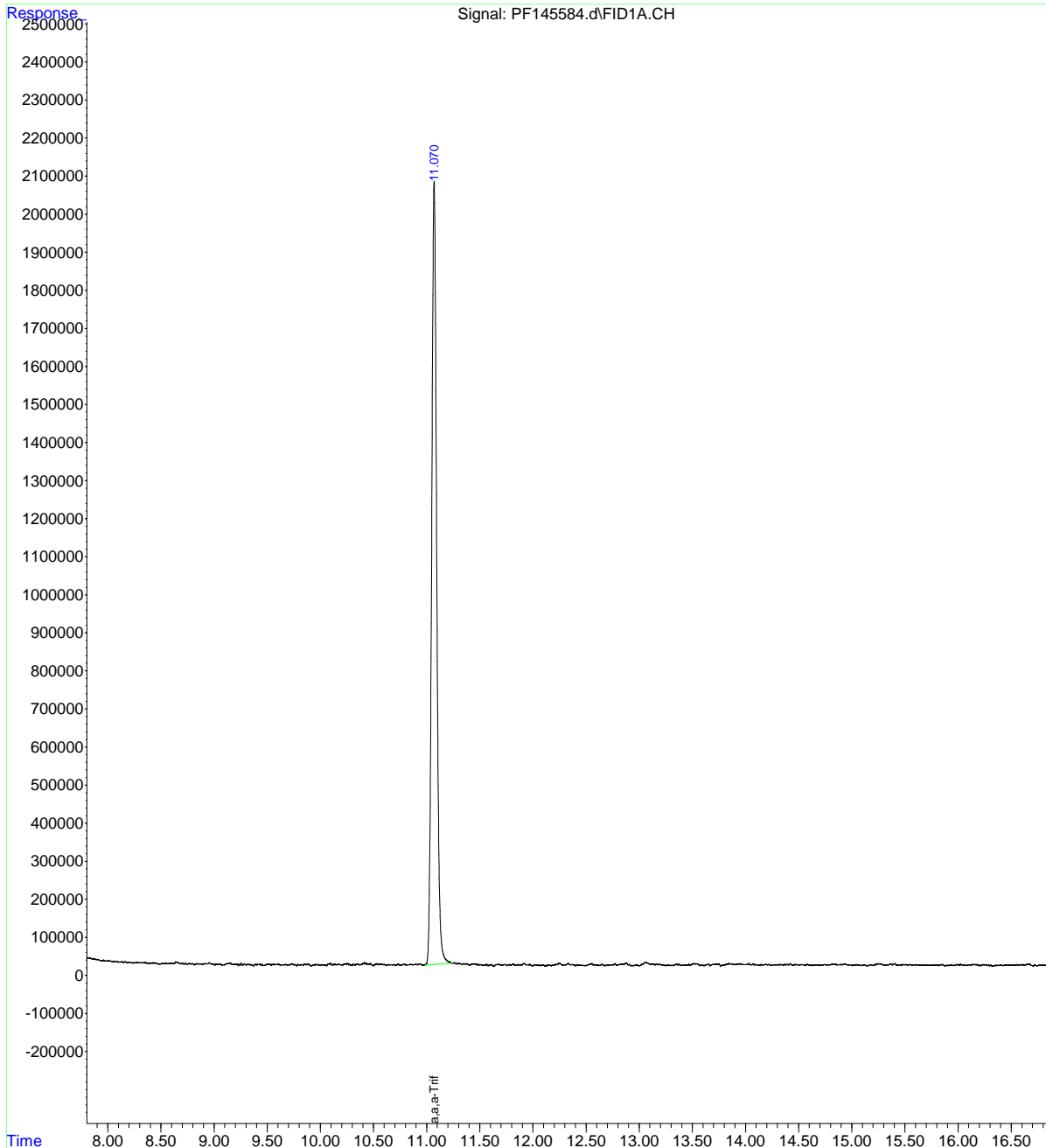
11.21  
11



Data Path : C:\msdchem\1\data\  
Data File : PF145584.d  
Signal(s) : FID1A.CH  
Acq On : 30 Apr 2018 14:38 pm  
Operator : KRIZHKAC  
Sample : MB2  
Misc : GC52438,GPF4599,10.0,,100,10,1  
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 01 08:35:49 2018  
Quant Method : C:\MSDCHEM\1\METHODS\MPF4589.M  
Quant Title : Method SW846 8015C (GRO)  
QLast Update : Tue Apr 24 09:10:18 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :  
Signal Phase : crossbond phenylmethyl polysiloxane  
Signal Info : HP-VOC 105m x 0.53mm x 3.0um



11.21  
11

## GC/LC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MB2 | 3G116292.D | 1  | 05/04/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | Result | RL   | MDL   | Units | Q |
|---------|-------------------|--------|------|-------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 0.42 | 0.12  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 0.12 | 0.025 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 19719-28-9 | 2,4-DCAA             | 92%    | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 105%   | 50-142% |

# Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MB1 | 3G116250.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL   | MDL   | Units | Q |
|---------|-------------------|--------|------|-------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 0.42 | 0.12  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 0.12 | 0.025 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 96% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 86% 50-142% |

12.1.2  
12



**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11678-MB1 | 6G55894.D | 1  | 05/02/18 | RK | 05/01/18  | OP11678    | G6G1675          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 72%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 77%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    | 10-156% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MB2 | 8G14785.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.33   | 0.14   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0067 | 0.0030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.013  | 0.0045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.17   | 0.11   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 84%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 42%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 46%    | 10-137% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MB1 | 6G56092.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 73%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 78%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 81%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 86%    | 10-156% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MB1 | 8G15031.D | 1  | 05/11/18 | MH | 05/10/18  | OP11917    | G8G489           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No.    | Compound            | Result | RL   | MDL  | Units | Q |
|------------|---------------------|--------|------|------|-------|---|
| 309-00-2   | Aldrin              | ND     | 0.67 | 0.55 | ug/kg |   |
| 319-84-6   | alpha-BHC           | ND     | 0.67 | 0.54 | ug/kg |   |
| 319-85-7   | beta-BHC            | ND     | 0.67 | 0.60 | ug/kg |   |
| 319-86-8   | delta-BHC           | ND     | 0.67 | 0.64 | ug/kg |   |
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.67 | 0.49 | ug/kg |   |
| 5103-71-9  | alpha-Chlordane     | ND     | 0.67 | 0.54 | ug/kg |   |
| 5103-74-2  | gamma-Chlordane     | ND     | 0.67 | 0.30 | ug/kg |   |
| 60-57-1    | Dieldrin            | ND     | 0.67 | 0.46 | ug/kg |   |
| 72-54-8    | 4,4' -DDD           | ND     | 0.67 | 0.61 | ug/kg |   |
| 72-55-9    | 4,4' -DDE           | ND     | 0.67 | 0.58 | ug/kg |   |
| 50-29-3    | 4,4' -DDT           | ND     | 0.67 | 0.59 | ug/kg |   |
| 72-20-8    | Endrin              | ND     | 0.67 | 0.52 | ug/kg |   |
| 1031-07-8  | Endosulfan sulfate  | ND     | 0.67 | 0.52 | ug/kg |   |
| 7421-93-4  | Endrin aldehyde     | ND     | 0.67 | 0.38 | ug/kg |   |
| 959-98-8   | Endosulfan-I        | ND     | 0.67 | 0.38 | ug/kg |   |
| 33213-65-9 | Endosulfan-II       | ND     | 0.67 | 0.42 | ug/kg |   |
| 76-44-8    | Heptachlor          | ND     | 0.67 | 0.57 | ug/kg |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.67 | 0.47 | ug/kg |   |
| 72-43-5    | Methoxychlor        | ND     | 1.3  | 0.53 | ug/kg |   |
| 53494-70-5 | Endrin ketone       | ND     | 0.67 | 0.48 | ug/kg |   |
| 8001-35-2  | Toxaphene           | ND     | 17   | 16   | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 78%    | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 87%    | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 63%    | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 77%    | 10-156% |

# Method Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MB1 | 6G55909.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL     | MDL    | Units | Q |
|------------|---------------------|--------|--------|--------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 0.33   | 0.14   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.0067 | 0.0030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.0067 | 0.0040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.013  | 0.0045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 0.17   | 0.11   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Results | Limits  |
|-----------|----------------------|---------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 77%     | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 87%     | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69%     | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 76%     | 10-137% |

12.1.7  
12

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11677-MB1 | 2G162657.D | 1  | 05/02/18 | TR | 05/01/18  | OP11677    | G2G4322          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound     | Result | RL | MDL | Units | Q |
|------------|--------------|--------|----|-----|-------|---|
| 12674-11-2 | Aroclor 1016 | ND     | 33 | 13  | ug/kg |   |
| 11104-28-2 | Aroclor 1221 | ND     | 33 | 14  | ug/kg |   |
| 11141-16-5 | Aroclor 1232 | ND     | 33 | 8.9 | ug/kg |   |
| 53469-21-9 | Aroclor 1242 | ND     | 33 | 5.3 | ug/kg |   |
| 12672-29-6 | Aroclor 1248 | ND     | 33 | 20  | ug/kg |   |
| 11097-69-1 | Aroclor 1254 | ND     | 33 | 8.2 | ug/kg |   |
| 11096-82-5 | Aroclor 1260 | ND     | 33 | 11  | ug/kg |   |
| 11100-14-4 | Aroclor 1268 | ND     | 33 | 5.0 | ug/kg |   |
| 37324-23-5 | Aroclor 1262 | ND     | 33 | 2.5 | ug/kg |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 96%    | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 101%   | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 97%    | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 98%    | 10-166% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11675-MB1 | 2Z68941.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Z2592          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound          | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
|         | TPH-DRO (C10-C28) | ND     | 10 | 2.4 | mg/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 84-15-1    | o-Terphenyl          | 63%    | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 85%    | 25-137% |
| 438-22-2   | 5a-Androstane        | 80%    | 22-134% |

**Method Blank Summary**

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11675-MB1 | 2Y90945.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Y3464          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound          | Result | RL | MDL | Units | Q |
|---------|-------------------|--------|----|-----|-------|---|
|         | TPH-DRO (C10-C28) | ND     | 10 | 2.4 | mg/kg |   |

| CAS No.    | Surrogate Recoveries | Limits |         |
|------------|----------------------|--------|---------|
| 84-15-1    | o-Terphenyl          | 79%    | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 104%   | 25-137% |
| 438-22-2   | 5a-Androstane        | 79%    | 22-134% |



# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB29 | 3G116308.D | 1  | 05/05/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits       |
|------------|----------------------|--------------|
| 19719-28-9 | 2,4-DCAA             | 100% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 92% 50-142%  |

12.2.1  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB28 | 3G116309.D | 1  | 05/05/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 99% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 89% 50-142% |

12.2.2  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB26 | OA133141.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | GOA4561          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 77% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 95% 50-142% |

12.2.3  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LB25 | 3G116272.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

OP11688-LS9, OP11688-MS, OP11688-MSD

| CAS No. | Compound          | Result | RL  | MDL  | Units | Q |
|---------|-------------------|--------|-----|------|-------|---|
| 94-75-7 | 2,4-D             | ND     | 4.2 | 1.2  | ug/l  |   |
| 93-72-1 | 2,4,5-TP (Silvex) | ND     | 1.2 | 0.25 | ug/l  |   |

| CAS No.    | Surrogate Recoveries | Limits      |
|------------|----------------------|-------------|
| 19719-28-9 | 2,4-DCAA             | 94% 50-142% |
| 19719-28-9 | 2,4-DCAA             | 85% 50-142% |

12.2.4  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB28 | 8G14811.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Results | Limits  |
|-----------|----------------------|---------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 68%     | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 85%     | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 54%     | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 60%     | 10-137% |

12.2.5  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB29 | 8G14812.D | 1  | 05/04/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 50%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 70%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 47%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 57%    | 10-137% |

12.2.6  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB25 | 6G55926.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 62%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 69%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 75%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    | 10-137% |

12.2.7  
12

# Leachate Blank Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LB26 | 6G55927.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

OP11692-LS9, OP11692-MS, OP11692-MSD

| CAS No.    | Compound            | Result | RL    | MDL   | Units | Q |
|------------|---------------------|--------|-------|-------|-------|---|
| 58-89-9    | gamma-BHC (Lindane) | ND     | 0.067 | 0.040 | ug/l  |   |
| 12789-03-6 | Chlordane           | ND     | 3.3   | 1.4   | ug/l  |   |
| 72-20-8    | Endrin              | ND     | 0.067 | 0.040 | ug/l  |   |
| 76-44-8    | Heptachlor          | ND     | 0.067 | 0.030 | ug/l  |   |
| 1024-57-3  | Heptachlor epoxide  | ND     | 0.067 | 0.040 | ug/l  |   |
| 72-43-5    | Methoxychlor        | ND     | 0.13  | 0.045 | ug/l  |   |
| 8001-35-2  | Toxaphene           | ND     | 1.7   | 1.1   | ug/l  |   |

| CAS No.   | Surrogate Recoveries | Limits |         |
|-----------|----------------------|--------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 82%    | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 92%    | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 83%    | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 94%    | 10-137% |

12.2.8  
12



# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-BS2 | 3G116293.D | 1  | 05/04/18 | VDT | 05/03/18  | OP11688    | G3G4037          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|-------------------|---------------|-------------|----------|--------|
| 94-75-7 | 2,4-D             | 13.3          | 16.4        | 123      | 46-153 |
| 93-72-1 | 2,4,5-TP (Silvex) | 2.67          | 2.9         | 109      | 57-151 |

| CAS No.    | Surrogate Recoveries | BSP  | Limits  |
|------------|----------------------|------|---------|
| 19719-28-9 | 2,4-DCAA             | 117% | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 123% | 50-142% |

12.3.1  
12

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11678-BS1 | 6G55895.D | 1  | 05/02/18 | RK | 05/01/18  | OP11678    | G6G1675          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound            | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|------------|---------------------|-------------|-----------|-------|--------|
| 309-00-2   | Aldrin              | 16.7        | 14.9      | 89    | 46-120 |
| 319-84-6   | alpha-BHC           | 16.7        | 13.8      | 83    | 45-116 |
| 319-85-7   | beta-BHC            | 16.7        | 14.5      | 87    | 42-121 |
| 319-86-8   | delta-BHC           | 16.7        | 13.8      | 83    | 42-121 |
| 58-89-9    | gamma-BHC (Lindane) | 16.7        | 13.6      | 82    | 46-118 |
| 5103-71-9  | alpha-Chlordane     | 16.7        | 14.5      | 87    | 49-119 |
| 5103-74-2  | gamma-Chlordane     | 16.7        | 14.5      | 87    | 48-121 |
| 60-57-1    | Dieldrin            | 16.7        | 14.9      | 89    | 48-126 |
| 72-54-8    | 4,4'-DDD            | 16.7        | 14.8      | 89    | 47-120 |
| 72-55-9    | 4,4'-DDE            | 16.7        | 14.8      | 89    | 48-121 |
| 50-29-3    | 4,4'-DDT            | 16.7        | 15.6      | 94    | 45-135 |
| 72-20-8    | Endrin              | 16.7        | 15.2      | 91    | 51-137 |
| 1031-07-8  | Endosulfan sulfate  | 16.7        | 14.5      | 87    | 48-128 |
| 7421-93-4  | Endrin aldehyde     | 16.7        | 14.9      | 89    | 46-125 |
| 959-98-8   | Endosulfan-I        | 16.7        | 14.6      | 88    | 47-118 |
| 33213-65-9 | Endosulfan-II       | 16.7        | 13.7      | 82    | 49-121 |
| 76-44-8    | Heptachlor          | 16.7        | 13.9      | 83    | 48-120 |
| 1024-57-3  | Heptachlor epoxide  | 16.7        | 14.0      | 84    | 46-122 |
| 72-43-5    | Methoxychlor        | 16.7        | 15.1      | 91    | 44-136 |
| 53494-70-5 | Endrin ketone       | 16.7        | 13.9      | 83    | 44-139 |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 70% | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 75% | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 81% | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 85% | 10-156% |

\* = Outside of Control Limits.

12.3.2 12

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-BS2 | 8G14786.D | 1  | 05/03/18 | CP | 05/03/18  | OP11692    | G8G483           |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.   | Compound            | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|-----------|---------------------|---------------|-------------|----------|--------|
| 58-89-9   | gamma-BHC (Lindane) | 1.67          | 1.7         | 102      | 37-178 |
| 72-20-8   | Endrin              | 1.67          | 1.5         | 90       | 45-182 |
| 76-44-8   | Heptachlor          | 1.67          | 1.4         | 84       | 26-172 |
| 1024-57-3 | Heptachlor epoxide  | 1.67          | 1.4         | 84       | 43-173 |
| 72-43-5   | Methoxychlor        | 1.67          | 1.6         | 96       | 40-192 |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 74% | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 86% | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 77% | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 82% | 10-137% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-BS1 | 6G56093.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No.    | Compound            | Spike ug/kg | BSP ug/kg | BSP % | Limits |
|------------|---------------------|-------------|-----------|-------|--------|
| 309-00-2   | Aldrin              | 16.7        | 14.8      | 89    | 46-120 |
| 319-84-6   | alpha-BHC           | 16.7        | 13.9      | 83    | 45-116 |
| 319-85-7   | beta-BHC            | 16.7        | 14.4      | 86    | 42-121 |
| 319-86-8   | delta-BHC           | 16.7        | 13.6      | 82    | 42-121 |
| 58-89-9    | gamma-BHC (Lindane) | 16.7        | 13.8      | 83    | 46-118 |
| 5103-71-9  | alpha-Chlordane     | 16.7        | 15.3      | 92    | 49-119 |
| 5103-74-2  | gamma-Chlordane     | 16.7        | 15.0      | 90    | 48-121 |
| 60-57-1    | Dieldrin            | 16.7        | 13.6      | 82    | 48-126 |
| 72-54-8    | 4,4'-DDD            | 16.7        | 14.1      | 85    | 47-120 |
| 72-55-9    | 4,4'-DDE            | 16.7        | 14.6      | 88    | 48-121 |
| 50-29-3    | 4,4'-DDT            | 16.7        | 15.5      | 93    | 45-135 |
| 72-20-8    | Endrin              | 16.7        | 15.7      | 94    | 51-137 |
| 1031-07-8  | Endosulfan sulfate  | 16.7        | 14.2      | 85    | 48-128 |
| 7421-93-4  | Endrin aldehyde     | 16.7        | 14.8      | 89    | 46-125 |
| 959-98-8   | Endosulfan-I        | 16.7        | 14.5      | 87    | 47-118 |
| 33213-65-9 | Endosulfan-II       | 16.7        | 14.2      | 85    | 49-121 |
| 76-44-8    | Heptachlor          | 16.7        | 15.0      | 90    | 48-120 |
| 1024-57-3  | Heptachlor epoxide  | 16.7        | 14.2      | 85    | 46-122 |
| 72-43-5    | Methoxychlor        | 16.7        | 15.4      | 92    | 44-136 |
| 53494-70-5 | Endrin ketone       | 16.7        | 14.4      | 86    | 44-139 |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 80% | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 85% | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 87% | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 94% | 10-156% |

\* = Outside of Control Limits.

12.3.4 12

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11677-BS1 | 2G162658.D | 1  | 05/02/18 | TR | 05/01/18  | OP11677    | G2G4322          |

**The QC reported here applies to the following samples:** **Method:** SW846 8082A

JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound     | Spike<br>ug/kg | BSP<br>ug/kg | BSP<br>% | Limits              |
|------------|--------------|----------------|--------------|----------|---------------------|
| 12674-11-2 | Aroclor 1016 | 133            | 158          | 118      | 61-146              |
| 11104-28-2 | Aroclor 1221 |                | ND           |          | 70-130              |
| 11141-16-5 | Aroclor 1232 |                | ND           |          | 70-130              |
| 53469-21-9 | Aroclor 1242 |                | ND           |          | 70-130              |
| 12672-29-6 | Aroclor 1248 |                | ND           |          | 70-130              |
| 11097-69-1 | Aroclor 1254 |                | ND           |          | 70-130              |
| 11096-82-5 | Aroclor 1260 | 133            | 154          | 115      | 62-148              |
| 11100-14-4 | Aroclor 1268 |                | ND           |          | 50-150 <sup>a</sup> |
| 37324-23-5 | Aroclor 1262 |                | ND           |          | 50-150 <sup>a</sup> |

| CAS No.   | Surrogate Recoveries | BSP | Limits  |
|-----------|----------------------|-----|---------|
| 877-09-8  | Tetrachloro-m-xylene | 94% | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 94% | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 96% | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 96% | 10-166% |

(a) Advisory control limits.

\* = Outside of Control Limits.

12.3.5  
12

# Blank Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11675-BS1 | 2Z68942.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Z2592          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound          | Spike mg/kg | BSP mg/kg | BSP % | Limits |
|---------|-------------------|-------------|-----------|-------|--------|
|         | TPH-DRO (C10-C28) | 100         | 67.1      | 67    | 44-120 |

| CAS No.    | Surrogate Recoveries | BSP | Limits  |
|------------|----------------------|-----|---------|
| 84-15-1    | o-Terphenyl          | 65% | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 81% | 25-137% |
| 438-22-2   | 5a-Androstane        | 76% | 22-134% |

12.3.6  
12

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-MS  | 3G116270.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| OP11688-MSD | 3G116271.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| JC65130-4   | 3G116267.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | JC65130-4<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 94-75-7 | 2,4-D             | ND                | 13.3               | 12.5       | 94      | 13.3          | 11.4        | 86       | 9   | 43-136/44         |
| 93-72-1 | 2,4,5-TP (Silvex) | ND                | 2.67               | 3.0        | 113     | 2.67          | 2.7         | 101      | 11  | 47-141/41         |

| CAS No.    | Surrogate Recoveries | MS   | MSD | JC65130-4 | Limits  |
|------------|----------------------|------|-----|-----------|---------|
| 19719-28-9 | 2,4-DCAA             | 106% | 99% | 112%      | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 90%  | 80% | 96%       | 50-142% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11678-MS  | 6G55898.D | 1  | 05/02/18 | RK | 05/01/18  | OP11678    | G6G1675          |
| OP11678-MSD | 6G55899.D | 1  | 05/02/18 | RK | 05/01/18  | OP11678    | G6G1675          |
| JC65157-11  | 6G55897.D | 1  | 05/02/18 | RK | 05/01/18  | OP11678    | G6G1675          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound            | JC65157-11<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|---------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                  | 20.8                | 17.2        | 83      | 20.2           | 18.5         | 91       | 7   | 23-143/44         |
| 319-84-6   | alpha-BHC           | ND                  | 20.8                | 19.0        | 91      | 20.2           | 19.7         | 97       | 4   | 18-152/47         |
| 319-85-7   | beta-BHC            | ND                  | 20.8                | 12.4        | 60      | 20.2           | 13.3         | 66       | 7   | 7-143/48          |
| 319-86-8   | delta-BHC           | ND                  | 20.8                | 15.2        | 73      | 20.2           | 15.4         | 76       | 1   | 13-155/49         |
| 58-89-9    | gamma-BHC (Lindane) | ND                  | 20.8                | 15.0        | 72      | 20.2           | 15.9         | 79       | 6   | 23-138/49         |
| 5103-71-9  | alpha-Chlordane     | ND                  | 20.8                | 14.5        | 70      | 20.2           | 16.1         | 80       | 10  | 16-149/46         |
| 5103-74-2  | gamma-Chlordane     | ND                  | 20.8                | 14.2        | 68      | 20.2           | 15.3         | 76       | 7   | 14-152/45         |
| 60-57-1    | Dieldrin            | ND                  | 20.8                | 19.5        | 94      | 20.2           | 19.0         | 94       | 3   | 14-154/46         |
| 72-54-8    | 4,4'-DDD            | ND                  | 20.8                | 17.3        | 83      | 20.2           | 16.5         | 82       | 5   | 18-149/51         |
| 72-55-9    | 4,4'-DDE            | ND                  | 20.8                | 24.6        | 118     | 20.2           | 26.9         | 133      | 9   | 10-154/49         |
| 50-29-3    | 4,4'-DDT            | ND                  | 20.8                | 27.7        | 133     | 20.2           | 28.2         | 139      | 2   | 10-170/50         |
| 72-20-8    | Endrin              | ND                  | 20.8                | 23.0        | 111     | 20.2           | 19.5         | 96       | 16  | 18-173/49         |
| 1031-07-8  | Endosulfan sulfate  | ND                  | 20.8                | 15.7        | 76      | 20.2           | 14.1         | 70       | 11  | 19-132/50         |
| 7421-93-4  | Endrin aldehyde     | ND                  | 20.8                | 20.1        | 97      | 20.2           | 18.7         | 92       | 7   | 10-160/53         |
| 959-98-8   | Endosulfan-I        | ND                  | 20.8                | 14.7        | 71      | 20.2           | 15.8         | 78       | 7   | 18-143/46         |
| 33213-65-9 | Endosulfan-II       | ND                  | 20.8                | 12.5        | 60      | 20.2           | 15.1         | 75       | 19  | 21-132/46         |
| 76-44-8    | Heptachlor          | ND                  | 20.8                | 14.4        | 69      | 20.2           | 15.5         | 77       | 7   | 22-146/46         |
| 1024-57-3  | Heptachlor epoxide  | ND                  | 20.8                | 15.1        | 73      | 20.2           | 16.1         | 80       | 6   | 21-151/45         |
| 72-43-5    | Methoxychlor        | ND                  | 20.8                | 30.9        | 149     | 20.2           | 20.4         | 101      | 41  | 11-166/50         |
| 53494-70-5 | Endrin ketone       | ND                  | 20.8                | 47.3        | 228* a  | 20.2           | 44.1         | 218* a   | 7   | 8-179/51          |
| 8001-35-2  | Toxaphene           | ND                  |                     | ND          |         |                | ND           |          | nc  | 50-150/30         |

12.4.2 12

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65157-11 | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 69% | 74% | 71%        | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 72% | 74% | 79%        | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 61% | 69% | 67%        | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 74% | 88% | 87%        | 10-156% |

(a) Outside control limits due to matrix interference.

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-MS  | 6G55923.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| OP11692-MSD | 6G55924.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| JC65070-1A  | 6G55922.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.    | Compound            | JC65070-1A<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 1.67       | 1.4        | 84      | 1.67          | 1.6         | 96       | 13  | 39-160/97         |
| 12789-03-6 | Chlordane           | ND                 |            | ND         |         |               | ND          |          | nc  | 81-123/10         |
| 72-20-8    | Endrin              | ND                 | 1.67       | 1.3        | 78      | 1.67          | 1.6         | 96       | 21  | 43-169/95         |
| 76-44-8    | Heptachlor          | ND                 | 1.67       | 1.2        | 72      | 1.67          | 1.5         | 90       | 22  | 35-152/102        |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 1.67       | 1.3        | 78      | 1.67          | 1.5         | 90       | 14  | 42-159/96         |
| 72-43-5    | Methoxychlor        | ND                 | 1.67       | 1.2        | 72      | 1.67          | 1.4         | 84       | 15  | 47-170/99         |
| 8001-35-2  | Toxaphene           | ND                 |            | ND         |         |               | ND          |          | nc  | 50-150/8          |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65070-1A | Limits  |
|-----------|----------------------|-----|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 65% | 77% | 68%        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 74% | 89% | 82%        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 62% | 69% | 56%        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69% | 79% | 66%        | 10-137% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11917-MS             | 6G56095.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |
| OP11917-MSD            | 6G56096.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |
| JC65058-5 <sup>a</sup> | 6G56094.D | 1  | 05/11/18 | CP | 05/10/18  | OP11917    | G6G1681          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No.    | Compound            | JC65058-5<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|---------------------|--------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 309-00-2   | Aldrin              | ND                 | 18.3                | 13.5        | 74      | 18.1           | 13.3         | 74       | 1   | 23-143/44         |
| 319-84-6   | alpha-BHC           | ND                 | 18.3                | 12.9        | 70      | 18.1           | 13.4         | 74       | 4   | 18-152/47         |
| 319-85-7   | beta-BHC            | ND                 | 18.3                | 14.7        | 80      | 18.1           | 13.8         | 76       | 6   | 7-143/48          |
| 319-86-8   | delta-BHC           | ND                 | 18.3                | 12.8        | 70      | 18.1           | 14.0         | 77       | 9   | 13-155/49         |
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 18.3                | 14.4        | 79      | 18.1           | 12.4         | 69       | 15  | 23-138/49         |
| 5103-71-9  | alpha-Chlordane     | ND                 | 18.3                | 13.9        | 76      | 18.1           | 13.1         | 72       | 6   | 16-149/46         |
| 5103-74-2  | gamma-Chlordane     | ND                 | 18.3                | 14.6        | 80      | 18.1           | 15.8         | 87       | 8   | 14-152/45         |
| 60-57-1    | Dieldrin            | ND                 | 18.3                | 12.2        | 67      | 18.1           | 11.9         | 66       | 2   | 14-154/46         |
| 72-54-8    | 4,4'-DDD            | ND                 | 18.3                | 12.5        | 68      | 18.1           | 11.9         | 66       | 5   | 18-149/51         |
| 72-55-9    | 4,4'-DDE            | ND                 | 18.3                | 12.6        | 69      | 18.1           | 12.4         | 69       | 2   | 10-154/49         |
| 50-29-3    | 4,4'-DDT            | ND                 | 18.3                | 13.3        | 73      | 18.1           | 13.0         | 72       | 2   | 10-170/50         |
| 72-20-8    | Endrin              | ND                 | 18.3                | 14.0        | 76      | 18.1           | 13.3         | 74       | 5   | 18-173/49         |
| 1031-07-8  | Endosulfan sulfate  | ND                 | 18.3                | 10.5        | 57      | 18.1           | 10.1         | 56       | 4   | 19-132/50         |
| 7421-93-4  | Endrin aldehyde     | ND                 | 18.3                | 13.2        | 72      | 18.1           | 12.6         | 70       | 5   | 10-160/53         |
| 959-98-8   | Endosulfan-I        | ND                 | 18.3                | 12.9        | 70      | 18.1           | 12.5         | 69       | 3   | 18-143/46         |
| 33213-65-9 | Endosulfan-II       | ND                 | 18.3                | 12.3        | 67      | 18.1           | 11.9         | 66       | 3   | 21-132/46         |
| 76-44-8    | Heptachlor          | ND                 | 18.3                | 16.7        | 91      | 18.1           | 16.1         | 89       | 4   | 22-146/46         |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 18.3                | 13.8        | 75      | 18.1           | 14.4         | 80       | 4   | 21-151/45         |
| 72-43-5    | Methoxychlor        | ND                 | 18.3                | 13.0        | 71      | 18.1           | 12.5         | 69       | 4   | 11-166/50         |
| 53494-70-5 | Endrin ketone       | ND                 | 18.3                | 12.9        | 70      | 18.1           | 13.2         | 73       | 2   | 8-179/51          |
| 8001-35-2  | Toxaphene           | ND                 |                     | ND          |         |                | ND           |          | nc  | 50-150/30         |

| CAS No.   | Surrogate Recoveries | MS  | MSD | JC65058-5 | Limits  |
|-----------|----------------------|-----|-----|-----------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 56% | 56% | 58%       | 25-135% |
| 877-09-8  | Tetrachloro-m-xylene | 66% | 80% | 72%       | 25-135% |
| 2051-24-3 | Decachlorobiphenyl   | 68% | 66% | 68%       | 10-156% |
| 2051-24-3 | Decachlorobiphenyl   | 79% | 85% | 86%       | 10-156% |

(a) Sample extracted outside the holding time.

\* = Outside of Control Limits.

12.4.4 12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| OP11677-MS  | 2G162662.D | 1  | 05/02/18 | TR | 05/01/18  | OP11677    | G2G4322          |
| OP11677-MSD | 2G162663.D | 1  | 05/02/18 | TR | 05/01/18  | OP11677    | G2G4322          |
| JC65157-10  | 2G162661.D | 1  | 05/02/18 | TR | 05/01/18  | OP11677    | G2G4322          |

The QC reported here applies to the following samples:

Method: SW846 8082A

JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

| CAS No.    | Compound     | JC65157-10<br>ug/kg | Spike<br>Q<br>ug/kg | MS<br>ug/kg | MS<br>% | Spike<br>ug/kg | MSD<br>ug/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|--------------|---------------------|---------------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
| 12674-11-2 | Aroclor 1016 | ND                  | 143                 | 156         | 109     | 146            | 167          | 114      | 7   | 24-178/46         |
| 11104-28-2 | Aroclor 1221 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11141-16-5 | Aroclor 1232 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 53469-21-9 | Aroclor 1242 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 12672-29-6 | Aroclor 1248 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11097-69-1 | Aroclor 1254 | ND                  |                     | ND          |         |                | ND           |          | nc  | 70-130/50         |
| 11096-82-5 | Aroclor 1260 | ND                  | 143                 | 252         | 177     | 146            | 242          | 165      | 4   | 15-185/45         |
| 11100-14-4 | Aroclor 1268 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |
| 37324-23-5 | Aroclor 1262 | ND                  |                     | ND          |         |                | ND           |          | nc  | -/50              |

| CAS No.   | Surrogate Recoveries | MS   | MSD  | JC65157-10 | Limits  |
|-----------|----------------------|------|------|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 86%  | 87%  | 94%        | 24-152% |
| 877-09-8  | Tetrachloro-m-xylene | 85%  | 87%  | 91%        | 24-152% |
| 2051-24-3 | Decachlorobiphenyl   | 73%  | 106% | 109%       | 10-166% |
| 2051-24-3 | Decachlorobiphenyl   | 102% | 103% | 144%       | 10-166% |

\* = Outside of Control Limits.

12.4.5  
12

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11675-MS  | 2Z68944.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Z2592          |
| OP11675-MSD | 2Z68945.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Z2592          |
| JC65157-6   | 2Z68943.D | 1  | 05/02/18 | RK | 05/01/18  | OP11675    | G2Z2592          |

The QC reported here applies to the following samples:

Method: SW846 8015C

JC65157-6, JC65157-7, JC65157-8, JC65157-9

| CAS No. | Compound          | JC65157-6<br>mg/kg | Spike<br>mg/kg | MS<br>mg/kg | MS<br>% | Spike<br>mg/kg | MSD<br>mg/kg | MSD<br>% | RPD | Limits<br>Rec/RPD |
|---------|-------------------|--------------------|----------------|-------------|---------|----------------|--------------|----------|-----|-------------------|
|         | TPH-DRO (C10-C28) | 125                | 115            | 258         | 115     | 109            | 296          | 157* a   | 14  | 10-145/50         |

| CAS No.    | Surrogate Recoveries | MS  | MSD | JC65157-6 | Limits  |
|------------|----------------------|-----|-----|-----------|---------|
| 84-15-1    | o-Terphenyl          | 68% | 75% | 66%       | 18-132% |
| 16416-32-3 | Tetracosane-d50      | 84% | 93% | 88%       | 25-137% |
| 438-22-2   | 5a-Androstane        | 81% | 90% | 83%       | 22-134% |

(a) Outside control limits due to matrix interference.

12.4.6  
12

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|-----|-----------|------------|------------------|
| OP11688-LS9 | 3G116270.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |
| JC65130-4   | 3G116267.D | 1  | 05/03/18 | VDT | 05/02/18  | OP11688    | G3G4036          |

The QC reported here applies to the following samples:

Method: SW846 8151A

JC65157-12A

| CAS No. | Compound          | JC65130-4<br>ug/l | Spike<br>Q | ug/l | LS<br>ug/l | LS<br>% | Limits |
|---------|-------------------|-------------------|------------|------|------------|---------|--------|
| 94-75-7 | 2,4-D             | ND                | 13.3       | 12.5 | 94         | 43-136  |        |
| 93-72-1 | 2,4,5-TP (Silvex) | ND                | 2.67       | 3.0  | 113        | 47-141  |        |

| CAS No.    | Surrogate Recoveries | LS   | JC65130-4 | Limits  |
|------------|----------------------|------|-----------|---------|
| 19719-28-9 | 2,4-DCAA             | 106% | 112%      | 50-142% |
| 19719-28-9 | 2,4-DCAA             | 90%  | 96%       | 50-142% |

12.5.1  
12

\* = Outside of Control Limits.

# Leachate Spike Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

| Sample      | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP11692-LS9 | 6G55923.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |
| JC65070-1A  | 6G55922.D | 1  | 05/03/18 | CP | 05/02/18  | OP11692    | G6G1676          |

The QC reported here applies to the following samples:

Method: SW846 8081B

JC65157-12A

| CAS No.    | Compound            | JC65070-1A<br>ug/l | Spike<br>Q ug/l | LS<br>ug/l | LS<br>% | Limits |
|------------|---------------------|--------------------|-----------------|------------|---------|--------|
| 58-89-9    | gamma-BHC (Lindane) | ND                 | 1.67            | 1.4        | 84      | 39-160 |
| 12789-03-6 | Chlordane           | ND                 |                 | ND         |         | 81-123 |
| 72-20-8    | Endrin              | ND                 | 1.67            | 1.3        | 78      | 43-169 |
| 76-44-8    | Heptachlor          | ND                 | 1.67            | 1.2        | 72      | 35-152 |
| 1024-57-3  | Heptachlor epoxide  | ND                 | 1.67            | 1.3        | 78      | 42-159 |
| 72-43-5    | Methoxychlor        | ND                 | 1.67            | 1.2        | 72      | 47-170 |
| 8001-35-2  | Toxaphene           | ND                 |                 | ND         |         | 50-150 |

| CAS No.   | Surrogate Recoveries | LS  | JC65070-1A | Limits  |
|-----------|----------------------|-----|------------|---------|
| 877-09-8  | Tetrachloro-m-xylene | 65% | 68%        | 30-137% |
| 877-09-8  | Tetrachloro-m-xylene | 74% | 82%        | 30-137% |
| 2051-24-3 | Decachlorobiphenyl   | 62% | 56%        | 10-137% |
| 2051-24-3 | Decachlorobiphenyl   | 69% | 66%        | 10-137% |

\* = Outside of Control Limits.

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1675-CC1671 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55889.D    | <b>Injection Time:</b> 09:02    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

| IS 1 | IS 2 |      |    |
|------|------|------|----|
| AREA | RT   | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 233987038 | 2.15 | 379281204 | 1.95 |
| Upper Limit <sup>a</sup> | 467974076 | 2.65 | 758562408 | 2.45 |
| Lower Limit <sup>b</sup> | 116993519 | 1.65 | 189640602 | 1.45 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11683-MB1   | 222988229 | 2.15    | 410480402 | 1.95    |
| OP11683-BS1   | 220835928 | 2.15    | 408380481 | 1.95    |
| OP11683-BSD   | 214620221 | 2.15    | 399066313 | 1.95    |
| OP11678-MB1   | 220055426 | 2.15    | 370181971 | 1.95    |
| OP11678-BS1   | 233576509 | 2.15    | 395832527 | 1.95    |
| JC65157-10    | 254973340 | 2.15    | 412675014 | 1.95    |
| JC65157-11    | 204116748 | 2.15    | 374408498 | 1.95    |
| OP11678-MS    | 212761715 | 2.15    | 385121949 | 1.94    |
| OP11678-MSD   | 194561406 | 2.15    | 340638627 | 1.95    |
| JC65157-12    | 205716762 | 2.15    | 370271136 | 1.95    |
| ZZZZZZ        | 243217520 | 2.15    | 451697841 | 1.95    |
| ZZZZZZ        | 228657000 | 2.15    | 425116989 | 1.95    |
| ZZZZZZ        | 231743518 | 2.15    | 426939038 | 1.95    |
| ZZZZZZ        | 245360953 | 2.15    | 455366570 | 1.95    |
| ZZZZZZ        | 248028322 | 2.15    | 450986184 | 1.95    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.1  
12

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

| IS 1 | IS 2 |      |    |
|------|------|------|----|
| AREA | RT   | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 245896485 | 2.16 | 406222535 | 1.96 |
| Upper Limit <sup>a</sup> | 491792970 | 2.66 | 812445070 | 2.46 |
| Lower Limit <sup>b</sup> | 122948243 | 1.66 | 203111268 | 1.46 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11693-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11691-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11692-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11694-MB1   | 240591601 | 2.16    | 419241335 | 1.95    |
| OP11691-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11693-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11692-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| OP11694-BS1   | 244075495 | 2.16    | 433251418 | 1.96    |
| ZZZZZZ        | 239189629 | 2.15    | 408919165 | 1.95    |
| JC64929-3     | 250389369 | 2.16    | 448621983 | 1.96    |
| OP11691-LS7   | 241043329 | 2.16    | 437020894 | 1.95    |
| OP11691-MS    | 241043329 | 2.16    | 437020894 | 1.95    |
| OP11691-MSD   | 240703552 | 2.16    | 441137356 | 1.95    |
| ZZZZZZ        | 273767498 | 2.16    | 505731486 | 1.96    |
| ZZZZZZ        | 243155573 | 2.16    | 448055200 | 1.96    |
| ZZZZZZ        | 247266816 | 2.16    | 429601455 | 1.95    |
| ZZZZZZ        | 264279615 | 2.16    | 487453082 | 1.95    |
| ZZZZZZ        | 249636584 | 2.16    | 456113849 | 1.95    |
| ZZZZZZ        | 256360514 | 2.16    | 459320655 | 1.95    |
| ZZZZZZ        | 264530845 | 2.16    | 483670477 | 1.95    |
| JC65070-1A    | 247931428 | 2.16    | 474538834 | 1.95    |
| OP11692-MS    | 265275656 | 2.16    | 478001071 | 1.96    |
| OP11692-LS9   | 265275656 | 2.16    | 478001071 | 1.96    |
| OP11692-MSD   | 239010317 | 2.15    | 443790381 | 1.95    |
| OP11691-LB17  | 259479165 | 2.16    | 460735578 | 1.96    |
| OP11692-LB25  | 260136126 | 2.15    | 452986588 | 1.95    |
| OP11694-LB26  | 246584683 | 2.16    | 439607111 | 1.96    |
| OP11692-LB26  | 246584683 | 2.16    | 439607111 | 1.96    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.2 12



# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                |                        |             |
|-----------------------|----------------|------------------------|-------------|
| <b>Check Std:</b>     | G6G1681-CC1671 | <b>Injection Date:</b> | 05/11/18    |
| <b>Lab File ID:</b>   | 6G56090.D      | <b>Injection Time:</b> | 00:11       |
| <b>Instrument ID:</b> | GC6G           | <b>Method:</b>         | SW846 8081B |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 265153096 | 2.16 | 365249378 | 1.96 |
| Upper Limit <sup>a</sup> | 530306192 | 2.66 | 730498756 | 2.46 |
| Lower Limit <sup>b</sup> | 132576548 | 1.66 | 182624689 | 1.46 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11917-MB1   | 241848136 | 2.16    | 338425780 | 1.96    |
| OP11917-BS1   | 237997952 | 2.16    | 334368251 | 1.96    |
| JC65058-5     | 244630336 | 2.16    | 379420134 | 1.96    |
| OP11917-MS    | 252437142 | 2.16    | 368992571 | 1.96    |
| OP11917-MSD   | 251419578 | 2.16    | 416096790 | 1.97    |
| ZZZZZZ        | 640931645 | 2.17    | 365042643 | 1.97    |
| ZZZZZZ        | 230904696 | 2.16    | 343186897 | 1.96    |
| ZZZZZZ        | 239522924 | 2.16    | 337808128 | 1.96    |
| ZZZZZZ        | 242267852 | 2.16    | 348477528 | 1.96    |
| ZZZZZZ        | 215029112 | 2.16    | 340169932 | 1.96    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.3  
12

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |                |                        |             |
|-----------------------|----------------|------------------------|-------------|
| <b>Check Std:</b>     | G6G1682-CC1671 | <b>Injection Date:</b> | 05/14/18    |
| <b>Lab File ID:</b>   | 6G56183.D      | <b>Injection Time:</b> | 13:21       |
| <b>Instrument ID:</b> | GC6G           | <b>Method:</b>         | SW846 8081B |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 252065562 | 2.15 | 366783587 | 1.95 |
| Upper Limit <sup>a</sup> | 504131124 | 2.65 | 733567174 | 2.45 |
| Lower Limit <sup>b</sup> | 126032781 | 1.65 | 183391794 | 1.45 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| JC65157-6     | 335543050 | 2.15    | 476246607 | 1.95    |
| ZZZZZZ        | 314133685 | 2.15    | 413138776 | 1.95    |
| OP11987-MB1   | 207673397 | 2.15    | 338177128 | 1.96    |
| OP11987-BS1   | 249136332 | 2.15    | 400074245 | 1.95    |
| OP11987-BSD   | 255873949 | 2.15    | 404788916 | 1.95    |
| ZZZZZZ        | 266494697 | 2.15    | 393774820 | 1.95    |
| ZZZZZZ        | 240976580 | 2.16    | 387720578 | 1.96    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.4  
12

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 479965222 | 2.41 | 182221404 | 1.94 |
| Upper Limit <sup>a</sup> | 959930444 | 2.91 | 364442808 | 2.44 |
| Lower Limit <sup>b</sup> | 239982611 | 1.91 | 91110702  | 1.44 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11692-MB2   | 481995372 | 2.41    | 203951101 | 1.94    |
| OP11691-MB2   | 481995372 | 2.41    | 203951101 | 1.94    |
| OP11692-BS2   | 469340055 | 2.41    | 197816829 | 1.94    |
| OP11691-BS2   | 469340055 | 2.41    | 197816829 | 1.94    |
| ZZZZZZ        | 382020906 | 2.40    | 156775136 | 1.93    |
| ZZZZZZ        | 454975323 | 2.41    | 194975288 | 1.94    |
| ZZZZZZ        | 486488094 | 2.41    | 219431537 | 1.94    |
| ZZZZZZ        | 495959112 | 2.41    | 210580583 | 1.94    |
| ZZZZZZ        | 487246380 | 2.41    | 214815023 | 1.94    |
| JC65157-12A   | 495690256 | 2.40    | 212503068 | 1.93    |
| ZZZZZZ        | 480261013 | 2.41    | 209844828 | 1.94    |
| ZZZZZZ        | 490877766 | 2.40    | 208820473 | 1.93    |
| ZZZZZZ        | 482133418 | 2.41    | 205888483 | 1.94    |
| ZZZZZZ        | 472599037 | 2.41    | 201336204 | 1.93    |
| ZZZZZZ        | 481038556 | 2.41    | 205155044 | 1.94    |
| ZZZZZZ        | 453977219 | 2.41    | 206195220 | 1.94    |
| ZZZZZZ        | 457701598 | 2.40    | 196623402 | 1.93    |
| ZZZZZZ        | 465326381 | 2.40    | 208696906 | 1.93    |
| ZZZZZZ        | 446558857 | 2.41    | 192972552 | 1.94    |
| ZZZZZZ        | 476695554 | 2.41    | 209704410 | 1.94    |
| ZZZZZZ        | 493368795 | 2.41    | 232843224 | 1.93    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.5  
12

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |              |                        |             |
|-----------------------|--------------|------------------------|-------------|
| <b>Check Std:</b>     | G8G483-CC480 | <b>Injection Date:</b> | 05/03/18    |
| <b>Lab File ID:</b>   | 8G14804.D    | <b>Injection Time:</b> | 22:00       |
| <b>Instrument ID:</b> | GC8G         | <b>Method:</b>         | SW846 8081B |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 500030347 | 2.41 | 196428580 | 1.93 |
| Upper Limit <sup>a</sup> | 100006069 | 2.91 | 392857160 | 2.43 |
| Lower Limit <sup>b</sup> | 250015174 | 1.91 | 98214290  | 1.43 |

| Lab Sample ID | IS 1      |      | IS 2       |      |
|---------------|-----------|------|------------|------|
|               | AREA      | RT   | AREA       | RT   |
| ZZZZZZ        | 447412842 | 2.41 | 200318753  | 1.93 |
| ZZZZZZ        | 468098423 | 2.41 | 204344839  | 1.94 |
| ZZZZZZ        | 855326666 | 2.41 | 1006758379 | 1.97 |
| OP11691-LB32  | 508572888 | 2.41 | 215114093  | 1.94 |
| OP11691-LB34  | 485290740 | 2.40 | 206796033  | 1.93 |
| OP11692-LB28  | 503608409 | 2.41 | 222557457  | 1.94 |
| OP11692-LB29  | 490806865 | 2.41 | 237579864  | 1.94 |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.6  
12

# Internal Standard Area Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G489-CC480 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15027.D  | <b>Injection Time:</b> 10:17    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

| IS 1 |    | IS 2 |    |
|------|----|------|----|
| AREA | RT | AREA | RT |

|                          |           |      |           |      |
|--------------------------|-----------|------|-----------|------|
| Check Std                | 528174890 | 2.40 | 186642140 | 1.93 |
| Upper Limit <sup>a</sup> | 105634978 | 2.90 | 373284280 | 2.43 |
| Lower Limit <sup>b</sup> | 264087445 | 1.90 | 93321070  | 1.43 |

| Lab Sample ID | IS 1 AREA | IS 1 RT | IS 2 AREA | IS 2 RT |
|---------------|-----------|---------|-----------|---------|
| OP11917-MB1   | 506453758 | 2.40    | 185764114 | 1.93    |
| ZZZZZZ        | 599072249 | 2.40    | 217912160 | 1.93    |
| JC65157-7     | 463299265 | 2.40    | 168200330 | 1.92    |
| JC65157-8     | 471081897 | 2.40    | 174093993 | 1.93    |
| JC65157-9     | 504641966 | 2.40    | 190814809 | 1.93    |

**IS 1** = 1-Bromo-2-nitrobenzene (Signal #2)  
**IS 2** = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.  
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

12.6.7  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1671-DDT    | <b>Injection Date:</b> 04/30/18 |
| <b>Lab File ID:</b> 6G55778.D | <b>Injection Time:</b> 10:46    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound                   | Response Signal 1 | Response Signal 2 |
|----------------------------|-------------------|-------------------|
| 4,4' -DDD                  | 11318971          | 7536013           |
| 4,4' -DDE                  | 11688813          | 6661386           |
| 4,4' -DDT                  | 697113892         | 431734229         |
| DDT Breakdown <sup>a</sup> | 3.2 %             | 3.2 %             |
| Endrin aldehyde            | 0                 | 0                 |
| Endrin ketone              | 3648777           | 6453656           |
| Endrin                     | 397383387         | 243111166         |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 0.9 % | 2.6 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|-----------------|-------------|---------------|---------------|--------------|------------------------------|
| G6G1671-IC1671  | 6G55780.D   | 04/30/18      | 11:25         | 00:39        | Initial cal 1                |
| G6G1671-IC1671  | 6G55781.D   | 04/30/18      | 11:43         | 00:57        | Initial cal 2                |
| G6G1671-IC1671  | 6G55782.D   | 04/30/18      | 12:01         | 01:15        | Initial cal 5                |
| G6G1671-IC1671  | 6G55783.D   | 04/30/18      | 12:18         | 01:33        | Initial cal 10               |
| G6G1671-ICC1671 | 6G55784.D   | 04/30/18      | 12:36         | 01:50        | Initial cal 25               |
| G6G1671-IC1671  | 6G55785.D   | 04/30/18      | 12:54         | 02:08        | Initial cal 50               |
| G6G1671-IC1671  | 6G55786.D   | 04/30/18      | 13:12         | 02:26        | Initial cal 75               |
| G6G1671-IC1671  | 6G55787.D   | 04/30/18      | 13:29         | 02:44        | Initial cal 100              |
| G6G1671-IC1671  | 6G55788.D   | 04/30/18      | 13:47         | 03:02        | Initial cal 500              |
| G6G1671-IC1671  | 6G55789.D   | 04/30/18      | 14:05         | 03:19        | Initial cal 500              |
| G6G1671-ICV1671 | 6G55790.D   | 04/30/18      | 14:23         | 03:37        | Initial cal verification 25  |
| G6G1671-ICV1671 | 6G55791.D   | 04/30/18      | 14:41         | 03:55        | Initial cal verification 500 |
| G6G1671-ICV1671 | 6G55792.D   | 04/30/18      | 14:58         | 04:13        | Initial cal verification 500 |
| G6G1671-ICV1671 | 6G55793.D   | 04/30/18      | 15:16         | 04:31        | Initial cal verification 50  |
| G6G1671-ICV1671 | 6G55794.D   | 04/30/18      | 15:34         | 04:48        | Initial cal verification 50  |

12.7.1  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1675-DDT    | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55888.D | <b>Injection Time:</b> 08:44    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound  | Response Signal 1 | Response Signal 2 |
|-----------|-------------------|-------------------|
| 4,4' -DDD | 14624695          | 7644464           |
| 4,4' -DDE | 17215206          | 8561596           |
| 4,4' -DDT | 696783500         | 399883825         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 4.4 % | 3.9 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 1111800   | 1067716   |
| Endrin ketone   | 3565525   | 21933928  |
| Endrin          | 413995898 | 240422944 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.1 % | 8.7 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|----------------|-------------|---------------|---------------|--------------|------------------------|
| G6G1675-CC1671 | 6G55889.D   | 05/02/18      | 09:02         | 00:18        | Continuing cal 25      |
| OP11683-MB1    | 6G55891.D   | 05/02/18      | 09:38         | 00:53        | Method Blank           |
| OP11683-BS1    | 6G55892.D   | 05/02/18      | 09:56         | 01:11        | Blank Spike            |
| OP11683-BSD    | 6G55893.D   | 05/02/18      | 10:13         | 01:29        | Blank Spike Duplicate  |
| OP11678-MB1    | 6G55894.D   | 05/02/18      | 10:31         | 01:47        | Method Blank           |
| OP11678-BS1    | 6G55895.D   | 05/02/18      | 10:49         | 02:05        | Blank Spike            |
| JC65157-10     | 6G55896.D   | 05/02/18      | 11:07         | 02:22        | SB-103 (0-5)           |
| JC65157-11     | 6G55897.D   | 05/02/18      | 11:25         | 02:40        | SB-101 (0-9)           |
| OP11678-MS     | 6G55898.D   | 05/02/18      | 11:42         | 02:58        | Matrix Spike           |
| OP11678-MSD    | 6G55899.D   | 05/02/18      | 12:00         | 03:16        | Matrix Spike Duplicate |
| JC65157-12     | 6G55900.D   | 05/02/18      | 12:18         | 03:34        | SB-100 (0-8)           |
| ZZZZZZ         | 6G55901.D   | 05/02/18      | 12:36         | 03:51        | (unrelated sample)     |
| ZZZZZZ         | 6G55902.D   | 05/02/18      | 12:54         | 04:09        | (unrelated sample)     |
| ZZZZZZ         | 6G55903.D   | 05/02/18      | 13:11         | 04:27        | (unrelated sample)     |
| ZZZZZZ         | 6G55904.D   | 05/02/18      | 13:29         | 04:45        | (unrelated sample)     |
| ZZZZZZ         | 6G55905.D   | 05/02/18      | 13:47         | 05:03        | (unrelated sample)     |

12.7.2 12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1676-DDT    | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55906.D | <b>Injection Time:</b> 00:53    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 19501761          | 10275885          |
| 4,4'-DDE | 25861452          | 14147167          |
| 4,4'-DDT | 764342428         | 445613900         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 5.6 % | 5.2 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 1261822   | 1133937   |
| Endrin ketone   | 5649469   | 22626534  |
| Endrin          | 465751762 | 268274769 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.5 % | 8.1 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| G6G1676-CC1671 | 6G55907.D   | 05/03/18      | 01:19         | 00:26        | Continuing cal 50                           |
| OP11693-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11694-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11691-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11692-MB1    | 6G55909.D   | 05/03/18      | 01:55         | 01:02        | Method Blank                                |
| OP11691-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11694-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11692-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| OP11693-BS1    | 6G55910.D   | 05/03/18      | 02:13         | 01:20        | Blank Spike                                 |
| ZZZZZZ         | 6G55911.D   | 05/03/18      | 02:30         | 01:37        | (unrelated sample)                          |
| JC64929-3      | 6G55912.D   | 05/03/18      | 02:48         | 01:55        | (used for QC only; not part of job JC65157) |
| OP11691-LS7    | 6G55913.D   | 05/03/18      | 03:06         | 02:13        | Leachate Spike                              |
| OP11691-MS     | 6G55913.D   | 05/03/18      | 03:06         | 02:13        | Matrix Spike                                |
| OP11691-MSD    | 6G55914.D   | 05/03/18      | 03:24         | 02:31        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 6G55915.D   | 05/03/18      | 03:42         | 02:49        | (unrelated sample)                          |
| ZZZZZZ         | 6G55916.D   | 05/03/18      | 04:00         | 03:07        | (unrelated sample)                          |
| ZZZZZZ         | 6G55917.D   | 05/03/18      | 04:17         | 03:25        | (unrelated sample)                          |
| ZZZZZZ         | 6G55918.D   | 05/03/18      | 04:35         | 03:42        | (unrelated sample)                          |
| ZZZZZZ         | 6G55919.D   | 05/03/18      | 04:53         | 04:00        | (unrelated sample)                          |
| ZZZZZZ         | 6G55920.D   | 05/03/18      | 05:11         | 04:18        | (unrelated sample)                          |
| ZZZZZZ         | 6G55921.D   | 05/03/18      | 05:29         | 04:36        | (unrelated sample)                          |
| JC65070-1A     | 6G55922.D   | 05/03/18      | 05:47         | 04:54        | (used for QC only; not part of job JC65157) |
| OP11692-MS     | 6G55923.D   | 05/03/18      | 06:04         | 05:12        | Matrix Spike                                |
| OP11692-LS9    | 6G55923.D   | 05/03/18      | 06:04         | 05:12        | Leachate Spike                              |

12.7.3  
12



# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                       |             |                        |          |
|-----------------------|-------------|------------------------|----------|
| <b>Sample:</b>        | G6G1676-DDT | <b>Injection Date:</b> | 05/03/18 |
| <b>Lab File ID:</b>   | 6G55906.D   | <b>Injection Time:</b> | 00:53    |
| <b>Instrument ID:</b> | GC6G        |                        |          |

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| OP11692-MSD    | 6G55924.D   | 05/03/18      | 06:22         | 05:29        | Matrix Spike Duplicate                      |
| OP11691-LB17   | 6G55925.D   | 05/03/18      | 06:40         | 05:47        | Leachate Blank                              |
| OP11692-LB25   | 6G55926.D   | 05/03/18      | 06:58         | 06:05        | Leachate Blank                              |
| OP11694-LB26   | 6G55927.D   | 05/03/18      | 07:16         | 06:23        | Leachate Blank                              |
| OP11692-LB26   | 6G55927.D   | 05/03/18      | 07:16         | 06:23        | Leachate Blank                              |
| G6G1676-CC1671 | 6G55928.D   | 05/03/18      | 07:33         | 06:41        | Continuing cal 25                           |
| ZZZZZZ         | 6G55930.D   | 05/03/18      | 08:09         | 07:16        | (unrelated sample)                          |
| ZZZZZZ         | 6G55931.D   | 05/03/18      | 08:27         | 07:34        | (unrelated sample)                          |
| ZZZZZZ         | 6G55932.D   | 05/03/18      | 08:45         | 07:52        | (unrelated sample)                          |
| ZZZZZZ         | 6G55933.D   | 05/03/18      | 09:03         | 08:10        | (unrelated sample)                          |
| ZZZZZZ         | 6G55934.D   | 05/03/18      | 09:20         | 08:28        | (unrelated sample)                          |
| ZZZZZZ         | 6G55935.D   | 05/03/18      | 09:38         | 08:45        | (unrelated sample)                          |
| ZZZZZZ         | 6G55936.D   | 05/03/18      | 09:56         | 09:03        | (unrelated sample)                          |
| TD20224-1      | 6G55938.D   | 05/03/18      | 10:32         | 09:39        | (used for QC only; not part of job JC65157) |
| OP11694-LS10   | 6G55939.D   | 05/03/18      | 10:50         | 09:57        | Leachate Spike                              |
| OP11694-MS     | 6G55939.D   | 05/03/18      | 10:50         | 09:57        | Matrix Spike                                |
| OP11694-MSD    | 6G55940.D   | 05/03/18      | 11:07         | 10:14        | Matrix Spike Duplicate                      |
| JC64994-1      | 6G55941.D   | 05/03/18      | 11:25         | 10:32        | (used for QC only; not part of job JC65157) |
| OP11693-LS8    | 6G55942.D   | 05/03/18      | 11:43         | 10:50        | Leachate Spike                              |
| OP11693-MS     | 6G55942.D   | 05/03/18      | 11:43         | 10:50        | Matrix Spike                                |
| OP11693-MSD    | 6G55943.D   | 05/03/18      | 12:01         | 11:08        | Matrix Spike Duplicate                      |

12.7.3  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1681-DDT    | <b>Injection Date:</b> 05/10/18 |
| <b>Lab File ID:</b> 6G56089.D | <b>Injection Time:</b> 23:49    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 14106219          | 9254256           |
| 4,4'-DDE | 22511619          | 15337332          |
| 4,4'-DDT | 743151397         | 512081219         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 4.7 % | 4.6 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 1218062   | 1015917   |
| Endrin ketone   | 3524988   | 6137947   |
| Endrin          | 443065879 | 299430681 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.1 % | 2.3 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                            |
|----------------|-------------|---------------|---------------|--------------|---|
| G6G1681-CC1671 | 6G56090.D   | 05/11/18      | 00:11         | 00:22        | Continuing cal 25                           |
| OP11917-MB1    | 6G56092.D   | 05/11/18      | 00:46         | 00:57        | Method Blank                                |
| OP11917-BS1    | 6G56093.D   | 05/11/18      | 01:04         | 01:15        | Blank Spike                                 |
| JC65058-5      | 6G56094.D   | 05/11/18      | 01:22         | 01:33        | (used for QC only; not part of job JC65157) |
| OP11917-MS     | 6G56095.D   | 05/11/18      | 01:40         | 01:51        | Matrix Spike                                |
| OP11917-MSD    | 6G56096.D   | 05/11/18      | 01:58         | 02:09        | Matrix Spike Duplicate                      |
| ZZZZZZ         | 6G56097.D   | 05/11/18      | 02:16         | 02:27        | (unrelated sample)                          |
| ZZZZZZ         | 6G56098.D   | 05/11/18      | 02:34         | 02:44        | (unrelated sample)                          |
| ZZZZZZ         | 6G56099.D   | 05/11/18      | 02:51         | 03:02        | (unrelated sample)                          |
| ZZZZZZ         | 6G56100.D   | 05/11/18      | 03:09         | 03:20        | (unrelated sample)                          |
| ZZZZZZ         | 6G56101.D   | 05/11/18      | 03:27         | 03:38        | (unrelated sample)                          |

12.7.4  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G6G1682-DDT    | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> 6G56182.D | <b>Injection Time:</b> 13:03    |
| <b>Instrument ID:</b> GC6G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 8297557           | 5678038           |
| 4,4'-DDE | 12366435          | 6813513           |
| 4,4'-DDT | 672282514         | 448661150         |

|                            |     |       |
|----------------------------|-----|-------|
| DDT Breakdown <sup>a</sup> | 3 % | 2.7 % |
|----------------------------|-----|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 2165365   | 1016587   |
| Endrin ketone   | 2266910   | 1936833   |
| Endrin          | 384263576 | 250138632 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.1 % | 1.2 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID      |
|----------------|-------------|---------------|---------------|--------------|-----------------------|
| G6G1682-CC1671 | 6G56183.D   | 05/14/18      | 13:21         | 00:18        | Continuing cal 25     |
| JC65157-6      | 6G56189.D   | 05/14/18      | 15:08         | 02:05        | SB-103 (9-19)         |
| ZZZZZ          | 6G56190.D   | 05/14/18      | 15:26         | 02:23        | (unrelated sample)    |
| OP11987-MB1    | 6G56191.D   | 05/14/18      | 16:50         | 03:47        | Method Blank          |
| OP11987-BS1    | 6G56192.D   | 05/14/18      | 17:08         | 04:05        | Blank Spike           |
| OP11987-BSD    | 6G56193.D   | 05/14/18      | 17:26         | 04:23        | Blank Spike Duplicate |
| ZZZZZ          | 6G56194.D   | 05/14/18      | 17:43         | 04:40        | (unrelated sample)    |
| ZZZZZ          | 6G56195.D   | 05/14/18      | 18:01         | 04:58        | (unrelated sample)    |

12.7.5  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G480-DDT     | <b>Injection Date:</b> 05/01/18 |
| <b>Lab File ID:</b> 8G14660.D | <b>Injection Time:</b> 09:37    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound                   | Response Signal 1 | Response Signal 2 |
|----------------------------|-------------------|-------------------|
| 4,4' -DDD                  | 4702652           | 13246895          |
| 4,4' -DDE                  | 7581019           | 16295442          |
| 4,4' -DDT                  | 335444140         | 753169405         |
| DDT Breakdown <sup>a</sup> | 3.5 %             | 3.8 %             |

|                               |           |           |
|-------------------------------|-----------|-----------|
| Endrin aldehyde               | 411333    | 1087433   |
| Endrin ketone                 | 1067617   | 7308080   |
| Endrin                        | 181761143 | 422980109 |
| Endrin Breakdown <sup>b</sup> | 0.8 %     | 1.9 %     |

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$

(b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID             |
|---------------|-------------|---------------|---------------|--------------|------------------------------|
| G8G480-IC480  | 8G14662.D   | 05/01/18      | 10:14         | 00:37        | Initial cal 1                |
| G8G480-IC480  | 8G14663.D   | 05/01/18      | 10:30         | 00:53        | Initial cal 2                |
| G8G480-IC480  | 8G14664.D   | 05/01/18      | 10:46         | 01:09        | Initial cal 5                |
| G8G480-IC480  | 8G14665.D   | 05/01/18      | 11:02         | 01:25        | Initial cal 10               |
| G8G480-ICC480 | 8G14666.D   | 05/01/18      | 11:19         | 01:42        | Initial cal 25               |
| G8G480-IC480  | 8G14667.D   | 05/01/18      | 11:35         | 01:58        | Initial cal 50               |
| G8G480-IC480  | 8G14668.D   | 05/01/18      | 11:51         | 02:14        | Initial cal 75               |
| G8G480-IC480  | 8G14669.D   | 05/01/18      | 12:08         | 02:31        | Initial cal 100              |
| G8G480-IC480  | 8G14670.D   | 05/01/18      | 12:24         | 02:47        | Initial cal 500              |
| G8G480-IC480  | 8G14671.D   | 05/01/18      | 12:40         | 03:03        | Initial cal 500              |
| G8G480-ICV480 | 8G14672.D   | 05/01/18      | 12:56         | 03:19        | Initial cal verification 25  |
| G8G480-ICV480 | 8G14673.D   | 05/01/18      | 13:13         | 03:36        | Initial cal verification 500 |
| G8G480-ICV480 | 8G14674.D   | 05/01/18      | 13:29         | 03:52        | Initial cal verification 500 |
| G8G480-ICV480 | 8G14675.D   | 05/01/18      | 13:45         | 04:08        | Initial cal verification 50  |
| G8G480-ICV480 | 8G14676.D   | 05/01/18      | 14:02         | 04:25        | Initial cal verification 50  |

12.7.6  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G483-DDT     | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14782.D | <b>Injection Time:</b> 16:03    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 3980127           | 12929725          |
| 4,4'-DDE | 4605022           | 10679824          |
| 4,4'-DDT | 380537657         | 951244790         |

|                            |       |       |
|----------------------------|-------|-------|
| DDT Breakdown <sup>a</sup> | 2.2 % | 2.4 % |
|----------------------------|-------|-------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 702529    | 1970799   |
| Endrin ketone   | 1259622   | 3003672   |
| Endrin          | 204225219 | 456925916 |

|                               |     |       |
|-------------------------------|-----|-------|
| Endrin Breakdown <sup>b</sup> | 1 % | 1.1 % |
|-------------------------------|-----|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| G8G483-CC480  | 8G14783.D   | 05/03/18      | 16:19         | 00:16        | Continuing cal 50  |
| OP11691-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 00:48        | Method Blank       |
| OP11692-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 00:48        | Method Blank       |
| OP11691-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 01:05        | Blank Spike        |
| OP11692-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 01:05        | Blank Spike        |
| ZZZZZZ        | 8G14787.D   | 05/03/18      | 17:24         | 01:21        | (unrelated sample) |
| ZZZZZZ        | 8G14788.D   | 05/03/18      | 17:40         | 01:37        | (unrelated sample) |
| ZZZZZZ        | 8G14789.D   | 05/03/18      | 17:56         | 01:53        | (unrelated sample) |
| ZZZZZZ        | 8G14790.D   | 05/03/18      | 18:13         | 02:10        | (unrelated sample) |
| ZZZZZZ        | 8G14791.D   | 05/03/18      | 18:29         | 02:26        | (unrelated sample) |
| JC65157-12A   | 8G14792.D   | 05/03/18      | 18:45         | 02:42        | SB-100 (0-8)       |
| ZZZZZZ        | 8G14793.D   | 05/03/18      | 19:01         | 02:58        | (unrelated sample) |
| ZZZZZZ        | 8G14794.D   | 05/03/18      | 19:18         | 03:15        | (unrelated sample) |
| ZZZZZZ        | 8G14795.D   | 05/03/18      | 19:34         | 03:31        | (unrelated sample) |
| ZZZZZZ        | 8G14796.D   | 05/03/18      | 19:50         | 03:47        | (unrelated sample) |
| ZZZZZZ        | 8G14797.D   | 05/03/18      | 20:07         | 04:04        | (unrelated sample) |
| ZZZZZZ        | 8G14798.D   | 05/03/18      | 20:23         | 04:20        | (unrelated sample) |
| ZZZZZZ        | 8G14799.D   | 05/03/18      | 20:39         | 04:36        | (unrelated sample) |
| ZZZZZZ        | 8G14800.D   | 05/03/18      | 20:55         | 04:52        | (unrelated sample) |
| ZZZZZZ        | 8G14801.D   | 05/03/18      | 21:12         | 05:09        | (unrelated sample) |
| ZZZZZZ        | 8G14802.D   | 05/03/18      | 21:28         | 05:25        | (unrelated sample) |
| ZZZZZZ        | 8G14803.D   | 05/03/18      | 21:44         | 05:41        | (unrelated sample) |
| G8G483-CC480  | 8G14804.D   | 05/03/18      | 22:00         | 05:57        | Continuing cal 25  |
| ZZZZZZ        | 8G14806.D   | 05/03/18      | 22:33         | 06:30        | (unrelated sample) |

12.7.7  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G483-DDT     | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14782.D | <b>Injection Time:</b> 16:03    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| ZZZZZZ        | 8G14807.D   | 05/03/18      | 22:49         | 06:46        | (unrelated sample) |
| ZZZZZZ        | 8G14808.D   | 05/03/18      | 23:06         | 07:03        | (unrelated sample) |
| OP11691-LB32  | 8G14809.D   | 05/03/18      | 23:22         | 07:19        | Leachate Blank     |
| OP11691-LB34  | 8G14810.D   | 05/03/18      | 23:38         | 07:35        | Leachate Blank     |
| OP11692-LB28  | 8G14811.D   | 05/03/18      | 23:54         | 07:51        | Leachate Blank     |
| OP11692-LB29  | 8G14812.D   | 05/04/18      | 00:11         | 08:08        | Leachate Blank     |

12.7.7  
12

# DDT/Endrin Breakdown Check

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample:</b> G8G489-DDT     | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15026.D | <b>Injection Time:</b> 10:01    |
| <b>Instrument ID:</b> GC8G    |                                 |

| Compound | Response Signal 1 | Response Signal 2 |
|----------|-------------------|-------------------|
| 4,4'-DDD | 14818967          | 49085740          |
| 4,4'-DDE | 11226316          | 56213180          |
| 4,4'-DDT | 280928946         | 800316821         |

|                            |       |        |
|----------------------------|-------|--------|
| DDT Breakdown <sup>a</sup> | 8.5 % | 11.6 % |
|----------------------------|-------|--------|

|                 |           |           |
|-----------------|-----------|-----------|
| Endrin aldehyde | 515197    | 2597821   |
| Endrin ketone   | 3019733   | 1824181   |
| Endrin          | 193731494 | 546283814 |

|                               |       |       |
|-------------------------------|-------|-------|
| Endrin Breakdown <sup>b</sup> | 1.8 % | 0.8 % |
|-------------------------------|-------|-------|

(a) Calculated as:  $(DDD + DDE) / (DDD + DDE + DDT) \times 100$   
 (b) Calculated as:  $(\text{Endrin Aldehyde} + \text{Endrin Ketone}) / (\text{Endrin Aldehyde} + \text{Endrin Ketone} + \text{Endrin}) \times 100$

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID   |
|---------------|-------------|---------------|---------------|--------------|--------------------|
| G8G489-CC480  | 8G15027.D   | 05/11/18      | 10:17         | 00:16        | Continuing cal 50  |
| OP11917-MB1   | 8G15031.D   | 05/11/18      | 11:41         | 01:40        | Method Blank       |
| ZZZZZZ        | 8G15032.D   | 05/11/18      | 11:58         | 01:57        | (unrelated sample) |
| JC65157-7     | 8G15033.D   | 05/11/18      | 12:14         | 02:13        | SB-101 (0-9)       |
| JC65157-8     | 8G15034.D   | 05/11/18      | 12:30         | 02:29        | SB-100 (0-8)       |
| JC65157-9     | 8G15035.D   | 05/11/18      | 12:47         | 02:46        | SB-100 (8-11)      |

12.7.8  
12

## GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116290.D   | <b>Injection Time:</b> 15:51    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11688-BS2  | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116293.D | <b>Injection Time:</b> 17:39    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1              | 8.82  | 8.81  | 16.6 |   | ug/l  | 1.2         |
| 2,4-D             | 2 <sup>a</sup> | 9.47  | 9.45  | 16.4 |   | ug/l  |             |
| 2,4,5-TP (Silvex) | 1              | 9.89  | 9.89  | 3.4  |   | ug/l  | 15.9        |
| 2,4,5-TP (Silvex) | 2 <sup>a</sup> | 10.55 | 10.54 | 2.9  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.1  
12



## GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11688-MS   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116270.D | <b>Injection Time:</b> 19:53    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.81  | 8.85  | 12.5 |   | ug/l  | 27.6        |
| 2,4-D             | 2              | 9.46  | 9.49  | 16.5 |   | ug/l  |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.88  | 9.91  | 3.0  |   | ug/l  | 9.5         |
| 2,4,5-TP (Silvex) | 2              | 10.55 | 10.57 | 3.3  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.2  
12

## GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11688-MSD            | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116271.D           | <b>Injection Time:</b> 20:22    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound          | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|-------------------|----------------|-------|-------|------|---|-------|-------------|
| 2,4-D             | 1 <sup>a</sup> | 8.81  | 8.85  | 11.4 |   | ug/l  | 25.3        |
| 2,4-D             | 2              | 9.46  | 9.49  | 14.7 |   | ug/l  |             |
| 2,4,5-TP (Silvex) | 1 <sup>a</sup> | 9.88  | 9.91  | 2.7  |   | ug/l  | 7.1         |
| 2,4,5-TP (Silvex) | 2              | 10.55 | 10.57 | 2.9  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.3  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G489-CC480 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15027.D  | <b>Injection Time:</b> 10:17    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> JC65157-7    | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15033.D  | <b>Injection Time:</b> 12:14    |
| <b>Client ID:</b> SB-101 (0-9) |                                 |

| Compound              | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|-----------------------|----------------|------|-------|------|---|-------|-------------|
| 4,4'-DDE              | 1              | 5.85 | 5.84  | 5.8  |   | ug/kg |             |
| 4,4'-DDE <sup>a</sup> | 2 <sup>b</sup> | 7.79 | 7.79  | 3.7  |   | ug/kg | 44.2        |
| 4,4'-DDT              | 1              | 7.22 | 7.23  | 12.6 |   | ug/kg |             |
| 4,4'-DDT <sup>a</sup> | 2 <sup>b</sup> | 9.46 | 9.46  | 7.7  |   | ug/kg | 48.3        |

(a) More than 40 % RPD for detected concentrations between the two GC columns.

(b) Final result reported from this column.

12.8.4  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1675-CC1671 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55889.D    | <b>Injection Time:</b> 09:02    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11678-BS1 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55895.D | <b>Injection Time:</b> 10:49    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1              | 4.11 | 4.11  | 15.1 |   | ug/kg | 1.3         |
| Aldrin              | 2 <sup>a</sup> | 4.97 | 4.97  | 14.9 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.00 | 3.00  | 13.8 |   | ug/kg | 4.9         |
| alpha-BHC           | 2              | 3.57 | 3.57  | 14.5 |   | ug/kg |             |
| beta-BHC            | 1              | 3.37 | 3.37  | 14.6 |   | ug/kg | 0.7         |
| beta-BHC            | 2 <sup>a</sup> | 4.06 | 4.06  | 14.5 |   | ug/kg |             |
| delta-BHC           | 1              | 3.55 | 3.55  | 14.1 |   | ug/kg | 2.2         |
| delta-BHC           | 2 <sup>a</sup> | 4.44 | 4.44  | 13.8 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.29 | 3.29  | 13.6 |   | ug/kg | 9.1         |
| gamma-BHC (Lindane) | 2              | 3.98 | 3.98  | 14.9 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 14.5 |   | ug/kg | 4.1         |
| alpha-Chlordane     | 2              | 6.27 | 6.27  | 15.1 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 14.5 |   | ug/kg | 4.7         |
| gamma-Chlordane     | 2              | 6.05 | 6.05  | 15.2 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 14.9 |   | ug/kg | 4.6         |
| Dieldrin            | 2              | 6.79 | 6.79  | 15.6 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 14.8 |   | ug/kg | 1.3         |
| 4,4'-DDD            | 2              | 7.47 | 7.47  | 15.0 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.26  | 14.8 |   | ug/kg | 5.9         |
| 4,4'-DDE            | 2              | 6.53 | 6.53  | 15.7 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 15.6 |   | ug/kg | 1.9         |
| 4,4'-DDT            | 2              | 8.00 | 8.00  | 15.9 |   | ug/kg |             |
| Endrin              | 1              | 5.97 | 5.97  | 15.5 |   | ug/kg | 2.0         |
| Endrin              | 2 <sup>a</sup> | 7.28 | 7.28  | 15.2 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 14.5 |   | ug/kg | 2.0         |
| Endosulfan sulfate  | 2              | 8.66 | 8.66  | 14.8 |   | ug/kg |             |
| Endrin aldehyde     | 1              | 6.91 | 6.91  | 16.2 |   | ug/kg | 8.4         |
| Endrin aldehyde     | 2 <sup>a</sup> | 8.19 | 8.19  | 14.9 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 14.6 |   | ug/kg | 2.0         |
| Endosulfan-I        | 2              | 6.36 | 6.36  | 14.9 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 13.7 |   | ug/kg | 5.7         |
| Endosulfan-II       | 2              | 7.63 | 7.63  | 14.5 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.78  | 13.9 |   | ug/kg | 5.6         |
| Heptachlor          | 2              | 4.53 | 4.53  | 14.7 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 14.0 |   | ug/kg | 2.1         |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 14.3 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 15.1 |   | ug/kg | 4.5         |
| Methoxychlor        | 2              | 9.23 | 9.23  | 15.8 |   | ug/kg |             |
| Endrin ketone       | 1              | 8.03 | 8.03  | 14.5 |   | ug/kg | 4.2         |
| Endrin ketone       | 2 <sup>a</sup> | 9.61 | 9.61  | 13.9 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.5  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11692-BS2 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14786.D | <b>Injection Time:</b> 17:08    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound            | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|-------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.60  | 3.60  | 1.7  |   | ug/l  | 0.0         |
| gamma-BHC (Lindane) | 2              | 4.77  | 4.77  | 1.7  |   | ug/l  |             |
| Endrin              | 1              | 6.64  | 6.64  | 1.6  |   | ug/l  |             |
| Endrin              | 2 <sup>a</sup> | 8.71  | 8.71  | 1.5  |   | ug/l  | 6.5         |
| Heptachlor          | 1 <sup>a</sup> | 4.17  | 4.17  | 1.4  |   | ug/l  |             |
| Heptachlor          | 2              | 5.45  | 5.46  | 1.5  |   | ug/l  | 6.9         |
| Heptachlor epoxide  | 1 <sup>a</sup> | 5.35  | 5.35  | 1.4  |   | ug/l  |             |
| Heptachlor epoxide  | 2              | 6.94  | 6.94  | 1.5  |   | ug/l  | 6.9         |
| Methoxychlor        | 1 <sup>a</sup> | 8.08  | 8.08  | 1.6  |   | ug/l  |             |
| Methoxychlor        | 2              | 10.80 | 10.80 | 1.9  |   | ug/l  | 17.1        |

(a) QC results reported from this column.

12.8.6  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11917-BS1 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56093.D | <b>Injection Time:</b> 01:04    |
| <b>Client ID:</b> Blank Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.12  | 14.8 |   | ug/kg | 6.5         |
| Aldrin              | 2              | 4.96 | 4.96  | 15.8 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 13.9 |   | ug/kg | 12.8        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 15.8 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 14.4 |   | ug/kg | 4.7         |
| beta-BHC            | 2              | 4.06 | 4.06  | 15.1 |   | ug/kg |             |
| delta-BHC           | 1              | 3.55 | 3.56  | 13.9 |   | ug/kg | 2.2         |
| delta-BHC           | 2 <sup>a</sup> | 4.43 | 4.44  | 13.6 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 13.8 |   | ug/kg | 5.6         |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 14.6 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 15.3 |   | ug/kg | 8.7         |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 16.7 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 15.0 |   | ug/kg | 16.5        |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 17.7 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 13.6 |   | ug/kg | 15.0        |
| Dieldrin            | 2              | 6.78 | 6.78  | 15.8 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 14.1 |   | ug/kg | 19.2        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 17.1 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 14.6 |   | ug/kg | 8.5         |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 15.9 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 15.5 |   | ug/kg | 6.9         |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 16.6 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 15.7 |   | ug/kg | 2.5         |
| Endrin              | 2              | 7.27 | 7.27  | 16.1 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 14.2 |   | ug/kg | 9.4         |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 15.6 |   | ug/kg |             |
| Endrin aldehyde     | 1              | 6.91 | 6.91  | 15.2 |   | ug/kg | 2.7         |
| Endrin aldehyde     | 2 <sup>a</sup> | 8.18 | 8.19  | 14.8 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.32 | 5.33  | 14.5 |   | ug/kg | 5.4         |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 15.3 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 14.2 |   | ug/kg | 11.3        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 15.9 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 15.0 |   | ug/kg | 3.3         |
| Heptachlor          | 2              | 4.53 | 4.53  | 15.5 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 14.2 |   | ug/kg | 0.7         |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 14.3 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 15.4 |   | ug/kg | 3.8         |
| Methoxychlor        | 2              | 9.22 | 9.23  | 16.0 |   | ug/kg |             |
| Endrin ketone       | 1              | 8.03 | 8.03  | 14.7 |   | ug/kg | 2.1         |
| Endrin ketone       | 2 <sup>a</sup> | 9.60 | 9.60  | 14.4 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.7  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1675-CC1671 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55889.D    | <b>Injection Time:</b> 09:02    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11678-MS   | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55898.D  | <b>Injection Time:</b> 11:42    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.11  | 17.2 |   | ug/kg | 2.9         |
| Aldrin              | 2              | 4.97 | 4.97  | 16.7 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.00 | 3.00  | 19.0 |   | ug/kg | 17.1        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 16.0 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 12.4 |   | ug/kg | 5.5         |
| beta-BHC            | 2              | 4.06 | 4.06  | 13.1 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.55  | 15.2 |   | ug/kg | 8.8         |
| delta-BHC           | 2              | 4.44 | 4.44  | 16.6 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.29 | 3.29  | 15.0 |   | ug/kg | 87.0        |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 38.1 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 14.5 |   | ug/kg | 23.2        |
| alpha-Chlordane     | 2              | 6.27 | 6.27  | 18.3 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 14.2 |   | ug/kg | 16.0        |
| gamma-Chlordane     | 2              | 6.05 | 6.05  | 12.1 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 19.5 |   | ug/kg | 45.2        |
| Dieldrin            | 2              | 6.78 | 6.79  | 30.9 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 17.3 |   | ug/kg | 39.1        |
| 4,4'-DDD            | 2              | 7.47 | 7.47  | 25.7 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.26  | 24.6 |   | ug/kg | 37.7        |
| 4,4'-DDE            | 2              | 6.53 | 6.53  | 16.8 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.50 | 6.51  | 27.7 |   | ug/kg | 16.8        |
| 4,4'-DDT            | 2              | 7.99 | 8.00  | 23.4 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 23.0 |   | ug/kg | 27.7        |
| Endrin              | 2              | 7.28 | 7.28  | 17.4 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 15.7 |   | ug/kg | 45.3        |
| Endosulfan sulfate  | 2              | 8.66 | 8.66  | 24.9 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 20.1 |   | ug/kg | 11.7        |
| Endrin aldehyde     | 2              | 8.19 | 8.19  | 22.6 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 14.7 |   | ug/kg | 20.2        |
| Endosulfan-I        | 2              | 6.36 | 6.36  | 18.0 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 12.5 |   | ug/kg | 52.1        |
| Endosulfan-II       | 2              | 7.63 | 7.63  | 21.3 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.78  | 14.4 |   | ug/kg | 11.8        |
| Heptachlor          | 2              | 4.53 | 4.53  | 16.2 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 15.1 |   | ug/kg | 2.0         |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 15.4 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 30.9 |   | ug/kg | 19.8        |
| Methoxychlor        | 2              | 9.24 | 9.23  | 37.7 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.02 | 8.03  | 47.3 |   | ug/kg | 81.5        |
| Endrin ketone       | 2              | 9.61 | 9.61  | 19.9 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.8  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11692-MS   | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55923.D  | <b>Injection Time:</b> 06:04    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 1.4  |   | ug/l  | 0.0         |
| gamma-BHC (Lindane) | 2              | 3.98 | 3.98  | 1.4  |   | ug/l  |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.98  | 1.3  |   | ug/l  | 7.4         |
| Endrin              | 2              | 7.28 | 7.28  | 1.4  |   | ug/l  |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 1.2  |   | ug/l  | 8.0         |
| Heptachlor          | 2              | 4.53 | 4.54  | 1.3  |   | ug/l  |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.83  | 1.3  |   | ug/l  | 7.4         |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 1.4  |   | ug/l  |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.30  | 1.2  |   | ug/l  | 8.0         |
| Methoxychlor        | 2              | 9.23 | 9.24  | 1.3  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.9  
12



# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11917-MS   | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56095.D  | <b>Injection Time:</b> 01:40    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.12  | 13.5 |   | ug/kg | 7.8         |
| Aldrin              | 2              | 4.96 | 4.96  | 14.6 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 12.9 |   | ug/kg | 12.4        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 14.6 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 14.7 |   | ug/kg | 10.8        |
| beta-BHC            | 2              | 4.06 | 4.06  | 13.2 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.56  | 12.8 |   | ug/kg | 3.8         |
| delta-BHC           | 2              | 4.43 | 4.44  | 13.3 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 14.4 |   | ug/kg | 4.1         |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 15.0 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 13.9 |   | ug/kg | 2.1         |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 14.2 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 14.6 |   | ug/kg | 0.0         |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 14.6 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 12.2 |   | ug/kg | 13.7        |
| Dieldrin            | 2              | 6.78 | 6.78  | 14.0 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 12.5 |   | ug/kg | 11.3        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 14.0 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 12.6 |   | ug/kg | 9.8         |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 13.9 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 13.3 |   | ug/kg | 12.0        |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 15.0 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 14.0 |   | ug/kg | 3.5         |
| Endrin              | 2              | 7.27 | 7.27  | 14.5 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 10.5 |   | ug/kg | 12.5        |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 11.9 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 13.2 |   | ug/kg | 3.9         |
| Endrin aldehyde     | 2              | 8.19 | 8.19  | 12.7 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 12.9 |   | ug/kg | 2.3         |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 13.2 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 12.3 |   | ug/kg | 15.0        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 14.3 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 16.7 |   | ug/kg | 18.3        |
| Heptachlor          | 2              | 4.53 | 4.53  | 13.9 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 13.8 |   | ug/kg | 0.7         |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 13.7 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 13.0 |   | ug/kg | 12.3        |
| Methoxychlor        | 2              | 9.22 | 9.23  | 14.7 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.03 | 8.03  | 12.9 |   | ug/kg | 4.5         |
| Endrin ketone       | 2              | 9.60 | 9.60  | 13.5 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.10 12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1675-CC1671 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55889.D    | <b>Injection Time:</b> 09:02    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11678-MSD            | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55899.D            | <b>Injection Time:</b> 12:00    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.11 | 4.11  | 18.5 |   | ug/kg | 7.3         |
| Aldrin              | 2              | 4.97 | 4.97  | 17.2 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.00  | 19.7 |   | ug/kg | 22.6        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 15.7 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 13.3 |   | ug/kg | 0.8         |
| beta-BHC            | 2              | 4.06 | 4.06  | 13.2 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.55  | 15.4 |   | ug/kg | 6.3         |
| delta-BHC           | 2              | 4.44 | 4.44  | 16.4 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.29  | 15.9 |   | ug/kg | 85.6        |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 39.7 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 16.1 |   | ug/kg | 19.1        |
| alpha-Chlordane     | 2              | 6.27 | 6.27  | 19.5 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 15.3 |   | ug/kg | 6.8         |
| gamma-Chlordane     | 2              | 6.05 | 6.05  | 14.3 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 19.0 |   | ug/kg | 29.6        |
| Dieldrin            | 2              | 6.79 | 6.79  | 25.6 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 16.5 |   | ug/kg | 37.4        |
| 4,4'-DDD            | 2              | 7.47 | 7.47  | 24.1 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.26  | 26.9 |   | ug/kg | 38.6        |
| 4,4'-DDE            | 2              | 6.53 | 6.53  | 18.2 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 28.2 |   | ug/kg | 25.1        |
| 4,4'-DDT            | 2              | 8.00 | 8.00  | 21.9 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 19.5 |   | ug/kg | 12.0        |
| Endrin              | 2              | 7.28 | 7.28  | 17.3 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 14.1 |   | ug/kg | 40.7        |
| Endosulfan sulfate  | 2              | 8.66 | 8.66  | 21.3 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 18.7 |   | ug/kg | 6.2         |
| Endrin aldehyde     | 2              | 8.20 | 8.19  | 19.9 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 15.8 |   | ug/kg | 18.9        |
| Endosulfan-I        | 2              | 6.36 | 6.36  | 19.1 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 15.1 |   | ug/kg | 54.8        |
| Endosulfan-II       | 2              | 7.63 | 7.63  | 26.5 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.78  | 15.5 |   | ug/kg | 6.3         |
| Heptachlor          | 2              | 4.53 | 4.53  | 16.5 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 16.1 |   | ug/kg | 0.6         |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 16.2 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 20.4 |   | ug/kg | 40.3        |
| Methoxychlor        | 2              | 9.24 | 9.23  | 30.7 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.03 | 8.03  | 44.1 |   | ug/kg | 81.8        |
| Endrin ketone       | 2              | 9.61 | 9.61  | 18.5 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.11 12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11692-MSD            | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55924.D            | <b>Injection Time:</b> 06:22    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.29 | 3.30  | 1.6  |   | ug/l  | 6.1         |
| gamma-BHC (Lindane) | 2              | 3.98 | 3.98  | 1.7  |   | ug/l  |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.98  | 1.6  |   | ug/l  | 6.1         |
| Endrin              | 2              | 7.28 | 7.28  | 1.7  |   | ug/l  |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 1.5  |   | ug/l  | 6.5         |
| Heptachlor          | 2              | 4.53 | 4.54  | 1.6  |   | ug/l  |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.83  | 1.5  |   | ug/l  | 12.5        |
| Heptachlor epoxide  | 2              | 5.77 | 5.77  | 1.7  |   | ug/l  |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.30  | 1.4  |   | ug/l  | 19.4        |
| Methoxychlor        | 2              | 9.23 | 9.24  | 1.7  |   | ug/l  |             |

(a) QC results reported from this column.

12.8.12  
12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

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|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11917-MSD            | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56096.D            | <b>Injection Time:</b> 01:58    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound            | Column         | RT   | StdRT | Conc | Q | Units | RPD<br>Conc |
|---------------------|----------------|------|-------|------|---|-------|-------------|
| Aldrin              | 1 <sup>a</sup> | 4.12 | 4.12  | 13.3 |   | ug/kg | 20.9        |
| Aldrin              | 2              | 4.96 | 4.96  | 16.4 |   | ug/kg |             |
| alpha-BHC           | 1 <sup>a</sup> | 3.01 | 3.01  | 13.4 |   | ug/kg | 24.3        |
| alpha-BHC           | 2              | 3.57 | 3.57  | 17.1 |   | ug/kg |             |
| beta-BHC            | 1 <sup>a</sup> | 3.37 | 3.37  | 13.8 |   | ug/kg | 14.1        |
| beta-BHC            | 2              | 4.06 | 4.06  | 15.9 |   | ug/kg |             |
| delta-BHC           | 1 <sup>a</sup> | 3.55 | 3.56  | 14.0 |   | ug/kg | 8.2         |
| delta-BHC           | 2              | 4.43 | 4.44  | 15.2 |   | ug/kg |             |
| gamma-BHC (Lindane) | 1 <sup>a</sup> | 3.30 | 3.30  | 12.4 |   | ug/kg | 41.0        |
| gamma-BHC (Lindane) | 2              | 3.97 | 3.98  | 18.8 |   | ug/kg |             |
| alpha-Chlordane     | 1 <sup>a</sup> | 5.15 | 5.15  | 13.1 |   | ug/kg | 19.3        |
| alpha-Chlordane     | 2              | 6.26 | 6.26  | 15.9 |   | ug/kg |             |
| gamma-Chlordane     | 1 <sup>a</sup> | 4.98 | 4.98  | 15.8 |   | ug/kg | 50.2        |
| gamma-Chlordane     | 2              | 6.04 | 6.04  | 26.4 |   | ug/kg |             |
| Dieldrin            | 1 <sup>a</sup> | 5.65 | 5.65  | 11.9 |   | ug/kg | 27.5        |
| Dieldrin            | 2              | 6.78 | 6.78  | 15.7 |   | ug/kg |             |
| 4,4'-DDD            | 1 <sup>a</sup> | 6.09 | 6.09  | 11.9 |   | ug/kg | 33.0        |
| 4,4'-DDD            | 2              | 7.46 | 7.46  | 16.6 |   | ug/kg |             |
| 4,4'-DDE            | 1 <sup>a</sup> | 5.26 | 5.27  | 12.4 |   | ug/kg | 22.2        |
| 4,4'-DDE            | 2              | 6.52 | 6.53  | 15.5 |   | ug/kg |             |
| 4,4'-DDT            | 1 <sup>a</sup> | 6.51 | 6.51  | 13.0 |   | ug/kg | 24.9        |
| 4,4'-DDT            | 2              | 7.99 | 7.99  | 16.7 |   | ug/kg |             |
| Endrin              | 1 <sup>a</sup> | 5.97 | 5.97  | 13.3 |   | ug/kg | 19.0        |
| Endrin              | 2              | 7.27 | 7.27  | 16.1 |   | ug/kg |             |
| Endosulfan sulfate  | 1 <sup>a</sup> | 7.59 | 7.59  | 10.1 |   | ug/kg | 24.3        |
| Endosulfan sulfate  | 2              | 8.65 | 8.65  | 12.9 |   | ug/kg |             |
| Endrin aldehyde     | 1 <sup>a</sup> | 6.91 | 6.91  | 12.6 |   | ug/kg | 13.3        |
| Endrin aldehyde     | 2              | 8.18 | 8.19  | 14.4 |   | ug/kg |             |
| Endosulfan-I        | 1 <sup>a</sup> | 5.33 | 5.33  | 12.5 |   | ug/kg | 22.1        |
| Endosulfan-I        | 2              | 6.35 | 6.35  | 15.6 |   | ug/kg |             |
| Endosulfan-II       | 1 <sup>a</sup> | 6.29 | 6.29  | 11.9 |   | ug/kg | 30.6        |
| Endosulfan-II       | 2              | 7.62 | 7.62  | 16.2 |   | ug/kg |             |
| Heptachlor          | 1 <sup>a</sup> | 3.78 | 3.79  | 16.1 |   | ug/kg | 2.5         |
| Heptachlor          | 2              | 4.53 | 4.53  | 15.7 |   | ug/kg |             |
| Heptachlor epoxide  | 1 <sup>a</sup> | 4.82 | 4.82  | 14.4 |   | ug/kg | 50.0        |
| Heptachlor epoxide  | 2              | 5.76 | 5.76  | 24.0 |   | ug/kg |             |
| Methoxychlor        | 1 <sup>a</sup> | 7.29 | 7.29  | 12.5 |   | ug/kg | 25.2        |
| Methoxychlor        | 2              | 9.22 | 9.23  | 16.1 |   | ug/kg |             |
| Endrin ketone       | 1 <sup>a</sup> | 8.03 | 8.03  | 13.2 |   | ug/kg | 5.9         |
| Endrin ketone       | 2              | 9.60 | 9.60  | 14.0 |   | ug/kg |             |

(a) QC results reported from this column.

12.8.13 12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162654.D   | <b>Injection Time:</b> 05:06    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

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|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11677-BS1  | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162658.D | <b>Injection Time:</b> 06:13    |
| <b>Client ID:</b> Blank Spike  |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 158  |   | ug/kg | 3.2         |
| Aroclor 1016 | 2              |       |       | 153  |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 187  |   | ug/kg |             |
| AR1016-A     | 2              | 4.10  | 4.10  | 178  |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 157  |   | ug/kg |             |
| AR1016-B     | 2              | 4.64  | 4.64  | 158  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.10  | 145  |   | ug/kg |             |
| AR1016-C     | 2              | 5.28  | 5.28  | 138  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.26  | 156  |   | ug/kg |             |
| AR1016-D     | 2              | 5.47  | 5.47  | 146  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.77  | 145  |   | ug/kg |             |
| AR1016-E     | 2              | 6.11  | 6.11  | 144  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 154  |   | ug/kg | 0.7         |
| Aroclor 1260 | 2              |       |       | 153  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.13  | 123  |   | ug/kg |             |
| AR1260-A     | 2              | 8.71  | 8.71  | 125  |   | ug/kg |             |
| AR1260-B     | 1              | 7.29  | 7.29  | 173  |   | ug/kg |             |
| AR1260-B     | 2              | 8.83  | 8.83  | 167  |   | ug/kg |             |
| AR1260-C     | 1              | 7.62  | 7.63  | 162  |   | ug/kg |             |
| AR1260-C     | 2              | 9.26  | 9.26  | 155  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.05  | 153  |   | ug/kg |             |
| AR1260-D     | 2              | 9.61  | 9.61  | 154  |   | ug/kg |             |
| AR1260-E     | 1              | 8.45  | 8.44  | 161  |   | ug/kg |             |
| AR1260-E     | 2              | 10.15 | 10.15 | 163  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.14 12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162654.D   | <b>Injection Time:</b> 05:06    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample ID:</b> OP11677-MS   | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162662.D | <b>Injection Time:</b> 07:21    |
| <b>Client ID:</b> Matrix Spike |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 156  |   | ug/kg | 7.4         |
| Aroclor 1016 | 2              |       |       | 168  |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 158  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.10  | 259  |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 149  |   | ug/kg |             |
| AR1016-B     | 2              | 4.63  | 4.64  | 185  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.10  | 139  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.28  | 131  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.26  | 132  |   | ug/kg |             |
| AR1016-D     | 2              | 5.46  | 5.47  | 122  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.77  | 204  |   | ug/kg |             |
| AR1016-E     | 2              | 6.11  | 6.11  | 144  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 252  |   | ug/kg | 29.1        |
| Aroclor 1260 | 2              |       |       | 188  |   | ug/kg |             |
| AR1260-A     | 1              | 7.12  | 7.13  | 206  |   | ug/kg |             |
| AR1260-A     | 2              | 8.71  | 8.71  | 102  |   | ug/kg |             |
| AR1260-B     | 1              | 7.29  | 7.29  | 266  |   | ug/kg |             |
| AR1260-B     | 2              | 8.83  | 8.83  | 156  |   | ug/kg |             |
| AR1260-D     | 1              | 8.04  | 8.05  | 214  |   | ug/kg |             |
| AR1260-D     | 2              | 9.61  | 9.61  | 145  |   | ug/kg |             |
| AR1260-E     | 1              | 8.46  | 8.44  | 322  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.15 | 348  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.15 12

# GC Identification Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162654.D   | <b>Injection Time:</b> 05:06    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|  |                                 |
|--|---------------------------------|
| <b>Sample ID:</b> OP11677-MSD            | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162663.D           | <b>Injection Time:</b> 07:38    |
| <b>Client ID:</b> Matrix Spike Duplicate |                                 |

| Compound     | Column         | RT    | StdRT | Conc | Q | Units | RPD<br>Conc |
|--------------|----------------|-------|-------|------|---|-------|-------------|
| Aroclor 1016 | 1 <sup>a</sup> |       |       | 167  |   | ug/kg | 6.4         |
| Aroclor 1016 | 2              |       |       | 178  |   | ug/kg |             |
| AR1016-A     | 1              | 3.16  | 3.16  | 158  |   | ug/kg |             |
| AR1016-A     | 2              | 4.09  | 4.10  | 270  |   | ug/kg |             |
| AR1016-B     | 1              | 3.56  | 3.56  | 157  |   | ug/kg |             |
| AR1016-B     | 2              | 4.63  | 4.64  | 176  |   | ug/kg |             |
| AR1016-C     | 1              | 4.10  | 4.10  | 152  |   | ug/kg |             |
| AR1016-C     | 2              | 5.27  | 5.28  | 149  |   | ug/kg |             |
| AR1016-D     | 1              | 4.26  | 4.26  | 161  |   | ug/kg |             |
| AR1016-D     | 2              | 5.46  | 5.47  | 146  |   | ug/kg |             |
| AR1016-E     | 1              | 4.77  | 4.77  | 205  |   | ug/kg |             |
| AR1016-E     | 2              | 6.11  | 6.11  | 149  |   | ug/kg |             |
| Aroclor 1260 | 1 <sup>a</sup> |       |       | 242  |   | ug/kg | 25.6        |
| Aroclor 1260 | 2              |       |       | 187  |   | ug/kg |             |
| AR1260-A     | 1              | 7.13  | 7.13  | 205  |   | ug/kg |             |
| AR1260-A     | 2              | 8.71  | 8.71  | 106  |   | ug/kg |             |
| AR1260-B     | 1              | 7.28  | 7.29  | 258  |   | ug/kg |             |
| AR1260-B     | 2              | 8.83  | 8.83  | 148  |   | ug/kg |             |
| AR1260-D     | 1              | 8.05  | 8.05  | 201  |   | ug/kg |             |
| AR1260-D     | 2              | 9.60  | 9.61  | 153  |   | ug/kg |             |
| AR1260-E     | 1              | 8.46  | 8.44  | 304  |   | ug/kg |             |
| AR1260-E     | 2              | 10.12 | 10.15 | 341  |   | ug/kg |             |

(a) QC results reported from this column.

12.8.16 12

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8151A | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|
| JC65157-12A   | OA133178.D  | 82              | 96              |
| OP11688-BS2   | 3G116293.D  | 117             | 123             |
| OP11688-LB28  | 3G116309.D  | 99              | 89              |
| OP11688-LB29  | 3G116308.D  | 100             | 92              |
| OP11688-LS9   | 3G116270.D  | 106             | 90              |
| OP11688-MB2   | 3G116292.D  | 92              | 105             |
| OP11688-MS    | 3G116270.D  | 106             | 90              |
| OP11688-MSD   | 3G116271.D  | 99              | 80              |
| OP11688-LB25  | 3G116272.D  | 94              | 85              |
| OP11688-LB26  | OA133141.D  | 77              | 95              |
| OP11688-MB1   | 3G116250.D  | 96              | 86              |

| Surrogate Compounds | Recovery Limits |
|---------------------|-----------------|
|---------------------|-----------------|

|               |         |
|---------------|---------|
| S1 = 2,4-DCAA | 50-142% |
|---------------|---------|

- (a) Recovery from GC signal #2
- (b) Recovery from GC signal #1

12.9.1  
12



# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                         |
|----------------------------|-------------------------|
| <b>Method:</b> SW846 8081B | <b>Matrix:</b> LEACHATE |
|----------------------------|-------------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|-----------------|
| JC65157-12A   | 8G14792.D   | 77              | 90              | 79              | 84              |
| OP11692-BS2   | 8G14786.D   | 74              | 86              | 77              | 82              |
| OP11692-LB28  | 8G14811.D   | 68              | 85              | 54              | 60              |
| OP11692-LB29  | 8G14812.D   | 50              | 70              | 47              | 57              |
| OP11692-LS9   | 6G55923.D   | 65              | 74              | 62              | 69              |
| OP11692-MB2   | 8G14785.D   | 73              | 84              | 42              | 46              |
| OP11692-MS    | 6G55923.D   | 65              | 74              | 62              | 69              |
| OP11692-MSD   | 6G55924.D   | 77              | 89              | 69              | 79              |
| OP11692-LB25  | 6G55926.D   | 62              | 69              | 75              | 83              |
| OP11692-LB26  | 6G55927.D   | 82              | 92              | 83              | 94              |
| OP11692-MB1   | 6G55909.D   | 77              | 87              | 69              | 76              |

**Surrogate Compounds**

**Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = Tetrachloro-m-xylene | 30-137% |
| S2 = Decachlorobiphenyl   | 10-137% |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

12.9.2  
12

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8081B | <b>Matrix:</b> SO |
|----------------------------|-------------------|

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup>   |
|---------------|-------------|-----------------|-----------------|-----------------|-------------------|
| JC65157-6     | 6G56189.D   | 76              | 69              | 52              | 377* <sup>c</sup> |
| JC65157-7     | 8G15033.D   | 90              | 83              | 72              | 108               |
| JC65157-8     | 8G15034.D   | 77              | 81              | 70              | 79                |
| JC65157-9     | 8G15035.D   | 78              | 88              | 62              | 74                |
| JC65157-10    | 6G55896.D   | 70              | 71              | 60              | 73                |
| JC65157-11    | 6G55897.D   | 71              | 79              | 67              | 87                |
| JC65157-12    | 6G55900.D   | 68              | 71              | 64              | 76                |
| OP11678-BS1   | 6G55895.D   | 70              | 75              | 81              | 85                |
| OP11678-MB1   | 6G55894.D   | 72              | 77              | 83              | 86                |
| OP11678-MS    | 6G55898.D   | 69              | 72              | 61              | 74                |
| OP11678-MSD   | 6G55899.D   | 74              | 74              | 69              | 88                |
| OP11917-BS1   | 6G56093.D   | 80              | 85              | 87              | 94                |
| OP11917-MB1   | 6G56092.D   | 73              | 78              | 81              | 86                |
| OP11917-MB1   | 8G15031.D   | 78              | 87              | 63              | 77                |
| OP11917-MS    | 6G56095.D   | 56              | 66              | 68              | 79                |
| OP11917-MSD   | 6G56096.D   | 56              | 80              | 66              | 85                |

**Surrogate Compounds**                      **Recovery Limits**

|                           |         |
|---------------------------|---------|
| S1 = Tetrachloro-m-xylene | 25-135% |
| S2 = Decachlorobiphenyl   | 10-156% |

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to matrix interference.

12.9.3  
12

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8082A | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S1 <sup>b</sup> | S2 <sup>a</sup> | S2 <sup>b</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|-----------------|
| JC65157-6     | 2G162672.D  | 77              | 54              | 106             | 118             |
| JC65157-7     | 2G162673.D  | 85              | 77              | 69              | 72              |
| JC65157-8     | 2G162678.D  | 87              | 76              | 93              | 101             |
| JC65157-9     | 2G162679.D  | 92              | 95              | 78              | 67              |
| JC65157-10    | 2G162661.D  | 94              | 91              | 109             | 144             |
| JC65157-11    | 2G162680.D  | 88              | 81              | 83              | 77              |
| JC65157-12    | 2G162681.D  | 83              | 70              | 70              | 136             |
| OP11677-BS1   | 2G162658.D  | 94              | 94              | 96              | 96              |
| OP11677-MB1   | 2G162657.D  | 96              | 101             | 97              | 98              |
| OP11677-MS    | 2G162662.D  | 86              | 85              | 73              | 102             |
| OP11677-MSD   | 2G162663.D  | 87              | 87              | 106             | 103             |

**Surrogate Compounds**

**Recovery Limits**

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

24-152%  
 10-166%

(a) Recovery from GC signal #1  
 (b) Recovery from GC signal #2

12.9.4  
 12

# Surrogate Recovery Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8015C | <b>Matrix:</b> SO |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> | S2 <sup>a</sup> | S3 <sup>a</sup> |
|---------------|-------------|-----------------|-----------------|-----------------|
| JC65157-6     | 2Z68943.D   | 66              | 88              | 83              |
| JC65157-7     | 2Z68946.D   | 63              | 81              | 81              |
| JC65157-8     | 2Y90946.D   | 80              | 107             | 84              |
| JC65157-9     | 2Y90947.D   | 71              | 94              | 71              |
| OP11675-BS1   | 2Z68942.D   | 65              | 81              | 76              |
| OP11675-MB1   | 2Y90945.D   | 79              | 104             | 79              |
| OP11675-MB1   | 2Z68941.D   | 63              | 85              | 80              |
| OP11675-MS    | 2Z68944.D   | 68              | 84              | 81              |
| OP11675-MSD   | 2Z68945.D   | 75              | 93              | 90              |

| Surrogate Compounds | Recovery Limits |
|---------------------|-----------------|
|---------------------|-----------------|

|                      |         |
|----------------------|---------|
| S1 = o-Terphenyl     | 18-132% |
| S2 = Tetracosane-d50 | 25-137% |
| S3 = 5a-Androstane   | 22-134% |

(a) Recovery from GC signal #1

12.9.5  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116248.D   | <b>Injection Time:</b> 09:00    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|
| Check Std | 7.93                  | 7.46                  |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|
| OP11689-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93                  | 7.46                  |
| OP11688-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93                  | 7.46                  |
| OP11687-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93                  | 7.46                  |
| OP11690-MB1   | 3G116250.D  | 05/03/18      | 09:57         | 7.93                  | 7.46                  |
| OP11688-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92                  | 7.45                  |
| OP11689-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92                  | 7.45                  |
| OP11687-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92                  | 7.45                  |
| OP11690-BS1   | 3G116251.D  | 05/03/18      | 10:25         | 7.92                  | 7.45                  |
| ZZZZZZ        | 3G116252.D  | 05/03/18      | 11:16         | 7.92                  | 7.46                  |
| ZZZZZZ        | 3G116253.D  | 05/03/18      | 11:45         | 7.93                  | 7.45                  |
| ZZZZZZ        | 3G116254.D  | 05/03/18      | 12:13         | 7.93                  | 7.45                  |
| ZZZZZZ        | 3G116255.D  | 05/03/18      | 12:42         | 7.92                  | 7.45                  |
| ZZZZZZ        | 3G116256.D  | 05/03/18      | 13:10         | 7.92                  | 7.45                  |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.1  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4036-CC4020 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 3G116268.D   | <b>Injection Time:</b> 18:55    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.93 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11688-LS9   | 3G116270.D  | 05/03/18      | 19:53         | 7.92               | 7.45               |
| OP11688-MS    | 3G116270.D  | 05/03/18      | 19:53         | 7.92               | 7.45               |
| OP11688-MSD   | 3G116271.D  | 05/03/18      | 20:22         | 7.92               | 7.45               |
| OP11688-LB25  | 3G116272.D  | 05/03/18      | 20:50         | 7.93               | 7.45               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.2  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116290.D   | <b>Injection Time:</b> 15:51    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.92 | 7.46 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP11688-MB2   | 3G116292.D  | 05/04/18      | 17:10         | 7.92               | 7.46               |
| OP11687-MB2   | 3G116292.D  | 05/04/18      | 17:10         | 7.92               | 7.46               |
| OP11687-BS2   | 3G116293.D  | 05/04/18      | 17:39         | 7.92               | 7.45               |
| OP11688-BS2   | 3G116293.D  | 05/04/18      | 17:39         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116294.D  | 05/04/18      | 18:07         | 7.92               | 7.45               |
| ZZZZZZ        | 3G116295.D  | 05/04/18      | 18:36         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116296.D  | 05/04/18      | 19:05         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116297.D  | 05/04/18      | 19:33         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116298.D  | 05/04/18      | 20:02         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116299.D  | 05/04/18      | 20:31         | 7.93               | 7.46               |
| ZZZZZZ        | 3G116300.D  | 05/04/18      | 20:59         | 7.93               | 7.46               |

**Surrogate Compounds**

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.3  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G3G4037-CC4020 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> 3G116301.D   | <b>Injection Time:</b> 21:28    |
| <b>Instrument ID:</b> GC3G       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup>**   **S1<sup>b</sup>**  
**RT**   **RT**

|           |      |      |
|-----------|------|------|
| Check Std | 7.92 | 7.45 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| ZZZZZZ          | 3G116304.D  | 05/04/18      | 22:54         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116305.D  | 05/04/18      | 23:23         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116306.D  | 05/04/18      | 23:51         | 7.93               | 7.46               |
| ZZZZZZ          | 3G116307.D  | 05/05/18      | 00:20         | 7.93               | 7.46               |
| OP11688-LB29    | 3G116308.D  | 05/05/18      | 00:48         | 7.93               | 7.46               |
| OP11688-LB28    | 3G116309.D  | 05/05/18      | 01:17         | 7.93               | 7.47               |
| OP11687-LB34    | 3G116310.D  | 05/05/18      | 01:46         | 7.93               | 7.46               |
| OP11687-LB32    | 3G116311.D  | 05/05/18      | 02:14         | 7.93               | 7.46               |
| G3G4037-ECC4020 | 3G116312.D  | 05/05/18      | 02:42         | 7.93               | 7.46               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.4  
12



# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4561-CC4559 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> OA133132.D   | <b>Injection Time:</b> 15:17    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| TD20224-1     | OA133134.D  | 05/03/18      | 16:14         | 8.54               | 7.34               |
| JC64994-1     | OA133135.D  | 05/03/18      | 16:43         | 8.54               | 7.34               |
| OP11689-LS8   | OA133136.D  | 05/03/18      | 17:12         | 8.54               | 7.34               |
| OP11689-MS    | OA133136.D  | 05/03/18      | 17:12         | 8.54               | 7.34               |
| OP11689-MSD   | OA133137.D  | 05/03/18      | 17:41         | 8.54               | 7.34               |
| OP11690-LS10  | OA133138.D  | 05/03/18      | 18:10         | 8.54               | 7.34               |
| OP11690-MS    | OA133138.D  | 05/03/18      | 18:10         | 8.54               | 7.34               |
| OP11690-MSD   | OA133139.D  | 05/03/18      | 18:38         | 8.54               | 7.34               |
| OP11689-LB18  | OA133140.D  | 05/03/18      | 19:07         | 8.55               | 7.35               |
| OP11690-LB26  | OA133141.D  | 05/03/18      | 19:36         | 8.55               | 7.35               |
| OP11688-LB26  | OA133141.D  | 05/03/18      | 19:36         | 8.55               | 7.35               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.5  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> GOA4562-CC4559 | <b>Injection Date:</b> 05/04/18 |
| <b>Lab File ID:</b> OA133176.D   | <b>Injection Time:</b> 18:05    |
| <b>Instrument ID:</b> GCOA       | <b>Method:</b> SW846 8151A      |

**S1<sup>a</sup> RT**    **S1<sup>b</sup> RT**

|           |      |      |
|-----------|------|------|
| Check Std | 8.55 | 7.35 |
|-----------|------|------|

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|-----------------|-------------|---------------|---------------|--------------------|--------------------|
| JC65157-12A     | OA133178.D  | 05/04/18      | 19:03         | 8.55               | 7.36               |
| ZZZZZZ          | OA133179.D  | 05/04/18      | 19:32         | 8.55               | 7.36               |
| ZZZZZZ          | OA133180.D  | 05/04/18      | 20:00         | 8.55               | 7.35               |
| ZZZZZZ          | OA133181.D  | 05/04/18      | 20:29         | 8.55               | 7.36               |
| ZZZZZZ          | OA133182.D  | 05/04/18      | 20:58         | 8.55               | 7.36               |
| ZZZZZZ          | OA133183.D  | 05/04/18      | 21:26         | 8.55               | 7.36               |
| ZZZZZZ          | OA133184.D  | 05/04/18      | 21:55         | 8.55               | 7.36               |
| ZZZZZZ          | OA133185.D  | 05/04/18      | 22:24         | 8.55               | 7.35               |
| GOA4562-ECC4559 | OA133186.D  | 05/04/18      | 22:53         | 8.55               | 7.35               |

## Surrogate Compounds

S1 = 2,4-DCAA

- (a) Retention time from GC signal #2
- (b) Retention time from GC signal #1

12.10.6  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1675-CC1671 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 6G55889.D    | <b>Injection Time:</b> 09:02    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.94                  | 9.84                  | 11.75                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11683-MB1   | 6G55891.D   | 05/02/18      | 09:38         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11683-BS1   | 6G55892.D   | 05/02/18      | 09:56         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11683-BSD   | 6G55893.D   | 05/02/18      | 10:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11678-MB1   | 6G55894.D   | 05/02/18      | 10:31         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11678-BS1   | 6G55895.D   | 05/02/18      | 10:49         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC65157-10    | 6G55896.D   | 05/02/18      | 11:07         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC65157-11    | 6G55897.D   | 05/02/18      | 11:25         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11678-MS    | 6G55898.D   | 05/02/18      | 11:42         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11678-MSD   | 6G55899.D   | 05/02/18      | 12:00         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC65157-12    | 6G55900.D   | 05/02/18      | 12:18         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55901.D   | 05/02/18      | 12:36         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55902.D   | 05/02/18      | 12:54         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55903.D   | 05/02/18      | 13:11         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55904.D   | 05/02/18      | 13:29         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55905.D   | 05/02/18      | 13:47         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.7  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1676-CC1671 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 6G55907.D    | <b>Injection Time:</b> 01:19    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.94                  | 9.85                  | 11.75                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11693-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-MB1   | 6G55909.D   | 05/03/18      | 01:55         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11693-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-BS1   | 6G55910.D   | 05/03/18      | 02:13         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55911.D   | 05/03/18      | 02:30         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC64929-3     | 6G55912.D   | 05/03/18      | 02:48         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-LS7   | 6G55913.D   | 05/03/18      | 03:06         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MS    | 6G55913.D   | 05/03/18      | 03:06         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-MSD   | 6G55914.D   | 05/03/18      | 03:24         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55915.D   | 05/03/18      | 03:42         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55916.D   | 05/03/18      | 04:00         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55917.D   | 05/03/18      | 04:17         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55918.D   | 05/03/18      | 04:35         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55919.D   | 05/03/18      | 04:53         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55920.D   | 05/03/18      | 05:11         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| ZZZZZZ        | 6G55921.D   | 05/03/18      | 05:29         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| JC65070-1A    | 6G55922.D   | 05/03/18      | 05:47         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MS    | 6G55923.D   | 05/03/18      | 06:04         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LS9   | 6G55923.D   | 05/03/18      | 06:04         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-MSD   | 6G55924.D   | 05/03/18      | 06:22         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11691-LB17  | 6G55925.D   | 05/03/18      | 06:40         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LB25  | 6G55926.D   | 05/03/18      | 06:58         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11694-LB26  | 6G55927.D   | 05/03/18      | 07:16         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |
| OP11692-LB26  | 6G55927.D   | 05/03/18      | 07:16         | 2.54                  | 2.94                  | 9.84                  | 11.75                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.8 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1681-CC1671 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 6G56090.D    | <b>Injection Time:</b> 00:11    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.94                  | 9.84                  | 11.74                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11917-MB1   | 6G56092.D   | 05/11/18      | 00:46         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-BS1   | 6G56093.D   | 05/11/18      | 01:04         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| JC65058-5     | 6G56094.D   | 05/11/18      | 01:22         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-MS    | 6G56095.D   | 05/11/18      | 01:40         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| OP11917-MSD   | 6G56096.D   | 05/11/18      | 01:58         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| ZZZZZZ        | 6G56097.D   | 05/11/18      | 02:16         | 2.55                  | 2.94                  | 9.84                  | 11.72                 |
| ZZZZZZ        | 6G56098.D   | 05/11/18      | 02:34         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| ZZZZZZ        | 6G56099.D   | 05/11/18      | 02:51         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| ZZZZZZ        | 6G56100.D   | 05/11/18      | 03:09         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |
| ZZZZZZ        | 6G56101.D   | 05/11/18      | 03:27         | 2.55                  | 2.94                  | 9.84                  | 11.74                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.9  
12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G6G1682-CC1671 | <b>Injection Date:</b> 05/14/18 |
| <b>Lab File ID:</b> 6G56183.D    | <b>Injection Time:</b> 13:21    |
| <b>Instrument ID:</b> GC6G       | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.54                  | 2.93                  | 9.84                  | 11.74                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC65157-6     | 6G56189.D   | 05/14/18      | 15:08         | 2.54                  | 2.94                  | 9.84                  | 11.71                 |
| ZZZZZZ        | 6G56190.D   | 05/14/18      | 15:26         | 2.53                  | 2.93                  | 9.84                  | 11.74                 |
| OP11987-MB1   | 6G56191.D   | 05/14/18      | 16:50         | 2.55                  | 2.94                  | 9.85                  | 11.74                 |
| OP11987-BS1   | 6G56192.D   | 05/14/18      | 17:08         | 2.54                  | 2.93                  | 9.84                  | 11.74                 |
| OP11987-BSD   | 6G56193.D   | 05/14/18      | 17:26         | 2.54                  | 2.93                  | 9.84                  | 11.74                 |
| ZZZZZZ        | 6G56194.D   | 05/14/18      | 17:43         | 2.54                  | 2.93                  | 9.84                  | 11.73                 |
| ZZZZZZ        | 6G56195.D   | 05/14/18      | 18:01         | 2.54                  | 2.94                  | 9.84                  | 11.74                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.10 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14783.D  | <b>Injection Time:</b> 16:19    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11692-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-MB2   | 8G14785.D   | 05/03/18      | 16:51         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-BS2   | 8G14786.D   | 05/03/18      | 17:08         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14787.D   | 05/03/18      | 17:24         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14788.D   | 05/03/18      | 17:40         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14789.D   | 05/03/18      | 17:56         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14790.D   | 05/03/18      | 18:13         | 2.69                  | 3.45                  | 10.88                 | 13.51                 |
| ZZZZZZ        | 8G14791.D   | 05/03/18      | 18:29         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| JC65157-12A   | 8G14792.D   | 05/03/18      | 18:45         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14793.D   | 05/03/18      | 19:01         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14794.D   | 05/03/18      | 19:18         | 2.68                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14795.D   | 05/03/18      | 19:34         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14796.D   | 05/03/18      | 19:50         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14797.D   | 05/03/18      | 20:07         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14798.D   | 05/03/18      | 20:23         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14799.D   | 05/03/18      | 20:39         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14800.D   | 05/03/18      | 20:55         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14801.D   | 05/03/18      | 21:12         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14802.D   | 05/03/18      | 21:28         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14803.D   | 05/03/18      | 21:44         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

**Surrogate Compounds**

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.11 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G483-CC480 | <b>Injection Date:</b> 05/03/18 |
| <b>Lab File ID:</b> 8G14804.D  | <b>Injection Time:</b> 22:00    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.69                  | 3.45                  | 10.88                 | 13.51                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ        | 8G14806.D   | 05/03/18      | 22:33         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14807.D   | 05/03/18      | 22:49         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| ZZZZZZ        | 8G14808.D   | 05/03/18      | 23:06         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-LB32  | 8G14809.D   | 05/03/18      | 23:22         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11691-LB34  | 8G14810.D   | 05/03/18      | 23:38         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-LB28  | 8G14811.D   | 05/03/18      | 23:54         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |
| OP11692-LB29  | 8G14812.D   | 05/04/18      | 00:11         | 2.69                  | 3.45                  | 10.88                 | 13.50                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.12 12



# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> G8G489-CC480 | <b>Injection Date:</b> 05/11/18 |
| <b>Lab File ID:</b> 8G15027.D  | <b>Injection Time:</b> 10:17    |
| <b>Instrument ID:</b> GC8G     | <b>Method:</b> SW846 8081B      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.68                  | 3.45                  | 10.87                 | 13.49                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11917-MB1   | 8G15031.D   | 05/11/18      | 11:41         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| ZZZZZZ        | 8G15032.D   | 05/11/18      | 11:58         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| JC65157-7     | 8G15033.D   | 05/11/18      | 12:14         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| JC65157-8     | 8G15034.D   | 05/11/18      | 12:30         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |
| JC65157-9     | 8G15035.D   | 05/11/18      | 12:47         | 2.69                  | 3.45                  | 10.87                 | 13.49                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.13 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162654.D   | <b>Injection Time:</b> 05:06    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.79                  | 3.44                  | 9.98                  | 11.81                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| OP11661-LB15  | 2G162656.D  | 05/02/18      | 05:39         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| OP11677-MB1   | 2G162657.D  | 05/02/18      | 05:56         | 2.79                  | 3.44                  | 9.98                  | 11.81                 |
| OP11677-BS1   | 2G162658.D  | 05/02/18      | 06:13         | 2.79                  | 3.44                  | 9.98                  | 11.81                 |
| ZZZZZZ        | 2G162659.D  | 05/02/18      | 06:30         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| ZZZZZZ        | 2G162660.D  | 05/02/18      | 06:47         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| JC65157-10    | 2G162661.D  | 05/02/18      | 07:04         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| OP11677-MS    | 2G162662.D  | 05/02/18      | 07:21         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| OP11677-MSD   | 2G162663.D  | 05/02/18      | 07:38         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162665.D   | <b>Injection Time:</b> 08:13    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.79                  | 3.44                  | 9.98                  | 11.81                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ZZZZZZ        | 2G162667.D  | 05/02/18      | 08:46         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| ZZZZZZ        | 2G162668.D  | 05/02/18      | 09:03         | 2.79                  | 3.44                  | 9.99                  | 11.82                 |
| ZZZZZZ        | 2G162669.D  | 05/02/18      | 09:20         | 2.79                  | 3.44                  | 9.98                  | 11.81                 |
| ZZZZZZ        | 2G162670.D  | 05/02/18      | 09:37         | 2.79                  | 3.44                  | 10.01                 | 11.82                 |
| ZZZZZZ        | 2G162671.D  | 05/02/18      | 09:54         | 2.79                  | 3.44                  | 9.98                  | 11.82                 |
| JC65157-6     | 2G162672.D  | 05/02/18      | 10:11         | 2.79                  | 3.44                  | 9.98                  | 11.81                 |
| JC65157-7     | 2G162673.D  | 05/02/18      | 10:28         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

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# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2G4322-CC4311 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2G162676.D   | <b>Injection Time:</b> 11:45    |
| <b>Instrument ID:</b> GC2G       | <b>Method:</b> SW846 8082A      |

|           | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Check Std | 2.79                  | 3.44                  | 9.97                  | 11.81                 |

| Lab Sample ID   | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT | S2 <sup>a</sup><br>RT | S2 <sup>b</sup><br>RT |
|-----------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| JC65157-8       | 2G162678.D  | 05/02/18      | 12:19         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| JC65157-9       | 2G162679.D  | 05/02/18      | 12:36         | 2.79                  | 3.44                  | 9.98                  | 11.81                 |
| JC65157-11      | 2G162680.D  | 05/02/18      | 12:52         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| JC65157-12      | 2G162681.D  | 05/02/18      | 13:09         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |
| G2G4322-ECC4311 | 2G162684.D  | 05/02/18      | 14:00         | 2.79                  | 3.44                  | 9.97                  | 11.81                 |

## Surrogate Compounds

S1 = Tetrachloro-m-xylene  
 S2 = Decachlorobiphenyl

- (a) Retention time from GC signal #1
- (b) Retention time from GC signal #2

12.10.16 12

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2Y3464-CC3446 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2Y90938.D    | <b>Injection Time:</b> 08:58    |
| <b>Instrument ID:</b> GC2Y       | <b>Method:</b> SW846 8015C      |

|           | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|
| Check Std | 9.96                  | 11.75                 | 10.64                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|
| G2Y3464-RT    | 2Y90940.D   | 05/02/18      | 10:11         |                       |                       |                       |
| OP11680-MB1   | 2Y90941.D   | 05/02/18      | 10:44         | 9.97                  | 11.75                 | 10.64                 |
| OP11680-BS1   | 2Y90942.D   | 05/02/18      | 11:17         | 9.97                  | 11.75                 | 10.64                 |
| OP11680-BSD   | 2Y90943.D   | 05/02/18      | 11:51         | 9.97                  | 11.75                 | 10.64                 |
| ZZZZZZ        | 2Y90944.D   | 05/02/18      | 12:25         | 10.02                 | 11.81                 | 10.63                 |
| OP11675-MB1   | 2Y90945.D   | 05/02/18      | 12:58         | 9.97                  | 11.76                 | 10.64                 |
| JC65157-8     | 2Y90946.D   | 05/02/18      | 13:32         | 9.97                  | 11.76                 | 10.65                 |
| JC65157-9     | 2Y90947.D   | 05/02/18      | 14:05         | 9.97                  | 11.76                 | 10.64                 |

## Surrogate Compounds

S1 = o-Terphenyl  
 S2 = Tetracosane-d50  
 S3 = 5a-Androstane

(a) Retention time from GC signal #1

# GC Surrogate Retention Time Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> G2Z2592-CC2570 | <b>Injection Date:</b> 05/02/18 |
| <b>Lab File ID:</b> 2Z68938.D    | <b>Injection Time:</b> 08:58    |
| <b>Instrument ID:</b> GC2Z       | <b>Method:</b> SW846 8015C      |

|           | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|-----------|-----------------------|-----------------------|-----------------------|
| Check Std | 9.79                  | 11.60                 | 10.48                 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup><br>RT | S2 <sup>a</sup><br>RT | S3 <sup>a</sup><br>RT |
|---------------|-------------|---------------|---------------|-----------------------|-----------------------|-----------------------|
| G2Z2592-RT    | 2Z68939.D   | 05/02/18      | 09:37         |                       |                       |                       |
| OP11675-MB1   | 2Z68941.D   | 05/02/18      | 10:44         | 9.79                  | 11.60                 | 10.48                 |
| OP11675-BS1   | 2Z68942.D   | 05/02/18      | 11:17         | 9.79                  | 11.60                 | 10.48                 |
| JC65157-6     | 2Z68943.D   | 05/02/18      | 11:51         | 9.79                  | 11.60                 | 10.49                 |
| OP11675-MS    | 2Z68944.D   | 05/02/18      | 12:25         | 9.80                  | 11.60                 | 10.49                 |
| OP11675-MSD   | 2Z68945.D   | 05/02/18      | 12:58         | 9.80                  | 11.61                 | 10.49                 |
| JC65157-7     | 2Z68946.D   | 05/02/18      | 13:32         | 9.79                  | 11.60                 | 10.49                 |
| ZZZZZZ        | 2Z68947.D   | 05/02/18      | 14:05         | 9.79                  | 11.60                 | 10.48                 |

## Surrogate Compounds

S1 = o-Terphenyl  
 S2 = Tetracosane-d50  
 S3 = 5a-Androstane

(a) Retention time from GC signal #1

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

## Response Factor Report HP G1530A

Method Path : C:\MSDCHEM\1\METHODS\  
Method File : 2PCB4311.M  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response Via : Initial Calibration

### Calibration Files

50 =2G162102a.D 250 =2G162097.D 500 =2G162098.D  
1000 =2G162099.D 2000 =2G162100.D 3000 =2G162101.D

| Compound              | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg      | %RSD  |
|-----------------------|-------|-------|-------|-------|-------|-------|----------|-------|
| 1) S Tetrachloro-m... | 3.853 | 3.487 | 3.538 | 3.692 | 3.667 | 3.785 | 3.670 E6 | 3.81  |
| 2) AR1221-A           |       |       |       | 2.897 |       |       | 2.897 E4 | 0.00  |
| 3) AR1221-B           |       |       |       | 4.202 |       |       | 4.202 E4 | 0.00  |
| 4) AR1221-C           |       |       |       | 1.288 |       |       | 1.288 E5 | 0.00  |
| 5) AR1221-D           |       |       |       | 1.466 |       |       | 1.466 E4 | 0.00  |
| 6) AR1221-E           |       |       |       | 1.436 |       |       | 1.436 E4 | 0.00  |
| 7) AR1232-A           |       |       |       | 9.734 |       |       | 9.734 E4 | 0.00  |
| 8) AR1232-B           |       |       |       | 6.684 |       |       | 6.684 E4 | 0.00  |
| 9) AR1232-C           |       |       |       | 1.305 |       |       | 1.305 E5 | 0.00  |
| 10) AR1232-D          |       |       |       | 5.447 |       |       | 5.447 E4 | 0.00  |
| 11) AR1232-E          |       |       |       | 5.149 |       |       | 5.149 E4 | 0.00  |
| 12) AR1242-A          |       |       |       | 1.198 |       |       | 1.198 E5 | 0.00  |
| 13) AR1242-B          |       |       |       | 2.525 |       |       | 2.525 E5 | 0.00  |
| 14) AR1242-C          |       |       |       | 1.054 |       |       | 1.054 E5 | 0.00  |
| 15) AR1242-D          |       |       |       | 1.090 |       |       | 1.090 E5 | 0.00  |
| 16) AR1242-E          |       |       |       | 9.298 |       |       | 9.298 E4 | 0.00  |
| 17) AR1248-A          |       |       |       | 5.917 |       |       | 5.917 E4 | 0.00  |
| 18) AR1248-B          |       |       |       | 1.544 |       |       | 1.544 E5 | 0.00  |
| 19) AR1248-C          |       |       |       | 1.652 |       |       | 1.652 E5 | 0.00  |
| 20) AR1248-D          |       |       |       | 1.598 |       |       | 1.598 E5 | 0.00  |
| 21) AR1248-E          |       |       |       | 1.421 |       |       | 1.421 E5 | 0.00  |
| 22) AR1248-F          |       |       |       | 1.402 |       |       | 1.402 E5 | 0.00  |
| 23) AR1248-G          |       |       |       | 1.572 |       |       | 1.572 E5 | 0.00  |
| 24) AR1254-A          |       |       |       | 1.234 |       |       | 1.234 E5 | 0.00  |
| 25) AR1254-B          |       |       |       | 2.588 |       |       | 2.588 E5 | 0.00  |
| 26) AR1254-C          |       |       |       | 1.370 |       |       | 1.370 E5 | 0.00  |
| 27) AR1254-D          |       |       |       | 2.459 |       |       | 2.459 E5 | 0.00  |
| 28) AR1254-E          |       |       |       | 1.825 |       |       | 1.825 E5 | 0.00  |
| 29) AR1254-F          |       |       |       | 1.712 |       |       | 1.712 E5 | 0.00  |
| 30) AR1254-G          |       |       |       | 2.518 |       |       | 2.518 E5 | 0.00  |
| 31) AR1016-A          | 9.451 | 7.869 | 7.627 | 7.558 | 7.126 | 7.105 | 7.789 E4 | 11.13 |
| 32) AR1016-B          | 1.685 | 1.361 | 1.324 | 1.304 | 1.242 | 1.247 | 1.361 E5 | 12.16 |
| 33) AR1016-C          | 3.261 | 2.840 | 2.792 | 2.854 | 2.797 | 2.854 | 2.900 E5 | 6.18  |
| 34) AR1016-D          | 1.360 | 1.162 | 1.156 | 1.157 | 1.119 | 1.140 | 1.182 E5 | 7.49  |
| 35) AR1016-E          | 1.424 | 1.227 | 1.184 | 1.176 | 1.145 | 1.161 | 1.219 E5 | 8.51  |
| 36) AR1260-A          | 3.759 | 3.397 | 3.078 | 3.178 | 3.473 | 3.566 | 3.408 E5 | 7.36  |
| 37) AR1260-B          | 1.602 | 1.368 | 1.501 | 1.530 | 1.316 | 1.349 | 1.444 E5 | 8.00  |
| 38) AR1260-C          | 1.676 | 1.539 | 1.642 | 1.690 | 1.480 | 1.527 | 1.592 E5 | 5.54  |
| 39) AR1260-D          | 3.627 | 3.372 | 3.743 | 3.953 | 3.621 | 3.712 | 3.671 E5 | 5.17  |
| 40) AR1260-E          | 3.931 | 3.596 | 3.895 | 4.026 | 3.611 | 3.668 | 3.788 E5 | 4.88  |
| 41) AR1262-A          |       |       |       | 1.935 |       |       | 1.935 E5 | 0.00  |
| 42) AR1262-B          |       |       |       | 2.424 |       |       | 2.424 E5 | 0.00  |
| 43) AR1262-C          |       |       |       | 2.270 |       |       | 2.270 E5 | 0.00  |
| 44) AR1262-D          |       |       |       | 4.854 |       |       | 4.854 E5 | 0.00  |
| 45) AR1262-E          |       |       |       | 5.588 |       |       | 5.588 E5 | 0.00  |
| 46) AR1268-A          |       |       |       | 5.754 |       |       | 5.754 E5 | 0.00  |

12.11.1  
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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

|       |                  |       |       |       |       |       |       |       |    |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|----|------|
| 47)   | AR1268-B         |       |       |       | 5.673 |       |       | 5.673 | E5 | 0.00 |
| 48)   | AR1268-C         |       |       |       | 4.730 |       |       | 4.730 | E5 | 0.00 |
| 49)   | AR1268-D         |       |       |       | 1.992 |       |       | 1.992 | E5 | 0.00 |
| 50)   | AR1268-E         |       |       |       | 1.615 |       |       | 1.615 | E6 | 0.00 |
| 51) S | Decachlorobip... | 4.697 | 4.061 | 3.924 | 3.931 | 3.825 | 3.897 | 4.056 | E6 | 7.97 |

Signal #2 Calibration Files

|      |              |      |             |      |             |
|------|--------------|------|-------------|------|-------------|
| 50   | =2G162102a.D | 250  | =2G162097.D | 500  | =2G162098.D |
| 1000 | =2G162099.D  | 2000 | =2G162100.D | 3000 | =2G162101.D |

|      | Compound         | 50    | 250   | 500   | 1000  | 2000  | 3000  | Avg   |    | %RSD  |
|------|------------------|-------|-------|-------|-------|-------|-------|-------|----|-------|
| 1) S | Tetrachloro-m... | 2.359 | 2.161 | 2.233 | 2.322 | 2.300 | 2.354 | 2.288 | E7 | 3.37  |
| 2)   | AR1221-A         |       |       |       | 1.409 |       |       | 1.409 | E5 | 0.00  |
| 3)   | AR1221-B         |       |       |       | 2.507 |       |       | 2.507 | E5 | 0.00  |
| 4)   | AR1221-C         |       |       |       | 6.558 |       |       | 6.558 | E5 | 0.00  |
| 5)   | AR1221-D         |       |       |       | 1.222 |       |       | 1.222 | E5 | 0.00  |
| 6)   | AR1221-E         |       |       |       | 8.849 |       |       | 8.849 | E4 | 0.00  |
| 7)   | AR1232-A         |       |       |       | 5.020 |       |       | 5.020 | E5 | 0.00  |
| 8)   | AR1232-B         |       |       |       | 3.935 |       |       | 3.935 | E5 | 0.00  |
| 9)   | AR1232-C         |       |       |       | 8.152 |       |       | 8.152 | E5 | 0.00  |
| 10)  | AR1232-D         |       |       |       | 3.615 |       |       | 3.615 | E5 | 0.00  |
| 11)  | AR1232-E         |       |       |       | 2.173 |       |       | 2.173 | E5 | 0.00  |
| 12)  | AR1242-A         |       |       |       | 7.054 |       |       | 7.054 | E5 | 0.00  |
| 13)  | AR1242-B         |       |       |       | 1.548 |       |       | 1.548 | E6 | 0.00  |
| 14)  | AR1242-C         |       |       |       | 6.668 |       |       | 6.668 | E5 | 0.00  |
| 15)  | AR1242-D         |       |       |       | 4.564 |       |       | 4.564 | E5 | 0.00  |
| 16)  | AR1242-E         |       |       |       | 6.343 |       |       | 6.343 | E5 | 0.00  |
| 17)  | AR1248-A         |       |       |       | 3.627 |       |       | 3.627 | E5 | 0.00  |
| 18)  | AR1248-B         |       |       |       | 9.548 |       |       | 9.548 | E5 | 0.00  |
| 19)  | AR1248-C         |       |       |       | 5.697 |       |       | 5.697 | E5 | 0.00  |
| 20)  | AR1248-D         |       |       |       | 7.271 |       |       | 7.271 | E5 | 0.00  |
| 21)  | AR1248-E         |       |       |       | 8.799 |       |       | 8.799 | E5 | 0.00  |
| 22)  | AR1248-F         |       |       |       | 1.097 |       |       | 1.097 | E6 | 0.00  |
| 23)  | AR1248-G         |       |       |       | 1.220 |       |       | 1.220 | E6 | 0.00  |
| 24)  | AR1254-A         |       |       |       | 9.925 |       |       | 9.925 | E5 | 0.00  |
| 25)  | AR1254-B         |       |       |       | 9.839 |       |       | 9.839 | E5 | 0.00  |
| 26)  | AR1254-C         |       |       |       | 7.977 |       |       | 7.977 | E5 | 0.00  |
| 27)  | AR1254-D         |       |       |       | 1.634 |       |       | 1.634 | E6 | 0.00  |
| 28)  | AR1254-E         |       |       |       | 1.089 |       |       | 1.089 | E6 | 0.00  |
| 29)  | AR1254-F         |       |       |       | 1.181 |       |       | 1.181 | E6 | 0.00  |
| 30)  | AR1254-G         |       |       |       | 1.511 |       |       | 1.511 | E6 | 0.00  |
| 31)  | AR1016-A         | 4.464 | 3.663 | 3.554 | 3.667 | 3.532 | 3.597 | 3.746 | E5 | 9.50  |
| 32)  | AR1016-B         | 1.008 | 0.785 | 0.781 | 0.777 | 0.734 | 0.721 | 0.801 | E6 | 13.07 |
| 33)  | AR1016-C         | 1.870 | 1.661 | 1.687 | 1.744 | 1.719 | 1.721 | 1.734 | E6 | 4.20  |
| 34)  | AR1016-D         | 8.979 | 7.276 | 7.297 | 7.378 | 7.117 | 7.090 | 7.523 | E5 | 9.59  |
| 35)  | AR1016-E         | 5.760 | 4.925 | 4.923 | 5.029 | 5.023 | 5.124 | 5.131 | E5 | 6.19  |
| 36)  | AR1260-A         | 2.222 | 1.949 | 1.820 | 1.882 | 2.043 | 2.081 | 2.000 | E6 | 7.30  |
| 37)  | AR1260-B         | 1.009 | 0.803 | 0.897 | 0.917 | 0.804 | 0.816 | 0.874 | E6 | 9.41  |
| 38)  | AR1260-C         | 1.124 | 0.949 | 1.023 | 1.051 | 0.980 | 1.006 | 1.022 | E6 | 5.98  |
| 39)  | AR1260-D         | 2.347 | 1.930 | 2.170 | 2.256 | 2.063 | 2.114 | 2.146 | E6 | 6.84  |
| 40)  | AR1260-E         | 2.219 | 1.874 | 2.089 | 2.144 | 1.933 | 1.971 | 2.038 | E6 | 6.55  |
| 41)  | AR1262-A         |       |       |       | 1.044 |       |       | 1.044 | E6 | 0.00  |
| 42)  | AR1262-B         |       |       |       | 1.428 |       |       | 1.428 | E6 | 0.00  |
| 43)  | AR1262-C         |       |       |       | 1.336 |       |       | 1.336 | E6 | 0.00  |
| 44)  | AR1262-D         |       |       |       | 2.732 |       |       | 2.732 | E6 | 0.00  |
| 45)  | AR1262-E         |       |       |       | 3.034 |       |       | 3.034 | E6 | 0.00  |
| 46)  | AR1268-A         |       |       |       | 3.086 |       |       | 3.086 | E6 | 0.00  |
| 47)  | AR1268-B         |       |       |       | 3.099 |       |       | 3.099 | E6 | 0.00  |
| 48)  | AR1268-C         |       |       |       | 2.498 |       |       | 2.498 | E6 | 0.00  |

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# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICC4311  
**Lab FileID:** 2G162099.D

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|       |                  |       |       |       |       |       |       |       |       |      |      |
|-------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 49)   | AR1268-D         |       |       |       | 1.038 |       |       |       | 1.038 | E6   | 0.00 |
| 50)   | AR1268-E         |       |       |       | 8.238 |       |       |       | 8.238 | E6   | 0.00 |
| 51) S | Decachlorobip... | 2.219 | 1.845 | 1.796 | 1.874 | 1.841 | 1.884 | 1.910 | E7    | 8.10 |      |

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(#) = Out of Range

2PCB4311.M Thu Apr 19 15:44:17 2018 RPT1

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD1A.CH Vial: 13  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162106.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:17 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.975 E6   | -8.3         | 108   | 0.00     | 2.75- | 2.81   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 76.686 E3  | 1.5          | 101   | 0.00     | 3.12- | 3.18   |
| 32  | AR1016-B             | 136.058 | 141.949 E3 | -4.3         | 109   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 305.729 E3 | -5.4         | 107   | 0.00     | 4.08- | 4.14   |
| 34  | AR1016-D             | 118.235 | 126.283 E3 | -6.8         | 109   | 0.00     | 4.24- | 4.30   |
| 35  | AR1016-E             | 121.934 | 124.361 E3 | -2.0         | 106   | 0.00     | 4.75- | 4.81   |
| 36  | AR1260-A             | 340.850 | 344.355 E3 | -1.0         | 108   | 0.00     | 7.12- | 7.18   |
| 37  | AR1260-B             | 144.444 | 147.854 E3 | -2.4         | 97    | 0.00     | 7.28- | 7.34   |
| 38  | AR1260-C             | 159.229 | 170.106 E3 | -6.8         | 101   | 0.00     | 7.62- | 7.68   |
| 39  | AR1260-D             | 367.146 | 387.161 E3 | -5.5         | 98    | 0.00     | 8.05- | 8.11   |
| 40  | AR1260-E             | 378.788 | 394.757 E3 | -4.2         | 98    | 0.00     | 8.39- | 8.55   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.11.2  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162106.D

|      |                    |       |       |    |     |     |      |  |  |  |  |            |  |
|------|--------------------|-------|-------|----|-----|-----|------|--|--|--|--|------------|--|
| 42   | AR1262-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 43   | AR1262-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 44   | AR1262-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 45   | AR1262-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 46   | AR1268-A           |       |       |    |     |     |      |  |  |  |  |            |  |
| 47   | AR1268-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 48   | AR1268-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 49   | AR1268-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 50   | AR1268-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 4.006 | E6 | 1.2 | 102 | 0.00 |  |  |  |  | 9.98-10.04 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |  |  |  |  |             |  |
|-----|----------------------|---------|---------|----|-------|-----|------|--|--|--|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 25.201  | E6 | -10.1 | 109 | 0.00 |  |  |  |  | 3.40- 3.46  |  |
| 2   | AR1221-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 3   | AR1221-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 4   | AR1221-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 5   | AR1221-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 6   | AR1221-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 7   | AR1232-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 8   | AR1232-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 9   | AR1232-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 10  | AR1232-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 11  | AR1232-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 12  | AR1242-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 13  | AR1242-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 14  | AR1242-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 15  | AR1242-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 16  | AR1242-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 17  | AR1248-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 18  | AR1248-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 19  | AR1248-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 20  | AR1248-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 21  | AR1248-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 22  | AR1248-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 23  | AR1248-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 24  | AR1254-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 25  | AR1254-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 26  | AR1254-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 27  | AR1254-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 28  | AR1254-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 29  | AR1254-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 30  | AR1254-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 31  | AR1016-A             | 374.605 | 415.731 | E3 | -11.0 | 113 | 0.00 |  |  |  |  | 4.06- 4.12  |  |
| 32  | AR1016-B             | 0.801   | 0.845   | E6 | -5.5  | 109 | 0.00 |  |  |  |  | 4.60- 4.66  |  |
| 33  | AR1016-C             | 1.734   | 1.899   | E6 | -9.5  | 109 | 0.00 |  |  |  |  | 5.25- 5.31  |  |
| 34  | AR1016-D             | 752.270 | 823.449 | E3 | -9.5  | 112 | 0.00 |  |  |  |  | 5.43- 5.49  |  |
| 35  | AR1016-E             | 513.080 | 544.014 | E3 | -6.0  | 108 | 0.00 |  |  |  |  | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 2.060   | E6 | -3.0  | 109 | 0.00 |  |  |  |  | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 0.905   | E6 | -3.5  | 99  | 0.00 |  |  |  |  | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 1.071   | E6 | -4.8  | 102 | 0.00 |  |  |  |  | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 2.253   | E6 | -5.0  | 100 | 0.00 |  |  |  |  | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 2.122   | E6 | -4.1  | 99  | 0.00 |  |  |  |  | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 42  | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43  | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44  | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45  | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46  | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47  | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |

12.11.2  
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# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162107.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD1A.CH Vial: 14  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162107.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:34 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|    | Compound | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|----|----------|---------|------------|------|-------|----------|-------|--------|
| 2  | AR1221-A | 28.967  | 30.231 E3  | -4.4 | 104   | 0.00     | 2.18- | 2.38   |
| 3  | AR1221-B | 42.023  | 40.285 E3  | 4.1  | 96    | 0.00     | 2.85- | 3.05   |
| 4  | AR1221-C | 128.795 | 122.705 E3 | 4.7  | 95    | 0.00     | 3.05- | 3.25   |
| 5  | AR1221-D | 14.657  | 11.965 E3  | 18.4 | 82    | 0.00     | 3.46- | 3.66   |
| 6  | AR1221-E | 14.364  | 14.535 E3  | -1.2 | 101   | 0.00     | 3.60- | 3.80   |
| 24 | AR1254-A | 123.364 | 129.470 E3 | -4.9 | 105   | 0.00     | 4.78- | 5.78   |
| 25 | AR1254-B | 258.753 | 268.829 E3 | -3.9 | 104   | 0.00     | 5.52- | 5.72   |
| 26 | AR1254-C | 136.952 | 143.562 E3 | -4.8 | 105   | 0.00     | 5.88- | 6.08   |
| 27 | AR1254-D | 245.908 | 257.604 E3 | -4.8 | 105   | 0.00     | 6.04- | 6.24   |
| 28 | AR1254-E | 182.509 | 189.827 E3 | -4.0 | 104   | 0.00     | 6.42- | 6.62   |
| 29 | AR1254-F | 171.196 | 179.789 E3 | -5.0 | 105   | 0.00     | 6.67- | 6.87   |
| 30 | AR1254-G | 251.778 | 263.449 E3 | -4.6 | 105   | 0.00     | 7.05- | 7.25   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|    |          |         |             |      |     |      |       |      |
|----|----------|---------|-------------|------|-----|------|-------|------|
| 2  | AR1221-A | 140.927 | 146.033 E3  | -3.6 | 104 | 0.00 | 2.77- | 2.97 |
| 3  | AR1221-B | 250.670 | 252.257 E3  | -0.6 | 101 | 0.00 | 3.72- | 3.92 |
| 4  | AR1221-C | 655.831 | 636.187 E3  | 3.0  | 97  | 0.00 | 3.99- | 4.19 |
| 5  | AR1221-D | 122.166 | 105.889 E3  | 13.3 | 87  | 0.00 | 4.55- | 4.75 |
| 6  | AR1221-E | 88.492  | 89.522 E3   | -1.2 | 101 | 0.00 | 4.67- | 4.87 |
| 24 | AR1254-A | 992.497 | 1051.994 E3 | -6.0 | 106 | 0.00 | 6.20- | 7.20 |
| 25 | AR1254-B | 983.915 | 1037.386 E3 | -5.4 | 105 | 0.00 | 6.86- | 7.06 |
| 26 | AR1254-C | 797.725 | 839.207 E3  | -5.2 | 105 | 0.00 | 7.37- | 7.56 |
| 27 | AR1254-D | 1.634   | 1.719 E6    | -5.2 | 105 | 0.00 | 7.53- | 7.73 |
| 28 | AR1254-E | 1.089   | 1.136 E6    | -4.3 | 104 | 0.00 | 7.86- | 8.06 |
| 29 | AR1254-F | 1.181   | 1.231 E6    | -4.2 | 104 | 0.00 | 8.32- | 8.52 |
| 30 | AR1254-G | 1.511   | 1.615 E6    | -6.9 | 107 | 0.00 | 8.62- | 8.82 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:57 2018 RPT1

# Initial Calibration Verification

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4311-ICV4311  
Lab FileID: 2G162108.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD1A.CH Vial: 15  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162108.D\ECD2B.CH  
Acq On : 19 Apr 2018 3:51 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 7 AR1232-A  | 97.343  | 98.365 E3  | -1.0 | 101   | 0.00     | 3.05 | 3.25   |
| 8 AR1232-B  | 66.843  | 68.498 E3  | -2.5 | 102   | 0.00     | 3.46 | 3.66   |
| 9 AR1232-C  | 130.487 | 135.897 E3 | -4.1 | 104   | 0.00     | 4.01 | 4.21   |
| 10 AR1232-D | 54.474  | 56.766 E3  | -4.2 | 104   | 0.00     | 4.17 | 4.37   |
| 11 AR1232-E | 51.489  | 53.116 E3  | -3.2 | 103   | 0.00     | 4.68 | 4.88   |
| 41 AR1262-A | 193.481 | 203.733 E3 | -5.3 | 105   | 0.00     | 6.67 | 6.87   |
| 42 AR1262-B | 242.383 | 258.534 E3 | -6.7 | 107   | 0.00     | 7.21 | 7.41   |
| 43 AR1262-C | 227.005 | 238.593 E3 | -5.1 | 105   | 0.00     | 7.55 | 7.75   |
| 44 AR1262-D | 485.357 | 514.218 E3 | -5.9 | 106   | 0.00     | 7.98 | 8.18   |
| 45 AR1262-E | 558.779 | 598.920 E3 | -7.2 | 107   | 0.00     | 8.43 | 8.63   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 7 AR1232-A  | 501.961 | 512.204 E3 | -2.0 | 102 | 0.00 | 4.00  | 4.20  |
| 8 AR1232-B  | 393.517 | 401.624 E3 | -2.1 | 102 | 0.00 | 4.54  | 4.74  |
| 9 AR1232-C  | 815.235 | 827.075 E3 | -1.5 | 101 | 0.00 | 5.18  | 5.38  |
| 10 AR1232-D | 361.545 | 372.004 E3 | -2.9 | 103 | 0.00 | 5.37  | 5.57  |
| 11 AR1232-E | 217.324 | 220.012 E3 | -1.2 | 101 | 0.00 | 6.02  | 6.22  |
| 41 AR1262-A | 1.044   | 1.084 E6   | -3.8 | 104 | 0.00 | 8.09  | 8.29  |
| 42 AR1262-B | 1.428   | 1.495 E6   | -4.7 | 105 | 0.00 | 8.73  | 8.93  |
| 43 AR1262-C | 1.336   | 1.393 E6   | -4.3 | 104 | 0.00 | 9.16  | 9.36  |
| 44 AR1262-D | 2.732   | 2.841 E6   | -4.0 | 104 | 0.00 | 9.51  | 9.71  |
| 45 AR1262-E | 3.034   | 3.169 E6   | -4.4 | 104 | 0.00 | 10.02 | 10.22 |

(#) = Out of Range  
2G162099.D 2PCB4311.M

SPCC's out = 0 CCC's out = 0  
Thu Apr 19 16:15:59 2018 RPT1

12.11.4  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162109.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162109.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:08 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT   | Window |
|-------------|---------|------------|------|-------|----------|------|--------|
| 12 AR1242-A | 119.785 | 114.904 E3 | 4.1  | 96    | 0.00     | 3.46 | 3.66   |
| 13 AR1242-B | 252.484 | 244.856 E3 | 3.0  | 97    | 0.00     | 4.01 | 4.21   |
| 14 AR1242-C | 105.443 | 101.790 E3 | 3.5  | 97    | 0.00     | 4.17 | 4.37   |
| 15 AR1242-D | 108.979 | 102.543 E3 | 5.9  | 94    | 0.00     | 4.68 | 4.88   |
| 16 AR1242-E | 92.981  | 87.846 E3  | 5.5  | 94    | 0.00     | 5.27 | 5.47   |
| 46 AR1268-A | 575.351 | 581.914 E3 | -1.1 | 101   | 0.00     | 8.42 | 8.62   |
| 47 AR1268-B | 567.310 | 583.888 E3 | -2.9 | 103   | 0.00     | 8.48 | 8.68   |
| 48 AR1268-C | 473.024 | 486.973 E3 | -2.9 | 103   | 0.00     | 8.75 | 8.95   |
| 49 AR1268-D | 199.180 | 204.671 E3 | -2.8 | 103   | 0.00     | 9.24 | 9.44   |
| 50 AR1268-E | 1.615   | 1.646 E6   | -1.9 | 102   | 0.00     | 9.64 | 9.84   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |       |
|-------------|---------|------------|------|-----|------|-------|-------|
| 12 AR1242-A | 705.391 | 679.662 E3 | 3.6  | 96  | 0.00 | 4.53  | 4.73  |
| 13 AR1242-B | 1.548   | 1.499 E6   | 3.2  | 97  | 0.00 | 5.18  | 5.38  |
| 14 AR1242-C | 666.761 | 667.573 E3 | -0.1 | 100 | 0.00 | 5.37  | 5.57  |
| 15 AR1242-D | 456.404 | 438.896 E3 | 3.8  | 96  | 0.00 | 6.01  | 6.21  |
| 16 AR1242-E | 634.341 | 601.296 E3 | 5.2  | 95  | 0.00 | 6.63  | 6.83  |
| 46 AR1268-A | 3.086   | 3.010 E6   | 2.5  | 98  | 0.00 | 10.02 | 10.22 |
| 47 AR1268-B | 3.099   | 3.068 E6   | 1.0  | 99  | 0.00 | 10.09 | 10.29 |
| 48 AR1268-C | 2.498   | 2.444 E6   | 2.2  | 98  | 0.00 | 10.46 | 10.66 |
| 49 AR1268-D | 1.038   | 1.042 E6   | -0.4 | 100 | 0.00 | 10.86 | 11.06 |
| 50 AR1268-E | 8.238   | 7.835 E6   | 4.9  | 95  | 0.00 | 11.33 | 11.53 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2G162099.D 2PCB4311.M Thu Apr 19 16:23:22 2018 RPT1

12.11.5  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4311-ICV4311  
**Lab FileID:** 2G162110.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\DATA\2G4311\2G162110.D\ECD2B.CH  
Acq On : 19 Apr 2018 4:25 pm Operator: tianweir  
Sample : icv4311-1000 Inst : HP G1530A  
Misc : OP11095,G2G4311,15.0,,,10.0,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Thu Apr 19 15:41:07 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound    | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-------------|---------|------------|-------|-------|----------|-------|--------|
| 17 AR1248-A | 59.174  | 55.493 E3  | 6.2   | 94    | 0.00     | 3.45- | 3.65   |
| 18 AR1248-B | 154.398 | 154.781 E3 | -0.2  | 100   | 0.00     | 4.01- | 4.21   |
| 19 AR1248-C | 165.207 | 165.431 E3 | -0.1  | 100   | 0.00     | 4.40- | 4.60   |
| 20 AR1248-D | 159.827 | 163.966 E3 | -2.6  | 103   | 0.00     | 4.68- | 4.88   |
| 21 AR1248-E | 142.066 | 146.330 E3 | -3.0  | 103   | 0.00     | 4.79- | 4.99   |
| 22 AR1248-F | 140.157 | 154.154 E3 | -10.0 | 110   | 0.00     | 5.26- | 5.46   |
| 23 AR1248-G | 157.220 | 168.971 E3 | -7.5  | 107   | 0.00     | 5.12- | 6.12   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|             |         |            |      |     |      |       |      |
|-------------|---------|------------|------|-----|------|-------|------|
| 17 AR1248-A | 362.749 | 338.780 E3 | 6.6  | 93  | 0.00 | 4.53- | 4.73 |
| 18 AR1248-B | 954.786 | 932.709 E3 | 2.3  | 98  | 0.00 | 5.18- | 5.38 |
| 19 AR1248-C | 569.681 | 572.997 E3 | -0.6 | 101 | 0.00 | 5.63- | 5.83 |
| 20 AR1248-D | 727.117 | 735.665 E3 | -1.2 | 101 | 0.00 | 6.01- | 6.21 |
| 21 AR1248-E | 879.894 | 914.038 E3 | -3.9 | 104 | 0.00 | 6.19- | 6.39 |
| 22 AR1248-F | 1.097   | 1.158 E6   | -5.6 | 106 | 0.00 | 6.62- | 6.82 |
| 23 AR1248-G | 1.220   | 1.306 E6   | -7.0 | 107 | 0.00 | 6.55- | 7.55 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2G162099.D 2PCB4311.M Thu Apr 19 16:41:13 2018 RPT1



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162654.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4322\2G162654.D\ECD1A.CH Vial: 39  
Signal #2 : C:\msdchem\1\DATA\2G4322\2G162654.D\ECD2B.CH  
Acq On : 02 May 2018 5:06 am Operator: tianweir  
Sample : cc4311-500 Inst : HP G1530A  
Misc : OP11660,G2G4322,500,,,5,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Tue May 01 11:32:33 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.005 E6   | -9.1         | 113   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 88.425 E3  | -13.5        | 116   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 150.009 E3 | -10.3        | 113   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 308.168 E3 | -6.3         | 110   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 131.549 E3 | -11.3        | 114   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 131.273 E3 | -7.7         | 111   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 324.745 E3 | 4.7          | 106   | 0.00     | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 164.130 E3 | -13.6        | 109   | 0.00     | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 172.672 E3 | -8.4         | 105   | 0.00     | 7.60- | 7.66   |
| 39  | AR1260-D             | 367.146 | 389.637 E3 | -6.1         | 104   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 415.733 E3 | -9.8         | 107   | 0.00     | 8.37- | 8.52   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.11.7  
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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162654.D

|      |                    |       |       |    |     |     |      |  |  |  |  |            |  |
|------|--------------------|-------|-------|----|-----|-----|------|--|--|--|--|------------|--|
| 42   | AR1262-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 43   | AR1262-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 44   | AR1262-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 45   | AR1262-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 46   | AR1268-A           |       |       |    |     |     |      |  |  |  |  |            |  |
| 47   | AR1268-B           |       |       |    |     |     |      |  |  |  |  |            |  |
| 48   | AR1268-C           |       |       |    |     |     |      |  |  |  |  |            |  |
| 49   | AR1268-D           |       |       |    |     |     |      |  |  |  |  |            |  |
| 50   | AR1268-E           |       |       |    |     |     |      |  |  |  |  |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 3.976 | E6 | 2.0 | 101 | 0.00 |  |  |  |  | 9.95-10.01 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |       |     |      |  |  |  |  |             |  |
|-----|----------------------|---------|---------|----|-------|-----|------|--|--|--|--|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 24.668  | E6 | -7.8  | 110 | 0.00 |  |  |  |  | 3.41- 3.47  |  |
| 2   | AR1221-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 3   | AR1221-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 4   | AR1221-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 5   | AR1221-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 6   | AR1221-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 7   | AR1232-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 8   | AR1232-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 9   | AR1232-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 10  | AR1232-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 11  | AR1232-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 12  | AR1242-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 13  | AR1242-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 14  | AR1242-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 15  | AR1242-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 16  | AR1242-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 17  | AR1248-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 18  | AR1248-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 19  | AR1248-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 20  | AR1248-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 21  | AR1248-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 22  | AR1248-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 23  | AR1248-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 24  | AR1254-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 25  | AR1254-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 26  | AR1254-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 27  | AR1254-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 28  | AR1254-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 29  | AR1254-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 30  | AR1254-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 31  | AR1016-A             | 374.605 | 416.171 | E3 | -11.1 | 117 | 0.00 |  |  |  |  | 4.07- 4.13  |  |
| 32  | AR1016-B             | 0.801   | 0.861   | E6 | -7.5  | 110 | 0.00 |  |  |  |  | 4.61- 4.67  |  |
| 33  | AR1016-C             | 1.734   | 1.817   | E6 | -4.8  | 108 | 0.00 |  |  |  |  | 5.25- 5.31  |  |
| 34  | AR1016-D             | 752.270 | 829.780 | E3 | -10.3 | 114 | 0.00 |  |  |  |  | 5.44- 5.50  |  |
| 35  | AR1016-E             | 513.080 | 544.364 | E3 | -6.1  | 111 | 0.00 |  |  |  |  | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 2.011   | E6 | -0.6  | 110 | 0.00 |  |  |  |  | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 1.020   | E6 | -16.7 | 114 | 0.00 |  |  |  |  | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 1.133   | E6 | -10.9 | 111 | 0.00 |  |  |  |  | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 2.337   | E6 | -8.9  | 108 | 0.00 |  |  |  |  | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 2.307   | E6 | -13.2 | 110 | 0.00 |  |  |  |  | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 42  | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43  | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44  | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45  | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46  | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47  | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |

12.11.7  
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# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162654.D

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|      |                    |        |        |    |     |     |      |  |             |              |
|------|--------------------|--------|--------|----|-----|-----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |     |     |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |     |     |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |     |     |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 18.624 | E6 | 2.5 | 104 | 0.00 |  | 11.78-11.84 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162098.D 2PCB4311.M              Wed May 02 08:43:37 2018    RPT1

12.11.7

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# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4322-CC4311  
Lab FileID: 2G162665.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4322\2G162665.D\ECD1A.CH Vial: 48  
Signal #2 : C:\msdchem\1\DATA\2G4322\2G162665.D\ECD2B.CH  
Acq On : 02 May 2018 8:13 am Operator: tianweir  
Sample : cc4311-1000 Inst : HP G1530A  
Misc : OP11677,G2G4322,15.1,,,10,1 Multiplr: 1.00  
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
Title :  
Last Update : Tue May 01 11:32:33 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev         | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|--------------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 4.068 E6   | -10.8        | 110   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | -----NA----- |       |          |       |        |
| 3   | AR1221-B             |         |            | -----NA----- |       |          |       |        |
| 4   | AR1221-C             |         |            | -----NA----- |       |          |       |        |
| 5   | AR1221-D             |         |            | -----NA----- |       |          |       |        |
| 6   | AR1221-E             |         |            | -----NA----- |       |          |       |        |
| 7   | AR1232-A             |         |            | -----NA----- |       |          |       |        |
| 8   | AR1232-B             |         |            | -----NA----- |       |          |       |        |
| 9   | AR1232-C             |         |            | -----NA----- |       |          |       |        |
| 10  | AR1232-D             |         |            | -----NA----- |       |          |       |        |
| 11  | AR1232-E             |         |            | -----NA----- |       |          |       |        |
| 12  | AR1242-A             |         |            | -----NA----- |       |          |       |        |
| 13  | AR1242-B             |         |            | -----NA----- |       |          |       |        |
| 14  | AR1242-C             |         |            | -----NA----- |       |          |       |        |
| 15  | AR1242-D             |         |            | -----NA----- |       |          |       |        |
| 16  | AR1242-E             |         |            | -----NA----- |       |          |       |        |
| 17  | AR1248-A             |         |            | -----NA----- |       |          |       |        |
| 18  | AR1248-B             |         |            | -----NA----- |       |          |       |        |
| 19  | AR1248-C             |         |            | -----NA----- |       |          |       |        |
| 20  | AR1248-D             |         |            | -----NA----- |       |          |       |        |
| 21  | AR1248-E             |         |            | -----NA----- |       |          |       |        |
| 22  | AR1248-F             |         |            | -----NA----- |       |          |       |        |
| 23  | AR1248-G             |         |            | -----NA----- |       |          |       |        |
| 24  | AR1254-A             |         |            | -----NA----- |       |          |       |        |
| 25  | AR1254-B             |         |            | -----NA----- |       |          |       |        |
| 26  | AR1254-C             |         |            | -----NA----- |       |          |       |        |
| 27  | AR1254-D             |         |            | -----NA----- |       |          |       |        |
| 28  | AR1254-E             |         |            | -----NA----- |       |          |       |        |
| 29  | AR1254-F             |         |            | -----NA----- |       |          |       |        |
| 30  | AR1254-G             |         |            | -----NA----- |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 83.638 E3  | -7.4         | 111   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 144.024 E3 | -5.9         | 110   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 308.032 E3 | -6.2         | 108   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 128.124 E3 | -8.4         | 111   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 128.059 E3 | -5.0         | 109   | 0.00     | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 336.404 E3 | 1.3          | 106   | 0.00     | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 164.823 E3 | -14.1        | 108   | 0.00     | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 177.765 E3 | -11.6        | 105   | 0.00     | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 404.730 E3 | -10.2        | 102   | 0.00     | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 408.640 E3 | -7.9         | 102   | 0.00     | 8.36- | 8.52   |
| 41  | AR1262-A             |         |            | -----NA----- |       |          |       |        |

12.11.8  
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# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4322-CC4311  
 Lab FileID: 2G162665.D

|                       |                      |         |         |    |       |     |      |  |  |  |  |             |  |
|-----------------------|----------------------|---------|---------|----|-------|-----|------|--|--|--|--|-------------|--|
| 42                    | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 48                    | AR1268-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 49                    | AR1268-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 50                    | AR1268-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 51 S                  | Decachlorobiphenyl   | 4.056   | 3.788   | E6 | 6.6   | 96  | 0.00 |  |  |  |  | 9.95-10.01  |  |
| ***** Signal #2 ***** |                      |         |         |    |       |     |      |  |  |  |  |             |  |
| 1 S                   | Tetrachloro-m-xylene | 22.882  | 25.550  | E6 | -11.7 | 110 | 0.00 |  |  |  |  | 3.41- 3.47  |  |
| 2                     | AR1221-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 3                     | AR1221-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 4                     | AR1221-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 5                     | AR1221-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 6                     | AR1221-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 7                     | AR1232-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 8                     | AR1232-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 9                     | AR1232-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 10                    | AR1232-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 11                    | AR1232-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 12                    | AR1242-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 13                    | AR1242-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 14                    | AR1242-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 15                    | AR1242-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 16                    | AR1242-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 17                    | AR1248-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 18                    | AR1248-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 19                    | AR1248-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 20                    | AR1248-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 21                    | AR1248-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 22                    | AR1248-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 23                    | AR1248-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 24                    | AR1254-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 25                    | AR1254-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 26                    | AR1254-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 27                    | AR1254-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 28                    | AR1254-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 29                    | AR1254-F             |         |         |    |       |     |      |  |  |  |  |             |  |
| 30                    | AR1254-G             |         |         |    |       |     |      |  |  |  |  |             |  |
| 31                    | AR1016-A             | 374.605 | 411.414 | E3 | -9.8  | 112 | 0.00 |  |  |  |  | 4.07- 4.13  |  |
| 32                    | AR1016-B             | 0.801   | 0.831   | E6 | -3.7  | 107 | 0.00 |  |  |  |  | 4.60- 4.66  |  |
| 33                    | AR1016-C             | 1.734   | 1.869   | E6 | -7.8  | 107 | 0.00 |  |  |  |  | 5.24- 5.30  |  |
| 34                    | AR1016-D             | 752.270 | 800.286 | E3 | -6.4  | 108 | 0.00 |  |  |  |  | 5.43- 5.49  |  |
| 35                    | AR1016-E             | 513.080 | 550.351 | E3 | -7.3  | 109 | 0.00 |  |  |  |  | 6.08- 6.14  |  |
| 36                    | AR1260-A             | 2.000   | 2.014   | E6 | -0.7  | 107 | 0.00 |  |  |  |  | 8.68- 8.74  |  |
| 37                    | AR1260-B             | 0.874   | 0.991   | E6 | -13.4 | 108 | 0.00 |  |  |  |  | 8.80- 8.86  |  |
| 38                    | AR1260-C             | 1.022   | 1.112   | E6 | -8.8  | 106 | 0.00 |  |  |  |  | 9.23- 9.29  |  |
| 39                    | AR1260-D             | 2.146   | 2.324   | E6 | -8.3  | 103 | 0.00 |  |  |  |  | 9.58- 9.64  |  |
| 40                    | AR1260-E             | 2.038   | 2.182   | E6 | -7.1  | 102 | 0.00 |  |  |  |  | 10.12-10.18 |  |
| 41                    | AR1262-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 42                    | AR1262-B             |         |         |    |       |     |      |  |  |  |  |             |  |
| 43                    | AR1262-C             |         |         |    |       |     |      |  |  |  |  |             |  |
| 44                    | AR1262-D             |         |         |    |       |     |      |  |  |  |  |             |  |
| 45                    | AR1262-E             |         |         |    |       |     |      |  |  |  |  |             |  |
| 46                    | AR1268-A             |         |         |    |       |     |      |  |  |  |  |             |  |
| 47                    | AR1268-B             |         |         |    |       |     |      |  |  |  |  |             |  |

12.11.8  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162665.D

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|      |                    |        |        |    |     |    |      |  |             |              |
|------|--------------------|--------|--------|----|-----|----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |     |    |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |     |    |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |     |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 17.838 | E6 | 6.6 | 95 | 0.00 |  | 11.78-11.84 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162403.D 2PCB4311.M              Wed May 02 08:44:06 2018    RPT1

12.11.8  
12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4322-CC4311  
 Lab FileID: 2G162676.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4322\2G162676.D\ECD1A.CH Vial: 56  
 Signal #2 : C:\msdchem\1\DATA\2G4322\2G162676.D\ECD2B.CH  
 Acq On : 02 May 2018 11:45 am Operator: tianweir  
 Sample : cc4311-500 Inst : HP G1530A  
 Misc : OP11677,G2G4322,16.0,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed May 02 09:26:32 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|-------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.989 E6   | -8.7  | 113   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            |       |       |          |       |        |
| 3   | AR1221-B             |         |            |       |       |          |       |        |
| 4   | AR1221-C             |         |            |       |       |          |       |        |
| 5   | AR1221-D             |         |            |       |       |          |       |        |
| 6   | AR1221-E             |         |            |       |       |          |       |        |
| 7   | AR1232-A             |         |            |       |       |          |       |        |
| 8   | AR1232-B             |         |            |       |       |          |       |        |
| 9   | AR1232-C             |         |            |       |       |          |       |        |
| 10  | AR1232-D             |         |            |       |       |          |       |        |
| 11  | AR1232-E             |         |            |       |       |          |       |        |
| 12  | AR1242-A             |         |            |       |       |          |       |        |
| 13  | AR1242-B             |         |            |       |       |          |       |        |
| 14  | AR1242-C             |         |            |       |       |          |       |        |
| 15  | AR1242-D             |         |            |       |       |          |       |        |
| 16  | AR1242-E             |         |            |       |       |          |       |        |
| 17  | AR1248-A             |         |            |       |       |          |       |        |
| 18  | AR1248-B             |         |            |       |       |          |       |        |
| 19  | AR1248-C             |         |            |       |       |          |       |        |
| 20  | AR1248-D             |         |            |       |       |          |       |        |
| 21  | AR1248-E             |         |            |       |       |          |       |        |
| 22  | AR1248-F             |         |            |       |       |          |       |        |
| 23  | AR1248-G             |         |            |       |       |          |       |        |
| 24  | AR1254-A             |         |            |       |       |          |       |        |
| 25  | AR1254-B             |         |            |       |       |          |       |        |
| 26  | AR1254-C             |         |            |       |       |          |       |        |
| 27  | AR1254-D             |         |            |       |       |          |       |        |
| 28  | AR1254-E             |         |            |       |       |          |       |        |
| 29  | AR1254-F             |         |            |       |       |          |       |        |
| 30  | AR1254-G             |         |            |       |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 88.310 E3  | -13.4 | 116   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 149.049 E3 | -9.5  | 113   | 0.00     | 3.52- | 3.58   |
| 33  | AR1016-C             | 289.965 | 305.201 E3 | -5.3  | 109   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 130.066 E3 | -10.0 | 113   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 129.848 E3 | -6.5  | 110   | -0.01    | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 315.771 E3 | 7.4   | 103   | -0.02    | 7.09- | 7.15   |
| 37  | AR1260-B             | 144.444 | 160.685 E3 | -11.2 | 107   | -0.03    | 7.25- | 7.31   |
| 38  | AR1260-C             | 159.229 | 164.534 E3 | -3.3  | 100   | -0.03    | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 362.206 E3 | 1.3   | 97    | -0.03    | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 379.082 E3 | -0.1  | 97    | -0.03    | 8.36- | 8.52   |
| 41  | AR1262-A             |         |            |       |       |          |       |        |

12.11.9  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162676.D

|      |                    |       |       |    |      |    |      |            |  |
|------|--------------------|-------|-------|----|------|----|------|------------|--|
| 42   | AR1262-B           |       |       |    |      |    |      |            |  |
| 43   | AR1262-C           |       |       |    |      |    |      |            |  |
| 44   | AR1262-D           |       |       |    |      |    |      |            |  |
| 45   | AR1262-E           |       |       |    |      |    |      |            |  |
| 46   | AR1268-A           |       |       |    |      |    |      |            |  |
| 47   | AR1268-B           |       |       |    |      |    |      |            |  |
| 48   | AR1268-C           |       |       |    |      |    |      |            |  |
| 49   | AR1268-D           |       |       |    |      |    |      |            |  |
| 50   | AR1268-E           |       |       |    |      |    |      |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 3.350 | E6 | 17.4 | 85 | 0.00 | 9.94-10.00 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |      |             |  |
|-----|----------------------|---------|---------|----|------|-----|------|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 24.301  | E6 | -6.2 | 109 | 0.00 | 3.41- 3.47  |  |
| 2   | AR1221-A             |         |         |    |      |     |      |             |  |
| 3   | AR1221-B             |         |         |    |      |     |      |             |  |
| 4   | AR1221-C             |         |         |    |      |     |      |             |  |
| 5   | AR1221-D             |         |         |    |      |     |      |             |  |
| 6   | AR1221-E             |         |         |    |      |     |      |             |  |
| 7   | AR1232-A             |         |         |    |      |     |      |             |  |
| 8   | AR1232-B             |         |         |    |      |     |      |             |  |
| 9   | AR1232-C             |         |         |    |      |     |      |             |  |
| 10  | AR1232-D             |         |         |    |      |     |      |             |  |
| 11  | AR1232-E             |         |         |    |      |     |      |             |  |
| 12  | AR1242-A             |         |         |    |      |     |      |             |  |
| 13  | AR1242-B             |         |         |    |      |     |      |             |  |
| 14  | AR1242-C             |         |         |    |      |     |      |             |  |
| 15  | AR1242-D             |         |         |    |      |     |      |             |  |
| 16  | AR1242-E             |         |         |    |      |     |      |             |  |
| 17  | AR1248-A             |         |         |    |      |     |      |             |  |
| 18  | AR1248-B             |         |         |    |      |     |      |             |  |
| 19  | AR1248-C             |         |         |    |      |     |      |             |  |
| 20  | AR1248-D             |         |         |    |      |     |      |             |  |
| 21  | AR1248-E             |         |         |    |      |     |      |             |  |
| 22  | AR1248-F             |         |         |    |      |     |      |             |  |
| 23  | AR1248-G             |         |         |    |      |     |      |             |  |
| 24  | AR1254-A             |         |         |    |      |     |      |             |  |
| 25  | AR1254-B             |         |         |    |      |     |      |             |  |
| 26  | AR1254-C             |         |         |    |      |     |      |             |  |
| 27  | AR1254-D             |         |         |    |      |     |      |             |  |
| 28  | AR1254-E             |         |         |    |      |     |      |             |  |
| 29  | AR1254-F             |         |         |    |      |     |      |             |  |
| 30  | AR1254-G             |         |         |    |      |     |      |             |  |
| 31  | AR1016-A             | 374.605 | 402.550 | E3 | -7.5 | 113 | 0.00 | 4.07- 4.13  |  |
| 32  | AR1016-B             | 0.801   | 0.848   | E6 | -5.9 | 109 | 0.00 | 4.60- 4.66  |  |
| 33  | AR1016-C             | 1.734   | 1.785   | E6 | -2.9 | 106 | 0.00 | 5.25- 5.31  |  |
| 34  | AR1016-D             | 752.270 | 813.210 | E3 | -8.1 | 111 | 0.00 | 5.43- 5.49  |  |
| 35  | AR1016-E             | 513.080 | 535.243 | E3 | -4.3 | 109 | 0.00 | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 1.772   | E6 | 11.4 | 97  | 0.00 | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 0.892   | E6 | -2.1 | 99  | 0.00 | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 0.965   | E6 | 5.6  | 94  | 0.00 | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 1.937   | E6 | 9.7  | 89  | 0.00 | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 1.817   | E6 | 10.8 | 87  | 0.00 | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |      |     |      |             |  |
| 42  | AR1262-B             |         |         |    |      |     |      |             |  |
| 43  | AR1262-C             |         |         |    |      |     |      |             |  |
| 44  | AR1262-D             |         |         |    |      |     |      |             |  |
| 45  | AR1262-E             |         |         |    |      |     |      |             |  |
| 46  | AR1268-A             |         |         |    |      |     |      |             |  |
| 47  | AR1268-B             |         |         |    |      |     |      |             |  |

12.11.9 12



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-CC4311  
**Lab FileID:** 2G162676.D

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|      |                    |        |           |       |    |              |             |  |
|------|--------------------|--------|-----------|-------|----|--------------|-------------|--|
| 48   | AR1268-C           |        |           |       |    | -----NA----- |             |  |
| 49   | AR1268-D           |        |           |       |    | -----NA----- |             |  |
| 50   | AR1268-E           |        |           |       |    | -----NA----- |             |  |
| 51 S | Decachlorobiphenyl | 19.099 | 14.775 E6 | 22.6# | 82 | 0.00         | 11.78-11.84 |  |

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(#) = Out of Range    SPCC's out = 0    CCC's out = 0  
 2G162098.D 2PCB4311.M    Wed May 02 12:05:00 2018    RPT1

12.11.9  
12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4322-ECC4311  
 Lab FileID: 2G162684.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\2G4322\2G162684.D\ECD1A.CH Vial: 61  
 Signal #2 : C:\msdchem\1\DATA\2G4322\2G162684.D\ECD2B.CH  
 Acq On : 02 May 2018 2:00 pm Operator: tianweir  
 Sample : cc4311-1000 Inst : HP G1530A  
 Misc : OP11677,G2G4322,15.3,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\2PCB4311.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed May 02 09:26:32 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound             | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT    | Window |
|-----|----------------------|---------|------------|------|-------|----------|-------|--------|
| 1 S | Tetrachloro-m-xylene | 3.670   | 3.803 E6   | -3.6 | 103   | 0.00     | 2.76- | 2.82   |
| 2   | AR1221-A             |         |            | NA   |       |          |       |        |
| 3   | AR1221-B             |         |            | NA   |       |          |       |        |
| 4   | AR1221-C             |         |            | NA   |       |          |       |        |
| 5   | AR1221-D             |         |            | NA   |       |          |       |        |
| 6   | AR1221-E             |         |            | NA   |       |          |       |        |
| 7   | AR1232-A             |         |            | NA   |       |          |       |        |
| 8   | AR1232-B             |         |            | NA   |       |          |       |        |
| 9   | AR1232-C             |         |            | NA   |       |          |       |        |
| 10  | AR1232-D             |         |            | NA   |       |          |       |        |
| 11  | AR1232-E             |         |            | NA   |       |          |       |        |
| 12  | AR1242-A             |         |            | NA   |       |          |       |        |
| 13  | AR1242-B             |         |            | NA   |       |          |       |        |
| 14  | AR1242-C             |         |            | NA   |       |          |       |        |
| 15  | AR1242-D             |         |            | NA   |       |          |       |        |
| 16  | AR1242-E             |         |            | NA   |       |          |       |        |
| 17  | AR1248-A             |         |            | NA   |       |          |       |        |
| 18  | AR1248-B             |         |            | NA   |       |          |       |        |
| 19  | AR1248-C             |         |            | NA   |       |          |       |        |
| 20  | AR1248-D             |         |            | NA   |       |          |       |        |
| 21  | AR1248-E             |         |            | NA   |       |          |       |        |
| 22  | AR1248-F             |         |            | NA   |       |          |       |        |
| 23  | AR1248-G             |         |            | NA   |       |          |       |        |
| 24  | AR1254-A             |         |            | NA   |       |          |       |        |
| 25  | AR1254-B             |         |            | NA   |       |          |       |        |
| 26  | AR1254-C             |         |            | NA   |       |          |       |        |
| 27  | AR1254-D             |         |            | NA   |       |          |       |        |
| 28  | AR1254-E             |         |            | NA   |       |          |       |        |
| 29  | AR1254-F             |         |            | NA   |       |          |       |        |
| 30  | AR1254-G             |         |            | NA   |       |          |       |        |
| 31  | AR1016-A             | 77.893  | 78.651 E3  | -1.0 | 104   | 0.00     | 3.13- | 3.19   |
| 32  | AR1016-B             | 136.058 | 134.455 E3 | 1.2  | 103   | 0.00     | 3.53- | 3.59   |
| 33  | AR1016-C             | 289.965 | 287.498 E3 | 0.9  | 101   | 0.00     | 4.07- | 4.13   |
| 34  | AR1016-D             | 118.235 | 119.499 E3 | -1.1 | 103   | 0.00     | 4.23- | 4.29   |
| 35  | AR1016-E             | 121.934 | 119.694 E3 | 1.8  | 102   | -0.01    | 4.74- | 4.80   |
| 36  | AR1260-A             | 340.850 | 306.854 E3 | 10.0 | 97    | -0.02    | 7.10- | 7.16   |
| 37  | AR1260-B             | 144.444 | 151.437 E3 | -4.8 | 99    | -0.02    | 7.26- | 7.32   |
| 38  | AR1260-C             | 159.229 | 161.251 E3 | -1.3 | 95    | -0.03    | 7.59- | 7.65   |
| 39  | AR1260-D             | 367.146 | 362.490 E3 | 1.3  | 92    | -0.03    | 8.02- | 8.08   |
| 40  | AR1260-E             | 378.788 | 367.858 E3 | 2.9  | 91    | -0.03    | 8.36- | 8.52   |
| 41  | AR1262-A             |         |            | NA   |       |          |       |        |

12.11.10 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G2G4322-ECC4311  
 Lab FileID: 2G162684.D

|      |                    |       |       |    |       |    |      |            |  |
|------|--------------------|-------|-------|----|-------|----|------|------------|--|
| 42   | AR1262-B           |       |       |    |       |    |      |            |  |
| 43   | AR1262-C           |       |       |    |       |    |      |            |  |
| 44   | AR1262-D           |       |       |    |       |    |      |            |  |
| 45   | AR1262-E           |       |       |    |       |    |      |            |  |
| 46   | AR1268-A           |       |       |    |       |    |      |            |  |
| 47   | AR1268-B           |       |       |    |       |    |      |            |  |
| 48   | AR1268-C           |       |       |    |       |    |      |            |  |
| 49   | AR1268-D           |       |       |    |       |    |      |            |  |
| 50   | AR1268-E           |       |       |    |       |    |      |            |  |
| 51 S | Decachlorobiphenyl | 4.056 | 3.233 | E6 | 20.3# | 82 | 0.00 | 9.95-10.00 |  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                      |         |         |    |      |     |      |             |  |
|-----|----------------------|---------|---------|----|------|-----|------|-------------|--|
| 1 S | Tetrachloro-m-xylene | 22.882  | 23.582  | E6 | -3.1 | 102 | 0.00 | 3.41- 3.47  |  |
| 2   | AR1221-A             |         |         |    |      |     |      |             |  |
| 3   | AR1221-B             |         |         |    |      |     |      |             |  |
| 4   | AR1221-C             |         |         |    |      |     |      |             |  |
| 5   | AR1221-D             |         |         |    |      |     |      |             |  |
| 6   | AR1221-E             |         |         |    |      |     |      |             |  |
| 7   | AR1232-A             |         |         |    |      |     |      |             |  |
| 8   | AR1232-B             |         |         |    |      |     |      |             |  |
| 9   | AR1232-C             |         |         |    |      |     |      |             |  |
| 10  | AR1232-D             |         |         |    |      |     |      |             |  |
| 11  | AR1232-E             |         |         |    |      |     |      |             |  |
| 12  | AR1242-A             |         |         |    |      |     |      |             |  |
| 13  | AR1242-B             |         |         |    |      |     |      |             |  |
| 14  | AR1242-C             |         |         |    |      |     |      |             |  |
| 15  | AR1242-D             |         |         |    |      |     |      |             |  |
| 16  | AR1242-E             |         |         |    |      |     |      |             |  |
| 17  | AR1248-A             |         |         |    |      |     |      |             |  |
| 18  | AR1248-B             |         |         |    |      |     |      |             |  |
| 19  | AR1248-C             |         |         |    |      |     |      |             |  |
| 20  | AR1248-D             |         |         |    |      |     |      |             |  |
| 21  | AR1248-E             |         |         |    |      |     |      |             |  |
| 22  | AR1248-F             |         |         |    |      |     |      |             |  |
| 23  | AR1248-G             |         |         |    |      |     |      |             |  |
| 24  | AR1254-A             |         |         |    |      |     |      |             |  |
| 25  | AR1254-B             |         |         |    |      |     |      |             |  |
| 26  | AR1254-C             |         |         |    |      |     |      |             |  |
| 27  | AR1254-D             |         |         |    |      |     |      |             |  |
| 28  | AR1254-E             |         |         |    |      |     |      |             |  |
| 29  | AR1254-F             |         |         |    |      |     |      |             |  |
| 30  | AR1254-G             |         |         |    |      |     |      |             |  |
| 31  | AR1016-A             | 374.605 | 382.701 | E3 | -2.2 | 104 | 0.00 | 4.07- 4.13  |  |
| 32  | AR1016-B             | 0.801   | 0.776   | E6 | 3.1  | 100 | 0.00 | 4.60- 4.66  |  |
| 33  | AR1016-C             | 1.734   | 1.730   | E6 | 0.2  | 99  | 0.00 | 5.24- 5.30  |  |
| 34  | AR1016-D             | 752.270 | 744.136 | E3 | 1.1  | 101 | 0.00 | 5.43- 5.49  |  |
| 35  | AR1016-E             | 513.080 | 513.029 | E3 | 0.0  | 102 | 0.00 | 6.08- 6.14  |  |
| 36  | AR1260-A             | 2.000   | 1.709   | E6 | 14.5 | 91  | 0.00 | 8.68- 8.74  |  |
| 37  | AR1260-B             | 0.874   | 0.863   | E6 | 1.3  | 94  | 0.00 | 8.80- 8.86  |  |
| 38  | AR1260-C             | 1.022   | 0.968   | E6 | 5.3  | 92  | 0.00 | 9.23- 9.29  |  |
| 39  | AR1260-D             | 2.146   | 1.987   | E6 | 7.4  | 88  | 0.00 | 9.58- 9.64  |  |
| 40  | AR1260-E             | 2.038   | 1.828   | E6 | 10.3 | 85  | 0.00 | 10.12-10.18 |  |
| 41  | AR1262-A             |         |         |    |      |     |      |             |  |
| 42  | AR1262-B             |         |         |    |      |     |      |             |  |
| 43  | AR1262-C             |         |         |    |      |     |      |             |  |
| 44  | AR1262-D             |         |         |    |      |     |      |             |  |
| 45  | AR1262-E             |         |         |    |      |     |      |             |  |
| 46  | AR1268-A             |         |         |    |      |     |      |             |  |
| 47  | AR1268-B             |         |         |    |      |     |      |             |  |

12.11.10 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2G4322-ECC4311  
**Lab FileID:** 2G162684.D

---

|      |                    |        |        |    |       |    |      |  |             |              |
|------|--------------------|--------|--------|----|-------|----|------|--|-------------|--------------|
| 48   | AR1268-C           |        |        |    |       |    |      |  |             | -----NA----- |
| 49   | AR1268-D           |        |        |    |       |    |      |  |             | -----NA----- |
| 50   | AR1268-E           |        |        |    |       |    |      |  |             | -----NA----- |
| 51 S | Decachlorobiphenyl | 19.099 | 13.605 | E6 | 28.8# | 73 | 0.00 |  | 11.78-11.84 |              |

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(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
2G162656.D 2PCB4311.M              Wed May 02 14:22:31 2018    RPT1

12.11.10  
12

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Y3446-ICC3446  
**Lab FileID:** 2Y90536.D

Response Factor Report GC2Y2Z

Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M (Chemstation Integrator)  
Title :  
Last Update : Wed Apr 11 13:40:25 2018  
Response via : Initial Calibration

Calibration Files

250 =2y90534.D 500 =2y90535.D 1000=2y90536.D 2500=2y90537.D  
5000=2y90538.D 100 =2y90533.D 10k =2y90539.D 50k =2y90540.D 25 =2y90531.D 50 =2y90532.D

| Compound         | 250   | 500   | 1000  | 2500  | 5000  | 100   | 10k   | 50k   | 25    | 50    | Avg   | %RSD     |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) TPH-DRO       | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 2) TPH-DRO (C10  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 3) TPH (C12-C40  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 4) TPH-ORO (>C2  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 5) TPH-HRO (C18  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 6) TPH-DRO (C10  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 7) TPH-ORO (C20  | 1.139 | 1.287 | 1.385 | 1.342 | 1.315 | 1.201 | 1.323 | 1.469 | 1.107 | 1.134 | 1.270 | E6 9.46  |
| 8) o-Terphenyl   | 1.552 | 1.761 | 1.898 | 1.808 | 1.776 | 1.657 |       |       | 2.075 | 1.815 | 1.793 | E6 8.67  |
| 9) 5a-Androstan  | 1.478 | 1.686 | 1.805 | 1.740 | 1.767 | 1.572 |       |       | 1.802 | 1.678 | 1.691 | E6 6.83  |
| 10) Tetracosane- | 1.021 | 1.224 | 1.362 | 1.351 | 1.377 | 1.018 |       |       | 1.030 | 1.003 | 1.173 | E6 14.70 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

DRO2Y3446.M Wed Apr 11 13:44:10 2018 RPT1

12.11.11  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Y3446-ICV3446  
**Lab FileID:** 2Y90541.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3446\2Y90541.D Vial: 26  
Acq On : 10 Apr 2018 3:42 pm Operator: rebeccak  
Sample : icv3446-1000 Inst : GC2Y2Z  
Misc : op11131,g2y3446,10.4,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M (Chemstation Integrator)  
Title :  
Last Update : Wed Apr 11 13:40:25 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|------|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H  | TPH-DRO            | 1.270 | 1.143 E6 | 10.0         | 83    | 0.00     | 4.08-13.50 |
| 2 H  | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H  | TPH (C12-C40)      |       |          | -----NA----- |       |          |            |
| 4 H  | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 5 H  | TPH-HRO (C18-C36)  |       |          | -----NA----- |       |          |            |
| 6 H  | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 7 H  | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 8 S  | o-Terphenyl        |       |          | -----NA----- |       |          |            |
| 9 S  | 5a-Androstane      |       |          | -----NA----- |       |          |            |
| 10 S | Tetracosane-d50    |       |          | -----NA----- |       |          |            |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2y90536.D DRO2Y3446.M Wed Apr 11 13:43:51 2018 RPT1

12.11.12  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Y3464-CC3446  
**Lab FileID:** 2Y90938.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3464\2Y90938.D Vial: 3  
Acq On : 02 May 2018 8:58 am Operator: rebeccak  
Sample : cc3446-500 Inst : GC2Y2Z  
Misc : op11653,g2y3464,300,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M (Chemstation Integrator)  
Title :  
Last Update : Thu May 03 09:52:46 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window   |
|------|--------------------|-------|----------|--------------|-------|----------|-------------|
| 1 H  | TPH-DRO            | 1.270 | 1.275 E6 | -0.4         | 99    | 0.00     | 4.08-13.50  |
| 2 H  | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |             |
| 3 H  | TPH (C12-C40)      |       |          | -----NA----- |       |          |             |
| 4 H  | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |             |
| 5 H  | TPH-HRO (C18-C36)  |       |          | -----NA----- |       |          |             |
| 6 H  | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |             |
| 7 H  | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |             |
| 8 S  | o-Terphenyl        | 1.793 | 1.687 E6 | 5.9          | 96    | 0.00     | 9.93- 9.99  |
| 9 S  | 5a-Androstane      | 1.691 | 1.628 E6 | 3.7          | 97    | 0.00     | 10.61-10.67 |
| 10 S | Tetracosane-d50    | 1.173 | 1.187 E6 | -1.2         | 97    | 0.00     | 11.72-11.78 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2y90535.D DRO2Y3446.M Thu May 03 10:00:51 2018 RPT1

12.11.13  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Y3464-CC3446  
**Lab FileID:** 2Y90949.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Y3464\2Y90949.D Vial: 3  
 Acq On : 02 May 2018 3:13 pm Operator: rebeccak  
 Sample : cc3446-500 Inst : GC2Y2Z  
 Misc : op11675,g2y3464,10.0,,,1,1 Multiplr: 1.00  
 IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu May 03 09:52:46 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev  | Area% | Dev(min) | RT Window   |
|------|--------------------|-------|----------|-------|-------|----------|-------------|
| 1 H  | TPH-DRO            | 1.270 | 1.293 E6 | -1.8  | 101   | 0.00     | 4.08-13.50  |
| 2 H  | TPH-DRO (C10-C44)  |       |          |       |       |          |             |
| 3 H  | TPH (C12-C40)      |       |          |       |       |          |             |
| 4 H  | TPH-ORO (>C28-C40) |       |          |       |       |          |             |
| 5 H  | TPH-HRO (C18-C36)  |       |          |       |       |          |             |
| 6 H  | TPH-DRO (C10-C20)  |       |          |       |       |          |             |
| 7 H  | TPH-ORO (C20-C34)  |       |          |       |       |          |             |
| 8 S  | o-Terphenyl        | 1.793 | 1.716 E6 | 4.3   | 97    | 0.00     | 9.93- 9.99  |
| 9 S  | 5a-Androstane      | 1.691 | 1.683 E6 | 0.5   | 100   | 0.00     | 10.61-10.67 |
| 10 S | Tetracosane-d50    | 1.173 | 1.339 E6 | -14.2 | 109   | 0.00     | 11.72-11.78 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 2y90535.D DRO2Y3446.M Thu May 03 10:00:52 2018 RPT1

12.11.14  
12



# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Z2570-ICC2570  
**Lab FileID:** 2Z68414.D

Response Factor Report GC2Y2Z

Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M (Chemstation Integrator)  
Title :  
Last Update : Mon Apr 02 11:34:09 2018  
Response via : Initial Calibration

Calibration Files

250 =2z68412.D 500 =2z68413.D 1000=2z68414.D 2500=2z68415.D  
5000=2z68416.D 100 =2z68411.D 10k =2z68417.D 50k =2z68418.D 25 =2z68409.D 50 =2z68410.D

| Compound         | 250   | 500   | 1000  | 2500  | 5000  | 100   | 10k   | 50k   | 25    | 50    | Avg   | %RSD    |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1) TPH-DRO       | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 2) TPH-DRO (C10  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 3) TPH (C12-C40  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 4) TPH-ORO (>C2  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 5) TPH-HRO (C18  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 6) TPH-DRO (C10  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 7) TPH-ORO (C20  | 1.551 | 1.702 | 1.785 | 1.689 | 1.669 | 1.716 | 1.621 | 1.697 | 2.149 | 1.892 | 1.747 | E6 9.60 |
| 8) o-Terphenyl   | 2.622 | 2.894 | 3.023 | 2.885 | 2.866 | 2.989 |       |       | 3.281 | 3.016 | 2.947 | E6 6.32 |
| 9) 5a-Androstan  | 1.905 | 2.128 | 2.186 | 2.086 | 2.063 | 2.113 |       |       | 2.388 | 2.211 | 2.135 | E6 6.47 |
| 10) Tetracosane- | 1.555 | 1.724 | 1.804 | 1.693 | 1.684 | 1.705 |       |       | 1.917 | 1.794 | 1.734 | E6 6.13 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

DRO2Z2570.M Mon Apr 02 11:34:40 2018 RPT1

12.11.15  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Z2570-ICV2570  
**Lab FileID:** 2Z68419.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2570\2Z68419.D Vial: 62  
Acq On : 01 Apr 2018 7:44 pm Operator: thomasl  
Sample : icv2570-1000 Inst : GC2Y2Z  
Misc : op10911,g2z2570,300,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M (Chemstation Integrator)  
Title :  
Last Update : Mon Apr 02 11:28:39 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window  |
|------|--------------------|-------|----------|--------------|-------|----------|------------|
| 1 H  | TPH-DRO            | 1.747 | 1.566 E6 | 10.4         | 88    | 0.00     | 3.90-13.30 |
| 2 H  | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |            |
| 3 H  | TPH (C12-C40)      |       |          | -----NA----- |       |          |            |
| 4 H  | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |            |
| 5 H  | TPH-HRO (C18-C36)  |       |          | -----NA----- |       |          |            |
| 6 H  | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |            |
| 7 H  | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |            |
| 8 S  | o-Terphenyl        |       |          | -----NA----- |       |          |            |
| 9 S  | 5a-Androstane      |       |          | -----NA----- |       |          |            |
| 10 S | Tetracosane-d50    |       |          | -----NA----- |       |          |            |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2z68414.D DRO2Z2570.M Mon Apr 02 11:29:16 2018 RPT1

12.11.16  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Z2592-CC2570  
**Lab FileID:** 2Z68938.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2592\2Z68938.D Vial: 4  
Acq On : 02 May 2018 8:58 am Operator: rebeccak  
Sample : cc2570-1000 Inst : GC2Y2Z  
Misc : op11653,g2z2592,300,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M (Chemstation Integrator)  
Title :  
Last Update : Mon Apr 02 11:34:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window   |
|------|--------------------|-------|----------|--------------|-------|----------|-------------|
| 1 H  | TPH-DRO            | 1.747 | 1.796 E6 | -2.8         | 101   | 0.00     | 3.90-13.30  |
| 2 H  | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |             |
| 3 H  | TPH (C12-C40)      |       |          | -----NA----- |       |          |             |
| 4 H  | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |             |
| 5 H  | TPH-HRO (C18-C36)  |       |          | -----NA----- |       |          |             |
| 6 H  | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |             |
| 7 H  | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |             |
| 8 S  | o-Terphenyl        | 2.947 | 3.060 E6 | -3.8         | 101   | -0.01    | 9.76- 9.82  |
| 9 S  | 5a-Androstane      | 2.135 | 2.199 E6 | -3.0         | 101   | -0.01    | 10.45-10.51 |
| 10 S | Tetracosane-d50    | 1.734 | 1.776 E6 | -2.4         | 98    | -0.02    | 11.57-11.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2z68414.D DRO2Z2570.M Thu May 03 13:19:54 2018 RPT1

12.11.17  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G2Z2592-CC2570  
**Lab FileID:** 2Z68949.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\G2Z2592\2Z68949.D Vial: 4  
Acq On : 02 May 2018 3:13 pm Operator: rebeccak  
Sample : cc2570-1000 Inst : GC2Y2Z  
Misc : op11675,g2z2592,10.0,,,1,1 Multiplr: 1.00  
IntFile : autoint1.e

Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M (Chemstation Integrator)  
Title :  
Last Update : Mon Apr 02 11:34:09 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|      | Compound           | AvgRF | CCRF     | %Dev         | Area% | Dev(min) | RT Window   |
|------|--------------------|-------|----------|--------------|-------|----------|-------------|
| 1 H  | TPH-DRO            | 1.747 | 1.792 E6 | -2.6         | 100   | 0.00     | 3.90-13.30  |
| 2 H  | TPH-DRO (C10-C44)  |       |          | -----NA----- |       |          |             |
| 3 H  | TPH (C12-C40)      |       |          | -----NA----- |       |          |             |
| 4 H  | TPH-ORO (>C28-C40) |       |          | -----NA----- |       |          |             |
| 5 H  | TPH-HRO (C18-C36)  |       |          | -----NA----- |       |          |             |
| 6 H  | TPH-DRO (C10-C20)  |       |          | -----NA----- |       |          |             |
| 7 H  | TPH-ORO (C20-C34)  |       |          | -----NA----- |       |          |             |
| 8 S  | o-Terphenyl        | 2.947 | 3.081 E6 | -4.5         | 102   | -0.01    | 9.76- 9.82  |
| 9 S  | 5a-Androstane      | 2.135 | 2.184 E6 | -2.3         | 100   | -0.01    | 10.45-10.51 |
| 10 S | Tetracosane-d50    | 1.734 | 1.836 E6 | -5.9         | 102   | -0.02    | 11.57-11.63 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
2z68414.D DRO2Z2570.M Thu May 03 13:19:55 2018 RPT1

12.11.18  
12

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICC4020  
**Lab FileID:** 3G115849.D

## Response Factor Report GC3G

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Initial Calibration

### Calibration Files

500 =3G115851.D 400 =3G115850.D 300 =3G115849.D 200 =3G115848.D  
100 =3G115847.D 50 =3G115846.D

| Compound             | 500   | 400   | 300   | 200   | 100   | 50    | Avg   | %RSD     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 7.083 | 7.185 | 7.406 | 7.854 | 8.144 | 8.279 | 7.659 | E6 6.60  |
| 2) S 2,4-DCAA        | 3.395 | 3.459 | 3.670 | 3.877 | 4.246 | 4.778 | 3.904 | E6 13.52 |
| 3) Dicamba           | 1.693 | 1.733 | 1.817 | 1.866 | 1.929 | 2.020 | 1.843 | E7 6.63  |
| 4) MCPP              | 8.521 | 8.350 | 8.258 | 7.576 | 5.974 |       | 7.736 | E3 13.55 |
| 5) MCPA              | 1.407 | 1.377 | 1.417 | 1.367 | 1.194 |       | 1.352 | E4 6.74  |
| 6) Dichloroprop      | 3.780 | 3.774 | 4.012 | 4.262 | 4.656 | 5.052 | 4.256 | E6 12.03 |
| 7) 2,4-D             | 4.908 | 4.979 | 5.254 | 5.553 | 6.030 | 6.504 | 5.538 | E6 11.32 |
| 8) Pentachlorophenol | 6.916 | 6.953 | 6.924 | 7.246 | 7.227 | 7.203 | 7.078 | E7 2.29  |
| 9) 2,4,5-TP          | 2.659 | 2.711 | 2.817 | 2.909 | 2.976 | 3.082 | 2.859 | E7 5.63  |
| 10) 2,4,5-T          | 2.676 | 2.730 | 2.846 | 2.940 | 3.214 | 3.225 | 2.939 | E7 8.05  |
| 11) 2,4-DB           | 2.821 | 2.888 | 3.052 | 3.192 | 3.458 | 3.888 | 3.216 | E6 12.44 |
| 12) Dinoseb          | 1.346 | 1.371 | 1.445 | 1.534 | 1.621 | 1.739 | 1.509 | E7 10.09 |
| 13) Picloram         | 3.049 | 3.102 | 3.215 | 3.300 | 3.423 | 3.617 | 3.284 | E7 6.44  |

### Signal #2

|                      |       |       |       |       |       |       |       |          |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 1.761 | 1.772 | 1.822 | 1.909 | 1.945 | 1.969 | 1.863 | E6 4.83  |
| 2) S 2,4-DCAA        | 8.144 | 8.280 | 8.342 | 8.604 | 8.877 | 9.343 | 8.598 | E5 5.22  |
| 3) Dicamba           | 4.872 | 5.077 | 5.157 | 5.458 | 6.312 | 5.996 | 5.479 | E6 10.31 |
| 4) MCPP              | 1.668 | 1.662 | 1.613 | 1.524 | 1.172 |       | 1.528 | E3 13.55 |
| 5) MCPA              | 2.780 | 2.783 | 2.748 | 2.648 | 2.181 |       | 2.628 | E3 9.74  |
| 6) Dichloroprop      | 1.066 | 1.088 | 1.114 | 1.166 | 1.222 | 1.269 | 1.154 | E6 6.92  |
| 7) 2,4-D             | 1.367 | 1.419 | 1.440 | 1.500 | 1.558 | 1.612 | 1.482 | E6 6.18  |
| 8) Pentachlorophenol | 2.489 | 2.546 | 2.507 | 2.573 | 2.469 | 2.382 | 2.494 | E7 2.68  |
| 9) 2,4,5-TP          | 1.019 | 1.036 | 1.049 | 1.061 | 1.025 | 1.004 | 1.032 | E7 2.01  |
| 10) 2,4,5-T          | 0.953 | 0.965 | 0.984 | 1.003 | 0.986 | 1.006 | 0.983 | E7 2.11  |
| 11) 2,4-DB           | 8.083 | 8.098 | 8.311 | 8.326 | 8.197 | 8.128 | 8.190 | E5 1.30  |
| 12) Dinoseb          | 6.018 | 6.007 | 6.129 | 6.267 | 6.105 | 6.090 | 6.102 | E6 1.54  |
| 13) Picloram         | 1.401 | 1.400 | 1.417 | 1.402 | 1.364 | 1.353 | 1.390 | E7 1.82  |

(#) = Out of Range

3H4020.M

Tue Apr 10 14:49:23 2018

GC3G

12.11.19  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4020-ICV4020  
**Lab FileID:** 3G115853.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD1A.CH Vial: 8  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4020\3G115853.D\ECD2B.CH  
 Acq On : 4-10-2018 02:10:00 PM Operator: vinced  
 Sample : icv4020-300 Inst : GC3G  
 Misc : op11152,g3g4020,15.0,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.336 E6  | 4.2   | 99    | 0.00     | 2.45-  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 3.735 E6  | 4.3   | 102   | 0.00     | 7.43-  | 7.50   |
| 3   | Dicamba           | 18.429 | 19.458 E6 | -5.6  | 107   | 0.00     | 7.63-  | 7.70   |
| 4   | MCPD              | 7.736  | 8.540 E3  | -10.4 | 103   | 0.00     | 7.89-  | 7.96   |
| 5   | MCPA              | 13.523 | 14.274 E3 | -5.6  | 101   | 0.00     | 8.06-  | 8.13   |
| 6   | Dichloroprop      | 4.256  | 3.945 E6  | 7.3   | 98    | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 5.255 E6  | 5.1   | 100   | 0.00     | 8.79-  | 8.86   |
| 8   | Pentachlorophenol | 70.783 | 77.775 E6 | -9.9  | 112   | 0.00     | 9.05-  | 9.12   |
| 9   | 2,4,5-TP          | 28.591 | 28.106 E6 | 1.7   | 100   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 30.215 E6 | -2.8  | 106   | 0.00     | 10.23- | 10.30  |
| 11  | 2,4-DB            | 3.216  | 3.108 E6  | 3.4   | 102   | 0.00     | 10.95- | 11.04  |
| 12  | Dinoseb           | 15.094 | 14.627 E6 | 3.1   | 101   | 0.00     | 12.39- | 12.46  |
| 13  | Picloram          | 32.841 | 31.101 E6 | 5.3   | 97    | 0.00     | 12.13- | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.814 E6   | 2.6   | 100 | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 852.586 E3 | 0.8   | 102 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.725 E6   | -4.5  | 111 | 0.00 | 8.12-  | 8.19  |
| 4   | MCPD              | 1.528   | 1.683 E3   | -10.1 | 104 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.764 E3   | -5.2  | 101 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.084 E6   | 6.1   | 97  | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.449 E6   | 2.2   | 101 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 28.185 E6  | -13.0 | 112 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.371 E6  | -0.5  | 99  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.002 E6  | -1.7  | 102 | 0.00 | 11.06- | 11.15 |
| 11  | 2,4-DB            | 819.049 | 797.665 E3 | 2.6   | 96  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 6.096 E6   | 0.1   | 99  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.572 E6  | 2.3   | 96  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Tue Apr 10 14:49:40 2018 GC3G

12.11.20 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4036-CC4020  
 Lab FileID: 3G116248.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116248.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116248.D\ECD2B.CH  
 Acq On : 5-3-2018 09:00:15 AM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11634,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 13:26:26 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.354 E6  | 4.0  | 94    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.984 E6  | -2.0 | 103   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 17.984 E6 | 2.4  | 96    | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 6.899 E3  | 10.8 | 91    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 12.478 E3 | 7.7  | 91    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.508 E6  | -5.9 | 106   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 5.885 E6  | -6.3 | 106   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 73.130 E6 | -3.3 | 101   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 28.772 E6 | -0.6 | 99    | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 28.962 E6 | 1.4  | 99    | 0.00     | 10.23- | 10.30  |
| 11  | 2,4-DB            | 3.216  | 3.073 E6  | 4.4  | 96    | 0.00     | 10.95- | 11.04  |
| 12  | Dinoseb           | 15.094 | 15.938 E6 | -5.6 | 104   | 0.00     | 12.37- | 12.44  |
| 13  | Picloram          | 32.841 | 30.978 E6 | 5.7  | 94    | 0.00     | 12.13- | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.792 E6   | 3.8  | 94  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 866.346 E3 | -0.8 | 101 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 4.713 E6   | 14.0 | 86  | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.423 E3   | 6.9  | 93  | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.470 E3   | 6.0  | 93  | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.226 E6   | -6.2 | 105 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.535 E6   | -3.6 | 102 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 25.547 E6  | -2.4 | 99  | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.399 E6  | -0.7 | 98  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.993 E6   | -1.6 | 100 | 0.00 | 11.06- | 11.15 |
| 11  | 2,4-DB            | 819.049 | 689.375 E3 | 15.8 | 83  | 0.00 | 11.79- | 11.86 |
| 12  | Dinoseb           | 6.102   | 5.977 E6   | 2.0  | 95  | 0.00 | 12.17- | 12.24 |
| 13  | Picloram          | 13.896  | 13.059 E6  | 6.0  | 93  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 14:07:31 2018 GC3G

12.11.21 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4036-CC4020  
 Lab FileID: 3G116257.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116257.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116257.D\ECD2B.CH  
 Acq On : 5-3-2018 01:39:37 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 13:26:26 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.248 E6  | 5.4   | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.930 E6  | -0.7  | 107   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.872 E6 | -7.8  | 109   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.049 E3  | -4.0  | 97    | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.375 E3 | -6.3  | 101   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.541 E6  | -6.7  | 113   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.101 E6  | -10.2 | 116   | 0.01     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 76.568 E6 | -8.2  | 111   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 31.494 E6 | -10.2 | 112   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 31.334 E6 | -6.6  | 110   | 0.02     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.397 E6  | -5.6  | 111   | 0.03     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 17.199 E6 | -13.9 | 119   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 31.776 E6 | 3.2   | 99    | 0.03     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.681 E6   | 9.8  | 92  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 881.723 E3 | -2.5 | 106 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.259 E6   | 4.0  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.671 E3   | -9.4 | 104 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.834 E3   | -7.8 | 103 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.181 E6   | -2.3 | 106 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.543 E6   | -4.1 | 107 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 25.517 E6  | -2.3 | 102 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.355 E6  | -0.3 | 99  | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 9.871 E6   | -0.4 | 100 | 0.01 | 11.07- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 781.430 E3 | 4.6  | 94  | 0.02 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.805 E6   | 4.9  | 95  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.282 E6  | 4.4  | 94  | 0.02 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 14:07:48 2018 GC3G

12.11.22 12



# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4036-CC4020  
 Lab FileID: 3G116268.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116268.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116268.D\ECD2B.CH  
 Acq On : 5-3-2018 06:55:53 PM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11688,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 09:10:12 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.770 E6  | -1.4   | 99    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.310 E6  | -10.4  | 111   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 20.913 E6 | -13.5  | 112   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.695 E3  | 0.5    | 102   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.228 E3 | -5.2   | 104   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.983 E6  | -17.1  | 117   | 0.00     | 8.51-  | 8.58   |
| 7   | 2,4-D             | 5.538  | 6.679 E6  | -20.6# | 120   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 82.771 E6 | -16.9  | 114   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 33.718 E6 | -17.9  | 116   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 33.862 E6 | -15.2  | 115   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.907 E6  | -21.5# | 122   | 0.00     | 10.97- | 11.07  |
| 12  | Dinoseb           | 15.094 | 19.418 E6 | -28.6# | 127   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 33.096 E6 | -0.8   | 100   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.783 E6   | 4.3   | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 936.345 E3 | -8.9  | 109 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.567 E6   | -1.6  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.617 E3   | -5.8  | 106 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.774 E3   | -5.6  | 105 | 0.00 | 8.58-  | 8.65  |
| 6   | Dichloroprop      | 1.154   | 1.252 E6   | -8.5  | 107 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.637 E6   | -10.5 | 109 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.135 E6  | -4.8  | 102 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.521 E6  | -1.9  | 99  | 0.00 | 10.54- | 10.61 |
| 10  | 2,4,5-T           | 9.832   | 9.980 E6   | -1.5  | 99  | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 810.988 E3 | 1.0   | 97  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.856 E6   | 4.0   | 93  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.188 E6  | 5.1   | 94  | 0.00 | 13.64- | 13.71 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Fri May 04 09:46:08 2018 GC3G

12.11.23 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4036-CC4020  
 Lab FileID: 3G116273.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4036\3G116273.D\ECD1A.CH Vial: 3  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4036\3G116273.D\ECD2B.CH  
 Acq On : 5-3-2018 09:19:19 PM Operator: vinced  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11688,g3g4036,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 09:10:12 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev   | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|--------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.268 E6  | 5.1    | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.986 E6  | -2.1   | 109   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 20.389 E6 | -10.6  | 112   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.319 E3  | -7.5   | 101   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.687 E3 | -8.6   | 104   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.597 E6  | -8.0   | 115   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.263 E6  | -13.1  | 119   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 79.806 E6 | -12.7  | 115   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 32.742 E6 | -14.5  | 116   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 33.345 E6 | -13.5  | 117   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.598 E6  | -11.9  | 118   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 18.943 E6 | -25.5# | 131   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 32.562 E6 | 0.8    | 101   | 0.00     | 12.17- | 12.24  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.675 E6   | 10.1  | 92  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 894.356 E3 | -4.0  | 107 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.344 E6   | 2.5   | 104 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.732 E3   | -13.4 | 107 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.942 E3   | -11.9 | 107 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.175 E6   | -1.8  | 106 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.482 E6   | 0.0   | 103 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 25.854 E6  | -3.7  | 103 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.486 E6  | -1.6  | 100 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.997 E6   | -1.7  | 102 | 0.00 | 11.08- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 795.460 E3 | 2.9   | 96  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.739 E6   | 5.9   | 94  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 13.286 E6  | 4.4   | 94  | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Fri May 04 09:46:32 2018 GC3G

12.11.24 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4037-CC4020  
 Lab FileID: 3G116290.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116290.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116290.D\ECD2B.CH  
 Acq On : 5-4-2018 03:51:34 PM Operator: vinced  
 Sample : cc4020-200 Inst : GC3G  
 Misc : op11726,g3g4037,15.8,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev | Area% | Dev(min) | RT    | Window |
|-----|-------------------|--------|-----------|------|-------|----------|-------|--------|
| 1   | Dalapon           | 7.659  | 6.976 E6  | 8.9  | 89    | 0.00     | 2.45  | 2.51   |
| 2 S | 2,4-DCAA          | 3.904  | 4.040 E6  | -3.5 | 104   | 0.00     | 7.42  | 7.49   |
| 3   | Dicamba           | 18.429 | 16.564 E6 | 10.1 | 89    | 0.00     | 7.62  | 7.69   |
| 4   | MCPD              | 7.736  | 7.074 E3  | 8.6  | 93    | 0.00     | 7.88  | 7.95   |
| 5   | MCPA              | 13.523 | 11.993 E3 | 11.3 | 88    | 0.00     | 8.05  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.280 E6  | -0.6 | 100   | 0.00     | 8.50  | 8.57   |
| 7   | 2,4-D             | 5.538  | 5.412 E6  | 2.3  | 97    | -0.03    | 8.78  | 8.85   |
| 8   | Pentachlorophenol | 70.783 | 66.337 E6 | 6.3  | 92    | 0.00     | 9.04  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 25.878 E6 | 9.5  | 89    | -0.02    | 9.86  | 9.93   |
| 10  | 2,4,5-T           | 29.385 | 30.782 E6 | -4.8 | 105   | -0.03    | 10.21 | 10.28  |
| 11  | 2,4-DB            | 3.216  | 3.099 E6  | 3.6  | 97    | -0.03    | 10.93 | 11.03  |
| 12  | Dinoseb           | 15.094 | 15.160 E6 | -0.4 | 99    | 0.00     | 12.37 | 12.44  |
| 13  | Picloram          | 32.841 | 28.958 E6 | 11.8 | 88    | -0.03    | 12.13 | 12.20  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |       |       |       |
|-----|-------------------|---------|------------|------|-----|-------|-------|-------|
| 1   | Dalapon           | 1.863   | 1.653 E6   | 11.3 | 87  | 0.00  | 2.40  | 2.47  |
| 2 S | 2,4-DCAA          | 859.825 | 875.548 E3 | -1.8 | 102 | 0.00  | 7.89  | 7.95  |
| 3   | Dicamba           | 5.479   | 4.512 E6   | 17.6 | 83  | 0.00  | 8.10  | 8.17  |
| 4   | MCPD              | 1.528   | 1.441 E3   | 5.7  | 95  | 0.00  | 8.26  | 8.33  |
| 5   | MCPA              | 2.628   | 2.553 E3   | 2.9  | 96  | -0.01 | 8.56  | 8.63  |
| 6   | Dichloroprop      | 1.154   | 1.115 E6   | 3.4  | 96  | -0.01 | 9.00  | 9.07  |
| 7   | 2,4-D             | 1.482   | 1.400 E6   | 5.5  | 93  | -0.03 | 9.42  | 9.49  |
| 8   | Pentachlorophenol | 24.942  | 22.901 E6  | 8.2  | 89  | -0.01 | 9.90  | 9.97  |
| 9   | 2,4,5-TP          | 10.323  | 9.819 E6   | 4.9  | 93  | -0.02 | 10.51 | 10.58 |
| 10  | 2,4,5-T           | 9.832   | 9.013 E6   | 8.3  | 90  | -0.03 | 11.04 | 11.13 |
| 11  | 2,4-DB            | 819.049 | 796.198 E3 | 2.8  | 96  | -0.04 | 11.77 | 11.84 |
| 12  | Dinoseb           | 6.102   | 5.219 E6   | 14.5 | 83  | -0.02 | 12.16 | 12.23 |
| 13  | Picloram          | 13.896  | 12.273 E6  | 11.7 | 88  | -0.03 | 13.60 | 13.67 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:12 2018 GC3G

12.11.25 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G3G4037-CC4020  
**Lab FileID:** 3G116301.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3G4037\3G116301.D\ECD1A.CH Vial: 3  
 Acq On : 5-4-2018 09:28:37 PM Operator: vined  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\MSDCHEM\1\DATA\3G4037\3G116301.D\ECD2B.CH Vial: 3  
 Acq On : 5-4-2018 09:28:36 PM Operator: vined  
 Sample : cc4020-300 Inst : GC3G  
 Misc : op11687,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.256 E6  | 5.3   | 98    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 3.991 E6  | -2.2  | 109   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.373 E6 | -5.1  | 107   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 8.322 E3  | -7.6  | 101   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.060 E3 | -4.0  | 99    | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.544 E6  | -6.8  | 113   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.091 E6  | -10.0 | 116   | 0.00     | 8.80-  | 8.87   |
| 8   | Pentachlorophenol | 70.783 | 75.547 E6 | -6.7  | 109   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 31.015 E6 | -8.5  | 110   | 0.00     | 9.87-  | 9.94   |
| 10  | 2,4,5-T           | 29.385 | 30.780 E6 | -4.7  | 108   | 0.00     | 10.24- | 10.31  |
| 11  | 2,4-DB            | 3.216  | 3.358 E6  | -4.4  | 110   | 0.00     | 10.96- | 11.05  |
| 12  | Dinoseb           | 15.094 | 16.194 E6 | -7.3  | 112   | 0.00     | 12.37- | 12.44  |
| 13  | Picloram          | 32.841 | 31.456 E6 | 4.2   | 98    | 0.00     | 12.15- | 12.22  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |      |     |      |        |       |
|-----|-------------------|---------|------------|------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.703 E6   | 8.6  | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 891.415 E3 | -3.7 | 107 | 0.00 | 7.89-  | 7.95  |
| 3   | Dicamba           | 5.479   | 5.202 E6   | 5.1  | 101 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.670 E3   | -9.3 | 104 | 0.00 | 8.26-  | 8.33  |
| 5   | MCPA              | 2.628   | 2.833 E3   | -7.8 | 103 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.159 E6   | -0.4 | 104 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.471 E6   | 0.7  | 102 | 0.00 | 9.44-  | 9.51  |
| 8   | Pentachlorophenol | 24.942  | 25.069 E6  | -0.5 | 100 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.156 E6  | 1.6  | 97  | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 9.828 E6   | 0.0  | 100 | 0.00 | 11.07- | 11.16 |
| 11  | 2,4-DB            | 819.049 | 782.223 E3 | 4.5  | 94  | 0.00 | 11.80- | 11.87 |
| 12  | Dinoseb           | 6.102   | 5.495 E6   | 9.9  | 90  | 0.00 | 12.17- | 12.24 |
| 13  | Picloram          | 13.896  | 12.945 E6  | 6.8  | 91  | 0.00 | 13.62- | 13.69 |

(#) = Out of Range  
 3G115849.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:35 2018 GC3G

12.11.26 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G3G4037-ECC4020  
 Lab FileID: 3G116312.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116312.D\ECD1A.CH Vial: 2  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116312.D\ECD2B.CH  
 Acq On : 5-5-2018 02:42:57 AM Operator: vinced  
 Sample : ecc4020-200 Inst : GC3G  
 Misc : op11688,g3g4037,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Mon May 07 10:54:34 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF  | CCRF      | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|--------|-----------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 7.659  | 7.588 E6  | 0.9   | 97    | 0.00     | 2.44-  | 2.50   |
| 2 S | 2,4-DCAA          | 3.904  | 4.302 E6  | -10.2 | 111   | 0.00     | 7.42-  | 7.49   |
| 3   | Dicamba           | 18.429 | 19.922 E6 | -8.1  | 107   | 0.00     | 7.62-  | 7.69   |
| 4   | MCPD              | 7.736  | 7.869 E3  | -1.7  | 104   | 0.00     | 7.87-  | 7.94   |
| 5   | MCPA              | 13.523 | 14.071 E3 | -4.1  | 103   | 0.00     | 8.05-  | 8.12   |
| 6   | Dichloroprop      | 4.256  | 4.944 E6  | -16.2 | 116   | 0.00     | 8.50-  | 8.57   |
| 7   | 2,4-D             | 5.538  | 6.542 E6  | -18.1 | 118   | 0.00     | 8.81-  | 8.88   |
| 8   | Pentachlorophenol | 70.783 | 79.174 E6 | -11.9 | 109   | 0.00     | 9.04-  | 9.11   |
| 9   | 2,4,5-TP          | 28.591 | 32.970 E6 | -15.3 | 113   | 0.00     | 9.88-  | 9.95   |
| 10  | 2,4,5-T           | 29.385 | 32.418 E6 | -10.3 | 110   | 0.00     | 10.25- | 10.32  |
| 11  | 2,4-DB            | 3.216  | 3.608 E6  | -12.2 | 113   | 0.00     | 10.97- | 11.06  |
| 12  | Dinoseb           | 15.094 | 17.123 E6 | -13.4 | 112   | 0.00     | 12.38- | 12.45  |
| 13  | Picloram          | 32.841 | 32.093 E6 | 2.3   | 97    | 0.00     | 12.16- | 12.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 1.863   | 1.773 E6   | 4.8   | 93  | 0.00 | 2.41-  | 2.48  |
| 2 S | 2,4-DCAA          | 859.825 | 958.982 E3 | -11.5 | 111 | 0.00 | 7.90-  | 7.96  |
| 3   | Dicamba           | 5.479   | 5.545 E6   | -1.2  | 102 | 0.00 | 8.11-  | 8.18  |
| 4   | MCPD              | 1.528   | 1.663 E3   | -8.8  | 109 | 0.00 | 8.27-  | 8.34  |
| 5   | MCPA              | 2.628   | 2.888 E3   | -9.9  | 109 | 0.00 | 8.57-  | 8.64  |
| 6   | Dichloroprop      | 1.154   | 1.254 E6   | -8.7  | 108 | 0.00 | 9.01-  | 9.08  |
| 7   | 2,4-D             | 1.482   | 1.577 E6   | -6.4  | 105 | 0.00 | 9.45-  | 9.52  |
| 8   | Pentachlorophenol | 24.942  | 26.043 E6  | -4.4  | 101 | 0.00 | 9.91-  | 9.98  |
| 9   | 2,4,5-TP          | 10.323  | 10.641 E6  | -3.1  | 100 | 0.00 | 10.53- | 10.60 |
| 10  | 2,4,5-T           | 9.832   | 10.076 E6  | -2.5  | 100 | 0.00 | 11.07- | 11.17 |
| 11  | 2,4-DB            | 819.049 | 825.770 E3 | -0.8  | 99  | 0.00 | 11.81- | 11.88 |
| 12  | Dinoseb           | 6.102   | 5.565 E6   | 8.8   | 89  | 0.00 | 12.18- | 12.25 |
| 13  | Picloram          | 13.896  | 12.720 E6  | 8.5   | 91  | 0.00 | 13.63- | 13.70 |

(#) = Out of Range  
 3G115848.D 3H4020.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:12:13 2018 GC3G

12.11.27 12

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

## Response Factor Report GC6G

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration

### Calibration Files

5 =6g55782.d 10 =6g55783.d 25 =6g55784.d 50 =6g55785.d  
 100 =6g55787.d 1 =6g55780.d 75 =6g55786.d 2 =6g55781.d  
 = =

| Compound                                  | 5     | 10    | 25    | 50    | 100   | 1     | 75    | 2     | Avg   | %RSD  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-m-xylene                   | 0.937 | 0.914 | 0.936 | 0.973 | 1.007 | 1.084 | 0.982 | 0.943 | 0.972 | 5.57  |
| 3) hexachlorobenzene                      | 1.022 | 1.033 | 1.042 | 1.079 | 1.085 | 1.271 | 1.095 | 1.053 | 1.085 | 7.34  |
| 4) alpha-BHC                              | 1.184 | 1.208 | 1.340 | 1.459 | 1.524 | 1.314 | 1.516 | 1.163 | 1.338 | 11.04 |
| 5) gamma-BHC                              | 1.132 | 1.137 | 1.236 | 1.325 | 1.368 | 1.415 | 1.374 | 1.152 | 1.267 | 9.25  |
| 6) Heptachlor                             | 1.099 | 1.099 | 1.172 | 1.249 | 1.270 | 1.305 | 1.276 | 1.109 | 1.197 | 7.32  |
| 7) beta-BHC                               | 0.560 | 0.531 | 0.543 | 0.559 | 0.560 | 0.645 | 0.568 | 0.567 | 0.567 | 6.05  |
| 8) delta-BHC                              | 0.969 | 1.003 | 1.123 | 1.228 | 1.293 | 1.083 | 1.279 | 0.962 | 1.117 | 12.18 |
| 9) Aldrin                                 | 1.052 | 1.060 | 1.150 | 1.238 | 1.265 | 1.222 | 1.274 | 1.047 | 1.164 | 8.51  |
| 10) alachlor                              | 0.145 | 0.140 | 0.140 | 0.142 | 0.134 |       | 0.140 |       | 0.140 | 2.52  |
| 11) Heptachlor Epoxide                    | 1.019 | 0.991 | 1.060 | 1.124 | 1.145 | 1.121 | 1.155 | 0.991 | 1.076 | 6.40  |
| 12) gamma-Chlordane                       | 0.964 | 0.976 | 1.051 | 1.129 | 1.174 | 1.059 | 1.174 | 0.952 | 1.060 | 8.65  |
| 13) alpha-Chlordane                       | 1.019 | 0.982 | 1.040 | 1.103 | 1.136 | 1.224 | 1.139 | 1.039 | 1.085 | 7.33  |
| 14) Endosulfan I                          | 0.944 | 0.924 | 0.979 | 1.039 | 1.058 | 1.118 | 1.068 | 0.963 | 1.012 | 6.79  |
| 15) 4,4'-DDE                              | 0.934 | 0.922 | 1.009 | 1.096 | 1.140 | 1.095 | 1.140 | 0.931 | 1.033 | 9.24  |
| 16) Dieldrin                              | 0.993 | 0.994 | 1.079 | 1.165 | 1.187 | 1.144 | 1.206 | 0.997 | 1.096 | 8.36  |
| 17) Endrin                                | 0.953 | 0.899 | 0.964 | 1.033 | 1.049 | 1.054 | 1.068 | 0.913 | 0.992 | 6.79  |
| 18) 4,4'-DDD                              | 0.797 | 0.774 | 0.836 | 0.900 | 0.920 | 0.899 | 0.934 | 0.788 | 0.856 | 7.56  |
| 19) Endosulfan II                         | 0.970 | 0.933 | 0.963 | 1.012 | 1.017 | 1.406 | 1.039 | 1.074 | 1.052 | 14.27 |
| 20) 4,4'-DDT                              | 0.737 | 0.743 | 0.802 | 0.870 | 0.903 | 0.844 | 0.914 | 0.751 | 0.821 | 8.84  |
| 21) Endrin Aldehyde                       | 0.803 | 0.770 | 0.796 | 0.836 | 0.833 | 0.945 | 0.855 | 0.824 | 0.833 | 6.32  |
| 22) Endosulfan Sulfate                    | 0.791 | 0.758 | 0.792 | 0.833 | 0.841 | 0.925 | 0.858 | 0.801 | 0.825 | 6.29  |
| 23) Methoxychlor                          |       |       |       |       |       |       |       |       |       |       |

12.11.28 12

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 24) | Mirex                   | 0.516          | 0.458 | 0.468 | 0.480 | 0.473 | 0.552 | 0.487 | 0.482 | 0.490 | 6.24  |
| 25) | Endrin Ketone           | 0.833          | 0.792 | 0.774 | 0.785 | 0.773 | 1.050 | 0.798 | 0.858 | 0.833 | 11.13 |
| 26) | Decachlorobiphenyl      | 0.924          | 0.912 | 0.956 | 1.006 | 1.005 | 1.086 | 1.029 | 0.931 | 0.981 | 6.17  |
|     |                         | 0.983          | 0.929 | 0.914 | 0.922 | 0.892 | 1.300 | 0.929 | 1.055 | 0.991 | 13.66 |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.016 |       |       |       |       | 0.016 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.041 |       |       |       |       | 0.041 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.033 |       |       |       |       | 0.033 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.027 |       |       |       |       | 0.027 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.054 |       |       |       |       | 0.054 | 0.00  |
| 35) | Chlordane {B}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.045 |       |       |       |       | 0.045 | 0.00  |
| 36) | Chlordane {C}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.145 |       |       |       |       | 0.145 | 0.00  |
| 37) | Chlordane {D}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.228 |       |       |       |       | 0.228 | 0.00  |
| 38) | Chlordane {E}           |                |       |       |       |       |       |       |       |       |       |
|     |                         |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |

Signal #2

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1)  | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 2)  | Tetrachloro-m-xylene    |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.878          | 0.885 | 0.907 | 0.945 | 1.004 | 0.981 | 0.968 | 0.882 | 0.931 | 5.35  |
| 3)  | hexachlorobenzene       |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.120          | 1.130 | 1.119 | 1.146 | 1.192 | 1.299 | 1.165 | 1.172 | 1.168 | 5.06  |
| 4)  | alpha-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.073          | 1.128 | 1.243 | 1.360 | 1.490 | 1.146 | 1.430 | 1.045 | 1.239 | 13.63 |
| 5)  | gamma-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.031          | 1.065 | 1.150 | 1.242 | 1.352 | 1.136 | 1.298 | 1.023 | 1.162 | 10.67 |
| 6)  | Heptachlor              |                |       |       |       |       |       |       |       |       |       |
|     |                         | 1.093          | 1.097 | 1.153 | 1.225 | 1.303 | 1.223 | 1.267 | 1.097 | 1.182 | 7.06  |
| 7)  | beta-BHC                |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.513          | 0.510 | 0.515 | 0.527 | 0.550 | 0.604 | 0.537 | 0.514 | 0.534 | 5.92  |
| 8)  | delta-BHC               |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.923          | 0.964 | 1.051 | 1.160 | 1.279 | 1.110 | 1.225 | 0.921 | 1.079 | 12.73 |
| 9)  | Aldrin                  |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.939          | 0.957 | 1.022 | 1.101 | 1.190 | 1.050 | 1.147 | 0.919 | 1.041 | 9.61  |
| 10) | alachlor                |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.152          | 0.138 | 0.135 | 0.135 | 0.133 |       | 0.134 |       | 0.138 | 5.09  |
| 11) | Heptachlor Epoxide      |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.953          | 0.942 | 0.979 | 1.034 | 1.098 | 1.030 | 1.065 | 0.948 | 1.006 | 5.86  |
| 12) | gamma-Chlordane         |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.951          | 0.927 | 0.976 | 1.036 | 1.112 | 0.910 | 1.074 | 0.902 | 0.986 | 8.03  |
| 13) | alpha-Chlordane         |                |       |       |       |       |       |       |       |       |       |
|     |                         | 0.936          | 0.896 | 0.970 | 1.012 | 1.066 | 0.939 | 1.032 | 0.827 | 0.960 | 8.08  |

12.11.28 12

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICC1671  
**Lab FileID:** 6G55784.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 14) | Endosulfan I            | 0.892          | 0.845 | 0.882 | 0.932 | 0.994 | 0.993 | 0.955 | 0.844 | 0.917 | 6.61  |
| 15) | 4,4'-DDE                | 0.839          | 0.863 | 0.923 | 0.997 | 1.085 | 0.903 | 1.044 | 0.802 | 0.932 | 10.82 |
| 16) | Dieldrin                | 0.884          | 0.904 | 0.959 | 1.034 | 1.124 | 0.978 | 1.078 | 0.912 | 0.984 | 8.86  |
| 17) | Endrin                  | 0.872          | 0.882 | 0.909 | 0.976 | 1.050 | 1.138 | 1.020 | 0.881 | 0.966 | 10.03 |
| 18) | 4,4'-DDD                | 0.736          | 0.733 | 0.765 | 0.820 | 0.889 | 0.891 | 0.858 | 0.731 | 0.803 | 8.76  |
| 19) | Endosulfan II           | 0.900          | 0.876 | 0.885 | 0.926 | 0.978 | 1.323 | 0.951 | 0.983 | 0.978 | 14.84 |
| 20) | 4,4'-DDT                | 0.670          | 0.708 | 0.760 | 0.820 | 0.901 | 0.776 | 0.863 | 0.703 | 0.775 | 10.51 |
| 21) | Endrin Aldehyde         | 0.703          | 0.697 | 0.710 | 0.734 | 0.774 | 0.847 | 0.755 | 0.721 | 0.743 | 6.71  |
| 22) | Endosulfan Sulfate      | 0.687          | 0.695 | 0.715 | 0.747 | 0.796 | 0.836 | 0.774 | 0.700 | 0.744 | 7.26  |
| 23) | Methoxychlor            | 0.423          | 0.429 | 0.438 | 0.449 | 0.467 | 0.431 | 0.460 | 0.426 | 0.440 | 3.73  |
| 24) | Mirex                   | 0.734          | 0.730 | 0.711 | 0.712 | 0.735 | 0.885 | 0.725 | 0.736 | 0.746 | 7.67  |
| 25) | Endrin Ketone           | 0.879          | 0.850 | 0.879 | 0.915 | 0.975 | 1.451 | 0.953 | 0.981 | 0.985 | 19.70 |
| 26) | Decachlorobiphenyl      | 0.924          | 0.908 | 0.866 | 0.875 | 0.893 | 1.128 | 0.885 | 0.952 | 0.929 | 9.16  |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       | 0.019 |       |       |       |       | 0.019 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       | 0.025 |       |       |       |       | 0.025 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       | 0.047 |       |       |       |       | 0.047 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       | 0.026 |       |       |       |       | 0.026 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       | 0.023 |       |       |       |       | 0.023 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       | 0.054 |       |       |       |       | 0.054 | 0.00  |
| 35) | Chlordane {B}           |                |       |       | 0.040 |       |       |       |       | 0.040 | 0.00  |
| 36) | Chlordane {C}           |                |       |       | 0.126 |       |       |       |       | 0.126 | 0.00  |
| 37) | Chlordane {D}           |                |       |       | 0.206 |       |       |       |       | 0.206 | 0.00  |
| 38) | Chlordane {E}           |                |       |       | 0.021 |       |       |       |       | 0.021 | 0.00  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

6PST1671.M

Mon Apr 30 17:43:44 2018

12.11.28  
12



# Initial Calibration Verification

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1671-ICV1671  
Lab FileID: 6G55790.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD1A.CH Vial: 13  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55790.d\ECD2B.CH  
Acq On : 30-Apr-18, 14:23:25 Operator: dharas  
Sample : icv1671-25 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|-------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 102   | -0.02    | 1.44- | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 1.010 | -3.9  | 110   | -0.02    | 2.50- | 2.56   |
| 4 A   | alpha-BHC              | 1.338 | 1.571 | -17.4 | 119   | -0.01    | 2.97- | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.426 | -12.5 | 117   | -0.01    | 3.26- | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.362 | -13.8 | 118   | -0.01    | 3.75- | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.628 | -10.8 | 118   | -0.01    | 3.33- | 3.39   |
| 8 B   | delta-BHC              | 1.117 | 1.334 | -19.4 | 121   | -0.01    | 3.51- | 3.57   |
| 9 MB  | Aldrin                 | 1.164 | 1.327 | -14.0 | 117   | -0.01    | 4.08- | 4.14   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 1.233 | -14.6 | 118   | -0.01    | 4.78- | 4.84   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.261 | -19.0 | 122   | -0.01    | 4.95- | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 1.229 | -13.3 | 120   | -0.01    | 5.12- | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 1.180 | -16.6 | 123   | -0.01    | 5.29- | 5.35   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.198 | -16.0 | 121   | -0.01    | 5.23- | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.269 | -15.8 | 120   | -0.01    | 5.61- | 5.67   |
| 17 MA | Endrin                 | 0.992 | 1.152 | -16.1 | 122   | -0.01    | 5.93- | 5.99   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.999 | -16.7 | 122   | -0.01    | 6.06- | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 1.107 | -5.2  | 117   | -0.01    | 6.25- | 6.31   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.930 | -13.3 | 118   | -0.01    | 6.47- | 6.53   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.937 | -12.5 | 120   | -0.01    | 6.88- | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.962 | -16.6 | 124   | -0.01    | 7.56- | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.535 | -9.2  | 116   | -0.01    | 7.26- | 7.32   |
| 24    | Mirex                  | 0.833 | 0.886 | -6.4  | 117   | -0.01    | 7.41- | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 1.108 | -12.9 | 118   | -0.01    | 8.00- | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 1.025 | -3.4  | 114   | -0.01    | 9.81- | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |       |       |      |
|-------|------------------------|-------|-------|-------|-----|-------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | -0.01 | 1.65- | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.973 | -4.5  | 107 | 0.00  | 2.90- | 2.96 |
| 4 A   | alpha-BHC              | 1.239 | 1.459 | -17.8 | 117 | 0.00  | 3.53- | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.337 | -15.1 | 116 | 0.00  | 3.94- | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.342 | -13.5 | 116 | 0.00  | 4.50- | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.593 | -11.0 | 115 | 0.00  | 4.02- | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 1.250 | -15.8 | 118 | 0.00  | 4.40- | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 1.180 | -13.4 | 115 | 0.00  | 4.93- | 4.99 |
| 11 B  | Heptachlor Epoxide     | 1.006 | 1.143 | -13.6 | 116 | 0.00  | 5.73- | 5.79 |
| 12 B  | gamma-Chlordane        | 0.986 | 1.164 | -18.1 | 119 | 0.00  | 6.01- | 6.07 |
| 13 B  | alpha-Chlordane        | 0.960 | 1.122 | -16.9 | 115 | 0.00  | 6.23- | 6.29 |

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55790.D

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|    |    |                    |       |       |       |     |       |        |       |
|----|----|--------------------|-------|-------|-------|-----|-------|--------|-------|
| 14 | A  | Endosulfan I       | 0.917 | 1.067 | -16.4 | 120 | 0.00  | 6.32-  | 6.38  |
| 15 | B  | 4,4'-DDE           | 0.932 | 1.097 | -17.7 | 118 | 0.00  | 6.49-  | 6.55  |
| 16 | MA | Dieldrin           | 0.984 | 1.136 | -15.4 | 118 | 0.00  | 6.75-  | 6.81  |
| 17 | MA | Endrin             | 0.966 | 1.101 | -14.0 | 120 | -0.01 | 7.24-  | 7.30  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.923 | -14.9 | 120 | 0.00  | 7.42-  | 7.48  |
| 19 | B  | Endosulfan II      | 0.978 | 1.021 | -4.4  | 115 | 0.00  | 7.58-  | 7.64  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.887 | -14.5 | 116 | -0.01 | 7.95-  | 8.01  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.843 | -13.5 | 118 | -0.01 | 8.15-  | 8.21  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.875 | -17.6 | 122 | -0.01 | 8.61-  | 8.67  |
| 23 | A  | Methoxychlor       | 0.440 | 0.516 | -17.3 | 117 | -0.02 | 9.18-  | 9.24  |
| 24 |    | Mirex              | 0.746 | 0.824 | -10.5 | 115 | -0.02 | 9.49-  | 9.55  |
| 25 | B  | Endrin Ketone      | 0.985 | 1.028 | -4.4  | 116 | -0.02 | 9.56-  | 9.62  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.998 | -7.4  | 115 | -0.02 | 11.69- | 11.75 |

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(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Mon Apr 30 17:38:40 2018

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55791.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD1A.CH Vial: 14  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55791.d\ECD2B.CH  
Acq On : 30-Apr-18, 14:41:11 Operator: dharas  
Sample : icv1671-500 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                    | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-----------------------------|-------|-------|-------|-------|----------|------|--------|
| 33 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | -0.02    | 1.44 | 2.44   |
| 34 Chlordane {A}            | 0.054 | 0.063 | -16.7 | 117   | -0.01    | 3.68 | 3.88   |
| 35 Chlordane {B}            | 0.045 | 0.039 | 13.3  | 88    | -0.01    | 4.15 | 4.35   |
| 36 Chlordane {C}            | 0.145 | 0.145 | 0.0   | 99    | -0.01    | 4.87 | 5.07   |
| 37 Chlordane {D}            | 0.228 | 0.230 | -0.9  | 101   | -0.01    | 5.04 | 5.24   |
| 38 Chlordane {E}            | 0.026 | 0.028 | -7.7  | 110   | -0.01    | 5.92 | 6.12   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                             |       |       |       |     |       |      |      |
|-----------------------------|-------|-------|-------|-----|-------|------|------|
| 33 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | -0.01 | 1.65 | 2.65 |
| 34 Chlordane {A}            | 0.054 | 0.064 | -18.5 | 116 | 0.00  | 4.43 | 4.63 |
| 35 Chlordane {B}            | 0.040 | 0.036 | 10.0  | 89  | 0.00  | 5.05 | 5.25 |
| 36 Chlordane {C}            | 0.126 | 0.128 | -1.6  | 100 | 0.00  | 5.94 | 6.14 |
| 37 Chlordane {D}            | 0.206 | 0.208 | -1.0  | 100 | 0.00  | 6.16 | 6.36 |
| 38 Chlordane {E}            | 0.021 | 0.023 | -9.5  | 108 | 0.00  | 7.30 | 7.50 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6g55785.d 6PST1671.M Mon Apr 30 17:38:57 2018

12.11.30  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55792.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD1A.CH Vial: 15  
 Acq On : 30-Apr-18, 14:58:58 Operator: dharas  
 Sample : icv1671-500 Inst : GC6G  
 Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\msdchem\1\data\G6G1671\6g55792.d\ECD2B.CH Vial: 0  
 Acq On : 30-Apr-18, 14:58:59 Operator: dharas  
 Sample : icv1671-500 Inst : GC6G  
 Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

| Compound                    | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-----------------------------|-------|-------|------|-------|----------|------|--------|
| 27 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102   | -0.02    | 1.44 | 2.44   |
| 28 L8 Toxaphene{A}          | 0.016 | 0.017 | -6.3 | 107   | -0.01    | 5.55 | 5.75   |
| 29 L8 Toxaphene{B}          | 0.041 | 0.044 | -7.3 | 108   | -0.01    | 6.17 | 6.37   |
| 30 L8 Toxaphene{C}          | 0.033 | 0.035 | -6.1 | 107   | 0.00     | 6.35 | 6.55   |
| 31 L8 Toxaphene{D}          | 0.026 | 0.026 | 0.0  | 103   | -0.01    | 6.69 | 6.89   |
| 32 L8 Toxaphene{E}          | 0.027 | 0.029 | -7.4 | 110   | -0.01    | 7.33 | 7.53   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                             |       |       |       |     |       |      |      |
|-----------------------------|-------|-------|-------|-----|-------|------|------|
| 27 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 101 | 0.00  | 1.65 | 2.65 |
| 28 L8 Toxaphene{A}          | 0.019 | 0.021 | -10.5 | 108 | 0.00  | 6.64 | 6.84 |
| 29 L8 Toxaphene{B}          | 0.025 | 0.026 | -4.0  | 102 | -0.01 | 7.48 | 7.68 |
| 30 L8 Toxaphene{C}          | 0.047 | 0.046 | 2.1   | 98  | -0.01 | 7.64 | 7.84 |
| 31 L8 Toxaphene{D}          | 0.026 | 0.027 | -3.8  | 104 | -0.01 | 8.08 | 8.28 |
| 32 L8 Toxaphene{E}          | 0.023 | 0.024 | -4.3  | 101 | -0.02 | 8.97 | 9.17 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 6g55785.d 6PST1671.M Mon Apr 30 17:38:59 2018

12.11.31 12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55793.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD1A.CH Vial: 16  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55793.d\ECD2B.CH  
Acq On : 30-Apr-18, 15:16:44 Operator: dharas  
Sample : icv1671-50 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-----|------------------------|-------|-------|-------|-------|----------|------|--------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | -0.02    | 1.44 | 2.44   |
| 10  | alachlor               | 0.140 | 0.155 | -10.7 | 109   | -0.01    | 4.22 | 4.28   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                        |       |       |      |     |       |      |      |
|-----|------------------------|-------|-------|------|-----|-------|------|------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.01 | 1.65 | 2.65 |
| 10  | alachlor               | 0.138 | 0.150 | -8.7 | 109 | 0.00  | 4.75 | 4.81 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6g55785.d    6PST1671.M                      Mon Apr 30 17:39:01 2018

12.11.32  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1671-ICV1671  
**Lab FileID:** 6G55794.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD1A.CH Vial: 17  
Signal #2 : C:\msdchem\1\data\G6G1671\6g55794.d\ECD2B.CH  
Acq On : 30-Apr-18, 15:34:38 Operator: dharas  
Sample : icv1671-50 Inst : GC6G  
Misc : OP11619,g6g1671,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|     | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-----|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 103   | -0.02    | 1.44 | 2.44   |
| 3   | hexachlorobenzene      | 1.085 | 1.076 | 0.8  | 102   | -0.01    | 2.83 | 2.89   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                        |       |       |     |     |       |      |      |
|-----|------------------------|-------|-------|-----|-----|-------|------|------|
| 1 I | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0 | 100 | -0.01 | 1.65 | 2.65 |
| 3   | hexachlorobenzene      | 1.168 | 1.139 | 2.5 | 99  | 0.00  | 3.38 | 3.44 |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
6g55785.d    6PST1671.M                      Mon Apr 30 17:39:03 2018

12.11.33  
12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1675-CC1671  
 Lab FileID: 6G55889.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1675\6g55889.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1675\6g55889.d\ECD2B.CH  
 Acq On : 02-May-18, 09:02:41 Operator: rebeccak  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11646,g6g1675,1000,,,1,5 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 94    | 0.00     | 1.45- | 2.45   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.924 | 4.9  | 93    | 0.00     | 2.51- | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.044 | 3.8  | 94    | 0.00     | 2.83- | 2.89   |
| 4 A   | alpha-BHC              | 1.338 | 1.254 | 6.3  | 88    | 0.00     | 2.97- | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.092 | 13.8 | 83    | 0.00     | 3.26- | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.082 | 9.6  | 87    | 0.00     | 3.75- | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.484 | 14.6 | 84    | 0.00     | 3.34- | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 0.947 | 15.2 | 79    | 0.00     | 3.52- | 3.58   |
| 9 MB  | Aldrin                 | 1.164 | 1.070 | 8.1  | 87    | 0.00     | 4.08- | 4.14   |
| 10    | alachlor               | 0.140 | 0.132 | 5.7  | 89    | 0.00     | 4.22- | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.917 | 14.8 | 81    | 0.00     | 4.79- | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.925 | 12.7 | 83    | 0.00     | 4.95- | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.941 | 13.3 | 85    | 0.00     | 5.12- | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.905 | 10.6 | 87    | 0.00     | 5.30- | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.952 | 7.8  | 89    | 0.00     | 5.23- | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 0.989 | 9.8  | 86    | 0.00     | 5.62- | 5.68   |
| 17 MA | Endrin                 | 0.992 | 0.928 | 6.5  | 90    | 0.00     | 5.94- | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.793 | 7.4  | 89    | 0.00     | 6.06- | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.892 | 15.2 | 87    | 0.00     | 6.26- | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.721 | 12.2 | 84    | 0.00     | 6.48- | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.719 | 13.7 | 85    | 0.00     | 6.88- | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.740 | 10.3 | 88    | 0.00     | 7.56- | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.430 | 12.2 | 86    | 0.00     | 7.26- | 7.32   |
| 24    | Mirex                  | 0.833 | 0.698 | 16.2 | 85    | 0.00     | 7.41- | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.872 | 11.1 | 86    | 0.00     | 8.00- | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.829 | 16.3 | 85    | 0.00     | 9.81- | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |      |       |      |
|-------|------------------------|-------|-------|------|----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 92 | 0.00 | 1.65- | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.907 | 2.6  | 92 | 0.00 | 2.91- | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.135 | 2.8  | 94 | 0.00 | 3.39- | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.163 | 6.1  | 87 | 0.00 | 3.54- | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.079 | 7.1  | 87 | 0.00 | 3.95- | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.057 | 10.6 | 85 | 0.00 | 4.50- | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.484 | 9.4  | 87 | 0.00 | 4.03- | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 0.917 | 15.0 | 81 | 0.00 | 4.41- | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 0.896 | 13.9 | 81 | 0.00 | 4.94- | 5.00 |

12.11.34 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1675-CC1671  
**Lab FileID:** 6G55889.D

|       |                    |       |       |      |    |      |             |
|-------|--------------------|-------|-------|------|----|------|-------------|
| 10    | alachlor           | 0.138 | 0.125 | 9.4  | 86 | 0.00 | 4.76- 4.82  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.864 | 14.1 | 82 | 0.00 | 5.74- 5.80  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.872 | 11.6 | 83 | 0.00 | 6.02- 6.08  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.852 | 11.2 | 81 | 0.00 | 6.24- 6.30  |
| 14 A  | Endosulfan I       | 0.917 | 0.807 | 12.0 | 85 | 0.00 | 6.33- 6.39  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.844 | 9.4  | 85 | 0.00 | 6.50- 6.56  |
| 16 MA | Dieldrin           | 0.984 | 0.869 | 11.7 | 84 | 0.00 | 6.76- 6.82  |
| 17 MA | Endrin             | 0.966 | 0.855 | 11.5 | 87 | 0.00 | 7.25- 7.31  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.704 | 12.3 | 85 | 0.00 | 7.44- 7.50  |
| 19 B  | Endosulfan II      | 0.978 | 0.806 | 17.6 | 84 | 0.00 | 7.60- 7.66  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.678 | 12.5 | 82 | 0.00 | 7.97- 8.03  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.651 | 12.4 | 85 | 0.00 | 8.16- 8.22  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.664 | 10.8 | 86 | 0.00 | 8.63- 8.69  |
| 23 A  | Methoxychlor       | 0.440 | 0.455 | -3.4 | 96 | 0.00 | 9.20- 9.26  |
| 24    | Mirex              | 0.746 | 0.665 | 10.9 | 86 | 0.00 | 9.51- 9.57  |
| 25 B  | Endrin Ketone      | 0.985 | 0.884 | 10.3 | 93 | 0.00 | 9.58- 9.64  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.783 | 15.7 | 84 | 0.00 | 11.72-11.78 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Wed May 02 13:14:56 2018

12:11:34  
12



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55907.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1676\6g55907.d\ECD1A.CH Vial: 4  
 Signal #2 : C:\msdchem\1\data\G6G1676\6g55907.d\ECD2B.CH  
 Acq On : 03-May-18, 01:19:26 Operator: christp  
 Sample : cc1671-50 Inst : GC6G  
 Misc : OP11683,g6g1676,320,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 101   | 0.00     | 1.46 | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.913 | 6.1  | 95    | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.021 | 5.9  | 95    | 0.00     | 2.84 | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.300 | 2.8  | 90    | 0.00     | 2.98 | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.180 | 6.9  | 90    | 0.00     | 3.27 | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.123 | 6.2  | 91    | 0.00     | 3.76 | 3.82   |
| 7 B   | beta-BHC               | 0.567 | 0.495 | 12.7 | 89    | 0.00     | 3.34 | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 1.002 | 10.3 | 82    | 0.00     | 3.53 | 3.59   |
| 9 MB  | Aldrin                 | 1.164 | 1.072 | 7.9  | 87    | 0.00     | 4.09 | 4.15   |
| 10    | alachlor               | 0.140 | 0.121 | 13.6 | 86    | 0.00     | 4.23 | 4.29   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.991 | 7.9  | 89    | 0.00     | 4.80 | 4.86   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.007 | 5.0  | 90    | 0.00     | 4.96 | 5.02   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.995 | 8.3  | 91    | 0.00     | 5.13 | 5.19   |
| 14 A  | Endosulfan I           | 1.012 | 0.942 | 6.9  | 91    | 0.00     | 5.31 | 5.37   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.019 | 1.4  | 94    | 0.00     | 5.24 | 5.30   |
| 16 MA | Dieldrin               | 1.096 | 1.051 | 4.1  | 91    | 0.00     | 5.63 | 5.69   |
| 17 MA | Endrin                 | 0.992 | 0.970 | 2.2  | 95    | 0.00     | 5.95 | 6.01   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.832 | 2.8  | 93    | 0.00     | 6.07 | 6.13   |
| 19 B  | Endosulfan II          | 1.052 | 0.916 | 12.9 | 91    | 0.00     | 6.27 | 6.33   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.770 | 6.2  | 89    | 0.00     | 6.49 | 6.55   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.726 | 12.8 | 88    | 0.00     | 6.89 | 6.95   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.696 | 15.6 | 84    | 0.00     | 7.57 | 7.63   |
| 23 A  | Methoxychlor           | 0.490 | 0.429 | 12.4 | 90    | 0.00     | 7.27 | 7.33   |
| 24    | Mirex                  | 0.833 | 0.694 | 16.7 | 89    | 0.00     | 7.42 | 7.48   |
| 25 B  | Endrin Ketone          | 0.981 | 0.920 | 6.2  | 92    | 0.00     | 8.01 | 8.07   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.820 | 17.3 | 90    | 0.00     | 9.82 | 9.88   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |      |      |      |
|-------|------------------------|-------|-------|------|----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 97 | 0.00 | 1.66 | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.912 | 2.0  | 93 | 0.00 | 2.91 | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.145 | 2.0  | 97 | 0.00 | 3.39 | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.256 | -1.4 | 89 | 0.00 | 3.54 | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.151 | 0.9  | 90 | 0.00 | 3.95 | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.145 | 3.1  | 91 | 0.00 | 4.51 | 4.57 |
| 7 B   | beta-BHC               | 0.534 | 0.491 | 8.1  | 90 | 0.00 | 4.03 | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 0.963 | 10.8 | 80 | 0.00 | 4.41 | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 1.017 | 2.3  | 89 | 0.00 | 4.94 | 5.00 |

12.11.35 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55907.D

|       |                    |       |       |      |     |      |             |
|-------|--------------------|-------|-------|------|-----|------|-------------|
| 10    | alachlor           | 0.138 | 0.119 | 13.8 | 85  | 0.00 | 4.76- 4.82  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.965 | 4.1  | 90  | 0.00 | 5.74- 5.80  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.968 | 1.8  | 91  | 0.00 | 6.02- 6.08  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.928 | 3.3  | 89  | 0.00 | 6.24- 6.30  |
| 14 A  | Endosulfan I       | 0.917 | 0.887 | 3.3  | 92  | 0.00 | 6.33- 6.39  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.959 | -2.9 | 93  | 0.00 | 6.50- 6.56  |
| 16 MA | Dieldrin           | 0.984 | 0.975 | 0.9  | 91  | 0.00 | 6.76- 6.82  |
| 17 MA | Endrin             | 0.966 | 0.934 | 3.3  | 93  | 0.00 | 7.25- 7.31  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.778 | 3.1  | 92  | 0.00 | 7.44- 7.50  |
| 19 B  | Endosulfan II      | 0.978 | 0.846 | 13.5 | 89  | 0.00 | 7.60- 7.66  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.756 | 2.5  | 89  | 0.00 | 7.97- 8.03  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.683 | 8.1  | 90  | 0.00 | 8.17- 8.23  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.663 | 10.9 | 86  | 0.00 | 8.63- 8.69  |
| 23 A  | Methoxychlor       | 0.440 | 0.441 | -0.2 | 95  | 0.00 | 9.21- 9.27  |
| 24    | Mirex              | 0.746 | 0.769 | -3.1 | 105 | 0.00 | 9.52- 9.58  |
| 25 B  | Endrin Ketone      | 0.985 | 0.905 | 8.1  | 96  | 0.00 | 9.58- 9.64  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.976 | -5.1 | 108 | 0.01 | 11.72-11.78 |

(#) = Out of Range  
6g55785.d 6PST1671.M

SPCC's out =0 CCC's out = 0  
Thu May 03 13:09:37 2018

12.11.35  
12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1676-CC1671  
 Lab FileID: 6G55928.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1676\6g55928.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1676\6g55928.d\ECD2B.CH  
 Acq On : 03-May-18, 07:33:59 Operator: christp  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11692,g6g1676,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 106   | 0.00     | 1.46- | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.975 | -0.3 | 110   | 0.00     | 2.51- | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.126 | -3.8 | 114   | 0.00     | 2.84- | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.372 | -2.5 | 108   | 0.00     | 2.98- | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.266 | 0.1  | 108   | 0.00     | 3.27- | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.158 | 3.3  | 104   | 0.00     | 3.75- | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.557 | 1.8  | 109   | 0.00     | 3.34- | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 1.110 | 0.6  | 105   | 0.00     | 3.52- | 3.58   |
| 9 MB  | Aldrin                 | 1.164 | 1.200 | -3.1 | 110   | 0.00     | 4.08- | 4.14   |
| 10    | alachlor               | 0.140 | 0.146 | -4.3 | 110   | 0.00     | 4.22- | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 1.123 | -4.4 | 112   | 0.00     | 4.79- | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.136 | -7.2 | 114   | 0.00     | 4.95- | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 1.112 | -2.5 | 113   | 0.00     | 5.12- | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 1.041 | -2.9 | 113   | 0.00     | 5.30- | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.079 | -4.5 | 113   | 0.00     | 5.23- | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.147 | -4.7 | 112   | 0.00     | 5.62- | 5.68   |
| 17 MA | Endrin                 | 0.992 | 0.978 | 1.4  | 107   | 0.00     | 5.94- | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.893 | -4.3 | 113   | 0.00     | 6.06- | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 1.013 | 3.7  | 111   | 0.00     | 6.26- | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.768 | 6.5  | 101   | 0.00     | 6.48- | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.852 | -2.3 | 113   | 0.00     | 6.88- | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.798 | 3.3  | 107   | 0.00     | 7.56- | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.444 | 9.4  | 100   | 0.00     | 7.26- | 7.32   |
| 24    | Mirex                  | 0.833 | 0.813 | 2.4  | 111   | 0.00     | 7.41- | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 1.042 | -6.2 | 115   | 0.00     | 8.00- | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.937 | 5.4  | 108   | -0.01    | 9.81- | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |       |      |
|-------|------------------------|-------|-------|------|-----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 104 | 0.00 | 1.66- | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.952 | -2.3 | 109 | 0.00 | 2.91- | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.220 | -4.5 | 113 | 0.00 | 3.39- | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.260 | -1.7 | 105 | 0.00 | 3.54- | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.164 | -0.2 | 105 | 0.00 | 3.95- | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.121 | 5.2  | 101 | 0.00 | 4.50- | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.524 | 1.9  | 106 | 0.00 | 4.03- | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 1.034 | 4.2  | 102 | 0.00 | 4.41- | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 1.056 | -1.4 | 107 | 0.00 | 4.94- | 5.00 |
| 10    | alachlor               | 0.138 | 0.140 | -1.4 | 108 | 0.00 | 4.76- | 4.82 |
| 11 B  | Heptachlor Epoxide     | 1.006 | 1.018 | -1.2 | 108 | 0.00 | 5.74- | 5.80 |
| 12 B  | gamma-Chlordane        | 0.986 | 1.040 | -5.5 | 111 | 0.00 | 6.02- | 6.08 |

12.11.36 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1676-CC1671  
**Lab FileID:** 6G55928.D

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|    |    |                    |       |       |      |     |      |        |       |
|----|----|--------------------|-------|-------|------|-----|------|--------|-------|
| 13 | B  | alpha-Chlordane    | 0.960 | 0.990 | -3.1 | 106 | 0.00 | 6.24-  | 6.30  |
| 14 | A  | Endosulfan I       | 0.917 | 0.915 | 0.2  | 108 | 0.00 | 6.33-  | 6.39  |
| 15 | B  | 4,4'-DDE           | 0.932 | 0.976 | -4.7 | 110 | 0.00 | 6.50-  | 6.56  |
| 16 | MA | Dieldrin           | 0.984 | 1.007 | -2.3 | 109 | 0.00 | 6.76-  | 6.82  |
| 17 | MA | Endrin             | 0.966 | 0.902 | 6.6  | 103 | 0.00 | 7.25-  | 7.31  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.805 | -0.2 | 109 | 0.00 | 7.44-  | 7.50  |
| 19 | B  | Endosulfan II      | 0.978 | 0.920 | 5.9  | 108 | 0.00 | 7.60-  | 7.66  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.710 | 8.4  | 97  | 0.00 | 7.96-  | 8.02  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.748 | -0.7 | 109 | 0.00 | 8.16-  | 8.22  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.714 | 4.0  | 104 | 0.00 | 8.63-  | 8.69  |
| 23 | A  | Methoxychlor       | 0.440 | 0.404 | 8.2  | 96  | 0.00 | 9.20-  | 9.26  |
| 24 |    | Mirex              | 0.746 | 0.741 | 0.7  | 108 | 0.00 | 9.51-  | 9.57  |
| 25 | B  | Endrin Ketone      | 0.985 | 0.943 | 4.3  | 111 | 0.00 | 9.58-  | 9.64  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.907 | 2.4  | 109 | 0.00 | 11.72- | 11.78 |

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(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Thu May 03 22:41:12 2018

# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1681-CC1671  
Lab FileID: 6G56090.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56090.d\ECD1A.CH Vial: 2  
Signal #2 : C:\msdchem\1\data\G6G1681\6g56090.d\ECD2B.CH  
Acq On : 11-May-18, 00:11:20 Operator: christp  
Sample : cc1671-25 Inst : GC6G  
Misc : OP11854,g6g1681,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 90    | 0.00     | 1.46 | 2.46   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.894 | 8.0  | 86    | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 0.992 | 8.6  | 86    | 0.00     | 2.84 | 2.90   |
| 4 A   | alpha-BHC              | 1.338 | 1.178 | 12.0 | 79    | 0.00     | 2.98 | 3.04   |
| 5 MA  | gamma-BHC              | 1.267 | 1.095 | 13.6 | 80    | 0.00     | 3.27 | 3.33   |
| 6 MA  | Heptachlor             | 1.197 | 1.082 | 9.6  | 83    | 0.00     | 3.76 | 3.82   |
| 7 B   | beta-BHC               | 0.567 | 0.495 | 12.7 | 82    | 0.00     | 3.34 | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 0.900 | 19.4 | 72    | 0.00     | 3.53 | 3.59   |
| 9 MB  | Aldrin                 | 1.164 | 1.060 | 8.9  | 83    | 0.00     | 4.09 | 4.15   |
| 10    | alachlor               | 0.140 | 0.127 | 9.3  | 82    | 0.00     | 4.23 | 4.29   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.935 | 13.1 | 80    | 0.00     | 4.79 | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.939 | 11.4 | 81    | 0.00     | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.949 | 12.5 | 83    | 0.00     | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.908 | 10.3 | 84    | 0.00     | 5.30 | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.958 | 7.3  | 86    | 0.00     | 5.24 | 5.30   |
| 16 MA | Dieldrin               | 1.096 | 1.004 | 8.4  | 84    | 0.00     | 5.62 | 5.68   |
| 17 MA | Endrin                 | 0.992 | 0.937 | 5.5  | 88    | 0.00     | 5.94 | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.778 | 9.1  | 84    | 0.00     | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.884 | 16.0 | 83    | 0.00     | 6.26 | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.730 | 11.1 | 82    | 0.00     | 6.48 | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.720 | 13.6 | 82    | 0.00     | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.693 | 16.0 | 79    | 0.00     | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.427 | 12.9 | 82    | 0.00     | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.707 | 15.1 | 83    | 0.00     | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.847 | 13.7 | 80    | 0.00     | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.842 | 15.0 | 83    | 0.00     | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 105 | 0.00 | 1.66 | 2.66 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.872 | 6.3  | 101 | 0.00 | 2.91 | 2.97 |
| 3     | hexachlorobenzene      | 1.168 | 1.115 | 4.5  | 104 | 0.00 | 3.39 | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.137 | 8.2  | 96  | 0.00 | 3.54 | 3.60 |
| 5 MA  | gamma-BHC              | 1.162 | 1.053 | 9.4  | 96  | 0.00 | 3.95 | 4.01 |
| 6 MA  | Heptachlor             | 1.182 | 1.078 | 8.8  | 98  | 0.00 | 4.50 | 4.56 |
| 7 B   | beta-BHC               | 0.534 | 0.485 | 9.2  | 99  | 0.00 | 4.03 | 4.09 |
| 8 B   | delta-BHC              | 1.079 | 0.874 | 19.0 | 87  | 0.00 | 4.41 | 4.47 |
| 9 MB  | Aldrin                 | 1.041 | 0.938 | 9.9  | 96  | 0.00 | 4.93 | 4.99 |
| 10    | alachlor               | 0.138 | 0.124 | 10.1 | 97  | 0.00 | 4.75 | 4.81 |

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56090.D

|    |    |                    |       |       |      |     |      |             |
|----|----|--------------------|-------|-------|------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 1.006 | 0.895 | 11.0 | 96  | 0.00 | 5.73- 5.79  |
| 12 | B  | gamma-Chlordane    | 0.986 | 0.959 | 2.7  | 103 | 0.00 | 6.01- 6.07  |
| 13 | B  | alpha-Chlordane    | 0.960 | 0.855 | 10.9 | 92  | 0.00 | 6.23- 6.29  |
| 14 | A  | Endosulfan I       | 0.917 | 0.828 | 9.7  | 98  | 0.00 | 6.32- 6.38  |
| 15 | B  | 4,4'-DDE           | 0.932 | 0.883 | 5.3  | 100 | 0.00 | 6.50- 6.56  |
| 16 | MA | Dieldrin           | 0.984 | 0.898 | 8.7  | 98  | 0.00 | 6.75- 6.81  |
| 17 | MA | Endrin             | 0.966 | 0.872 | 9.7  | 101 | 0.00 | 7.24- 7.30  |
| 18 | A  | 4,4'-DDD           | 0.803 | 0.721 | 10.2 | 99  | 0.00 | 7.43- 7.49  |
| 19 | B  | Endosulfan II      | 0.978 | 0.825 | 15.6 | 98  | 0.00 | 7.59- 7.65  |
| 20 | MA | 4,4'-DDT           | 0.775 | 0.687 | 11.4 | 95  | 0.00 | 7.96- 8.02  |
| 21 | B  | Endrin Aldehyde    | 0.743 | 0.650 | 12.5 | 96  | 0.00 | 8.16- 8.22  |
| 22 | B  | Endosulfan Sulfate | 0.744 | 0.630 | 15.3 | 92  | 0.00 | 8.62- 8.68  |
| 23 | A  | Methoxychlor       | 0.440 | 0.412 | 6.4  | 99  | 0.00 | 9.20- 9.26  |
| 24 |    | Mirex              | 0.746 | 0.643 | 13.8 | 95  | 0.00 | 9.50- 9.56  |
| 25 | B  | Endrin Ketone      | 0.985 | 0.822 | 16.5 | 98  | 0.00 | 9.57- 9.63  |
| 26 | SA | Decachlorobiphenyl | 0.929 | 0.795 | 14.4 | 96  | 0.00 | 11.71-11.77 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Fri May 11 09:34:21 2018

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1681-CC1671  
 Lab FileID: 6G56119.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56119.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1681\6g56119.d\ECD2B.CH  
 Acq On : 11-May-18, 10:12:23 Operator: minam  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Wed May 16 07:59:07 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|-------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 91    | 0.00     | 1.44 | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.918 | 5.6   | 89    | 0.00     | 2.50 | 2.56   |
| 3     | hexachlorobenzene      | 1.085 | 1.019 | 6.1   | 89    | 0.00     | 2.83 | 2.89   |
| 4 A   | alpha-BHC              | 1.338 | 1.184 | 11.5  | 80    | 0.00     | 2.97 | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.027 | 18.9  | 75    | 0.00     | 3.26 | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.020 | 14.8  | 79    | 0.00     | 3.75 | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.465 | 18.0  | 78    | 0.00     | 3.33 | 3.39   |
| 8 B   | delta-BHC              | 1.117 | 0.870 | 22.1# | 70    | 0.00     | 3.51 | 3.57   |
| 9 MB  | Aldrin                 | 1.164 | 1.001 | 14.0  | 79    | 0.00     | 4.08 | 4.14   |
| 10    | alachlor               | 0.140 | 0.136 | 2.9   | 88    | 0.00     | 4.22 | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.871 | 19.1  | 75    | 0.00     | 4.78 | 4.84   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.869 | 18.0  | 75    | 0.00     | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.888 | 18.2  | 77    | 0.00     | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.843 | 16.7  | 78    | 0.00     | 5.29 | 5.35   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.862 | 16.6  | 78    | 0.00     | 5.23 | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 0.930 | 15.1  | 78    | 0.00     | 5.61 | 5.67   |
| 17 MA | Endrin                 | 0.992 | 0.875 | 11.8  | 82    | 0.00     | 5.93 | 5.99   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.746 | 12.9  | 81    | 0.00     | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.845 | 19.7  | 80    | 0.00     | 6.25 | 6.31   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.618 | 24.7# | 70    | 0.00     | 6.47 | 6.53   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.694 | 16.7  | 79    | 0.00     | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.695 | 15.8  | 80    | 0.00     | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.398 | 18.8  | 77    | 0.00     | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.683 | 18.0  | 80    | 0.00     | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.766 | 21.9# | 73    | 0.00     | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.817 | 17.6  | 81    | 0.00     | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 107 | 0.00 | 1.65 | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.888 | 4.6  | 105 | 0.00 | 2.90 | 2.96 |
| 3     | hexachlorobenzene      | 1.168 | 1.135 | 2.8  | 109 | 0.00 | 3.38 | 3.44 |
| 4 A   | alpha-BHC              | 1.239 | 1.127 | 9.0  | 97  | 0.00 | 3.53 | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.040 | 10.5 | 97  | 0.00 | 3.94 | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.054 | 10.8 | 98  | 0.00 | 4.49 | 4.55 |
| 7 B   | beta-BHC               | 0.534 | 0.480 | 10.1 | 100 | 0.00 | 4.02 | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 0.890 | 17.5 | 91  | 0.00 | 4.40 | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 0.895 | 14.0 | 94  | 0.00 | 4.93 | 4.99 |

12.11.38 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56119.D

|       |                    |       |       |       |     |       |        |       |
|-------|--------------------|-------|-------|-------|-----|-------|--------|-------|
| 10    | alachlor           | 0.138 | 0.126 | 8.7   | 100 | 0.00  | 4.75-  | 4.81  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.831 | 17.4  | 91  | 0.00  | 5.73-  | 5.79  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.851 | 13.7  | 94  | 0.00  | 6.01-  | 6.07  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.896 | 6.7   | 99  | 0.00  | 6.23-  | 6.29  |
| 14 A  | Endosulfan I       | 0.917 | 0.774 | 15.6  | 94  | 0.00  | 6.32-  | 6.38  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.808 | 13.3  | 94  | -0.01 | 6.49-  | 6.55  |
| 16 MA | Dieldrin           | 0.984 | 0.840 | 14.6  | 94  | 0.00  | 6.75-  | 6.81  |
| 17 MA | Endrin             | 0.966 | 0.815 | 15.6  | 96  | 0.00  | 7.24-  | 7.30  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.680 | 15.3  | 95  | 0.00  | 7.43-  | 7.49  |
| 19 B  | Endosulfan II      | 0.978 | 0.784 | 19.8  | 95  | 0.00  | 7.59-  | 7.65  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.576 | 25.7# | 81  | 0.00  | 7.96-  | 8.02  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.616 | 17.1  | 93  | 0.00  | 8.15-  | 8.21  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.628 | 15.6  | 94  | 0.00  | 8.62-  | 8.68  |
| 23 A  | Methoxychlor       | 0.440 | 0.356 | 19.1  | 87  | 0.00  | 9.19-  | 9.25  |
| 24    | Mirex              | 0.746 | 0.623 | 16.5  | 94  | -0.01 | 9.50-  | 9.56  |
| 25 B  | Endrin Ketone      | 0.985 | 0.687 | 30.3# | 84  | 0.00  | 9.57-  | 9.63  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.754 | 18.8  | 93  | -0.01 | 11.71- | 11.77 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Wed May 16 14:24:15 2018

12.11.38  
12



# Continuing Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G6G1681-CC1671  
Lab FileID: 6G56121.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56121.d\ECD1A.CH Vial: 5  
Signal #2 : C:\msdchem\1\data\G6G1681\6g56121.d\ECD2B.CH  
Acq On : 11-May-18, 12:00:13 Operator: minam  
Sample : cc1671-500 Inst : GC6G  
Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Mon Apr 30 17:34:19 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 70    | -0.01    | 1.45  | 2.45   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.909 | 6.5  | 65    | 0.00     | 2.51  | 2.57   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.942 | 4.9  | 71    | 0.00     | 9.82  | 9.88   |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 69    | 0.00     | 1.45  | 2.45   |
| 34    | Chlordane {A}          | 0.054 | 0.051 | 5.6  | 65    | 0.00     | 3.69  | 3.89   |
| 35    | Chlordane {B}          | 0.045 | 0.042 | 6.7  | 64    | 0.00     | 4.16  | 4.36   |
| 36    | Chlordane {C}          | 0.145 | 0.137 | 5.5  | 65    | 0.00     | 4.89  | 5.09   |
| 37    | Chlordane {D}          | 0.228 | 0.220 | 3.5  | 67    | 0.00     | 5.05  | 5.25   |
| 38    | Chlordane {E}          | 0.026 | 0.024 | 7.7  | 64    | 0.00     | 5.94  | 6.14   |
| ***** | Signal #2              | ***** |       |      |       |          |       |        |
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.65  | 2.65   |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.883 | 5.2  | 78    | 0.00     | 2.90  | 2.96   |
| 26 SA | Decachlorobiphenyl     | 0.929 | 0.923 | 0.6  | 88    | 0.00     | 11.71 | 11.77  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.65  | 2.65   |
| 34    | Chlordane {A}          | 0.054 | 0.050 | 7.4  | 77    | 0.00     | 4.43  | 4.63   |
| 35    | Chlordane {B}          | 0.040 | 0.035 | 12.5 | 74    | 0.00     | 5.05  | 5.25   |
| 36    | Chlordane {C}          | 0.126 | 0.124 | 1.6  | 82    | 0.00     | 5.94  | 6.14   |
| 37    | Chlordane {D}          | 0.206 | 0.198 | 3.9  | 80    | 0.00     | 6.16  | 6.36   |
| 38    | Chlordane {E}          | 0.021 | 0.019 | 9.5  | 73    | 0.00     | 7.30  | 7.50   |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
6g55785.d 6PST1671.M Mon May 14 10:14:52 2018

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1681-CC1671  
**Lab FileID:** 6G56122.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1681\6g56122.d\ECD1A.CH Vial: 6  
 Signal #2 : C:\msdchem\1\data\G6G1681\6g56122.d\ECD2B.CH  
 Acq On : 11-May-18, 12:18:02 Operator: minam  
 Sample : cc1671-500 Inst : GC6G  
 Misc : OP11917,g6g1681,16.4,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.02    | 1.44- | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.940 | 3.3  | 81    | -0.01    | 2.50- | 2.56   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.854 | 13.8 | 77    | -0.01    | 9.81- | 9.87   |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 83    | -0.01    | 1.44- | 2.44   |
| 28 L8 | Toxaphene{A}           | 0.016 | 0.016 | 0.0  | 83    | 0.00     | 5.55- | 5.75   |
| 29 L8 | Toxaphene{B}           | 0.041 | 0.040 | 2.4  | 81    | -0.01    | 6.17- | 6.37   |
| 30 L8 | Toxaphene{C}           | 0.033 | 0.028 | 15.2 | 70    | -0.01    | 6.35- | 6.55   |
| 31 L8 | Toxaphene{D}           | 0.026 | 0.024 | 7.7  | 76    | 0.00     | 6.69- | 6.89   |
| 32 L8 | Toxaphene{E}           | 0.027 | 0.025 | 7.4  | 78    | 0.00     | 7.34- | 7.54   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |       |        |       |
|-------|------------------------|-------|-------|------|-----|-------|--------|-------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.02 | 1.64-  | 2.64  |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.932 | -0.1 | 96  | 0.00  | 2.90-  | 2.96  |
| 26 SA | Decachlorobiphenyl     | 0.929 | 0.825 | 11.2 | 92  | 0.00  | 11.71- | 11.77 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99  | -0.01 | 1.64-  | 2.64  |
| 28 L8 | Toxaphene{A}           | 0.019 | 0.020 | -5.3 | 101 | 0.00  | 6.65-  | 6.85  |
| 29 L8 | Toxaphene{B}           | 0.025 | 0.022 | 12.0 | 88  | 0.00  | 7.49-  | 7.69  |
| 30 L8 | Toxaphene{C}           | 0.047 | 0.039 | 17.0 | 82  | 0.00  | 7.65-  | 7.85  |
| 31 L8 | Toxaphene{D}           | 0.026 | 0.025 | 3.8  | 96  | 0.00  | 8.09-  | 8.29  |
| 32 L8 | Toxaphene{E}           | 0.023 | 0.023 | 0.0  | 96  | 0.00  | 8.98-  | 9.18  |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98  | -0.01 | 1.64-  | 2.64  |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 6g55785.d 6PST1671.M Mon May 14 11:15:23 2018

12.11.40 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1682-CC1671  
**Lab FileID:** 6G56183.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1682\6g56183.d\ECD1A.CH Vial: 2  
 Signal #2 : C:\msdchem\1\data\G6G1682\6g56183.d\ECD2B.CH  
 Acq On : 14-May-18, 13:21:14 Operator: minam  
 Sample : cc1671-25 Inst : GC6G  
 Misc : OP11949,g6g1682,15.7,,,10,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Mon Apr 30 17:34:19 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 91    | -0.01    | 1.45 | 2.45   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.906 | 6.8  | 88    | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.035 | 4.6  | 90    | 0.00     | 2.83 | 2.89   |
| 4 A   | alpha-BHC              | 1.338 | 1.257 | 6.1  | 85    | 0.00     | 2.97 | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.153 | 9.0  | 85    | 0.00     | 3.26 | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.122 | 6.3  | 87    | -0.01    | 3.75 | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.502 | 11.5 | 84    | 0.00     | 3.33 | 3.39   |
| 8 B   | delta-BHC              | 1.117 | 1.054 | 5.6  | 85    | 0.00     | 3.52 | 3.58   |
| 9 MB  | Aldrin                 | 1.164 | 1.082 | 7.0  | 85    | -0.01    | 4.08 | 4.14   |
| 10    | alachlor               | 0.140 | 0.137 | 2.1  | 89    | -0.01    | 4.22 | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.964 | 10.4 | 83    | -0.01    | 4.78 | 4.84   |
| 12 B  | gamma-Chlordane        | 1.060 | 0.961 | 9.3  | 83    | -0.01    | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 0.969 | 10.7 | 85    | -0.01    | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.921 | 9.0  | 86    | -0.01    | 5.29 | 5.35   |
| 15 B  | 4,4'-DDE               | 1.033 | 0.944 | 8.6  | 85    | -0.01    | 5.23 | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.017 | 7.2  | 86    | -0.01    | 5.61 | 5.67   |
| 17 MA | Endrin                 | 0.992 | 0.943 | 4.9  | 89    | -0.01    | 5.93 | 5.99   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.782 | 8.6  | 85    | -0.01    | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.906 | 13.9 | 85    | -0.01    | 6.25 | 6.31   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.786 | 4.3  | 89    | -0.01    | 6.47 | 6.53   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.753 | 9.6  | 86    | -0.02    | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.761 | 7.8  | 87    | -0.02    | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.460 | 6.1  | 89    | -0.01    | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.730 | 12.4 | 86    | -0.01    | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.927 | 5.5  | 88    | -0.01    | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.863 | 12.9 | 86    | -0.01    | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |     |     |      |      |      |
|-------|------------------------|-------|-------|-----|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 | 1.65 | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.901 | 3.2 | 99  | 0.00 | 2.90 | 2.96 |
| 3     | hexachlorobenzene      | 1.168 | 1.154 | 1.2 | 103 | 0.00 | 3.39 | 3.45 |
| 4 A   | alpha-BHC              | 1.239 | 1.186 | 4.3 | 95  | 0.00 | 3.53 | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.099 | 5.4 | 95  | 0.00 | 3.94 | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.119 | 5.3 | 97  | 0.00 | 4.49 | 4.55 |
| 7 B   | beta-BHC               | 0.534 | 0.490 | 8.2 | 95  | 0.00 | 4.02 | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 1.022 | 5.3 | 97  | 0.00 | 4.40 | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 0.986 | 5.3 | 96  | 0.00 | 4.93 | 4.99 |

12.11.41 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1682-CC1671  
**Lab FileID:** 6G56183.D

|       |                    |       |       |      |    |       |             |
|-------|--------------------|-------|-------|------|----|-------|-------------|
| 10    | alachlor           | 0.138 | 0.133 | 3.6  | 98 | 0.00  | 4.75- 4.81  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.943 | 6.3  | 96 | 0.00  | 5.73- 5.79  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.947 | 4.0  | 97 | 0.00  | 6.01- 6.07  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.902 | 6.0  | 93 | 0.00  | 6.23- 6.29  |
| 14 A  | Endosulfan I       | 0.917 | 0.845 | 7.9  | 95 | 0.00  | 6.32- 6.38  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.891 | 4.4  | 96 | 0.00  | 6.49- 6.55  |
| 16 MA | Dieldrin           | 0.984 | 0.924 | 6.1  | 96 | 0.00  | 6.75- 6.81  |
| 17 MA | Endrin             | 0.966 | 0.893 | 7.6  | 98 | -0.01 | 7.24- 7.30  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.736 | 8.3  | 96 | 0.00  | 7.42- 7.48  |
| 19 B  | Endosulfan II      | 0.978 | 0.851 | 13.0 | 96 | 0.00  | 7.58- 7.64  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.751 | 3.1  | 98 | 0.00  | 7.95- 8.01  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.678 | 8.7  | 95 | 0.00  | 8.15- 8.21  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.700 | 5.9  | 98 | 0.00  | 8.62- 8.68  |
| 23 A  | Methoxychlor       | 0.440 | 0.429 | 2.5  | 98 | 0.00  | 9.19- 9.25  |
| 24    | Mirex              | 0.746 | 0.694 | 7.0  | 97 | -0.01 | 9.50- 9.56  |
| 25 B  | Endrin Ketone      | 0.985 | 0.855 | 13.2 | 97 | 0.00  | 9.56- 9.62  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.826 | 11.1 | 95 | 0.00  | 11.71-11.77 |

(#) = Out of Range  
6g55784.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Mon May 14 15:14:05 2018

12.11.41  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1682-CC1671  
**Lab FileID:** 6G56197.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1682\6g56197.d\ECD1A.CH Vial: 4  
 Signal #2 : C:\msdchem\1\data\G6G1682\6g56197.d\ECD2B.CH  
 Acq On : 14-May-18, 23:40:52 Operator: christp  
 Sample : cc1671-50 Inst : GC6G  
 Misc : OP11859,g6g1682,300,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\msdchem\1\methods\6PST1671.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 15 07:24:55 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 150%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT   | Window |
|-------|------------------------|-------|-------|------|-------|----------|------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 85    | 0.00     | 1.45 | 2.45   |
| 2 SAB | Tetrachloro-m-xylene   | 0.972 | 0.924 | 4.9  | 80    | 0.00     | 2.51 | 2.57   |
| 3     | hexachlorobenzene      | 1.085 | 1.045 | 3.7  | 82    | 0.00     | 2.83 | 2.89   |
| 4 A   | alpha-BHC              | 1.338 | 1.321 | 1.3  | 77    | 0.00     | 2.97 | 3.03   |
| 5 MA  | gamma-BHC              | 1.267 | 1.206 | 4.8  | 77    | 0.00     | 3.26 | 3.32   |
| 6 MA  | Heptachlor             | 1.197 | 1.186 | 0.9  | 80    | 0.00     | 3.75 | 3.81   |
| 7 B   | beta-BHC               | 0.567 | 0.504 | 11.1 | 77    | 0.00     | 3.34 | 3.40   |
| 8 B   | delta-BHC              | 1.117 | 1.093 | 2.1  | 75    | 0.00     | 3.52 | 3.58   |
| 9 MB  | Aldrin                 | 1.164 | 1.123 | 3.5  | 77    | 0.00     | 4.08 | 4.14   |
| 10    | alachlor               | 0.140 | 0.132 | 5.7  | 79    | 0.00     | 4.22 | 4.28   |
| 11 B  | Heptachlor Epoxide     | 1.076 | 0.987 | 8.3  | 74    | 0.00     | 4.79 | 4.85   |
| 12 B  | gamma-Chlordane        | 1.060 | 1.003 | 5.4  | 75    | 0.00     | 4.95 | 5.01   |
| 13 B  | alpha-Chlordane        | 1.085 | 1.012 | 6.7  | 78    | 0.00     | 5.12 | 5.18   |
| 14 A  | Endosulfan I           | 1.012 | 0.960 | 5.1  | 78    | 0.00     | 5.30 | 5.36   |
| 15 B  | 4,4'-DDE               | 1.033 | 1.020 | 1.3  | 79    | 0.00     | 5.23 | 5.29   |
| 16 MA | Dieldrin               | 1.096 | 1.089 | 0.6  | 79    | 0.00     | 5.62 | 5.68   |
| 17 MA | Endrin                 | 0.992 | 1.016 | -2.4 | 83    | 0.00     | 5.94 | 6.00   |
| 18 A  | 4,4'-DDD               | 0.856 | 0.864 | -0.9 | 81    | 0.00     | 6.06 | 6.12   |
| 19 B  | Endosulfan II          | 1.052 | 0.961 | 8.7  | 80    | 0.00     | 6.26 | 6.32   |
| 20 MA | 4,4'-DDT               | 0.821 | 0.843 | -2.7 | 82    | 0.00     | 6.48 | 6.54   |
| 21 B  | Endrin Aldehyde        | 0.833 | 0.785 | 5.8  | 80    | 0.00     | 6.88 | 6.94   |
| 22 B  | Endosulfan Sulfate     | 0.825 | 0.789 | 4.4  | 80    | 0.00     | 7.56 | 7.62   |
| 23 A  | Methoxychlor           | 0.490 | 0.462 | 5.7  | 81    | 0.00     | 7.26 | 7.32   |
| 24    | Mirex                  | 0.833 | 0.729 | 12.5 | 79    | 0.00     | 7.41 | 7.47   |
| 25 B  | Endrin Ketone          | 0.981 | 0.942 | 4.0  | 79    | 0.00     | 8.00 | 8.06   |
| 26 SA | Decachlorobiphenyl     | 0.991 | 0.877 | 11.5 | 81    | 0.00     | 9.81 | 9.87   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |       |      |      |
|-------|------------------------|-------|-------|------|----|-------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 97 | 0.00  | 1.65 | 2.65 |
| 2 SAB | Tetrachloro-m-xylene   | 0.931 | 0.914 | 1.8  | 94 | 0.00  | 2.90 | 2.96 |
| 3     | hexachlorobenzene      | 1.168 | 1.171 | -0.3 | 99 | 0.00  | 3.38 | 3.44 |
| 4 A   | alpha-BHC              | 1.239 | 1.266 | -2.2 | 90 | 0.00  | 3.53 | 3.59 |
| 5 MA  | gamma-BHC              | 1.162 | 1.152 | 0.9  | 90 | 0.00  | 3.94 | 4.00 |
| 6 MA  | Heptachlor             | 1.182 | 1.116 | 5.6  | 88 | -0.01 | 4.49 | 4.55 |
| 7 B   | beta-BHC               | 0.534 | 0.488 | 8.6  | 90 | 0.00  | 4.02 | 4.08 |
| 8 B   | delta-BHC              | 1.079 | 1.032 | 4.4  | 86 | 0.00  | 4.40 | 4.46 |
| 9 MB  | Aldrin                 | 1.041 | 0.972 | 6.6  | 86 | -0.01 | 4.93 | 4.99 |

12.11.42 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G6G1682-CC1671  
**Lab FileID:** 6G56197.D

|       |                    |       |       |      |     |       |        |       |
|-------|--------------------|-------|-------|------|-----|-------|--------|-------|
| 10    | alachlor           | 0.138 | 0.122 | 11.6 | 88  | -0.01 | 4.75-  | 4.81  |
| 11 B  | Heptachlor Epoxide | 1.006 | 0.924 | 8.2  | 87  | -0.01 | 5.73-  | 5.79  |
| 12 B  | gamma-Chlordane    | 0.986 | 0.930 | 5.7  | 87  | -0.01 | 6.01-  | 6.07  |
| 13 B  | alpha-Chlordane    | 0.960 | 0.893 | 7.0  | 86  | -0.01 | 6.23-  | 6.29  |
| 14 A  | Endosulfan I       | 0.917 | 0.858 | 6.4  | 89  | -0.01 | 6.32-  | 6.38  |
| 15 B  | 4,4'-DDE           | 0.932 | 0.921 | 1.2  | 89  | -0.01 | 6.49-  | 6.55  |
| 16 MA | Dieldrin           | 0.984 | 0.955 | 2.9  | 90  | -0.01 | 6.74-  | 6.80  |
| 17 MA | Endrin             | 0.966 | 0.929 | 3.8  | 92  | -0.01 | 7.24-  | 7.30  |
| 18 A  | 4,4'-DDD           | 0.803 | 0.773 | 3.7  | 91  | -0.01 | 7.42-  | 7.48  |
| 19 B  | Endosulfan II      | 0.978 | 0.869 | 11.1 | 91  | -0.01 | 7.58-  | 7.64  |
| 20 MA | 4,4'-DDT           | 0.775 | 0.764 | 1.4  | 90  | -0.01 | 7.95-  | 8.01  |
| 21 B  | Endrin Aldehyde    | 0.743 | 0.679 | 8.6  | 90  | -0.02 | 8.15-  | 8.21  |
| 22 B  | Endosulfan Sulfate | 0.744 | 0.703 | 5.5  | 91  | -0.02 | 8.62-  | 8.68  |
| 23 A  | Methoxychlor       | 0.440 | 0.463 | -5.2 | 100 | -0.02 | 9.19-  | 9.25  |
| 24    | Mirex              | 0.746 | 0.675 | 9.5  | 92  | -0.02 | 9.50-  | 9.56  |
| 25 B  | Endrin Ketone      | 0.985 | 0.887 | 9.9  | 94  | -0.01 | 9.57-  | 9.63  |
| 26 SA | Decachlorobiphenyl | 0.929 | 0.829 | 10.8 | 92  | -0.02 | 11.71- | 11.77 |

(#) = Out of Range  
6g55785.d 6PST1671.M

SPCC's out = 0 CCC's out = 0  
Tue May 15 14:19:25 2018

12.11.42  
12

# Initial Calibration Summary

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G8G480-ICC480  
Lab FileID: 8G14666.D

## Response Factor Report GC8G

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Initial Calibration

### Calibration Files

2 =8g14663.d 5 =8g14664.d 10 =8g14665.d 25 =8g14666.d  
50 =8g14667.d 100 =8g14669.d 1 =8g14662.d 75 =8g14668.d

| Compound                                   | 2     | 5     | 10    | 25    | 50    | 100   | 1     | 75    | Avg   | %RSD  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I 1-bromo-2-nitrobenzen -----ISTD-----  |       |       |       |       |       |       |       |       |       |       |
| 2) Tetrachloro-                            | 0.863 | 0.848 | 0.891 | 0.917 | 0.956 | 1.003 | 1.125 | 0.962 | 0.946 | 9.45  |
| 3) hexachlorobe                            | 1.368 | 1.330 | 1.331 | 1.328 | 1.369 | 1.417 | 1.612 | 1.405 | 1.395 | 6.74  |
| 4) alpha-BHC                               | 1.006 | 0.989 | 1.037 | 1.153 | 1.295 | 1.445 | 1.481 | 1.393 | 1.225 | 16.64 |
| 5) gamma-BHC                               | 1.039 | 0.979 | 1.014 | 1.100 | 1.215 | 1.340 | 1.180 | 1.297 | 1.145 | 11.69 |
| 6) Heptachlor                              | 1.026 | 1.020 | 1.029 | 1.100 | 1.189 | 1.291 | 1.249 | 1.254 | 1.145 | 9.96  |
| 7) beta-BHC                                | 0.568 | 0.533 | 0.508 | 0.523 | 0.540 | 0.564 | 0.564 | 0.558 | 0.545 | 4.05  |
| 8) delta-BHC                               | 0.769 | 0.766 | 0.815 | 0.899 | 1.025 | 1.176 | 0.866 | 1.117 | 0.929 | 17.04 |
| 9) Aldrin                                  | 0.923 | 0.900 | 0.920 | 0.998 | 1.100 | 1.211 | 1.058 | 1.170 | 1.035 | 11.50 |
| 10)alachlor                                |       | 0.145 | 0.142 | 0.141 | 0.144 | 0.144 |       | 0.146 | 0.144 | 1.28  |
| 11) Heptachlor E                           | 0.935 | 0.903 | 0.928 | 0.968 | 1.044 | 1.126 | 1.156 | 1.088 | 1.018 | 9.61  |
| 12) gamma-Chlord                           | 0.797 | 0.834 | 0.904 | 0.929 | 1.005 | 1.102 | 0.916 | 1.064 | 0.944 | 11.30 |
| 13) alpha-Chlord                           | 0.877 | 0.861 | 0.882 | 0.942 | 1.007 | 1.090 | 1.045 | 1.057 | 0.970 | 9.36  |
| 14) Endosulfan I                           | 0.772 | 0.781 | 0.827 | 0.875 | 0.944 | 1.024 | 0.900 | 0.994 | 0.890 | 10.56 |
| 15) 4,4'-DDE                               | 0.908 | 0.862 | 0.891 | 0.956 | 1.038 | 1.137 | 1.189 | 1.098 | 1.010 | 12.20 |
| 16) Dieldrin                               | 0.831 | 0.854 | 0.883 | 0.954 | 1.045 | 1.151 | 1.052 | 1.115 | 0.986 | 12.42 |
| 17) Endrin                                 | 0.795 | 0.799 | 0.806 | 0.862 | 0.944 | 1.039 | 0.923 | 1.002 | 0.896 | 10.64 |
| 18) 4,4'-DDD                               | 0.666 | 0.674 | 0.678 | 0.727 | 0.803 | 0.887 | 0.811 | 0.855 | 0.763 | 11.46 |
| 19) Endosulfan I                           | 0.945 | 0.838 | 0.837 | 0.865 | 0.925 | 0.995 | 1.237 | 0.972 | 0.952 | 13.65 |
| 20) 4,4'-DDT                               | 0.599 | 0.630 | 0.660 | 0.721 | 0.795 | 0.893 | 0.647 | 0.855 | 0.725 | 15.24 |
| 21) Endrin Aldeh                           | 0.714 | 0.735 | 0.727 | 0.740 | 0.778 | 0.826 | 0.927 | 0.809 | 0.782 | 9.06  |
| 22) Endosulfan S                           | 0.665 | 0.640 | 0.628 | 0.650 | 0.687 | 0.742 | 0.719 | 0.725 | 0.682 | 6.29  |
| 23) Methoxychlor                           | 0.438 | 0.430 | 0.438 | 0.451 | 0.467 | 0.487 | 0.565 | 0.480 | 0.470 | 9.35  |
| 24) Mirex                                  | 0.767 | 0.760 | 0.787 | 0.765 | 0.778 | 0.800 | 0.953 | 0.795 | 0.801 | 7.91  |
| 25) Endrin Keton                           | 0.808 | 0.810 | 0.791 | 0.825 | 0.877 | 0.946 | 1.054 | 0.921 | 0.879 | 10.29 |
| 26) Decachlorobi                           | 1.101 | 1.007 | 0.993 | 0.956 | 1.016 | 1.068 | 1.297 | 1.043 | 1.060 | 9.97  |
| 27) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 28) Toxaphene {A}                          |       |       |       |       | 0.015 |       |       | 0.015 |       | 0.00  |
| 29) Toxaphene {B}                          |       |       |       |       | 0.038 |       |       | 0.038 |       | 0.00  |
| 30) Toxaphene {C}                          |       |       |       |       | 0.030 |       |       | 0.030 |       | 0.00  |
| 31) Toxaphene {D}                          |       |       |       |       | 0.028 |       |       | 0.028 |       | 0.00  |
| 32) Toxaphene {E}                          |       |       |       |       | 0.025 |       |       | 0.025 |       | 0.00  |
| 33) I 1-bromo-2-nitrobenzen -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 34) Chlordane {A}                          |       |       |       |       | 0.051 |       |       | 0.051 |       | 0.00  |
| 35) Chlordane {B}                          |       |       |       |       | 0.043 |       |       | 0.043 |       | 0.00  |
| 36) Chlordane {C}                          |       |       |       |       | 0.128 |       |       | 0.128 |       | 0.00  |
| 37) Chlordane {D}                          |       |       |       |       | 0.208 |       |       | 0.208 |       | 0.00  |
| 38) Chlordane {E}                          |       |       |       |       | 0.034 |       |       | 0.034 |       | 0.00  |

Signal #2

1) I 1-bromo-2-nitrobenzen -----ISTD-----  
2) Tetrachloro- 0.884 0.814 0.811 0.784 0.779 0.784 0.934 0.760 0.819 7.30

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICC480  
**Lab FileID:** 8G14666.D

|     |                         |                |       |       |       |       |       |       |       |       |       |
|-----|-------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 3)  | hexachlorobe            | 1.093          | 1.075 | 1.070 | 1.008 | 1.005 | 0.999 | 1.313 | 0.998 | 1.070 | 9.86  |
| 4)  | alpha-BHC               | 1.100          | 1.021 | 1.018 | 1.029 | 1.079 | 1.122 | 1.195 | 1.102 | 1.083 | 5.59  |
| 5)  | gamma-BHC               | 1.015          | 0.954 | 0.964 | 0.974 | 1.018 | 1.054 | 1.138 | 1.029 | 1.018 | 5.85  |
| 6)  | Heptachlor              | 1.014          | 1.007 | 0.986 | 0.991 | 1.025 | 1.037 | 1.267 | 1.009 | 1.042 | 8.88  |
| 7)  | beta-BHC                | 0.475          | 0.502 | 0.467 | 0.454 | 0.460 | 0.458 | 0.608 | 0.452 | 0.484 | 10.86 |
| 8)  | delta-BHC               | 0.820          | 0.841 | 0.832 | 0.857 | 0.919 | 0.977 | 0.987 | 0.928 | 0.895 | 7.42  |
| 9)  | Aldrin                  | 0.949          | 0.960 | 0.947 | 0.953 | 1.003 | 1.018 | 1.053 | 0.976 | 0.982 | 3.92  |
| 10) | alachlor                |                | 0.156 | 0.141 | 0.131 | 0.129 | 0.122 |       | 0.121 | 0.133 | 10.07 |
| 11) | Heptachlor E            | 0.870          | 0.832 | 0.819 | 0.765 | 1.098 | 1.134 | 0.900 | 1.042 | 0.933 | 14.97 |
| 12) | gamma-Chlord            | 0.986          | 0.959 | 0.949 | 0.943 | 0.915 | 0.949 | 1.088 | 1.182 | 0.996 | 9.17  |
| 13) | alpha-Chlord            | 1.175          | 1.062 | 0.989 | 0.972 | 0.993 | 1.022 | 1.507 | 0.932 | 1.082 | 17.29 |
| 14) | Endosulfan I            | 0.889          | 0.911 | 0.918 | 0.920 | 0.961 | 0.987 | 0.877 | 0.803 | 0.908 | 6.13  |
| 15) | 4,4'-DDE                | 0.939          | 0.996 | 0.997 | 1.011 | 1.075 | 1.126 | 1.087 | 0.970 | 1.025 | 6.25  |
| 16) | Dieldrin                | 0.955          | 0.987 | 0.895 | 1.044 | 1.134 | 1.191 | 1.033 | 1.099 | 1.042 | 9.35  |
| 17) | Endrin                  | 0.929          | 0.923 | 0.929 | 0.911 | 1.008 | 1.057 | 1.053 | 0.994 | 0.976 | 6.15  |
| 18) | 4,4'-DDD                | 0.824          | 0.799 | 0.819 | 0.808 | 0.891 | 0.939 | 0.883 | 0.897 | 0.858 | 5.99  |
| 19) | Endosulfan I            | 1.068          | 0.975 | 0.951 | 0.921 | 0.981 | 1.018 | 1.174 | 0.974 | 1.008 | 7.96  |
| 20) | 4,4'-DDT                | 0.677          | 0.703 | 0.719 | 0.751 | 0.818 | 0.890 | 0.618 | 0.837 | 0.752 | 12.06 |
| 21) | Endrin Aldeh            | 0.761          | 0.781 | 0.752 | 0.740 | 0.768 | 0.803 | 0.925 | 0.764 | 0.787 | 7.49  |
| 22) | Endosulfan S            | 0.914          | 0.729 | 0.702 | 0.681 | 0.705 | 0.745 | 0.866 | 0.717 | 0.758 | 11.23 |
| 23) | Methoxychlor            | 0.419          | 0.412 | 0.420 | 0.416 | 0.427 | 0.445 | 0.481 | 0.439 | 0.432 | 5.23  |
| 24) | Mirex                   | 0.695          | 0.688 | 0.694 | 0.665 | 0.626 | 0.668 | 0.843 | 0.670 | 0.694 | 9.27  |
| 25) | Endrin Keton            | 0.847          | 0.814 | 0.805 | 0.798 | 0.775 | 0.862 | 0.882 | 0.854 | 0.830 | 4.41  |
| 26) | Decachlorobi            | 0.978          | 0.876 | 0.854 | 0.826 | 0.836 | 0.824 | 1.047 | 0.824 | 0.883 | 9.50  |
| 27) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 28) | Toxaphene{A}            |                |       |       |       | 0.026 |       |       |       | 0.026 | 0.00  |
| 29) | Toxaphene{B}            |                |       |       |       | 0.027 |       |       |       | 0.027 | 0.00  |
| 30) | Toxaphene{C}            |                |       |       |       | 0.052 |       |       |       | 0.052 | 0.00  |
| 31) | Toxaphene{D}            |                |       |       |       | 0.030 |       |       |       | 0.030 | 0.00  |
| 32) | Toxaphene{E}            |                |       |       |       | 0.022 |       |       |       | 0.022 | 0.00  |
| 33) | I 1-bromo-2-nitrobenzen | -----ISTD----- |       |       |       |       |       |       |       |       |       |
| 34) | Chlordane {A}           |                |       |       |       | 0.045 |       |       |       | 0.045 | 0.00  |
| 35) | Chlordane {B}           |                |       |       |       | 0.037 |       |       |       | 0.037 | 0.00  |
| 36) | Chlordane {C}           |                |       |       |       | 0.112 |       |       |       | 0.112 | 0.00  |
| 37) | Chlordane {D}           |                |       |       |       | 0.199 |       |       |       | 0.199 | 0.00  |
| 38) | Chlordane {E}           |                |       |       |       | 0.036 |       |       |       | 0.036 | 0.00  |

(#) = Out of Range ### Number of calibration levels exceeded format ###

8PST480.M

Tue May 01 15:22:08 2018

12.11.43  
12



# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14672.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14672.d\ECD1A.ch Vial: 31  
 Signal #2 : C:\msdchem\1\data\8G480\8g14672.d\ECD2B.ch  
 Acq On : 1 May 2018 12:56 pm Operator: rebeccak  
 Sample : icv480-25 Inst : GC8G  
 Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 97    | 0.00     | 1.43-  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.837 | 11.5 | 88    | 0.00     | 2.65-  | 2.71   |
| 4 A   | alpha-BHC              | 1.225 | 1.139 | 7.0  | 96    | 0.00     | 3.22-  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.076 | 6.0  | 95    | 0.00     | 3.57-  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.088 | 5.0  | 96    | 0.00     | 4.14-  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.516 | 5.3  | 95    | 0.00     | 3.66-  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.894 | 3.8  | 96    | 0.00     | 3.87-  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 0.980 | 5.3  | 95    | 0.00     | 4.52-  | 4.58   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.957 | 6.0  | 96    | 0.00     | 5.32-  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.939 | 0.5  | 98    | 0.00     | 5.50-  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.938 | 3.3  | 96    | 0.00     | 5.69-  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.899 | -1.0 | 99    | 0.00     | 5.89-  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 0.954 | 5.5  | 97    | 0.00     | 5.81-  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 0.939 | 4.8  | 95    | 0.00     | 6.25-  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.868 | 3.1  | 97    | 0.00     | 6.61-  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.731 | 4.2  | 97    | 0.00     | 6.74-  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.846 | 11.1 | 95    | 0.00     | 6.97-  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.688 | 5.1  | 92    | 0.00     | 7.20-  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.742 | 5.1  | 97    | 0.00     | 7.67-  | 7.73   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.662 | 2.9  | 98    | 0.00     | 8.42-  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.443 | 5.7  | 95    | 0.00     | 8.06-  | 8.12   |
| 24    | Mirex                  | 0.801 | 0.765 | 4.5  | 97    | 0.00     | 8.26-  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.804 | 8.5  | 94    | 0.00     | 8.92-  | 8.98   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 0.974 | 8.1  | 99    | 0.00     | 10.85- | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |    |      |       |      |
|-------|------------------------|-------|-------|------|----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98 | 0.00 | 1.90- | 2.90 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.730 | 10.9 | 91 | 0.00 | 3.42- | 3.48 |
| 4 A   | alpha-BHC              | 1.083 | 1.023 | 5.5  | 97 | 0.00 | 4.23- | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 0.940 | 7.7  | 95 | 0.00 | 4.74- | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.945 | 9.3  | 93 | 0.00 | 5.43- | 5.49 |
| 7 B   | beta-BHC               | 0.484 | 0.443 | 8.5  | 96 | 0.00 | 4.84- | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.832 | 7.0  | 95 | 0.00 | 5.31- | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.895 | 8.9  | 92 | 0.00 | 5.96- | 6.02 |

12.11.44

12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14672.D

|    |    |                    |       |       |      |     |      |             |
|----|----|--------------------|-------|-------|------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 0.933 | 1.024 | -9.8 | 131 | 0.00 | 6.91- 6.97  |
| 12 | B  | gamma-Chlordane    | 0.996 | 0.854 | 14.3 | 89  | 0.00 | 7.24- 7.30  |
| 13 | B  | alpha-Chlordane    | 1.082 | 0.931 | 14.0 | 94  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.920 | -1.3 | 98  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.011 | 1.4  | 98  | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.040 | 0.2  | 98  | 0.00 | 8.11- 8.17  |
| 17 | MA | Endrin             | 0.976 | 0.960 | 1.6  | 103 | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.845 | 1.5  | 102 | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.931 | 7.6  | 99  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.731 | 2.8  | 95  | 0.00 | 9.45- 9.51  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.748 | 5.0  | 99  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.698 | 7.9  | 100 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.404 | 6.5  | 95  | 0.00 | 10.78-10.84 |
| 24 |    | Mirex              | 0.694 | 0.657 | 5.3  | 97  | 0.00 | 11.24-11.30 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.761 | 8.3  | 93  | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.799 | 9.5  | 95  | 0.00 | 13.48-13.54 |

(#) = Out of Range  
8g14666.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:16:57 2018

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14673.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14673.d\ECD1A.ch Vial: 32  
 Signal #2 : C:\msdchem\1\data\8G480\8g14673.d\ECD2B.ch  
 Acq On : 1 May 2018 1:13 pm Operator: rebeccak  
 Sample : icv480-500 Inst : GC8G  
 Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT Window   |
|-------|------------------------|-------|-------|-------|-------|----------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 98    | 0.00     | 1.43- 2.43  |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.850 | 10.1  | 87    | 0.00     | 2.66- 2.72  |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.000 | 5.7   | 97    | 0.00     | 10.85-10.91 |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100   | 0.00     | 1.43- 2.43  |
| 34    | Chlordane {A}          | 0.051 | 0.059 | -15.7 | 116   | 0.00     | 4.07- 4.27  |
| 35    | Chlordane {B}          | 0.043 | 0.039 | 9.3   | 91    | 0.00     | 4.61- 4.81  |
| 36    | Chlordane {C}          | 0.128 | 0.130 | -1.6  | 101   | 0.00     | 5.43- 5.63  |
| 37    | Chlordane {D}          | 0.208 | 0.208 | 0.0   | 100   | 0.00     | 5.62- 5.82  |
| 38    | Chlordane {E}          | 0.034 | 0.030 | 11.8  | 88    | 0.00     | 6.80- 7.00  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |             |
|-------|------------------------|-------|-------|-------|-----|------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 98  | 0.00 | 1.91- 2.91  |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.725 | 11.5  | 91  | 0.00 | 3.42- 3.48  |
| 26 SA | Decachlorobiphenyl     | 0.883 | 0.830 | 6.0   | 97  | 0.00 | 13.48-13.54 |
| 33 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 99  | 0.00 | 1.91- 2.91  |
| 34    | Chlordane {A}          | 0.045 | 0.052 | -15.6 | 117 | 0.00 | 5.36- 5.56  |
| 35    | Chlordane {B}          | 0.037 | 0.034 | 8.1   | 91  | 0.00 | 6.11- 6.31  |
| 36    | Chlordane {C}          | 0.112 | 0.097 | 13.4  | 86  | 0.00 | 7.17- 7.37  |
| 37    | Chlordane {D}          | 0.199 | 0.188 | 5.5   | 94  | 0.00 | 7.42- 7.62  |
| 38    | Chlordane {E}          | 0.036 | 0.037 | -2.8  | 104 | 0.00 | 9.10- 9.30  |

(#) = Out of Range  
 8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
 Tue May 01 15:17:17 2018

12.11.45 12

# Initial Calibration Verification

Job Number: JC65157  
Account: AGMNYF Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G8G480-ICV480  
Lab FileID: 8G14674.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14674.d\ECD1A.ch Vial: 33  
Signal #2 : C:\msdchem\1\data\8G480\8g14674.d\ECD2B.ch  
Acq On : 1 May 2018 1:29 pm Operator: rebeccak  
Sample : icv480-500 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT Window   |
|-------|------------------------|-------|-------|------|-------|----------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43- 2.43  |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.867 | 8.4  | 90    | 0.00     | 2.66- 2.72  |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.012 | 4.5  | 99    | 0.00     | 10.85-10.91 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102   | 0.00     | 1.43- 2.43  |
| 28 L8 | Toxaphene{A}           | 0.015 | 0.016 | -6.7 | 104   | 0.00     | 6.19- 6.39  |
| 29 L8 | Toxaphene{B}           | 0.038 | 0.038 | 0.0  | 102   | 0.00     | 6.89- 7.09  |
| 30 L8 | Toxaphene{C}           | 0.030 | 0.030 | 0.0  | 102   | 0.00     | 7.08- 7.28  |
| 31 L8 | Toxaphene{D}           | 0.028 | 0.028 | 0.0  | 102   | 0.00     | 7.46- 7.66  |
| 32 L8 | Toxaphene{E}           | 0.025 | 0.025 | 0.0  | 103   | 0.00     | 8.19- 8.39  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |             |
|-------|------------------------|-------|-------|------|-----|------|-------------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99  | 0.00 | 1.91- 2.91  |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.744 | 9.2  | 95  | 0.00 | 3.42- 3.48  |
| 26 SA | Decachlorobiphenyl     | 0.883 | 0.829 | 6.1  | 98  | 0.00 | 13.48-13.54 |
| 27 I  | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 102 | 0.00 | 1.91- 2.91  |
| 28 L8 | Toxaphene{A}           | 0.026 | 0.021 | 19.2 | 82  | 0.00 | 7.99- 8.19  |
| 29 L8 | Toxaphene{B}           | 0.027 | 0.028 | -3.7 | 108 | 0.00 | 8.97- 9.17  |
| 30 L8 | Toxaphene{C}           | 0.052 | 0.052 | 0.0  | 103 | 0.00 | 9.15- 9.35  |
| 31 L8 | Toxaphene{D}           | 0.030 | 0.030 | 0.0  | 99  | 0.00 | 9.64- 9.84  |
| 32 L8 | Toxaphene{E}           | 0.022 | 0.020 | 9.1  | 92  | 0.00 | 10.65-10.85 |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:17:19 2018

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14675.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14675.d\ECD1A.ch Vial: 34  
Signal #2 : C:\msdchem\1\data\8G480\8g14675.d\ECD2B.ch  
Acq On : 1 May 2018 1:45 pm Operator: rebeccak  
Sample : icv480-50 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|----------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 98    | 0.00     | 1.43- | 2.43   |
| 10alachlor                 | 0.144 | 0.158 | -9.7 | 107   | 0.00     | 4.68- | 4.74   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |      |     |      |       |      |
|----------------------------|-------|-------|------|-----|------|-------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 100 | 0.00 | 1.90- | 2.90 |
| 10alachlor                 | 0.133 | 0.137 | -3.0 | 106 | 0.00 | 5.71- | 5.77 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
8g14667.d 8PST480.M Tue May 01 15:17:21 2018

12:11:47  
12

# Initial Calibration Verification

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G480-ICV480  
**Lab FileID:** 8G14676.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G480\8g14676.d\ECD1A.ch Vial: 35  
Signal #2 : C:\msdchem\1\data\8G480\8g14676.d\ECD2B.ch  
Acq On : 1 May 2018 2:02 pm Operator: rebeccak  
Sample : icv480-50 Inst : GC8G  
Misc : op11561,g8g480,1000,,,5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
Title : PEST/PCB  
Last Update : Tue May 01 15:01:01 2018  
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

| Compound                   | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|----------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43- | 2.43   |
| 3 hexachlorobenzene        | 1.395 | 1.331 | 4.6  | 96    | 0.00     | 3.05- | 3.11   |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|                            |       |       |     |     |      |       |      |
|----------------------------|-------|-------|-----|-----|------|-------|------|
| 1 I 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0 | 103 | 0.00 | 1.90- | 2.90 |
| 3 hexachlorobenzene        | 1.070 | 0.998 | 6.7 | 102 | 0.00 | 4.04- | 4.10 |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Tue May 01 15:17:23 2018

12.11.48  
12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14783.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G483\8g14783.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G483\8g14783.d\ECD2B.ch  
 Acq On : 3 May 2018 4:19 pm Operator: dharas  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11717,g8g483,1000,,,5,10 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|-------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 92    | 0.00     | 1.44-  | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.962 | -1.7  | 93    | 0.00     | 2.66-  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.465 | -5.0  | 99    | 0.00     | 3.06-  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.304 | -6.4  | 93    | 0.00     | 3.23-  | 3.29   |
| 5 MA  | gamma-BHC              | 1.145 | 1.204 | -5.2  | 92    | 0.00     | 3.57-  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.136 | 0.8   | 88    | 0.00     | 4.14-  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.516 | 5.3   | 88    | 0.00     | 3.66-  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.959 | -3.2  | 86    | 0.00     | 3.87-  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.078 | -4.2  | 90    | 0.00     | 4.52-  | 4.58   |
| 10    | alachlor               | 0.144 | 0.141 | 2.1   | 90    | 0.00     | 4.67-  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.955 | 6.2   | 85    | 0.00     | 5.32-  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.970 | -2.8  | 89    | 0.00     | 5.50-  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.984 | -1.4  | 90    | 0.00     | 5.69-  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.934 | -4.9  | 91    | 0.00     | 5.89-  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.009 | 0.1   | 90    | 0.00     | 5.81-  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.011 | -2.5  | 89    | 0.00     | 6.25-  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.951 | -6.1  | 93    | 0.00     | 6.61-  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.790 | -3.5  | 91    | 0.00     | 6.74-  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.920 | 3.4   | 92    | 0.00     | 6.97-  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.815 | -12.4 | 95    | 0.00     | 7.20-  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.760 | 2.8   | 90    | 0.00     | 7.66-  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.772 | -13.2 | 104   | 0.00     | 8.42-  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.481 | -2.3  | 95    | 0.00     | 8.05-  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.756 | 5.6   | 90    | 0.00     | 8.26-  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.943 | -7.3  | 99    | 0.00     | 8.91-  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.001 | 5.6   | 91    | 0.00     | 10.85- | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |       |      |
|-------|------------------------|-------|-------|-------|-----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 100 | 0.00 | 1.91- | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.848 | -3.5  | 109 | 0.00 | 3.42- | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.063 | 0.7   | 105 | 0.00 | 4.04- | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.127 | -4.1  | 104 | 0.00 | 4.23- | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 0.970 | 4.7   | 95  | 0.00 | 4.74- | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.924 | 11.3  | 90  | 0.00 | 5.43- | 5.49 |
| 7 B   | beta-BHC               | 0.484 | 0.381 | 21.3# | 83  | 0.00 | 4.84- | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.862 | 3.7   | 93  | 0.00 | 5.31- | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.864 | 12.0  | 86  | 0.00 | 5.96- | 6.02 |
| 10    | alachlor               | 0.133 | 0.110 | 17.3  | 85  | 0.00 | 5.71- | 5.77 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.798 | 14.5  | 72  | 0.00 | 6.91- | 6.97 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.822 | 17.5  | 90  | 0.00 | 7.23- | 7.29 |

12.11.49 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14783.D

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|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.855 | 21.0# | 86  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.835 | 8.0   | 87  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 0.961 | 6.2   | 89  | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.205 | -15.6 | 106 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.823 | 15.7  | 81  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.760 | 11.4  | 85  | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.889 | 11.8  | 90  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.820 | -9.0  | 100 | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.742 | 5.7   | 96  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.810 | -6.9  | 114 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.451 | -4.4  | 105 | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.662 | 4.6   | 105 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.918 | -10.6 | 118 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.797 | 9.7   | 95  | 0.00 | 13.47-13.53 |

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(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 00:29:35 2018



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14804.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G483\8g14804.d\ECD1A.ch Vial: 2  
 Signal #2 : C:\msdchem\1\data\8G483\8g14804.d\ECD2B.ch  
 Acq On : 3 May 2018 10:00 pm Operator: dharas  
 Sample : cc480-25 Inst : GC8G  
 Misc : op11691,g8g483,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 99    | 0.00     | 1.43  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.930 | 1.7  | 101   | 0.00     | 2.66  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.417 | -1.6 | 106   | 0.00     | 3.06  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.165 | 4.9  | 100   | 0.00     | 3.22  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.118 | 2.4  | 101   | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.103 | 3.7  | 99    | 0.00     | 4.14  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.524 | 3.9  | 99    | 0.00     | 3.66  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.919 | 1.1  | 101   | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.024 | 1.1  | 102   | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.143 | 0.7  | 101   | 0.00     | 4.67  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.985 | 3.2  | 101   | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.957 | -1.4 | 102   | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.969 | 0.1  | 102   | 0.00     | 5.69  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.902 | -1.3 | 102   | 0.00     | 5.89  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 0.950 | 5.9  | 99    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 0.969 | 1.7  | 101   | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.853 | 4.8  | 98    | 0.00     | 6.61  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.715 | 6.3  | 98    | 0.00     | 6.74  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.877 | 7.9  | 100   | 0.00     | 6.97  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.726 | -0.1 | 100   | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.747 | 4.5  | 100   | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.632 | 7.3  | 96    | 0.00     | 8.42  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.448 | 4.7  | 98    | 0.00     | 8.06  | 8.12   |
| 24    | Mirex                  | 0.801 | 0.796 | 0.6  | 103   | 0.00     | 8.26  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.821 | 6.6  | 99    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.024 | 3.4  | 106   | 0.00     | 10.85 | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |      |      |      |
|-------|------------------------|-------|-------|------|-----|------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 103 | 0.00 | 1.91 | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.894 | -9.2 | 118 | 0.00 | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.117 | -4.4 | 114 | 0.00 | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.139 | -5.2 | 114 | 0.00 | 4.23 | 4.29 |
| 5 MA  | gamma-BHC              | 1.018 | 1.025 | -0.7 | 109 | 0.00 | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.958 | 8.1  | 100 | 0.00 | 5.42 | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.458 | 5.4  | 104 | 0.00 | 4.84 | 4.90 |
| 8 B   | delta-BHC              | 0.895 | 0.877 | 2.0  | 106 | 0.00 | 5.31 | 5.37 |
| 9 MB  | Aldrin                 | 0.982 | 0.909 | 7.4  | 98  | 0.00 | 5.96 | 6.02 |
| 10    | alachlor               | 0.133 | 0.127 | 4.5  | 100 | 0.00 | 5.71 | 5.77 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.841 | 9.9  | 113 | 0.00 | 6.91 | 6.97 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.869 | 12.8 | 95  | 0.00 | 7.23 | 7.29 |

12.11.50 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G483-CC480  
**Lab FileID:** 8G14804.D

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|    |    |                    |       |       |        |     |      |             |
|----|----|--------------------|-------|-------|--------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.895 | 17.3   | 95  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.861 | 5.2    | 97  | 0.00 | 7.61- 7.67  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.030 | -0.5   | 105 | 0.00 | 7.77- 7.83  |
| 16 | MA | Dieldrin           | 1.042 | 1.280 | -22.8# | 126 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.815 | 16.5   | 92  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.776 | 9.6    | 99  | 0.00 | 8.84- 8.90  |
| 19 | B  | Endosulfan II      | 1.008 | 0.930 | 7.7    | 104 | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.797 | -6.0   | 110 | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.797 | -1.3   | 111 | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.701 | 7.5    | 106 | 0.00 | 10.23-10.29 |
| 23 | A  | Methoxychlor       | 0.432 | 0.411 | 4.9    | 102 | 0.00 | 10.78-10.84 |
| 24 |    | Mirex              | 0.694 | 0.728 | -4.9   | 113 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.842 | -1.4   | 109 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.826 | 6.5    | 103 | 0.00 | 13.48-13.54 |

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(#) = Out of Range  
8g14666.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 02:20:04 2018

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G484-CC480  
**Lab FileID:** 8G14815.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G484\8g14815.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G484\8g14815.d\ECD2B.ch  
 Acq On : 4 May 2018 2:27 am Operator: christp  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11692,g8g484,30,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Tue May 01 15:01:01 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev  | Area% | Dev(min) | RT     | Window |
|-------|------------------------|-------|-------|-------|-------|----------|--------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 91    | 0.01     | 1.44-  | 2.44   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.936 | 1.1   | 89    | 0.00     | 2.66-  | 2.72   |
| 3     | hexachlorobenzene      | 1.395 | 1.447 | -3.7  | 97    | 0.00     | 3.06-  | 3.12   |
| 4 A   | alpha-BHC              | 1.225 | 1.248 | -1.9  | 88    | 0.00     | 3.23-  | 3.29   |
| 5 MA  | gamma-BHC              | 1.145 | 1.173 | -2.4  | 88    | 0.00     | 3.57-  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.216 | -6.2  | 93    | 0.00     | 4.14-  | 4.20   |
| 7 B   | beta-BHC               | 0.545 | 0.528 | 3.1   | 89    | 0.00     | 3.66-  | 3.72   |
| 8 B   | delta-BHC              | 0.929 | 0.831 | 10.5  | 74    | 0.00     | 3.87-  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.118 | -8.0  | 93    | 0.00     | 4.52-  | 4.58   |
| 10    | alachlor               | 0.144 | 0.145 | -0.7  | 92    | 0.00     | 4.68-  | 4.74   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.986 | 3.1   | 86    | 0.00     | 5.32-  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.996 | -5.5  | 90    | 0.00     | 5.50-  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 1.031 | -6.3  | 93    | 0.00     | 5.70-  | 5.76   |
| 14 A  | Endosulfan I           | 0.890 | 0.955 | -7.3  | 92    | 0.00     | 5.90-  | 5.96   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.089 | -7.8  | 96    | 0.00     | 5.81-  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.061 | -7.6  | 93    | 0.00     | 6.25-  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.986 | -10.0 | 95    | 0.00     | 6.62-  | 6.68   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.813 | -6.6  | 92    | 0.00     | 6.74-  | 6.80   |
| 19 B  | Endosulfan II          | 0.952 | 0.934 | 1.9   | 92    | 0.00     | 6.97-  | 7.03   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.782 | -7.9  | 90    | 0.00     | 7.20-  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.778 | 0.5   | 91    | 0.00     | 7.66-  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.656 | 3.8   | 87    | 0.00     | 8.42-  | 8.48   |
| 23 A  | Methoxychlor           | 0.470 | 0.464 | 1.3   | 91    | 0.00     | 8.05-  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.739 | 7.7   | 87    | 0.00     | 8.26-  | 8.32   |
| 25 B  | Endrin Ketone          | 0.879 | 0.885 | -0.7  | 92    | 0.00     | 8.91-  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 1.009 | 4.8   | 91    | 0.00     | 10.85- | 10.91  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |       |     |      |       |      |
|-------|------------------------|-------|-------|-------|-----|------|-------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0   | 109 | 0.00 | 1.91- | 2.91 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.786 | 4.0   | 110 | 0.00 | 3.42- | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 0.975 | 8.9   | 106 | 0.00 | 4.04- | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 0.983 | 9.2   | 100 | 0.00 | 4.22- | 4.28 |
| 5 MA  | gamma-BHC              | 1.018 | 0.870 | 14.5  | 93  | 0.00 | 4.74- | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.870 | 16.5  | 93  | 0.00 | 5.42- | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.380 | 21.5# | 90  | 0.00 | 4.83- | 4.89 |
| 8 B   | delta-BHC              | 0.895 | 0.642 | 28.3# | 76  | 0.00 | 5.30- | 5.36 |
| 9 MB  | Aldrin                 | 0.982 | 0.803 | 18.2  | 87  | 0.00 | 5.95- | 6.01 |
| 10    | alachlor               | 0.133 | 0.102 | 23.3# | 86  | 0.00 | 5.70- | 5.76 |
| 11 B  | Heptachlor Epoxide     | 0.933 | 0.724 | 22.4# | 72  | 0.00 | 6.90- | 6.96 |
| 12 B  | gamma-Chlordane        | 0.996 | 0.733 | 26.4# | 87  | 0.00 | 7.23- | 7.29 |

12.11.51 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G484-CC480  
**Lab FileID:** 8G14815.D

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|    |    |                    |       |       |       |     |      |             |
|----|----|--------------------|-------|-------|-------|-----|------|-------------|
| 13 | B  | alpha-Chlordane    | 1.082 | 0.787 | 27.3# | 87  | 0.00 | 7.49- 7.55  |
| 14 | A  | Endosulfan I       | 0.908 | 0.765 | 15.7  | 87  | 0.00 | 7.60- 7.66  |
| 15 | B  | 4,4'-DDE           | 1.025 | 0.969 | 5.5   | 99  | 0.00 | 7.76- 7.82  |
| 16 | MA | Dieldrin           | 1.042 | 1.072 | -2.9  | 103 | 0.00 | 8.10- 8.16  |
| 17 | MA | Endrin             | 0.976 | 0.822 | 15.8  | 89  | 0.00 | 8.68- 8.74  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.736 | 14.2  | 90  | 0.00 | 8.83- 8.89  |
| 19 | B  | Endosulfan II      | 1.008 | 0.820 | 18.7  | 91  | 0.00 | 9.07- 9.13  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.736 | 2.1   | 98  | 0.00 | 9.44- 9.50  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.684 | 13.1  | 97  | 0.00 | 9.71- 9.77  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.625 | 17.5  | 97  | 0.00 | 10.22-10.28 |
| 23 | A  | Methoxychlor       | 0.432 | 0.397 | 8.1   | 101 | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.632 | 8.9   | 110 | 0.00 | 11.23-11.29 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.876 | -5.5  | 123 | 0.00 | 11.28-11.34 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.700 | 20.7# | 91  | 0.00 | 13.47-13.53 |

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(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 04 05:20:40 2018

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: G8G489-CC480  
 Lab FileID: 8G15027.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\8G489\8g15027.d\ECD1A.ch Vial: 4  
 Signal #2 : C:\msdchem\1\data\8G489\8g15027.d\ECD2B.ch  
 Acq On : 11 May 2018 10:17 am Operator: mailisih  
 Sample : cc480-50 Inst : GC8G  
 Misc : op11905,g8g489,320,,,2,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\8PST480.M (ChemStation Integrator)  
 Title : PEST/PCB  
 Last Update : Fri May 11 12:02:44 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) | RT    | Window |
|-------|------------------------|-------|-------|------|-------|----------|-------|--------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 95    | -0.02    | 1.43  | 2.43   |
| 2 SAB | Tetrachloro-m-xylene   | 0.946 | 0.947 | -0.1 | 94    | 0.00     | 2.65  | 2.71   |
| 3     | hexachlorobenzene      | 1.395 | 1.395 | 0.0  | 96    | 0.00     | 3.05  | 3.11   |
| 4 A   | alpha-BHC              | 1.225 | 1.228 | -0.2 | 90    | 0.00     | 3.22  | 3.28   |
| 5 MA  | gamma-BHC              | 1.145 | 1.136 | 0.8  | 88    | 0.00     | 3.57  | 3.63   |
| 6 MA  | Heptachlor             | 1.145 | 1.134 | 1.0  | 90    | 0.00     | 4.13  | 4.19   |
| 7 B   | beta-BHC               | 0.545 | 0.513 | 5.9  | 90    | 0.00     | 3.65  | 3.71   |
| 8 B   | delta-BHC              | 0.929 | 0.856 | 7.9  | 79    | 0.00     | 3.87  | 3.93   |
| 9 MB  | Aldrin                 | 1.035 | 1.073 | -3.7 | 92    | 0.00     | 4.52  | 4.58   |
| 10    | alachlor               | 0.144 | 0.141 | 2.1  | 92    | 0.00     | 4.67  | 4.73   |
| 11 B  | Heptachlor Epoxide     | 1.018 | 0.984 | 3.3  | 89    | 0.00     | 5.32  | 5.38   |
| 12 B  | gamma-Chlordane        | 0.944 | 0.976 | -3.4 | 92    | 0.00     | 5.50  | 5.56   |
| 13 B  | alpha-Chlordane        | 0.970 | 0.974 | -0.4 | 91    | 0.00     | 5.69  | 5.75   |
| 14 A  | Endosulfan I           | 0.890 | 0.907 | -1.9 | 91    | 0.00     | 5.89  | 5.95   |
| 15 B  | 4,4'-DDE               | 1.010 | 1.010 | 0.0  | 92    | 0.00     | 5.81  | 5.87   |
| 16 MA | Dieldrin               | 0.986 | 1.011 | -2.5 | 92    | 0.00     | 6.25  | 6.31   |
| 17 MA | Endrin                 | 0.896 | 0.946 | -5.6 | 95    | 0.00     | 6.61  | 6.67   |
| 18 A  | 4,4'-DDD               | 0.763 | 0.805 | -5.5 | 95    | 0.00     | 6.73  | 6.79   |
| 19 B  | Endosulfan II          | 0.952 | 0.890 | 6.5  | 91    | 0.00     | 6.96  | 7.02   |
| 20 MA | 4,4'-DDT               | 0.725 | 0.606 | 16.4 | 72    | 0.00     | 7.20  | 7.26   |
| 21 B  | Endrin Aldehyde        | 0.782 | 0.737 | 5.8  | 90    | 0.00     | 7.66  | 7.72   |
| 22 B  | Endosulfan Sulfate     | 0.682 | 0.643 | 5.7  | 89    | 0.00     | 8.41  | 8.47   |
| 23 A  | Methoxychlor           | 0.470 | 0.389 | 17.2 | 79    | 0.00     | 8.05  | 8.11   |
| 24    | Mirex                  | 0.801 | 0.714 | 10.9 | 87    | 0.00     | 8.25  | 8.31   |
| 25 B  | Endrin Ketone          | 0.879 | 0.781 | 11.1 | 84    | 0.00     | 8.91  | 8.97   |
| 26 SA | Decachlorobiphenyl     | 1.060 | 0.944 | 10.9 | 88    | 0.00     | 10.84 | 10.90  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|       |                        |       |       |      |     |       |      |      |
|-------|------------------------|-------|-------|------|-----|-------|------|------|
| 1 I   | 1-bromo-2-nitrobenzene | 1.000 | 1.000 | 0.0  | 110 | -0.01 | 1.90 | 2.90 |
| 2 SAB | Tetrachloro-m-xylene   | 0.819 | 0.842 | -2.8 | 119 | 0.00  | 3.42 | 3.48 |
| 3     | hexachlorobenzene      | 1.070 | 1.034 | 3.4  | 113 | 0.00  | 4.04 | 4.10 |
| 4 A   | alpha-BHC              | 1.083 | 1.064 | 1.8  | 108 | 0.00  | 4.22 | 4.28 |
| 5 MA  | gamma-BHC              | 1.018 | 0.920 | 9.6  | 99  | 0.00  | 4.74 | 4.80 |
| 6 MA  | Heptachlor             | 1.042 | 0.904 | 13.2 | 97  | 0.00  | 5.42 | 5.48 |
| 7 B   | beta-BHC               | 0.484 | 0.397 | 18.0 | 95  | 0.00  | 4.83 | 4.89 |
| 8 B   | delta-BHC              | 0.895 | 0.743 | 17.0 | 89  | 0.00  | 5.30 | 5.36 |
| 9 MB  | Aldrin                 | 0.982 | 0.846 | 13.8 | 92  | 0.00  | 5.95 | 6.01 |
| 10    | alachlor               | 0.133 | 0.108 | 18.8 | 92  | 0.00  | 5.70 | 5.76 |

12.11.52 12

# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** G8G489-CC480  
**Lab FileID:** 8G15027.D

|    |    |                    |       |       |        |     |      |             |
|----|----|--------------------|-------|-------|--------|-----|------|-------------|
| 11 | B  | Heptachlor Epoxide | 0.933 | 0.791 | 15.2   | 79  | 0.00 | 6.90- 6.96  |
| 12 | B  | gamma-Chlordane    | 0.996 | 0.897 | 9.9    | 108 | 0.00 | 7.23- 7.29  |
| 13 | B  | alpha-Chlordane    | 1.082 | 1.118 | -3.3   | 124 | 0.00 | 7.48- 7.54  |
| 14 | A  | Endosulfan I       | 0.908 | 1.147 | -26.3# | 131 | 0.00 | 7.60- 7.66  |
| 15 | B  | 4,4'-DDE           | 1.025 | 1.110 | -8.3   | 113 | 0.00 | 7.76- 7.82  |
| 16 | MA | Dieldrin           | 1.042 | 0.933 | 10.5   | 90  | 0.00 | 8.09- 8.15  |
| 17 | MA | Endrin             | 0.976 | 0.945 | 3.2    | 103 | 0.00 | 8.67- 8.73  |
| 18 | A  | 4,4'-DDD           | 0.858 | 0.861 | -0.3   | 106 | 0.00 | 8.83- 8.89  |
| 19 | B  | Endosulfan II      | 1.008 | 0.930 | 7.7    | 104 | 0.00 | 9.06- 9.12  |
| 20 | MA | 4,4'-DDT           | 0.752 | 0.642 | 14.6   | 86  | 0.00 | 9.43- 9.49  |
| 21 | B  | Endrin Aldehyde    | 0.787 | 0.724 | 8.0    | 103 | 0.00 | 9.70- 9.76  |
| 22 | B  | Endosulfan Sulfate | 0.758 | 0.651 | 14.1   | 101 | 0.00 | 10.22-10.28 |
| 23 | A  | Methoxychlor       | 0.432 | 0.361 | 16.4   | 93  | 0.00 | 10.77-10.83 |
| 24 |    | Mirex              | 0.694 | 0.623 | 10.2   | 109 | 0.00 | 11.22-11.28 |
| 25 | B  | Endrin Ketone      | 0.830 | 0.727 | 12.4   | 103 | 0.00 | 11.27-11.33 |
| 26 | SA | Decachlorobiphenyl | 0.883 | 0.717 | 18.8   | 94  | 0.00 | 13.46-13.52 |

(#) = Out of Range  
8g14667.d 8PST480.M

SPCC's out = 0 CCC's out = 0  
Fri May 11 14:04:46 2018

# Initial Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4559-ICC4559  
**Lab FileID:** OA133102.D

## Response Factor Report SVOA0A

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
Title : HERB  
Last Update : Thu May 03 09:51:17 2018  
Response via : Initial Calibration

### Calibration Files

500 =oa133104.d 400 =oa133103.d 300 =oa133102.d 200 =oa133101.d  
100 =oa133100.d 50 =oa133099.d

| Compound             | 500   | 400   | 300   | 200   | 100   | 50    | Avg   | %RSD     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 0.879 | 0.891 | 0.915 | 0.957 | 1.044 | 1.104 | 0.965 | E6 9.38  |
| 2) S 2,4-DCAA        | 5.066 | 5.108 | 5.284 | 5.352 | 6.015 | 6.645 | 5.578 | E5 11.20 |
| 3) Dicamba           | 2.394 | 2.407 | 2.479 | 2.409 | 2.611 | 2.853 | 2.526 | E6 7.11  |
| 4) MCPP              | 1.472 | 1.507 | 1.511 | 1.512 | 1.506 |       | 1.502 | E3 1.11  |
| 5) MCPA              | 2.638 | 2.730 | 2.748 | 2.877 | 3.025 |       | 2.804 | E3 5.35  |
| 6) Dichloroprop      | 6.003 | 6.108 | 6.378 | 6.606 | 7.324 | 8.217 | 6.773 | E5 12.54 |
| 7) 2,4-D             | 7.450 | 7.618 | 7.880 | 8.223 | 8.964 | 9.568 | 8.284 | E5 9.98  |
| 8) Pentachlorophenol | 1.127 | 1.130 | 1.116 | 1.123 | 1.134 | 1.098 | 1.121 | E7 1.16  |
| 9) 2,4,5-TP          | 4.300 | 4.307 | 4.332 | 4.320 | 4.391 | 4.511 | 4.360 | E6 1.86  |
| 10) 2,4,5-T          | 4.168 | 4.277 | 4.308 | 4.315 | 4.378 | 4.553 | 4.333 | E6 2.95  |
| 11) 2,4-DB           | 4.144 | 4.302 | 4.448 | 4.625 | 4.800 | 5.487 | 4.635 | E5 10.31 |
| 12) Dinoseb          | 2.716 | 2.826 | 2.952 | 2.911 | 3.152 | 3.449 | 3.001 | E6 8.77  |
| 13) Picloram         | 5.114 | 5.127 | 5.205 | 5.110 | 5.027 | 5.019 | 5.100 | E6 1.36  |

### Signal #2

|                      |       |       |       |       |       |       |       |          |
|----------------------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1) Dalapon           | 1.054 | 1.076 | 1.110 | 1.169 | 1.260 | 1.353 | 1.170 | E7 9.92  |
| 2) S 2,4-DCAA        | 0.769 | 0.798 | 0.852 | 0.912 | 1.079 | 1.235 | 0.941 | E7 19.27 |
| 3) Dicamba           | 3.365 | 3.524 | 3.766 | 3.882 | 4.386 | 4.492 | 3.903 | E7 11.65 |
| 4) MCPP              | 2.714 | 2.796 | 2.809 | 2.828 | 2.584 |       | 2.746 | E4 3.66  |
| 5) MCPA              | 5.757 | 6.054 | 6.408 | 6.741 | 6.904 |       | 6.373 | E4 7.45  |
| 6) Dichloroprop      | 0.763 | 0.790 | 0.845 | 0.898 | 1.060 | 1.227 | 0.930 | E7 19.27 |
| 7) 2,4-D             | 1.055 | 1.066 | 1.161 | 1.237 | 1.358 | 1.537 | 1.236 | E7 15.05 |
| 8) Pentachlorophenol | 1.313 | 1.354 | 1.375 | 1.430 | 1.525 | 1.610 | 1.434 | E8 7.87  |
| 9) 2,4,5-TP          | 4.878 | 4.992 | 5.212 | 5.398 | 5.663 | 6.258 | 5.400 | E7 9.37  |
| 10) 2,4,5-T          | 5.176 | 5.342 | 5.558 | 5.728 | 5.887 | 6.352 | 5.674 | E7 7.39  |
| 11) 2,4-DB           | 6.568 | 6.741 | 7.050 | 7.420 | 7.949 | 8.558 | 7.381 | E6 10.30 |
| 12) Dinoseb          | 2.420 | 2.534 | 2.714 | 2.861 | 3.258 | 3.641 | 2.905 | E7 15.98 |
| 13) Picloram         | 3.970 | 4.133 | 4.291 | 4.448 | 4.769 | 5.057 | 4.445 | E7 9.14  |

(#) = Out of Range

HOA4559.M

Thu May 03 10:03:01 2018

12.11.53  
12

# Initial Calibration Verification

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4559-ICV4559  
 Lab FileID: OA133105.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4559\oa133105.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4559\oa133105.d\ECD2B.CH  
 Acq On : 02-May-18, 18:42:11 Operator: vinced  
 Sample : icv4559-300 Inst : SVOA0A  
 Misc : op11359,goa4559,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Thu May 03 09:51:17 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 945.953 E3 | 2.0   | 103   | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 561.020 E3 | -0.6  | 106   | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.760 E6   | -9.3  | 111   | 0.00     | 7.53-  | 7.59   |
| 4   | MCPPP             | 1.502   | 1.579 E3   | -5.1  | 104   | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.875 E3   | -2.5  | 105   | 0.00     | 8.00-  | 8.06   |
| 6   | Dichloroprop      | 677.279 | 676.760 E3 | 0.1   | 106   | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 843.668 E3 | -1.8  | 107   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 12.796 E6  | -14.1 | 115   | 0.00     | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.566 E6   | -4.7  | 105   | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.550 E6   | -5.0  | 106   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 479.684 E3 | -3.5  | 108   | 0.01     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 3.161 E6   | -5.3  | 107   | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.288 E6   | -3.7  | 102   | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.136 E6  | 4.8   | 100 | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.102 E6   | 3.3   | 107 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 41.326 E6  | -5.9  | 110 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPPP             | 27.463  | 31.252 E3  | -13.8 | 111 | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 74.907 E3  | -17.5 | 117 | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.672 E6   | 6.8   | 103 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.382 E6  | -0.2  | 107 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 155.279 E6 | -8.3  | 113 | 0.00 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.765 E6  | -1.4  | 105 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 59.311 E6  | -4.5  | 107 | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.534 E6   | -2.1  | 107 | 0.00 | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 28.284 E6  | 2.6   | 104 | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 43.644 E6  | 1.8   | 102 | 0.00 | 16.62- | 16.68 |

(#) = Out of Range  
 oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Thu May 03 10:02:29 2018

12.11.54 12



# Continuing Calibration Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

**Sample:** GOA4561-CC4559  
**Lab FileID:** OA133132.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4561\oa133132.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4561\oa133132.d\ECD2B.CH  
 Acq On : 03-May-18, 15:17:19 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11629,goa4561,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:16:40 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 896.941 E3 | 7.0  | 94    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 531.124 E3 | 4.8  | 99    | -0.04    | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.297 E6   | 9.1  | 95    | -0.03    | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.472 E3   | 2.0  | 97    | 0.02     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.770 E3   | 1.2  | 96    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 638.744 E3 | 5.7  | 97    | -0.03    | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 812.527 E3 | 1.9  | 99    | -0.01    | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.572 E6  | 5.7  | 94    | -0.08    | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.148 E6   | 4.9  | 96    | -0.02    | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.211 E6   | 2.8  | 98    | -0.01    | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 457.023 E3 | 1.4  | 99    | -0.01    | 11.58- | 11.68  |
| 12  | Dinoseb           | 3.001   | 2.613 E6   | 12.9 | 90    | -0.02    | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.087 E6   | 0.3  | 100   | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.475 E6  | 1.9   | 98  | 0.00  | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.145 E6   | 2.8   | 100 | -0.03 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 38.841 E6  | 0.5   | 100 | -0.03 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 21.524 E3  | 21.6# | 76  | -0.03 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 46.191 E3  | 27.5# | 69  | 0.00  | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 9.207 E6   | 1.0   | 103 | -0.02 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.352 E6  | 0.0   | 100 | -0.01 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 138.727 E6 | 3.3   | 97  | -0.06 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.268 E6  | -0.5  | 101 | -0.01 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 56.700 E6  | 0.1   | 99  | 0.00  | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.320 E6   | 0.8   | 99  | 0.00  | 13.89- | 13.98 |
| 12  | Dinoseb           | 29.046  | 26.773 E6  | 7.8   | 94  | -0.02 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 48.320 E6  | -8.7  | 109 | 0.01  | 16.62- | 16.68 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 oal33101.d HOA4559.M Fri May 04 11:25:12 2018

12.11.55 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4561-CC4559  
 Lab FileID: OA133143.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4561\oa133143.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4561\oa133143.d\ECD2B.CH  
 Acq On : 03-May-18, 20:34:03 Operator: vinced  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : op11687,goa4561,30,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:16:40 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 824.569 E3 | 14.5  | 90    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 478.368 E3 | 14.2  | 91    | -0.04    | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.207 E6   | 12.6  | 89    | -0.03    | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.379 E3   | 8.2   | 91    | 0.02     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.568 E3   | 8.4   | 93    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 590.052 E3 | 12.9  | 93    | -0.03    | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 756.233 E3 | 8.7   | 96    | -0.01    | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.157 E6  | 9.4   | 91    | -0.08    | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.000 E6   | 8.3   | 92    | -0.02    | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.076 E6   | 5.9   | 95    | -0.02    | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 429.506 E3 | 7.3   | 97    | -0.02    | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 2.319 E6   | 22.7# | 79    | -0.02    | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.015 E6   | 1.7   | 96    | 0.00     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |       |        |       |
|-----|-------------------|---------|------------|-------|-----|-------|--------|-------|
| 1   | Dalapon           | 11.702  | 10.492 E6  | 10.3  | 94  | 0.00  | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 8.171 E6   | 13.2  | 96  | -0.03 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 34.675 E6  | 11.1  | 92  | -0.03 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 21.969 E3  | 20.0# | 78  | -0.03 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 45.550 E3  | 28.5# | 71  | 0.00  | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.043 E6   | 13.6  | 95  | -0.02 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 11.203 E6  | 9.3   | 96  | -0.01 | 10.54- | 10.60 |
| 8   | Pentachlorophenol | 143.443 | 126.313 E6 | 11.9  | 92  | -0.06 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 49.786 E6  | 7.8   | 96  | -0.02 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 52.657 E6  | 7.2   | 95  | 0.00  | 12.81- | 12.93 |
| 11  | 2,4-DB            | 7.381   | 6.714 E6   | 9.0   | 95  | 0.00  | 13.88- | 13.98 |
| 12  | Dinoseb           | 29.046  | 23.008 E6  | 20.8# | 85  | -0.02 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 44.344 E6  | 0.2   | 103 | 0.01  | 16.62- | 16.68 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 oal33102.d HOA4559.M Fri May 04 11:25:35 2018

12.11.56 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4562-CC4559  
 Lab FileID: OA133176.D

## Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4562\oa133176.d\ECD1A.CH Vial: 0  
 Signal #2 : C:\msdchem\1\data\OA4562\oa133176.d\ECD2B.CH  
 Acq On : 04-May-18, 18:05:52 Operator: vinced  
 Sample : cc4559-200 Inst : SVOA0A  
 Misc : op11726,goa4562,15.8,,,5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:53:04 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 886.255 E3 | 8.2   | 93    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 521.453 E3 | 6.5   | 97    | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.345 E6   | 7.2   | 97    | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.466 E3   | 2.4   | 97    | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.836 E3   | -1.1  | 99    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 657.014 E3 | 3.0   | 99    | 0.00     | 8.53-  | 8.59   |
| 7   | 2,4-D             | 828.384 | 826.958 E3 | 0.2   | 101   | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.840 E6  | 3.3   | 97    | 0.00     | 9.14-  | 9.20   |
| 9   | 2,4,5-TP          | 4.360   | 4.245 E6   | 2.6   | 98    | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.309 E6   | 0.6   | 100   | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 466.378 E3 | -0.6  | 101   | 0.02     | 11.58- | 11.68  |
| 12  | Dinoseb           | 3.001   | 1.890 E6   | 37.0# | 65    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 5.099 E6   | 0.0   | 100   | 0.02     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 11.552 E6  | 1.3   | 99  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 9.744 E6   | -3.6  | 107 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 43.775 E6  | -12.2 | 113 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 20.947 E3  | 23.7# | 74  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 47.059 E3  | 26.2# | 70  | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 9.326 E6   | -0.2  | 104 | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 12.347 E6  | 0.1   | 100 | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 140.404 E6 | 2.1   | 98  | 0.00 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 54.135 E6  | -0.2  | 100 | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 55.967 E6  | 1.4   | 98  | 0.00 | 12.82- | 12.94 |
| 11  | 2,4-DB            | 7.381   | 7.445 E6   | -0.9  | 100 | 0.02 | 13.89- | 13.98 |
| 12  | Dinoseb           | 29.046  | 18.731 E6  | 35.5# | 65  | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 46.025 E6  | -3.6  | 103 | 0.02 | 16.62- | 16.68 |

(#) = Out of Range  
 oal33101.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:39:09 2018

12.11.57 12

# Continuing Calibration Summary

Job Number: JC65157  
 Account: AGMNYF Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

Sample: GOA4562-ECC4559  
 Lab FileID: OA133186.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\OA4562\oa133186.d\ECD1A.CH Vial: 0  
 Acq On : 04-May-18, 22:53:05 Operator: vined  
 Sample : ecc4559-300 Inst : SVOA0A  
 Misc : opl1688,goa4562,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint1.e

Data File : C:\msdchem\1\data\OA4562\oa133186.d\ECD2B.CH Vial: 3  
 Acq On : 04-May-18, 22:53:05 Operator: vined  
 Sample : cc4559-300 Inst : SVOA0A  
 Misc : opl1688,goa4562,30,,,2.5,1 Multiplr: 1.00  
 IntFile : autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4559.M (ChemStation Integrator)  
 Title : HERB  
 Last Update : Fri May 04 11:53:04 2018  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|     | Compound          | AvgRF   | CCRF       | %Dev  | Area% | Dev(min) | RT     | Window |
|-----|-------------------|---------|------------|-------|-------|----------|--------|--------|
| 1   | Dalapon           | 964.956 | 807.488 E3 | 16.3  | 88    | 0.00     | 2.32-  | 2.38   |
| 2 S | 2,4-DCAA          | 557.841 | 481.526 E3 | 13.7  | 91    | 0.00     | 7.32-  | 7.38   |
| 3   | Dicamba           | 2.526   | 2.222 E6   | 12.0  | 90    | 0.00     | 7.53-  | 7.59   |
| 4   | MCPD              | 1.502   | 1.367 E3   | 9.0   | 90    | 0.00     | 7.81-  | 7.87   |
| 5   | MCPA              | 2.804   | 2.593 E3   | 7.5   | 94    | 0.00     | 8.01-  | 8.07   |
| 6   | Dichloroprop      | 677.279 | 598.805 E3 | 11.6  | 94    | -0.01    | 8.52-  | 8.58   |
| 7   | 2,4-D             | 828.384 | 760.369 E3 | 8.2   | 96    | 0.00     | 8.86-  | 8.93   |
| 8   | Pentachlorophenol | 11.215  | 10.319 E6  | 8.0   | 92    | 0.00     | 9.13-  | 9.19   |
| 9   | 2,4,5-TP          | 4.360   | 4.027 E6   | 7.6   | 93    | 0.00     | 10.17- | 10.23  |
| 10  | 2,4,5-T           | 4.333   | 4.039 E6   | 6.8   | 94    | 0.00     | 10.63- | 10.70  |
| 11  | 2,4-DB            | 463.455 | 431.660 E3 | 6.9   | 97    | 0.00     | 11.58- | 11.67  |
| 12  | Dinoseb           | 3.001   | 1.794 E6   | 40.2# | 61    | 0.00     | 13.50- | 13.56  |
| 13  | Picloram          | 5.100   | 4.847 E6   | 5.0   | 93    | 0.02     | 13.17- | 13.23  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|     |                   |         |            |       |     |      |        |       |
|-----|-------------------|---------|------------|-------|-----|------|--------|-------|
| 1   | Dalapon           | 11.702  | 10.330 E6  | 11.7  | 93  | 0.00 | 2.63-  | 2.69  |
| 2 S | 2,4-DCAA          | 9.409   | 8.497 E6   | 9.7   | 100 | 0.00 | 8.52-  | 8.58  |
| 3   | Dicamba           | 39.025  | 38.703 E6  | 0.8   | 103 | 0.00 | 8.80-  | 8.86  |
| 4   | MCPD              | 27.463  | 21.587 E3  | 21.4# | 77  | 0.00 | 8.99-  | 9.05  |
| 5   | MCPA              | 63.726  | 42.433 E3  | 33.4# | 66  | 0.00 | 9.38-  | 9.44  |
| 6   | Dichloroprop      | 9.304   | 8.305 E6   | 10.7  | 98  | 0.00 | 9.97-  | 10.03 |
| 7   | 2,4-D             | 12.358  | 11.101 E6  | 10.2  | 96  | 0.00 | 10.55- | 10.61 |
| 8   | Pentachlorophenol | 143.443 | 127.649 E6 | 11.0  | 93  | 0.00 | 11.18- | 11.24 |
| 9   | 2,4,5-TP          | 54.001  | 49.245 E6  | 8.8   | 94  | 0.00 | 12.06- | 12.12 |
| 10  | 2,4,5-T           | 56.738  | 51.997 E6  | 8.4   | 94  | 0.00 | 12.81- | 12.93 |
| 11  | 2,4-DB            | 7.381   | 6.652 E6   | 9.9   | 94  | 0.01 | 13.88- | 13.97 |
| 12  | Dinoseb           | 29.046  | 17.193 E6  | 40.8# | 63  | 0.00 | 14.45- | 14.52 |
| 13  | Picloram          | 44.447  | 43.052 E6  | 3.1   | 100 | 0.02 | 16.61- | 16.67 |

(#) = Out of Range  
 oa133102.d HOA4559.M

SPCC's out = 0 CCC's out = 0  
 Mon May 07 11:39:27 2018

12.11.58 12

GC/LC Semi-volatiles

Raw Data

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4562\  
 Data File : oal33178.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 04-May-18, 19:03:23  
 Operator : vinced  
 Sample : jc65157-12A  
 Misc : op11688,goa4562,30,,,2.5,1  
 ALS Vial : 0 (Sig #1); 15 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 07 11:32:45 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Fri May 04 11:53:04 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2  | Resp#1   | Resp#2   | Conc#1  | Conc#2  |
|-----------------------------|---------|-------|----------|----------|---------|---------|
| System Monitoring Compounds |         |       |          |          |         |         |
| 2) S 2,4-DCAA               | 7.359   | 8.555 | 267.5E6  | 3859.8E6 | 479.588 | 410.235 |
| Spiked Amount               | 500.000 |       | Recovery | =        | 95.92%  | 82.05%  |

Target Compounds

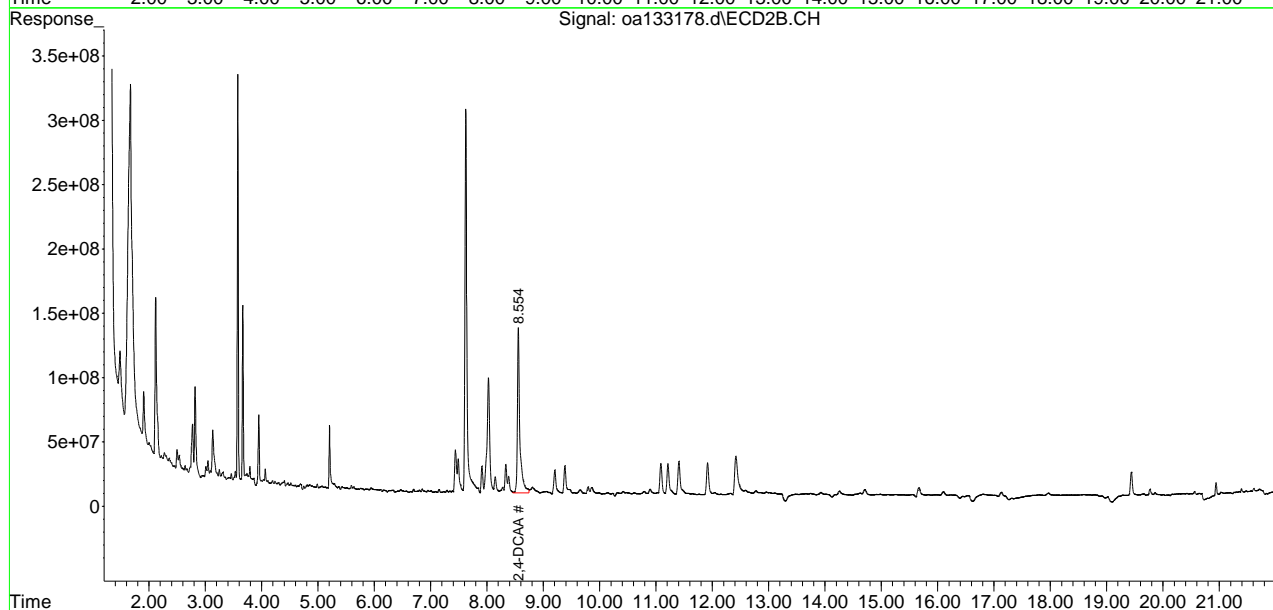
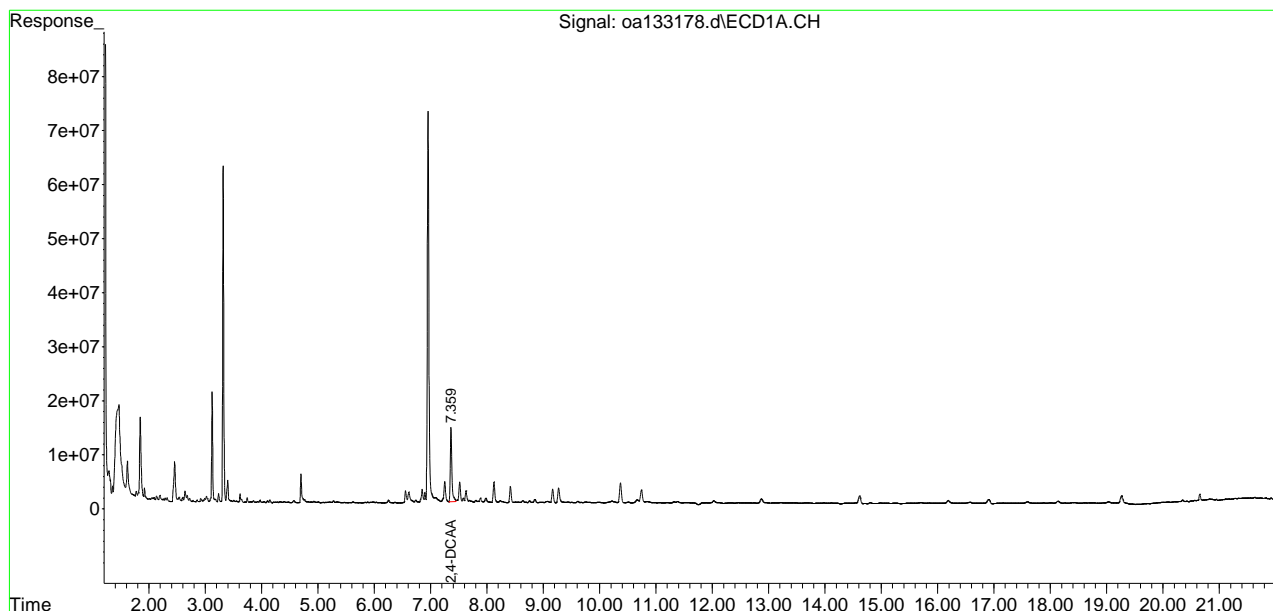
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\OA4562\  
 Data File : oal33178.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 04-May-18, 19:03:23  
 Operator : vinced  
 Sample : jc65157-12A  
 Misc : op11688,goa4562,30,,,2.5,1  
 ALS Vial : 0 (Sig #1); 15 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 07 11:32:45 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\HOA4559.M  
 Quant Title : HERB  
 QLast Update : Fri May 04 11:53:04 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



13.11  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1682\  
 Data File : 6g56189.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 14-May-18, 15:08:17  
 Operator : minam  
 Sample : jc65157-6  
 Misc : OP11917,g6g1682,16.0,,,10,1  
 ALS Vial : 79 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 15:27:26 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB       |
|-----------------------------|--------|----------------|------------|---------|---------|-----------|
| -----                       |        |                |            |         |         |           |
| Internal Standards          |        |                |            |         |         |           |
| 1) I 1-bromo-2...           | 1.951  | 2.153          | 476.2E6    | 335.5E6 | 50.000  | 50.000    |
| 27) I 1-bromo-2...          | 1.951  | 2.153          | 476.2E6    | 335.5E6 | 50.000  | 50.000    |
| 33) I 1-bromo-2...          | 1.951  | 2.153          | 476.2E6    | 335.5E6 | 50.000  | 50.000    |
| System Monitoring Compounds |        |                |            |         |         |           |
| 2) SAB Tetrachlo...         | 2.541  | 2.936          | 280.6E6    | 173.6E6 | 30.312  | 27.779    |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 75.78%  | 69.45%  |           |
| 26) SA Decachlor...         | 9.835f | 11.709f        | 198.1E6    | 940.0E6 | 20.993m | 150.796m# |
| Spiked Amount               | 40.000 |                | Recovery = | 52.48%  | 376.99% |           |
| Target Compounds            |        |                |            |         |         |           |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.      |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000     |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.12  
13

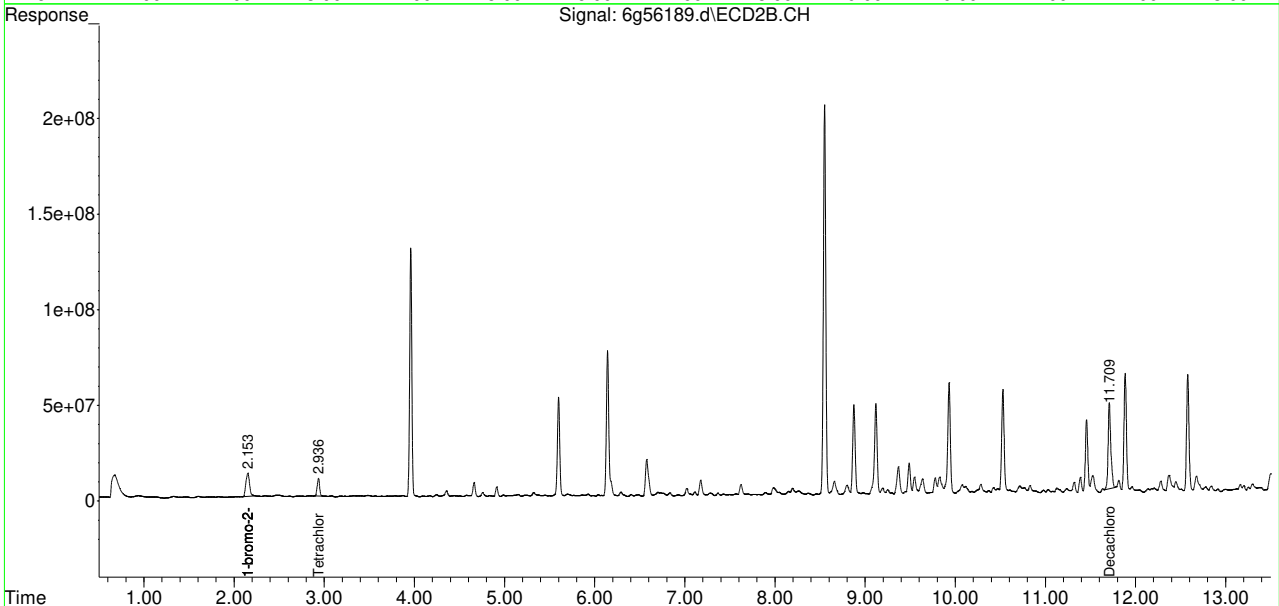
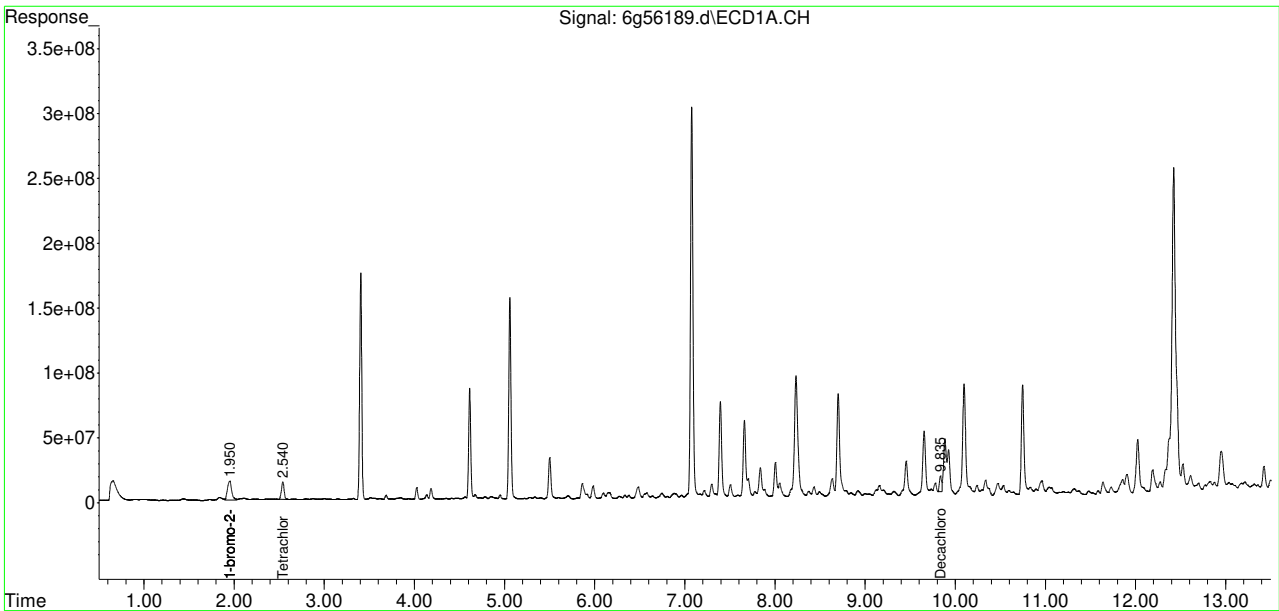


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1682\  
 Data File : 6g56189.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 14-May-18, 15:08:17  
 Operator : minam  
 Sample : jc65157-6  
 Misc : OP11917,g6g1682,16.0,,,10,1  
 ALS Vial : 79 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 15:27:26 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15033.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:14 pm  
 Operator : mailisih  
 Sample : jc65157-7  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:21:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB    | PPB      |
|-----------------------------|------------------|--------|----------------|------------|----------|--------|----------|
| -----                       |                  |        |                |            |          |        |          |
| Internal Standards          |                  |        |                |            |          |        |          |
| 1)                          | I 1-bromo-2...   | 1.925  | 2.401          | 168.2E6    | 463.3E6  | 50.000 | 50.000   |
| 27)                         | I 1-bromo-2...   | 1.925  | 2.401          | 168.2E6    | 463.3E6  | 50.000 | 50.000   |
| 33)                         | I 1-bromo-2...   | 1.925  | 2.401          | 168.2E6    | 463.3E6  | 50.000 | 50.000   |
| System Monitoring Compounds |                  |        |                |            |          |        |          |
| 2)                          | SAB Tetrachlo... | 2.686  | 3.446          | 114.4E6    | 252.8E6  | 35.956 | 33.328   |
|                             | Spiked Amount    | 40.000 | Range 30 - 150 | Recovery = |          | 89.89% | 83.32%   |
| 26)                         | SA Decachlor...  | 10.869 | 13.492         | 102.4E6    | 352.8E6  | 28.717 | 43.120 # |
|                             | Spiked Amount    | 40.000 |                | Recovery = |          | 71.79% | 107.80%  |
| Target Compounds            |                  |        |                |            |          |        |          |
| 15)                         | B 4,4'-DDE       | 5.845  | 7.786          | 25257250   | 44472591 | 7.437m | 4.681 #  |
| 20)                         | MA 4,4'-DDT      | 7.215  | 9.457          | 39525205   | 69137127 | 16.207 | 9.926 #  |

SemiQuant Compounds - Not Calibrated on this Instrument

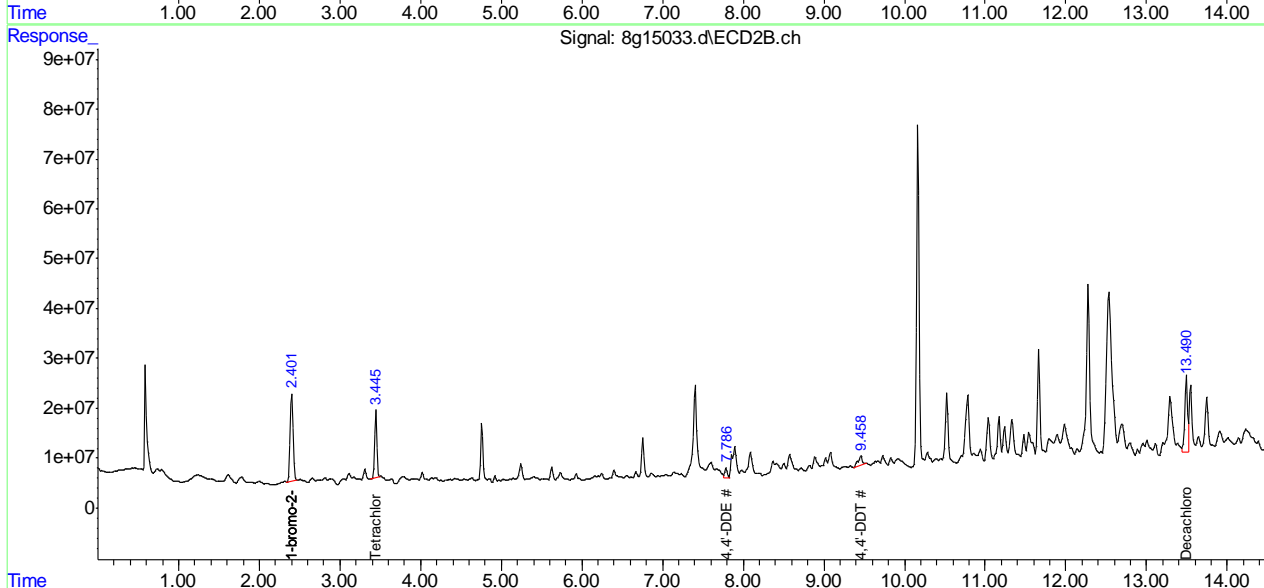
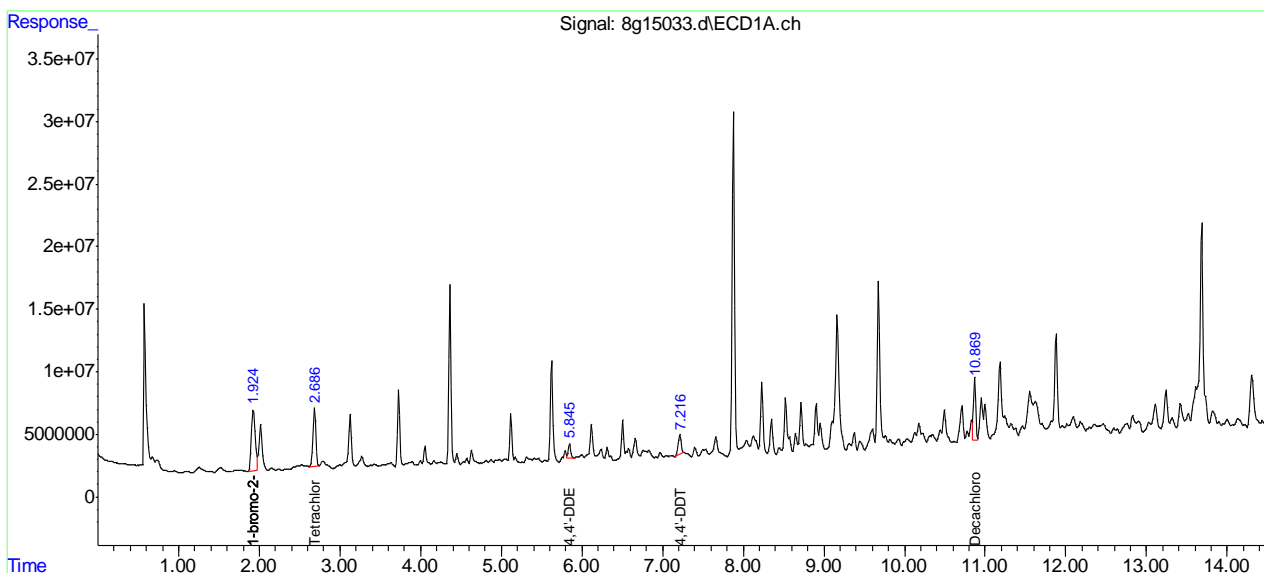
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15033.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:14 pm  
 Operator : mailisih  
 Sample : jc65157-7  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:21:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15034.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:30 pm  
 Operator : mailisih  
 Sample : jc65157-8  
 Misc : op11917,g8g489,16.1,,,10,1  
 ALS Vial : 49 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:22:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB    |
|-----------------------------|------------------|--------|----------------|------------|---------|--------|--------|
| -----                       |                  |        |                |            |         |        |        |
| Internal Standards          |                  |        |                |            |         |        |        |
| 1)                          | I 1-bromo-2...   | 1.928  | 2.402          | 174.1E6    | 471.1E6 | 50.000 | 50.000 |
| 27)                         | I 1-bromo-2...   | 1.928  | 2.402          | 174.1E6    | 471.1E6 | 50.000 | 50.000 |
| 33)                         | I 1-bromo-2...   | 1.928  | 2.402          | 174.1E6    | 471.1E6 | 50.000 | 50.000 |
| System Monitoring Compounds |                  |        |                |            |         |        |        |
| 2)                          | SAB Tetrachlo... | 2.689  | 3.447          | 101.1E6    | 250.2E6 | 30.707 | 32.436 |
|                             | Spiked Amount    | 40.000 | Range 30 - 150 | Recovery = |         | 76.77% | 81.09% |
| 26)                         | SA Decachlor...  | 10.866 | 13.493         | 103.0E6    | 263.4E6 | 27.905 | 31.659 |
|                             | Spiked Amount    | 40.000 |                | Recovery = |         | 69.76% | 79.15% |

## Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

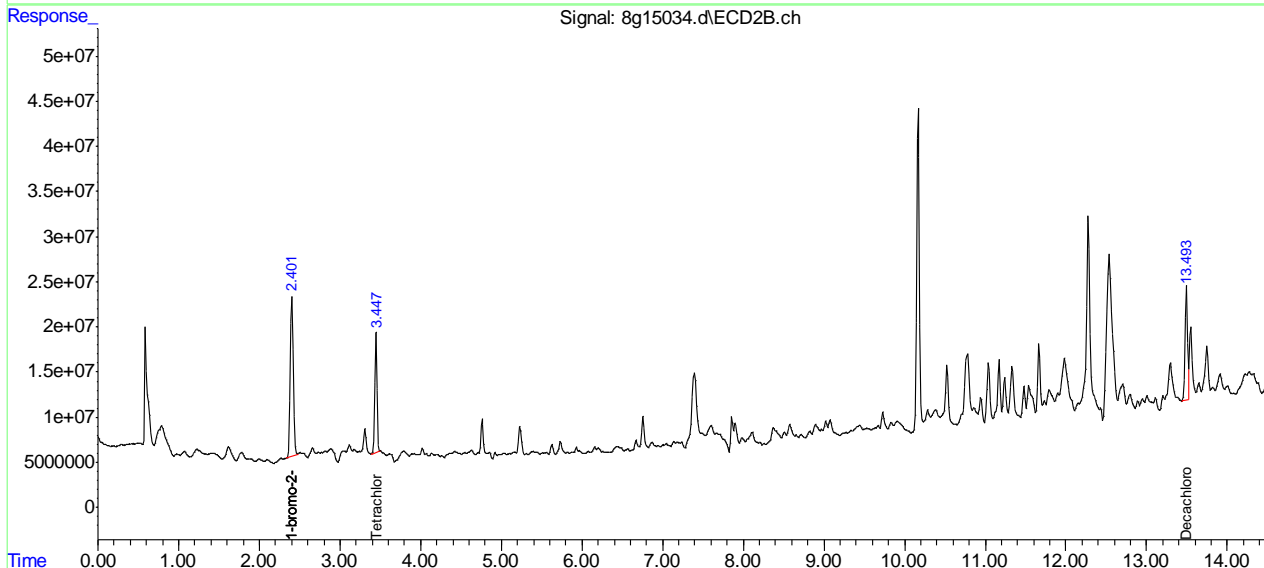
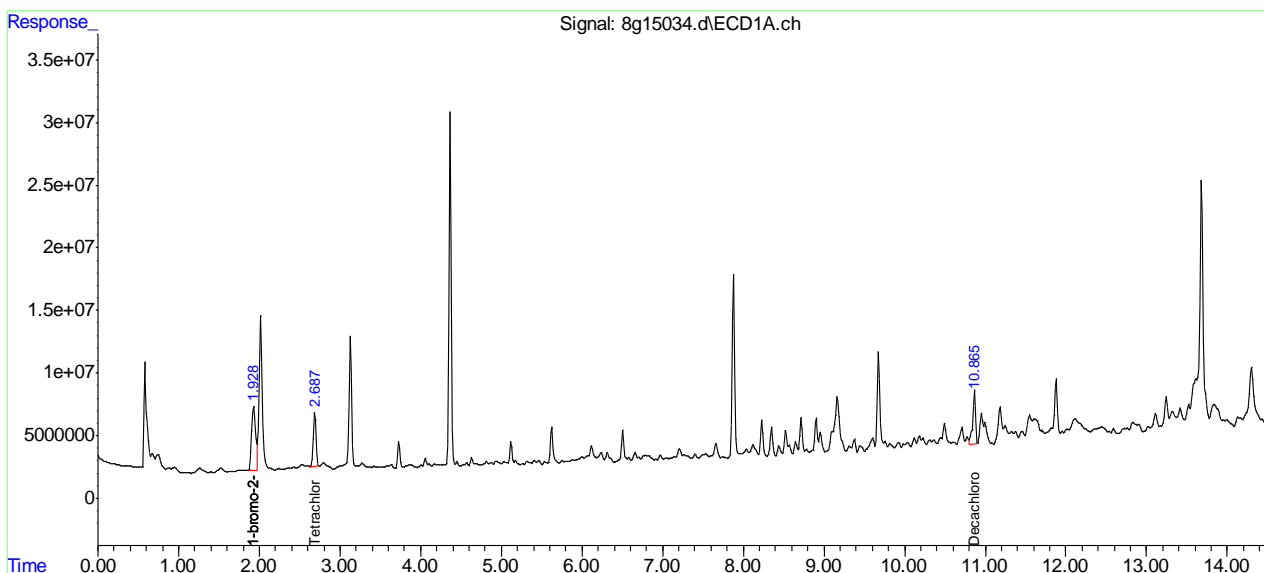
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15034.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:30 pm  
 Operator : mailisih  
 Sample : jc65157-8  
 Misc : op11917,g8g489,16.1,,,10,1  
 ALS Vial : 49 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:22:40 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.14  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15035.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:47 pm  
 Operator : mailisih  
 Sample : jc65157-9  
 Misc : op11917,g8g489,15.9,,,10,1  
 ALS Vial : 50 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:24:39 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB     |
|-----------------------------|--------|----------------|------------|---------|---------|---------|
| -----                       |        |                |            |         |         |         |
| Internal Standards          |        |                |            |         |         |         |
| 1) I 1-bromo-2...           | 1.928  | 2.403          | 190.8E6    | 504.6E6 | 50.000  | 50.000  |
| 27) I 1-bromo-2...          | 1.928  | 2.403          | 190.8E6    | 504.6E6 | 50.000  | 50.000  |
| 33) I 1-bromo-2...          | 1.928  | 2.403          | 190.8E6    | 504.6E6 | 50.000  | 50.000  |
| System Monitoring Compounds |        |                |            |         |         |         |
| 2) SAB Tetrachlo...         | 2.687  | 3.447          | 112.7E6    | 291.1E6 | 31.238m | 35.233  |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 78.09%  | 88.08%  |         |
| 26) SA Decachlor...         | 10.868 | 13.493         | 99679678   | 264.4E6 | 24.639m | 29.670m |
| Spiked Amount               | 40.000 |                | Recovery = | 61.60%  | 74.17%  |         |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

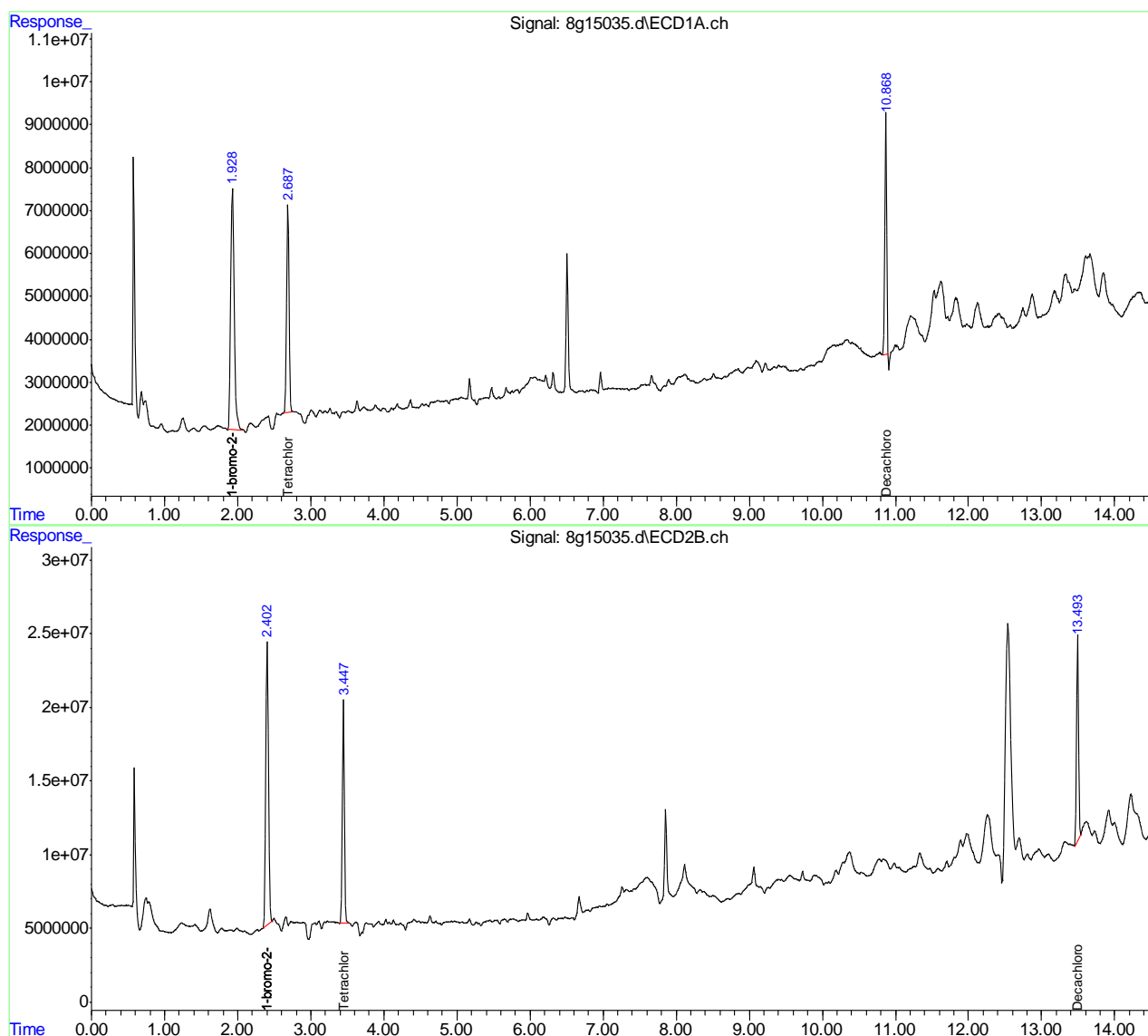
13.15  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15035.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 12:47 pm  
 Operator : mailisih  
 Sample : jc65157-9  
 Misc : op11917,g8g489,15.9,,,10,1  
 ALS Vial : 50 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 14 01:24:39 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.15  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55896.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 11:07:21  
 Operator : rebeccak  
 Sample : jc65157-10  
 Misc : OP11678,g6g1675,15.2,,,10,1  
 ALS Vial : 66 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 12:56:55 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound          | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB     |
|-----------------------------|-------------------|--------|----------------|------------|---------|---------|---------|
| -----                       |                   |        |                |            |         |         |         |
| Internal Standards          |                   |        |                |            |         |         |         |
| 1)                          | I 1-bromo-2...    | 1.950  | 2.152          | 412.7E6    | 255.0E6 | 50.000  | 50.000  |
| 27)                         | I 1-bromo-2...    | 1.950  | 2.152          | 412.7E6    | 255.0E6 | 50.000  | 50.000  |
| 33)                         | I 1-bromo-2...    | 1.950  | 2.152          | 412.7E6    | 255.0E6 | 50.000  | 50.000  |
| System Monitoring Compounds |                   |        |                |            |         |         |         |
| 2)                          | SAB Tetrachlo...  | 2.539  | 2.938          | 223.4E6    | 134.8E6 | 27.850  | 28.383  |
|                             | Spiked Amount     | 40.000 | Range 30 - 150 | Recovery = | 69.63%  | 70.96%  |         |
| 26)                         | SA Decachlor...   | 9.840  | 11.749         | 197.2E6    | 137.4E6 | 24.120m | 29.005m |
|                             | Spiked Amount     | 40.000 |                | Recovery = | 60.30%  | 72.51%  |         |
| Target Compounds            |                   |        |                |            |         |         |         |
|                             | Sum Toxaphene     |        |                | 0          | 0       | N.D.    | N.D.    |
|                             | Average Toxaphene |        |                |            |         | 0.000   | 0.000   |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

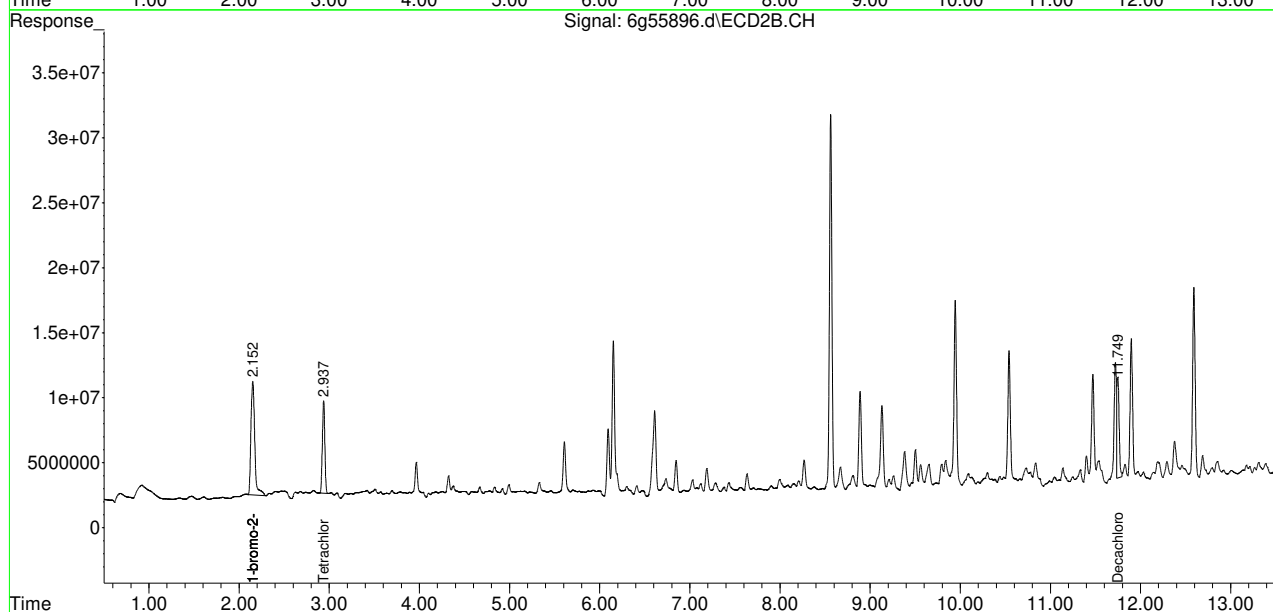
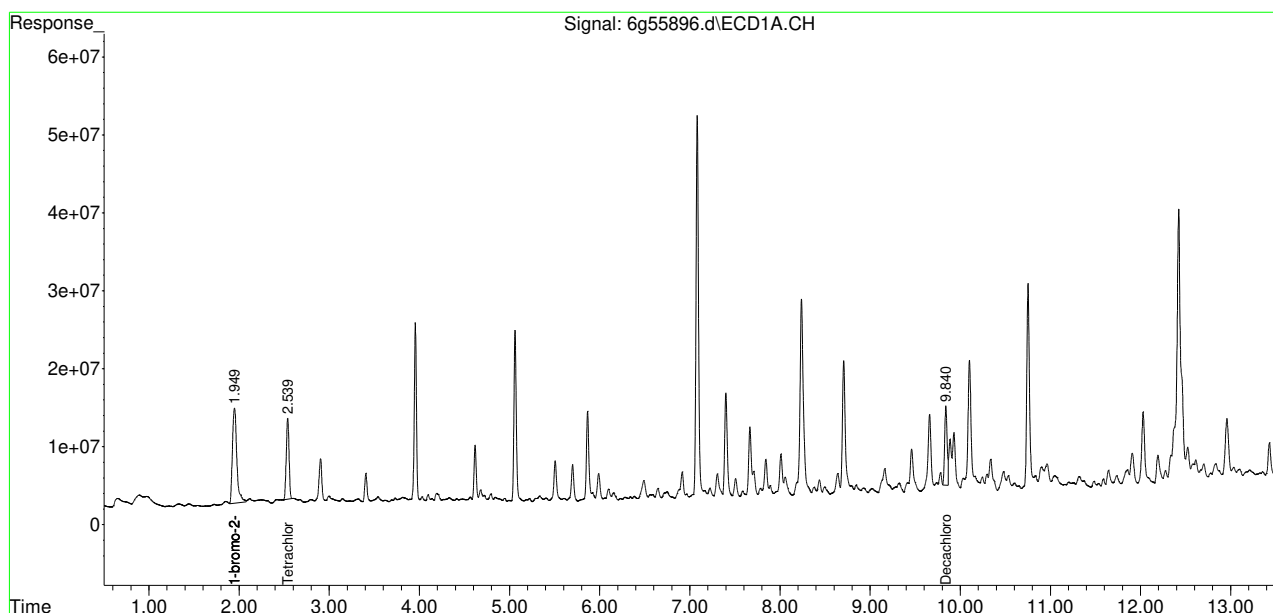


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55896.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 11:07:21  
 Operator : rebeccak  
 Sample : jc65157-10  
 Misc : OP11678,g6g1675,15.2,,,10,1  
 ALS Vial : 66 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 12:56:55 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.16  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55897.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 11:25:09  
 Operator : rebeccak  
 Sample : jc65157-11  
 Misc : OP11678,g6g1675,15.7,,,10,1  
 ALS Vial : 67 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 14:36:13 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB      |
|-----------------------------|--------|----------------|------------|---------|--------|----------|
| Internal Standards          |        |                |            |         |        |          |
| 1) I 1-bromo-2...           | 1.946  | 2.148          | 374.4E6    | 204.1E6 | 50.000 | 50.000   |
| 27) I 1-bromo-2...          | 1.946  | 2.148          | 374.4E6    | 204.1E6 | 50.000 | 50.000   |
| 33) I 1-bromo-2...          | 1.946  | 2.148          | 374.4E6    | 204.1E6 | 50.000 | 50.000   |
| System Monitoring Compounds |        |                |            |         |        |          |
| 2) SAB Tetrachlo...         | 2.536  | 2.936          | 205.8E6    | 120.3E6 | 28.279 | 31.654   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 70.70%  | 79.14% |          |
| 26) SA Decachlor...         | 9.841  | 11.750         | 199.4E6    | 132.0E6 | 26.884 | 34.821m# |
| Spiked Amount               | 40.000 |                | Recovery = | 67.21%  | 87.05% |          |
| Target Compounds            |        |                |            |         |        |          |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.   | N.D.     |
| Average Toxaphene           |        |                |            |         | 0.000  | 0.000    |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

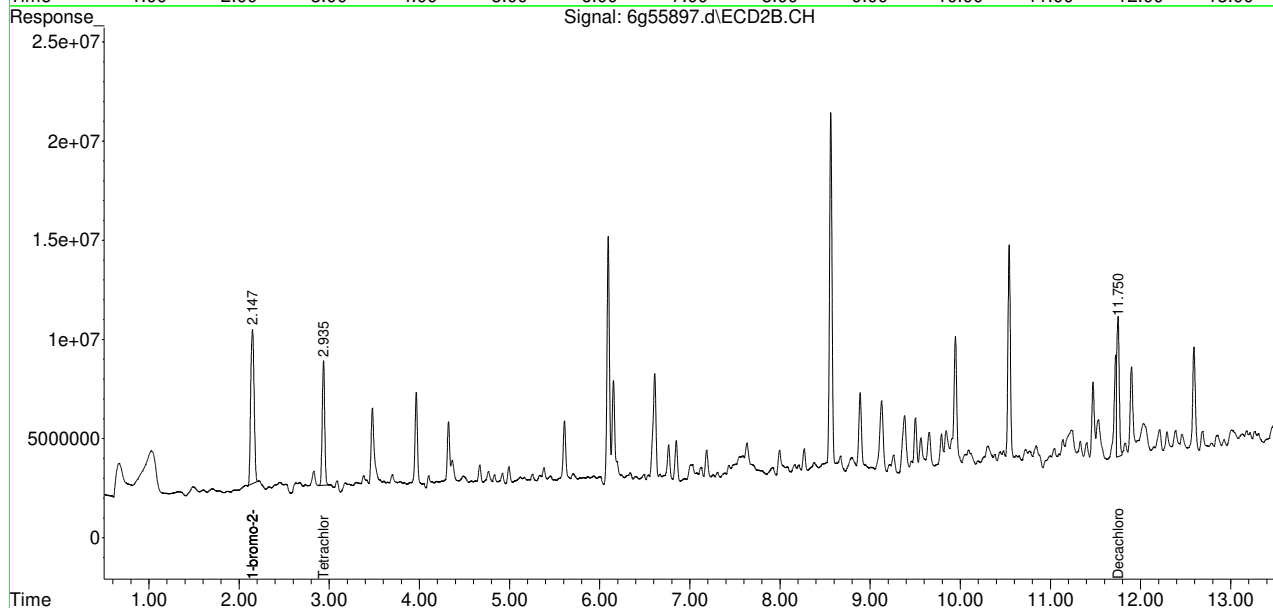
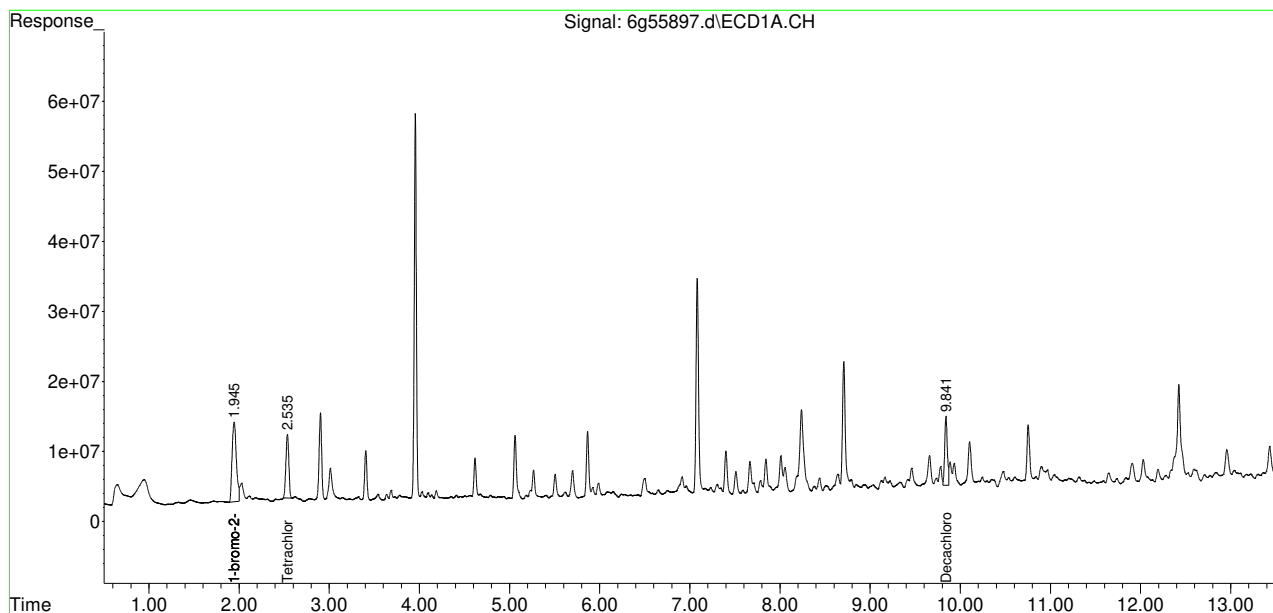
13.17  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55897.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 11:25:09  
 Operator : rebeccak  
 Sample : jc65157-11  
 Misc : OP11678,g6g1675,15.7,,,10,1  
 ALS Vial : 67 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 14:36:13 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.17  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55900.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 12:18:36  
 Operator : rebeccak  
 Sample : jc65157-12  
 Misc : OP11678,g6g1675,15.3,,,10,1  
 ALS Vial : 70 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 14:41:55 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound          | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB     |
|-----------------------------|-------------------|--------|----------------|------------|---------|--------|---------|
| -----                       |                   |        |                |            |         |        |         |
| Internal Standards          |                   |        |                |            |         |        |         |
| 1)                          | I 1-bromo-2...    | 1.948  | 2.148          | 370.3E6    | 205.7E6 | 50.000 | 50.000  |
| 27)                         | I 1-bromo-2...    | 1.948  | 2.148          | 370.3E6    | 205.7E6 | 50.000 | 50.000  |
| 33)                         | I 1-bromo-2...    | 1.948  | 2.148          | 370.3E6    | 205.7E6 | 50.000 | 50.000  |
| System Monitoring Compounds |                   |        |                |            |         |        |         |
| 2)                          | SAB Tetrachlo...  | 2.540  | 2.938          | 197.0E6    | 108.2E6 | 27.372 | 28.226  |
|                             | Spiked Amount     | 40.000 | Range 30 - 150 | Recovery = | 68.43%  | 70.56% |         |
| 26)                         | SA Decachlor...   | 9.843  | 11.749         | 186.3E6    | 116.2E6 | 25.401 | 30.412m |
|                             | Spiked Amount     | 40.000 |                | Recovery = | 63.50%  | 76.03% |         |
| Target Compounds            |                   |        |                |            |         |        |         |
|                             | Sum Toxaphene     |        |                | 0          | 0       | N.D.   | N.D.    |
|                             | Average Toxaphene |        |                |            |         | 0.000  | 0.000   |

SemiQuant Compounds - Not Calibrated on this Instrument

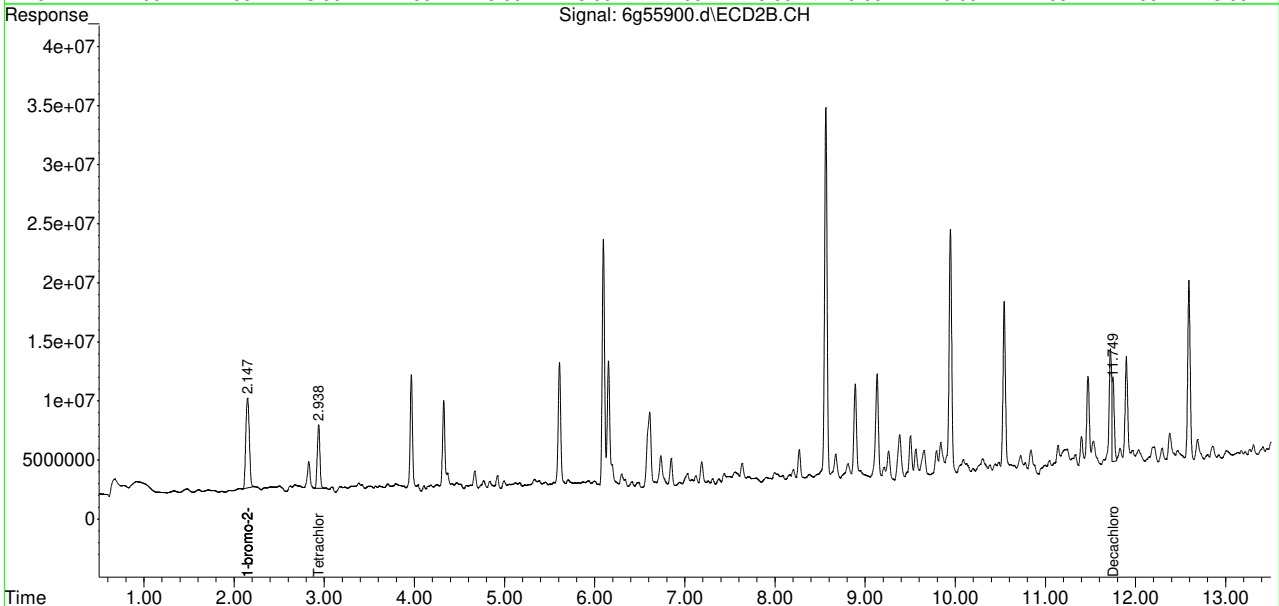
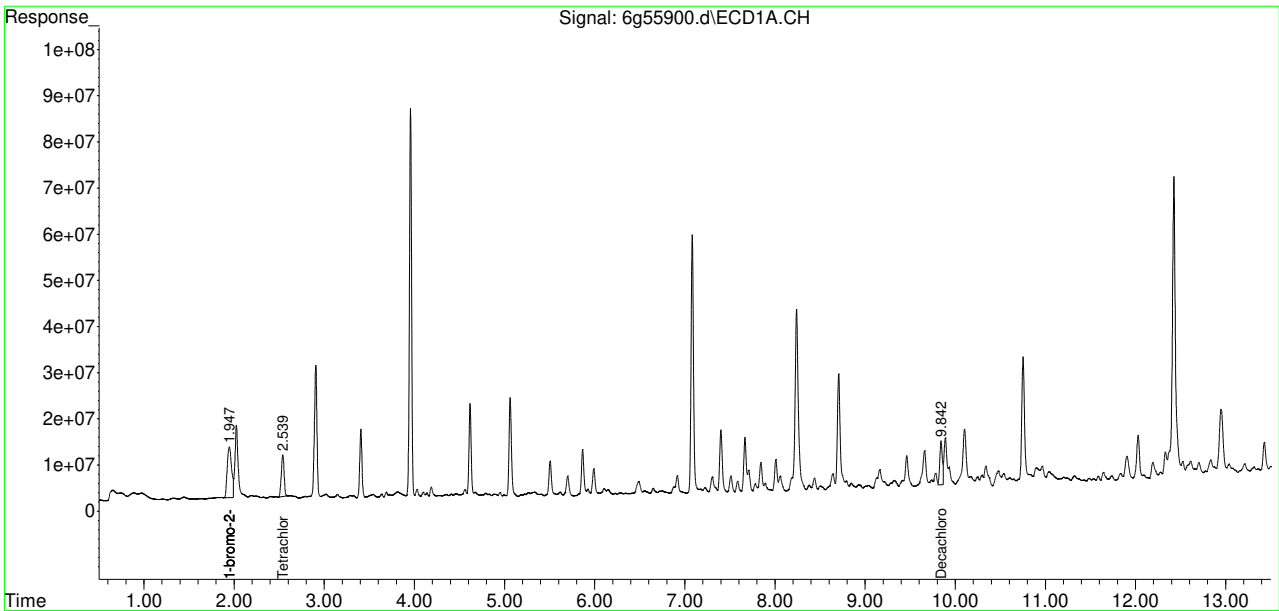
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55900.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 12:18:36  
 Operator : rebeccak  
 Sample : jc65157-12  
 Misc : OP11678,g6g1675,15.3,,,10,1  
 ALS Vial : 70 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 14:41:55 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14792.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 6:45 pm  
 Operator : dharas  
 Sample : jc65157-12a  
 Misc : op11692,g8g483,30,,,2,1  
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:19:05 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound         | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB    |
|-----------------------------|------------------|--------|----------------|------------|---------|--------|--------|
| -----                       |                  |        |                |            |         |        |        |
| Internal Standards          |                  |        |                |            |         |        |        |
| 1)                          | I 1-bromo-2...   | 1.928  | 2.403          | 212.5E6    | 495.7E6 | 50.000 | 50.000 |
| 27)                         | I 1-bromo-2...   | 1.928  | 2.403          | 212.5E6    | 495.7E6 | 50.000 | 50.000 |
| 33)                         | I 1-bromo-2...   | 1.928  | 2.403          | 212.5E6    | 495.7E6 | 50.000 | 50.000 |
| System Monitoring Compounds |                  |        |                |            |         |        |        |
| 2)                          | SAB Tetrachlo... | 2.686  | 3.446          | 123.4E6    | 293.7E6 | 30.697 | 36.187 |
|                             | Spiked Amount    | 40.000 | Range 30 - 150 | Recovery = |         | 76.74% | 90.47% |
| 26)                         | SA Decachlor...  | 10.876 | 13.504         | 141.7E6    | 293.1E6 | 31.452 | 33.477 |
|                             | Spiked Amount    | 40.000 |                | Recovery = |         | 78.63% | 83.69% |

## Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

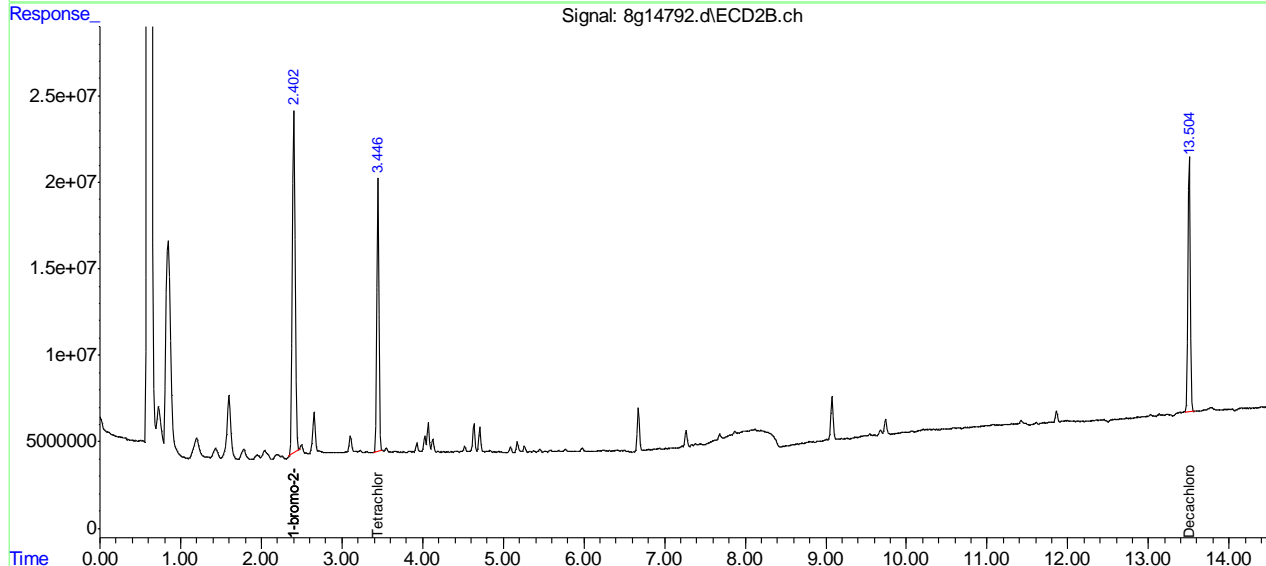
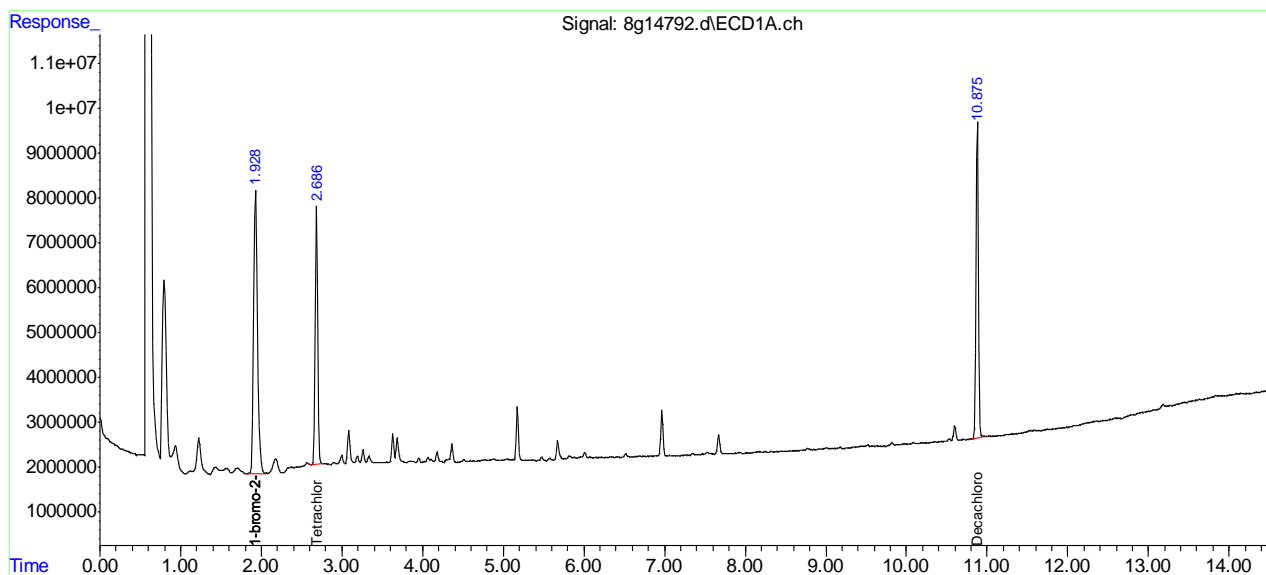
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14792.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 6:45 pm  
 Operator : dharas  
 Sample : jc65157-12a  
 Misc : op11692,g8g483,30,,,2,1  
 ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:19:05 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.19  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162672.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 10:11 am  
 Operator : tianweir  
 Sample : jc65157-6  
 Misc : OP11677,G2G4322,15.7,,,10,1  
 ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 11:08:35 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb     | ppb      |
|-----------------------------|--------|--------|----------|---------|---------|----------|
| -----                       |        |        |          |         |         |          |
| System Monitoring Compounds |        |        |          |         |         |          |
| 1) S Tetrachlo...           | 2.791  | 3.437  | 113.0E6  | 496.1E6 | 30.795  | 21.681m# |
| Spiked Amount               | 40.000 |        | Recovery | =       | 76.99%  | 54.20%   |
| 51) S Decachlor...          | 9.976  | 11.813 | 172.0E6  | 902.7E6 | 42.402  | 47.265   |
| Spiked Amount               | 40.000 |        | Recovery | =       | 106.01% | 118.16%  |

## Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

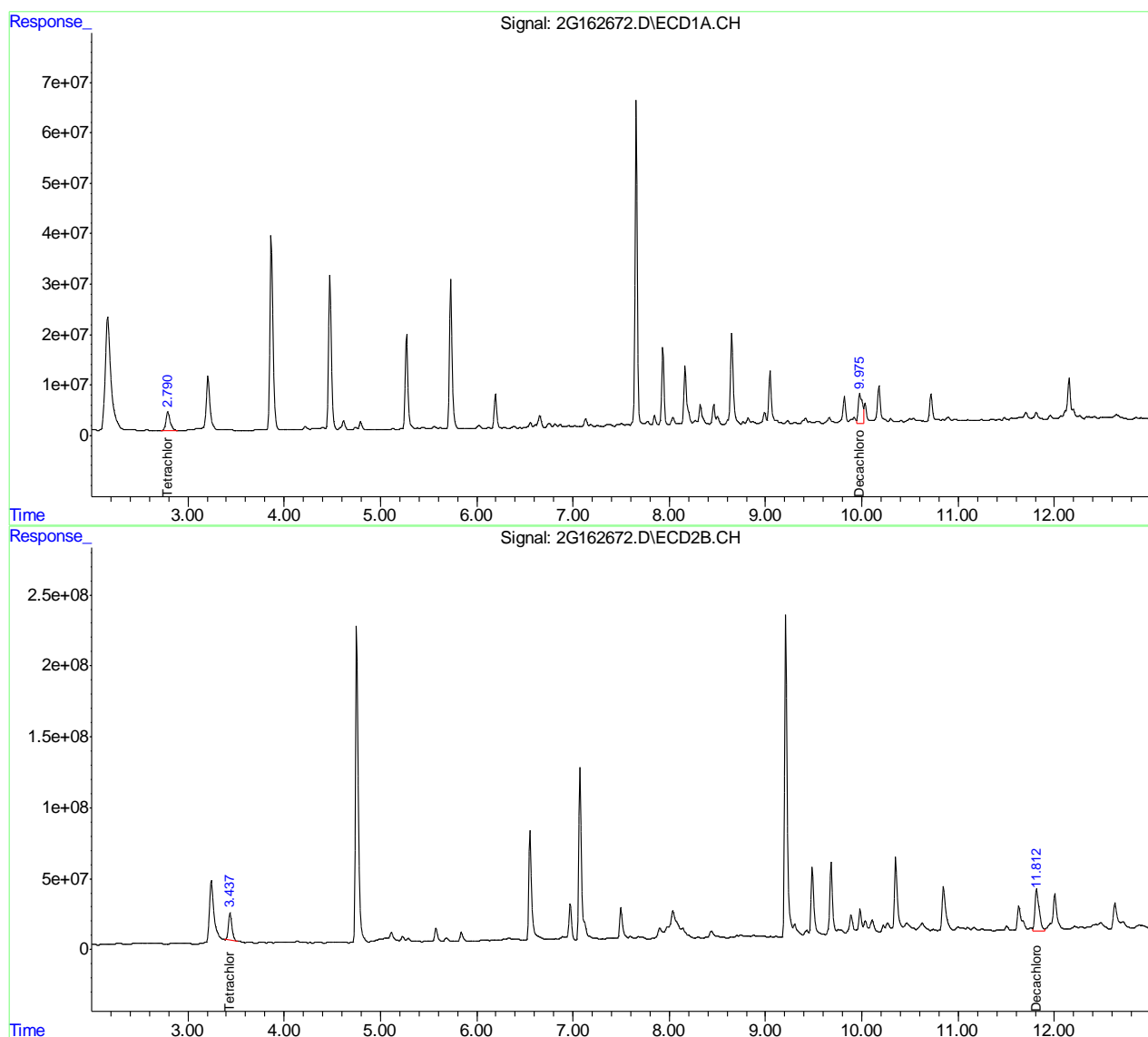


## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
Data File : 2G162672.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 10:11 am  
Operator : tianweir  
Sample : jc65157-6  
Misc : OP11677,G2G4322,15.7,,,10,1  
ALS Vial : 54 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 02 11:08:35 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Wed May 02 09:26:32 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

13.1.10  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162673.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 10:28 am  
 Operator : tianweir  
 Sample : jc65157-7  
 Misc : OP11677,G2G4322,16.0,,,10,1  
 ALS Vial : 55 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 11:09:11 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|--------|----------|---------|--------|--------|
| -----                       |        |        |          |         |        |        |
| System Monitoring Compounds |        |        |          |         |        |        |
| 1) S Tetrachlo...           | 2.789  | 3.438  | 124.1E6  | 701.4E6 | 33.807 | 30.654 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 84.52% | 76.63% |
| 51) S Decachlor...          | 9.975  | 11.809 | 112.6E6  | 551.2E6 | 27.761 | 28.860 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 69.40% | 72.15% |

## Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

13.1.11

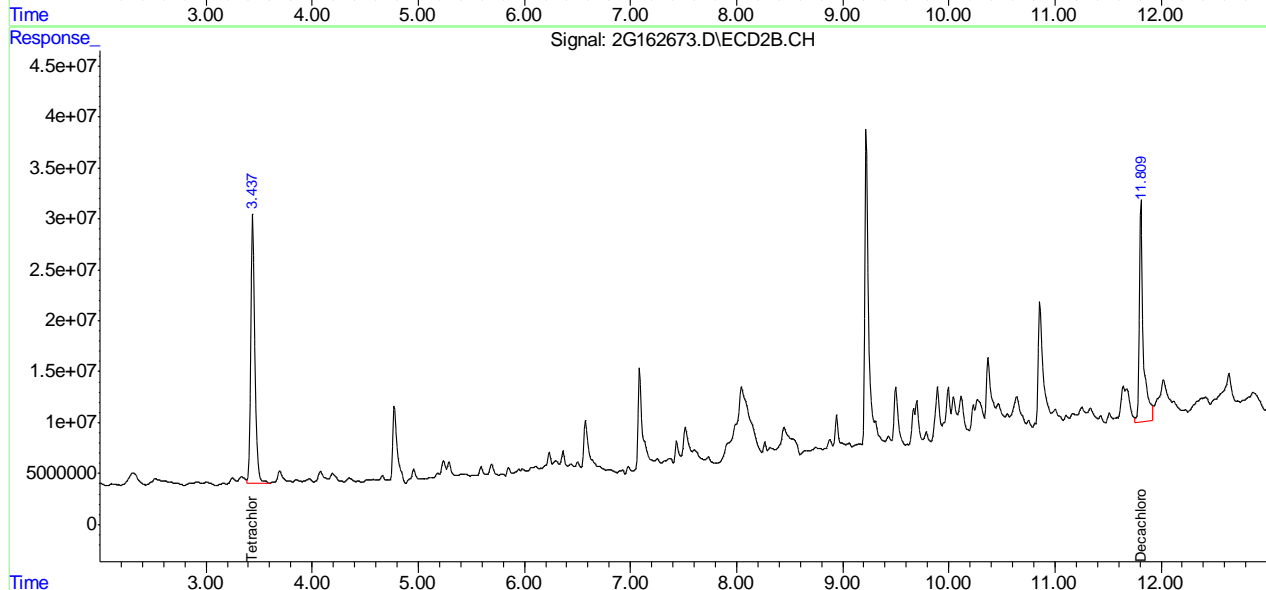
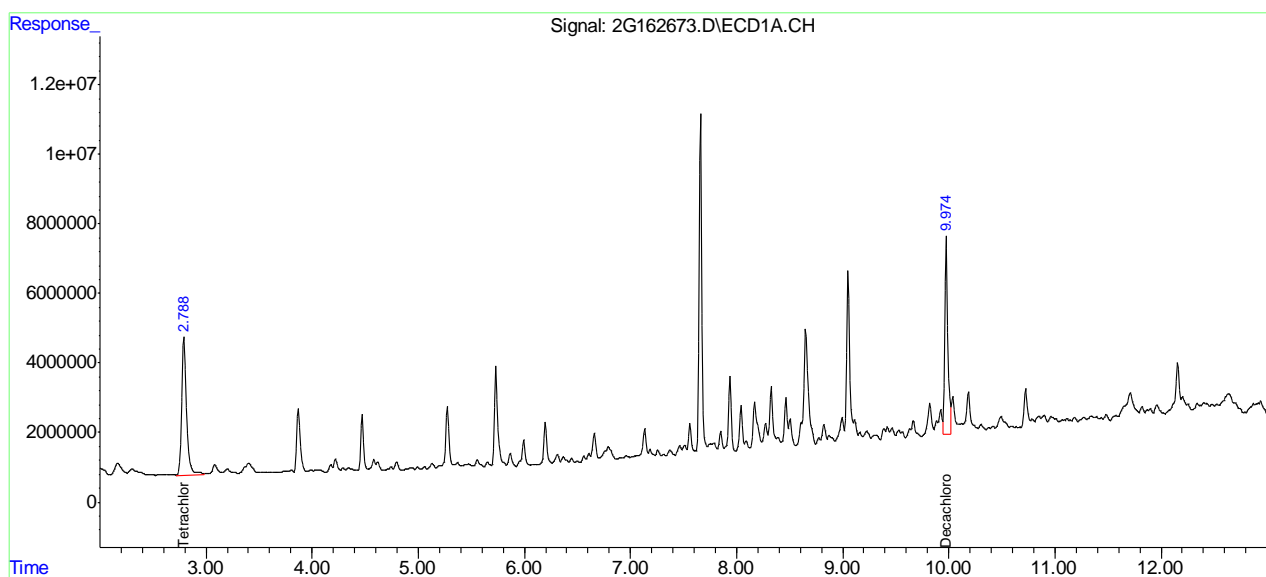
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
Data File : 2G162673.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 10:28 am  
Operator : tianweir  
Sample : jc65157-7  
Misc : OP11677,G2G4322,16.0,,,10,1  
ALS Vial : 55 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 02 11:09:11 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Wed May 02 09:26:32 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162678.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:19 pm  
 Operator : tianweir  
 Sample : jc65157-8  
 Misc : OP11677,G2G4322,15.4,,,10,1  
 ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:47:50 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb     |
|-----------------------------|--------|--------|----------|---------|--------|---------|
| -----                       |        |        |          |         |        |         |
| System Monitoring Compounds |        |        |          |         |        |         |
| 1) S Tetrachlo...           | 2.790  | 3.436  | 127.8E6  | 693.0E6 | 34.829 | 30.284  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 87.07% | 75.71%  |
| 51) S Decachlor...          | 9.973  | 11.809 | 150.9E6  | 768.8E6 | 37.211 | 40.252  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 93.03% | 100.63% |

## Target Compounds

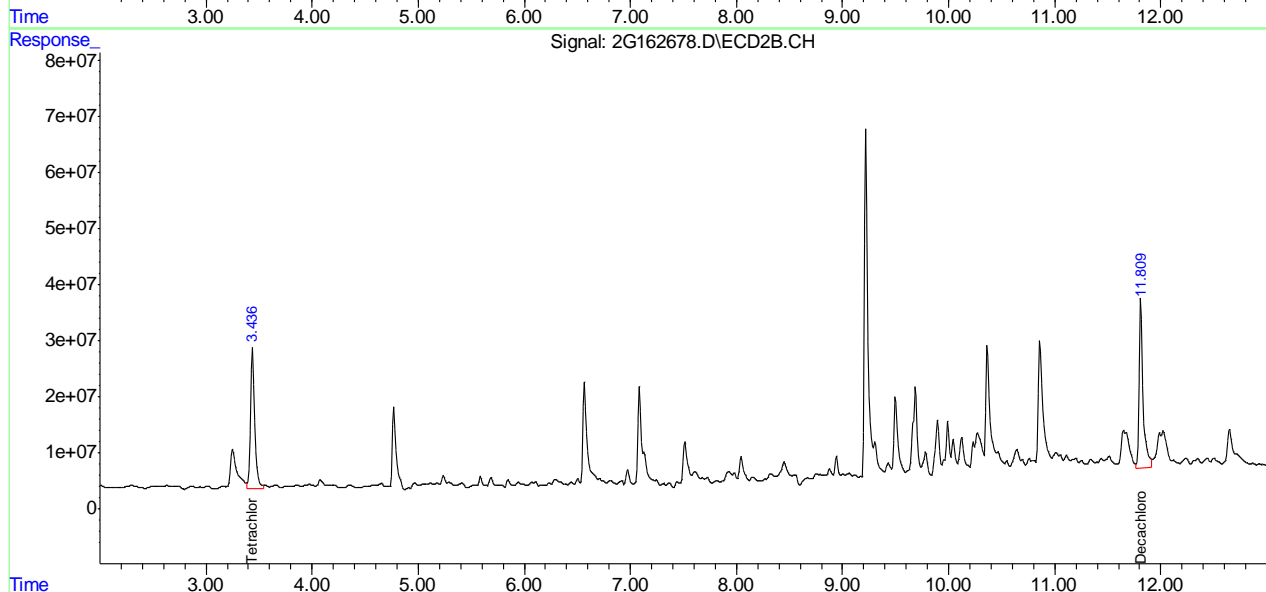
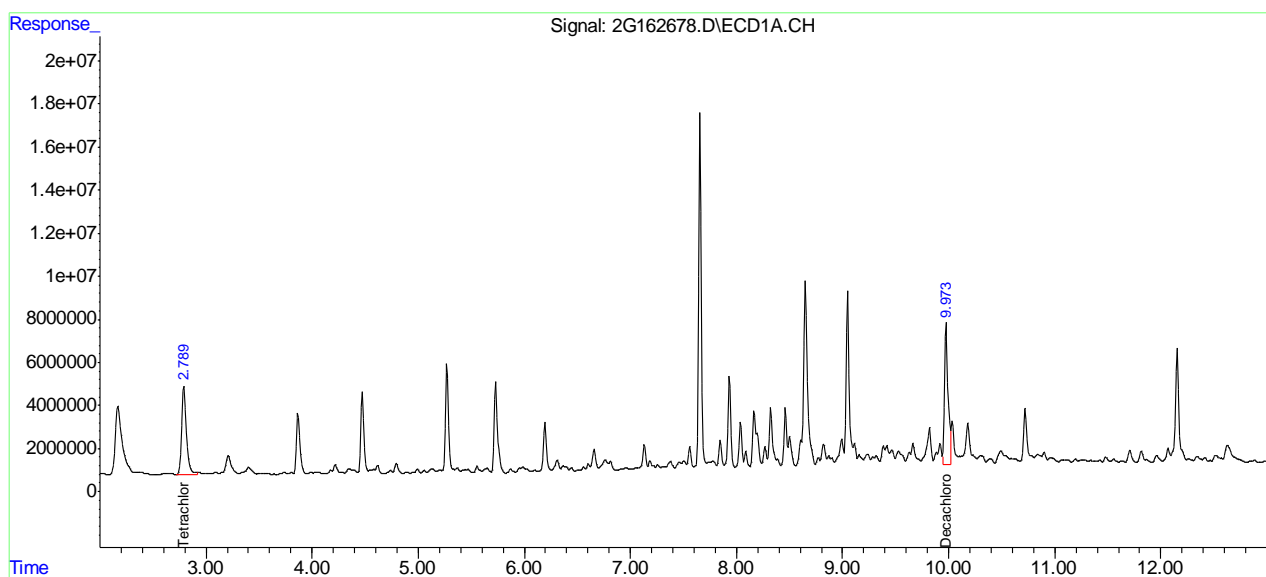
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162678.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:19 pm  
 Operator : tianweir  
 Sample : jc65157-8  
 Misc : OP11677,G2G4322,15.4,,,10,1  
 ALS Vial : 57 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:47:50 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.12  
13

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162679.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:36 pm  
 Operator : tianweir  
 Sample : jc65157-9  
 Misc : OP11677,G2G4322,16.2,,,10,1  
 ALS Vial : 58 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:46:04 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb    |
|-----------------------------|--------|--------|----------|---------|--------|--------|
| -----                       |        |        |          |         |        |        |
| System Monitoring Compounds |        |        |          |         |        |        |
| 1) S Tetrachlo...           | 2.790  | 3.440  | 134.8E6  | 868.3E6 | 36.733 | 37.945 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 91.83% | 94.86% |
| 51) S Decachlor...          | 9.976  | 11.809 | 126.1E6  | 511.4E6 | 31.104 | 26.773 |
| Spiked Amount               | 40.000 |        | Recovery | =       | 77.76% | 66.93% |

## Target Compounds

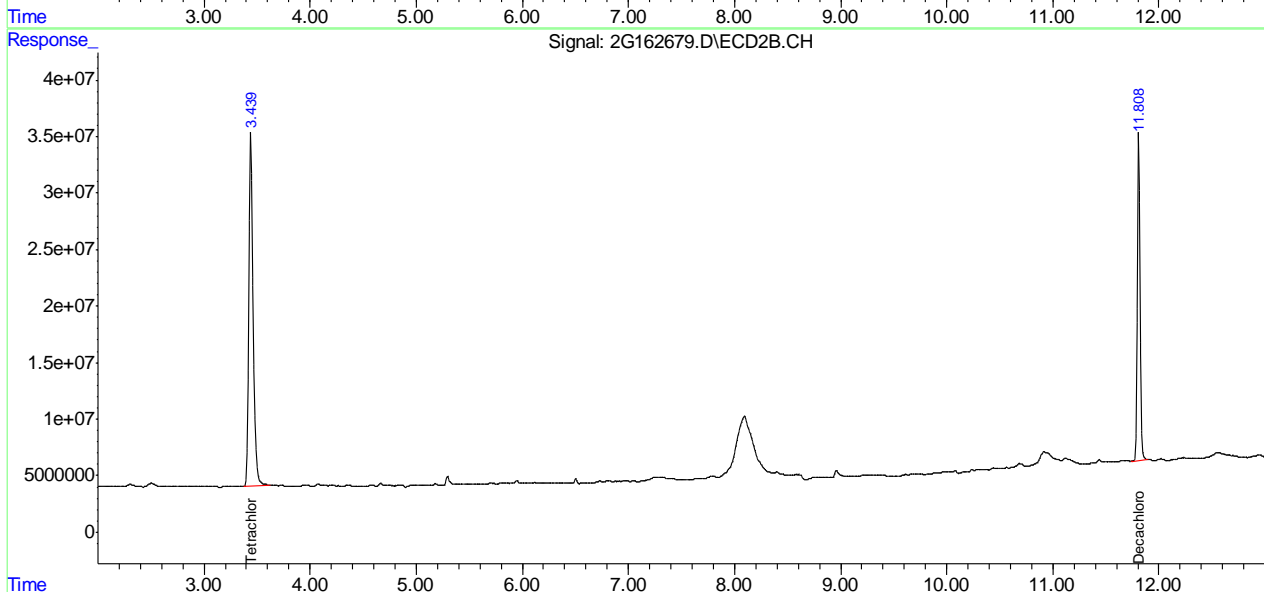
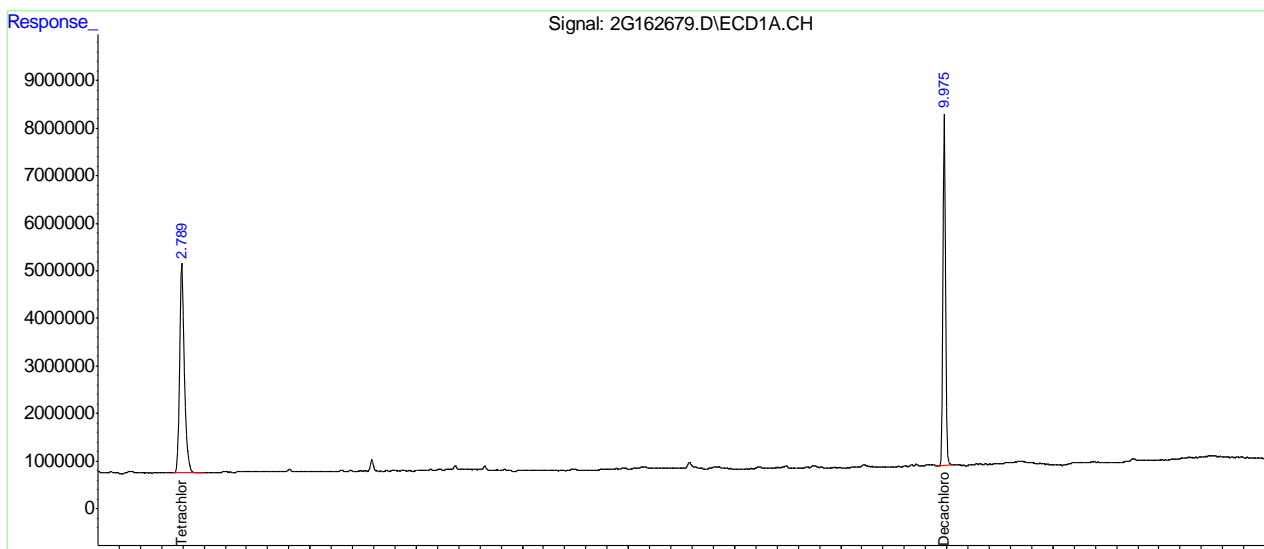
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162679.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:36 pm  
 Operator : tianweir  
 Sample : jc65157-9  
 Misc : OP11677,G2G4322,16.2,,,10,1  
 ALS Vial : 58 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:46:04 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162661.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 7:04 am  
 Operator : tianweir  
 Sample : jc65157-10  
 Misc : OP11677,G2G4322,15.2,,,10,1  
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 09:29:41 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb      |
|-----------------------------|--------|--------|----------|----------|---------|----------|
| -----                       |        |        |          |          |         |          |
| System Monitoring Compounds |        |        |          |          |         |          |
| 1) S Tetrachlo...           | 2.788  | 3.437  | 138.2E6  | 836.3E6  | 37.659  | 36.547   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 94.15%  | 91.37%   |
| 51) S Decachlor...          | 9.972  | 11.809 | 176.6E6  | 1101.0E6 | 43.546m | 57.646 # |
| Spiked Amount               | 40.000 |        | Recovery | =        | 108.86% | 144.11%  |

## Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

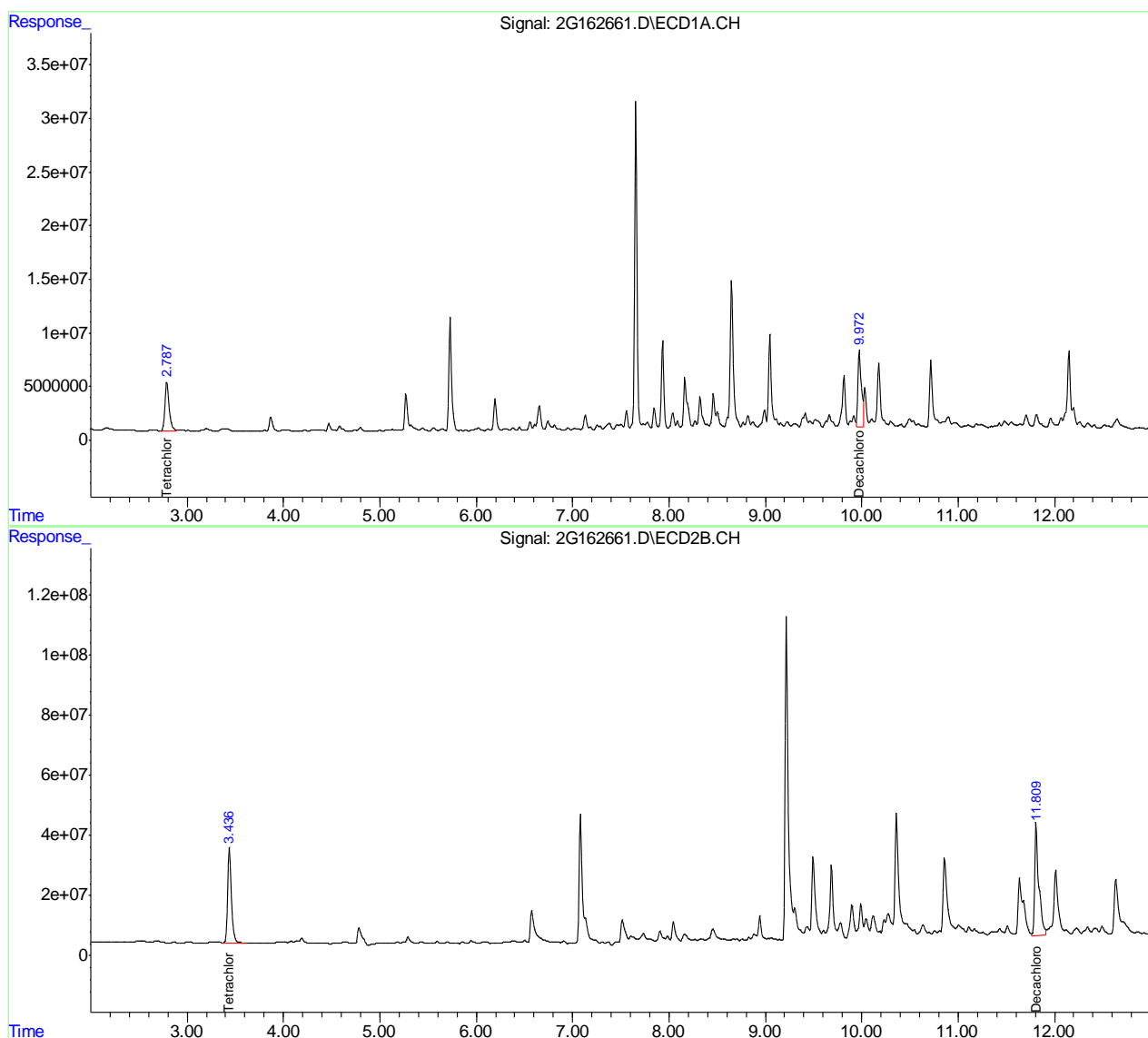


## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
Data File : 2G162661.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 7:04 am  
Operator : tianweir  
Sample : jc65157-10  
Misc : OP11677,G2G4322,15.2,,,10,1  
ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 02 09:29:41 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Wed May 02 09:26:32 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162680.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 12:52 pm  
 Operator : tianweir  
 Sample : jc65157-11  
 Misc : OP11677,G2G4322,15.7,,,10,1  
 ALS Vial : 59 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:46:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb     |
|-----------------------------|--------|--------|----------|---------|--------|---------|
| -----                       |        |        |          |         |        |         |
| System Monitoring Compounds |        |        |          |         |        |         |
| 1) S Tetrachlo...           | 2.789  | 3.437  | 129.8E6  | 745.0E6 | 35.360 | 32.556  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 88.40% | 81.39%  |
| 51) S Decachlor...          | 9.972  | 11.808 | 134.8E6  | 591.1E6 | 33.232 | 30.948m |
| Spiked Amount               | 40.000 |        | Recovery | =       | 83.08% | 77.37%  |

## Target Compounds

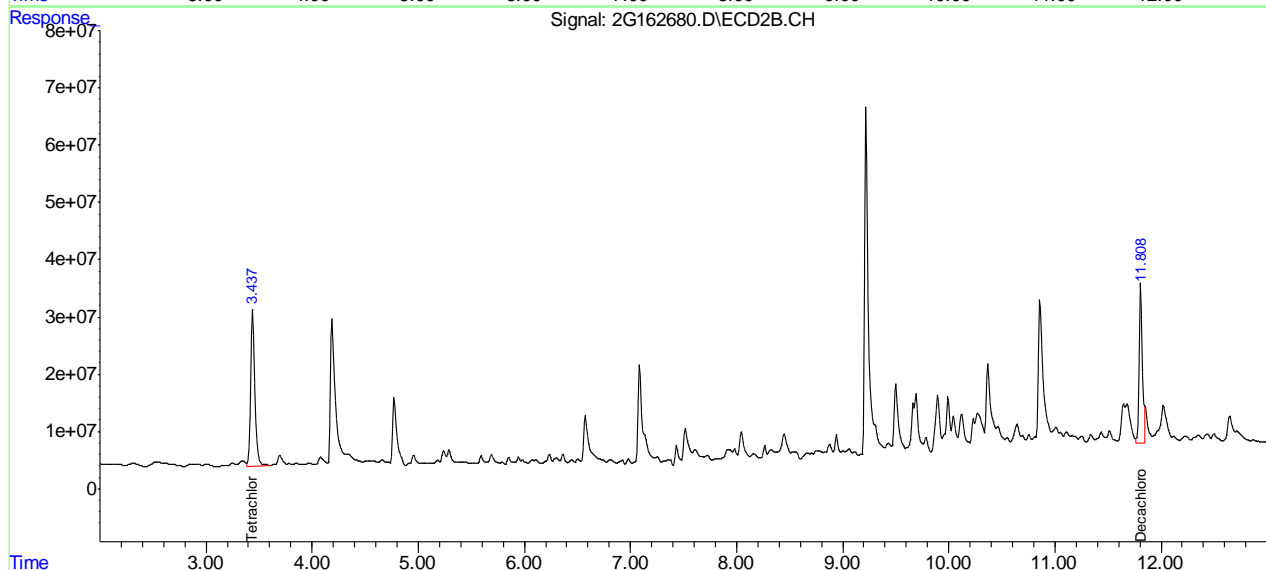
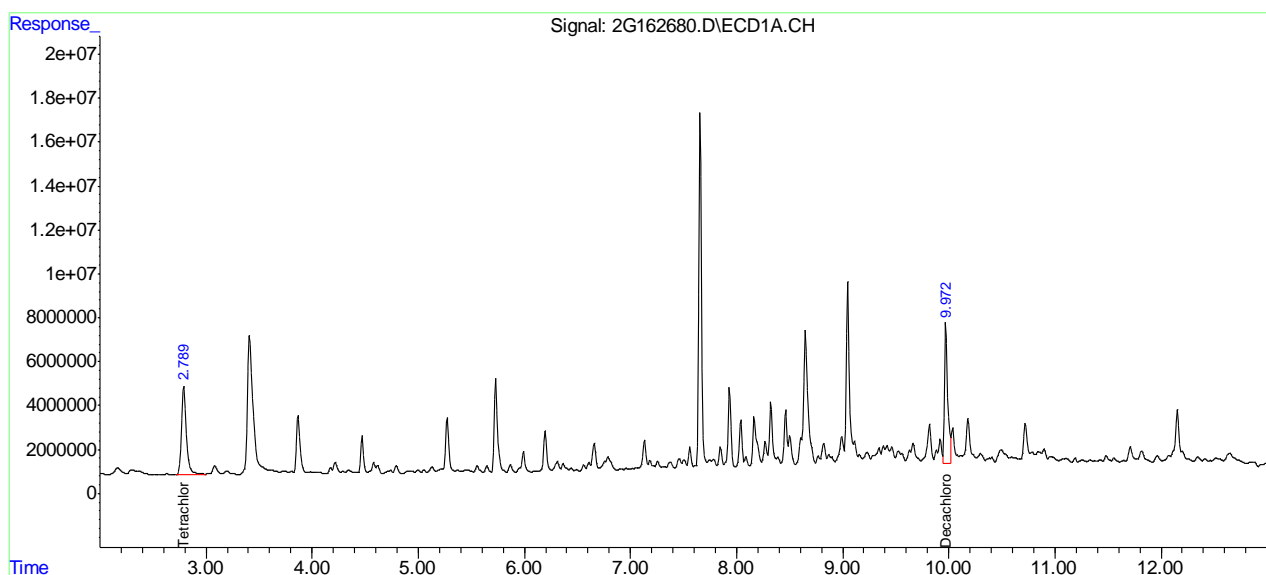
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
Data File : 2G162680.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 02 May 2018 12:52 pm  
Operator : tianweir  
Sample : jc65157-11  
Misc : OP11677,G2G4322,15.7,,,10,1  
ALS Vial : 59 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: May 02 13:46:42 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Wed May 02 09:26:32 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162681.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 1:09 pm  
 Operator : tianweir  
 Sample : jc65157-12  
 Misc : OP11677,G2G4322,15.3,,,10,1  
 ALS Vial : 60 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:47:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb      |
|-----------------------------|--------|--------|----------|----------|---------|----------|
| -----                       |        |        |          |          |         |          |
| System Monitoring Compounds |        |        |          |          |         |          |
| 1) S Tetrachlo...           | 2.790  | 3.437  | 121.7E6  | 637.0E6  | 33.162  | 27.838   |
| Spiked Amount               | 40.000 |        | Recovery | =        | 82.91%  | 69.60%   |
| 51) S Decachlor...          | 9.973  | 11.812 | 112.9E6  | 1039.1E6 | 27.827m | 54.405 # |
| Spiked Amount               | 40.000 |        | Recovery | =        | 69.57%  | 136.01%  |

## Target Compounds

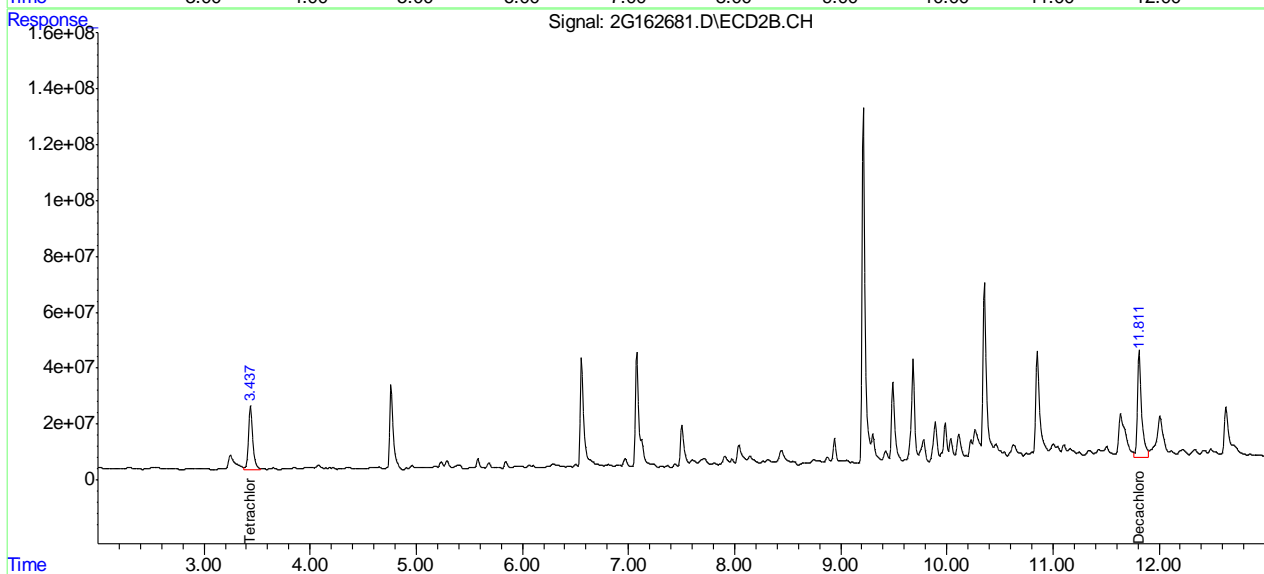
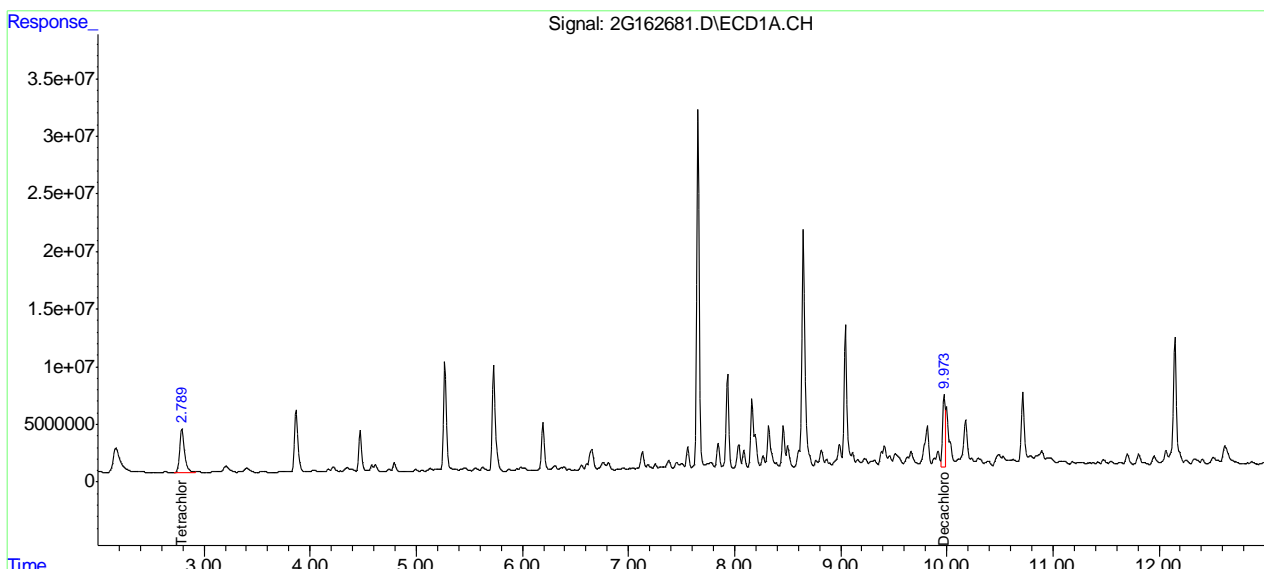
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162681.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 1:09 pm  
 Operator : tianweir  
 Sample : jc65157-12  
 Misc : OP11677,G2G4322,15.3,,,10,1  
 ALS Vial : 60 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 13:47:17 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.1.16 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Z2592\  
Data File : 2z68943.D  
Signal(s) : FID2B.CH  
Acq On : 02 May 2018 11:51 am  
Operator : rebeccak  
Sample : jc65157-6  
Misc : op11675,g2z2592,10.4,,,1,1  
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 13:24:10 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
Quant Title :  
QLast Update : Mon Apr 02 11:34:09 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
Signal Phase : RTX-1  
Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response   | Conc     | Units  |
|-----------------------------|--------|------------|----------|--------|
| -----                       |        |            |          |        |
| System Monitoring Compounds |        |            |          |        |
| 8) S o-Terphenyl            | 9.79   | 96536645   | 32.759   | PPM    |
| Spiked Amount               | 50.000 | Recovery   | =        | 65.52% |
| 9) S 5a-Androstane          | 10.49  | 88634628   | 41.513   | PPM m  |
| Spiked Amount               | 50.000 | Recovery   | =        | 83.03% |
| 10) S Tetracosane-d50       | 11.60  | 76253527   | 43.963   | PPM m  |
| Spiked Amount               | 50.000 | Recovery   | =        | 87.93% |
| Target Compounds            |        |            |          |        |
| 1) H TPH-DRO                | 8.60   | 1928650726 | 1103.927 | PPM    |
| 2) H TPH-DRO (C10-C44)      | 14.00  | 2250720693 | 1288.275 | PPM    |
| -----                       |        |            |          |        |

(f)=RT Delta > 1/2 Window (m)=manual int.

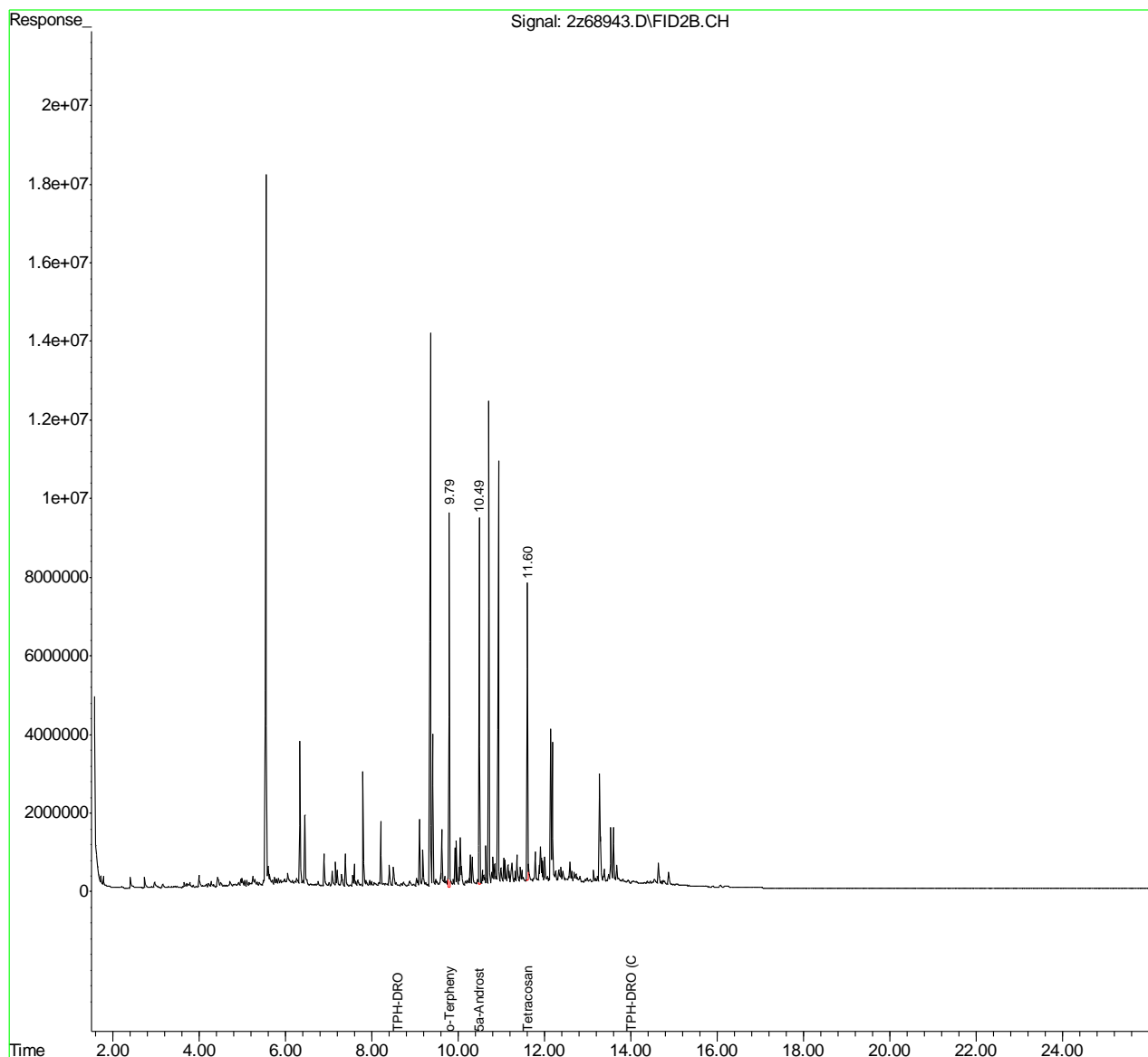
13.1.17  
13

Quantitation Report (QT Reviewed)

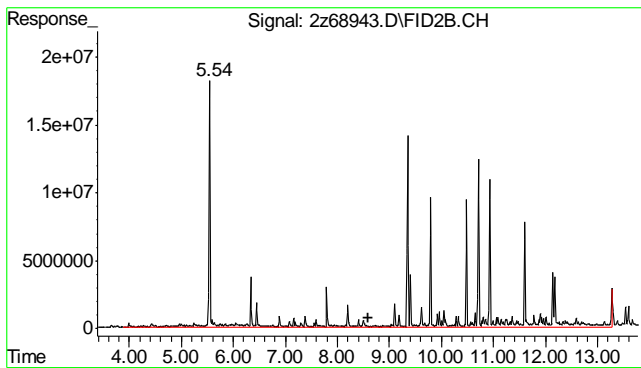
Data Path : C:\msdchem\1\DATA\G2Z2592\  
Data File : 2z68943.D  
Signal(s) : FID2B.CH  
Acq On : 02 May 2018 11:51 am  
Operator : rebeccak  
Sample : jc65157-6  
Misc : op11675,g2z2592,10.4,,,1,1  
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 13:24:10 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
Quant Title :  
QLast Update : Mon Apr 02 11:34:09 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

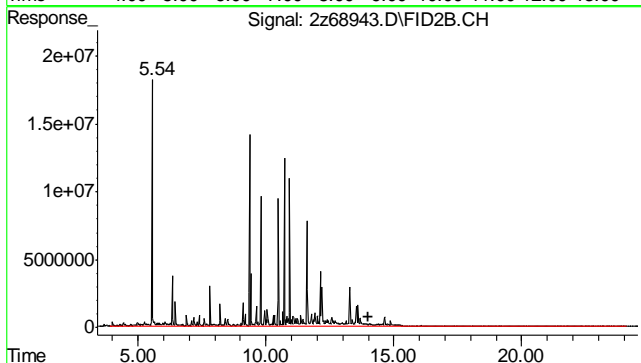
Volume Inj. : 1UL  
Signal Phase : RTX-1  
Signal Info : 30mX0.25mmX0.25um



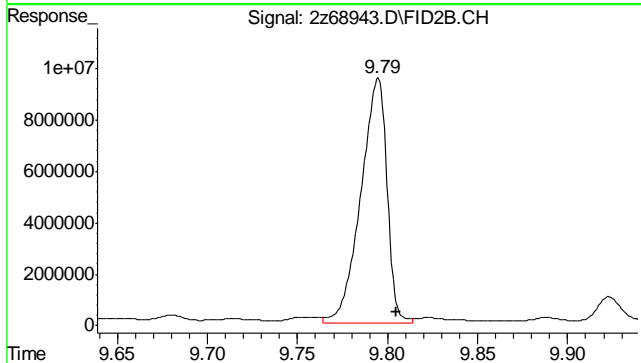
13.1.17  
13



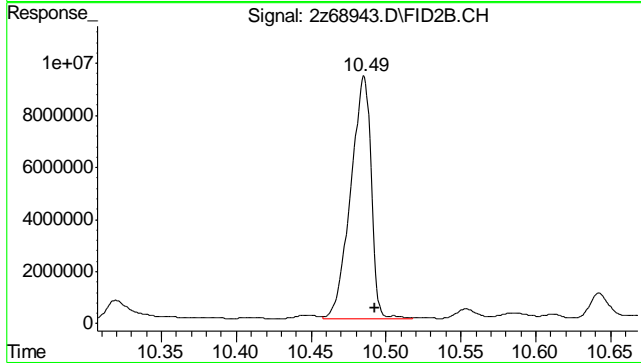
#1 TPH-DRO  
 R.T.: 8.600 min  
 Delta R.T.: 0.000 min  
 Response: 1928650726  
 Conc: 1103.93 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 14.000 min  
 Delta R.T.: 0.000 min  
 Response: 2250720693  
 Conc: 1288.27 PPM m



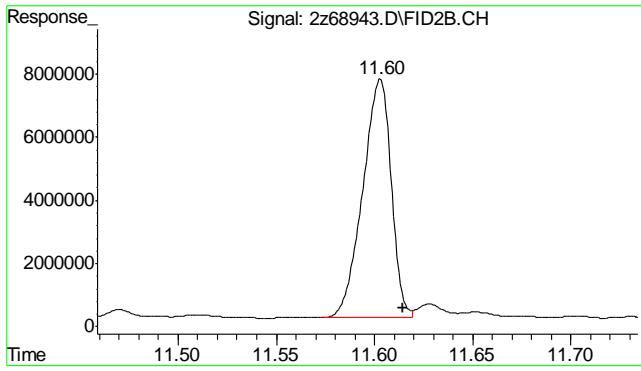
#8 o-Terphenyl  
 R.T.: 9.795 min  
 Delta R.T.: -0.010 min  
 Response: 96536645  
 Conc: 32.76 PPM



#9 5a-Androstane  
 R.T.: 10.485 min  
 Delta R.T.: -0.008 min  
 Response: 88634628  
 Conc: 41.51 PPM m

13.1.17  
 13





#10 Tetracosane-d50  
R.T.: 11.603 min  
Delta R.T.: -0.012 min  
Response: 76253527  
Conc: 43.96 PPM m

13.1.17  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Z2592\  
 Data File : 2z68946.D  
 Signal(s) : FID2B.CH  
 Acq On : 02 May 2018 1:32 pm  
 Operator : rebeccak  
 Sample : jc65157-7  
 Misc : op11675,g2z2592,10.8,,,1,1  
 ALS Vial : 66 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 13:31:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
 Quant Title :  
 QLast Update : Mon Apr 02 11:34:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response   | Conc     | Units  |
|-----------------------------|--------|------------|----------|--------|
| -----                       |        |            |          |        |
| System Monitoring Compounds |        |            |          |        |
| 8) S o-Terphenyl            | 9.79   | 92722256   | 31.465   | PPM m  |
| Spiked Amount               | 50.000 | Recovery   | =        | 62.93% |
| 9) S 5a-Androstane          | 10.49  | 86671540   | 40.593   | PPM m  |
| Spiked Amount               | 50.000 | Recovery   | =        | 81.19% |
| 10) S Tetracosane-d50       | 11.60  | 70413261   | 40.596   | PPM m  |
| Spiked Amount               | 50.000 | Recovery   | =        | 81.19% |
| Target Compounds            |        |            |          |        |
| 1) H TPH-DRO                | 8.60   | 2702294982 | 1546.748 | PPM    |
| 2) H TPH-DRO (C10-C44)      | 14.00  | 4027339070 | 2305.181 | PPM    |
| -----                       |        |            |          |        |

(f)=RT Delta > 1/2 Window

(m)=manual int.

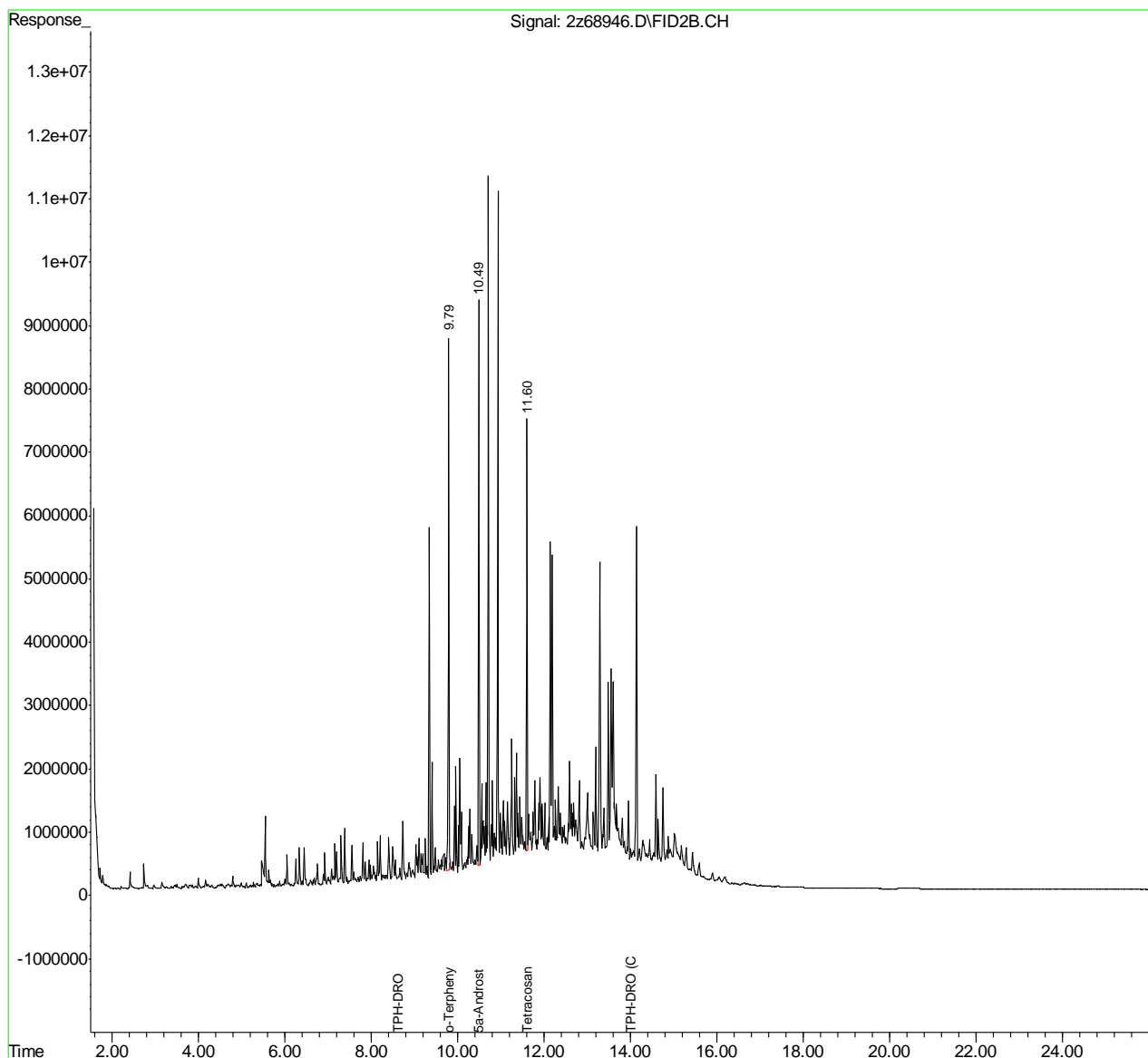
13.1.18  
 13

Quantitation Report (QT Reviewed)

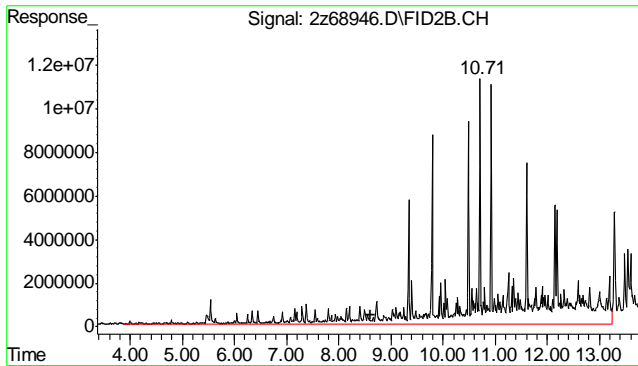
Data Path : C:\msdchem\1\DATA\G2Z2592\  
 Data File : 2z68946.D  
 Signal(s) : FID2B.CH  
 Acq On : 02 May 2018 1:32 pm  
 Operator : rebeccak  
 Sample : jc65157-7  
 Misc : op11675,g2z2592,10.8,,,1,1  
 ALS Vial : 66 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 13:31:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
 Quant Title :  
 QLast Update : Mon Apr 02 11:34:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

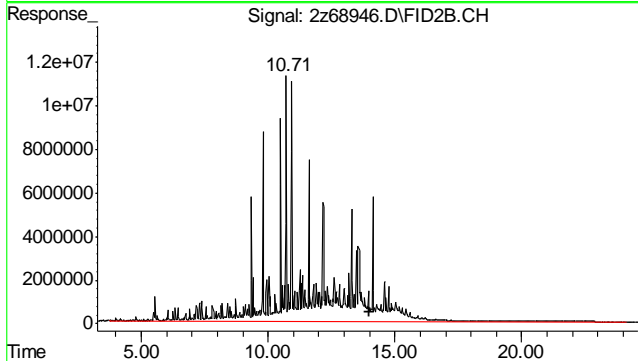
Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um



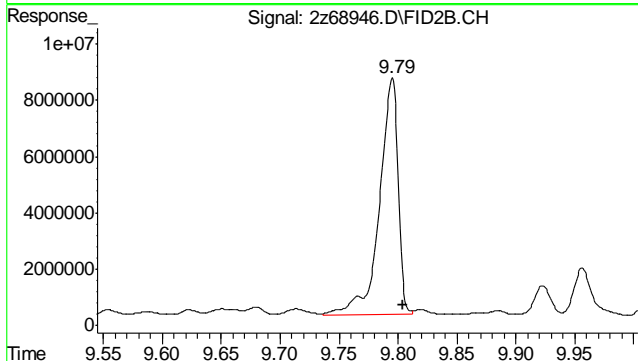
13.1.18  
13



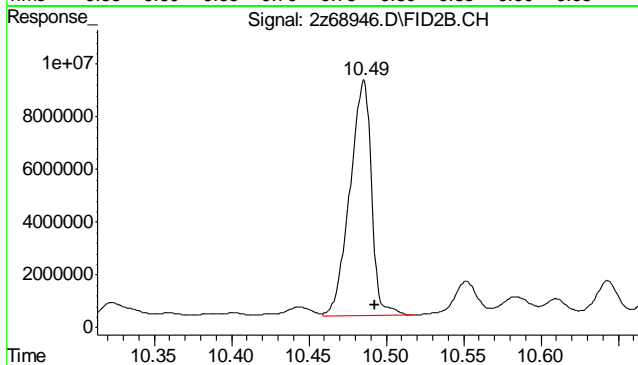
#1 TPH-DRO  
 R.T.: 8.600 min  
 Delta R.T.: 0.000 min  
 Response: 2702294982  
 Conc: 1546.75 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 14.000 min  
 Delta R.T.: 0.000 min  
 Response: 4027339070  
 Conc: 2305.18 PPM m

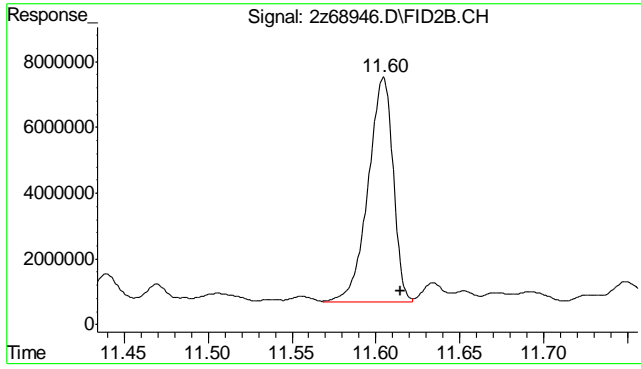


#8 o-Terphenyl  
 R.T.: 9.795 min  
 Delta R.T.: -0.010 min  
 Response: 92722256  
 Conc: 31.47 PPM m



#9 5a-Androstane  
 R.T.: 10.485 min  
 Delta R.T.: -0.007 min  
 Response: 86671540  
 Conc: 40.59 PPM m

13.1.18  
 13



#10 Tetracosane-d50

R.T.: 11.604 min

Delta R.T.: -0.010 min

Response: 70413261

Conc: 40.60 PPM m

13.1.18  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3464\  
 Data File : 2y90946.D  
 Signal(s) : FID1A.CH  
 Acq On : 02 May 2018 1:32 pm  
 Operator : rebeccak  
 Sample : jc65157-8  
 Misc : op11675,g2y3464,10.9,,,1,1  
 ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:59:30 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
 Quant Title :  
 QLast Update : Thu May 03 09:52:46 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response   | Conc     | Units   |
|-----------------------------|--------|------------|----------|---------|
| -----                       |        |            |          |         |
| System Monitoring Compounds |        |            |          |         |
| 8) S o-Terphenyl            | 9.97   | 71794254   | 40.049   | PPM m   |
| Spiked Amount               | 50.000 | Recovery   | =        | 80.10%  |
| 9) S 5a-Androstane          | 10.65  | 70821549   | 41.882   | PPM m   |
| Spiked Amount               | 50.000 | Recovery   | =        | 83.76%  |
| 10) S Tetracosane-d50       | 11.76  | 62801937   | 53.525   | PPM m   |
| Spiked Amount               | 50.000 | Recovery   | =        | 107.05% |
| Target Compounds            |        |            |          |         |
| 1) H TPH-DRO                | 8.79   | 1316075717 | 1036.229 | PPM     |
| 2) H TPH-DRO (C10-C44)      | 14.69  | 1708658410 | 1345.334 | PPM     |
| -----                       |        |            |          |         |

(f)=RT Delta > 1/2 Window

(m)=manual int.

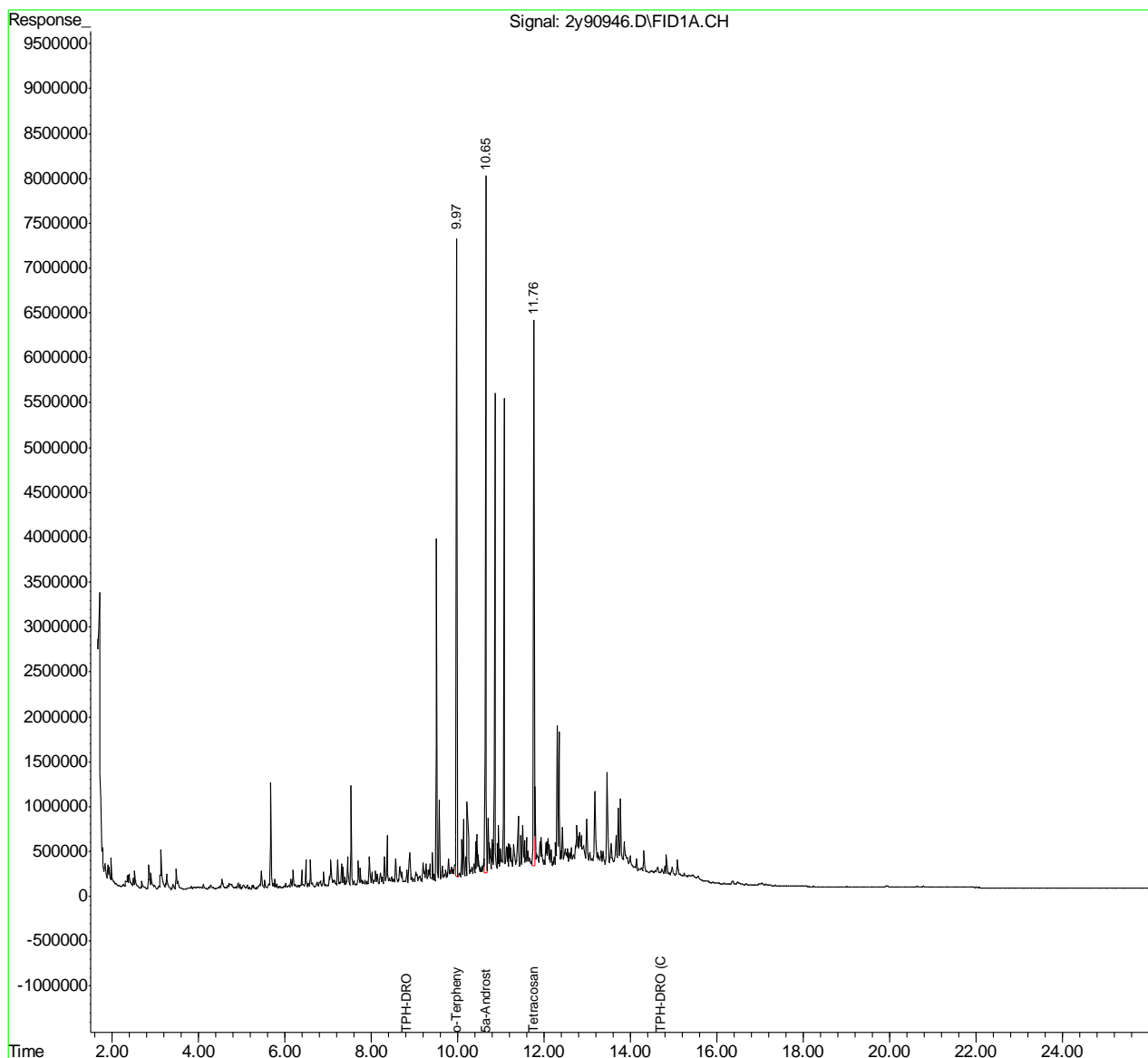
13.1.19  
 13

Quantitation Report (QT Reviewed)

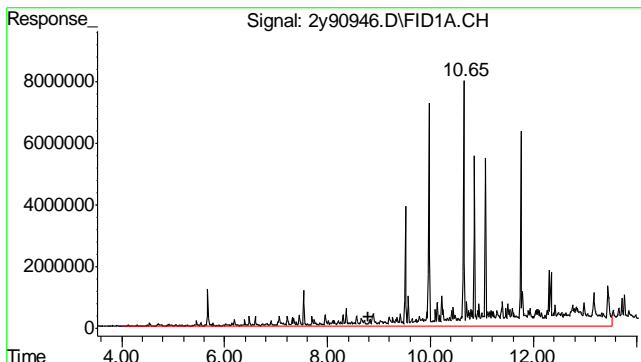
Data Path : C:\msdchem\1\DATA\G2Y3464\  
Data File : 2y90946.D  
Signal(s) : FID1A.CH  
Acq On : 02 May 2018 1:32 pm  
Operator : rebeccak  
Sample : jc65157-8  
Misc : op11675,g2y3464,10.9,,,1,1  
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e  
Quant Time: May 03 09:59:30 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
Quant Title :  
QLast Update : Thu May 03 09:52:46 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

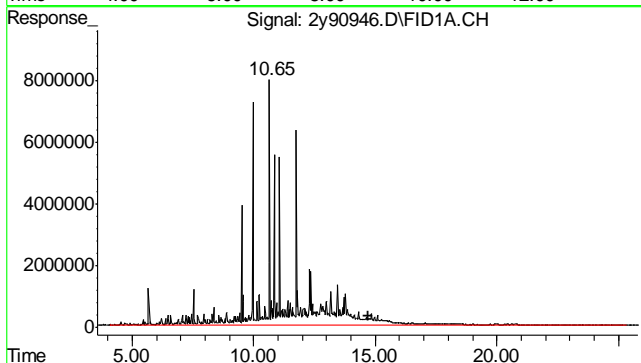
Volume Inj. : 1UL  
Signal Phase : RTX-1  
Signal Info : 30mX0.25mmX0.25um



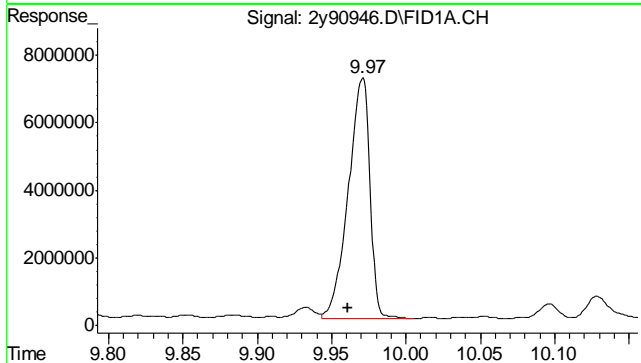
13.1.19 13



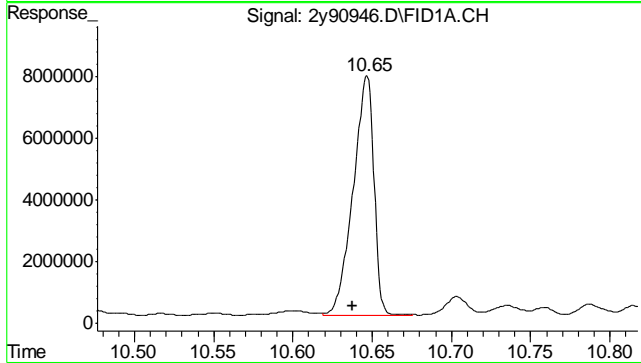
#1 TPH-DRO  
 R.T.: 8.790 min  
 Delta R.T.: 0.000 min  
 Response: 1316075717  
 Conc: 1036.23 PPM m



#2 TPH-DRO (C10-C44)  
 R.T.: 14.690 min  
 Delta R.T.: 0.000 min  
 Response: 1708658410  
 Conc: 1345.33 PPM m



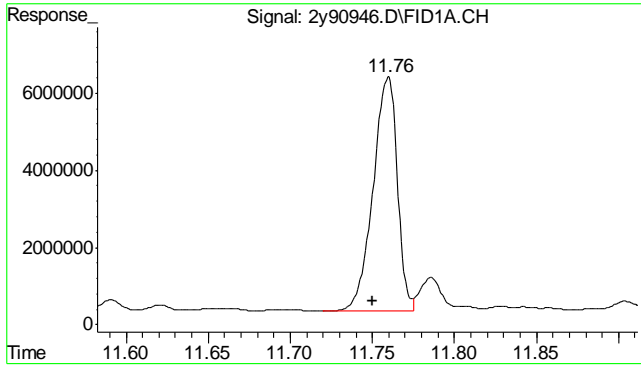
#8 o-Terphenyl  
 R.T.: 9.971 min  
 Delta R.T.: 0.010 min  
 Response: 71794254  
 Conc: 40.05 PPM m



#9 5a-Androstane  
 R.T.: 10.647 min  
 Delta R.T.: 0.009 min  
 Response: 70821549  
 Conc: 41.88 PPM m

13.1.19  
 13





#10 Tetracosane-d50

R.T.: 11.760 min

Delta R.T.: 0.009 min

Response: 62801937

Conc: 53.53 PPM m

13.1.19  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3464\  
 Data File : 2y90947.D  
 Signal(s) : FID1A.CH  
 Acq On : 02 May 2018 2:05 pm  
 Operator : rebeccak  
 Sample : jc65157-9  
 Misc : op11675,g2y3464,10.4,,,1,1  
 ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:59:56 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
 Quant Title :  
 QLast Update : Thu May 03 09:52:46 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 8) S o-Terphenyl            | 9.97   | 63533247 | 35.441 PPM |
| Spiked Amount               | 50.000 | Recovery | = 70.88%   |
| 9) S 5a-Androstane          | 10.64  | 60332238 | 35.679 PPM |
| Spiked Amount               | 50.000 | Recovery | = 71.36%   |
| 10) S Tetracosane-d50       | 11.76  | 55424018 | 47.237 PPM |
| Spiked Amount               | 50.000 | Recovery | = 94.47%   |

Target Compounds

(f)=RT Delta > 1/2 Window

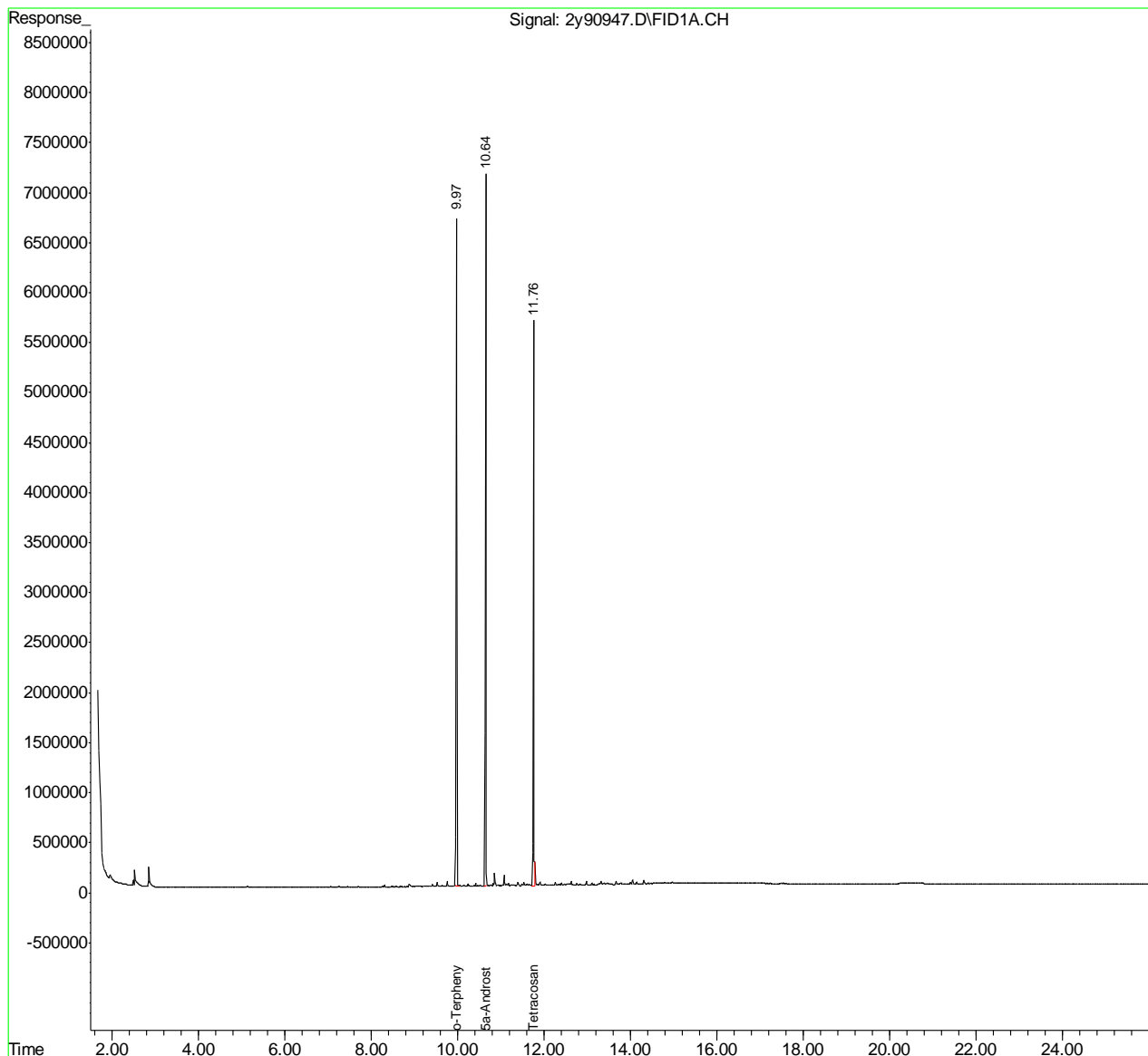
(m)=manual int.

Quantitation Report (QT Reviewed)

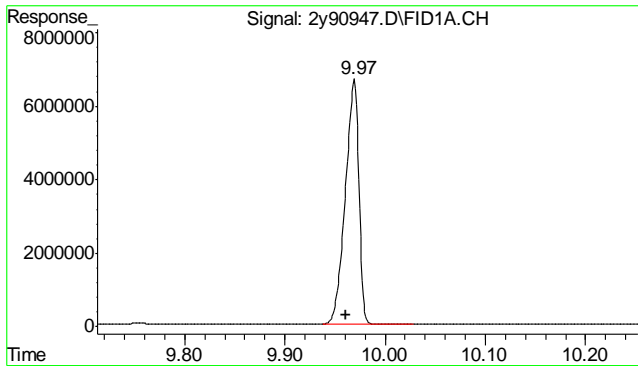
Data Path : C:\msdchem\1\DATA\G2Y3464\  
 Data File : 2y90947.D  
 Signal(s) : FID1A.CH  
 Acq On : 02 May 2018 2:05 pm  
 Operator : rebeccak  
 Sample : jc65157-9  
 Misc : op11675,g2y3464,10.4,,,1,1  
 ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:59:56 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
 Quant Title :  
 QLast Update : Thu May 03 09:52:46 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

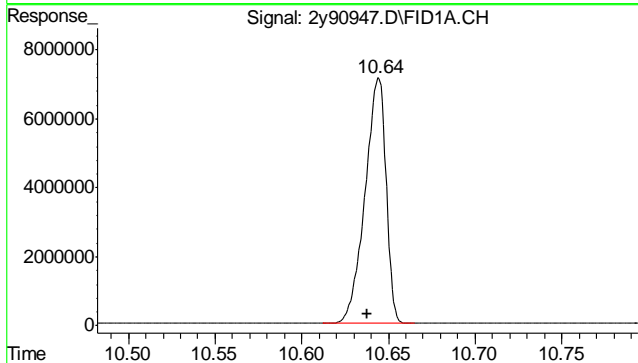
Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um



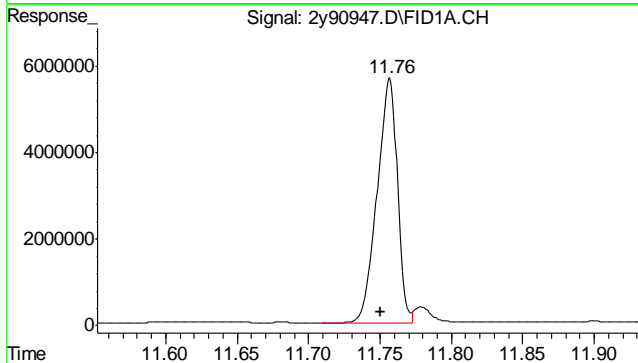
13.1.20  
13



#8 o-Terphenyl  
R.T.: 9.969 min  
Delta R.T.: 0.008 min  
Response: 63533247  
Conc: 35.44 PPM



#9 5a-Androstane  
R.T.: 10.644 min  
Delta R.T.: 0.007 min  
Response: 60332238  
Conc: 35.68 PPM



#10 Tetracosane-d50  
R.T.: 11.757 min  
Delta R.T.: 0.006 min  
Response: 55424018  
Conc: 47.24 PPM

13.1.20  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162657.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 5:56 am  
 Operator : tianweir  
 Sample : op11677-mb1  
 Misc : OP11677,G2G4322,15.0,,,10,1  
 ALS Vial : 41 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 09:26:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2  | ppb    | ppb     |
|-----------------------------|--------|--------|----------|---------|--------|---------|
| -----                       |        |        |          |         |        |         |
| System Monitoring Compounds |        |        |          |         |        |         |
| 1) S Tetrachlo...           | 2.788  | 3.440  | 141.5E6  | 928.2E6 | 38.543 | 40.563  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 96.36% | 101.41% |
| 51) S Decachlor...          | 9.977  | 11.808 | 158.1E6  | 747.8E6 | 38.978 | 39.154  |
| Spiked Amount               | 40.000 |        | Recovery | =       | 97.45% | 97.89%  |

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

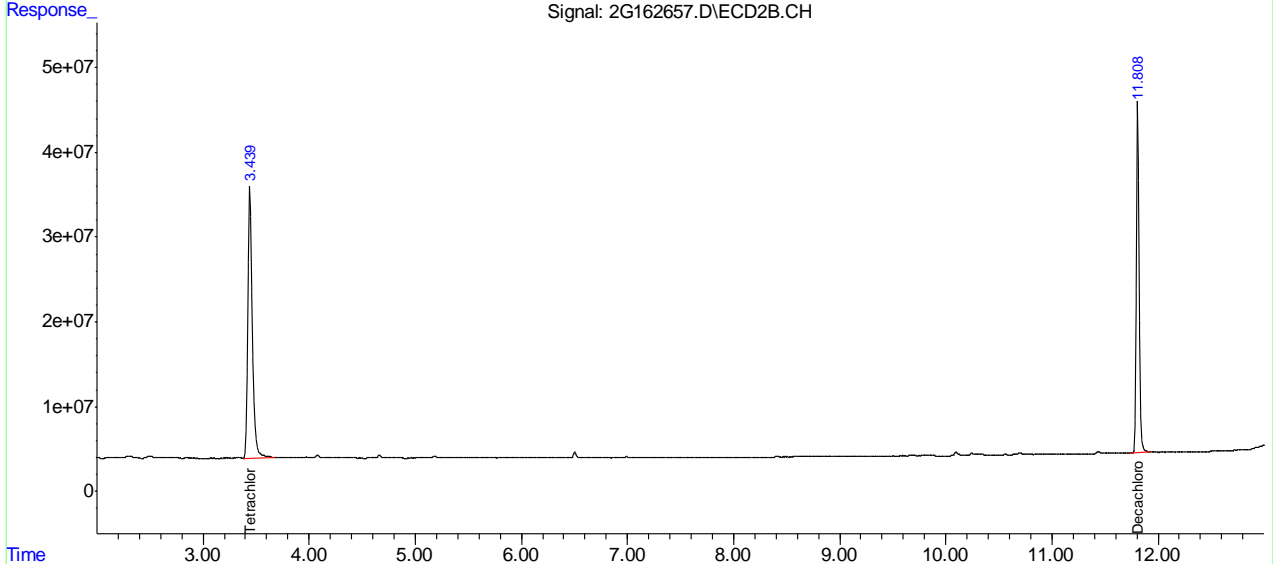
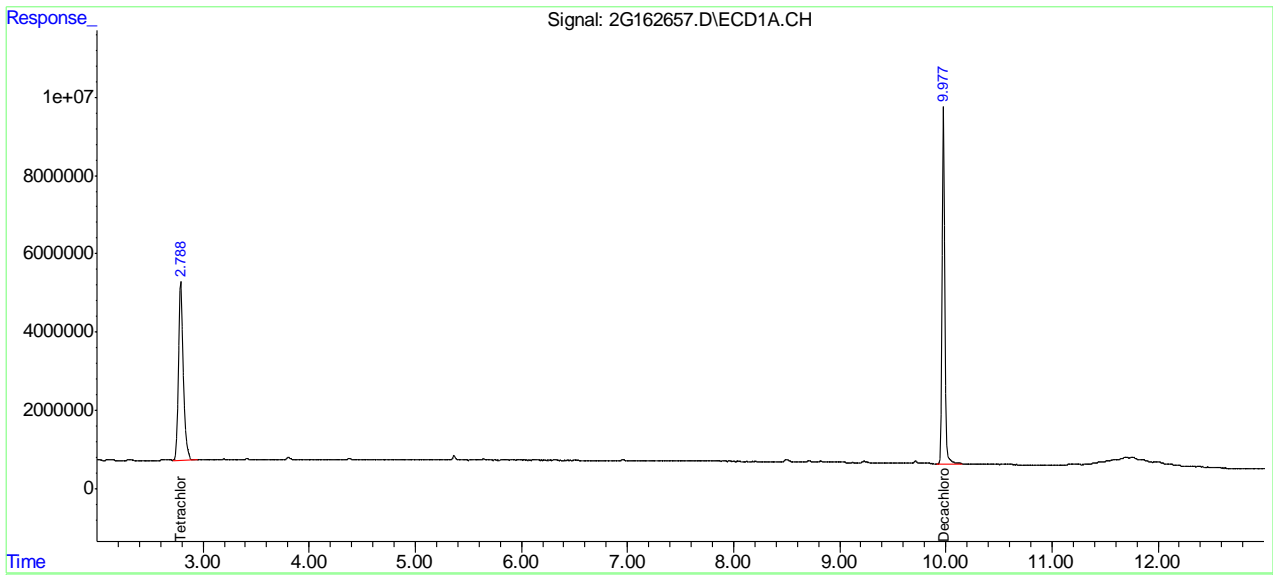
13.21  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4322\  
 Data File : 2G162657.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02 May 2018 5:56 am  
 Operator : tianweir  
 Sample : op11677-mb1  
 Misc : OP11677,G2G4322,15.0,,,10,1  
 ALS Vial : 41 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: May 02 09:26:51 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Wed May 02 09:26:32 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3464\  
 Data File : 2y90945.D  
 Signal(s) : FID1A.CH  
 Acq On : 02 May 2018 12:58 pm  
 Operator : rebeccak  
 Sample : op11675-mb1  
 Misc : op11675,g2y3464,10.0,,,1,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 09:58:42 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
 Quant Title :  
 QLast Update : Thu May 03 09:52:46 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 8) S o-Terphenyl            | 9.97   | 70676842 | 39.425 PPM |
| Spiked Amount               | 50.000 | Recovery | = 78.85%   |
| 9) S 5a-Androstane          | 10.64  | 66595891 | 39.383 PPM |
| Spiked Amount               | 50.000 | Recovery | = 78.77%   |
| 10) S Tetracosane-d50       | 11.76  | 61039137 | 52.023 PPM |
| Spiked Amount               | 50.000 | Recovery | = 104.05%  |
| Target Compounds            |        |          |            |
| -----                       |        |          |            |

(f)=RT Delta > 1/2 Window

(m)=manual int.

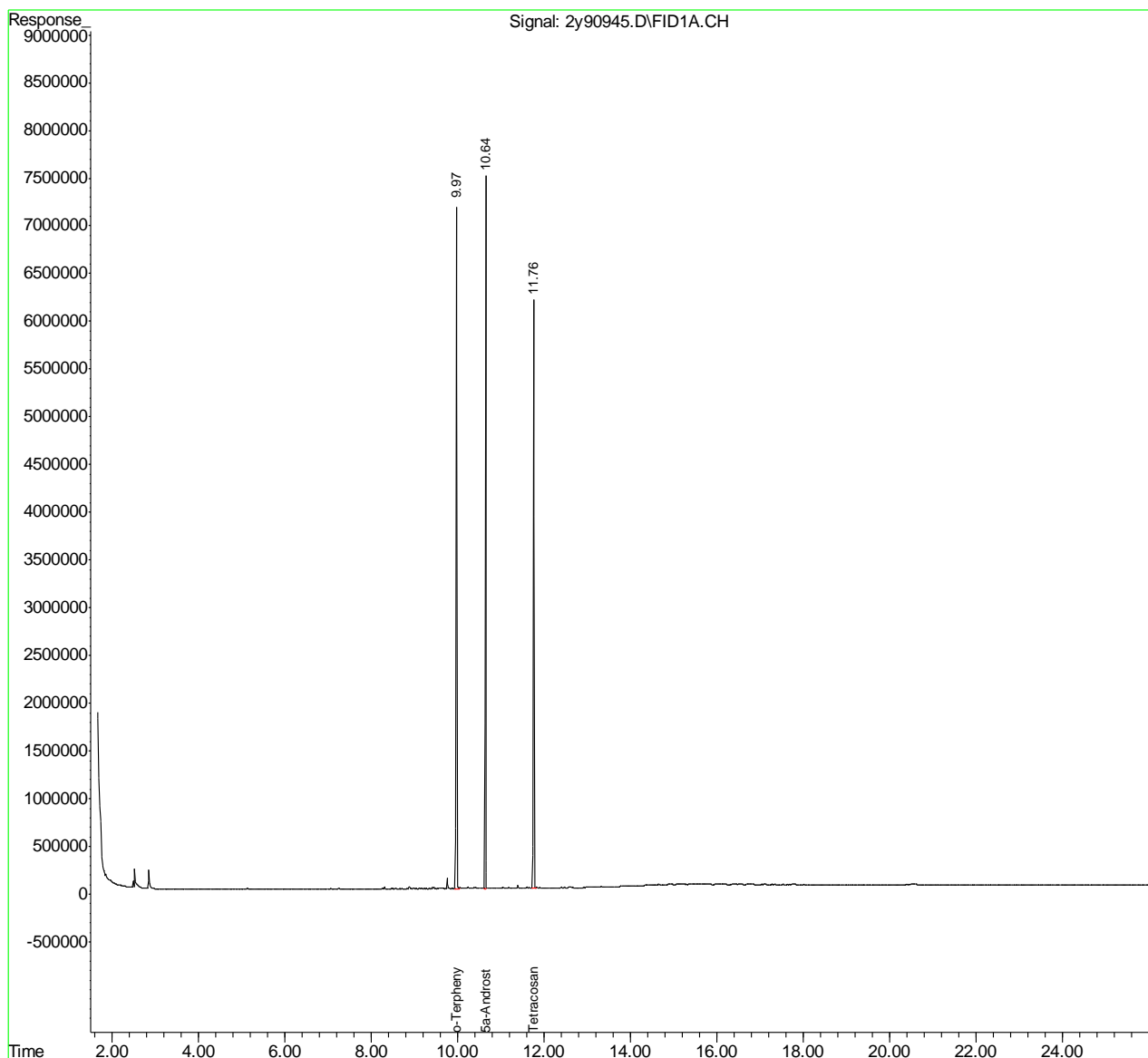
13.22  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\G2Y3464\  
Data File : 2y90945.D  
Signal(s) : FID1A.CH  
Acq On : 02 May 2018 12:58 pm  
Operator : rebeccak  
Sample : op11675-mb1  
Misc : op11675,g2y3464,10.0,,,1,1  
ALS Vial : 61 Sample Multiplier: 1

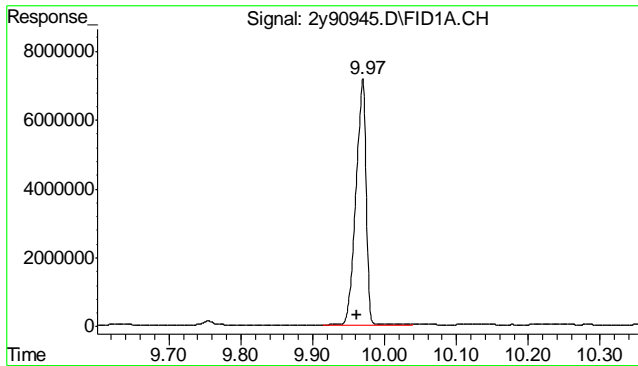
Integration File: autoint1.e  
Quant Time: May 03 09:58:42 2018  
Quant Method : C:\MSDCHEM\1\METHODS\DRO2Y3446.M  
Quant Title :  
QLast Update : Thu May 03 09:52:46 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
Signal Phase : RTX-1  
Signal Info : 30mX0.25mmX0.25um

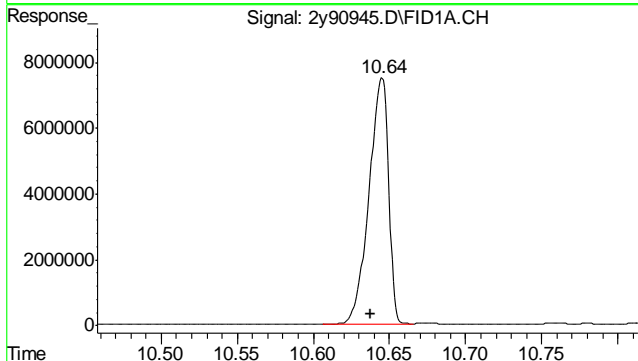


13.22  
13

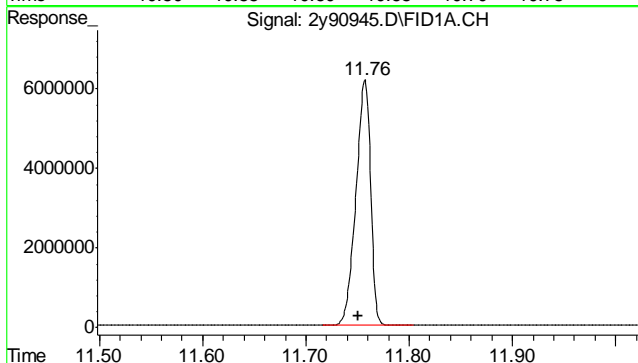




#8 o-Terphenyl  
 R.T.: 9.970 min  
 Delta R.T.: 0.008 min  
 Response: 70676842  
 Conc: 39.43 PPM



#9 5a-Androstane  
 R.T.: 10.645 min  
 Delta R.T.: 0.007 min  
 Response: 66595891  
 Conc: 39.38 PPM



#10 Tetracosane-d50  
 R.T.: 11.757 min  
 Delta R.T.: 0.007 min  
 Response: 61039137  
 Conc: 52.02 PPM

13.22  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\G2Z2592\  
 Data File : 2z68941.D  
 Signal(s) : FID2B.CH  
 Acq On : 02 May 2018 10:44 am  
 Operator : rebeccak  
 Sample : op11675-mb1  
 Misc : op11675,g2z2592,10.0,,,1,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 13:21:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
 Quant Title :  
 QLast Update : Mon Apr 02 11:34:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um

| Compound                    | R.T.   | Response | Conc Units |
|-----------------------------|--------|----------|------------|
| -----                       |        |          |            |
| System Monitoring Compounds |        |          |            |
| 8) S o-Terphenyl            | 9.79   | 92546142 | 31.405 PPM |
| Spiked Amount               | 50.000 | Recovery | = 62.81%   |
| 9) S 5a-Androstane          | 10.48  | 84988350 | 39.805 PPM |
| Spiked Amount               | 50.000 | Recovery | = 79.61%   |
| 10) S Tetracosane-d50       | 11.60  | 74013532 | 42.672 PPM |
| Spiked Amount               | 50.000 | Recovery | = 85.34%   |
| -----                       |        |          |            |
| Target Compounds            |        |          |            |
| -----                       |        |          |            |

(f)=RT Delta > 1/2 Window

(m)=manual int.

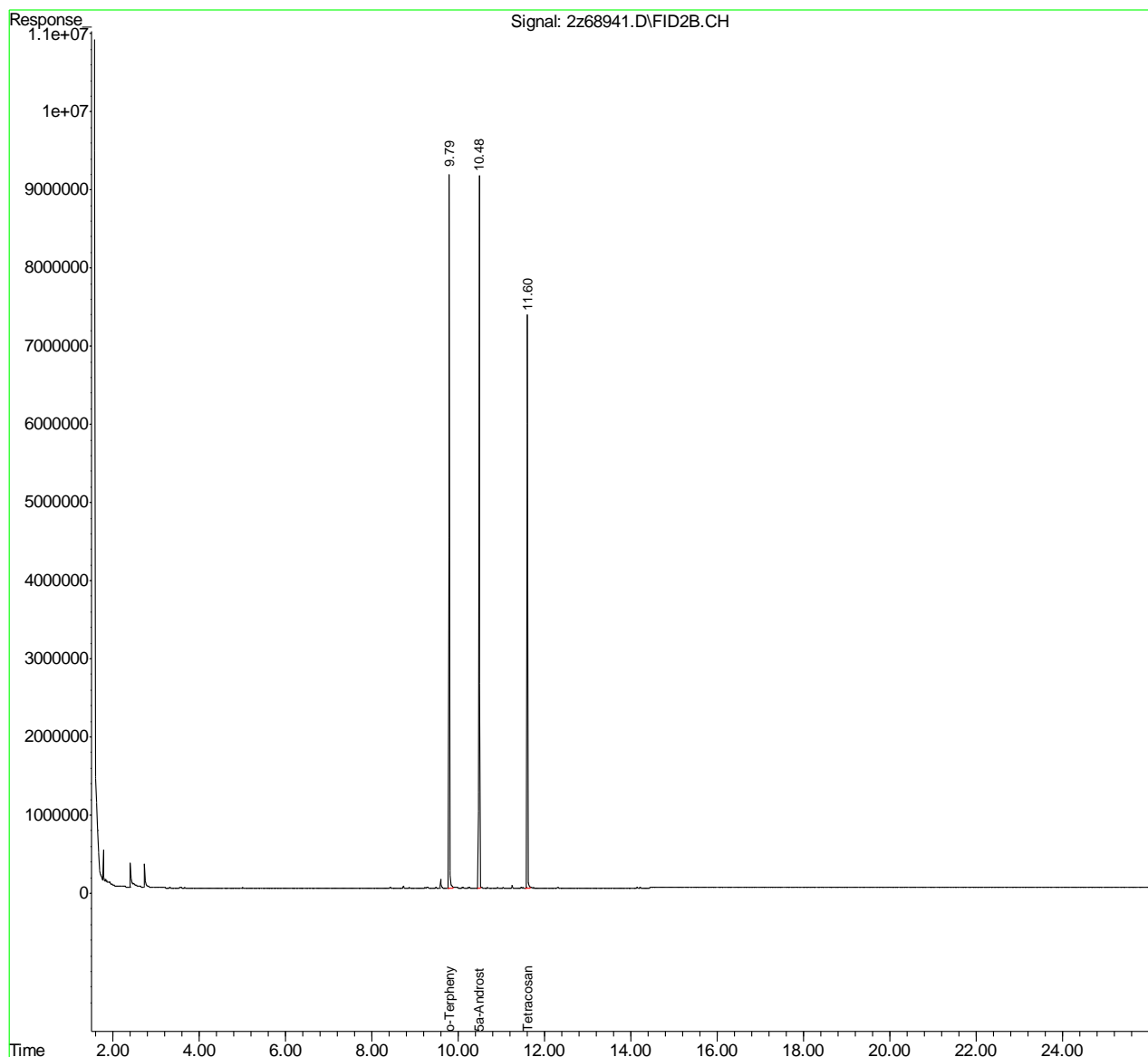
13.23  
13

Quantitation Report (QT Reviewed)

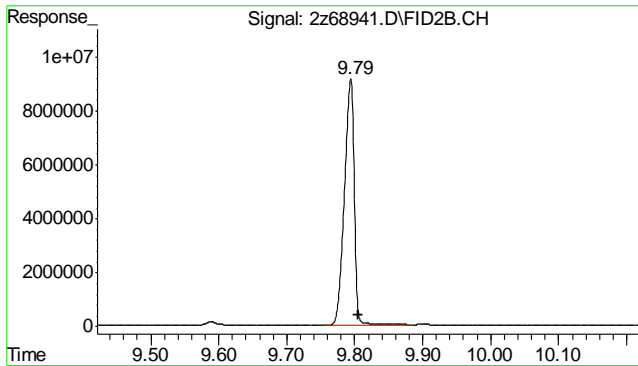
Data Path : C:\MSDCHEM\1\DATA\G2Z2592\  
 Data File : 2z68941.D  
 Signal(s) : FID2B.CH  
 Acq On : 02 May 2018 10:44 am  
 Operator : rebeccak  
 Sample : op11675-mb1  
 Misc : op11675,g2z2592,10.0,,,1,1  
 ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e  
 Quant Time: May 03 13:21:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\DRO2Z2570.M  
 Quant Title :  
 QLast Update : Mon Apr 02 11:34:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

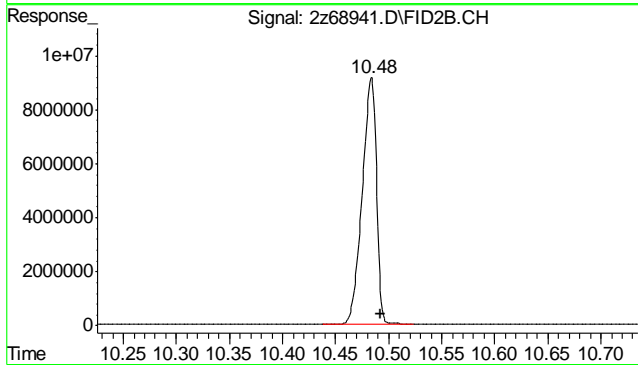
Volume Inj. : 1UL  
 Signal Phase : RTX-1  
 Signal Info : 30mX0.25mmX0.25um



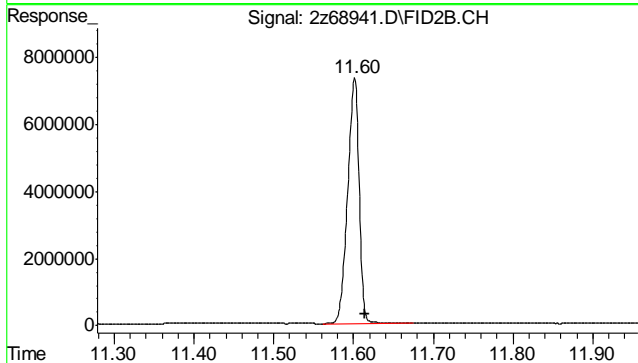
13.23  
13



#8 o-Terphenyl  
 R.T.: 9.794 min  
 Delta R.T.: -0.010 min  
 Response: 92546142  
 Conc: 31.41 PPM



#9 5a-Androstane  
 R.T.: 10.484 min  
 Delta R.T.: -0.009 min  
 Response: 84988350  
 Conc: 39.80 PPM



#10 Tetracosane-d50  
 R.T.: 11.601 min  
 Delta R.T.: -0.013 min  
 Response: 74013532  
 Conc: 42.67 PPM

13.23  
 13

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD1A.CH Vial: 7  
 Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD2B.CH  
 Acq On : 5-4-2018 05:10:27 PM Operator: vined  
 Sample : opl1687-mb2 Inst : GC3G  
 Misc : opl1687,g3g4037,300,,,2.5,1 Multiplr: 1.00  
 IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
 Quant Time: May 04 17:33:38 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
 Title : HERB  
 Last Update : Tue Apr 10 14:43:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM

| Compound                    | RT#1    | RT#2 | Resp#1   | Resp#2  | Conc#1  | Conc#2   |
|-----------------------------|---------|------|----------|---------|---------|----------|
| -----                       |         |      |          |         |         |          |
| System Monitoring Compounds |         |      |          |         |         |          |
| 2) S 2,4-DCAA               | 7.46    | 7.92 | 2047.5E6 | 396.7E6 | 524.422 | 461.325m |
| Spiked Amount               | 500.000 |      | Recovery | =       | 104.88% | 92.27%   |

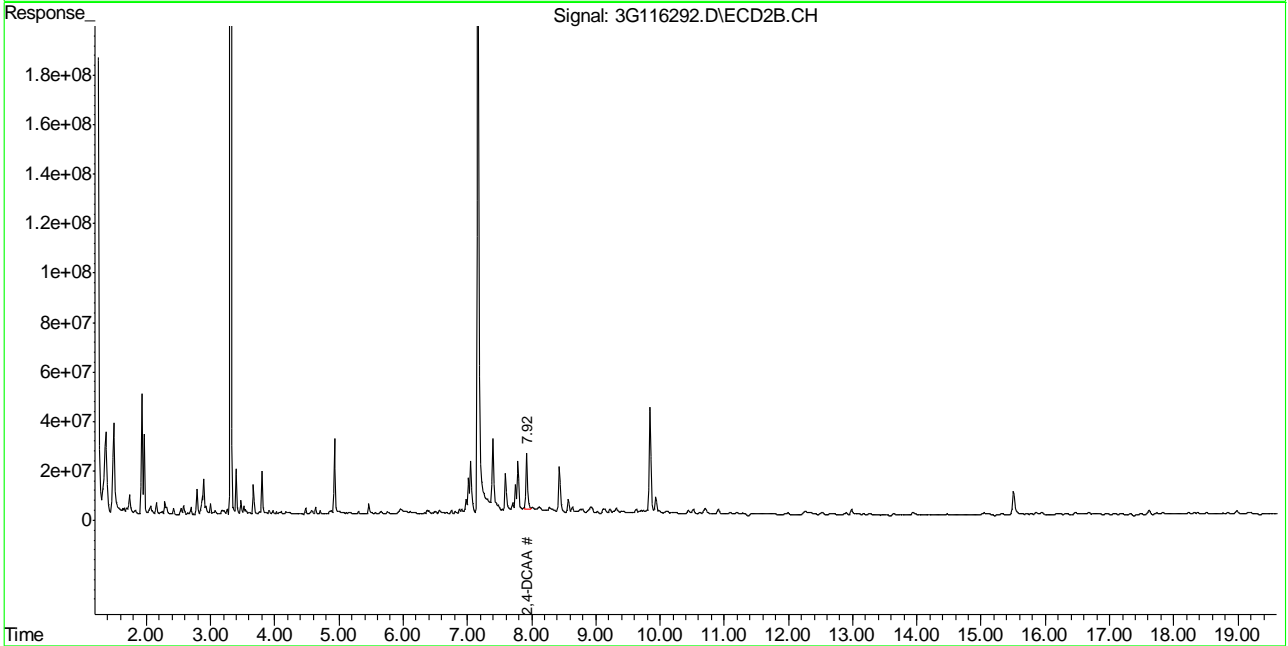
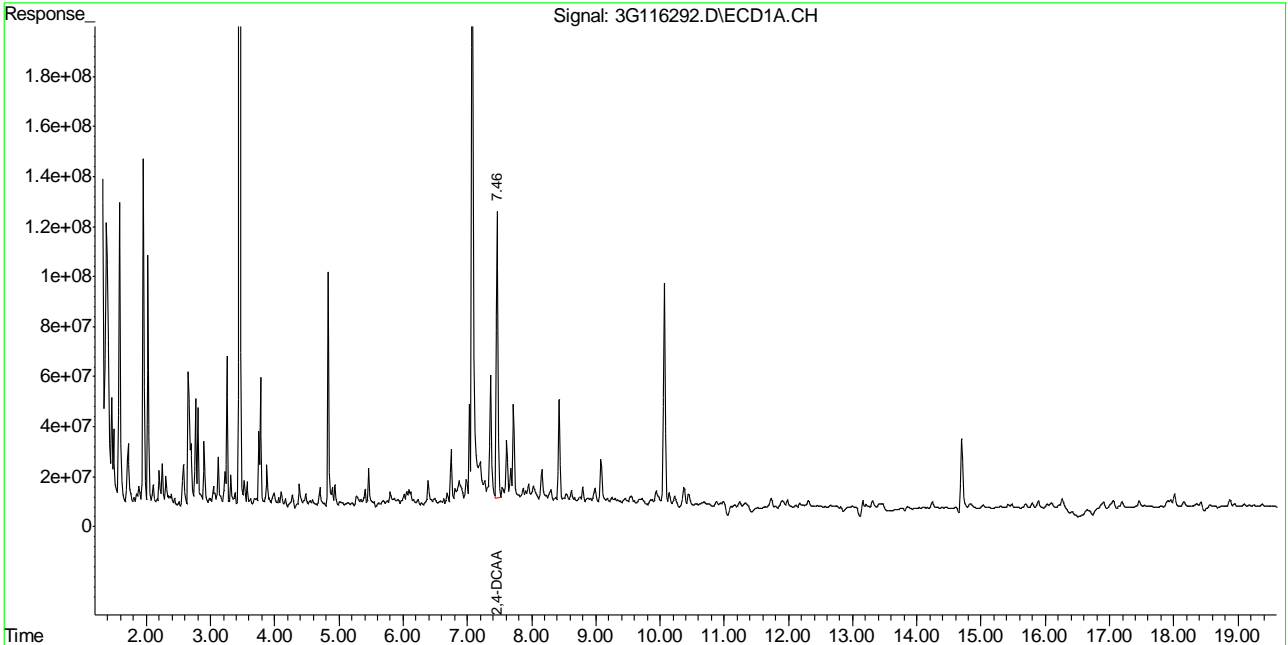
Target Compounds

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD1A.CH Vial: 7  
Signal #2 : C:\MSDCHEM\1\DATA\3G4037\3G116292.D\ECD2B.CH  
Acq On : 5-4-2018 05:10:27 PM Operator: vined  
Sample : opl1687-mb2 Inst : GC3G  
Misc : opl1687,g3g4037,300,,,2.5,1 Multiplr: 1.00  
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e  
Quant Time: May 7 10:57 2018 Quant Results File: 3H4020.RES

Quant Method : C:\MSDCHEM\1\METHODS\3H4020.M (Chemstation Integrator)  
Title : HERB  
Last Update : Tue Apr 10 14:43:51 2018  
Response via : Multiple Level Calibration  
DataAcq Meth : 3H4020.M

Volume Inj. : 1ul/column  
Signal #1 Phase : RTX-CLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 0.53MM Signal #2 Info : 0.53MM



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55894.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 10:31:40  
 Operator : rebeccak  
 Sample : op11678-mb1  
 Misc : OP11678,g6g1675,15.0,,,10,1  
 ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 12:53:23 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB     |
|-----------------------------|--------|----------------|------------|---------|---------|---------|
| Internal Standards          |        |                |            |         |         |         |
| 1) I 1-bromo-2...           | 1.948  | 2.151          | 370.2E6    | 220.1E6 | 50.000  | 50.000  |
| 27) I 1-bromo-2...          | 1.948  | 2.151          | 370.2E6    | 220.1E6 | 50.000  | 50.000  |
| 33) I 1-bromo-2...          | 1.948  | 2.151          | 370.2E6    | 220.1E6 | 50.000  | 50.000  |
| System Monitoring Compounds |        |                |            |         |         |         |
| 2) SAB Tetrachlo...         | 2.536  | 2.937          | 208.0E6    | 126.9E6 | 28.905  | 30.970  |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = |         | 72.26%  | 77.42%  |
| 26) SA Decachlor...         | 9.843  | 11.751         | 242.5E6    | 140.0E6 | 33.070m | 34.237m |
| Spiked Amount               | 40.000 |                | Recovery = |         | 82.67%  | 85.59%  |
| Target Compounds            |        |                |            |         |         |         |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.    |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000   |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

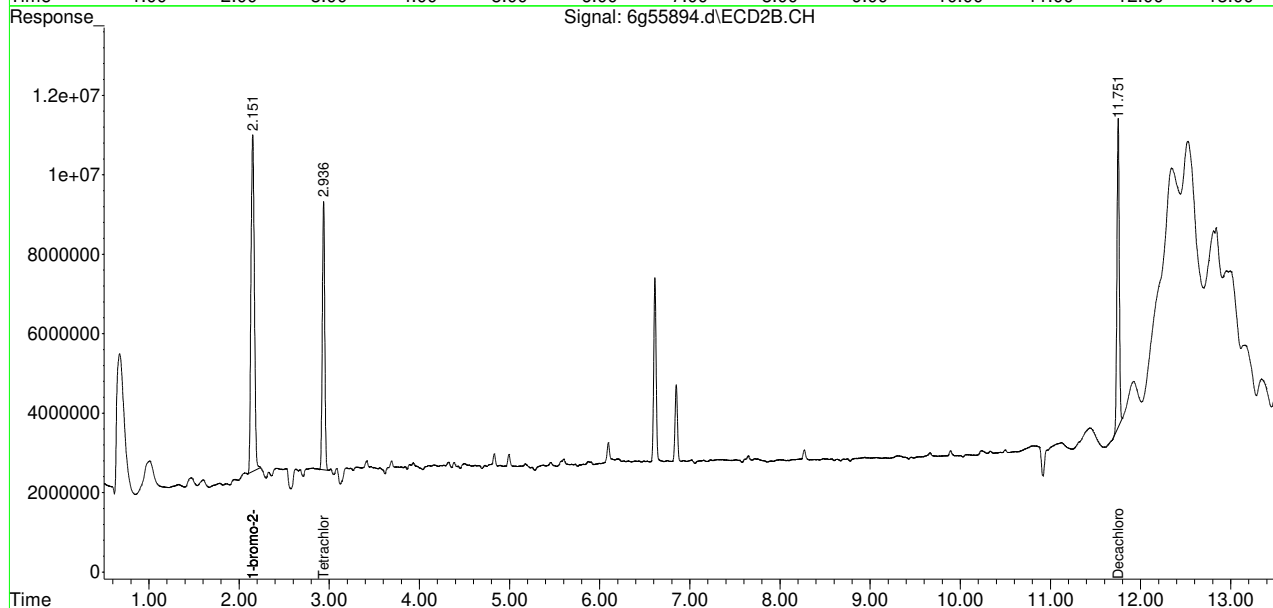
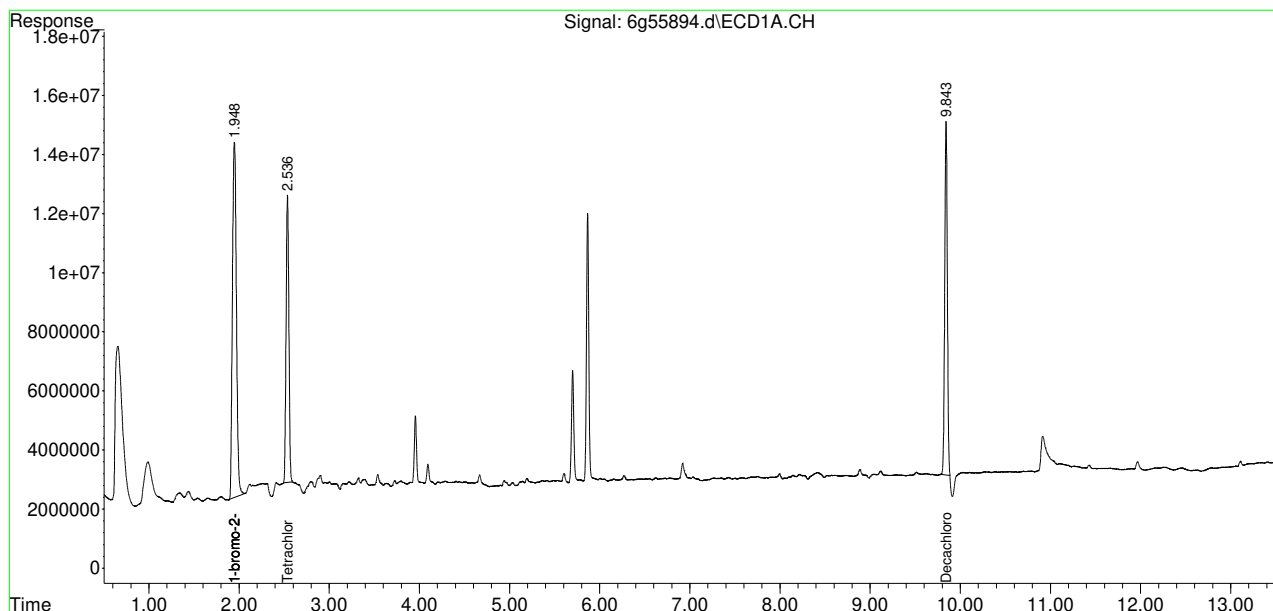
13.25  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1675\  
 Data File : 6g55894.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 02-May-18, 10:31:40  
 Operator : rebeccak  
 Sample : op11678-mb1  
 Misc : OP11678,g6g1675,15.0,,,10,1  
 ALS Vial : 64 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 02 12:53:23 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.25  
13



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56092.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 00:46:59  
 Operator : christp  
 Sample : op11917-mb1  
 Misc : OP11917,g6g1681,15.0,,,10,1  
 ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:46:19 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB     |
|-----------------------------|--------|----------------|------------|---------|---------|---------|
| Internal Standards          |        |                |            |         |         |         |
| 1) I 1-bromo-2...           | 1.960  | 2.160          | 338.4E6    | 241.8E6 | 50.000  | 50.000m |
| 27) I 1-bromo-2...          | 1.960  | 2.160          | 338.4E6    | 238.9E6 | 50.000  | 50.000m |
| 33) I 1-bromo-2...          | 1.960  | 2.160          | 338.4E6    | 239.8E6 | 50.000  | 50.000m |
| System Monitoring Compounds |        |                |            |         |         |         |
| 2) SAB Tetrachlo...         | 2.544  | 2.940          | 192.3E6    | 141.1E6 | 29.230m | 31.318  |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 73.08%  | 78.30%  |         |
| 26) SA Decachlor...         | 9.839  | 11.741         | 216.0E6    | 155.4E6 | 32.211m | 34.592  |
| Spiked Amount               | 40.000 |                | Recovery = | 80.53%  | 86.48%  |         |
| Target Compounds            |        |                |            |         |         |         |
| Sum Toxaphene               |        |                | 0          | 0       | N.D.    | N.D.    |
| Average Toxaphene           |        |                |            |         | 0.000   | 0.000   |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

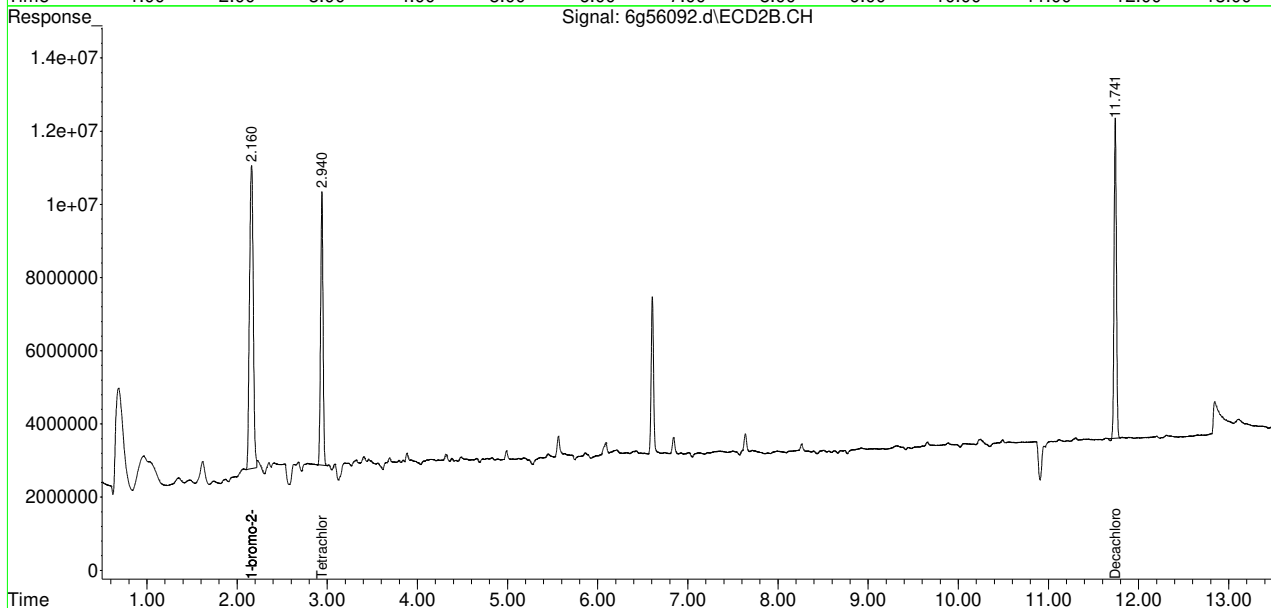
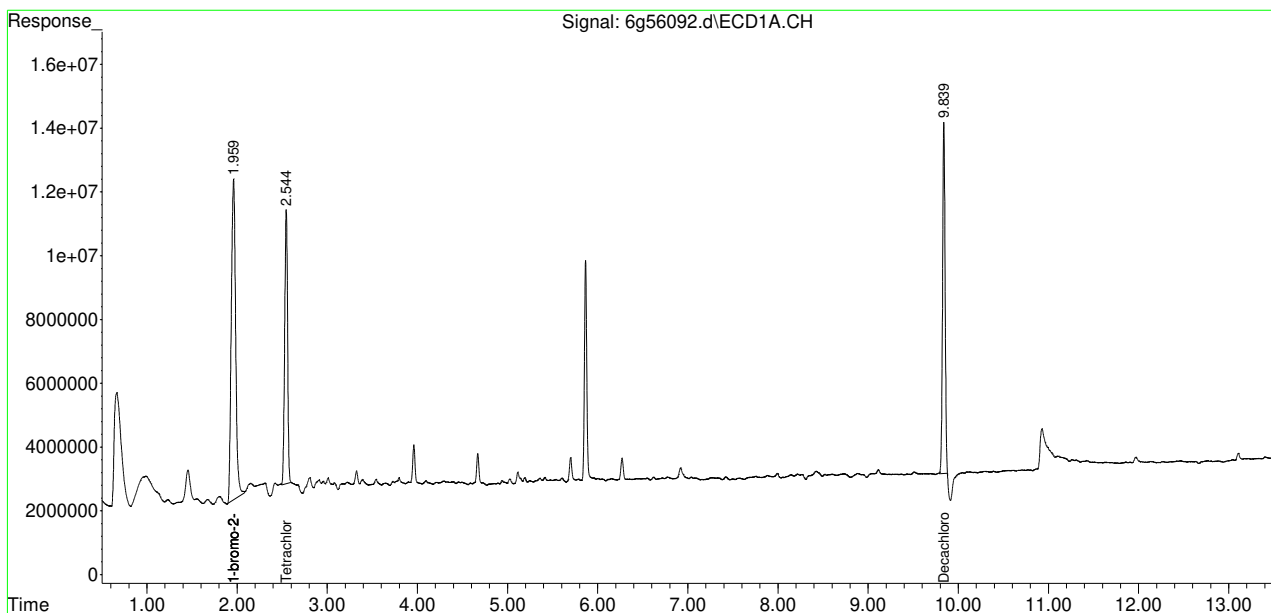
13.26  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1681\  
 Data File : 6g56092.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 11-May-18, 00:46:59  
 Operator : christp  
 Sample : op11917-mb1  
 Misc : OP11917,g6g1681,15.0,,,10,1  
 ALS Vial : 31 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 08:46:19 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 17:34:19 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.2.6  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14785.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 4:51 pm  
 Operator : dharas  
 Sample : op11691-mb2  
 Misc : op11691,g8g483,300,,,2,1  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:09:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB    | PPB    |
|-----------------------------|--------|----------------|------------|---------|--------|--------|
| -----                       |        |                |            |         |        |        |
| Internal Standards          |        |                |            |         |        |        |
| 1) I 1-bromo-2...           | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| 27) I 1-bromo-2...          | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| 33) I 1-bromo-2...          | 1.940  | 2.412          | 204.0E6    | 482.0E6 | 50.000 | 50.000 |
| System Monitoring Compounds |        |                |            |         |        |        |
| 2) SAB Tetrachlo...         | 2.692  | 3.451          | 111.9E6    | 266.2E6 | 29.021 | 33.726 |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 72.55%  | 84.31% |        |
| 26) SA Decachlor...         | 10.877 | 13.503         | 72546177   | 157.7E6 | 16.777 | 18.527 |
| Spiked Amount               | 40.000 |                | Recovery = | 41.94%  | 46.32% |        |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

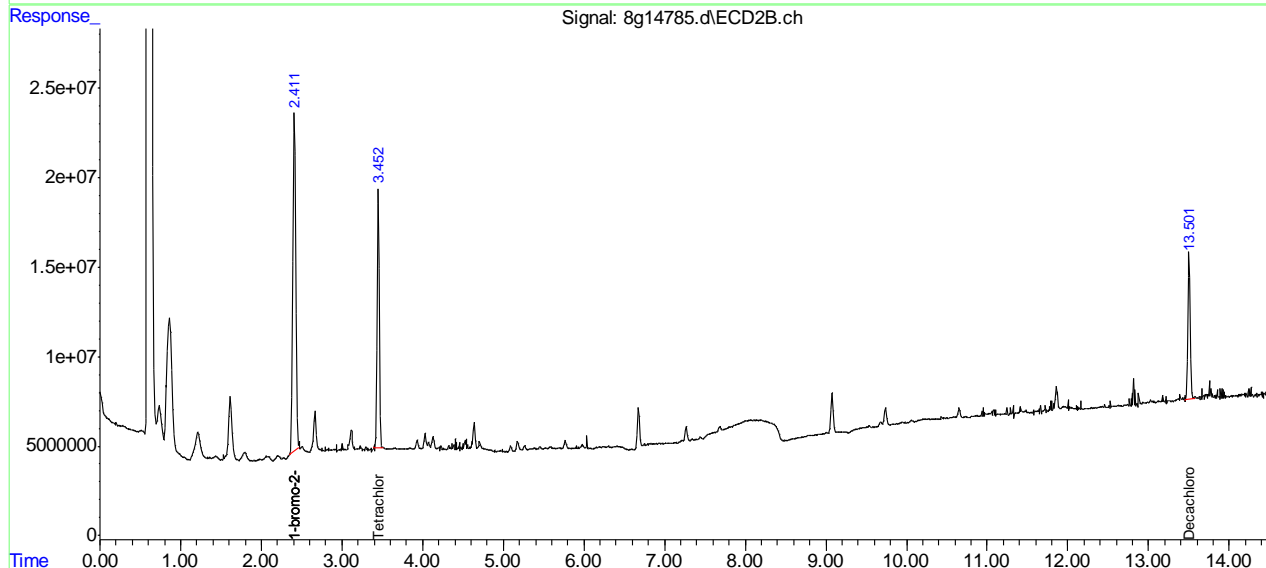
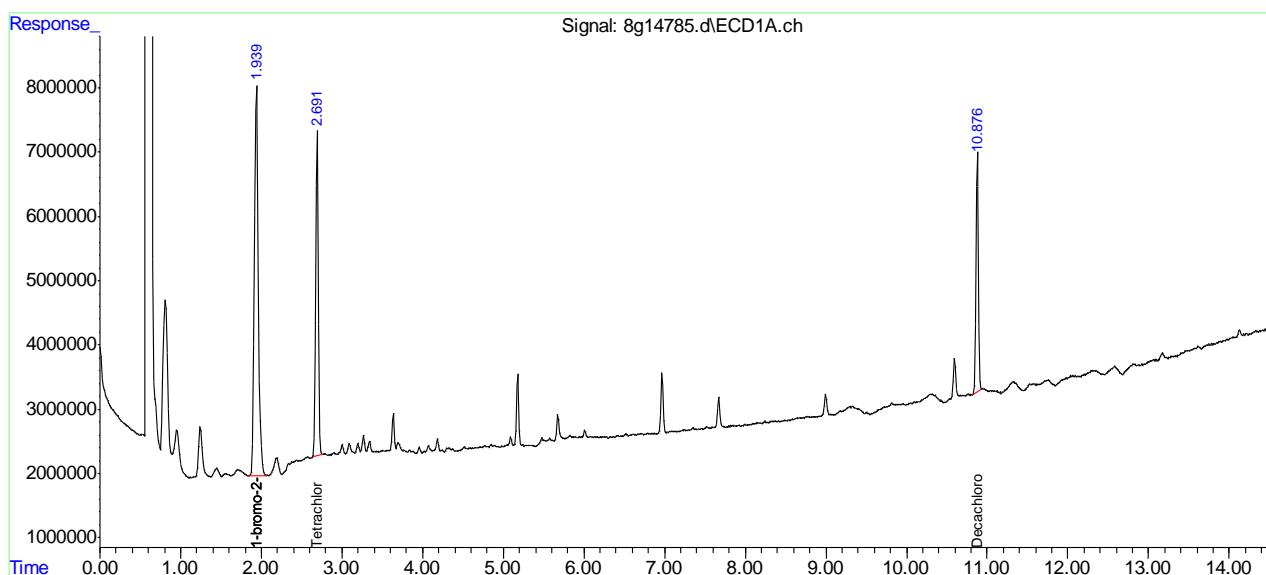
13.27  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G483\  
 Data File : 8g14785.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 3 May 2018 4:51 pm  
 Operator : dharas  
 Sample : op11691-mb2  
 Misc : op11691,g8g483,300,,,2,1  
 ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 04 01:09:20 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 15:01:01 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.27  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15031.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:41 am  
 Operator : mailisih  
 Sample : op11917-mb1  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:29:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2  | PPB     | PPB    |
|-----------------------------|--------|----------------|------------|---------|---------|--------|
| -----                       |        |                |            |         |         |        |
| Internal Standards          |        |                |            |         |         |        |
| 1) I 1-bromo-2...           | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| 27) I 1-bromo-2...          | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| 33) I 1-bromo-2...          | 1.927  | 2.402          | 185.8E6    | 506.5E6 | 50.000  | 50.000 |
| System Monitoring Compounds |        |                |            |         |         |        |
| 2) SAB Tetrachlo...         | 2.688  | 3.447          | 108.9E6    | 289.8E6 | 31.005  | 34.941 |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 77.51%  | 87.35%  |        |
| 26) SA Decachlor...         | 10.869 | 13.494         | 99908331   | 274.9E6 | 25.367m | 30.733 |
| Spiked Amount               | 40.000 |                | Recovery = | 63.42%  | 76.83%  |        |

Target Compounds

SemiQuant Compounds - Not Calibrated on this Instrument

-----  
 (f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

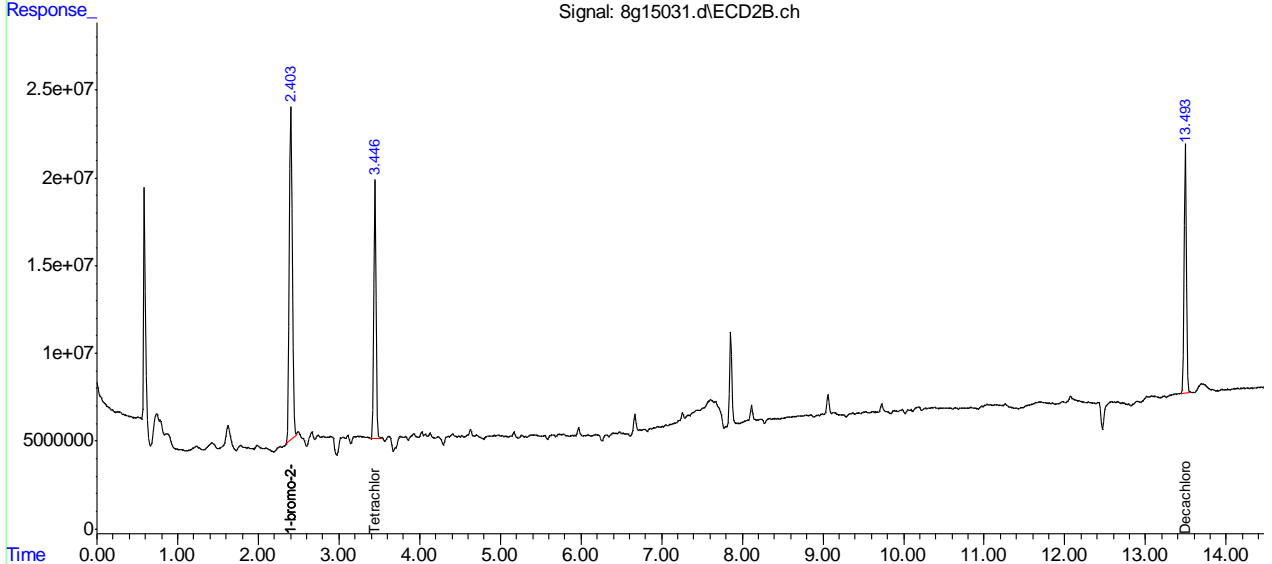
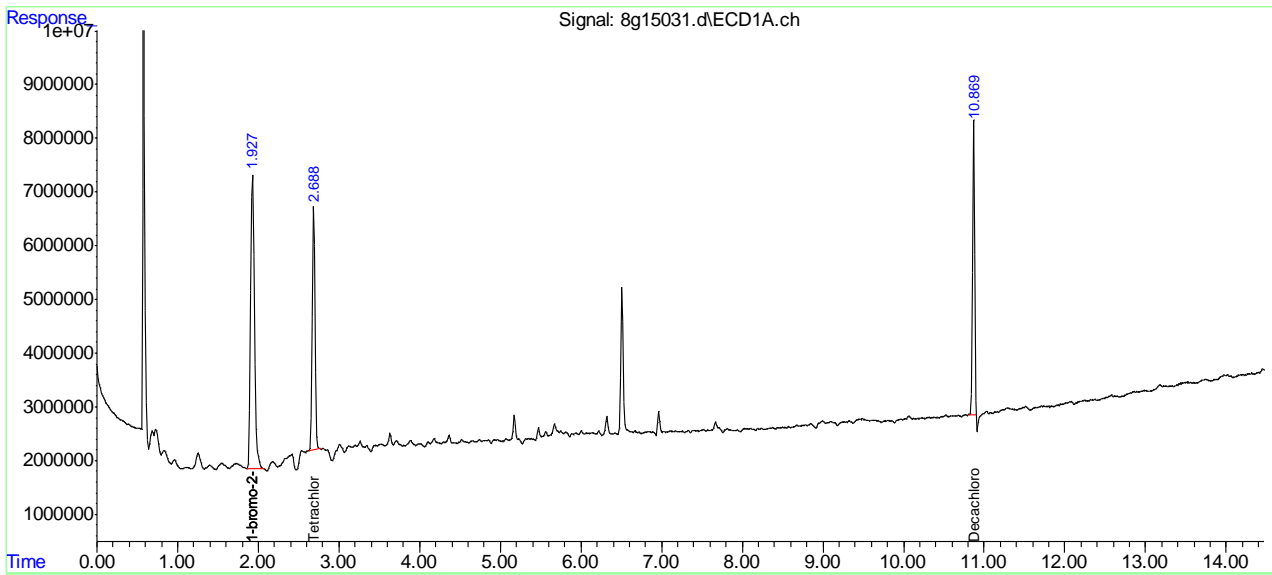
13.28  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G489\  
 Data File : 8g15031.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 May 2018 11:41 am  
 Operator : mailisih  
 Sample : op11917-mb1  
 Misc : op11917,g8g489,15.0,,,10,1  
 ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 11 12:29:46 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Fri May 11 12:02:44 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55784.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 12:36:33  
 Operator : dharas  
 Sample : icc1671-25  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 12:52:37 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB    | PPB    |
|-----------------------------|--------|----------------|------------|----------|--------|--------|
| Internal Standards          |        |                |            |          |        |        |
| 1) I 1-bromo-2...           | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| 27) I 1-bromo-2...          | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| 33) I 1-bromo-2...          | 1.943  | 2.148          | 403.9E6    | 253.2E6  | 50.000 | 50.000 |
| System Monitoring Compounds |        |                |            |          |        |        |
| 2) SAB Tetrachlo...         | 2.530  | 2.932          | 189.1E6    | 114.8E6  | 23.658 | 23.388 |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = |          | 59.15% | 58.47% |
| 26) SA Decachlor...         | 9.838  | 11.722         | 184.6E6    | 109.7E6  | 24.257 | 25.672 |
| Spiked Amount               | 40.000 |                | Recovery = |          | 60.64% | 64.18% |
| Target Compounds            |        |                |            |          |        |        |
| 3) hexachlor...             | 2.857  | 3.415          | 210.3E6    | 141.6E6  | 21.917 | 22.707 |
| 4) A alpha-BHC              | 2.996  | 3.563          | 270.6E6    | 157.3E6  | 22.926 | 22.462 |
| 5) MA gamma-BHC             | 3.287  | 3.971          | 249.6E6    | 145.6E6  | 23.359 | 22.563 |
| 6) MA Heptachlor            | 3.776  | 4.526          | 236.7E6    | 146.0E6  | 25.037 | 24.415 |
| 7) B beta-BHC               | 3.359  | 4.051          | 109.6E6    | 65204342 | 24.369 | 24.037 |
| 8) B delta-BHC              | 3.542  | 4.431          | 226.7E6    | 133.1E6  | 23.687 | 22.873 |
| 9) MB Aldrin                | 4.107  | 4.962          | 232.3E6    | 129.4E6  | 24.904 | 22.686 |
| 10) alachlor                | 4.246  | 4.780          | 28340673   | 17039946 | 23.696 | 23.431 |
| 11) B Heptachlo...          | 4.813  | 5.760          | 214.1E6    | 124.0E6  | 25.673 | 24.804 |
| 12) B gamma-Chl...          | 4.975  | 6.037          | 212.2E6    | 123.6E6  | 25.903 | 25.235 |
| 13) B alpha-Chl...          | 5.145  | 6.257          | 210.1E6    | 122.8E6  | 25.048 | 25.615 |
| 14) A Endosulfan I          | 5.322  | 6.349          | 197.6E6    | 111.7E6  | 24.765 | 24.460 |
| 15) B 4,4'-DDE              | 5.256  | 6.521          | 203.7E6    | 116.9E6  | 24.678 | 22.598 |
| 16) MA Dieldrin             | 5.642  | 6.775          | 217.8E6    | 121.4E6  | 23.209 | 22.770 |
| 17) MA Endrin               | 5.964  | 7.268          | 194.6E6    | 115.1E6  | 25.344 | 24.911 |
| 18) A 4,4'-DDD              | 6.085  | 7.452          | 168.7E6    | 96890160 | 24.374 | 24.290 |
| 19) B Endosulfa...          | 6.283  | 7.612          | 194.5E6    | 112.1E6  | 25.092 | 24.729 |
| 20) MA 4,4'-DDT             | 6.503  | 7.980          | 162.0E6    | 96232017 | 24.375 | 23.954 |
| 21) B Endrin Al...          | 6.907  | 8.177          | 160.7E6    | 89850605 | 25.017 | 24.937 |
| 22) B Endosulfa...          | 7.588  | 8.641          | 159.9E6    | 90465081 | 25.757 | 25.546 |
| 23) A Methoxychlor          | 7.285  | 9.213          | 94604672   | 55394201 | 26.255 | 27.313 |
| 24) Mirex                   | 7.436  | 9.520          | 156.3E6    | 89970523 | 24.892 | 24.562 |
| 25) B Endrin Ke...          | 8.028  | 9.587          | 193.0E6    | 111.2E6  | 25.635 | 23.298 |
| Sum Toxaphene               |        |                | 0          | 0        | N.D.   | N.D.   |
| Average Toxaphene           |        |                |            |          | 0.000  | 0.000  |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

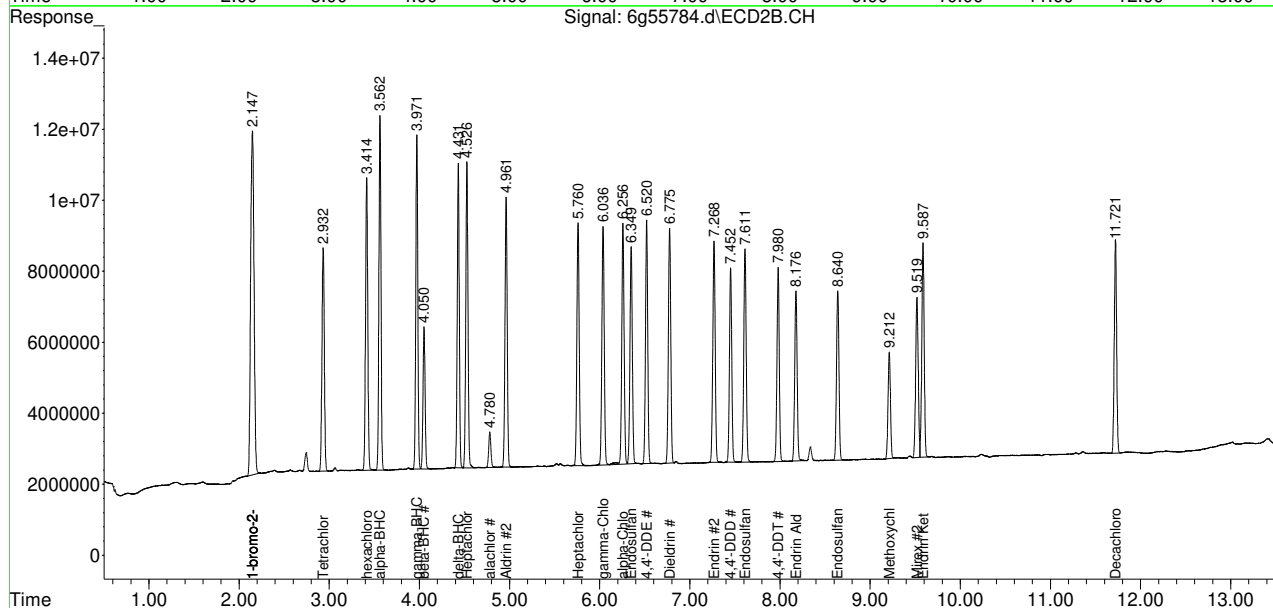
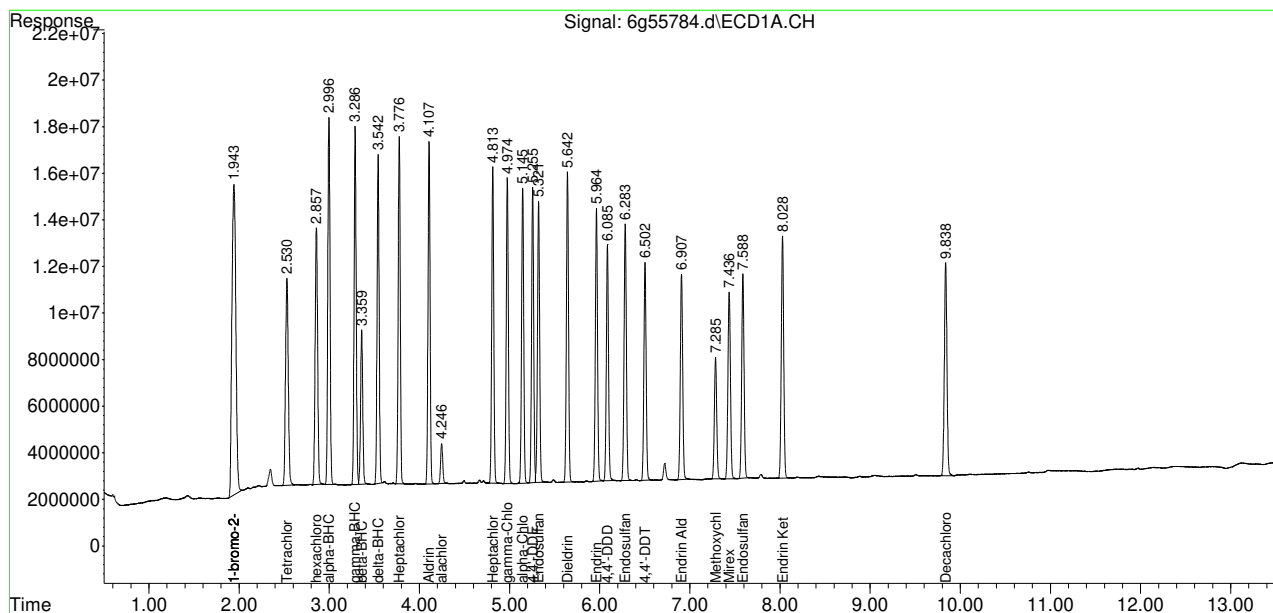
13.3.1  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55784.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 12:36:33  
 Operator : dharas  
 Sample : icc1671-25  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 7 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 12:52:37 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.1  
13





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55788.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)  
 Operator : dharas  
 Sample : ic1671-500  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 17:25:49 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

|                             | Compound          | RT#1   | RT#2           | Resp#1   | Resp#2   | PPB     | PPB      |
|-----------------------------|-------------------|--------|----------------|----------|----------|---------|----------|
| -----                       |                   |        |                |          |          |         |          |
| Internal Standards          |                   |        |                |          |          |         |          |
| 1)                          | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6  | 252.6E6  | 50.000  | 50.000   |
| 27)                         | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6  | 252.6E6  | 50.000  | 50.000   |
| 33)                         | I 1-bromo-2...    | 1.944  | 2.148          | 409.6E6  | 252.6E6  | 50.000  | 50.000   |
| System Monitoring Compounds |                   |        |                |          |          |         |          |
| 2)                          | SAB Tetrachlo...  | 2.531f | 2.933          | 389.1E6  | 228.0E6  | 47.992  | 46.540   |
|                             | Spiked Amount     | 40.000 | Range 30 - 150 | Recovery | =        | 119.98% | 116.35%  |
| 26)                         | SA Decachlor...   | 9.838  | 11.722f        | 351.2E6  | 206.2E6  | 45.509  | 48.373   |
|                             | Spiked Amount     | 40.000 |                | Recovery | =        | 113.77% | 120.93%  |
| Target Compounds            |                   |        |                |          |          |         |          |
|                             | Sum Toxaphene     |        |                | 0        | 0        | N.D.    | N.D.     |
|                             | Average Toxaphene |        |                |          |          | 0.000   | 0.000    |
| 34)                         | Chlordane...      | 3.776  | 4.526          | 220.7E6  | 136.8E6  | 497.720 | 487.961  |
| 35)                         | Chlordane...      | 4.250  | 5.150          | 183.3E6  | 100.4E6  | 481.316 | 486.126  |
| 36)                         | Chlordane...      | 4.975  | 6.037          | 592.7E6  | 319.3E6  | 506.778 | 487.790  |
| 37)                         | Chlordane...      | 5.139  | 6.258          | 932.0E6  | 520.1E6  | 496.185 | 488.099m |
| 38)                         | Chlordane...      | 6.024  | 7.396          | 105.2E6  | 54285316 | 450.659 | 528.699  |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

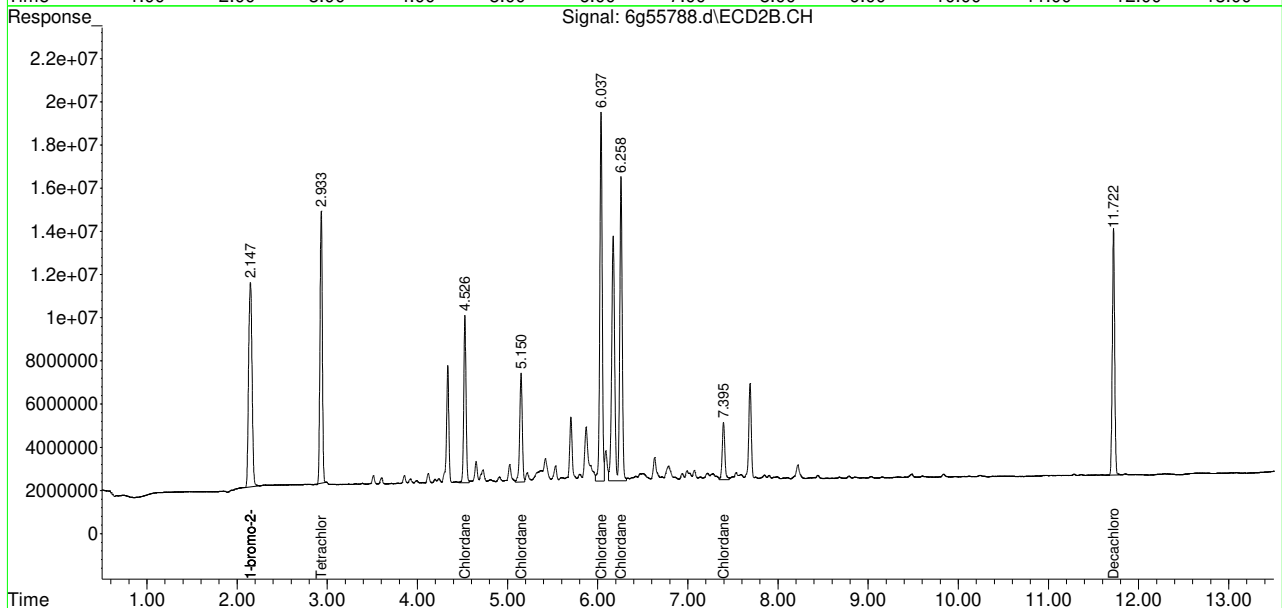
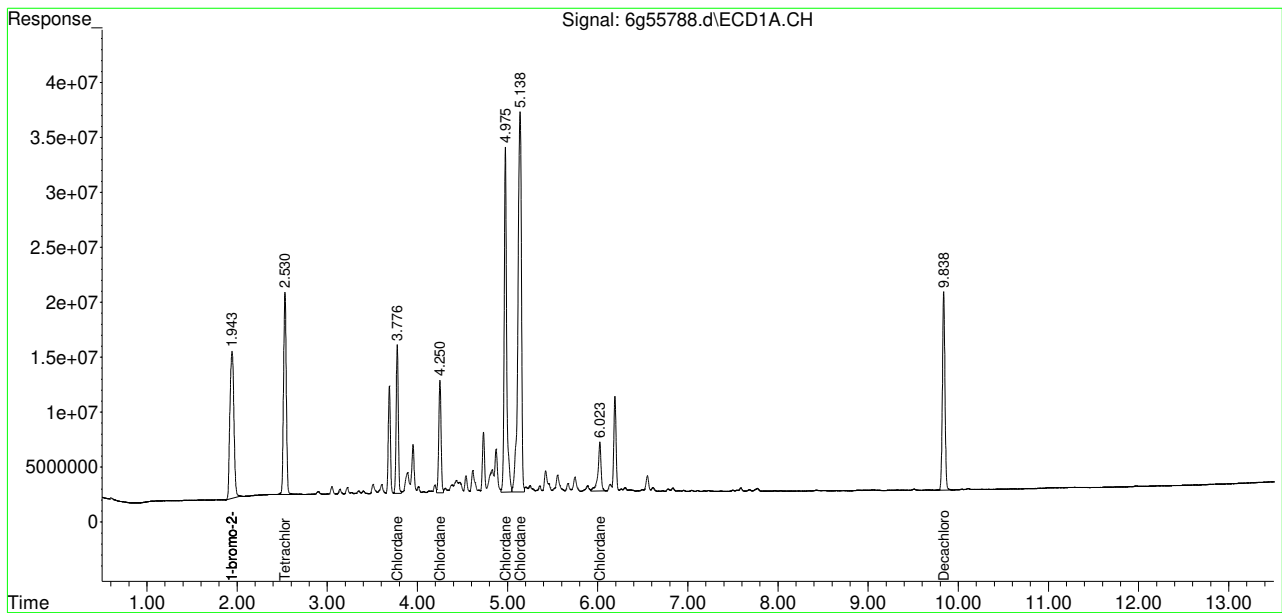
13.32  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
Data File : 6g55788.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 30-Apr-18, 13:47:47 (#1); 30-Apr-18, 13:47:46 (#2)  
Operator : dharas  
Sample : ic1671-500  
Misc : OP11619,g6g1671,1000,,,5,1  
ALS Vial : 11 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 30 17:25:49 2018  
Quant Method : C:\msdchem\1\methods\6PST1671.M  
Quant Title : PEST/PCB  
QLast Update : Mon Apr 30 12:31:07 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
 Data File : 6g55789.d  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 30-Apr-18, 14:05:32  
 Operator : dharas  
 Sample : ic1671-500  
 Misc : OP11619,g6g1671,1000,,,5,1  
 ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Apr 30 17:26:17 2018  
 Quant Method : C:\msdchem\1\methods\6PST1671.M  
 Quant Title : PEST/PCB  
 QLast Update : Mon Apr 30 12:31:07 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2           | Resp#1     | Resp#2   | PPB      | PPB      |
|-----------------------------|--------|----------------|------------|----------|----------|----------|
| -----                       |        |                |            |          |          |          |
| Internal Standards          |        |                |            |          |          |          |
| 1) I 1-bromo-2...           | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| 27) I 1-bromo-2...          | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| 33) I 1-bromo-2...          | 1.940  | 2.144          | 402.5E6    | 250.1E6  | 50.000   | 50.000   |
| System Monitoring Compounds |        |                |            |          |          |          |
| 2) SAB Tetrachlo...         | 2.528f | 2.931          | 385.1E6    | 233.3E6  | 48.334   | 48.108   |
| Spiked Amount               | 40.000 | Range 30 - 150 | Recovery = | 120.84%  | 120.27%  |          |
| 26) SA Decachlor...         | 9.837  | 11.722f        | 358.9E6    | 213.2E6  | 47.319   | 50.528   |
| Spiked Amount               | 40.000 |                | Recovery = | 118.30%  | 126.32%  |          |
| Target Compounds            |        |                |            |          |          |          |
| 28) L8 Toxaphene{A}         | 5.652  | 6.741          | 63726000   | 48141894 | 470.271  | 486.445  |
| 29) L8 Toxaphene{B}         | 6.272  | 7.583          | 164.9E6    | 62990732 | 478.558  | 515.469  |
| 30) L8 Toxaphene{C}         | 6.447  | 7.744          | 133.5E6    | 117.7E6  | 480.051  | 512.531  |
| 31) L8 Toxaphene{D}         | 6.787  | 8.178          | 104.7E6    | 65399372 | 492.281  | 529.767  |
| 32) L8 Toxaphene{E}         | 7.434  | 9.066          | 107.3E6    | 58569705 | 475.346  | 551.126  |
| Sum Toxaphene               |        |                | 574.1E6    | 352.8E6  | 2396.507 | 2595.337 |
| Average Toxaphene           |        |                |            |          | 479.301  | 519.067  |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

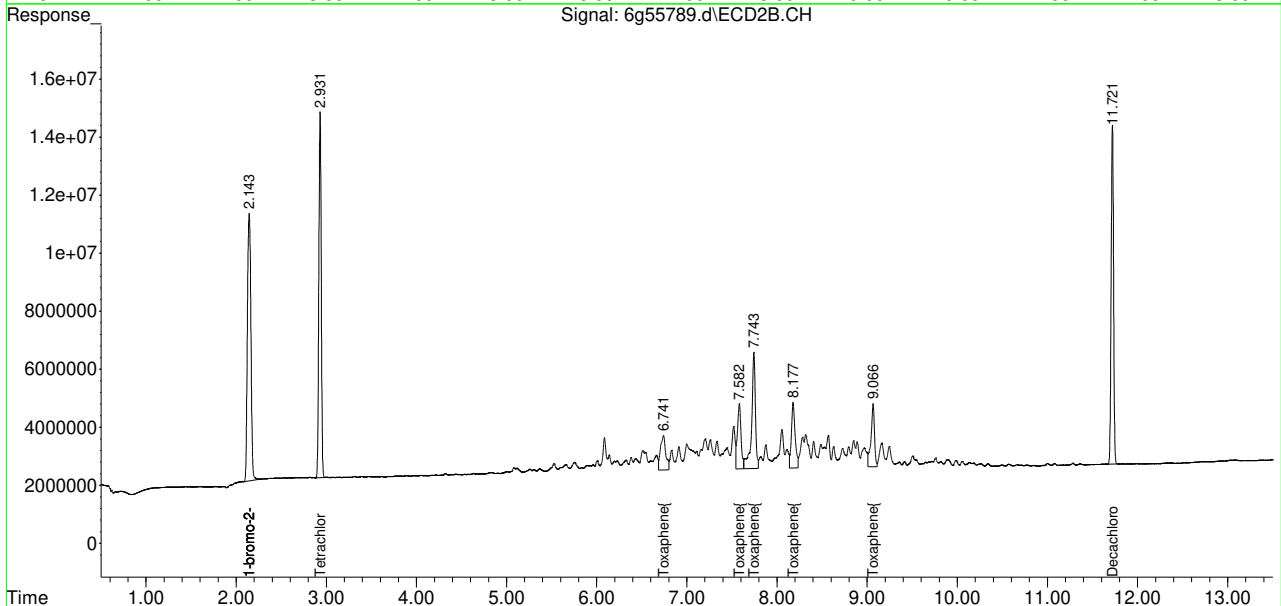
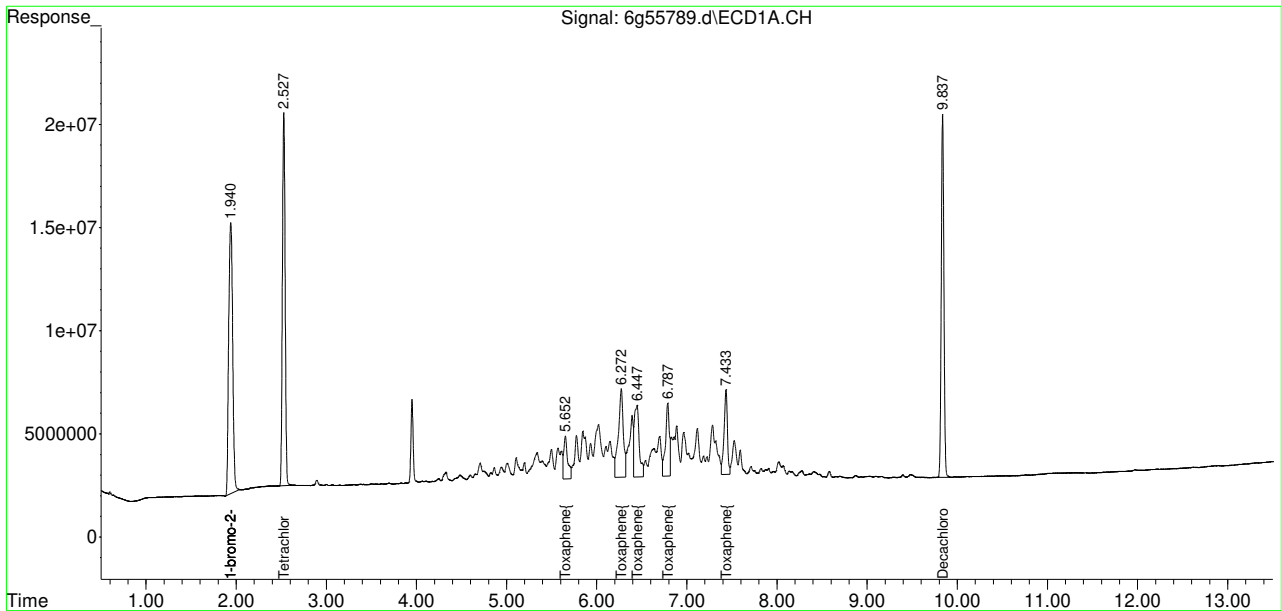
13.33  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\G6G1671\  
Data File : 6g55789.d  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 30-Apr-18, 14:05:32  
Operator : dharas  
Sample : ic1671-500  
Misc : OP11619,g6g1671,1000,,,5,1  
ALS Vial : 12 (Sig #1); 0 (Sig #2) Sample Multiplier: 1

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Apr 30 17:26:17 2018  
Quant Method : C:\msdchem\1\methods\6PST1671.M  
Quant Title : PEST/PCB  
QLast Update : Mon Apr 30 12:31:07 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14666.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 11:19 am  
 Operator : rebeccak  
 Sample : icc480-25  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:42:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | PPB      | PPB      |
|-----------------------------|--------|--------|----------|----------|----------|----------|
| -----                       |        |        |          |          |          |          |
| Internal Standards          |        |        |          |          |          |          |
| 1) I 1-bromo-2...           | 1.933  | 2.406  | 198.1E6  | 484.5E6  | 50.000   | 50.000   |
| System Monitoring Compounds |        |        |          |          |          |          |
| 2) SAB Tetrachlo...         | 2.687  | 3.449  | 90814326 | 189.9E6  | 22.554   | 18.522   |
| Spiked Amount               | 40.000 | Range  | 30 - 150 | Recovery | = 56.38% | 46.30%   |
| 26) SA Decachlor...         | 10.885 | 13.510 | 94653378 | 200.1E6  | 12.704   | 18.885 # |
| Spiked Amount               | 40.000 |        | Recovery | = 31.76% | 47.21%   |          |
| Target Compounds            |        |        |          |          |          |          |
| 3) hexachlor...             | 3.085  | 4.072  | 131.5E6  | 244.2E6  | 23.930   | 17.667 # |
| 4) A alpha-BHC              | 3.255  | 4.259  | 114.2E6  | 249.4E6  | 22.050   | 17.706   |
| 5) MA gamma-BHC             | 3.600  | 4.771  | 108.9E6  | 235.9E6  | 21.777   | 18.540   |
| 6) MA Heptachlor            | 4.168  | 5.457  | 109.0E6  | 240.0E6  | 20.696   | 17.985   |
| 7) B beta-BHC               | 3.688  | 4.868  | 51771376 | 109.9E6  | 20.415   | 19.490   |
| 8) B delta-BHC              | 3.899  | 5.339  | 89006176 | 207.5E6  | 20.925   | 17.800   |
| 9) MB Aldrin                | 4.549  | 5.990  | 98856823 | 230.9E6  | 19.324   | 18.479   |
| 10)alachlor                 | 4.706  | 5.743  | 14005173 | 31677821 | 17.316   | 17.766   |
| 11) B Heptachlo...          | 5.351  | 6.938  | 95829910 | 185.3E6  | 20.307   | 15.033 # |
| 12) B gamma-Chl...          | 5.534  | 7.264  | 92021995 | 228.4E6  | 18.820   | 18.203   |
| 13) B alpha-Chl...          | 5.726  | 7.521  | 93334086 | 235.5E6  | 17.315   | 17.821   |
| 14) A Endosulfan I          | 5.926  | 7.639  | 86686649 | 222.9E6  | 17.088   | 19.551   |
| 15) B 4,4'-DDE              | 5.844  | 7.798  | 94646226 | 245.0E6  | 17.656   | 20.467   |
| 16) MA Dieldrin             | 6.285  | 8.134  | 94494339 | 252.9E6  | 17.443   | 21.047   |
| 17) MA Endrin               | 6.646  | 8.711  | 85347605 | 220.7E6  | 16.595   | 22.229 # |
| 18) A 4,4'-DDD              | 6.769  | 8.870  | 72001019 | 195.7E6  | 16.226   | 22.209 # |
| 19) B Endosulfa...          | 7.003  | 9.102  | 85678296 | 223.1E6  | 15.114   | 22.910 # |
| 20) MA 4,4'-DDT             | 7.233  | 9.474  | 71395105 | 181.9E6  | 17.127   | 26.676 # |
| 21) B Endrin Al...          | 7.697  | 9.742  | 73336013 | 179.4E6  | 14.939   | 28.046 # |
| 22) B Endosulfa...          | 8.454  | 10.261 | 64423396 | 165.0E6  | 12.981   | 28.479 # |
| 23) A Methoxychlor          | 8.090  | 10.810 | 44702611 | 100.8E6  | 15.797   | 31.974 # |
| 24) Mirex                   | 8.293  | 11.264 | 75749242 | 161.1E6  | 14.955   | 25.838 # |
| 25) B Endrin Ke...          | 8.947  | 11.311 | 81698675 | 193.3E6  | 15.012   | 24.579 # |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

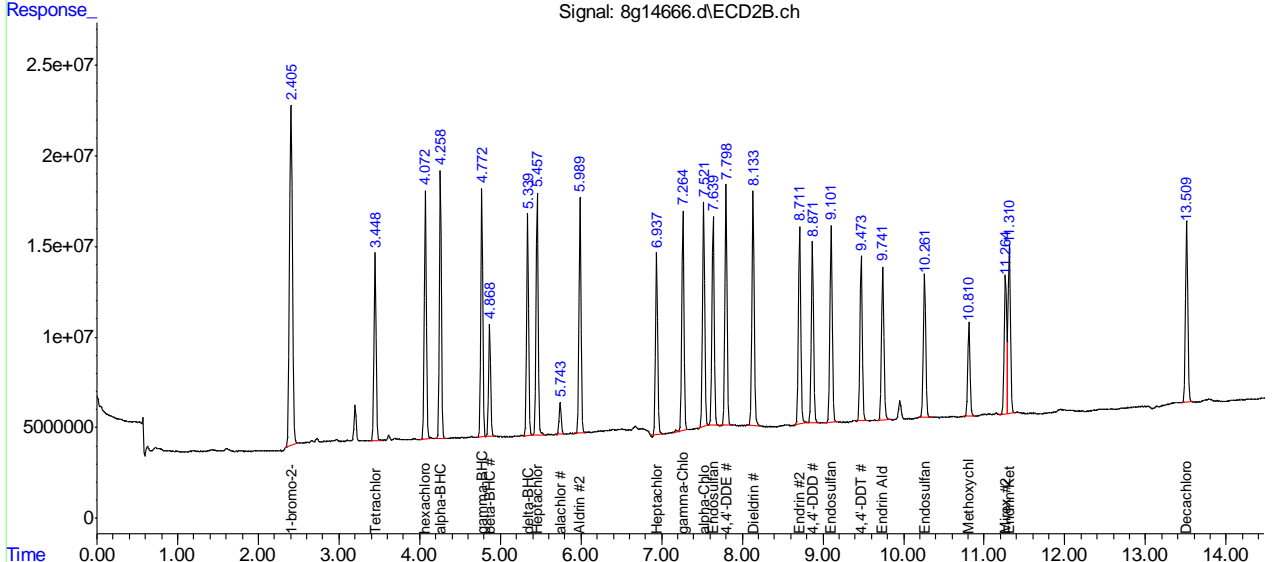
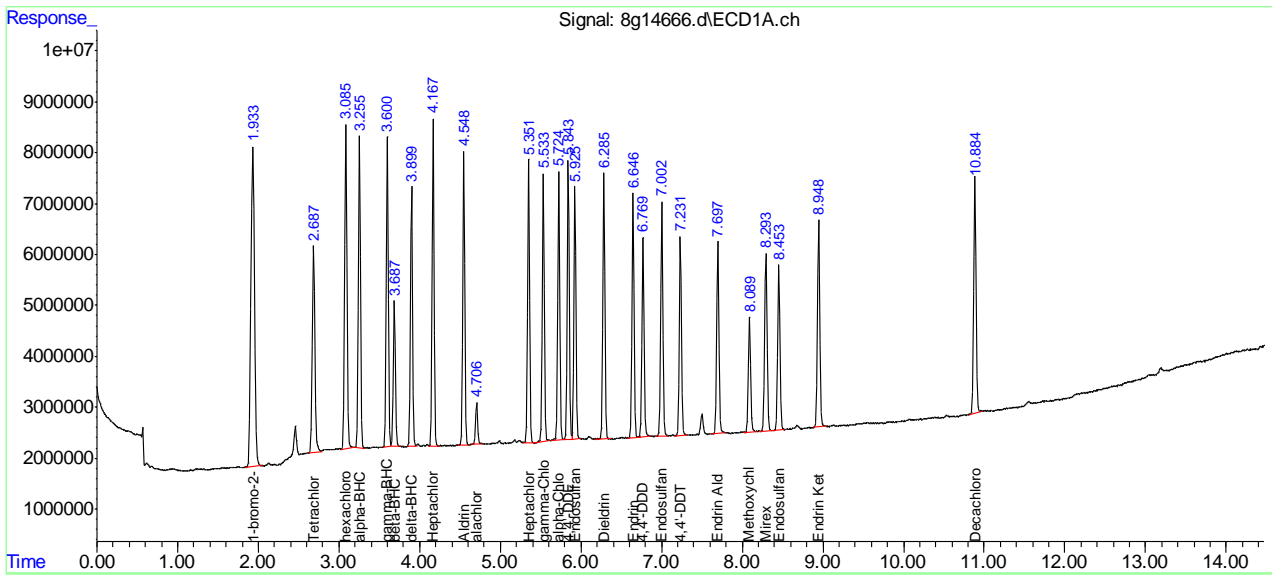
13.34  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14666.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 11:19 am  
 Operator : rebeccak  
 Sample : icc480-25  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:42:55 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14670.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:24 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1  | RT#2  | Resp#1   | Resp#2  | PPB     | PPB       |
|-----------------------------|-------|-------|----------|---------|---------|-----------|
| -----                       |       |       |          |         |         |           |
| Internal Standards          |       |       |          |         |         |           |
| 33) I 1-bromo-2...          | 1.933 | 2.405 | 194.1E6  | 477.9E6 | 50.000  | 50.000    |
| System Monitoring Compounds |       |       |          |         |         |           |
| Target Compounds            |       |       |          |         |         |           |
| 34) Chlordane...            | 4.166 | 5.458 | 98687449 | 212.8E6 | 407.476 | 331.472   |
| 35) Chlordane...            | 4.710 | 6.207 | 82743880 | 175.2E6 | 353.319 | 353.917   |
| 36) Chlordane...            | 5.533 | 7.265 | 249.3E6  | 535.2E6 | 363.047 | 327.884   |
| 37) Chlordane...            | 5.719 | 7.523 | 403.0E6  | 950.2E6 | 346.204 | 353.021m  |
| 38) Chlordane...            | 6.899 | 9.198 | 65855686 | 169.8E6 | 305.905 | 474.945 # |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

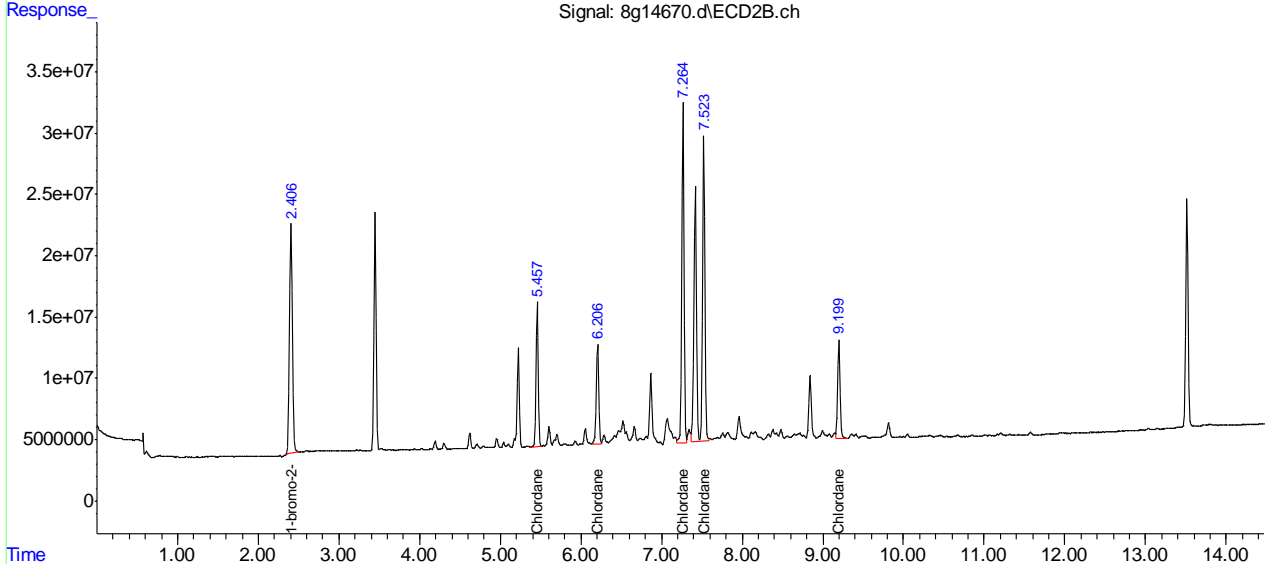
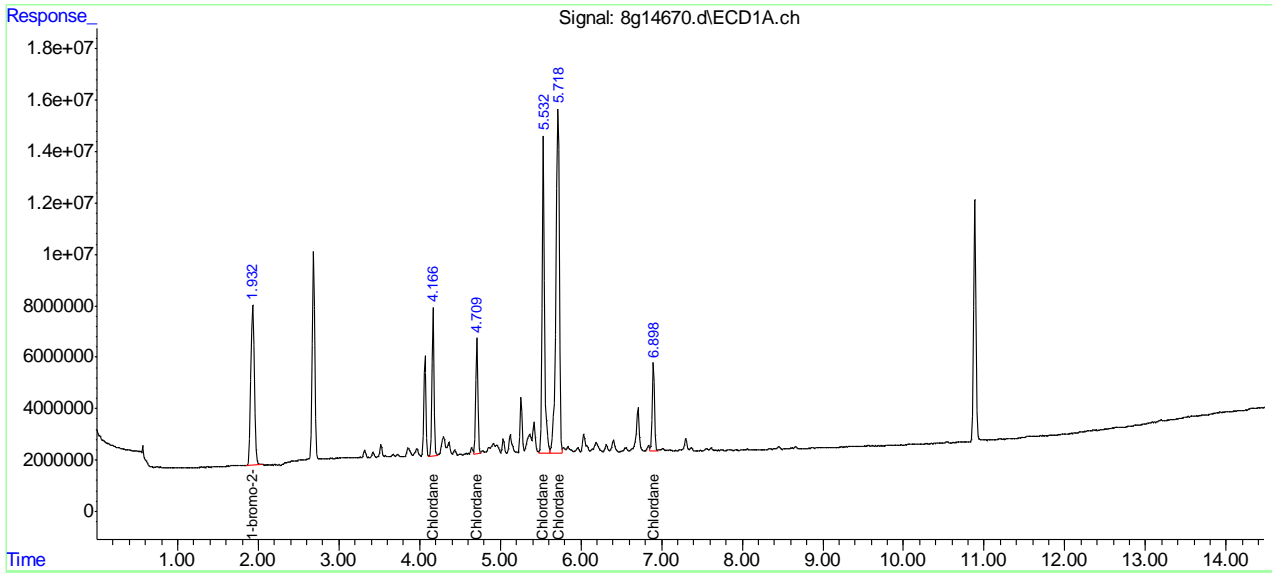
13.35  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14670.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:24 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:21 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14671.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:40 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um

| Compound                    | RT#1  | RT#2   | Resp#1   | Resp#2  | PPB     | PPB       |
|-----------------------------|-------|--------|----------|---------|---------|-----------|
| -----                       |       |        |          |         |         |           |
| Internal Standards          |       |        |          |         |         |           |
| 27) I 1-bromo-2...          | 1.933 | 2.406  | 192.4E6  | 469.5E6 | 50.000  | 50.000    |
| System Monitoring Compounds |       |        |          |         |         |           |
| Target Compounds            |       |        |          |         |         |           |
| 28) L8 Toxaphene{A}         | 6.293 | 8.091  | 29531996 | 121.1E6 | 299.375 | 453.378 # |
| 29) L8 Toxaphene{B}         | 6.990 | 9.070  | 73714114 | 125.6E6 | 285.923 | 535.974 # |
| 30) L8 Toxaphene{C}         | 7.184 | 9.251  | 57118205 | 242.2E6 | 288.682 | 611.901 # |
| 31) L8 Toxaphene{D}         | 7.561 | 9.736  | 54619676 | 142.9E6 | 355.089 | 645.593 # |
| 32) L8 Toxaphene{E}         | 8.286 | 10.745 | 47183630 | 103.7E6 | 258.621 | 686.157 # |

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

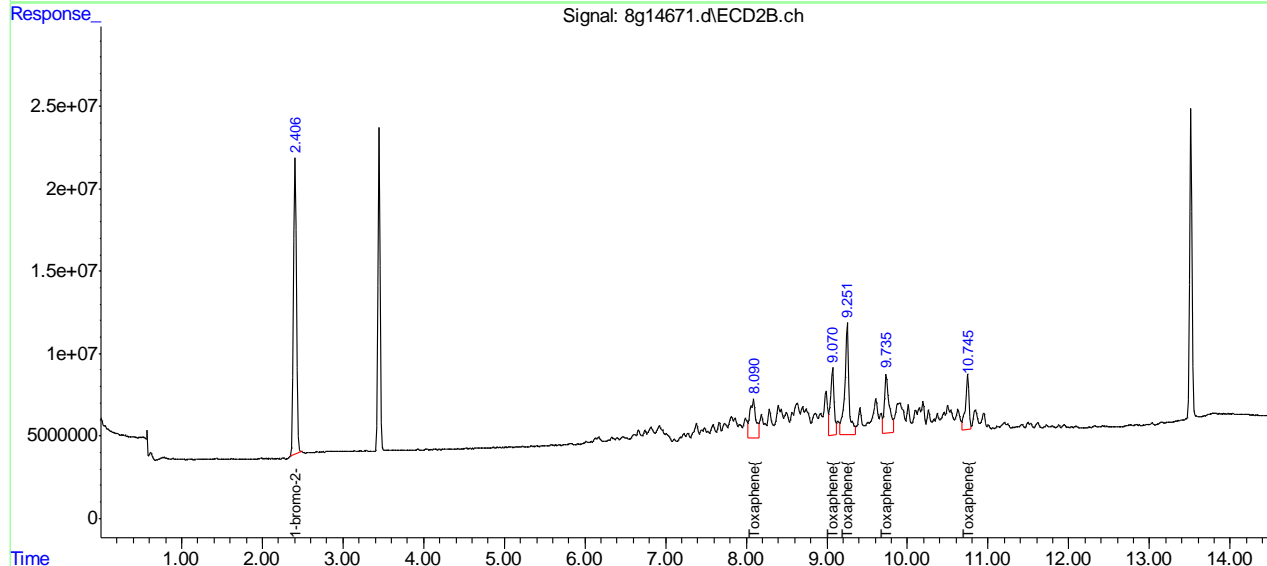
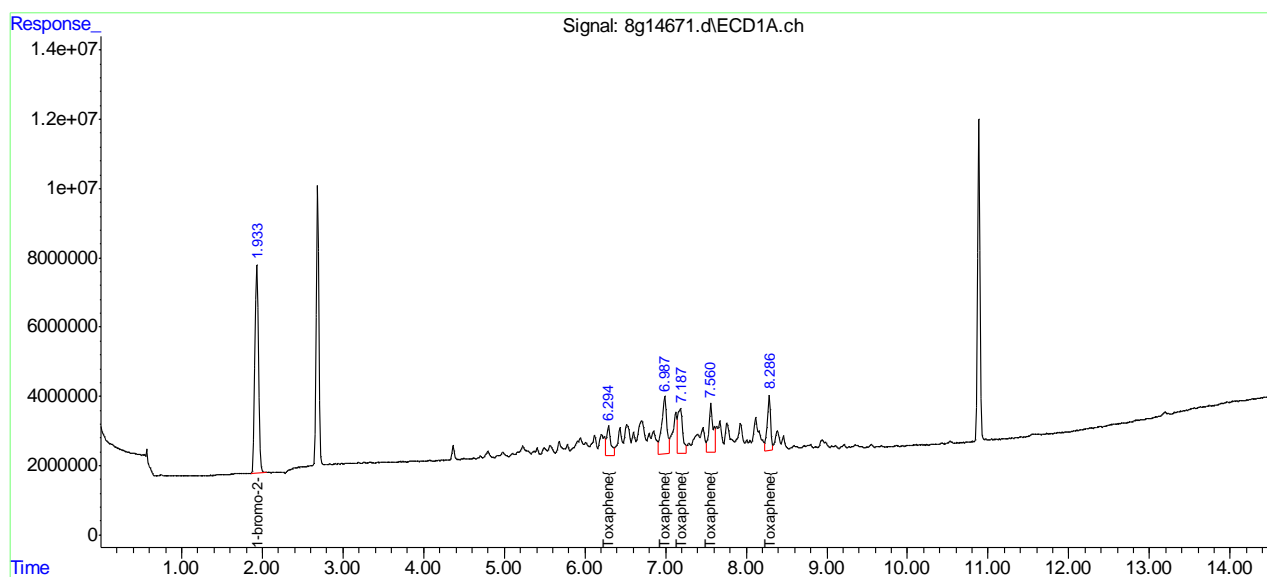
13.3.6  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\8G480\  
 Data File : 8g14671.d  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 1 May 2018 12:40 pm  
 Operator : rebeccak  
 Sample : ic480-500  
 Misc : op11561,g8g480,1000,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: May 01 14:44:38 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\8PST480.M  
 Quant Title : PEST/PCB  
 QLast Update : Tue May 01 12:33:12 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 1ul/column  
 Signal #1 Phase : RTXCLP I Signal #2 Phase: RTX-CLP II  
 Signal #1 Info : 30mx.32mmx.32um Signal #2 Info : 30m x .32mm x .25um



13.3.6  
13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 147.7E6  | 928.7E6  | 33.797   | 30.364    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 84.49%   | 75.91%    |
| 51) S Decachlor...          | 10.013 | 11.809 | 157.2E6  | 749.6E6  | 34.886   | 39.555    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 87.22%   | 98.89%    |
| Target Compounds            |        |        |          |          |          |           |
| 31) AR1016-A                | 3.155  | 4.092  | 75576037 | 366.7E6  | 827.627  | 761.652   |
| 32) AR1016-B                | 3.557  | 4.630  | 130.4E6  | 777.2E6  | 1133.202 | 804.122 # |
| 33) AR1016-C                | 4.107  | 5.275  | 285.4E6  | 1744.2E6 | 773.001  | 833.586   |
| 34) AR1016-D                | 4.268  | 5.461  | 115.7E6  | 737.8E6  | 860.556  | 953.596   |
| 35) AR1016-E                | 4.782  | 6.112  | 117.6E6  | 502.9E6  | 835.629m | 883.134   |
| 36) AR1260-A                | 7.151  | 8.712  | 317.8E6  | 1882.4E6 | 835.813  | 1010.865m |
| 37) AR1260-B                | 7.312  | 8.828  | 153.0E6  | 917.3E6  | 895.825  | 941.444   |
| 38) AR1260-C                | 7.650  | 9.260  | 169.0E6  | 1051.3E6 | 1020.047 | 1122.233  |
| 39) AR1260-D                | 8.080  | 9.610  | 395.3E6  | 2256.3E6 | 855.811  | 959.373   |
| 40) AR1260-E                | 8.472  | 10.153 | 402.6E6  | 2144.0E6 | 925.282m | 1047.495m |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

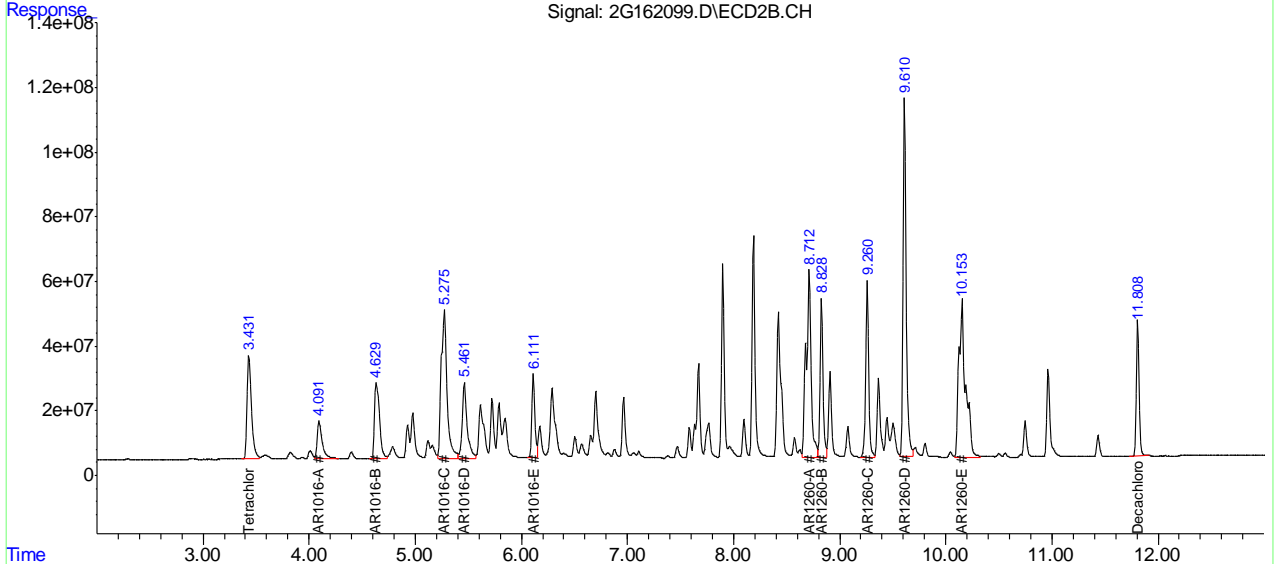
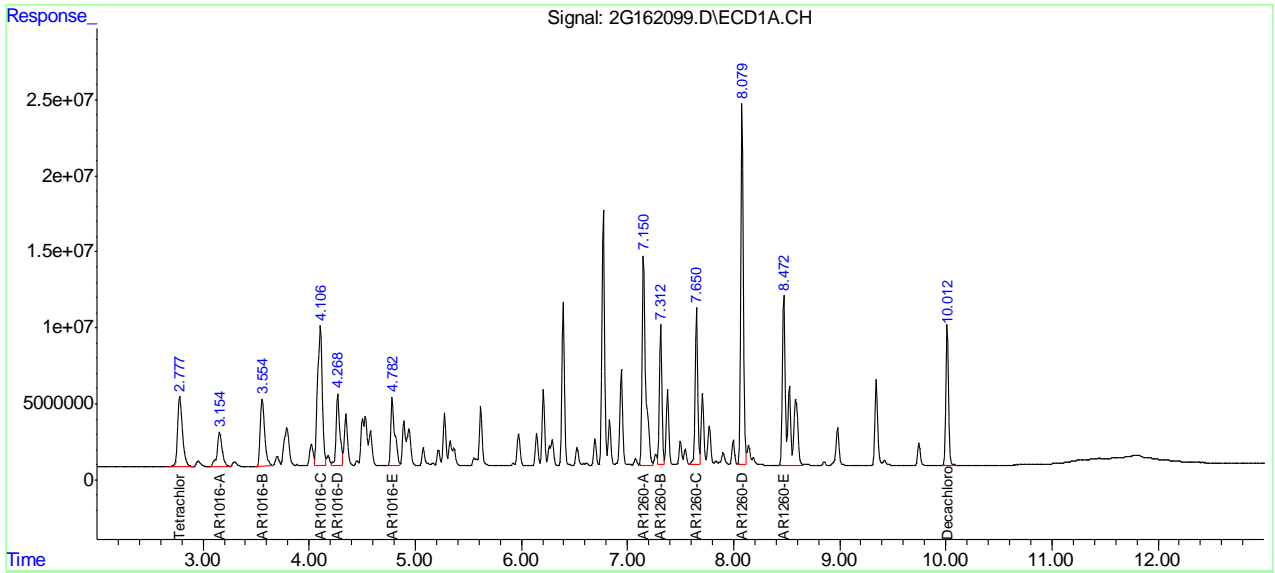
13.37  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162099.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:02 pm  
 Operator : tianweir  
 Sample : icc4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 13:33:24 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 13:32:09 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb       | ppb       |
|-----------------------------|--------|--------|----------|----------|-----------|-----------|
| -----                       |        |        |          |          |           |           |
| System Monitoring Compounds |        |        |          |          |           |           |
| 1) S Tetrachlo...           | 2.779  | 3.431  | 163.8E6  | 987.2E6  | 47.199    | 46.623    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 118.00%   | 116.56%   |
| 51) S Decachlor...          | 10.013 | 11.809 | 165.0E6  | 806.7E6  | 44.682    | 46.281    |
| Spiked Amount               | 40.000 |        | Recovery | =        | 111.71%   | 115.70%   |
| Target Compounds            |        |        |          |          |           |           |
| 2) AR1221-A                 | 2.282  | 2.875  | 28967496 | 140.9E6  | 1023.276  | 1085.901  |
| 3) AR1221-B                 | 2.954  | 3.821  | 42022816 | 250.7E6  | 983.648   | 970.364   |
| 4) AR1221-C                 | 3.153  | 4.091  | 128.8E6  | 655.8E6  | 950.947m  | 1092.099  |
| 5) AR1221-D                 | 3.558  | 4.650  | 14656903 | 122.2E6  | 1190.489  | 1041.062  |
| 6) AR1221-E                 | 3.699  | 4.770  | 14363624 | 88492068 | 1222.278  | 1236.269  |
| 24) AR1254-A                | 5.275  | 6.700  | 123.4E6  | 992.5E6  | 961.679   | 1070.842  |
| 25) AR1254-B                | 5.616  | 6.960  | 258.8E6  | 983.9E6  | 1032.998m | 1051.674  |
| 26) AR1254-C                | 5.981  | 7.464  | 137.0E6  | 797.7E6  | 999.447   | 1078.993  |
| 27) AR1254-D                | 6.143  | 7.630  | 245.9E6  | 1634.3E6 | 996.318   | 1197.753  |
| 28) AR1254-E                | 6.519  | 7.955  | 182.5E6  | 1088.9E6 | 1178.826  | 1169.607  |
| 29) AR1254-F                | 6.772  | 8.419  | 171.2E6  | 1181.2E6 | 1099.087  | 1059.697m |
| 30) AR1254-G                | 7.152  | 8.714  | 251.8E6  | 1510.8E6 | 1013.161  | 1105.727  |
| -----                       |        |        |          |          |           |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

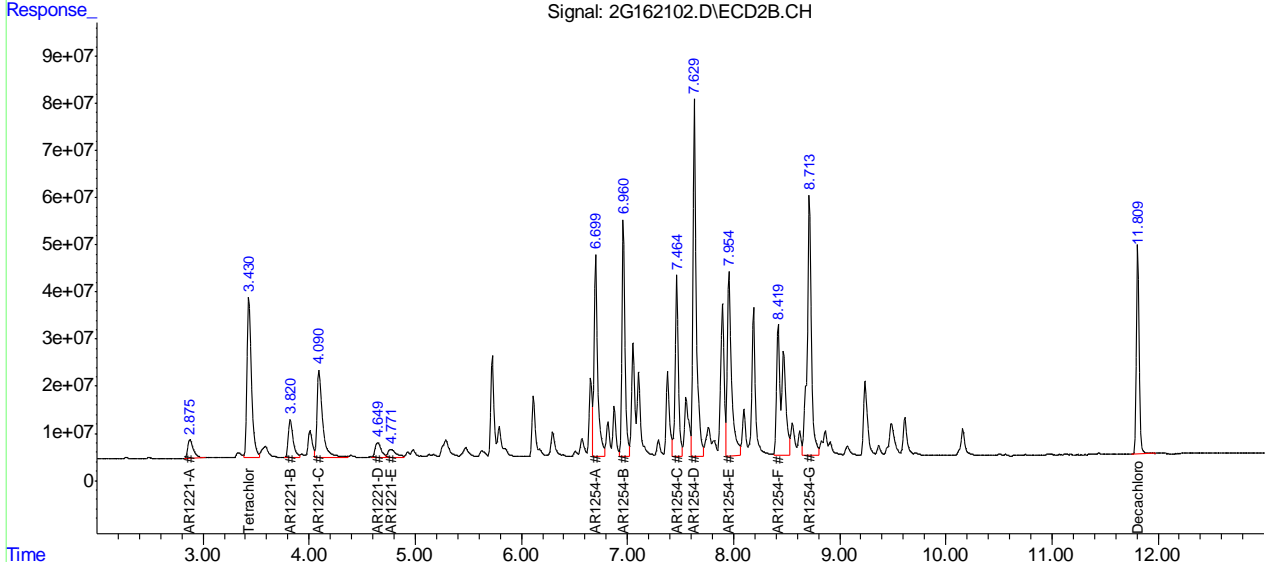
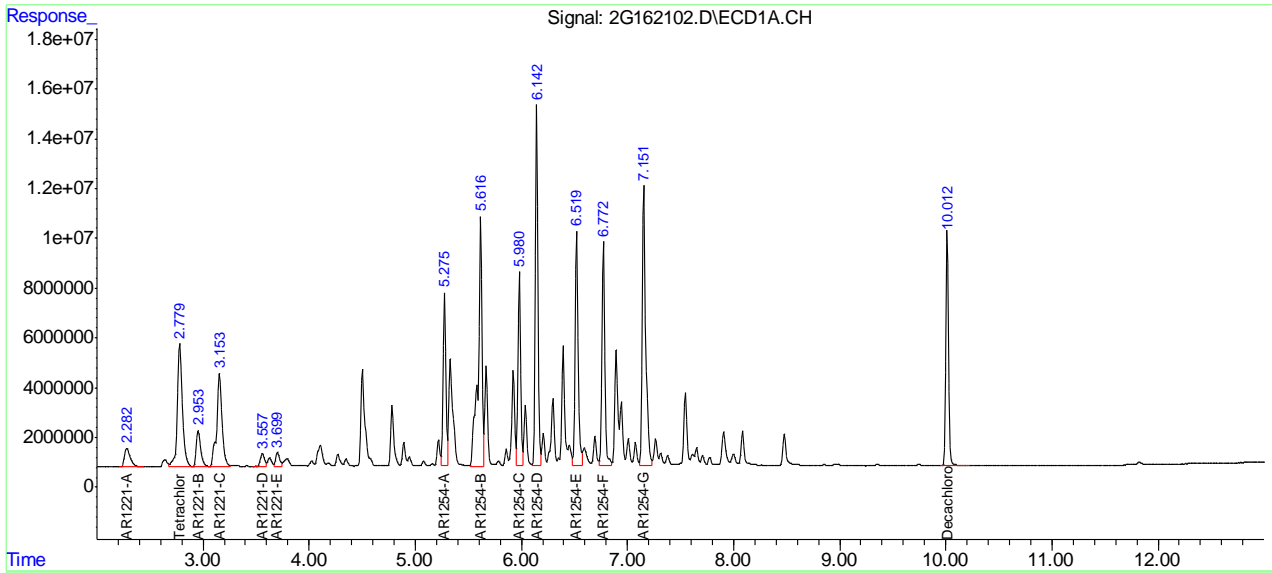
13.38  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162102.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 1:52 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:24:01 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:23:00 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb       |
|-----------------------------|--------|--------|----------|----------|----------|-----------|
| -----                       |        |        |          |          |          |           |
| System Monitoring Compounds |        |        |          |          |          |           |
| 1) S Tetrachlo...           | 2.780  | 3.431  | 169.1E6  | 1049.9E6 | 9.839    | 9.841     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.60%   | 24.60%    |
| 51) S Decachlor...          | 10.014 | 11.809 | 173.1E6  | 864.6E6  | 9.763    | 9.860     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.41%   | 24.65%    |
| Target Compounds            |        |        |          |          |          |           |
| 7) AR1232-A                 | 3.155  | 4.093  | 97343092 | 502.0E6  | 807.139m | 801.687   |
| 8) AR1232-B                 | 3.559  | 4.634  | 66842636 | 393.5E6  | 814.432  | 795.791   |
| 9) AR1232-C                 | 4.109  | 5.281  | 130.5E6  | 815.2E6  | 748.996  | 817.807   |
| 10) AR1232-D                | 4.271  | 5.467  | 54473697 | 361.5E6  | 844.210  | 954.940   |
| 11) AR1232-E                | 4.785  | 6.115  | 51489431 | 217.3E6  | 836.532  | 879.986   |
| 41) AR1262-A                | 6.772  | 8.187  | 193.5E6  | 1044.2E6 | 608.178  | 987.107 # |
| 42) AR1262-B                | 7.314  | 8.828  | 242.4E6  | 1428.2E6 | 818.303  | 912.354   |
| 43) AR1262-C                | 7.651  | 9.260  | 227.0E6  | 1336.0E6 | 936.108  | 1081.334  |
| 44) AR1262-D                | 8.081  | 9.610  | 485.4E6  | 2732.2E6 | 759.581  | 918.956   |
| 45) AR1262-E                | 8.525  | 10.123 | 558.8E6  | 3034.4E6 | 795.650m | 942.420m  |
| -----                       |        |        |          |          |          |           |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

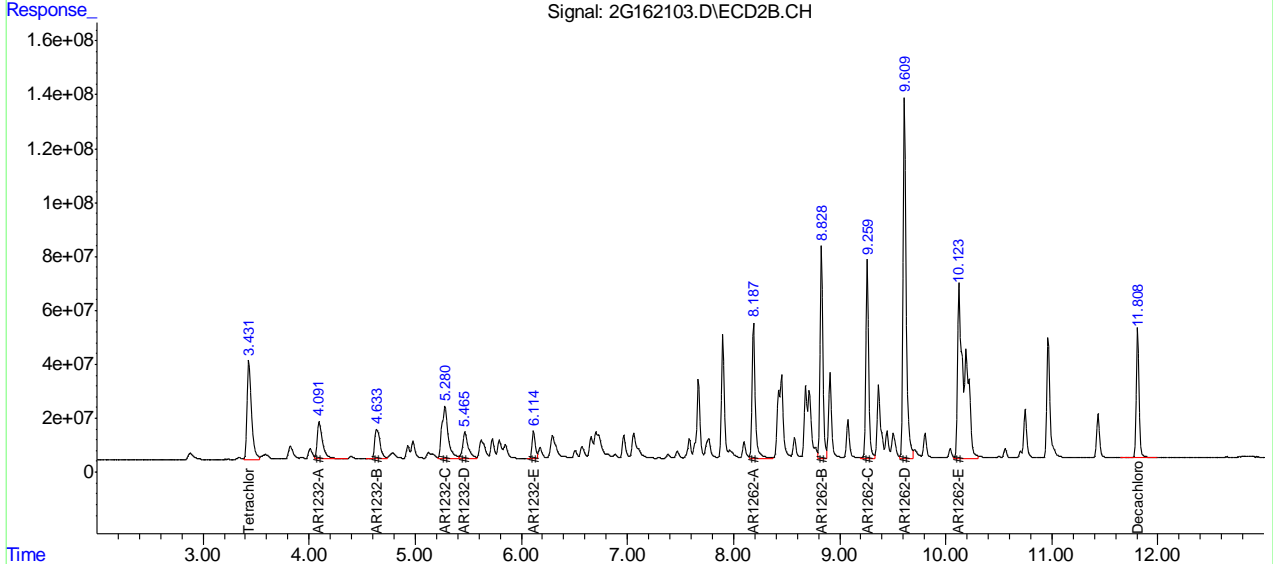
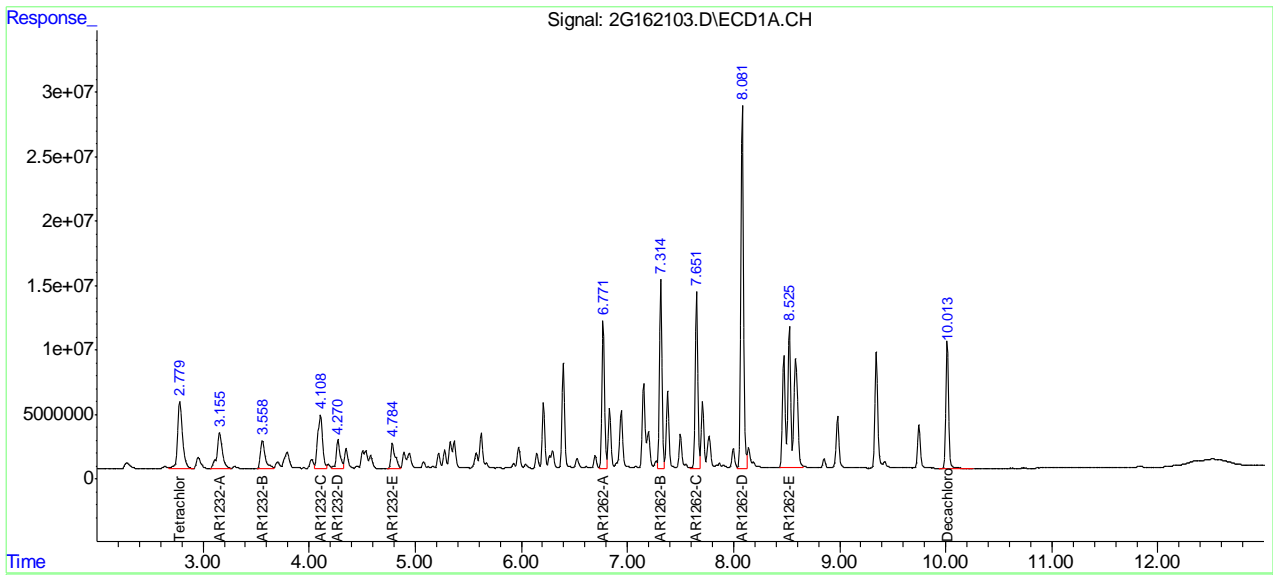
13.39  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162103.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:27 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 14:52:49 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 14:51:59 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162104.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 2:44 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:35:12 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:34:50 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb     | ppb        |
|-----------------------------|--------|--------|----------|----------|---------|------------|
| -----                       |        |        |          |          |         |            |
| System Monitoring Compounds |        |        |          |          |         |            |
| 1) S Tetrachlo...           | 2.779  | 3.432  | 164.4E6  | 1042.8E6 | 9.788   | 9.829      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.47%  | 24.57%     |
| 51) S Decachlor...          | 10.010 | 11.807 | 482.0E6  | 2362.8E6 | 11.088  | 11.117     |
| Spiked Amount               | 40.000 |        | Recovery | =        | 27.72%  | 27.79%     |
| Target Compounds            |        |        |          |          |         |            |
| 12) AR1242-A                | 3.557  | 4.630  | 119.8E6  | 705.4E6  | 833.841 | 769.896    |
| 13) AR1242-B                | 4.106  | 5.276  | 252.5E6  | 1547.7E6 | 766.774 | 823.562    |
| 14) AR1242-C                | 4.268  | 5.463  | 105.4E6  | 666.8E6  | 881.574 | 956.816    |
| 15) AR1242-D                | 4.782  | 6.113  | 109.0E6  | 456.4E6  | 869.789 | 894.747    |
| 16) AR1242-E                | 5.364  | 6.725  | 92980758 | 634.3E6  | 872.039 | 977.929    |
| 46) AR1268-A                | 8.523  | 10.121 | 575.4E6  | 3085.9E6 | 840.878 | 938.864    |
| 47) AR1268-B                | 8.578  | 10.189 | 567.3E6  | 3099.0E6 | 712.876 | 817.926    |
| 48) AR1268-C                | 8.851  | 10.557 | 473.0E6  | 2498.5E6 | 752.872 | 873.269    |
| 49) AR1268-D                | 9.340  | 10.962 | 199.2E6  | 1037.7E6 | 826.458 | 946.346    |
| 50) AR1268-E                | 9.742  | 11.430 | 1615.1E6 | 8238.1E6 | 809.035 | 1044.134 # |
| -----                       |        |        |          |          |         |            |

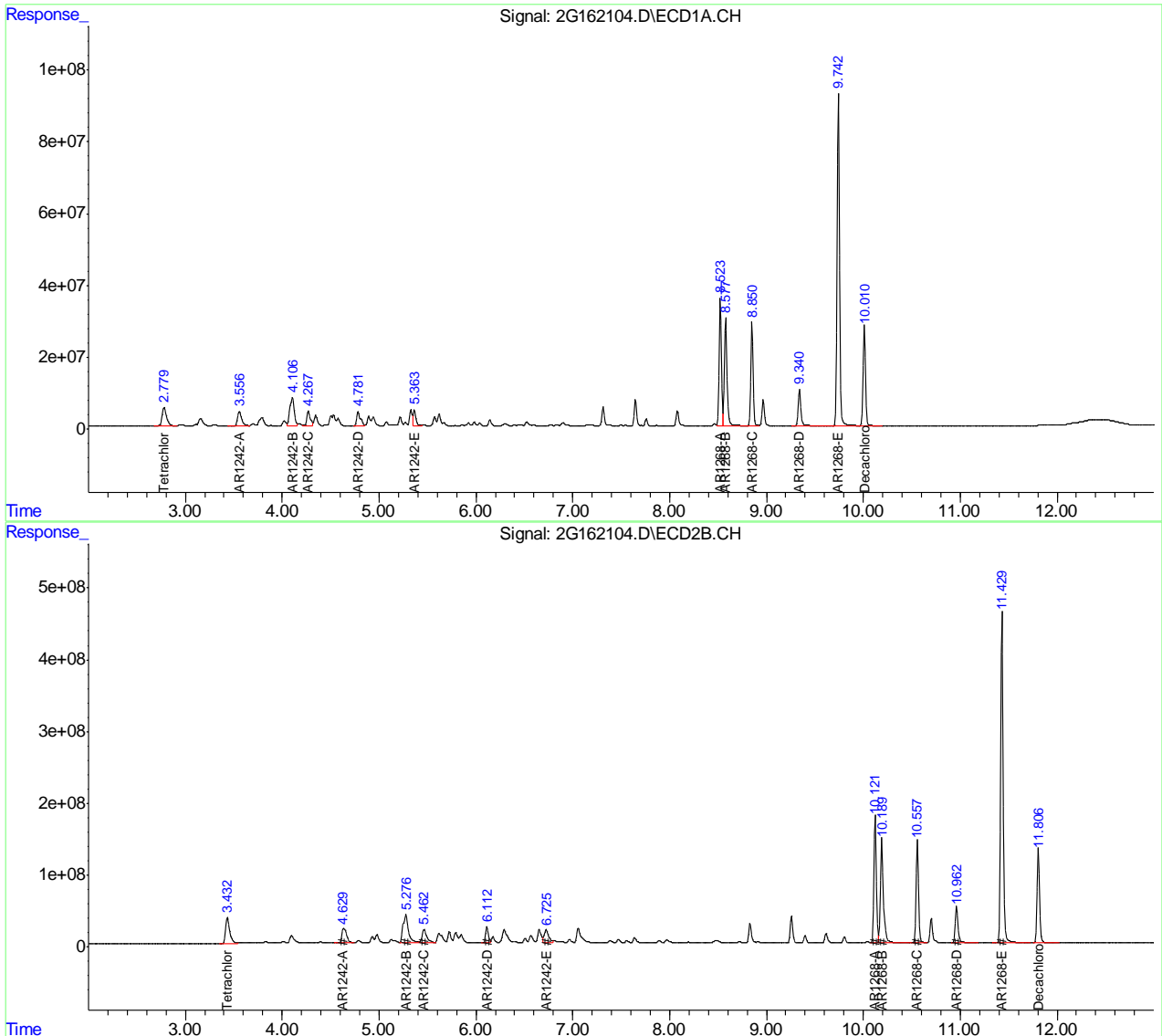
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
Data File : 2G162104.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 2:44 pm  
Operator : tianweir  
Sample : ic4311-1000  
Misc : OP11095,G2G4311,15.0,,,10.0,1  
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Apr 19 15:35:12 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Thu Apr 19 15:34:50 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



13.3.10 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
 Data File : 2G162105.D  
 Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
 Acq On : 19 Apr 2018 3:00 pm  
 Operator : tianweir  
 Sample : ic4311-1000  
 Misc : OP11095,G2G4311,15.0,,,10.0,1  
 ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Apr 19 15:38:22 2018  
 Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
 Quant Title :  
 QLast Update : Thu Apr 19 15:36:57 2018  
 Response via : Initial Calibration  
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
 Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
 Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)

| Compound                    | RT#1   | RT#2   | Resp#1   | Resp#2   | ppb      | ppb        |
|-----------------------------|--------|--------|----------|----------|----------|------------|
| -----                       |        |        |          |          |          |            |
| System Monitoring Compounds |        |        |          |          |          |            |
| 1) S Tetrachlo...           | 2.778  | 3.432  | 160.3E6  | 1054.2E6 | 9.743    | 9.848      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.36%   | 24.62%     |
| 51) S Decachlor...          | 10.014 | 11.810 | 174.1E6  | 851.3E6  | 9.773    | 9.833      |
| Spiked Amount               | 40.000 |        | Recovery | =        | 24.43%   | 24.58%     |
| Target Compounds            |        |        |          |          |          |            |
| 17) AR1248-A                | 3.555  | 4.632  | 59173660 | 362.7E6  | 826.748  | 812.103    |
| 18) AR1248-B                | 4.105  | 5.281  | 154.4E6  | 954.8E6  | 820.696  | 837.930m   |
| 19) AR1248-C                | 4.501  | 5.724  | 165.2E6  | 569.7E6  | 812.299m | 907.464    |
| 20) AR1248-D                | 4.782  | 6.112  | 159.8E6  | 727.1E6  | 860.353  | 930.188    |
| 21) AR1248-E                | 4.892  | 6.291  | 142.1E6  | 879.9E6  | 855.462m | 1021.118   |
| 22) AR1248-F                | 5.364  | 6.722  | 140.2E6  | 1097.1E6 | 782.480  | 1016.890 # |
| 23) AR1248-G                | 5.620  | 7.053  | 157.2E6  | 1220.2E6 | 600.449m | 1102.458m# |
| -----                       |        |        |          |          |          |            |

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

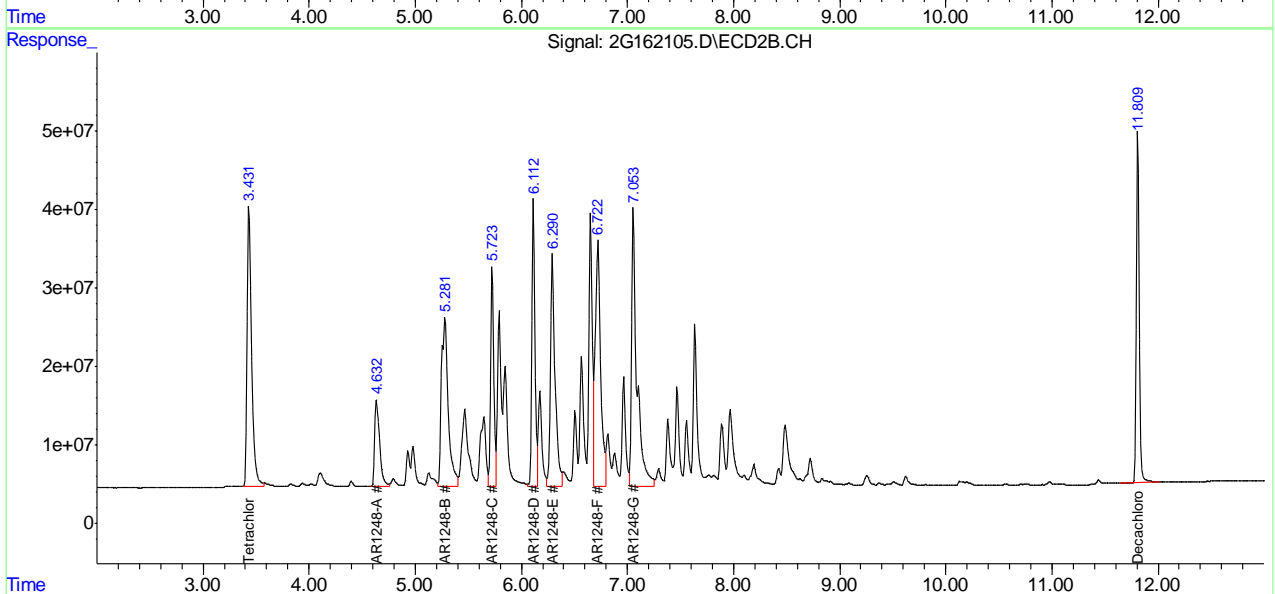
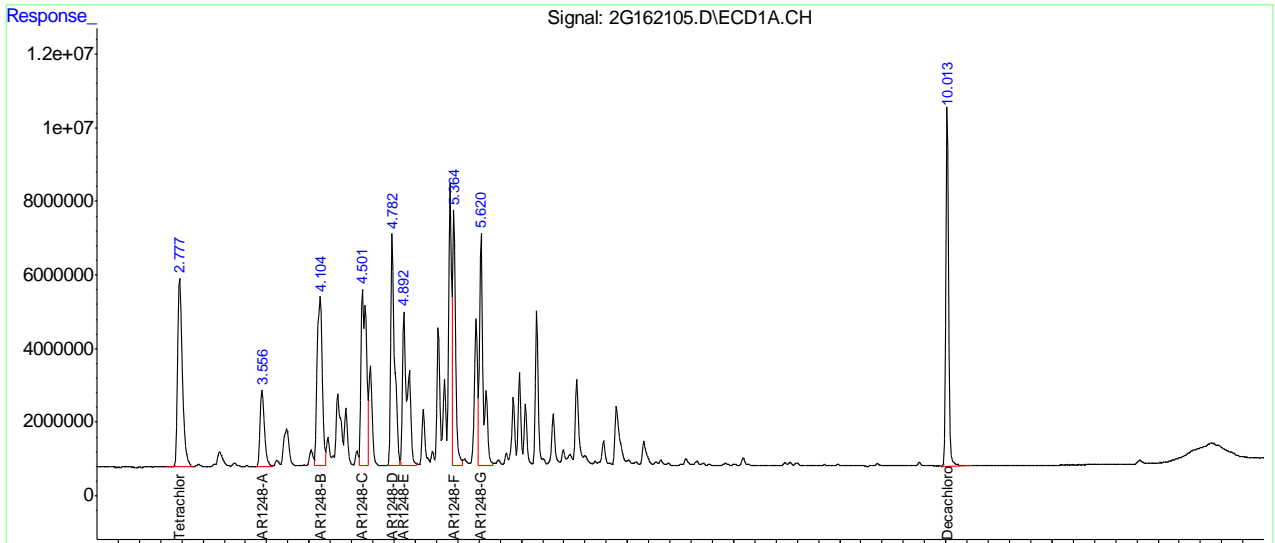
13.3.11  
 13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2G4311\  
Data File : 2G162105.D  
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH  
Acq On : 19 Apr 2018 3:00 pm  
Operator : tianweir  
Sample : ic4311-1000  
Misc : OP11095,G2G4311,15.0,,,10.0,1  
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Apr 19 15:38:22 2018  
Quant Method : C:\MSDCHEM\1\METHODS\2PCB4311.M  
Quant Title :  
QLast Update : Thu Apr 19 15:36:57 2018  
Response via : Initial Calibration  
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1ul  
Signal #1 Phase : ZBCLP-1 Signal #2 Phase: ZBCLP-2  
Signal #1 Info : 30m X 0.32mm(.32u Signal #2 Info : 30m X 0.32 mm (.25um)



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44302  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 09:58 | MA44302-STD1       | 1               |          | B=2.0345E-004, C=-4.0037E-003, R=0.9998702           |
| 09:59 | MA44302-STD2       | 1               |          | STDB   |
| 10:01 | MA44302-STD3       | 1               |          | STDC   |
| 10:02 | MA44302-STD4       | 1               |          | STDD   |
| 10:03 | MA44302-STD5       | 1               |          | STDE   |
| 10:05 | MA44302-STD6       | 1               |          | STDF   |
| 10:15 | MA44302-STD7       | 1               |          | STDE   |
| 10:17 | MA44302-STD8       | 1               |          | STDD   |
| 10:20 | MA44302-ICV1       | 1               |          |  |
| 10:22 | MA44302-ICB1       | 1               |          |  |
| 10:23 | MA44302-CCV1       | 1               |          |  |
| 10:25 | MA44302-CCB1       | 1               |          |  |
| 10:26 | MA44302-CRI1       | 1               |          |  |
| 10:34 | MP6908-MB1         | 1               |          |  |
| 10:35 | MP6908-B1          | 1               |          |  |
| 10:36 | MP6908-S1          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:38 | MP6908-S2          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:40 | MP6908-D1          | 1               |          | SPECTRA, Light brown, foamy                          |
| 10:41 | JC64956-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 10:42 | ZZZZZZ             | 1               |          |  |
| 10:44 | ZZZZZZ             | 1               |          |  |
| 10:45 | MA44302-CCV2       | 1               |          |  |
| 10:46 | MA44302-CCB2       | 1               |          |  |
| 10:48 | ZZZZZZ             | 1               |          |  |
| 10:49 | ZZZZZZ             | 1               |          |  |
| 10:50 | ZZZZZZ             | 1               |          |  |
| 10:52 | ZZZZZZ             | 1               |          |  |
| 10:53 | ZZZZZZ             | 1               |          |  |
| 10:54 | ZZZZZZ             | 1               |          |  |
| 10:56 | ZZZZZZ             | 1               |          |  |
| 10:57 | ZZZZZZ             | 1               |          |  |
| 10:58 | ZZZZZZ             | 1               |          |  |
| 10:59 | MA44302-CCV3       | 1               |          |  |

14.1  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44302  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:01 | MA44302-CCB3       | 1               |          |  |
| 11:02 | ZZZZZZ             | 1               |          |  |
| 11:04 | ZZZZZZ             | 1               |          |  |
| 11:05 | MP6909-MB1         | 1               |          |  |
| 11:06 | MP6909-B1          | 1               |          |  |
| 11:07 | MP6909-S1          | 1               |          | Foamy  |
| 11:09 | MP6909-S2          | 1               |          | Foamy  |
| 11:11 | JC64994-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 11:14 | MA44302-CCV4       | 1               |          |  |
| 11:15 | MA44302-CCB4       | 1               |          |  |
| 11:30 | MP6910-MB1         | 1               |          |  |
| 11:32 | MP6910-B1          | 1               |          |  |
| 11:33 | MP6910-S1          | 1               |          |  |
| 11:34 | MP6910-S2          | 1               |          |  |
| 11:36 | JC65050-2          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 11:38 | ZZZZZZ             | 1               |          |  |
| 11:39 | ZZZZZZ             | 1               |          |  |
| 11:40 | ZZZZZZ             | 1               |          |  |
| 11:41 | ZZZZZZ             | 1               |          |  |
| 11:43 | MA44302-CCV5       | 1               |          |  |
| 11:44 | MA44302-CCB5       | 1               |          |  |
| 11:46 | ZZZZZZ             | 1               |          |  |
| 11:47 | ZZZZZZ             | 1               |          |  |
| 11:48 | ZZZZZZ             | 1               |          |  |
| 11:50 | ZZZZZZ             | 1               |          |  |
| 11:51 | ZZZZZZ             | 1               |          |  |
| 11:52 | ZZZZZZ             | 1               |          |  |
| 11:53 | ZZZZZZ             | 1               |          |  |
| 11:55 | ZZZZZZ             | 1               |          |  |
| 11:56 | ZZZZZZ             | 1               |          |  |
| 11:57 | MA44302-CCV6       | 1               |          |  |
| 11:58 | MA44302-CCB6       | 1               |          |  |
| 12:00 | ZZZZZZ             | 1               |          |  |

14.1  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
Analyst: JA Run ID: MA44302  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 12:01  | ZZZZZZ                                      | 1               |          |  |
| 12:03  | ZZZZZZ                                      | 1               |          |  |
| 12:04  | ZZZZZZ                                      | 1               |          |  |
| 12:05  | ZZZZZZ                                      | 1               |          |  |
| 12:07  | ZZZZZZ                                      | 1               |          |  |
| 12:08  | MP6911-MB1                                  | 1               |          |  |
| 12:09  | MA44302-CCV7                                | 1               |          |  |
| 12:10  | MA44302-CCB7                                | 1               |          |  |
| 12:12  | MP6911-B1                                   | 1               |          |  |
| 12:13  | MP6911-S1                                   | 1               |          |  |
| 12:15  | MP6911-S2                                   | 1               |          |  |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |  |
| 12:16  | JC65070-1A                                  | 1               |          | (sample used for QC only; not part of login JC65157) |
| 12:18  | ZZZZZZ                                      | 1               |          |  |
| 12:19  | ZZZZZZ                                      | 1               |          |  |
| 12:21  | ZZZZZZ                                      | 1               |          |  |
| 12:22  | ZZZZZZ                                      | 1               |          |  |
| 12:23  | ZZZZZZ                                      | 1               |          |  |
| 12:24  | MA44302-CCV8                                | 1               |          |  |
| 12:26  | MA44302-CCB8                                | 1               |          |  |
| 12:27  | ZZZZZZ                                      | 1               |          |  |
| 12:29  | ZZZZZZ                                      | 1               |          |  |
| 12:30  | ZZZZZZ                                      | 1               |          |  |
| 12:31  | ZZZZZZ                                      | 1               |          |  |
| 12:32  | ZZZZZZ                                      | 1               |          |  |
| 12:34  | ZZZZZZ                                      | 1               |          |  |
| 12:35  | ZZZZZZ                                      | 1               |          |  |
| 12:36  | ZZZZZZ                                      | 1               |          |  |
| 12:38  | MP6912-MB1                                  | 1               |          |  |
| 12:39  | MA44302-CCV9                                | 1               |          |  |
| 12:40  | MA44302-CCB9                                | 1               |          |  |
| 12:42  | MP6912-B1                                   | 1               |          |  |
| 12:43  | MP6912-S1                                   | 1               |          | Foamy green  |
| 12:45  | MP6912-S2                                   | 1               |          | Foamy green  |

14.1  
14



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
Analyst: JA      Run ID: MA44302  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 12:46 | TD20224-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 12:48 | ZZZZZZ             | 2               |          |  |
| 12:49 | ZZZZZZ             | 1               |          |  |
| 12:51 | ZZZZZZ             | 1               |          |  |
| 12:52 | ZZZZZZ             | 1               |          |  |
| 12:53 | ZZZZZZ             | 1               |          |  |
| 12:55 | MA44302-CCV10      | 1               |          |  |
| 12:56 | MA44302-CCB10      | 1               |          |  |
| 12:57 | ZZZZZZ             | 1               |          |  |
| 12:59 | ZZZZZZ             | 1               |          |  |
| 13:00 | ZZZZZZ             | 1               |          |  |
| 13:01 | MP6913-MB1         | 1               |          |  |
| 13:03 | MP6913-B1          | 1               |          | Deval Patel DOC                                      |
| 13:04 | MP6913-B2          | 1               |          | Deval Patel DOC                                      |
| 13:06 | MP6913-B3          | 1               |          | Deval Patel DOC                                      |
| 13:07 | MP6913-B4          | 1               |          | Deval Patel DOC                                      |
| 13:09 | MA44302-CCV11      | 1               |          |  |
| 13:10 | MA44302-CCB11      | 1               |          |  |
| 13:12 | ZZZZZZ             | 1               |          |  |
| 13:13 | ZZZZZZ             | 1               |          |  |
| 13:14 | MA44302-CRI2       | 1               |          |  |
| 13:16 | MA44302-CCV12      | 1               |          |  |
| 13:17 | MA44302-CCB12      | 1               |          |  |

-----> Last reportable CCB for job JC65157  
Refer to raw data for calibration curve and standards.

14.1  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

| Time:      |      |      | 10:22   |       | 10:25   |       | 10:46   |       | 11:01   |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | ICB1    |       | CCB1    |       | CCB2    |       | CCB3    |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .059 | -0.0622 | <0.20 | -0.0246 | <0.20 | -0.0219 | <0.20 | -0.0138 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

|         | Time:      |      | 11:15   |       | 11:44   |       | 11:58   |       | 12:10   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .059 | -0.0256 | <0.20 | -0.0197 | <0.20 | -0.0260 | <0.20 | -0.0168 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44302 Units: ug/l

| Time:      |      |      | 12:26   | 12:40 | 12:56   | 13:10 |         |       |         |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | CCB8    | CCB9  | CCB10   | CCB11 |         |       |         |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .059 | -0.0270 | <0.20 | -0.0351 | <0.20 | -0.0300 | <0.20 | -0.0333 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.1.1  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: result < RL      Run ID: MA44302      Units: ug/l

|            |    |     |       |       |
|------------|----|-----|-------|-------|
| Time:      |    |     | 13:17 |       |
| Sample ID: |    |     | CCB12 |       |
| Metal      | RL | IDL | raw   | final |

Mercury      0.20      .059      -0.0355      <0.20

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.1  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: |         | 10:20 |      | 10:23   |       | 10:45 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | ICV1  | CCV  | CCV1    | CCV   | CCV2  | CCV2    |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 2.96    | 98.7  | 2.5  | 2.47    | 98.8  | 2.5   | 2.49    | 99.6  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: | 10:59   |       | 11:14 |         | 11:43 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.45    | 98.0  | 2.5   | 2.45    | 98.0  | 2.5  | 2.40    | 96.0  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: | 11:57   |       | 12:09 |         | 12:24 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV6    |       | CCV7  |         | CCV8  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.37    | 94.8  | 2.5   | 2.41    | 96.4  | 2.5  | 2.41    | 96.4  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            | Time: | 12:39   |       | 12:55 |         | 13:09 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV9    |       | CCV10 |         | CCV11 |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.35    | 94.0  | 2.5   | 2.43    | 97.2  | 2.5  | 2.40    | 96.0  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.1.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV      Date Analyzed: 05/01/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44302      Units: ug/l

|            |      |         |       |
|------------|------|---------|-------|
| Time:      |      | 13:16   |       |
| Sample ID: | CCV  | CCV12   |       |
| Metal      | True | Results | % Rec |

Mercury      2.5      2.44      97.6

(\*) Outside of QC limits  
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050118W1.CSV Date Analyzed: 05/01/18 Methods: SW846 7470A  
 QC Limits: 70 to 130 % Recovery Run ID: MA44302 Units: ug/l

|            | Time: |      | 10:26   |       | 13:14   |       |
|------------|-------|------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRI1    |       | CRI2    |       |
| Metal      | True  | True | Results | % Rec | Results | % Rec |
| Mercury    | 0.20  |      | 0.185   | 92.5  | 0.152   | 76.0  |

(\*) Outside of QC limits  
 (anr) Analyte not requested

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:48 | MA44316-STD1       | 1               |          | STDA   |
| 15:51 | MA44316-STD2       | 1               |          | STDB   |
| 15:54 | ZZZZZZ             | 1               |          |  |
| 15:57 | ZZZZZZ             | 1               |          |  |
| 16:00 | MA44316-ICV1       | 1               |          |  |
| 16:03 | MA44316-ICB1       | 1               |          |  |
| 16:06 | MA44316-CCV1       | 1               |          |  |
| 16:09 | MA44316-CCB1       | 1               |          |  |
| 16:12 | MA44316-CRI1       | 1               |          |  |
| 16:15 | MA44316-CRID1      | 1               |          |  |
| 16:17 | MA44316-ICSA1      | 1               |          |  |
| 16:20 | MA44316-ICSAB1     | 1               |          |  |
| 16:23 | MA44316-HSTD1      | 1               |          |  |
| 16:26 | MA44316-HSTD2      | 1               |          | Minerals   |
| 16:29 | ZZZZZZ             | 1               |          |  |
| 16:32 | ZZZZZZ             | 1               |          |  |
| 16:35 | ZZZZZZ             | 1               |          |  |
| 16:37 | MA44316-CCV2       | 1               |          |  |
| 16:40 | MA44316-CCB2       | 1               |          |  |
| 16:43 | MP6883-MB1         | 1               |          |  |
| 16:46 | MP6883-B1          | 1               |          |  |
| 16:48 | MP6883-S1          | 1               |          | Need PS  |
| 16:51 | MP6883-S2          | 1               |          | Need PS  |
| 16:54 | MP6883-D1          | 1               |          |  |
| 16:57 | TD20148-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 17:00 | MP6883-SD1         | 5               |          |  |
| 17:03 | ZZZZZZ             | 1               |          |  |
| 17:06 | ZZZZZZ             | 1               |          |  |
| 17:10 | MA44316-CCV3       | 1               |          |  |
| 17:14 | MA44316-CCB3       | 1               |          |  |
| 17:16 | ZZZZZZ             | 1               |          |  |
| 17:19 | ZZZZZZ             | 1               |          |  |
| 17:22 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 17:25 | ZZZZZZ             | 1               |          |  |
| 17:28 | ZZZZZZ             | 1               |          |  |
| 17:31 | ZZZZZZ             | 1               |          |  |
| 17:34 | ZZZZZZ             | 1               |          |  |
| 17:37 | ZZZZZZ             | 1               |          |  |
| 17:40 | ZZZZZZ             | 1               |          |  |
| 17:43 | MA44316-CCV4       | 1               |          |  |
| 17:45 | MA44316-CCB4       | 1               |          |  |
| 17:48 | ZZZZZZ             | 1               |          |  |
| 17:51 | ZZZZZZ             | 1               |          |  |
| 17:54 | ZZZZZZ             | 1               |          |  |
| 17:57 | ZZZZZZ             | 1               |          |  |
| 18:00 | ZZZZZZ             | 1               |          |  |
| 18:03 | MP6857-B2          | 1               |          |  |
| 18:05 | MP6857-MB2         | 1               |          |  |
| 18:08 | ZZZZZZ             | 1               |          |  |
| 18:11 | MP6897-MB1         | 5               |          |  |
| 18:14 | MA44316-CCV5       | 1               |          |  |
| 18:16 | MA44316-CCB5       | 1               |          |  |
| 18:19 | MP6897-B1          | 5               |          |  |
| 18:22 | MP6897-S1          | 5               |          |  |
| 18:24 | MP6897-S2          | 5               |          |  |
| 18:27 | JC65070-1A         | 5               |          | (sample used for QC only; not part of login JC65157) |
| 18:30 | MP6897-SD1         | 25              |          | Saturation   |
| 18:33 | ZZZZZZ             | 5               |          |  |
| 18:36 | ZZZZZZ             | 5               |          |  |
| 18:39 | ZZZZZZ             | 5               |          |  |
| 18:42 | ZZZZZZ             | 5               |          |  |
| 18:45 | MA44316-CCV6       | 1               |          |  |
| 18:47 | MA44316-CCB6       | 1               |          |  |
| 18:54 | ZZZZZZ             | 2               |          |  |
| 18:57 | ZZZZZZ             | 5               |          |  |
| 19:00 | ZZZZZZ             | 5               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44316  
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments |
|--------|---|-----------------|----------|----------|
| 19:02  | ZZZZZZ                                      | 5               |          |          |
| 19:05  | ZZZZZZ                                      | 5               |          |          |
| 19:08  | ZZZZZZ                                      | 5               |          |          |
| 19:11  | ZZZZZZ                                      | 5               |          |          |
| 19:14  | ZZZZZZ                                      | 5               |          |          |
| 19:17  | ZZZZZZ                                      | 5               |          |          |
| 19:20  | MP6897-SD1                                  | 25              |          |          |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |          |
| 19:23  | MA44316-CCV7                                | 1               |          |          |
| 19:25  | MA44316-CCB7                                | 1               |          |          |
| 19:28  | ZZZZZZ                                      | 1               |          |          |
| 19:31  | ZZZZZZ                                      | 1               |          |          |
| 19:34  | ZZZZZZ                                      | 1               |          |          |
| 19:37  | ZZZZZZ                                      | 1               |          |          |
| 19:40  | ZZZZZZ                                      | 1               |          |          |
| 19:43  | ZZZZZZ                                      | 1               |          |          |
| 19:47  | MA44316-CCV8                                | 1               |          |          |
| 19:49  | MA44316-CCB8                                | 1               |          |          |
| 19:55  | MA44316-CRI2                                | 1               |          |          |
| 19:58  | MA44316-CRID2                               | 1               |          |          |
| 20:01  | MA44316-ICSA2                               | 1               |          |          |
| 20:04  | MA44316-ICSAB2                              | 1               |          |          |
| 20:07  | MA44316-CCV9                                | 1               |          |          |
| 20:09  | MA44316-CCB9                                | 1               |          |          |
| -----> | Last reportable CCB for job JC65157         |                 |          |          |
| 20:12  | ZZZZZZ                                      | 1               |          |          |
| 20:15  | ZZZZZZ                                      | 1               |          |          |
| 20:18  | ZZZZZZ                                      | 1               |          |          |
| 20:21  | ZZZZZZ                                      | 1               |          |          |
| 20:23  | ZZZZZZ                                      | 1               |          |          |
| 20:26  | ZZZZZZ                                      | 1               |          |          |
| 20:31  | ZZZZZZ                                      | 1               |          |          |
| 20:33  | ZZZZZZ                                      | 1               |          |          |
| 20:36  | ZZZZZZ                                      | 1               |          |          |
| 20:39  | ZZZZZZ                                      | 1               |          |          |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
Analyst: ND      Run ID: MA44316  
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 20:42 | ZZZZZZ             | 1               |          |          |
| 20:45 | ZZZZZZ             | 1               |          |          |
| 20:48 | ZZZZZZ             | 1               |          |          |
| 20:51 | ZZZZZZ             | 1               |          |          |
| 20:55 | MA44316-CCV10      | 1               |          |          |
| 20:58 | MA44316-CCB10      | 1               |          |          |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 15:48 | MA44316-STD1       | 5553 R | 136360 R | 24795 R | 9374 R |
| 15:51 | MA44316-STD2       | 5286   | 131520   | 24532   | 8645   |
| 15:54 | ZZZZZZ             | 5493   | 132910   | 24781   | 8975   |
| 15:57 | ZZZZZZ             | 5588   | 137440   | 25256   | 9445   |
| 16:00 | MA44316-ICV1       | 5440   | 134540   | 24832   | 8894   |
| 16:03 | MA44316-ICB1       | 5580   | 137200   | 25001   | 9441   |
| 16:06 | MA44316-CCV1       | 5396   | 133910   | 24765   | 8828   |
| 16:09 | MA44316-CCB1       | 5482   | 135380   | 24866   | 9259   |
| 16:12 | MA44316-CRI1       | 5523   | 135770   | 24926   | 9281   |
| 16:15 | MA44316-CRID1      | 5573   | 138180   | 24869   | 9396   |
| 16:17 | MA44316-ICSA1      | 4987   | 125100   | 23762   | 8110   |
| 16:20 | MA44316-ICSAB1     | 5001   | 126020   | 24038   | 8134   |
| 16:23 | MA44316-HSTD1      | 5497   | 136670   | 24844   | 9341   |
| 16:26 | MA44316-HSTD2      | 5153   | 128780   | 24217   | 8247   |
| 16:29 | ZZZZZZ             | 5518   | 137050   | 25159   | 9470   |
| 16:32 | ZZZZZZ             | 5494   | 137360   | 24933   | 9419   |
| 16:35 | ZZZZZZ             | 5579   | 138040   | 25237   | 9433   |
| 16:37 | MA44316-CCV2       | 5392   | 134190   | 24597   | 8837   |
| 16:40 | MA44316-CCB2       | 5565   | 138180   | 24910   | 9424   |
| 16:43 | MP6883-MB1         | 5661   | 141500   | 25687   | 9568   |
| 16:46 | MP6883-B1          | 5342   | 137080   | 25187   | 8843   |
| 16:48 | MP6883-S1          | 5270   | 136370   | 25504   | 9779   |
| 16:51 | MP6883-S2          | 5285   | 136990   | 25777   | 9876   |
| 16:54 | MP6883-D1          | 5390   | 137910   | 25705   | 9965   |
| 16:57 | TD20148-1          | 5350   | 136400   | 25723   | 9949   |
| 17:00 | MP6883-SD1         | 5655   | 139890   | 25622   | 9688   |
| 17:03 | ZZZZZZ             | 5372   | 135760   | 25797   | 8134   |
| 17:06 | ZZZZZZ             | 5422   | 135830   | 25552   | 8555   |
| 17:10 | MA44316-CCV3       | 5413   | 133520   | 24441   | 8870   |
| 17:14 | MA44316-CCB3       | 5543   | 136800   | 24744   | 9380   |
| 17:16 | ZZZZZZ             | 5157   | 131270   | 24786   | 7966   |
| 17:19 | ZZZZZZ             | 5196   | 133120   | 25078   | 7934   |
| 17:22 | ZZZZZZ             | 5360   | 135610   | 25362   | 8231   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Istd#1   | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--|--------|--------|--------|
| 17:25 | ZZZZZZ             | 5279   | 134660 | 24873  | 8247   |
| 17:28 | ZZZZZZ             | 5350   | 135630 | 25362  | 8309   |
| 17:31 | ZZZZZZ             | 5211   | 132860 | 24977  | 8011   |
| 17:34 | ZZZZZZ             | 5397   | 135530 | 25467  | 8368   |
| 17:37 | ZZZZZZ             | 5892   | 145070 | 27326  | 9120   |
| 17:40 | ZZZZZZ             | 6131   | 154290 | 28888  | 8807   |
| 17:43 | MA44316-CCV4       | 5432   | 135040 | 24580  | 8889   |
| 17:45 | MA44316-CCB4       | 5583   | 138320 | 24951  | 9468   |
| 17:48 | ZZZZZZ             | 5697   | 140470 | 26619  | 8988   |
| 17:51 | ZZZZZZ             | 5656   | 137710 | 25764  | 9286   |
| 17:54 | ZZZZZZ             | 5453   | 137080 | 25650  | 8668   |
| 17:57 | ZZZZZZ             | 5548   | 139300 | 26126  | 8621   |
| 18:00 | ZZZZZZ             | 5560   | 138960 | 25887  | 8780   |
| 18:03 | MP6857-B2          | 5537   | 138580 | 25406  | 9120   |
| 18:05 | MP6857-MB2         | 5637   | 140860 | 25435  | 9536   |
| 18:08 | ZZZZZZ             | 5594   | 138250 | 25259  | 9388   |
| 18:11 | MP6897-MB1         | 5369   | 134970 | 24452  | 8710   |
| 18:14 | MA44316-CCV5       | 5411   | 134090 | 24291  | 8873   |
| 18:16 | MA44316-CCB5       | 5590   | 137710 | 24651  | 9461   |
| 18:19 | MP6897-B1          | 5426   | 135090 | 24949  | 8774   |
| 18:22 | MP6897-S1          | 5396   | 135130 | 24884  | 8698   |
| 18:24 | MP6897-S2          | 5394   | 134820 | 24749  | 8705   |
| 18:27 | JC65070-1A         | 5327   | 134920 | 24650  | 8656   |
| 18:30 | MP6897-SD1         | No results reported for the elements associated with this internal standard. |        |        |        |
| 18:33 | ZZZZZZ             | 5277   | 133100 | 24473  | 8492   |
| 18:36 | ZZZZZZ             | 5408   | 135060 | 24546  | 8727   |
| 18:39 | ZZZZZZ             | 5390   | 134490 | 24494  | 8726   |
| 18:42 | ZZZZZZ             | 5382   | 135260 | 24600  | 8713   |
| 18:45 | MA44316-CCV6       | 5403   | 133800 | 24267  | 8865   |
| 18:47 | MA44316-CCB6       | 5569   | 137090 | 24742  | 9443   |
| 18:54 | ZZZZZZ             | 5434   | 135150 | 25052  | 8705   |
| 18:57 | ZZZZZZ             | 5392   | 135020 | 24719  | 8735   |
| 19:00 | ZZZZZZ             | 5371   | 134200 | 24686  | 8679   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3   | Istd#4 |
|-------|--------------------|--------|----------|----------|--------|
| 19:02 | ZZZZZZ             | 5425   | 135310   | 24837    | 8753   |
| 19:05 | ZZZZZZ             | 5403   | 135500   | 24585    | 8740   |
| 19:08 | ZZZZZZ             | 6081   | 163290   | 32058    | 9806   |
| 19:11 | ZZZZZZ             | 6057   | 161690   | 31732    | 9776   |
| 19:14 | ZZZZZZ             | 5959   | 160140   | 31569    | 9629   |
| 19:17 | ZZZZZZ             | 6136   | 164450   | 32516 !a | 9948   |
| 19:20 | MP6897-SD1         | 6259   | 166550   | 31991    | 10367  |
| 19:23 | MA44316-CCV7       | 6173   | 164340   | 31590    | 9997   |
| 19:25 | MA44316-CCB7       | 6344   | 142160   | 31911    | 10782  |
| 19:28 | ZZZZZZ             | 6561   | 174840   | 33561 !  | 11122  |
| 19:31 | ZZZZZZ             | 6879   | 183340 ! | 35592 !  | 11154  |
| 19:34 | ZZZZZZ             | 6712   | 178550 ! | 34583 !  | 10710  |
| 19:37 | ZZZZZZ             | 6758   | 180470 ! | 34994 !  | 11135  |
| 19:40 | ZZZZZZ             | 6832   | 180230 ! | 35044 !  | 10960  |
| 19:43 | ZZZZZZ             | 6383   | 168950   | 33040 !  | 10383  |
| 19:47 | MA44316-CCV8       | 5924   | 148440   | 27588    | 9553   |
| 19:49 | MA44316-CCB8       | 6096   | 152010   | 27961    | 10136  |
| 19:55 | MA44316-CRI2       | 6044   | 150630   | 27640    | 9987   |
| 19:58 | MA44316-CRID2      | 6119   | 151860   | 24870    | 10155  |
| 20:01 | MA44316-ICSA2      | 5557   | 140710   | 27003    | 8846   |
| 20:04 | MA44316-ICSAB2     | 5522   | 141210   | 26963    | 8821   |
| 20:07 | MA44316-CCV9       | 5893   | 147950   | 27381    | 9501   |
| 20:09 | MA44316-CCB9       | 6072   | 151460   | 27498    | 10122  |
| 20:12 | ZZZZZZ             | 6057   | 152090   | 27238    | 10090  |
| 20:15 | ZZZZZZ             | 6068   | 151550   | 27846    | 10089  |
| 20:18 | ZZZZZZ             | 6065   | 999999 ! | 27359    | 10153  |
| 20:21 | ZZZZZZ             | 6105   | 151700   | 27901    | 10196  |
| 20:23 | ZZZZZZ             | 6153   | 151260   | 999999 ! | 10195  |
| 20:26 | ZZZZZZ             | 6052   | 151080   | 27912    | 10038  |
| 20:31 | ZZZZZZ             | 6056   | 146180   | 28347    | 9559   |
| 20:33 | ZZZZZZ             | 6125   | 151940   | 27513    | 10224  |
| 20:36 | ZZZZZZ             | 5657   | 145760   | 26888    | 9120   |
| 20:39 | ZZZZZZ             | 5748   | 145670   | 27022    | 9199   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44316  
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 20:42 | ZZZZZZ             | 6094   | 152320 | 28007  | 10141  |
| 20:45 | ZZZZZZ             | 6240   | 151430 | 28001  | 10431  |
| 20:48 | ZZZZZZ             | 6013   | 151300 | 27655  | 10064  |
| 20:51 | ZZZZZZ             | 6081   | 152020 | 27785  | 10098  |
| 20:55 | MA44316-CCV10      | 5894   | 147360 | 27116  | 9509   |
| 20:58 | MA44316-CCB10      | 6072   | 151480 | 27612  | 10101  |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

(a) No samples reported for the elements associated with this internal standard.

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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Metal      | RL    | IDL | 16:03  |       | 16:09  |       | 16:40 |       | 17:14  |       |
|------------|-------|-----|--------|-------|--------|-------|-------|-------|--------|-------|
|            |       |     | ICB1   | final | CCB1   | final | CCB2  | final | CCB3   | final |
| Aluminum   | 200   | 19  | anr    |       |        |       |       |       |        |       |
| Antimony   | 6.0   | 2.4 | anr    |       |        |       |       |       |        |       |
| Arsenic    | 3.0   | 1.2 | 1.40   | <3.0  | 1.80   | <3.0  | 2.30  | <3.0  | -0.500 | <3.0  |
| Barium     | 200   | .6  | -0.400 | <200  | -0.300 | <200  | 0.00  | <200  | 0.300  | <200  |
| Beryllium  | 1.0   | .2  | anr    |       |        |       |       |       |        |       |
| Bismuth    | 20    | 3.2 |        |       |        |       |       |       |        |       |
| Boron      | 100   | 1.5 |        |       |        |       |       |       |        |       |
| Cadmium    | 3.0   | .4  | 0.400  | <3.0  | 0.200  | <3.0  | 0.200 | <3.0  | 0.00   | <3.0  |
| Calcium    | 5000  | 5.5 | anr    |       |        |       |       |       |        |       |
| Chromium   | 10    | .7  | 0.500  | <10   | 0.400  | <10   | 0.200 | <10   | 0.400  | <10   |
| Cobalt     | 50    | .4  | anr    |       |        |       |       |       |        |       |
| Copper     | 10    | 1.1 | anr    |       |        |       |       |       |        |       |
| Iron       | 100   | 3.5 | anr    |       |        |       |       |       |        |       |
| Lead       | 3.0   | 2.2 | 1.20   | <3.0  | -0.600 | <3.0  | 0.100 | <3.0  | 1.00   | <3.0  |
| Lithium    | 50    | 3.4 |        |       |        |       |       |       |        |       |
| Magnesium  | 5000  | 25  | anr    |       |        |       |       |       |        |       |
| Manganese  | 15    | .14 | anr    |       |        |       |       |       |        |       |
| Molybdenum | 20    | .4  |        |       |        |       |       |       |        |       |
| Nickel     | 10    | .5  | anr    |       |        |       |       |       |        |       |
| Phosphorus | 50    | 2   |        |       |        |       |       |       |        |       |
| Potassium  | 10000 | 60  | anr    |       |        |       |       |       |        |       |
| Selenium   | 10    | 3.7 | 2.50   | <10   | 0.600  | <10   | -1.80 | <10   | -0.700 | <10   |
| Silicon    | 200   | 1.8 |        |       |        |       |       |       |        |       |
| Silver     | 10    | .7  | 0.700  | <10   | 0.600  | <10   | 0.00  | <10   | 0.100  | <10   |
| Sodium     | 10000 | 35  | anr    |       |        |       |       |       |        |       |
| Strontium  | 10    | .2  |        |       |        |       |       |       |        |       |
| Sulfur     | 50    | 3.1 | anr    |       |        |       |       |       |        |       |
| Thallium   | 2.0   | 1.8 | anr    |       |        |       |       |       |        |       |
| Tin        | 10    | .9  |        |       |        |       |       |       |        |       |
| Titanium   | 10    | .7  |        |       |        |       |       |       |        |       |
| Tungsten   | 50    | 2.2 |        |       |        |       |       |       |        |       |
| Vanadium   | 50    | .8  | anr    |       |        |       |       |       |        |       |
| Zinc       | 20    | .2  | anr    |       |        |       |       |       |        |       |

14.2.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Time:      | 16:03 | 16:09 | 16:40 | 17:14 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | ICB1  | CCB1  | CCB2  | CCB3  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.2.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Metal      | RL    | IDL | 17:45  |       | 18:16  |       | 18:47  |       | 19:25 |       |
|------------|-------|-----|--------|-------|--------|-------|--------|-------|-------|-------|
|            |       |     | CCB4   | final | CCB5   | final | CCB6   | final | CCB7  | final |
| Aluminum   | 200   | 19  | anr    |       |        |       |        |       |       |       |
| Antimony   | 6.0   | 2.4 | anr    |       |        |       |        |       |       |       |
| Arsenic    | 3.0   | 1.2 | 1.20   | <3.0  | -1.10  | <3.0  | -0.700 | <3.0  | 0.00  | <3.0  |
| Barium     | 200   | .6  | 0.300  | <200  | -0.100 | <200  | -0.100 | <200  | 0.00  | <200  |
| Beryllium  | 1.0   | .2  | anr    |       |        |       |        |       |       |       |
| Bismuth    | 20    | 3.2 |        |       |        |       |        |       |       |       |
| Boron      | 100   | 1.5 |        |       |        |       |        |       |       |       |
| Cadmium    | 3.0   | .4  | 0.200  | <3.0  | 0.300  | <3.0  | 0.300  | <3.0  | 0.200 | <3.0  |
| Calcium    | 5000  | 5.5 | anr    |       |        |       |        |       |       |       |
| Chromium   | 10    | .7  | -0.100 | <10   | 0.200  | <10   | 0.00   | <10   | 0.100 | <10   |
| Cobalt     | 50    | .4  | anr    |       |        |       |        |       |       |       |
| Copper     | 10    | 1.1 | anr    |       |        |       |        |       |       |       |
| Iron       | 100   | 3.5 | anr    |       |        |       |        |       |       |       |
| Lead       | 3.0   | 2.2 | 0.200  | <3.0  | 0.800  | <3.0  | 0.700  | <3.0  | 0.200 | <3.0  |
| Lithium    | 50    | 3.4 |        |       |        |       |        |       |       |       |
| Magnesium  | 5000  | 25  | anr    |       |        |       |        |       |       |       |
| Manganese  | 15    | .14 | anr    |       |        |       |        |       |       |       |
| Molybdenum | 20    | .4  |        |       |        |       |        |       |       |       |
| Nickel     | 10    | .5  | anr    |       |        |       |        |       |       |       |
| Phosphorus | 50    | 2   |        |       |        |       |        |       |       |       |
| Potassium  | 10000 | 60  | anr    |       |        |       |        |       |       |       |
| Selenium   | 10    | 3.7 | -0.600 | <10   | 1.30   | <10   | 0.500  | <10   | 2.30  | <10   |
| Silicon    | 200   | 1.8 |        |       |        |       |        |       |       |       |
| Silver     | 10    | .7  | -0.100 | <10   | -0.100 | <10   | 0.100  | <10   | 0.200 | <10   |
| Sodium     | 10000 | 35  | anr    |       |        |       |        |       |       |       |
| Strontium  | 10    | .2  |        |       |        |       |        |       |       |       |
| Sulfur     | 50    | 3.1 | anr    |       |        |       |        |       |       |       |
| Thallium   | 2.0   | 1.8 | anr    |       |        |       |        |       |       |       |
| Tin        | 10    | .9  |        |       |        |       |        |       |       |       |
| Titanium   | 10    | .7  |        |       |        |       |        |       |       |       |
| Tungsten   | 50    | 2.2 |        |       |        |       |        |       |       |       |
| Vanadium   | 50    | .8  | anr    |       |        |       |        |       |       |       |
| Zinc       | 20    | .2  | anr    |       |        |       |        |       |       |       |

14.2.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

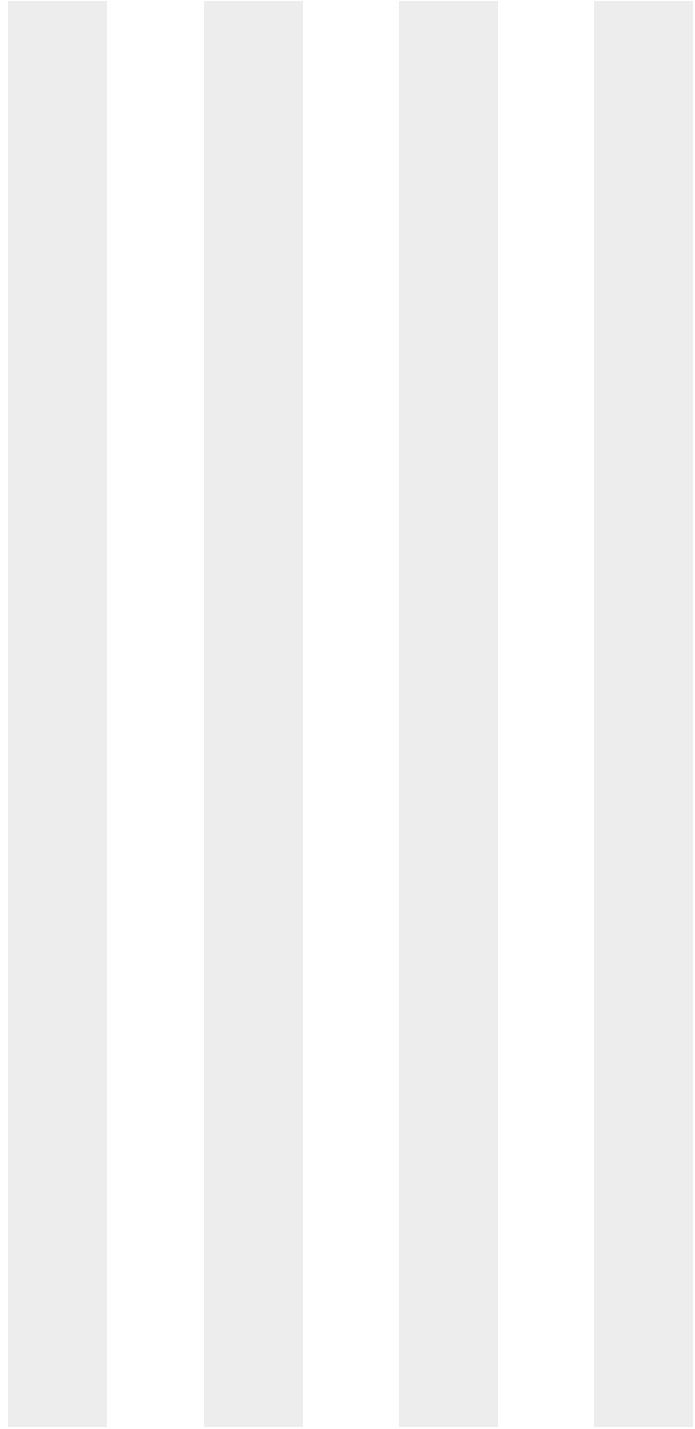
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
 QC Limits: result < RL      Run ID: MA44316      Units: ug/l

| Time:      |    |     | 17:45 |       | 18:16 |       | 18:47 |       | 19:25 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | CCB4  |       | CCB5  |       | CCB6  |       | CCB7  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium      10      .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.2.2  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Metal      | RL    | IDL | 19:49  | final | 20:09  | final |
|------------|-------|-----|--------|-------|--------|-------|
|            |       |     | CCB8   |       | CCB9   |       |
| Aluminum   | 200   | 19  | anr    |       |        |       |
| Antimony   | 6.0   | 2.4 | anr    |       |        |       |
| Arsenic    | 3.0   | 1.2 | 0.700  | <3.0  | 0.200  | <3.0  |
| Barium     | 200   | .6  | -0.300 | <200  | 0.100  | <200  |
| Beryllium  | 1.0   | .2  | anr    |       |        |       |
| Bismuth    | 20    | 3.2 |        |       |        |       |
| Boron      | 100   | 1.5 |        |       |        |       |
| Cadmium    | 3.0   | .4  | 0.400  | <3.0  | 0.400  | <3.0  |
| Calcium    | 5000  | 5.5 | anr    |       |        |       |
| Chromium   | 10    | .7  | 0.200  | <10   | 0.200  | <10   |
| Cobalt     | 50    | .4  | anr    |       |        |       |
| Copper     | 10    | 1.1 | anr    |       |        |       |
| Iron       | 100   | 3.5 | anr    |       |        |       |
| Lead       | 3.0   | 2.2 | 0.200  | <3.0  | -0.400 | <3.0  |
| Lithium    | 50    | 3.4 |        |       |        |       |
| Magnesium  | 5000  | 25  | anr    |       |        |       |
| Manganese  | 15    | .14 | anr    |       |        |       |
| Molybdenum | 20    | .4  |        |       |        |       |
| Nickel     | 10    | .5  | anr    |       |        |       |
| Phosphorus | 50    | 2   |        |       |        |       |
| Potassium  | 10000 | 60  | anr    |       |        |       |
| Selenium   | 10    | 3.7 | 0.600  | <10   | -0.300 | <10   |
| Silicon    | 200   | 1.8 |        |       |        |       |
| Silver     | 10    | .7  | 0.500  | <10   | 0.600  | <10   |
| Sodium     | 10000 | 35  | anr    |       |        |       |
| Strontium  | 10    | .2  |        |       |        |       |
| Sulfur     | 50    | 3.1 | anr    |       |        |       |
| Thallium   | 2.0   | 1.8 | anr    |       |        |       |
| Tin        | 10    | .9  |        |       |        |       |
| Titanium   | 10    | .7  |        |       |        |       |
| Tungsten   | 50    | 2.2 |        |       |        |       |
| Vanadium   | 50    | .8  | anr    |       |        |       |
| Zinc       | 20    | .2  | anr    |       |        |       |

14.2.2  
 14



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

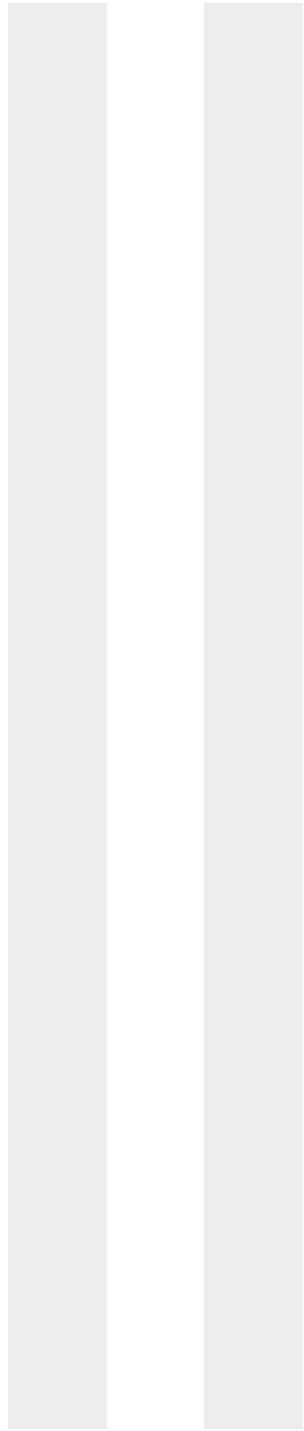
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44316 Units: ug/l

| Time:      | 19:49 | 20:09 |     |       |     |       |
|------------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  |     |       |     |       |
| Metal      | RL    | IDL   | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.2.2  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      | 16:00 |       |      | 16:06 |       |      | 16:37   |       |  |
|------------|------------|-------|-------|------|-------|-------|------|---------|-------|--|
|            | Sample ID: | ICV   | ICV1  | CCV  | CCV1  | CCV   | CCV2 | Results | % Rec |  |
| Aluminum   | anr        |       |       |      |       |       |      |         |       |  |
| Antimony   | anr        |       |       |      |       |       |      |         |       |  |
| Arsenic    | 2000       | 1980  | 99.0  | 2000 | 2000  | 100.0 | 2000 | 1990    | 99.5  |  |
| Barium     | 2000       | 2000  | 100.0 | 2000 | 2020  | 101.0 | 2000 | 2030    | 101.5 |  |
| Beryllium  | anr        |       |       |      |       |       |      |         |       |  |
| Bismuth    |            |       |       |      |       |       |      |         |       |  |
| Boron      |            |       |       |      |       |       |      |         |       |  |
| Cadmium    | 2000       | 1990  | 99.5  | 2000 | 2010  | 100.5 | 2000 | 1990    | 99.5  |  |
| Calcium    | anr        |       |       |      |       |       |      |         |       |  |
| Chromium   | 2000       | 2000  | 100.0 | 2000 | 2030  | 101.5 | 2000 | 2010    | 100.5 |  |
| Cobalt     | anr        |       |       |      |       |       |      |         |       |  |
| Copper     | anr        |       |       |      |       |       |      |         |       |  |
| Iron       | anr        |       |       |      |       |       |      |         |       |  |
| Lead       | 2000       | 2030  | 101.5 | 2000 | 2040  | 102.0 | 2000 | 2030    | 101.5 |  |
| Lithium    |            |       |       |      |       |       |      |         |       |  |
| Magnesium  | anr        |       |       |      |       |       |      |         |       |  |
| Manganese  | anr        |       |       |      |       |       |      |         |       |  |
| Molybdenum |            |       |       |      |       |       |      |         |       |  |
| Nickel     | anr        |       |       |      |       |       |      |         |       |  |
| Phosphorus |            |       |       |      |       |       |      |         |       |  |
| Potassium  | anr        |       |       |      |       |       |      |         |       |  |
| Selenium   | 2000       | 1980  | 99.0  | 2000 | 2000  | 100.0 | 2000 | 1980    | 99.0  |  |
| Silicon    |            |       |       |      |       |       |      |         |       |  |
| Silver     | 250        | 259   | 103.6 | 250  | 251   | 100.4 | 250  | 249     | 99.6  |  |
| Sodium     | anr        |       |       |      |       |       |      |         |       |  |
| Strontium  |            |       |       |      |       |       |      |         |       |  |
| Sulfur     | anr        |       |       |      |       |       |      |         |       |  |
| Thallium   | anr        |       |       |      |       |       |      |         |       |  |
| Tin        |            |       |       |      |       |       |      |         |       |  |
| Titanium   |            |       |       |      |       |       |      |         |       |  |
| Tungsten   |            |       |       |      |       |       |      |         |       |  |
| Vanadium   | anr        |       |       |      |       |       |      |         |       |  |
| Zinc       | anr        |       |       |      |       |       |      |         |       |  |

14.2.3  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: |         | 16:00 |      | 16:06   |       | 16:37 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.2.3  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Sample ID: | 17:10 |       |       | 17:43 |       |       | 18:14 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |            | CCV   | CCV3  | % Rec | CCV   | CCV4  | % Rec | CCV   | CCV5  | % Rec |
| Aluminum   | anr        |       |       |       |       |       |       |       |       |       |
| Antimony   | anr        |       |       |       |       |       |       |       |       |       |
| Arsenic    | 2000       | 1970  | 98.5  | 2000  | 1970  | 98.5  | 2000  | 1970  | 98.5  |       |
| Barium     | 2000       | 2010  | 100.5 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Beryllium  | anr        |       |       |       |       |       |       |       |       |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 1970  | 98.5  | 2000  | 1980  | 99.0  | 2000  | 1980  | 99.0  |       |
| Calcium    | anr        |       |       |       |       |       |       |       |       |       |
| Chromium   | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Cobalt     | anr        |       |       |       |       |       |       |       |       |       |
| Copper     | anr        |       |       |       |       |       |       |       |       |       |
| Iron       | anr        |       |       |       |       |       |       |       |       |       |
| Lead       | 2000       | 2010  | 100.5 | 2000  | 2010  | 100.5 | 2000  | 2010  | 100.5 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr        |       |       |       |       |       |       |       |       |       |
| Manganese  | anr        |       |       |       |       |       |       |       |       |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | anr        |       |       |       |       |       |       |       |       |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | anr        |       |       |       |       |       |       |       |       |       |
| Selenium   | 2000       | 1950  | 97.5  | 2000  | 1960  | 98.0  | 2000  | 1960  | 98.0  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 246   | 98.4  | 250   | 247   | 98.8  | 250   | 248   | 99.2  |       |
| Sodium     | anr        |       |       |       |       |       |       |       |       |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     | anr        |       |       |       |       |       |       |       |       |       |
| Thallium   | anr        |       |       |       |       |       |       |       |       |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | anr        |       |       |       |       |       |       |       |       |       |
| Zinc       | anr        |       |       |       |       |       |       |       |       |       |

14.2.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: |         |       |      | 17:43   |       |      | 18:14   |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 17:10   | CCV3  | CCV  | CCV4    | CCV   | CCV5 |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.2.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Sample ID | 18:45 |       |       | 19:23 |       |       | 19:47 |      |       |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|------|-------|
|            |           | CCV   | CCV6  | % Rec | CCV   | CCV7  | % Rec | CCV   | CCV8 | % Rec |
| Aluminum   | anr       |       |       |       |       |       |       |       |      |       |
| Antimony   | anr       |       |       |       |       |       |       |       |      |       |
| Arsenic    | 2000      | 1950  | 97.5  | 2000  | 1970  | 98.5  | 2000  | 1910  | 95.5 |       |
| Barium     | 2000      | 2020  | 101.0 | 2000  | 2080  | 104.0 | 2000  | 1940  | 97.0 |       |
| Beryllium  | anr       |       |       |       |       |       |       |       |      |       |
| Bismuth    |           |       |       |       |       |       |       |       |      |       |
| Boron      |           |       |       |       |       |       |       |       |      |       |
| Cadmium    | 2000      | 1960  | 98.0  | 2000  | 2010  | 100.5 | 2000  | 1900  | 95.0 |       |
| Calcium    | anr       |       |       |       |       |       |       |       |      |       |
| Chromium   | 2000      | 2000  | 100.0 | 2000  | 1880  | 94.0  | 2000  | 1910  | 95.5 |       |
| Cobalt     | anr       |       |       |       |       |       |       |       |      |       |
| Copper     | anr       |       |       |       |       |       |       |       |      |       |
| Iron       | anr       |       |       |       |       |       |       |       |      |       |
| Lead       | 2000      | 1990  | 99.5  | 2000  | 1990  | 99.5  | 2000  | 1960  | 98.0 |       |
| Lithium    |           |       |       |       |       |       |       |       |      |       |
| Magnesium  | anr       |       |       |       |       |       |       |       |      |       |
| Manganese  | anr       |       |       |       |       |       |       |       |      |       |
| Molybdenum |           |       |       |       |       |       |       |       |      |       |
| Nickel     | anr       |       |       |       |       |       |       |       |      |       |
| Phosphorus |           |       |       |       |       |       |       |       |      |       |
| Potassium  | anr       |       |       |       |       |       |       |       |      |       |
| Selenium   | 2000      | 1950  | 97.5  | 2000  | 1990  | 99.5  | 2000  | 1900  | 95.0 |       |
| Silicon    |           |       |       |       |       |       |       |       |      |       |
| Silver     | 250       | 247   | 98.8  | 250   | 243   | 97.2  | 250   | 237   | 94.8 |       |
| Sodium     | anr       |       |       |       |       |       |       |       |      |       |
| Strontium  |           |       |       |       |       |       |       |       |      |       |
| Sulfur     | anr       |       |       |       |       |       |       |       |      |       |
| Thallium   | anr       |       |       |       |       |       |       |       |      |       |
| Tin        |           |       |       |       |       |       |       |       |      |       |
| Titanium   |           |       |       |       |       |       |       |       |      |       |
| Tungsten   |           |       |       |       |       |       |       |       |      |       |
| Vanadium   | anr       |       |       |       |       |       |       |       |      |       |
| Zinc       | anr       |       |       |       |       |       |       |       |      |       |

14.2.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

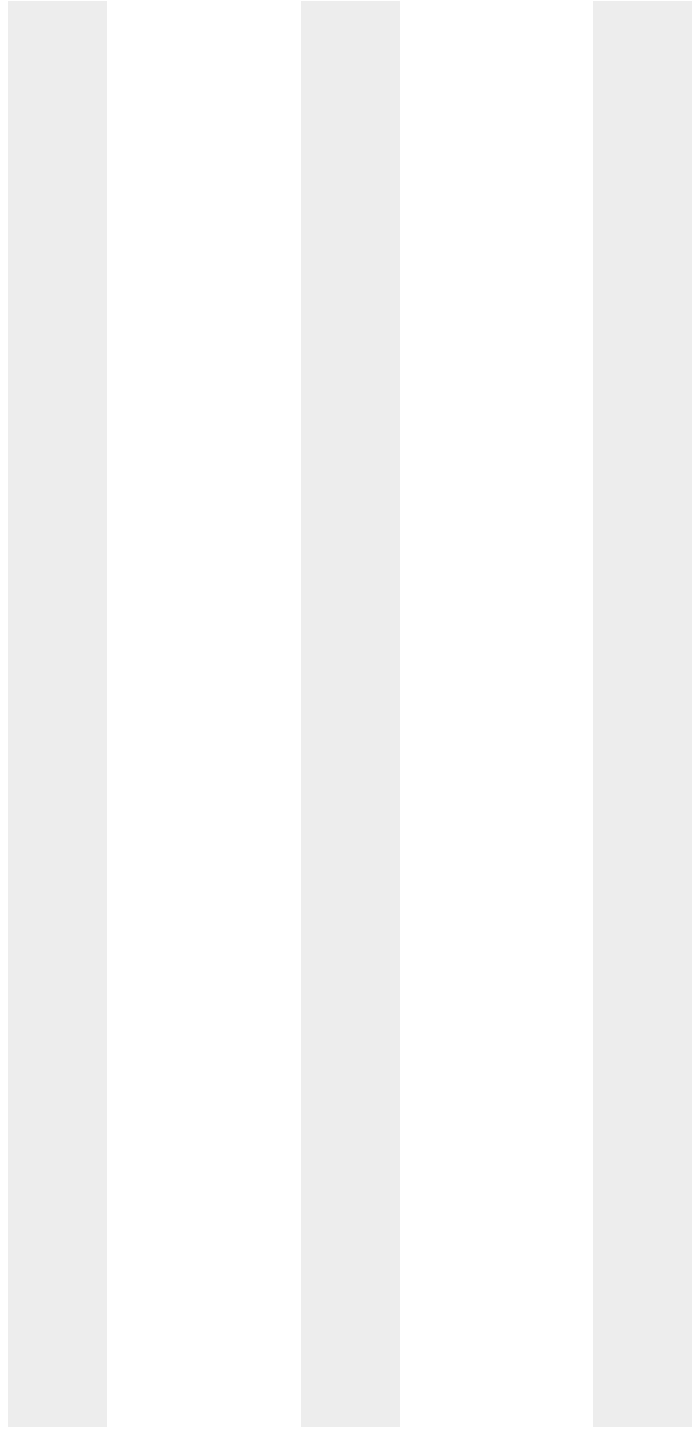
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|            | Time: |         |       |      | 18:45   |       |      | 19:23   |       | 19:47 |         |       |
|------------|-------|---------|-------|------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    | CCV   | CCV7 | CCV     | CCV8  | CCV  | CCV7    | CCV   | CCV8  | CCV     |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.2.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

| Time:      | 20:07 |         |       |
|------------|-------|---------|-------|
| Sample ID: | CCV   |         |       |
| Metal      | True  | Results | % Rec |
| Aluminum   | anr   |         |       |
| Antimony   | anr   |         |       |
| Arsenic    | 2000  | 1900    | 95.0  |
| Barium     | 2000  | 1940    | 97.0  |
| Beryllium  | anr   |         |       |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | 2000  | 1880    | 94.0  |
| Calcium    | anr   |         |       |
| Chromium   | 2000  | 1900    | 95.0  |
| Cobalt     | anr   |         |       |
| Copper     | anr   |         |       |
| Iron       | anr   |         |       |
| Lead       | 2000  | 1950    | 97.5  |
| Lithium    |       |         |       |
| Magnesium  | anr   |         |       |
| Manganese  | anr   |         |       |
| Molybdenum |       |         |       |
| Nickel     | anr   |         |       |
| Phosphorus |       |         |       |
| Potassium  | anr   |         |       |
| Selenium   | 2000  | 1900    | 95.0  |
| Silicon    |       |         |       |
| Silver     | 250   | 236     | 94.4  |
| Sodium     | anr   |         |       |
| Strontium  |       |         |       |
| Sulfur     | anr   |         |       |
| Thallium   | anr   |         |       |
| Tin        |       |         |       |
| Titanium   |       |         |       |
| Tungsten   |       |         |       |
| Vanadium   | anr   |         |       |
| Zinc       | anr   |         |       |

14.2.3  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

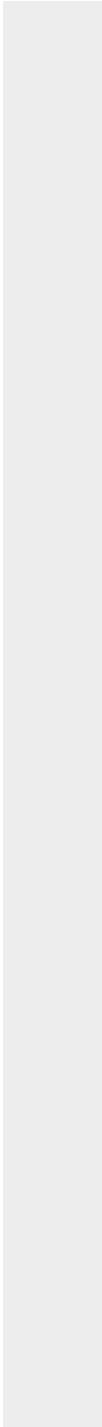
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44316      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 20:07 |         |       |
| Sample ID: CCV | CCV9  |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



HIGH STANDARD CHECK SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44316 Units: ug/l

| Metal      | Sample ID: | Time: 16:23 |       | Time: 16:26 |         |       |
|------------|------------|-------------|-------|-------------|---------|-------|
|            |            | HSTD        | HSTD1 | HSTD        | HSTD2   |       |
|            | True       | Results     | % Rec | True        | Results | % Rec |
| Aluminum   |            |             |       |             |         |       |
| Antimony   | anr        |             |       |             |         |       |
| Arsenic    | 5000       | 4930        | 98.6  |             |         |       |
| Barium     | 5000       | 5110        | 102.2 |             |         |       |
| Beryllium  | anr        |             |       |             |         |       |
| Bismuth    |            |             |       |             |         |       |
| Boron      |            |             |       |             |         |       |
| Cadmium    | 5000       | 5020        | 100.4 |             |         |       |
| Calcium    |            |             |       |             |         |       |
| Chromium   | 5000       | 5130        | 102.6 |             |         |       |
| Cobalt     | anr        |             |       |             |         |       |
| Copper     | anr        |             |       |             |         |       |
| Iron       |            |             |       |             |         |       |
| Lead       | 5000       | 5110        | 102.2 |             |         |       |
| Lithium    |            |             |       |             |         |       |
| Magnesium  |            |             |       |             |         |       |
| Manganese  | anr        |             |       |             |         |       |
| Molybdenum |            |             |       |             |         |       |
| Nickel     | anr        |             |       |             |         |       |
| Phosphorus |            |             |       |             |         |       |
| Potassium  |            |             |       |             |         |       |
| Selenium   | 5000       | 4940        | 98.8  |             |         |       |
| Silicon    |            |             |       |             |         |       |
| Silver     | 625        | 651         | 104.2 |             |         |       |
| Sodium     |            |             |       |             |         |       |
| Strontium  |            |             |       |             |         |       |
| Sulfur     | anr        |             |       |             |         |       |
| Thallium   | anr        |             |       |             |         |       |
| Tin        |            |             |       |             |         |       |
| Titanium   |            |             |       |             |         |       |
| Tungsten   |            |             |       |             |         |       |
| Vanadium   | anr        |             |       |             |         |       |
| Zinc       | anr        |             |       |             |         |       |

14.2.4  
14

HIGH STANDARD CHECK SUMMARY

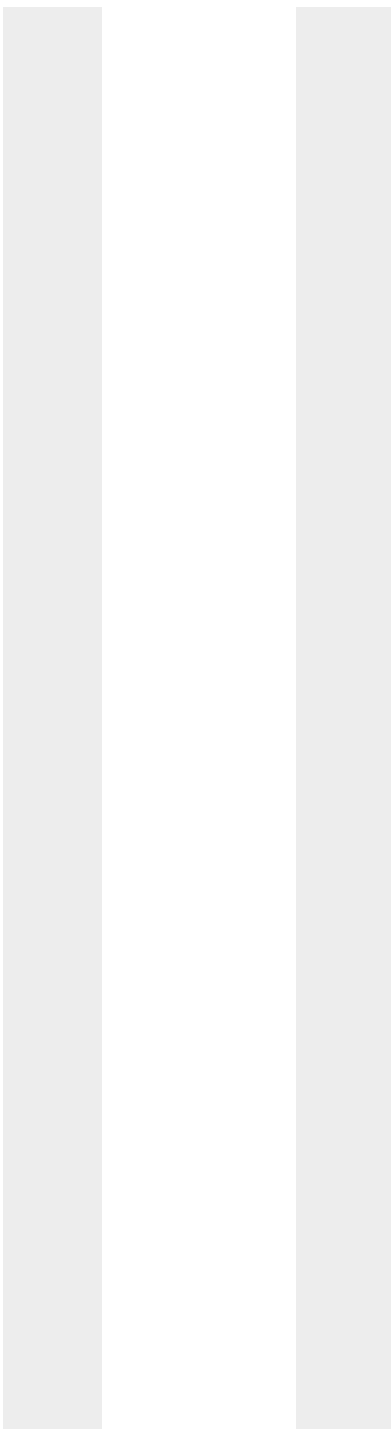
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44316 Units: ug/l

| Time:      |      | 16:23   |       |       | 16:26   |       |  |
|------------|------|---------|-------|-------|---------|-------|--|
| Sample ID: | HSTD | HSTD1   | HSTD  | HSTD2 | HSTD    | HSTD2 |  |
| Metal      | True | Results | % Rec | True  | Results | % Rec |  |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.2.4  
**14**

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      | 16:12 | 16:15 | 19:55 |         |       |         |          |         |       |
|------------|-------|-------|-------|---------|-------|---------|----------|---------|-------|
| Sample ID: | CRI1  | CRID1 | CRID2 | Results | % Rec | Results | % Rec    | Results | % Rec |
| Metal      | True  | True  | True  |         |       |         |          |         |       |
| Aluminum   | 200   | 500   | 100   | anr     |       |         |          |         |       |
| Antimony   | 6.0   | 20    | 3.0   | anr     |       |         |          |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | 8.60    | 107.5 | 3.00    | 100.0    | 8.50    | 106.3 |
| Barium     | 200   |       | 4.0   | 197     | 98.5  | 3.60    | 90.0     | 187     | 93.5  |
| Beryllium  | 2.0   |       | 1.0   | anr     |       |         |          |         |       |
| Bismuth    | 20    |       |       |         |       |         |          |         |       |
| Boron      | 100   |       | 10    |         |       |         |          |         |       |
| Cadmium    | 3.0   |       | 1.0   | 3.50    | 116.7 | 1.10    | 110.0    | 3.00    | 100.0 |
| Calcium    | 5000  | 2000  | 1000  | anr     |       |         |          |         |       |
| Chromium   | 10    |       | 2.0   | 10.2    | 102.0 | 2.50    | 125.0    | 9.30    | 93.0  |
| Cobalt     | 50    |       | 3.0   | anr     |       |         |          |         |       |
| Copper     | 10    |       | 2.0   | anr     |       |         |          |         |       |
| Iron       | 100   | 500   |       | anr     |       |         |          |         |       |
| Lead       | 3.0   | 20    | 2.5   | 3.10    | 103.3 | -1.20U  | 0.0* (a) | 3.00    | 100.0 |
| Lithium    | 50    |       |       |         |       |         |          |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |       |         |          |         |       |
| Manganese  | 15    |       | 3.0   | anr     |       |         |          |         |       |
| Molybdenum | 20    |       |       |         |       |         |          |         |       |
| Nickel     | 10    |       | 4.0   | anr     |       |         |          |         |       |
| Phosphorus | 50    |       |       |         |       |         |          |         |       |
| Potassium  | 5000  |       | 2000  | anr     |       |         |          |         |       |
| Selenium   | 10    | 20    | 5.0   | 10.6    | 106.0 | 6.30    | 126.0    | 8.50    | 85.0  |
| Silicon    | 200   |       |       |         |       |         |          |         |       |
| Silver     | 5.0   |       | 2.0   | 4.30    | 86.0  | 0.600U  | 0.0* (a) | 4.20    | 84.0  |
| Sodium     | 5000  |       | 1000  | anr     |       |         |          |         |       |
| Strontium  | 10    |       |       |         |       |         |          |         |       |
| Sulfur     | 50    |       |       | anr     |       |         |          |         |       |
| Thallium   | 10    |       | 2.0   | anr     |       |         |          |         |       |
| Tin        | 10    |       |       |         |       |         |          |         |       |
| Titanium   | 10    |       |       |         |       |         |          |         |       |
| Tungsten   | 50    |       |       |         |       |         |          |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |       |         |          |         |       |
| Zinc       | 20    |       | 10    | anr     |       |         |          |         |       |

14.2.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

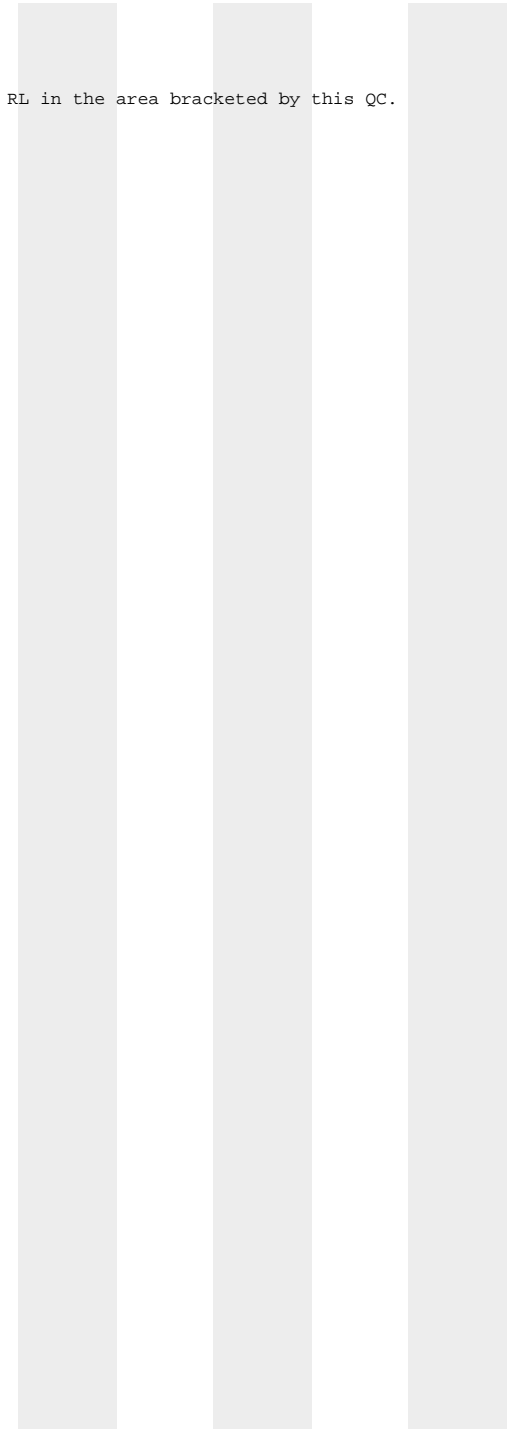
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      | 16:12   | 16:15 | 19:55   |       |         |       |
|------------|---------|-------|---------|-------|---------|-------|
| Sample ID: | CRI1    | CRID1 | CRI2    |       |         |       |
| Metal      | True    | True  | True    |       |         |       |
|            | Results | % Rec | Results | % Rec | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.



14.2.5  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 19:58<br>CRID2 | Results | % Rec |
|------------|------------|------|------|---------|----------------|---------|-------|
| Metal      | True       | True | True | True    | True           |         |       |
| Aluminum   | 200        | 500  | 100  | anr     |                |         |       |
| Antimony   | 6.0        | 20   | 3.0  | anr     |                |         |       |
| Arsenic    | 8.0        | 20   | 3.0  | 2.60    | 86.7           |         |       |
| Barium     | 200        |      | 4.0  | 4.20    | 105.0          |         |       |
| Beryllium  | 2.0        |      | 1.0  | anr     |                |         |       |
| Bismuth    | 20         |      |      |         |                |         |       |
| Boron      | 100        |      | 10   |         |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | 1.00    | 100.0          |         |       |
| Calcium    | 5000       | 2000 | 1000 | anr     |                |         |       |
| Chromium   | 10         |      | 2.0  | 2.10    | 105.0          |         |       |
| Cobalt     | 50         |      | 3.0  | anr     |                |         |       |
| Copper     | 10         |      | 2.0  | anr     |                |         |       |
| Iron       | 100        | 500  |      |         |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | -0.600U | 0.0* (a)       |         |       |
| Lithium    | 50         |      |      |         |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | anr     |                |         |       |
| Manganese  | 15         |      | 3.0  | anr     |                |         |       |
| Molybdenum | 20         |      |      |         |                |         |       |
| Nickel     | 10         |      | 4.0  | anr     |                |         |       |
| Phosphorus | 50         |      |      |         |                |         |       |
| Potassium  | 5000       |      | 2000 | anr     |                |         |       |
| Selenium   | 10         | 20   | 5.0  | 4.00    | 80.0           |         |       |
| Silicon    | 200        |      |      |         |                |         |       |
| Silver     | 5.0        |      | 2.0  | 0.600U  | 0.0* (a)       |         |       |
| Sodium     | 5000       |      | 1000 | anr     |                |         |       |
| Strontium  | 10         |      |      |         |                |         |       |
| Sulfur     | 50         |      |      |         |                |         |       |
| Thallium   | 10         |      | 2.0  | anr     |                |         |       |
| Tin        | 10         |      |      |         |                |         |       |
| Titanium   | 10         |      |      |         |                |         |       |
| Tungsten   | 50         |      |      |         |                |         |       |
| Vanadium   | 50         |      | 2.0  | anr     |                |         |       |
| Zinc       | 20         |      | 10   | anr     |                |         |       |

14.2.5  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44316 Units: ug/l

| Time:      |      |      |      | 19:58   |   |     |
|------------|------|------|------|---------|---|-----|
| Sample ID: | CRI  | CRIA | CRID | CRID2   |   |     |
| Metal      | True | True | True | Results | % | Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP      Date Analyzed: 05/01/18      Methods: SW846 6010C  
QC Limits: 80 to 120 % Recovery      Run ID: MA44316      Units: ug/l

| Metal      | Time:      |        | 16:17  |       | 16:20  |        | 20:01  |       | 20:04  |        |
|------------|------------|--------|--------|-------|--------|--------|--------|-------|--------|--------|
|            | Sample ID: | ICSA   | ICSAB  | ICSAL | % Rec  | ICSAB1 | % Rec  | ICSA2 | % Rec  | ICSAB2 |
| Aluminum   | 500000     | 500000 | 528000 | 105.6 | 512000 | 102.4  | 488000 | 97.6  | 477000 | 95.4   |
| Antimony   |            | 1000   | -2.70  |       | 1070   | 107.0  | -2.90  |       | 996    | 99.6   |
| Arsenic    |            | 1000   | 1.90   |       | 1030   | 103.0  | 0.500  |       | 965    | 96.5   |
| Barium     |            | 500    | 0.900  |       | 510    | 102.0  | 1.00   |       | 475    | 95.0   |
| Beryllium  |            | 500    | 0.100  |       | 502    | 100.4  | 0.100  |       | 463    | 92.6   |
| Bismuth    |            | 500    | -13.3  |       | 547    | 109.4  | -10.3  |       | 512    | 102.4  |
| Boron      |            | 500    | 1.90   |       | 514    | 102.8  | -1.70  |       | 479    | 95.8   |
| Cadmium    |            | 1000   | 0.700  |       | 1040   | 104.0  | 0.700  |       | 959    | 95.9   |
| Calcium    | 400000     | 400000 | 401000 | 100.3 | 396000 | 99.0   | 367000 | 91.8  | 368000 | 92.0   |
| Chromium   |            | 500    | 0.600  |       | 494    | 98.8   | 0.900  |       | 453    | 90.6   |
| Cobalt     |            | 500    | -0.500 |       | 500    | 100.0  | -0.200 |       | 473    | 94.6   |
| Copper     |            | 500    | -0.300 |       | 518    | 103.6  | -0.700 |       | 478    | 95.6   |
| Iron       | 200000     | 200000 | 196000 | 98.0  | 190000 | 95.0   | 180000 | 90.0  | 176000 | 88.0   |
| Lead       |            | 1000   | 3.00   |       | 987    | 98.7   | 1.10   |       | 926    | 92.6   |
| Lithium    |            | 500    | 0.400  |       | 536    | 107.2  | 1.90   |       | 499    | 99.8   |
| Magnesium  | 500000     | 500000 | 521000 | 104.2 | 514000 | 102.8  | 477000 | 95.4  | 473000 | 94.6   |
| Manganese  |            | 500    | -0.200 |       | 513    | 102.6  | -0.300 |       | 472    | 94.4   |
| Molybdenum |            | 500    | 1.20   |       | 498    | 99.6   | 0.800  |       | 464    | 92.8   |
| Nickel     |            | 1000   | -1.20  |       | 988    | 98.8   | -0.400 |       | 933    | 93.3   |
| Phosphorus |            | 500    | 8.90   |       | 524    | 104.8  | 7.60   |       | 488    | 97.6   |
| Potassium  |            |        | 62.0   |       | -24.8  |        | 24.5   |       | 34.3   |        |
| Selenium   |            | 1000   | 2.20   |       | 997    | 99.7   | 2.00   |       | 932    | 93.2   |
| Silicon    |            | 500    | 11.6   |       | 578    | 115.6  | 7.20   |       | 537    | 107.4  |
| Silver     |            | 1000   | 0.300  |       | 992    | 99.2   | 0.400  |       | 911    | 91.1   |
| Sodium     |            |        | 10.7   |       | 28.9   |        | 78.2   |       | 84.3   |        |
| Strontium  |            | 500    | -3.00  |       | 544    | 108.8  | -2.40  |       | 508    | 101.6  |
| Sulfur     |            | 500    | 3.00   |       | 515    | 103.0  | 6.10   |       | 487    | 97.4   |
| Thallium   |            | 1000   | -1.00  |       | 1080   | 108.0  | -0.900 |       | 1020   | 102.0  |
| Tin        |            | 500    | -2.80  |       | 481    | 96.2   | -2.30  |       | 444    | 88.8   |
| Titanium   |            | 500    | -3.00  |       | 501    | 100.2  | -2.00  |       | 461    | 92.2   |
| Tungsten   |            | 500    | 1.20   |       | 496    | 99.2   | -1.60  |       | 458    | 91.6   |
| Vanadium   |            | 500    | 0.900  |       | 506    | 101.2  | 0.800  |       | 466    | 93.2   |
| Zinc       |            | 1000   | 4.70   |       | 985    | 98.5   | 4.60   |       | 908    | 90.8   |

14.2.6 14



INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050118M2.ICP Date Analyzed: 05/01/18 Methods: SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44316 Units: ug/l

| Time:      |      |       | 16:17   |       |         | 16:20 |         |       | 20:01   |       |  | 20:04 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSA2   | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |  |       |

|           |  |     |       |  |     |      |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|
| Zirconium |  | 500 | -3.00 |  | 493 | 98.6 | -2.40 |  | 458 | 91.6 |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.2.6  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV Date Analyzed: 05/02/18 Methods: SW846 7471B  
Analyst: JA Run ID: MA44318  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 08:51  | MA44318-STD1                                | 1               |          | B=1.1614E-004, C=-2.2544E-002, R=0.9999731           |
| 08:52  | MA44318-STD2                                | 1               |          | STDB   |
| 08:54  | MA44318-STD3                                | 1               |          | STDC   |
| 08:55  | MA44318-STD4                                | 1               |          | STDD   |
| 08:57  | MA44318-STD5                                | 1               |          | STDE   |
| 08:58  | MA44318-STD6                                | 1               |          | STDF   |
| 09:11  | MA44318-ICV1                                | 1               |          |  |
| 09:14  | MA44318-ICB1                                | 1               |          |  |
| 09:16  | MA44318-CCV1                                | 1               |          |  |
| 09:17  | MA44318-CCB1                                | 1               |          |  |
| 09:19  | MA44318-CRI1                                | 1               |          |  |
| 09:38  | MP6935-MB1                                  | 1               |          |  |
| 09:39  | MP6935-B1                                   | 1               |          |  |
| 09:42  | MP6935-S1                                   | 1               |          |  |
| 09:43  | MP6935-S2                                   | 1               |          |  |
| 09:49  | JC65119-8                                   | 1               |          | (sample used for QC only; not part of login JC65157) |
| 09:51  | ZZZZZZ                                      | 1               |          |  |
| 09:52  | ZZZZZZ                                      | 1               |          |  |
| 09:54  | JC65157-6                                   | 1               |          | %Sol   |
| 09:55  | MA44318-CCV2                                | 1               |          |  |
| 09:56  | MA44318-CCB2                                | 1               |          |  |
| 09:58  | JC65157-7                                   | 1               |          | %Sol   |
| 09:59  | JC65157-8                                   | 1               |          | %Sol   |
| 10:01  | JC65157-9                                   | 1               |          | %Sol   |
| 10:02  | JC65157-10                                  | 1               |          | %Sol   |
| 10:04  | JC65157-11                                  | 1               |          | %Sol   |
| 10:05  | JC65157-12                                  | 1               |          | %Sol   |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |  |
| 10:07  | ZZZZZZ                                      | 1               |          |  |
| 10:09  | ZZZZZZ                                      | 1               |          |  |
| 10:10  | ZZZZZZ                                      | 1               |          |  |
| 10:11  | MA44318-CCV3                                | 1               |          |  |
| 10:12  | MA44318-CCB3                                | 1               |          |  |
| 10:14  | ZZZZZZ                                      | 1               |          |  |

14.3  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV Date Analyzed: 05/02/18 Methods: SW846 7471B  
Analyst: JA Run ID: MA44318  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 10:15 | ZZZZZZ             | 1               |          |  |
| 10:17 | ZZZZZZ             | 1               |          |  |
| 10:19 | ZZZZZZ             | 1               |          |  |
| 10:20 | ZZZZZZ             | 1               |          |  |
| 10:22 | ZZZZZZ             | 1               |          |  |
| 10:24 | ZZZZZZ             | 1               |          |  |
| 10:25 | MP6936-MB1         | 1               |          |  |
| 10:27 | MP6936-B1          | 1               |          |  |
| 10:28 | MA44318-CCV4       | 1               |          |  |
| 10:29 | MA44318-CCB4       | 1               |          |  |
| 10:31 | MP6936-S1          | 1               |          |  |
| 10:32 | MP6936-S2          | 1               |          |  |
| 10:34 | JC65110-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 10:36 | ZZZZZZ             | 1               |          |  |
| 10:38 | ZZZZZZ             | 1               |          |  |
| 10:39 | ZZZZZZ             | 1               |          |  |
| 10:40 | ZZZZZZ             | 1               |          |  |
| 10:42 | ZZZZZZ             | 1               |          |  |
| 10:43 | ZZZZZZ             | 1               |          |  |
| 10:45 | MA44318-CCV5       | 1               |          |  |
| 10:46 | MA44318-CCB5       | 1               |          |  |
| 10:48 | JC65119-8          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 10:49 | ZZZZZZ             | 1               |          |  |
| 10:50 | ZZZZZZ             | 1               |          |  |
| 10:52 | ZZZZZZ             | 1               |          |  |
| 10:53 | ZZZZZZ             | 1               |          |  |
| 10:54 | ZZZZZZ             | 1               |          |  |
| 10:56 | ZZZZZZ             | 1               |          |  |
| 10:57 | MA44318-CCV6       | 1               |          |  |
| 10:58 | MA44318-CCB6       | 1               |          |  |
| 11:00 | MP6936-LC1         | 5               |          |  |
| 11:01 | MP6936-LC2         | 5               |          |  |
| 11:03 | ZZZZZZ             | 1               |          |  |

14.3  
14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV      Date Analyzed: 05/02/18      Methods: SW846 7471B  
Analyst: JA      Run ID: MA44318  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 11:05 | ZZZZZZ             | 1               |          |          |
| 11:07 | ZZZZZZ             | 2               |          |          |
| 11:10 | ZZZZZZ             | 5               |          |          |
| 11:16 | ZZZZZZ             | 1               |          |          |
| 11:23 | MA44318-CRI2       | 1               |          |          |
| 11:24 | MA44318-CCV7       | 1               |          |          |
| 11:25 | MA44318-CCB7       | 1               |          |          |

-----> Last reportable CCB for job JC65157  
Refer to raw data for calibration curve and standards.

14.3  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV      Date Analyzed: 05/02/18      Methods: SW846 7471B  
 QC Limits: result < RL      Run ID: MA44318      Units: ug/l

| Time:      |      |      | 09:14   | 09:17 | 09:56   | 10:12 |         |       |         |       |
|------------|------|------|---------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | ICB1    | CCB1  | CCB2    | CCB3  |         |       |         |       |
| Metal      | RL   | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .025 | -0.0253 | <0.20 | -0.0349 | <0.20 | -0.0333 | <0.20 | -0.0493 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.3.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV Date Analyzed: 05/02/18 Methods: SW846 7471B  
 QC Limits: result < RL Run ID: MA44318 Units: ug/l

|         | Time:      |      | 10:29   |       | 10:46   |       | 10:58   |       | 11:25   |       |
|---------|------------|------|---------|-------|---------|-------|---------|-------|---------|-------|
|         | Sample ID: |      | CCB4    |       | CCB5    |       | CCB6    |       | CCB7    |       |
| Metal   | RL         | IDL  | raw     | final | raw     | final | raw     | final | raw     | final |
| Mercury | 0.20       | .025 | -0.0361 | <0.20 | -0.0552 | <0.20 | -0.0518 | <0.20 | -0.0300 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV      Date Analyzed: 05/02/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44318      Units: ug/l

|            | Time: |         | 09:11 |      | 09:16   |       | 09:55 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   |         | ICV1  | CCV  | CCV1    | CCV   | CCV2  |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 2.86    | 95.3  | 2.5  | 2.60    | 104.0 | 2.5   | 2.67    | 106.8 |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.3.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV      Date Analyzed: 05/02/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44318      Units: ug/l

|            | Time: |               |       |      |               |       |      |               |       |  |
|------------|-------|---------------|-------|------|---------------|-------|------|---------------|-------|--|
| Sample ID: | CCV   | 10:11<br>CCV3 |       | CCV  | 10:28<br>CCV4 |       | CCV  | 10:45<br>CCV5 |       |  |
| Metal      | True  | Results       | % Rec | True | Results       | % Rec | True | Results       | % Rec |  |
| Mercury    | 2.5   | 2.62          | 104.8 | 2.5  | 2.73          | 109.2 | 2.5  | 2.60          | 104.0 |  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.3.2  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV      Date Analyzed: 05/02/18      Methods: SW846 7471B  
QC Limits: 90 to 110 % Recovery      Run ID: MA44318      Units: ug/l

|            | Time: | 10:57   |       | 11:24 |         |       |
|------------|-------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV6    |       | CCV   | CCV7    |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec |
| Mercury    | 2.5   | 2.57    | 102.8 | 2.5   | 2.68    | 107.2 |

(\*) Outside of QC limits  
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H8050218S1.CSV Date Analyzed: 05/02/18 Methods: SW846 7471B  
 QC Limits: 70 to 130 % Recovery Run ID: MA44318 Units: ug/l

|            | Time: |      | 09:19   |       | 11:23   |       |
|------------|-------|------|---------|-------|---------|-------|
| Sample ID: | CRI   | CRIA | CRI1    |       | CRI2    |       |
| Metal      | True  | True | Results | % Rec | Results | % Rec |
| Mercury    | 0.20  |      | 0.185   | 92.5  | 0.251   | 125.5 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV      Date Analyzed: 05/02/18      Methods: SW846 7470A  
Analyst: DP      Run ID: MA44324  
Parameters: Hg

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 11:13 | MA44324-STD1       | 1               |          | B=1.7338E-004, C=1.9133E-002, R=0.9999125            |
| 11:14 | MA44324-STD2       | 1               |          | STDB   |
| 11:15 | MA44324-STD3       | 1               |          | STDC   |
| 11:17 | MA44324-STD4       | 1               |          | STDD   |
| 11:18 | MA44324-STD5       | 1               |          | STDE   |
| 11:19 | MA44324-STD6       | 1               |          | STDF   |
| 11:24 | MA44324-ICV1       | 1               |          |  |
| 11:25 | MA44324-ICB1       | 1               |          |  |
| 11:27 | MA44324-CCV1       | 1               |          |  |
| 11:28 | MA44324-CCB1       | 1               |          |  |
| 11:30 | MA44324-CRI1       | 1               |          |  |
| 11:32 | MP6934-MB1         | 1               |          |  |
| 11:34 | MP6934-B1          | 1               |          |  |
| 11:35 | MP6934-S1          | 1               |          |  |
| 11:37 | MP6934-S2          | 1               |          |  |
| 11:38 | JC65169-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 11:40 | ZZZZZZ             | 1               |          |  |
| 11:41 | ZZZZZZ             | 1               |          |  |
| 11:42 | ZZZZZZ             | 1               |          |  |
| 11:44 | MA44324-CCV2       | 1               |          |  |
| 11:45 | MA44324-CCB2       | 1               |          |  |
| 11:46 | ZZZZZZ             | 1               |          |  |
| 11:48 | ZZZZZZ             | 1               |          |  |
| 11:49 | ZZZZZZ             | 1               |          |  |
| 11:50 | ZZZZZZ             | 1               |          |  |
| 11:52 | ZZZZZZ             | 1               |          |  |
| 11:53 | ZZZZZZ             | 1               |          |  |
| 11:54 | ZZZZZZ             | 1               |          |  |
| 11:55 | ZZZZZZ             | 1               |          |  |
| 11:56 | ZZZZZZ             | 1               |          |  |
| 11:58 | MA44324-CCV3       | 1               |          |  |
| 11:59 | MA44324-CCB3       | 1               |          |  |
| 12:01 | ZZZZZZ             | 1               |          |  |

14.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV      Date Analyzed: 05/02/18      Methods: SW846 7470A  
Analyst: DP      Run ID: MA44324  
Parameters: Hg

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments |
|--------|---|-----------------|----------|----------|
| 12:02  | ZZZZZZ                                      | 1               |          |          |
| 12:03  | ZZZZZZ                                      | 1               |          |          |
| 12:04  | ZZZZZZ                                      | 1               |          |          |
| 12:06  | ZZZZZZ                                      | 1               |          |          |
| 12:07  | ZZZZZZ                                      | 1               |          |          |
| 12:08  | ZZZZZZ                                      | 1               |          |          |
| 12:10  | ZZZZZZ                                      | 1               |          |          |
| 12:11  | MP6911-MB2                                  | 1               |          |          |
| 12:12  | MA44324-CCV4                                | 1               |          |          |
| 12:13  | MA44324-CCB4                                | 1               |          |          |
| 12:15  | MP6911-B2                                   | 1               |          |          |
| 12:16  | ZZZZZZ                                      | 1               |          |          |
| 12:18  | ZZZZZZ                                      | 1               |          |          |
| 12:19  | ZZZZZZ                                      | 1               |          |          |
| 12:20  | ZZZZZZ                                      | 1               |          |          |
| 12:22  | JC65157-12A                                 | 1               |          |          |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |          |
| 12:23  | MP6869-MB3                                  | 1               |          |          |
| 12:24  | MA44324-CCV5                                | 1               |          |          |
| 12:26  | MA44324-CCB5                                | 1               |          |          |
| -----> | Last reportable CCB for job JC65157         |                 |          |          |
| 12:27  | MP6869-B3                                   | 1               |          |          |
| 12:28  | ZZZZZZ                                      | 1               |          |          |
| 12:31  | MA44324-CCV6                                | 1               |          |          |
| 12:32  | MA44324-CCB6                                | 1               |          |          |
| 14:35  | MA44324-CCV7                                | 1               |          |          |
| 14:36  | MA44324-CCB7                                | 1               |          |          |
| 14:37  | ZZZZZZ                                      | 1               |          |          |
| 14:39  | MA44324-CCV8                                | 1               |          |          |
| 14:40  | MA44324-CCB8                                | 1               |          |          |

Refer to raw data for calibration curve and standards.

14.4  
14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV Date Analyzed: 05/02/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44324 Units: ug/l

| Time:      |      |      | 11:25     | 11:28 | 11:45   | 11:59 |         |       |         |       |
|------------|------|------|-----------|-------|---------|-------|---------|-------|---------|-------|
| Sample ID: |      |      | ICB1      | CCB1  | CCB2    | CCB3  |         |       |         |       |
| Metal      | RL   | IDL  | raw       | final | raw     | final | raw     | final | raw     | final |
| Mercury    | 0.20 | .059 | -0.000800 | <0.20 | -0.0166 | <0.20 | -0.0180 | <0.20 | -0.0128 | <0.20 |

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.4.1  
 14

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV Date Analyzed: 05/02/18 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA44324 Units: ug/l

|       | Time:      |     | 12:13 |       | 12:26 |       |
|-------|------------|-----|-------|-------|-------|-------|
|       | Sample ID: |     | CCB4  |       | CCB5  |       |
| Metal | RL         | IDL | raw   | final | raw   | final |

|         |      |      |          |       |          |       |
|---------|------|------|----------|-------|----------|-------|
| Mercury | 0.20 | .059 | -0.00860 | <0.20 | -0.00290 | <0.20 |
|---------|------|------|----------|-------|----------|-------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.4.1  
 14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV      Date Analyzed: 05/02/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44324      Units: ug/l

|            | Time: |         | 11:24 |      | 11:27   |       | 11:44 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | ICV1  | CCV  | CCV1    | CCV   | CCV2  | CCV2    |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |
| Mercury    | 3     | 2.79    | 93.0  | 2.5  | 2.47    | 98.8  | 2.5   | 2.47    | 98.8  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.4.2  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV      Date Analyzed: 05/02/18      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA44324      Units: ug/l

|            | Time: | 11:58   |       | 12:12 |         | 12:24 |      |         |       |
|------------|-------|---------|-------|-------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4  | CCV     | CCV5  |      |         |       |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True | Results | % Rec |
| Mercury    | 2.5   | 2.42    | 96.8  | 2.5   | 2.44    | 97.6  | 2.5  | 2.43    | 97.2  |

(\*) Outside of QC limits  
(anr) Analyte not requested

14.4.2  
14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: H7050218W2.CSV Date Analyzed: 05/02/18 Methods: SW846 7470A  
QC Limits: 70 to 130 % Recovery Run ID: MA44324 Units: ug/l

|            |      |      |         |       |
|------------|------|------|---------|-------|
| Time:      |      |      | 11:30   |       |
| Sample ID: | CRI  | CRIA | CRI1    |       |
| Metal      | True | True | Results | % Rec |

Mercury 0.20 0.193 96.5

(\*) Outside of QC limits  
(anr) Analyte not requested

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44326  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 09:54 | MA44326-STD1       | 1               |          | STDA   |
| 09:57 | MA44326-STD2       | 1               |          | STDB   |
| 09:59 | ZZZZZZ             | 1               |          |  |
| 10:02 | ZZZZZZ             | 1               |          |  |
| 10:06 | MA44326-ICV1       | 1               |          |  |
| 10:11 | MA44326-ICB1       | 1               |          |  |
| 10:15 | MA44326-ICCV1      | 1               |          |  |
| 10:23 | MA44326-CCB1       | 1               |          |  |
| 10:28 | MA44326-CRI1       | 1               |          |  |
| 10:31 | MA44326-CRID1      | 1               |          |  |
| 10:34 | MA44326-ICSA1      | 1               |          |  |
| 10:38 | MA44326-ICSAB1     | 1               |          |  |
| 10:41 | MA44326-HSTD1      | 1               |          |  |
| 10:44 | MA44326-HSTD2      | 1               |          | Minerals   |
| 10:47 | ZZZZZZ             | 1               |          |  |
| 10:50 | ZZZZZZ             | 1               |          |  |
| 10:53 | ZZZZZZ             | 1               |          |  |
| 10:56 | MA44326-CCV1       | 1               |          |  |
| 10:59 | MA44326-CCB2       | 1               |          |  |
| 11:02 | MP6766-MB2         | 1               |          |  |
| 11:05 | MP6766-B2          | 1               |          |  |
| 11:08 | ZZZZZZ             | 1               |          |  |
| 11:11 | MP6898-MB1         | 1               |          |  |
| 11:14 | MP6898-B1          | 1               |          |  |
| 11:17 | MP6898-S1          | 1               |          |  |
| 11:20 | MP6898-S2          | 1               |          |  |
| 11:23 | JC65119-8          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 11:26 | MP6898-SD1         | 5               |          |  |
| 11:29 | MA44326-CCV2       | 1               |          |  |
| 11:32 | MA44326-CCB3       | 1               |          |  |
| 11:35 | ZZZZZZ             | 1               |          |  |
| 11:38 | ZZZZZZ             | 1               |          |  |
| 11:41 | ZZZZZZ             | 1               |          |  |

14.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
Analyst: ND Run ID: MA44326  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 11:44  | ZZZZZZ                                      | 1               |          |  |
| 11:47  | ZZZZZZ                                      | 1               |          |  |
| 11:50  | ZZZZZZ                                      | 1               |          |  |
| 11:53  | ZZZZZZ                                      | 1               |          |  |
| 11:56  | ZZZZZZ                                      | 1               |          |  |
| 11:58  | ZZZZZZ                                      | 1               |          |  |
| 12:01  | MA44326-CCV3                                | 1               |          |  |
| 12:04  | MA44326-CCB4                                | 1               |          |  |
| 12:07  | ZZZZZZ                                      | 1               |          |  |
| 12:10  | ZZZZZZ                                      | 1               |          |  |
| 12:13  | ZZZZZZ                                      | 1               |          |  |
| 12:16  | ZZZZZZ                                      | 1               |          |  |
| 12:19  | ZZZZZZ                                      | 1               |          |  |
| 12:22  | JC65119-8                                   | 1               |          | (sample used for QC only; not part of login JC65157) |
| 12:25  | ZZZZZZ                                      | 1               |          |  |
| 12:28  | JC65157-6                                   | 1               |          |  |
| 12:31  | JC65157-7                                   | 1               |          |  |
| 12:34  | MA44326-CCV4                                | 1               |          |  |
| 12:37  | MA44326-CCB5                                | 1               |          |  |
| 12:40  | JC65157-8                                   | 1               |          |  |
| 12:43  | JC65157-9                                   | 1               |          | Mn=18ppm   |
| 12:46  | JC65157-10                                  | 1               |          | Ca=1000ppm   |
| 12:49  | JC65157-11                                  | 1               |          |  |
| 12:53  | JC65157-12                                  | 1               |          |  |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |  |
| 12:56  | ZZZZZZ                                      | 1               |          |  |
| 12:59  | MP6797-MB2                                  | 1               |          |  |
| 13:02  | MP6797-B2                                   | 1               |          |  |
| 13:04  | ZZZZZZ                                      | 1               |          |  |
| 13:07  | MA44326-CCV5                                | 1               |          |  |
| 13:10  | MA44326-CCB6                                | 1               |          |  |
| 13:13  | ZZZZZZ                                      | 2               |          |  |
| 13:16  | ZZZZZZ                                      | 2               |          |  |
| 13:19  | ZZZZZZ                                      | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
Analyst: ND      Run ID: MA44326  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

13:22 MA44326-CRID2 1

13:25 MA44326-CRI2 1

13:28 MA44326-CCV6 1

13:31 MA44326-CCB7 1

-----> Last reportable CCB for job JC65157

13:34 ZZZZZZ 1

13:37 ZZZZZZ 1

13:40 ZZZZZZ 1

13:44 ZZZZZZ 1

13:47 ZZZZZZ 1

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44326  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--------|----------|---------|--------|
| 09:54 | MA44326-STD1       | 5655 R | 137330 R | 25394 R | 9419 R |
| 09:57 | MA44326-STD2       | 5373   | 132990   | 24938   | 8643   |
| 09:59 | ZZZZZZ             | 5487   | 135580   | 25334   | 8831   |
| 10:02 | ZZZZZZ             | 5645   | 138520   | 25287   | 9399   |
| 10:06 | MA44326-ICV1       | 5523   | 135960   | 25160   | 8892   |
| 10:11 | MA44326-ICB1       | 5642   | 138440   | 25209   | 9400   |
| 10:15 | MA44326-ICCV1      | 5531   | 135990   | 25077   | 8891   |
| 10:23 | MA44326-CCB1       | 5665   | 138620   | 25397   | 9439   |
| 10:28 | MA44326-CRI1       | 5658   | 138840   | 25531   | 9366   |
| 10:31 | MA44326-CRID1      | 5667   | 140190   | 25497   | 9415   |
| 10:34 | MA44326-ICSA1      | 5256   | 130360   | 24948   | 8333   |
| 10:38 | MA44326-ICSAB1     | 5302   | 131890   | 24943   | 8385   |
| 10:41 | MA44326-HSTD1      | 5672   | 138300   | 25583   | 9440   |
| 10:44 | MA44326-HSTD2      | 5368   | 131090   | 24716   | 8380   |
| 10:47 | ZZZZZZ             | 5663   | 139110   | 25390   | 9546   |
| 10:50 | ZZZZZZ             | 5649   | 140150   | 25441   | 9521   |
| 10:53 | ZZZZZZ             | 5729   | 139670   | 25367   | 9517   |
| 10:56 | MA44326-CCV1       | 5553   | 135700   | 24921   | 8922   |
| 10:59 | MA44326-CCB2       | 5706   | 139090   | 25197   | 9492   |
| 11:02 | MP6766-MB2         | 5796   | 140820   | 25667   | 9724   |
| 11:05 | MP6766-B2          | 5647   | 137230   | 25524   | 9190   |
| 11:08 | ZZZZZZ             | 5607   | 137580   | 25678   | 9099   |
| 11:11 | MP6898-MB1         | 5805   | 141590   | 26083   | 9637   |
| 11:14 | MP6898-B1          | 5709   | 140120   | 25709   | 9238   |
| 11:17 | MP6898-S1          | 5812   | 142740   | 26298   | 9142   |
| 11:20 | MP6898-S2          | 5838   | 144350   | 26609   | 9157   |
| 11:23 | JC65119-8          | 5791   | 142400   | 26333   | 9169   |
| 11:26 | MP6898-SD1         | 5740   | 139940   | 25773   | 9379   |
| 11:29 | MA44326-CCV2       | 5559   | 136580   | 25155   | 8945   |
| 11:32 | MA44326-CCB3       | 5687   | 138730   | 25371   | 9475   |
| 11:35 | ZZZZZZ             | 5796   | 140560   | 26217   | 9344   |
| 11:38 | ZZZZZZ             | 5815   | 143930   | 26834   | 9153   |
| 11:41 | ZZZZZZ             | 5805   | 142360   | 26371   | 9195   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44326  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1   | Istd#2   | Istd#3  | Istd#4  |
|-------|--------------------|--|----------|---------|---------|
| 11:44 | ZZZZZZ             | 5778   | 142030   | 26193   | 9292    |
| 11:47 | ZZZZZZ             | 5853   | 143490   | 26573   | 9326    |
| 11:50 | ZZZZZZ             | 5790   | 142400   | 26139   | 9277    |
| 11:53 | ZZZZZZ             | 5871   | 144080   | 26306   | 9337    |
| 11:56 | ZZZZZZ             | 5770   | 142110   | 26426   | 9191    |
| 11:58 | ZZZZZZ             | 5757   | 140820   | 26229   | 9195    |
| 12:01 | MA44326-CCV3       | 5570   | 136340   | 24953   | 8989    |
| 12:04 | MA44326-CCB4       | 5719   | 139880   | 25290   | 9544    |
| 12:07 | ZZZZZZ             | 5276   | 136170   | 25291   | 9984    |
| 12:10 | ZZZZZZ             | 5300   | 135710   | 25427   | 10012   |
| 12:13 | ZZZZZZ             | 5806   | 142990   | 26148   | 9251    |
| 12:16 | ZZZZZZ             | 5852   | 142590   | 26347   | 9307    |
| 12:19 | ZZZZZZ             | 5820   | 142030   | 26156   | 9320    |
| 12:22 | JC65119-8          | No results reported for the elements associated with this internal standard. |          |         |         |
| 12:25 | ZZZZZZ             | 5619   | 139080   | 25341   | 9383    |
| 12:28 | JC65157-6          | 5428   | 136190   | 25458   | 8386    |
| 12:31 | JC65157-7          | 5680   | 140830   | 26407   | 8958    |
| 12:34 | MA44326-CCV4       | 5574   | 137350   | 25139   | 9011    |
| 12:37 | MA44326-CCB5       | 5672   | 139480   | 25450   | 9480    |
| 12:40 | JC65157-8          | 5817   | 143810   | 26372   | 9265    |
| 12:43 | JC65157-9          | 6021   | 147990   | 27282   | 9319    |
| 12:46 | JC65157-10         | 5419   | 136010   | 25598   | 8145    |
| 12:49 | JC65157-11         | 5759   | 142090   | 26718   | 8986    |
| 12:53 | JC65157-12         | 5986   | 146260   | 27238   | 9338    |
| 12:56 | ZZZZZZ             | 11239 !  | 249830 ! | 39084 ! | 18042 ! |
| 12:59 | MP6797-MB2         | 5851   | 143000   | 26204   | 9747    |
| 13:02 | MP6797-B2          | 5727   | 141190   | 26168   | 9298    |
| 13:04 | ZZZZZZ             | 5639   | 140030   | 25590   | 9309    |
| 13:07 | MA44326-CCV5       | 5564   | 136950   | 24948   | 8988    |
| 13:10 | MA44326-CCB6       | 5698   | 139470   | 25137   | 9528    |
| 13:13 | ZZZZZZ             | 5749   | 140840   | 25830   | 9359    |
| 13:16 | ZZZZZZ             | 5806   | 142740   | 26043   | 9550    |
| 13:19 | ZZZZZZ             | 5841   | 143320   | 25967   | 9739    |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 Analyst: ND Run ID: MA44326  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 13:22 | MA44326-CRID2      | 5774   | 141050 | 25503  | 9626   |
| 13:25 | MA44326-CRI2       | 5674   | 139190 | 25161  | 9411   |
| 13:28 | MA44326-CCV6       | 5568   | 137280 | 25169  | 8986   |
| 13:31 | MA44326-CCB7       | 5697   | 139070 | 25232  | 9523   |
| 13:34 | ZZZZZZ             | 5706   | 139770 | 25278  | 9517   |
| 13:37 | ZZZZZZ             | 5715   | 140760 | 25218  | 9517   |
| 13:40 | ZZZZZZ             | 5711   | 139870 | 25501  | 9552   |
| 13:44 | ZZZZZZ             | 5690   | 139690 | 25169  | 9513   |
| 13:47 | ZZZZZZ             | 5376   | 135160 | 24529  | 8671   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |
| Istd#4 | Indium         | 70-130 % |

14.5.1  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44326 Units: ug/l

| Metal      | Time:      |     | 10:11  |        | 10:23  |        | 10:59  |        | 11:32  |        |
|------------|------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | ICB1   | final  | CCB1   | final  | CCB2   | final  | CCB3   |
| Aluminum   | 200        | 19  | 4.60   | <200   | 17.1   | <200   | 11.3   | <200   | 3.10   | <200   |
| Antimony   | 6.0        | 2.4 | 1.20   | <6.0   | -0.300 | <6.0   | -0.900 | <6.0   | 0.500  | <6.0   |
| Arsenic    | 3.0        | 1.2 | -0.200 | <3.0   | 1.00   | <3.0   | 1.10   | <3.0   | -0.300 | <3.0   |
| Barium     | 200        | .6  | 0.500  | <200   | 0.800  | <200   | 0.500  | <200   | 0.400  | <200   |
| Beryllium  | 1.0        | .2  | 0.200  | <1.0   | 0.400  | <1.0   | 0.200  | <1.0   | 0.200  | <1.0   |
| Bismuth    | 20         | 3.2 |        |        |        |        |        |        |        |        |
| Boron      | 100        | 1.5 |        |        |        |        |        |        |        |        |
| Cadmium    | 3.0        | .4  | 0.00   | <3.0   | 0.100  | <3.0   | 0.100  | <3.0   | 0.200  | <3.0   |
| Calcium    | 5000       | 5.5 | -4.80  | <5000  | 0.900  | <5000  | -4.10  | <5000  | -4.50  | <5000  |
| Chromium   | 10         | .7  | -0.600 | <10    | -0.300 | <10    | 0.100  | <10    | 0.200  | <10    |
| Cobalt     | 50         | .4  | 0.100  | <50    | 0.200  | <50    | 0.200  | <50    | 0.100  | <50    |
| Copper     | 10         | 1.1 | 0.800  | <10    | 0.800  | <10    | 0.500  | <10    | 0.300  | <10    |
| Iron       | 100        | 3.5 | 0.600  | <100   | 4.30   | <100   | 5.40   | <100   | 0.200  | <100   |
| Lead       | 3.0        | 2.2 | 0.300  | <3.0   | -1.30  | <3.0   | 0.00   | <3.0   | -0.900 | <3.0   |
| Lithium    | 50         | 3.4 |        |        |        |        |        |        |        |        |
| Magnesium  | 5000       | 25  | -12.0  | <5000  | -14.5  | <5000  | -8.50  | <5000  | -20.7  | <5000  |
| Manganese  | 15         | .14 | 0.200  | <15    | 0.400  | <15    | 0.100  | <15    | 0.100  | <15    |
| Molybdenum | 20         | .4  |        |        |        |        |        |        |        |        |
| Nickel     | 10         | .5  | -0.200 | <10    | 0.300  | <10    | -0.500 | <10    | -0.200 | <10    |
| Phosphorus | 50         | 2   |        |        |        |        |        |        |        |        |
| Potassium  | 10000      | 60  | 11.9   | <10000 | -20.5  | <10000 | -18.8  | <10000 | -3.30  | <10000 |
| Selenium   | 10         | 3.7 | 0.600  | <10    | 0.700  | <10    | -0.700 | <10    | -0.300 | <10    |
| Silicon    | 200        | 1.8 |        |        |        |        |        |        |        |        |
| Silver     | 10         | .7  | -0.200 | <10    | -0.300 | <10    | -0.300 | <10    | -0.500 | <10    |
| Sodium     | 10000      | 35  | 5.20   | <10000 | 5.90   | <10000 | 0.800  | <10000 | 8.60   | <10000 |
| Strontium  | 10         | .2  |        |        |        |        |        |        |        |        |
| Sulfur     | 50         | 3.1 |        |        |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.8 | 1.70   | <2.0   | -1.70  | <2.0   | -0.300 | <2.0   | -0.800 | <2.0   |
| Tin        | 10         | .9  |        |        |        |        |        |        |        |        |
| Titanium   | 10         | .7  |        |        |        |        |        |        |        |        |
| Tungsten   | 50         | 2.2 |        |        |        |        |        |        |        |        |
| Vanadium   | 50         | .8  | 0.200  | <50    | 0.200  | <50    | 0.100  | <50    | 0.200  | <50    |
| Zinc       | 20         | .2  | -0.100 | <20    | 0.00   | <20    | -0.100 | <20    | -0.100 | <20    |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

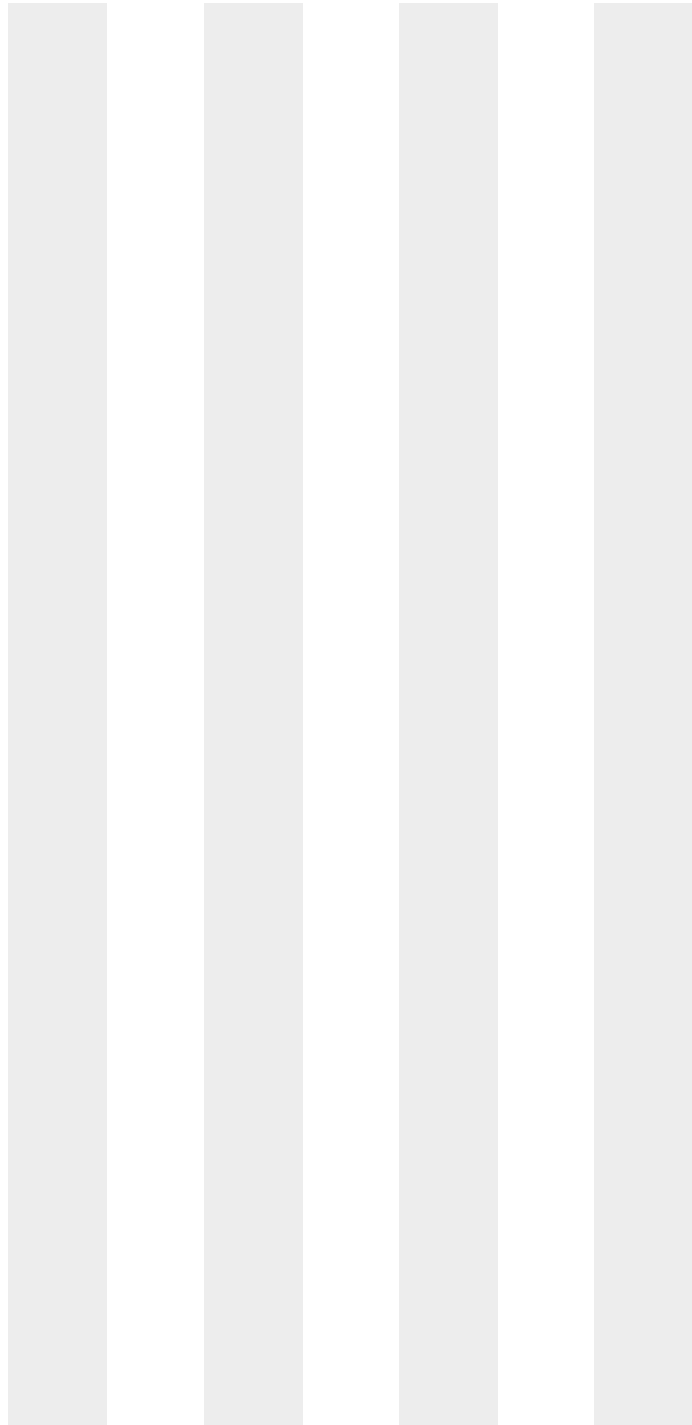
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44326 Units: ug/l

| Time:      |    |     | 10:11 |       | 10:23 |       | 10:59 |       | 11:32 |       |
|------------|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Sample ID: |    |     | ICB1  |       | CCB1  |       | CCB2  |       | CCB3  |       |
| Metal      | RL | IDL | raw   | final | raw   | final | raw   | final | raw   | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.2  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: result < RL Run ID: MA44326 Units: ug/l

| Metal      | Time:      |     | 12:04  |          | 12:37  |        | 13:10  |        | 13:31  |        |
|------------|------------|-----|--------|----------|--------|--------|--------|--------|--------|--------|
|            | Sample ID: | RL  | IDL    | CCB4     | CCB5   | CCB6   | CCB7   | raw    | final  | raw    |
| Aluminum   | 200        | 19  | 6.70   | <200     | 0.800  | <200   | 4.90   | <200   | -0.300 | <200   |
| Antimony   | 6.0        | 2.4 | 0.200  | <6.0     | 0.500  | <6.0   | 1.30   | <6.0   | 0.700  | <6.0   |
| Arsenic    | 3.0        | 1.2 | -0.400 | <3.0     | 0.500  | <3.0   | -0.600 | <3.0   | -0.500 | <3.0   |
| Barium     | 200        | .6  | 0.300  | <200     | 0.200  | <200   | 0.400  | <200   | 0.700  | <200   |
| Beryllium  | 1.0        | .2  | 0.200  | <1.0     | 0.100  | <1.0   | 0.200  | <1.0   | 0.300  | <1.0   |
| Bismuth    | 20         | 3.2 |        |          |        |        |        |        |        |        |
| Boron      | 100        | 1.5 |        |          |        |        |        |        |        |        |
| Cadmium    | 3.0        | .4  | 0.200  | <3.0     | 0.00   | <3.0   | 0.100  | <3.0   | 0.200  | <3.0   |
| Calcium    | 5000       | 5.5 | -6.20  | <5000    | -5.30  | <5000  | -2.80  | <5000  | -3.90  | <5000  |
| Chromium   | 10         | .7  | 0.100  | <10      | -0.300 | <10    | -0.600 | <10    | -0.400 | <10    |
| Cobalt     | 50         | .4  | 0.300  | <50      | 0.300  | <50    | 0.00   | <50    | 0.200  | <50    |
| Copper     | 10         | 1.1 | 0.700  | <10      | 0.200  | <10    | 0.500  | <10    | 0.800  | <10    |
| Iron       | 100        | 3.5 | 0.900  | <100     | 0.600  | <100   | 3.20   | <100   | 1.60   | <100   |
| Lead       | 3.0        | 2.2 | 0.100  | <3.0     | -0.700 | <3.0   | 0.200  | <3.0   | -0.200 | <3.0   |
| Lithium    | 50         | 3.4 |        |          |        |        |        |        |        |        |
| Magnesium  | 5000       | 25  | -8.40  | <5000    | -21.4  | <5000  | -12.1  | <5000  | -25.7  | <5000  |
| Manganese  | 15         | .14 | 0.100  | <15      | 0.100  | <15    | 0.100  | <15    | 0.200  | <15    |
| Molybdenum | 20         | .4  |        |          |        |        |        |        |        |        |
| Nickel     | 10         | .5  | -0.300 | <10      | -0.100 | <10    | -0.400 | <10    | -0.200 | <10    |
| Phosphorus | 50         | 2   |        |          |        |        |        |        |        |        |
| Potassium  | 10000      | 60  | 28.6   | <10000   | 16.7   | <10000 | -52.6  | <10000 | -21.8  | <10000 |
| Selenium   | 10         | 3.7 | 0.400  | <10      | 0.200  | <10    | 1.80   | <10    | 1.40   | <10    |
| Silicon    | 200        | 1.8 |        |          |        |        |        |        |        |        |
| Silver     | 10         | .7  | -0.200 | <10      | -0.300 | <10    | -0.300 | <10    | -0.600 | <10    |
| Sodium     | 10000      | 35  | 0.800  | <10000   | -7.00  | <10000 | -14.1  | <10000 | -10.5  | <10000 |
| Strontium  | 10         | .2  |        |          |        |        |        |        |        |        |
| Sulfur     | 50         | 3.1 |        |          |        |        |        |        |        |        |
| Thallium   | 2.0        | 1.8 | -2.90  | <2.0**(a | -1.30  | <2.0   | 0.600  | <2.0   | 0.00   | <2.0   |
| Tin        | 10         | .9  |        |          |        |        |        |        |        |        |
| Titanium   | 10         | .7  |        |          |        |        |        |        |        |        |
| Tungsten   | 50         | 2.2 |        |          |        |        |        |        |        |        |
| Vanadium   | 50         | .8  | 0.00   | <50      | 0.300  | <50    | 0.200  | <50    | 0.00   | <50    |
| Zinc       | 20         | .2  | 0.00   | <20      | 0.100  | <20    | 0.00   | <20    | 0.100  | <20    |

14.5.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

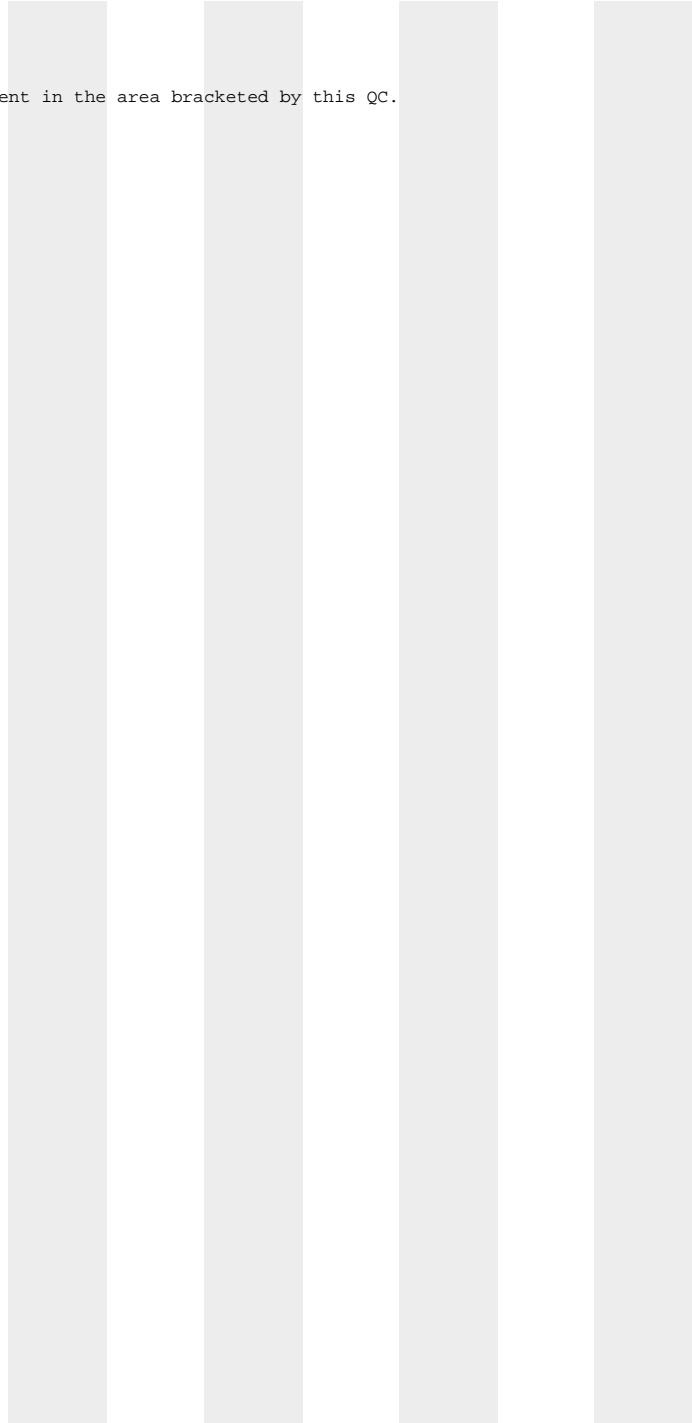
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: result < RL Run ID: MA44326 Units: ug/l

| Time:      | 12:04 | 12:37 | 13:10 | 13:31 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No AQ samples reported for this element in the area bracketed by this QC.



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CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

| Time:      | Sample ID: | ICCV | 10:15<br>ICCV1 | Results | % Rec |
|------------|------------|------|----------------|---------|-------|
| Metal      | True       |      |                |         |       |
| Aluminum   | 40000      |      | 39300          |         | 98.3  |
| Antimony   | 2000       |      | 1990           |         | 99.5  |
| Arsenic    | 2000       |      | 1980           |         | 99.0  |
| Barium     | 2000       |      | 2000           |         | 100.0 |
| Beryllium  | 2000       |      | 2010           |         | 100.5 |
| Bismuth    |            |      |                |         |       |
| Boron      |            |      |                |         |       |
| Cadmium    | 2000       |      | 1980           |         | 99.0  |
| Calcium    | 40000      |      | 39800          |         | 99.5  |
| Chromium   | 2000       |      | 2020           |         | 101.0 |
| Cobalt     | 2000       |      | 2010           |         | 100.5 |
| Copper     | 2000       |      | 1970           |         | 98.5  |
| Iron       | 40000      |      | 39800          |         | 99.5  |
| Lead       | 2000       |      | 2020           |         | 101.0 |
| Lithium    |            |      |                |         |       |
| Magnesium  | 40000      |      | 39900          |         | 99.8  |
| Manganese  | 2000       |      | 2100           |         | 105.0 |
| Molybdenum |            |      |                |         |       |
| Nickel     | 2000       |      | 2020           |         | 101.0 |
| Phosphorus |            |      |                |         |       |
| Potassium  | 40000      |      | 39300          |         | 98.3  |
| Selenium   | 2000       |      | 1970           |         | 98.5  |
| Silicon    |            |      |                |         |       |
| Silver     | 250        |      | 249            |         | 99.6  |
| Sodium     | 40000      |      | 39700          |         | 99.3  |
| Strontium  |            |      |                |         |       |
| Sulfur     |            |      |                |         |       |
| Thallium   | 2000       |      | 2030           |         | 101.5 |
| Tin        |            |      |                |         |       |
| Titanium   |            |      |                |         |       |
| Tungsten   |            |      |                |         |       |
| Vanadium   | 2000       |      | 2010           |         | 100.5 |
| Zinc       | 2000       |      | 2020           |         | 101.0 |

14.5.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

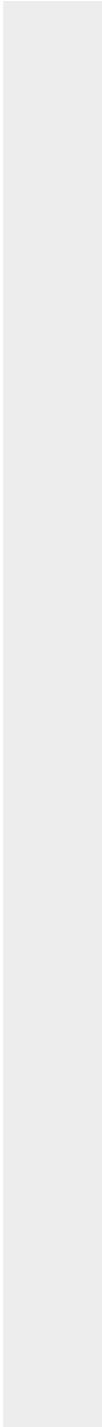
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

|            |                              |
|------------|------------------------------|
| Time:      | 10:15                        |
| Sample ID: | ICCV      ICCV1              |
| Metal      | True      Results      % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

| Time:      | 10:06 | 10:56   | 11:29 |
|------------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   |
| Metal      | True  | Results | % Rec |
| Aluminum   | 40000 | 39400   | 98.5  |
| Antimony   | 2000  | 1980    | 99.0  |
| Arsenic    | 2000  | 1970    | 98.5  |
| Barium     | 2000  | 1990    | 99.5  |
| Beryllium  | 2000  | 2000    | 100.0 |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | 2000  | 1970    | 98.5  |
| Calcium    | 40000 | 39800   | 99.5  |
| Chromium   | 2000  | 1990    | 99.5  |
| Cobalt     | 2000  | 2000    | 100.0 |
| Copper     | 2000  | 1950    | 97.5  |
| Iron       | 40000 | 39900   | 99.8  |
| Lead       | 2000  | 2010    | 100.5 |
| Lithium    |       |         |       |
| Magnesium  | 40000 | 39800   | 99.5  |
| Manganese  | 2000  | 2070    | 103.5 |
| Molybdenum |       |         |       |
| Nickel     | 2000  | 2010    | 100.5 |
| Phosphorus |       |         |       |
| Potassium  | 40000 | 39300   | 98.3  |
| Selenium   | 2000  | 1970    | 98.5  |
| Silicon    |       |         |       |
| Silver     | 250   | 256     | 102.4 |
| Sodium     | 40000 | 39700   | 99.3  |
| Strontium  |       |         |       |
| Sulfur     |       |         |       |
| Thallium   | 2000  | 2010    | 100.5 |
| Tin        |       |         |       |
| Titanium   |       |         |       |
| Tungsten   |       |         |       |
| Vanadium   | 2000  | 1990    | 99.5  |
| Zinc       | 2000  | 2000    | 100.0 |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

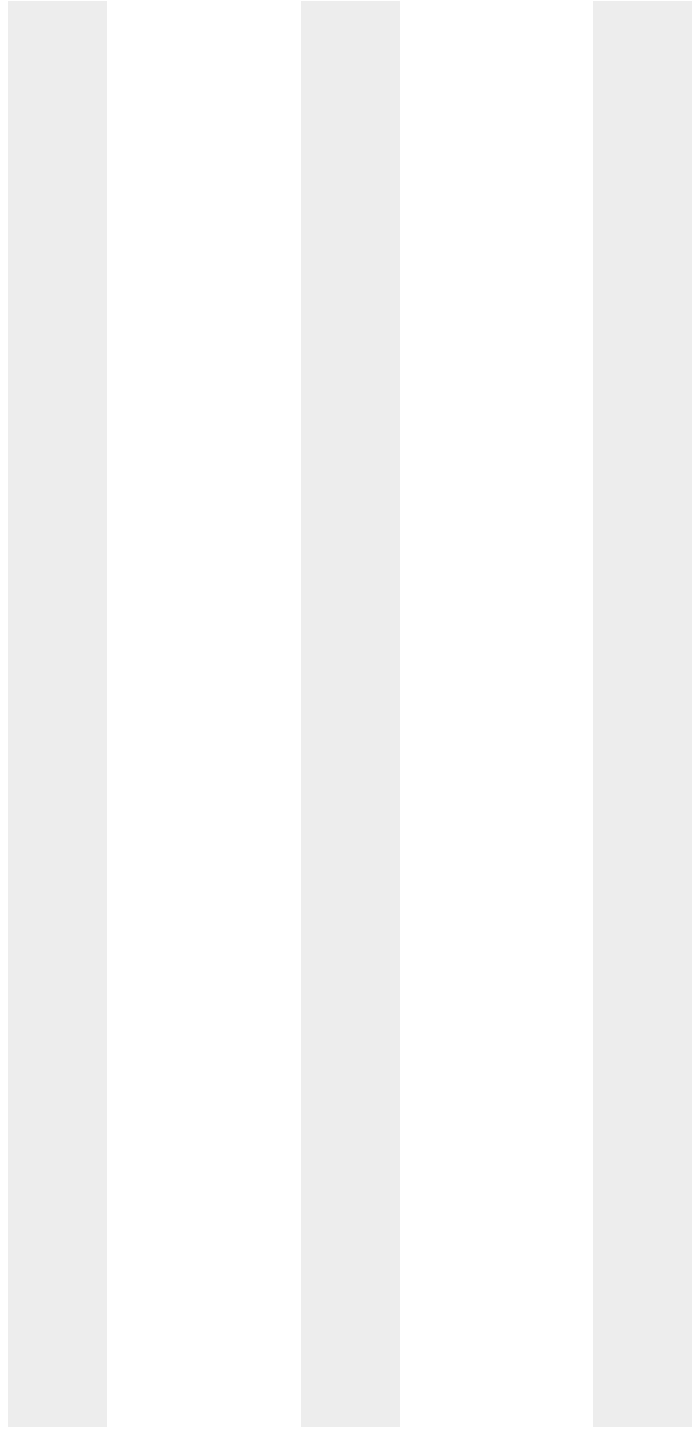
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

|            | Time: | 10:06   |       | 10:56 |         | 11:29 |      |
|------------|-------|---------|-------|-------|---------|-------|------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1  | CCV     | CCV2  |      |
| Metal      | True  | Results | % Rec | True  | Results | % Rec | True |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

| Metal      | Time:      | 12:01 |       |       | 12:34 |       |       | 13:07 |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | Sample ID: | CCV   | CCV3  | % Rec | CCV   | CCV4  | % Rec | CCV   | CCV5  | % Rec |
| Aluminum   | 40000      | 39600 | 99.0  | 40000 | 39100 | 97.8  | 40000 | 39100 | 97.8  |       |
| Antimony   | 2000       | 1980  | 99.0  | 2000  | 2010  | 100.5 | 2000  | 1990  | 99.5  |       |
| Arsenic    | 2000       | 1970  | 98.5  | 2000  | 1990  | 99.5  | 2000  | 1970  | 98.5  |       |
| Barium     | 2000       | 1990  | 99.5  | 2000  | 1970  | 98.5  | 2000  | 1970  | 98.5  |       |
| Beryllium  | 2000       | 2020  | 101.0 | 2000  | 1990  | 99.5  | 2000  | 1990  | 99.5  |       |
| Bismuth    |            |       |       |       |       |       |       |       |       |       |
| Boron      |            |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000       | 1970  | 98.5  | 2000  | 1990  | 99.5  | 2000  | 1970  | 98.5  |       |
| Calcium    | 40000      | 39800 | 99.5  | 40000 | 39300 | 98.3  | 40000 | 39300 | 98.3  |       |
| Chromium   | 2000       | 2020  | 101.0 | 2000  | 2000  | 100.0 | 2000  | 2000  | 100.0 |       |
| Cobalt     | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 2000  | 100.0 |       |
| Copper     | 2000       | 1940  | 97.0  | 2000  | 1920  | 96.0  | 2000  | 1920  | 96.0  |       |
| Iron       | 40000      | 40100 | 100.3 | 40000 | 39600 | 99.0  | 40000 | 39600 | 99.0  |       |
| Lead       | 2000       | 2010  | 100.5 | 2000  | 2040  | 102.0 | 2000  | 2010  | 100.5 |       |
| Lithium    |            |       |       |       |       |       |       |       |       |       |
| Magnesium  | 40000      | 40000 | 100.0 | 40000 | 39500 | 98.8  | 40000 | 39500 | 98.8  |       |
| Manganese  | 2000       | 2070  | 103.5 | 2000  | 2060  | 103.0 | 2000  | 2060  | 103.0 |       |
| Molybdenum |            |       |       |       |       |       |       |       |       |       |
| Nickel     | 2000       | 2010  | 100.5 | 2000  | 2030  | 101.5 | 2000  | 2020  | 101.0 |       |
| Phosphorus |            |       |       |       |       |       |       |       |       |       |
| Potassium  | 40000      | 38400 | 96.0  | 40000 | 38300 | 95.8  | 40000 | 38100 | 95.3  |       |
| Selenium   | 2000       | 1970  | 98.5  | 2000  | 1990  | 99.5  | 2000  | 1970  | 98.5  |       |
| Silicon    |            |       |       |       |       |       |       |       |       |       |
| Silver     | 250        | 246   | 98.4  | 250   | 246   | 98.4  | 250   | 244   | 97.6  |       |
| Sodium     | 40000      | 39000 | 97.5  | 40000 | 38800 | 97.0  | 40000 | 38700 | 96.8  |       |
| Strontium  |            |       |       |       |       |       |       |       |       |       |
| Sulfur     |            |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000       | 2000  | 100.0 | 2000  | 2010  | 100.5 | 2000  | 1980  | 99.0  |       |
| Tin        |            |       |       |       |       |       |       |       |       |       |
| Titanium   |            |       |       |       |       |       |       |       |       |       |
| Tungsten   |            |       |       |       |       |       |       |       |       |       |
| Vanadium   | 2000       | 1990  | 99.5  | 2000  | 1980  | 99.0  | 2000  | 1970  | 98.5  |       |
| Zinc       | 2000       | 2020  | 101.0 | 2000  | 2040  | 102.0 | 2000  | 2030  | 101.5 |       |

14.5.4  
14



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

|            | Time: |         | 12:01 |      | 12:34   |       | 13:07 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4 | CCV     | CCV5  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

| Time:<br>Sample ID: | CCV   | 13:28<br>CCV6 | Results | % Rec |
|---------------------|-------|---------------|---------|-------|
| Metal               | True  |               |         |       |
| Aluminum            | 40000 |               | 38700   | 96.8  |
| Antimony            | 2000  |               | 1980    | 99.0  |
| Arsenic             | 2000  |               | 1970    | 98.5  |
| Barium              | 2000  |               | 1950    | 97.5  |
| Beryllium           | 2000  |               | 1970    | 98.5  |
| Bismuth             |       |               |         |       |
| Boron               |       |               |         |       |
| Cadmium             | 2000  |               | 1970    | 98.5  |
| Calcium             | 40000 |               | 39100   | 97.8  |
| Chromium            | 2000  |               | 1990    | 99.5  |
| Cobalt              | 2000  |               | 1990    | 99.5  |
| Copper              | 2000  |               | 1910    | 95.5  |
| Iron                | 40000 |               | 39300   | 98.3  |
| Lead                | 2000  |               | 2010    | 100.5 |
| Lithium             |       |               |         |       |
| Magnesium           | 40000 |               | 39300   | 98.3  |
| Manganese           | 2000  |               | 2050    | 102.5 |
| Molybdenum          |       |               |         |       |
| Nickel              | 2000  |               | 2000    | 100.0 |
| Phosphorus          |       |               |         |       |
| Potassium           | 40000 |               | 38200   | 95.5  |
| Selenium            | 2000  |               | 1960    | 98.0  |
| Silicon             |       |               |         |       |
| Silver              | 250   |               | 243     | 97.2  |
| Sodium              | 40000 |               | 38800   | 97.0  |
| Strontium           |       |               |         |       |
| Sulfur              |       |               |         |       |
| Thallium            | 2000  |               | 1990    | 99.5  |
| Tin                 |       |               |         |       |
| Titanium            |       |               |         |       |
| Tungsten            |       |               |         |       |
| Vanadium            | 2000  |               | 1970    | 98.5  |
| Zinc                | 2000  |               | 2010    | 100.5 |

14.5.4  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

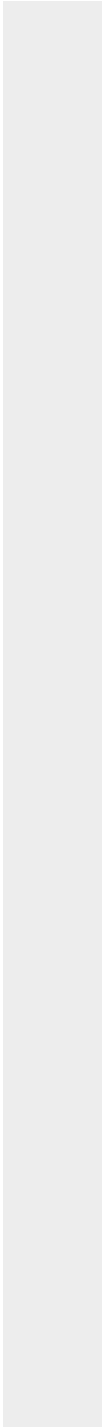
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP      Date Analyzed: 05/02/18      Methods: EPA 200.7, SW846 6010C  
QC Limits: 95 to 105 % Recovery      Run ID: MA44326      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 13:28 |         |       |
| Sample ID: CCV | CCV6  |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



HIGH STANDARD CHECK SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44326 Units: ug/l

| Time:      | 10:41 |         |       | 10:44  |         |       |
|------------|-------|---------|-------|--------|---------|-------|
| Sample ID: | HSTD  | HSTD1   |       | HSTD   | HSTD2   |       |
| Metal      | True  | Results | % Rec | True   | Results | % Rec |
| Aluminum   |       |         |       | 300000 | 294000  | 98.0  |
| Antimony   | 5000  | 4960    | 99.2  |        |         |       |
| Arsenic    | 5000  | 4900    | 98.0  |        |         |       |
| Barium     | 5000  | 5040    | 100.8 |        |         |       |
| Beryllium  | 5000  | 5010    | 100.2 |        |         |       |
| Bismuth    |       |         |       |        |         |       |
| Boron      |       |         |       |        |         |       |
| Cadmium    | 5000  | 4940    | 98.8  |        |         |       |
| Calcium    |       |         |       | 150000 | 142000  | 94.7  |
| Chromium   | 5000  | 5150    | 103.0 |        |         |       |
| Cobalt     | 5000  | 5030    | 100.6 |        |         |       |
| Copper     | 5000  | 4980    | 99.6  |        |         |       |
| Iron       |       |         |       | 150000 | 148000  | 98.7  |
| Lead       | 5000  | 5080    | 101.6 |        |         |       |
| Lithium    |       |         |       |        |         |       |
| Magnesium  |       |         |       | 300000 | 294000  | 98.0  |
| Manganese  | 5000  | 5250    | 105.0 |        |         |       |
| Molybdenum |       |         |       |        |         |       |
| Nickel     | 5000  | 5040    | 100.8 |        |         |       |
| Phosphorus |       |         |       |        |         |       |
| Potassium  |       |         |       | 150000 | 142000  | 94.7  |
| Selenium   | 5000  | 4920    | 98.4  |        |         |       |
| Silicon    |       |         |       |        |         |       |
| Silver     | 625   | 644     | 103.0 |        |         |       |
| Sodium     |       |         |       | 150000 | 149000  | 99.3  |
| Strontium  |       |         |       |        |         |       |
| Sulfur     |       |         |       |        |         |       |
| Thallium   | 5000  | 5130    | 102.6 |        |         |       |
| Tin        |       |         |       |        |         |       |
| Titanium   |       |         |       |        |         |       |
| Tungsten   |       |         |       |        |         |       |
| Vanadium   | 5000  | 5060    | 101.2 |        |         |       |
| Zinc       | 5000  | 5150    | 103.0 |        |         |       |

14.5.5  
14

HIGH STANDARD CHECK SUMMARY

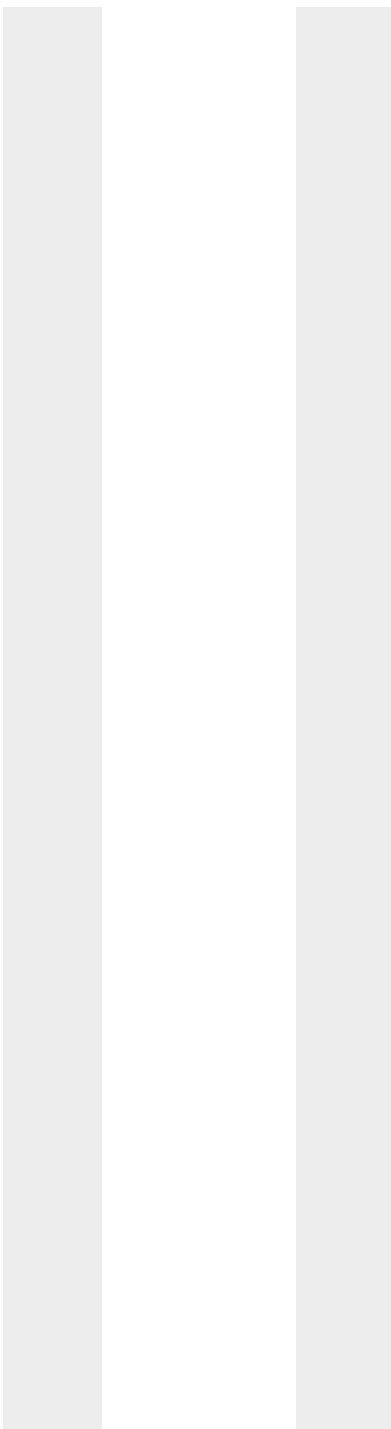
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44326 Units: ug/l

|            | Time: | 10:41   |       | 10:44 |         |
|------------|-------|---------|-------|-------|---------|
| Sample ID: | HSTD  | HSTD1   | HSTD  | HSTD2 |         |
| Metal      | True  | Results | % Rec | True  | Results |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.5.5  
 14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44326 Units: ug/l

| Time:<br>Sample ID: | CRI  | CRIA | CRID | 10:28<br>CRI1 |       | 10:31<br>CRID1 |          | 13:22<br>CRID2 |          |
|---------------------|------|------|------|---------------|-------|----------------|----------|----------------|----------|
| Metal               | True | True | True | Results       | % Rec | Results        | % Rec    | Results        | % Rec    |
| Aluminum            | 200  | 500  | 100  | 205           | 102.5 | 111            | 111.0    | 103            | 103.0    |
| Antimony            | 6.0  | 20   | 3.0  | 6.20          | 103.3 | -0.400U        | 0.0* (a) | -0.900U        | 0.0* (a) |
| Arsenic             | 8.0  | 20   | 3.0  | 7.80          | 97.5  | 3.20           | 106.7    | 2.30           | 76.7     |
| Barium              | 200  |      | 4.0  | 195           | 97.5  | 3.80           | 95.0     | 4.20           | 105.0    |
| Beryllium           | 2.0  |      | 1.0  | 2.00          | 100.0 | 1.10           | 110.0    | 1.00           | 100.0    |
| Bismuth             | 20   |      |      |               |       |                |          |                |          |
| Boron               | 100  |      | 10   |               |       |                |          |                |          |
| Cadmium             | 3.0  |      | 1.0  | 3.20          | 106.7 | 1.10           | 110.0    | 1.10           | 110.0    |
| Calcium             | 5000 | 2000 | 1000 | 4990          | 99.8  | 1030           | 103.0    | 1030           | 103.0    |
| Chromium            | 10   |      | 2.0  | 9.60          | 96.0  | 1.90           | 95.0     | 2.00           | 100.0    |
| Cobalt              | 50   |      | 3.0  | 50.1          | 100.2 | 3.20           | 106.7    | 3.30           | 110.0    |
| Copper              | 10   |      | 2.0  | 10.0          | 100.0 | 0.700U         | 0.0* (a) | 1.00U          | 0.0* (a) |
| Iron                | 100  | 500  |      | 100           | 100.0 |                |          |                |          |
| Lead                | 3.0  | 20   | 2.5  | 2.30          | 76.7  | -0.700U        | 0.0* (a) | 1.30U          | 0.0* (a) |
| Lithium             | 50   |      |      |               |       |                |          |                |          |
| Magnesium           | 5000 | 2000 | 100  | 5050          | 101.0 | 101            | 101.0    | 83.5           | 83.5     |
| Manganese           | 15   |      | 3.0  | 15.9          | 106.0 | 3.20           | 106.7    | 3.30           | 110.0    |
| Molybdenum          | 20   |      |      |               |       |                |          |                |          |
| Nickel              | 10   |      | 4.0  | 9.70          | 97.0  | 4.30           | 107.5    | 4.30           | 107.5    |
| Phosphorus          | 50   |      |      |               |       |                |          |                |          |
| Potassium           | 5000 |      | 2000 | 4870          | 97.4  | 2060           | 103.0    | 1940           | 97.0     |
| Selenium            | 10   | 20   | 5.0  | 12.5          | 125.0 | 6.40           | 128.0    | 5.30           | 106.0    |
| Silicon             | 200  |      |      |               |       |                |          |                |          |
| Silver              | 5.0  |      | 2.0  | 3.70          | 74.0  | -0.400U        | 0.0* (a) | -0.300U        | 0.0* (a) |
| Sodium              | 5000 |      | 1000 | 4950          | 99.0  | 1040           | 104.0    | 1000           | 100.0    |
| Strontium           | 10   |      |      |               |       |                |          |                |          |
| Sulfur              | 50   |      |      |               |       |                |          |                |          |
| Thallium            | 10   |      | 2.0  | 7.10          | 71.0  | -0.900U        | 0.0* (a) | 0.100U         | 0.0* (a) |
| Tin                 | 10   |      |      |               |       |                |          |                |          |
| Titanium            | 10   |      |      |               |       |                |          |                |          |
| Tungsten            | 50   |      |      |               |       |                |          |                |          |
| Vanadium            | 50   |      | 2.0  | 49.2          | 98.4  | 2.40           | 120.0    | 2.00           | 100.0    |
| Zinc                | 20   |      | 10   | 20.4          | 102.0 | 10.3           | 103.0    | 10.5           | 105.0    |

14.5.6  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44326 Units: ug/l

| Time:      | 10:28   | 10:31 | 13:22   |
|------------|---------|-------|---------|
| Sample ID: | CRI     | CRID1 | CRID2   |
| Metal      | True    | True  | True    |
|            | Results | % Rec | Results |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 70 to 130 % Recovery Run ID: MA44326 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID | 13:25<br>CRI2 | Results | % Rec |
|------------|------------|------|------|------|---------------|---------|-------|
| Metal      | True       | True | True |      |               |         |       |
| Aluminum   | 200        | 500  | 100  |      | 205           |         | 102.5 |
| Antimony   | 6.0        | 20   | 3.0  |      | 7.20          |         | 120.0 |
| Arsenic    | 8.0        | 20   | 3.0  |      | 7.30          |         | 91.3  |
| Barium     | 200        |      | 4.0  |      | 193           |         | 96.5  |
| Beryllium  | 2.0        |      | 1.0  |      | 2.00          |         | 100.0 |
| Bismuth    | 20         |      |      |      |               |         |       |
| Boron      | 100        |      | 10   |      |               |         |       |
| Cadmium    | 3.0        |      | 1.0  |      | 3.00          |         | 100.0 |
| Calcium    | 5000       | 2000 | 1000 |      | 5000          |         | 100.0 |
| Chromium   | 10         |      | 2.0  |      | 9.70          |         | 97.0  |
| Cobalt     | 50         |      | 3.0  |      | 49.6          |         | 99.2  |
| Copper     | 10         |      | 2.0  |      | 9.60          |         | 96.0  |
| Iron       | 100        | 500  |      |      | 99.7          |         | 99.7  |
| Lead       | 3.0        | 20   | 2.5  |      | 2.90          |         | 96.7  |
| Lithium    | 50         |      |      |      |               |         |       |
| Magnesium  | 5000       | 2000 | 100  |      | 5100          |         | 102.0 |
| Manganese  | 15         |      | 3.0  |      | 15.9          |         | 106.0 |
| Molybdenum | 20         |      |      |      |               |         |       |
| Nickel     | 10         |      | 4.0  |      | 9.50          |         | 95.0  |
| Phosphorus | 50         |      |      |      |               |         |       |
| Potassium  | 5000       |      | 2000 |      | 4830          |         | 96.6  |
| Selenium   | 10         | 20   | 5.0  |      | 9.80          |         | 98.0  |
| Silicon    | 200        |      |      |      |               |         |       |
| Silver     | 5.0        |      | 2.0  |      | 3.80          |         | 76.0  |
| Sodium     | 5000       |      | 1000 |      | 4910          |         | 98.2  |
| Strontium  | 10         |      |      |      |               |         |       |
| Sulfur     | 50         |      |      |      |               |         |       |
| Thallium   | 10         |      | 2.0  |      | 7.60          |         | 76.0  |
| Tin        | 10         |      |      |      |               |         |       |
| Titanium   | 10         |      |      |      |               |         |       |
| Tungsten   | 50         |      |      |      |               |         |       |
| Vanadium   | 50         |      | 2.0  |      | 49.1          |         | 98.2  |
| Zinc       | 20         |      | 10   |      | 20.5          |         | 102.5 |

14.5.6  
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LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 70 to 130 % Recovery Run ID: MA44326 Units: ug/l

| Time:      | 13:25 |      |      |         |       |
|------------|-------|------|------|---------|-------|
| Sample ID: | CRI   | CRIA | CRID | CRI2    |       |
| Metal      | True  | True | True | Results | % Rec |

Zirconium 10

(\*) Outside of QC limits  
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44326 Units: ug/l

| Time:      |        |        | 10:34   |       |         | 10:38 |
|------------|--------|--------|---------|-------|---------|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec |
| Metal      | True   | True   | Results |       | Results |       |
| Aluminum   | 500000 | 500000 | 494000  | 98.8  | 493000  | 98.6  |
| Antimony   |        | 1000   | -1.30   |       | 1000    | 100.0 |
| Arsenic    |        | 1000   | 0.500   |       | 1020    | 102.0 |
| Barium     |        | 500    | 1.80    |       | 488     | 97.6  |
| Beryllium  |        | 500    | 0.200   |       | 480     | 96.0  |
| Bismuth    |        | 500    | -16.1   |       | 489     | 97.8  |
| Boron      |        | 500    | 1.60    |       | 494     | 98.8  |
| Cadmium    |        | 1000   | 0.700   |       | 984     | 98.4  |
| Calcium    | 400000 | 400000 | 383000  | 95.8  | 370000  | 92.5  |
| Chromium   |        | 500    | 0.200   |       | 470     | 94.0  |
| Cobalt     |        | 500    | 0.400   |       | 481     | 96.2  |
| Copper     |        | 500    | -0.600  |       | 490     | 98.0  |
| Iron       | 200000 | 200000 | 190000  | 95.0  | 190000  | 95.0  |
| Lead       |        | 1000   | 1.40    |       | 949     | 94.9  |
| Lithium    |        | 500    | 3.50    |       | 507     | 101.4 |
| Magnesium  | 500000 | 500000 | 491000  | 98.2  | 489000  | 97.8  |
| Manganese  |        | 500    | 0.00    |       | 497     | 99.4  |
| Molybdenum |        | 500    | 0.200   |       | 470     | 94.0  |
| Nickel     |        | 1000   | -0.700  |       | 948     | 94.8  |
| Phosphorus |        | 500    | 8.90    |       | 493     | 98.6  |
| Potassium  |        |        | -21.9   |       | -54.5   |       |
| Selenium   |        | 1000   | -0.300  |       | 960     | 96.0  |
| Silicon    |        | 500    | 15.7    |       | 510     | 102.0 |
| Silver     |        | 1000   | 2.40    |       | 941     | 94.1  |
| Sodium     |        |        | -2.50   |       | -11.0   |       |
| Strontium  |        | 500    | -2.70   |       | 497     | 99.4  |
| Sulfur     |        | 500    | 1.20    |       | 498     | 99.6  |
| Thallium   |        | 1000   | -1.50   |       | 971     | 97.1  |
| Tin        |        | 500    | -3.80   |       | 458     | 91.6  |
| Titanium   |        | 500    | -2.20   |       | 472     | 94.4  |
| Tungsten   |        | 500    | 1.10    |       | 470     | 94.0  |
| Vanadium   |        | 500    | -0.400  |       | 480     | 96.0  |
| Zinc       |        | 1000   | 5.10    |       | 932     | 93.2  |

14.5.7  
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M1.ICP Date Analyzed: 05/02/18 Methods: EPA 200.7, SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44326 Units: ug/l

| Time:      |       | 10:34 |         | 10:38  |         |       |
|------------|-------|-------|---------|--------|---------|-------|
| Sample ID: | ICSAB | ICSAB | ICSAB1  | ICSAB1 | ICSAB1  |       |
| Metal      | True  | True  | Results | % Rec  | Results | % Rec |

|           |  |     |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|
| Zirconium |  | 500 | -2.60 |  | 474 | 94.8 |
|-----------|--|-----|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.5.7  
 14

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Dilution Factor | PS Recov | Comments  |
|-------|--------------------|-----------------|----------|-----------|
| 16:04 | MA44328-STD1       | 1               |          | STDA      |
| 16:08 | MA44328-STD2       | 1               |          | STDB      |
| 16:10 | ZZZZZZ             | 1               |          |           |
| 16:13 | ZZZZZZ             | 1               |          |           |
| 16:16 | MA44328-ICV1       | 1               |          |           |
| 16:19 | MA44328-ICB1       | 1               |          |           |
| 16:22 | MA44328-CCV1       | 1               |          |           |
| 16:25 | MA44328-CCB1       | 1               |          |           |
| 16:28 | MA44328-CRI1       | 1               |          | See rerun |
| 16:31 | MA44328-CRID1      | 1               |          |           |
| 16:34 | MA44328-CRI2       | 1               |          |           |
| 16:37 | MA44328-ICSA1      | 1               |          |           |
| 16:40 | MA44328-ICSAB1     | 1               |          |           |
| 16:43 | MA44328-HSTD1      | 1               |          |           |
| 16:47 | MA44328-HSTD2      | 1               |          |           |
| 16:50 | ZZZZZZ             | 1               |          |           |
| 16:53 | ZZZZZZ             | 1               |          |           |
| 16:56 | ZZZZZZ             | 1               |          |           |
| 16:59 | MA44328-CCV2       | 1               |          |           |
| 17:02 | MA44328-CCB2       | 1               |          |           |
| 17:05 | ZZZZZZ             | 1               |          |           |
| 17:08 | ZZZZZZ             | 100             |          |           |
| 17:11 | ZZZZZZ             | 100             |          |           |
| 17:14 | ZZZZZZ             | 10              |          |           |
| 17:17 | MP6897-MB2         | 5               |          |           |
| 17:20 | MP6897-B2          | 5               |          |           |
| 17:23 | ZZZZZZ             | 5               |          |           |
| 17:26 | ZZZZZZ             | 5               |          |           |
| 17:29 | ZZZZZZ             | 5               |          |           |
| 17:32 | MA44328-CCV3       | 1               |          |           |
| 17:35 | MA44328-CCB3       | 1               |          |           |
| 17:38 | ZZZZZZ             | 5               |          |           |
| 17:42 | ZZZZZZ             | 5               |          |           |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 17:45 | JC65157-12A        | 5               |          |  |
| 17:48 | MP6903-MB1         | 5               |          |  |
| 17:51 | MP6903-B1          | 5               |          | Ag not spiked.                                       |
| 17:54 | MP6903-S1          | 1               |          |  |
| 17:56 | MP6903-S2          | 1               |          |  |
| 17:59 | TD20224-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 18:02 | MP6903-SD1         | 5               |          |  |
| 18:05 | MA44328-CCV4       | 1               |          |  |
| 18:08 | MA44328-CCB4       | 1               |          |  |
| 18:11 | MP6926-MB1         | 1               |          |  |
| 18:14 | MP6926-B1          | 1               |          |  |
| 18:17 | MP6926-LC1         | 1               |          |  |
| 18:20 | MP6926-LC2         | 1               |          |  |
| 18:23 | MP6926-S1          | 1               |          |  |
| 18:26 | MP6926-S2          | 1               |          |  |
| 18:29 | TD20364-2          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 18:32 | ZZZZZZ             | 5               |          |  |
| 18:35 | ZZZZZZ             | 1               |          |  |
| 18:40 | MA44328-CCV5       | 1               |          |  |
| 18:44 | MA44328-CCB5       | 1               |          |  |
| 18:47 | ZZZZZZ             | 5               |          |  |
| 18:50 | ZZZZZZ             | 1               |          |  |
| 18:53 | ZZZZZZ             | 1               |          |  |
| 18:56 | ZZZZZZ             | 1               |          |  |
| 18:59 | ZZZZZZ             | 1               |          |  |
| 19:02 | ZZZZZZ             | 1               |          |  |
| 19:05 | ZZZZZZ             | 1               |          |  |
| 19:08 | ZZZZZZ             | 1               |          |  |
| 19:11 | ZZZZZZ             | 1               |          |  |
| 19:14 | ZZZZZZ             | 1               |          |  |
| 19:17 | MA44328-CCV6       | 1               |          |  |
| 19:20 | MA44328-CCB6       | 1               |          |  |
| 19:23 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 19:26 | ZZZZZZ             | 1               |          |  |
| 19:29 | ZZZZZZ             | 1               |          |  |
| 19:32 | ZZZZZZ             | 1               |          |  |
| 19:35 | ZZZZZZ             | 1               |          |  |
| 19:38 | ZZZZZZ             | 1               |          |  |
| 19:41 | ZZZZZZ             | 1               |          |  |
| 19:44 | ZZZZZZ             | 1               |          |  |
| 19:47 | ZZZZZZ             | 1               |          |  |
| 19:50 | MP6926-SD1         | 5               |          |  |
| 19:53 | MA44328-CCV7       | 1               |          |  |
| 19:55 | MA44328-CCB7       | 1               |          |  |
| 19:58 | MP6896-MB1         | 5               |          |  |
| 20:01 | MP6896-B1          | 5               |          |  |
| 20:04 | MP6896-S1          | 5               |          |  |
| 20:07 | MP6896-S2          | 5               |          |  |
| 20:10 | JC65026-1          | 5               |          | (sample used for QC only; not part of login JC65157) |
| 20:13 | MP6896-SD1         | 25              |          |  |
| 20:16 | ZZZZZZ             | 5               |          |  |
| 20:19 | ZZZZZZ             | 5               |          |  |
| 20:22 | ZZZZZZ             | 5               |          |  |
| 20:25 | MA44328-CCV8       | 1               |          | High RSD, but good for the reported elements.        |
| 20:28 | MA44328-CCB8       | 1               |          |  |
| 20:35 | MA44328-CCV9       | 1               |          |  |
| 20:38 | MA44328-CCB9       | 1               |          |  |
| 20:41 | ZZZZZZ             | 5               |          |  |
| 20:44 | ZZZZZZ             | 5               |          |  |
| 20:47 | ZZZZZZ             | 5               |          |  |
| 20:50 | ZZZZZZ             | 5               |          |  |
| 20:53 | ZZZZZZ             | 5               |          |  |
| 20:56 | ZZZZZZ             | 5               |          |  |
| 20:59 | MP6900-MB1         | 1               |          |  |
| 21:02 | MP6900-MB2         | 1               |          |  |
| 21:05 | MP6900-B1          | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time   | Sample Description                          | Dilution Factor | PS Recov | Comments   |
|--------|---|-----------------|----------|--|
| 21:08  | MA44328-CCV10                               | 1               |          |  |
| 21:11  | MA44328-CCB10                               | 1               |          |  |
| 21:14  | MP6900-B3                                   | 1               |          |  |
| 21:17  | MP6900-S1                                   | 1               |          |  |
| 21:20  | MP6900-S2                                   | 1               |          |  |
| 21:23  | JC64901-6                                   | 1               |          | (sample used for QC only; not part of login JC65157) |
| 21:26  | MP6900-SD1                                  | 5               |          |  |
| 21:29  | ZZZZZZ                                      | 1               |          |  |
| 21:32  | ZZZZZZ                                      | 1               |          |  |
| 21:35  | ZZZZZZ                                      | 1               |          |  |
| 21:38  | ZZZZZZ                                      | 1               |          |  |
| 21:41  | MA44328-CCV11                               | 1               |          |  |
| 21:45  | MA44328-CCB11                               | 1               |          |  |
| 21:48  | ZZZZZZ                                      | 1               |          |  |
| 21:51  | ZZZZZZ                                      | 1               |          |  |
| 21:54  | ZZZZZZ                                      | 1               |          |  |
| 21:57  | ZZZZZZ                                      | 1               |          |  |
| 22:00  | ZZZZZZ                                      | 1               |          |  |
| 22:03  | ZZZZZZ                                      | 1               |          |  |
| 22:06  | ZZZZZZ                                      | 1               |          |  |
| 22:09  | ZZZZZZ                                      | 1               |          |  |
| 22:12  | ZZZZZZ                                      | 1               |          |  |
| 22:15  | MA44328-CCV12                               | 1               |          |  |
| 22:20  | MA44328-CCB12                               | 1               |          |  |
| 22:23  | ZZZZZZ                                      | 1               |          |  |
| 22:26  | ZZZZZZ                                      | 1               |          |  |
| 22:29  | JC65157-9                                   | 3               |          |  |
| 22:32  | JC65157-10                                  | 5               |          |  |
| -----> | Last reportable sample/prep for job JC65157 |                 |          |  |
| 22:35  | ZZZZZZ                                      | 1               |          |  |
| 22:38  | MP6915-MB3                                  | 1               |          |  |
| 22:41  | MP6915-B3                                   | 1               |          |  |
| 22:44  | MP6915-S1                                   | 1               |          |  |
| 22:47  | MP6915-S2                                   | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time   | Sample Description                  | Dilution Factor | PS Recov | Comments   |
|--------|-------------------------------------|-----------------|----------|--|
| 22:50  | MA44328-CCV13                       | 1               |          |  |
| 22:53  | MA44328-CCB13                       | 1               |          |  |
| 22:56  | JC64876-1                           | 1               |          | (sample used for QC only; not part of login JC65157) |
| 22:59  | MP6915-SD1                          | 5               |          | Not needed   |
| 23:04  | ZZZZZZ                              | 1               |          |  |
| 23:07  | MP6915-S1                           | 10              |          |  |
| 23:10  | MP6915-S2                           | 10              |          |  |
| 23:13  | JC64876-1                           | 10              |          | (sample used for QC only; not part of login JC65157) |
| 23:16  | MP6915-SD1                          | 50              |          |  |
| 23:19  | ZZZZZZ                              | 10              |          |  |
| 23:22  | MA44328-CCV14                       | 1               |          |  |
| 23:28  | MA44328-CCB14                       | 1               |          |  |
| 23:31  | MA44328-CRI3                        | 1               |          |  |
| 23:34  | MA44328-CRID2                       | 1               |          |  |
| 23:38  | MA44328-ICSA2                       | 1               |          |  |
| 23:41  | MA44328-ICSAB2                      | 1               |          |  |
| 23:44  | MA44328-CCV15                       | 1               |          |  |
| 23:47  | MA44328-CCB15                       | 1               |          |  |
| -----> | Last reportable CCB for job JC65157 |                 |          |  |
| 23:52  | ZZZZZZ                              | 1               |          |  |
| 23:55  | ZZZZZZ                              | 1               |          |  |
| 23:59  | ZZZZZZ                              | 1               |          |  |
| 00:02  | ZZZZZZ                              | 1               |          |  |
| 00:05  | ZZZZZZ                              | 1               |          |  |
| 00:08  | ZZZZZZ                              | 1               |          |  |
| 00:11  | ZZZZZZ                              | 1               |          |  |
| 00:14  | ZZZZZZ                              | 1               |          |  |
| 00:17  | ZZZZZZ                              | 1               |          |  |
| 00:20  | ZZZZZZ                              | 1               |          |  |
| 00:23  | ZZZZZZ                              | 1               |          |  |
| 00:26  | ZZZZZZ                              | 1               |          |  |
| 00:29  | ZZZZZZ                              | 1               |          |  |
| 00:32  | MA44328-CCV16                       | 1               |          |  |
| 00:35  | MA44328-CCB16                       | 1               |          |  |



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 00:38 | MP6919-MB1         | 1               |          |  |
| 00:41 | MP6919-B1          | 1               |          |  |
| 00:44 | MP6919-B2          | 1               |          |  |
| 00:47 | MP6919-S1          | 1               |          |  |
| 00:50 | MP6919-S2          | 1               |          |  |
| 00:53 | JC64951-1F         | 1               |          | (sample used for QC only; not part of login JC65157) |
| 00:56 | MP6919-SD1         | 5               |          |  |
| 00:59 | ZZZZZZ             | 1               |          |  |
| 01:02 | ZZZZZZ             | 1               |          |  |
| 01:05 | ZZZZZZ             | 1               |          |  |
| 01:08 | MA44328-CCV17      | 1               |          |  |
| 01:11 | MA44328-CCB17      | 1               |          |  |
| 01:14 | ZZZZZZ             | 1               |          |  |
| 01:17 | ZZZZZZ             | 1               |          |  |
| 01:20 | ZZZZZZ             | 1               |          |  |
| 01:23 | ZZZZZZ             | 1               |          |  |
| 01:26 | ZZZZZZ             | 1               |          |  |
| 01:29 | ZZZZZZ             | 1               |          |  |
| 01:32 | ZZZZZZ             | 1               |          |  |
| 01:36 | ZZZZZZ             | 1               |          |  |
| 01:39 | ZZZZZZ             | 1               |          |  |
| 01:42 | ZZZZZZ             | 1               |          |  |
| 01:45 | MA44328-CCV18      | 1               |          |  |
| 01:48 | MA44328-CCB18      | 1               |          |  |
| 01:51 | ZZZZZZ             | 1               |          |  |
| 01:54 | ZZZZZZ             | 1               |          |  |
| 01:57 | ZZZZZZ             | 1               |          |  |
| 02:00 | ZZZZZZ             | 1               |          |  |
| 02:03 | ZZZZZZ             | 1               |          |  |
| 02:06 | ZZZZZZ             | 1               |          |  |
| 02:09 | MP6925-MB1         | 1               |          |  |
| 02:12 | MP6925-B1          | 1               |          |  |
| 02:15 | MP6925-S1          | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
Analyst: ND Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 02:18 | MP6925-S2          | 1               |          |  |
| 02:21 | MA44328-CCV19      | 1               |          |  |
| 02:24 | MA44328-CCB19      | 1               |          |  |
| 02:27 | JC65075-17         | 1               |          | (sample used for QC only; not part of login JC65157) |
| 02:30 | MP6925-SD1         | 5               |          |  |
| 02:33 | ZZZZZZ             | 1               |          |  |
| 02:36 | ZZZZZZ             | 1               |          |  |
| 02:39 | ZZZZZZ             | 1               |          |  |
| 02:42 | ZZZZZZ             | 1               |          |  |
| 02:45 | ZZZZZZ             | 1               |          |  |
| 02:48 | ZZZZZZ             | 1               |          |  |
| 02:51 | ZZZZZZ             | 1               |          |  |
| 02:54 | ZZZZZZ             | 1               |          |  |
| 02:57 | MA44328-CCV20      | 1               |          |  |
| 03:00 | MA44328-CCB20      | 1               |          |  |
| 03:03 | ZZZZZZ             | 1               |          |  |
| 03:06 | ZZZZZZ             | 1               |          |  |
| 03:09 | ZZZZZZ             | 1               |          |  |
| 03:12 | ZZZZZZ             | 1               |          |  |
| 03:15 | ZZZZZZ             | 1               |          |  |
| 03:18 | ZZZZZZ             | 1               |          |  |
| 03:21 | ZZZZZZ             | 1               |          |  |
| 03:24 | ZZZZZZ             | 1               |          |  |
| 03:27 | ZZZZZZ             | 1               |          |  |
| 03:30 | MA44328-CCV21      | 1               |          |  |
| 03:33 | MA44328-CCB21      | 1               |          |  |
| 03:36 | MA44328-CRI4       | 1               |          |  |
| 03:39 | MA44328-CRID3      | 1               |          |  |
| 03:42 | MA44328-CCV22      | 1               |          |  |
| 03:45 | MA44328-CCB22      | 1               |          |  |

Refer to raw data for calibration curve and standards.

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1   | Istd#2   | Istd#3  | Istd#4 |
|-------|--------------------|--|----------|---------|--------|
| 16:04 | MA44328-STD1       | 5653 R   | 139660 R | 25175 R | 9536 R |
| 16:08 | MA44328-STD2       | 5421   | 134540   | 24648   | 8818   |
| 16:10 | ZZZZZZ             | 5558   | 137710   | 24861   | 9048   |
| 16:13 | ZZZZZZ             | 5669   | 140950   | 25178   | 9558   |
| 16:16 | MA44328-ICV1       | 5534   | 137660   | 25082   | 9024   |
| 16:19 | MA44328-ICB1       | 5682   | 140850   | 25192   | 9586   |
| 16:22 | MA44328-CCV1       | 5553   | 138310   | 25096   | 9060   |
| 16:25 | MA44328-CCB1       | 5655   | 141480   | 25353   | 9545   |
| 16:28 | MA44328-CRI1       | No results reported for the elements associated with this internal standard. |          |         |        |
| 16:31 | MA44328-CRID1      | 5641   | 139290   | 24996   | 9514   |
| 16:34 | MA44328-CRI2       | 5525   | 137720   | 24685   | 9297   |
| 16:37 | MA44328-ICSA1      | 5171   | 130030   | 24280   | 8346   |
| 16:40 | MA44328-ICSAB1     | 5171   | 131200   | 24471   | 8363   |
| 16:43 | MA44328-HSTD1      | 5574   | 137920   | 25051   | 9432   |
| 16:47 | MA44328-HSTD2      | 5282   | 132700   | 24367   | 8409   |
| 16:50 | ZZZZZZ             | 5637   | 140270   | 25442   | 9671   |
| 16:53 | ZZZZZZ             | 5610   | 142330   | 25452   | 9599   |
| 16:56 | ZZZZZZ             | 5675   | 141640   | 25250   | 9588   |
| 16:59 | MA44328-CCV2       | 5484   | 136770   | 24603   | 8973   |
| 17:02 | MA44328-CCB2       | 5627   | 138960   | 25014   | 9506   |
| 17:05 | ZZZZZZ             | 5432   | 136530   | 24867   | 8756   |
| 17:08 | ZZZZZZ             | 5562   | 138590   | 24870   | 9327   |
| 17:11 | ZZZZZZ             | 5568   | 139500   | 24907   | 9338   |
| 17:14 | ZZZZZZ             | 5434   | 138690   | 25350   | 8923   |
| 17:17 | MP6897-MB2         | 5489   | 137130   | 24946   | 8911   |
| 17:20 | MP6897-B2          | 5444   | 136570   | 24899   | 8764   |
| 17:23 | ZZZZZZ             | 5494   | 138750   | 25270   | 8949   |
| 17:26 | ZZZZZZ             | 5384   | 136170   | 24459   | 8720   |
| 17:29 | ZZZZZZ             | 5366   | 134860   | 24716   | 8696   |
| 17:32 | MA44328-CCV3       | 5461   | 136400   | 24737   | 8944   |
| 17:35 | MA44328-CCB3       | 5586   | 138770   | 24877   | 9466   |
| 17:38 | ZZZZZZ             | 5472   | 138320   | 25022   | 8859   |
| 17:42 | ZZZZZZ             | 5475   | 137700   | 25018   | 8842   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3   | Istd#4 |
|-------|--------------------|--------|--------|----------|--------|
| 17:45 | JC65157-12A        | 5410   | 136460 | 24579    | 8775   |
| 17:48 | MP6903-MB1         | 5605   | 139880 | 24948    | 9494   |
| 17:51 | MP6903-B1          | 5596   | 139520 | 25182    | 9380   |
| 17:54 | MP6903-S1          | 5604   | 140930 | 25864    | 9274   |
| 17:56 | MP6903-S2          | 5627   | 141530 | 26037    | 9293   |
| 17:59 | TD20224-1          | 5700   | 141740 | 26234    | 9572   |
| 18:02 | MP6903-SD1         | 5673   | 141530 | 25697    | 9608   |
| 18:05 | MA44328-CCV4       | 5442   | 135650 | 24603    | 8915   |
| 18:08 | MA44328-CCB4       | 5575   | 139200 | 24780    | 9453   |
| 18:11 | MP6926-MB1         | 5711   | 143080 | 25405    | 9649   |
| 18:14 | MP6926-B1          | 5598   | 142200 | 25480    | 9229   |
| 18:17 | MP6926-LC1         | 5769   | 144790 | 26225    | 9347   |
| 18:20 | MP6926-LC2         | 5827   | 146410 | 26401    | 9422   |
| 18:23 | MP6926-S1          | 5640   | 141020 | 26224    | 8912   |
| 18:26 | MP6926-S2          | 5601   | 140210 | 26042    | 8857   |
| 18:29 | TD20364-2          | 5748   | 143300 | 26674    | 8993   |
| 18:32 | ZZZZZZ             | 5614   | 140400 | 999999 ! | 9226   |
| 18:35 | ZZZZZZ             | 5669   | 142110 | 25415    | 9328   |
| 18:40 | MA44328-CCV5       | 5422   | 136650 | 24422    | 8926   |
| 18:44 | MA44328-CCB5       | 5534   | 138450 | 24439    | 9402   |
| 18:47 | ZZZZZZ             | 5588   | 139060 | 24796    | 9367   |
| 18:50 | ZZZZZZ             | 5784   | 145080 | 26203    | 9318   |
| 18:53 | ZZZZZZ             | 5554   | 139250 | 25502    | 9434   |
| 18:56 | ZZZZZZ             | 5783   | 148230 | 26907    | 9200   |
| 18:59 | ZZZZZZ             | 5305   | 137840 | 24900    | 10386  |
| 19:02 | ZZZZZZ             | 5111   | 131180 | 24116    | 8086   |
| 19:05 | ZZZZZZ             | 5715   | 143070 | 26342    | 8991   |
| 19:08 | ZZZZZZ             | 5597   | 141860 | 25871    | 8850   |
| 19:11 | ZZZZZZ             | 5698   | 142590 | 26209    | 8941   |
| 19:14 | ZZZZZZ             | 5624   | 142010 | 26034    | 8843   |
| 19:17 | MA44328-CCV6       | 5445   | 137370 | 24468    | 8950   |
| 19:20 | MA44328-CCB6       | 5578   | 139160 | 24641    | 9482   |
| 19:23 | ZZZZZZ             | 5569   | 141080 | 26085    | 8644   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 19:26 | ZZZZZZ             | 5691   | 141630 | 25784  | 9078   |
| 19:29 | ZZZZZZ             | 5779   | 145770 | 26279  | 9109   |
| 19:32 | ZZZZZZ             | 5761   | 143450 | 26118  | 9103   |
| 19:35 | ZZZZZZ             | 5681   | 141400 | 25507  | 9007   |
| 19:38 | ZZZZZZ             | 5656   | 141510 | 25650  | 9075   |
| 19:41 | ZZZZZZ             | 5803   | 145230 | 26468  | 9156   |
| 19:44 | ZZZZZZ             | 5895   | 150220 | 27165  | 9436   |
| 19:47 | ZZZZZZ             | 5404   | 137230 | 25078  | 8529   |
| 19:50 | MP6926-SD1         | 5614   | 140690 | 24953  | 9219   |
| 19:53 | MA44328-CCV7       | 5386   | 136090 | 23941  | 8878   |
| 19:55 | MA44328-CCB7       | 5569   | 139230 | 24653  | 9486   |
| 19:58 | MP6896-MB1         | 5579   | 140920 | 24876  | 9490   |
| 20:01 | MP6896-B1          | 5584   | 140670 | 25367  | 9393   |
| 20:04 | MP6896-S1          | 5216   | 134630 | 24390  | 8544   |
| 20:07 | MP6896-S2          | 5232   | 135070 | 24265  | 8580   |
| 20:10 | JC65026-1          | 5212   | 133980 | 24209  | 8554   |
| 20:13 | MP6896-SD1         | 5428   | 136460 | 24295  | 9106   |
| 20:16 | ZZZZZZ             | 5186   | 134870 | 24130  | 8506   |
| 20:19 | ZZZZZZ             | 5219   | 133810 | 24231  | 8559   |
| 20:22 | ZZZZZZ             | 5196   | 133870 | 24175  | 8514   |
| 20:25 | MA44328-CCV8       | 5545   | 135790 | 24395  | 9109   |
| 20:28 | MA44328-CCB8       | 5574   | 139160 | 24433  | 9475   |
| 20:35 | MA44328-CCV9       | 5507   | 137660 | 24617  | 9047   |
| 20:38 | MA44328-CCB9       | 5630   | 140140 | 24669  | 9554   |
| 20:41 | ZZZZZZ             | 5513   | 139630 | 24929  | 9105   |
| 20:44 | ZZZZZZ             | 5229   | 132950 | 24280  | 8582   |
| 20:47 | ZZZZZZ             | 5310   | 135650 | 24633  | 8670   |
| 20:50 | ZZZZZZ             | 5262   | 134560 | 24189  | 8617   |
| 20:53 | ZZZZZZ             | 5278   | 135540 | 24328  | 8633   |
| 20:56 | ZZZZZZ             | 5214   | 134160 | 24126  | 8519   |
| 20:59 | MP6900-MB1         | 5723   | 143960 | 25534  | 9707   |
| 21:02 | MP6900-MB2         | 5773   | 144800 | 25442  | 9780   |
| 21:05 | MP6900-B1          | 5619   | 142370 | 25258  | 9287   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 21:08 | MA44328-CCV10      | 5444   | 137850    | 24616  | 8961   |
| 21:11 | MA44328-CCB10      | 5649   | 141070    | 24868  | 9604   |
| 21:14 | MP6900-B3          | 5641   | 142020    | 25564  | 9323   |
| 21:17 | MP6900-S1          | 5125   | 132220    | 24459  | 8080   |
| 21:20 | MP6900-S2          | 5124   | 132100    | 24177  | 8063   |
| 21:23 | JC64901-6          | 5131   | 131420    | 24112  | 8089   |
| 21:26 | MP6900-SD1         | 5418   | 137400    | 24688  | 8806   |
| 21:29 | ZZZZZ              | 5730   | 144370    | 25501  | 9705   |
| 21:32 | ZZZZZ              | 5734   | 143950    | 25310  | 9715   |
| 21:35 | ZZZZZ              | 5751   | 144810    | 25355  | 9732   |
| 21:38 | ZZZZZ              | 5756   | 143850    | 25436  | 9767   |
| 21:41 | MA44328-CCV11      | 5502   | 138250    | 24754  | 9033   |
| 21:45 | MA44328-CCB11      | 5647   | 140390    | 24583  | 9604   |
| 21:48 | ZZZZZ              | 5627   | 142400    | 25196  | 9313   |
| 21:51 | ZZZZZ              | 5341   | 135300    | 24369  | 8592   |
| 21:54 | ZZZZZ              | 5344   | 138850    | 24497  | 8866   |
| 21:57 | ZZZZZ              | 5368   | 137820    | 24513  | 8911   |
| 22:00 | ZZZZZ              | 5493   | 139200    | 24845  | 8800   |
| 22:03 | ZZZZZ              | 5755   | 143160    | 25374  | 9729   |
| 22:06 | ZZZZZ              | 5301   | 999999 !a | 24461  | 8549   |
| 22:09 | ZZZZZ              | 5501   | 137640    | 24631  | 8839   |
| 22:12 | ZZZZZ              | 5478   | 138070    | 24433  | 8957   |
| 22:15 | MA44328-CCV12      | 5482   | 137650    | 24041  | 9001   |
| 22:20 | MA44328-CCB12      | 5635   | 140840    | 24664  | 9557   |
| 22:23 | ZZZZZ              | 5444   | 139180    | 24353  | 8883   |
| 22:26 | ZZZZZ              | 5505   | 140030    | 24558  | 9065   |
| 22:29 | JC65157-9          | 5759   | 142840    | 25130  | 9393   |
| 22:32 | JC65157-10         | 5475   | 137540    | 24432  | 8868   |
| 22:35 | ZZZZZ              | 5679   | 144440    | 25102  | 9632   |
| 22:38 | MP6915-MB3         | 5793   | 144820    | 25280  | 9812   |
| 22:41 | MP6915-B3          | 5553   | 139460    | 24688  | 9163   |
| 22:44 | MP6915-S1          | 5223   | 136500    | 24625  | 9974   |
| 22:47 | MP6915-S2          | 5253   | 136060    | 24781  | 9884   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
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File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1   | Istd#2   | Istd#3   | Istd#4 |
|-------|--------------------|--|----------|----------|--------|
| 22:50 | MA44328-CCV13      | 5602   | 140570   | 24831    | 9177   |
| 22:53 | MA44328-CCB13      | 5704   | 141170   | 24729    | 9684   |
| 22:56 | JC64876-1          | No results reported for the elements associated with this internal standard. |          |          |        |
| 22:59 | MP6915-SD1         | No results reported for the elements associated with this internal standard. |          |          |        |
| 23:04 | ZZZZZ              | 5636   | 139550   | 24674    | 9562   |
| 23:07 | MP6915-S1          | 5504   | 137530   | 24480    | 9378   |
| 23:10 | MP6915-S2          | 5498   | 138690   | 24144    | 9348   |
| 23:13 | JC64876-1          | 5518   | 138280   | 24118    | 9427   |
| 23:16 | MP6915-SD1         | 5562   | 138900   | 24170    | 9471   |
| 23:19 | ZZZZZ              | 5562   | 138710   | 24348    | 9623   |
| 23:22 | MA44328-CCV14      | 5472   | 136540   | 23977    | 9016   |
| 23:28 | MA44328-CCB14      | 5591   | 139720   | 24164    | 9544   |
| 23:31 | MA44328-CRI3       | 5573   | 139540   | 24158    | 9438   |
| 23:34 | MA44328-CRID2      | 5587   | 141290   | 24355    | 9508   |
| 23:38 | MA44328-ICSA2      | 5117   | 130360   | 23888    | 8333   |
| 23:41 | MA44328-ICSAB2     | 5155   | 131210   | 23519    | 8388   |
| 23:44 | MA44328-CCV15      | 5445   | 136950   | 24235    | 8961   |
| 23:47 | MA44328-CCB15      | 5563   | 139990   | 24083    | 9486   |
| 23:52 | ZZZZZ              | 5201   | 132500   | 23349    | 8533   |
| 23:55 | ZZZZZ              | 5550   | 134340   | 24590    | 8937   |
| 23:59 | ZZZZZ              | 5166   | 132890   | 23556    | 8511   |
| 00:02 | ZZZZZ              | 5530   | 138550   | 23889    | 9444   |
| 00:05 | ZZZZZ              | 5527   | 138110   | 23982    | 9408   |
| 00:08 | ZZZZZ              | 5494   | 999999 ! | 999999 ! | 9355   |
| 00:11 | ZZZZZ              | 5492   | 137950   | 23937    | 9411   |
| 00:14 | ZZZZZ              | 5500   | 138090   | 23804    | 9363   |
| 00:17 | ZZZZZ              | 5489   | 137430   | 23998    | 9352   |
| 00:20 | ZZZZZ              | 5501   | 138850   | 24048    | 9411   |
| 00:23 | ZZZZZ              | 5502   | 138270   | 24003    | 9430   |
| 00:26 | ZZZZZ              | 5450   | 138680   | 23985    | 9368   |
| 00:29 | ZZZZZ              | 5496   | 138640   | 24041    | 9370   |
| 00:32 | MA44328-CCV16      | 5344   | 135640   | 23707    | 8821   |
| 00:35 | MA44328-CCB16      | 5512   | 137230   | 23723    | 9421   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
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 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|-------|--------------------|--------|--------|--------|--------|
| 00:38 | MP6919-MB1         | 5550   | 139610 | 24393  | 9465   |
| 00:41 | MP6919-B1          | 5495   | 138510 | 24407  | 9110   |
| 00:44 | MP6919-B2          | 5490   | 138030 | 24498  | 9120   |
| 00:47 | MP6919-S1          | 5341   | 136540 | 24296  | 8696   |
| 00:50 | MP6919-S2          | 5332   | 135710 | 24173  | 8677   |
| 00:53 | JC64951-1F         | 5341   | 136460 | 23929  | 8790   |
| 00:56 | MP6919-SD1         | 5430   | 137080 | 23977  | 9144   |
| 00:59 | ZZZZZ              | 5206   | 134400 | 24012  | 8470   |
| 01:02 | ZZZZZ              | 5142   | 133540 | 24035  | 8249   |
| 01:05 | ZZZZZ              | 5186   | 133660 | 23906  | 8450   |
| 01:08 | MA44328-CCV17      | 5350   | 135330 | 23715  | 8834   |
| 01:11 | MA44328-CCB17      | 5515   | 137920 | 23983  | 9425   |
| 01:14 | ZZZZZ              | 5746   | 143720 | 25366  | 9696   |
| 01:17 | ZZZZZ              | 5687   | 142030 | 24946  | 9625   |
| 01:20 | ZZZZZ              | 5707   | 144750 | 25091  | 9748   |
| 01:23 | ZZZZZ              | 4724   | 119730 | 23369  | 7190   |
| 01:26 | ZZZZZ              | 5429   | 138180 | 24549  | 8686   |
| 01:29 | ZZZZZ              | 5450   | 137630 | 24517  | 8838   |
| 01:32 | ZZZZZ              | 5369   | 137020 | 24244  | 8614   |
| 01:36 | ZZZZZ              | 5416   | 137070 | 24254  | 8797   |
| 01:39 | ZZZZZ              | 5376   | 136630 | 24247  | 8731   |
| 01:42 | ZZZZZ              | 5437   | 137680 | 22593  | 8772   |
| 01:45 | MA44328-CCV18      | 5407   | 135880 | 23690  | 8898   |
| 01:48 | MA44328-CCB18      | 5547   | 138260 | 23823  | 9462   |
| 01:51 | ZZZZZ              | 5433   | 137990 | 24079  | 8865   |
| 01:54 | ZZZZZ              | 5419   | 137250 | 24134  | 8780   |
| 01:57 | ZZZZZ              | 5454   | 136980 | 24089  | 9039   |
| 02:00 | ZZZZZ              | 5503   | 139660 | 24279  | 9137   |
| 02:03 | ZZZZZ              | 5212   | 132300 | 24119  | 7990   |
| 02:06 | ZZZZZ              | 5214   | 132090 | 24266  | 8004   |
| 02:09 | MP6925-MB1         | 5576   | 140500 | 24371  | 9538   |
| 02:12 | MP6925-B1          | 5556   | 140780 | 24435  | 9259   |
| 02:15 | MP6925-S1          | 5637   | 142580 | 25018  | 9106   |

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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 Analyst: ND Run ID: MA44328  
 Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time  | Sample Description | Istd#1 | Istd#2    | Istd#3 | Istd#4 |
|-------|--------------------|--------|-----------|--------|--------|
| 02:18 | MP6925-S2          | 5650   | 141710    | 25214  | 9153   |
| 02:21 | MA44328-CCV19      | 5383   | 134450    | 23746  | 8912   |
| 02:24 | MA44328-CCB19      | 5469   | 138610    | 23748  | 9377   |
| 02:27 | JC65075-17         | 5735   | 142920    | 25007  | 9349   |
| 02:30 | MP6925-SD1         | 5567   | 139480    | 24320  | 9344   |
| 02:33 | ZZZZZZ             | 5508   | 140880    | 25228  | 8963   |
| 02:36 | ZZZZZZ             | 5472   | 139590    | 25005  | 8898   |
| 02:39 | ZZZZZZ             | 5620   | 999999 !a | 24996  | 9271   |
| 02:42 | ZZZZZZ             | 5674   | 143070    | 25013  | 9323   |
| 02:45 | ZZZZZZ             | 5757   | 144640    | 25239  | 9331   |
| 02:48 | ZZZZZZ             | 5745   | 143180    | 25323  | 9432   |
| 02:51 | ZZZZZZ             | 5702   | 142060    | 25191  | 9352   |
| 02:54 | ZZZZZZ             | 5724   | 145160    | 25498  | 9360   |
| 02:57 | MA44328-CCV20      | 5427   | 136990    | 24028  | 8963   |
| 03:00 | MA44328-CCB20      | 5596   | 140350    | 24302  | 9536   |
| 03:03 | ZZZZZZ             | 5738   | 142550    | 25113  | 9429   |
| 03:06 | ZZZZZZ             | 5693   | 143300    | 24903  | 9330   |
| 03:09 | ZZZZZZ             | 5750   | 999999 !a | 25188  | 9382   |
| 03:12 | ZZZZZZ             | 5779   | 144520    | 25225  | 9412   |
| 03:15 | ZZZZZZ             | 5796   | 144810    | 25333  | 9424   |
| 03:18 | ZZZZZZ             | 5807   | 146290    | 25448  | 9311   |
| 03:21 | ZZZZZZ             | 5759   | 144900    | 25253  | 9391   |
| 03:24 | ZZZZZZ             | 5922   | 999999 !a | 25899  | 9374   |
| 03:27 | ZZZZZZ             | 5859   | 999999 !a | 25540  | 9517   |
| 03:30 | MA44328-CCV21      | 5483   | 138080    | 23973  | 9038   |
| 03:33 | MA44328-CCB21      | 5629   | 140090    | 22479  | 9577   |
| 03:36 | MA44328-CRI4       | 5600   | 140200    | 24325  | 9457   |
| 03:39 | MA44328-CRID3      | 5641   | 141890    | 24597  | 9578   |
| 03:42 | MA44328-CCV22      | 5460   | 137290    | 24088  | 8991   |
| 03:45 | MA44328-CCB22      | 5596   | 138920    | 24350  | 9516   |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd#  | Parameter      | Limits   |
|--------|----------------|----------|
| Istd#1 | Yttrium (2243) | 70-130 % |
| Istd#2 | Yttrium (3600) | 70-130 % |
| Istd#3 | Yttrium (3710) | 70-130 % |

14.6.1  
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INTERNAL STANDARD SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
Analyst: ND      Run ID: MA44328  
Parameters: As,Ba,Cd,Ca,Cr,Pb,Se,Ag,Tl

| Time   | Sample Description | Istd#1 | Istd#2   | Istd#3 | Istd#4 |
|--------|--------------------|--------|----------|--------|--------|
| Istd#4 | Indium             |        | 70-130 % |        |        |

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Metal      | RL    | IDL | 16:19 ICB1 |       | 16:25 CCB1 |       | 17:02 CCB2 |       | 17:35 CCB3 |       |
|------------|-------|-----|------------|-------|------------|-------|------------|-------|------------|-------|
|            |       |     | raw        | final | raw        | final | raw        | final | raw        | final |
| Aluminum   | 200   | 19  | anr        |       |            |       |            |       |            |       |
| Antimony   | 6.0   | 2.4 | anr        |       |            |       |            |       |            |       |
| Arsenic    | 3.0   | 1.2 | -0.100     | <3.0  | -0.800     | <3.0  | 1.50       | <3.0  | 1.20       | <3.0  |
| Barium     | 200   | .6  | 0.100      | <200  | 0.500      | <200  | 0.100      | <200  | 0.100      | <200  |
| Beryllium  | 1.0   | .2  | anr        |       |            |       |            |       |            |       |
| Bismuth    | 20    | 3.2 |            |       |            |       |            |       |            |       |
| Boron      | 100   | 1.5 |            |       |            |       |            |       |            |       |
| Cadmium    | 3.0   | .4  | 0.100      | <3.0  | 0.100      | <3.0  | 0.100      | <3.0  | 0.100      | <3.0  |
| Calcium    | 5000  | 5.5 | 1.00       | <5000 | -0.700     | <5000 | -2.20      | <5000 | -1.00      | <5000 |
| Chromium   | 10    | .7  | 0.100      | <10   | 0.200      | <10   | 0.100      | <10   | -0.300     | <10   |
| Cobalt     | 50    | .4  | anr        |       |            |       |            |       |            |       |
| Copper     | 10    | 1.1 | anr        |       |            |       |            |       |            |       |
| Iron       | 100   | 3.5 | anr        |       |            |       |            |       |            |       |
| Lead       | 3.0   | 2.2 | 0.00       | <3.0  | 1.40       | <3.0  | 0.300      | <3.0  | 1.10       | <3.0  |
| Lithium    | 50    | 3.4 |            |       |            |       |            |       |            |       |
| Magnesium  | 5000  | 25  | anr        |       |            |       |            |       |            |       |
| Manganese  | 15    | .14 | anr        |       |            |       |            |       |            |       |
| Molybdenum | 20    | .4  | anr        |       |            |       |            |       |            |       |
| Nickel     | 10    | .5  | anr        |       |            |       |            |       |            |       |
| Phosphorus | 50    | 2   |            |       |            |       |            |       |            |       |
| Potassium  | 10000 | 60  | anr        |       |            |       |            |       |            |       |
| Selenium   | 10    | 3.7 | -2.40      | <10   | -2.70      | <10   | -1.30      | <10   | -3.70      | <10   |
| Silicon    | 200   | 1.8 |            |       |            |       |            |       |            |       |
| Silver     | 10    | .7  | 0.00       | <10   | -0.200     | <10   | 0.100      | <10   | -0.100     | <10   |
| Sodium     | 10000 | 35  | anr        |       |            |       |            |       |            |       |
| Strontium  | 10    | .2  |            |       |            |       |            |       |            |       |
| Sulfur     | 50    | 3.1 |            |       |            |       |            |       |            |       |
| Thallium   | 2.0   | 1.8 | 3.30       | * (a) | 1.00       | <2.0  | 1.80       | <2.0  | 0.600      | <2.0  |
| Tin        | 10    | .9  | anr        |       |            |       |            |       |            |       |
| Titanium   | 10    | .7  | anr        |       |            |       |            |       |            |       |
| Tungsten   | 50    | 2.2 |            |       |            |       |            |       |            |       |
| Vanadium   | 50    | .8  | anr        |       |            |       |            |       |            |       |
| Zinc       | 20    | .2  | anr        |       |            |       |            |       |            |       |

14.6.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Time:      | 16:19 | 16:25 | 17:02 | 17:35 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | ICB1  | CCB1  | CCB2  | CCB3  |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No AQ samples reported for this element in the area bracketed by this QC.



14.6.2  
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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Metal      | RL    | IDL | 18:08 CCB4 |       | 18:44 CCB5 |           | 19:20 CCB6 |       | 19:55 CCB7 |       |
|------------|-------|-----|------------|-------|------------|-----------|------------|-------|------------|-------|
|            |       |     | raw        | final | raw        | final     | raw        | final | raw        | final |
| Aluminum   | 200   | 19  | anr        |       |            |           |            |       |            |       |
| Antimony   | 6.0   | 2.4 | anr        |       |            |           |            |       |            |       |
| Arsenic    | 3.0   | 1.2 | 1.00       | <3.0  | 0.100      | <3.0      | -0.400     | <3.0  | 0.500      | <3.0  |
| Barium     | 200   | .6  | 0.300      | <200  | 0.500      | <200      | 0.400      | <200  | 0.00       | <200  |
| Beryllium  | 1.0   | .2  | anr        |       |            |           |            |       |            |       |
| Bismuth    | 20    | 3.2 |            |       |            |           |            |       |            |       |
| Boron      | 100   | 1.5 |            |       |            |           |            |       |            |       |
| Cadmium    | 3.0   | .4  | 0.300      | <3.0  | 0.100      | <3.0      | 0.200      | <3.0  | 0.00       | <3.0  |
| Calcium    | 5000  | 5.5 | -2.60      | <5000 | -0.700     | <5000     | -1.30      | <5000 | -4.80      | <5000 |
| Chromium   | 10    | .7  | -0.200     | <10   | 0.100      | <10       | -0.100     | <10   | -0.300     | <10   |
| Cobalt     | 50    | .4  | anr        |       |            |           |            |       |            |       |
| Copper     | 10    | 1.1 | anr        |       |            |           |            |       |            |       |
| Iron       | 100   | 3.5 | anr        |       |            |           |            |       |            |       |
| Lead       | 3.0   | 2.2 | -0.400     | <3.0  | 0.800      | <3.0      | 0.800      | <3.0  | 1.10       | <3.0  |
| Lithium    | 50    | 3.4 |            |       |            |           |            |       |            |       |
| Magnesium  | 5000  | 25  | anr        |       |            |           |            |       |            |       |
| Manganese  | 15    | .14 | anr        |       |            |           |            |       |            |       |
| Molybdenum | 20    | .4  | anr        |       |            |           |            |       |            |       |
| Nickel     | 10    | .5  | anr        |       |            |           |            |       |            |       |
| Phosphorus | 50    | 2   |            |       |            |           |            |       |            |       |
| Potassium  | 10000 | 60  | anr        |       |            |           |            |       |            |       |
| Selenium   | 10    | 3.7 | -0.900     | <10   | -1.50      | <10       | -2.80      | <10   | -1.60      | <10   |
| Silicon    | 200   | 1.8 |            |       |            |           |            |       |            |       |
| Silver     | 10    | .7  | -0.300     | <10   | -0.300     | <10       | 0.100      | <10   | -0.700     | <10   |
| Sodium     | 10000 | 35  | anr        |       |            |           |            |       |            |       |
| Strontium  | 10    | .2  |            |       |            |           |            |       |            |       |
| Sulfur     | 50    | 3.1 |            |       |            |           |            |       |            |       |
| Thallium   | 2.0   | 1.8 | 2.10       | * (a) | -2.80      | <2.0**(a) | 0.500      | <2.0  | 2.60       | * (a) |
| Tin        | 10    | .9  | anr        |       |            |           |            |       |            |       |
| Titanium   | 10    | .7  | anr        |       |            |           |            |       |            |       |
| Tungsten   | 50    | 2.2 |            |       |            |           |            |       |            |       |
| Vanadium   | 50    | .8  | anr        |       |            |           |            |       |            |       |
| Zinc       | 20    | .2  | anr        |       |            |           |            |       |            |       |

14.6.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

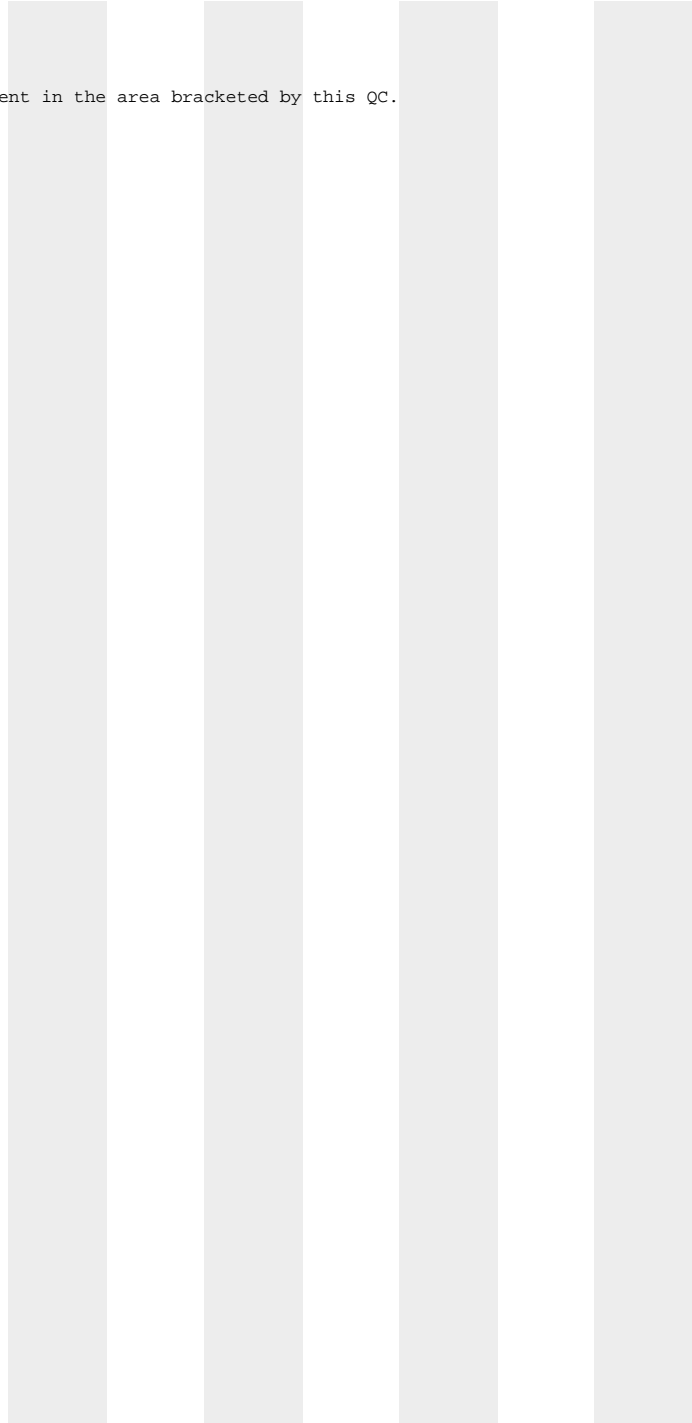
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Time:      | 18:08 | 18:44 | 19:20 | 19:55 |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|
| Sample ID: | CCB4  | CCB5  | CCB6  | CCB7  |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested  
 (a) No AQ samples reported for this element in the area bracketed by this QC.



14.6.2  
 14

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Time:      |       |     | 20:28  |       |        | 20:38 |        |       | 21:11  |       |       | 21:45 |
|------------|-------|-----|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|
| Sample ID: | RL    | IDL | CCB8   | final | CCB9   | final | CCB10  | final | CCB11  | final | CCB11 | final |
| Metal      | RL    | IDL | raw    | final | raw    | final | raw    | final | raw    | final | raw   | final |
| Aluminum   | 200   | 19  | anr    |       |        |       |        |       |        |       |       |       |
| Antimony   | 6.0   | 2.4 | anr    |       |        |       |        |       |        |       |       |       |
| Arsenic    | 3.0   | 1.2 | 0.200  | <3.0  | 0.800  | <3.0  | -0.100 | <3.0  | 1.10   | <3.0  |       |       |
| Barium     | 200   | .6  | 0.00   | <200  | 0.100  | <200  | 0.200  | <200  | 0.100  | <200  |       |       |
| Beryllium  | 1.0   | .2  | anr    |       |        |       |        |       |        |       |       |       |
| Bismuth    | 20    | 3.2 |        |       |        |       |        |       |        |       |       |       |
| Boron      | 100   | 1.5 |        |       |        |       |        |       |        |       |       |       |
| Cadmium    | 3.0   | .4  | 0.100  | <3.0  | 0.200  | <3.0  | 0.200  | <3.0  | 0.100  | <3.0  |       |       |
| Calcium    | 5000  | 5.5 | -0.800 | <5000 | 1.10   | <5000 | 0.700  | <5000 | -2.20  | <5000 |       |       |
| Chromium   | 10    | .7  | -0.200 | <10   | 0.300  | <10   | 0.300  | <10   | 0.300  | <10   |       |       |
| Cobalt     | 50    | .4  | anr    |       |        |       |        |       |        |       |       |       |
| Copper     | 10    | 1.1 | anr    |       |        |       |        |       |        |       |       |       |
| Iron       | 100   | 3.5 | anr    |       |        |       |        |       |        |       |       |       |
| Lead       | 3.0   | 2.2 | 0.800  | <3.0  | 1.70   | <3.0  | 0.500  | <3.0  | 2.10   | <3.0  |       |       |
| Lithium    | 50    | 3.4 |        |       |        |       |        |       |        |       |       |       |
| Magnesium  | 5000  | 25  | anr    |       |        |       |        |       |        |       |       |       |
| Manganese  | 15    | .14 | anr    |       |        |       |        |       |        |       |       |       |
| Molybdenum | 20    | .4  | anr    |       |        |       |        |       |        |       |       |       |
| Nickel     | 10    | .5  | anr    |       |        |       |        |       |        |       |       |       |
| Phosphorus | 50    | 2   |        |       |        |       |        |       |        |       |       |       |
| Potassium  | 10000 | 60  | anr    |       |        |       |        |       |        |       |       |       |
| Selenium   | 10    | 3.7 | -1.70  | <10   | -2.90  | <10   | -3.20  | <10   | -0.200 | <10   |       |       |
| Silicon    | 200   | 1.8 |        |       |        |       |        |       |        |       |       |       |
| Silver     | 10    | .7  | -0.500 | <10   | -0.600 | <10   | -0.100 | <10   | -0.100 | <10   |       |       |
| Sodium     | 10000 | 35  | anr    |       |        |       |        |       |        |       |       |       |
| Strontium  | 10    | .2  |        |       |        |       |        |       |        |       |       |       |
| Sulfur     | 50    | 3.1 |        |       |        |       |        |       |        |       |       |       |
| Thallium   | 2.0   | 1.8 | 0.600  | <2.0  | 0.400  | <2.0  | -0.100 | <2.0  | 1.40   | <2.0  |       |       |
| Tin        | 10    | .9  | anr    |       |        |       |        |       |        |       |       |       |
| Titanium   | 10    | .7  | anr    |       |        |       |        |       |        |       |       |       |
| Tungsten   | 50    | 2.2 |        |       |        |       |        |       |        |       |       |       |
| Vanadium   | 50    | .8  | anr    |       |        |       |        |       |        |       |       |       |
| Zinc       | 20    | .2  | anr    |       |        |       |        |       |        |       |       |       |

14.6.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

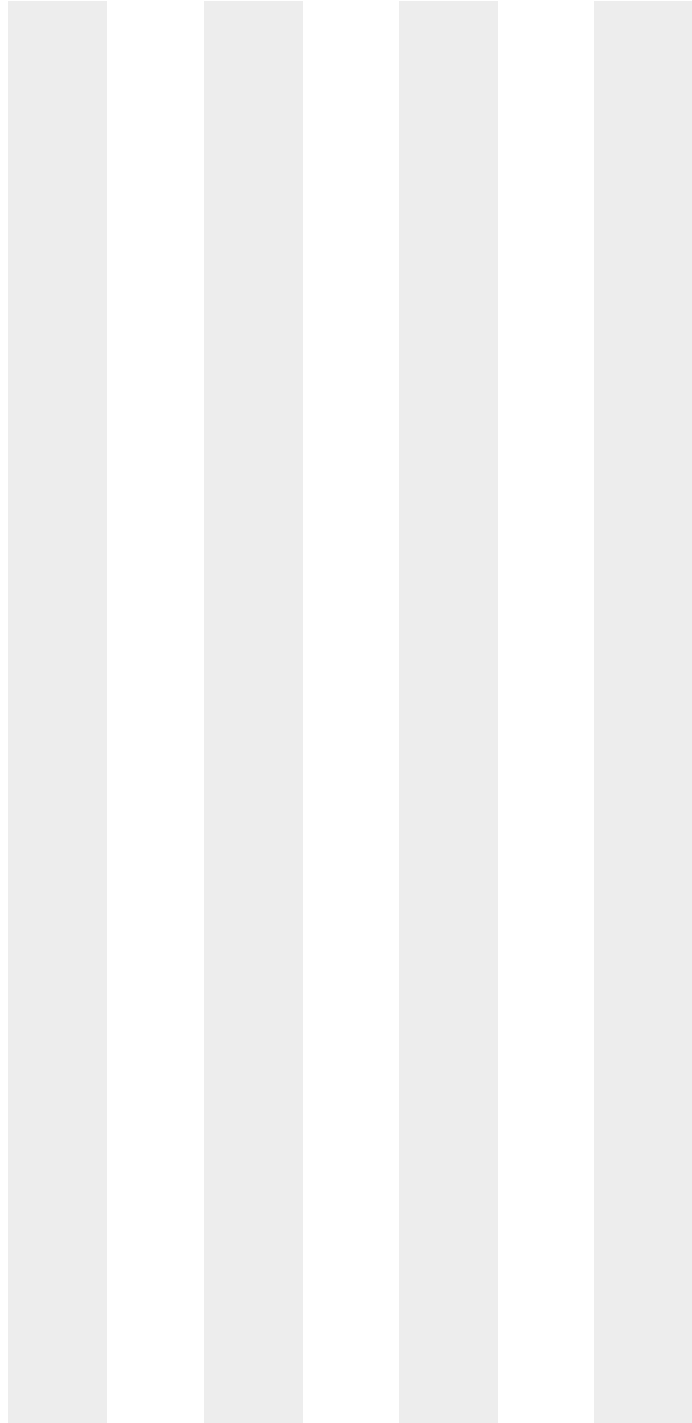
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Time:      | 20:28 | 20:38 | 21:11 | 21:45 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB8  | CCB9  | CCB10 | CCB11 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



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BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Metal      | RL    | IDL | 22:20<br>CCB12 |       | 22:53<br>CCB13 |       | 23:28<br>CCB14 |       | 23:47<br>CCB15 |       |
|------------|-------|-----|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
|            |       |     | raw            | final | raw            | final | raw            | final | raw            | final |
| Aluminum   | 200   | 19  | anr            |       |                |       |                |       |                |       |
| Antimony   | 6.0   | 2.4 | anr            |       |                |       |                |       |                |       |
| Arsenic    | 3.0   | 1.2 | 1.50           | <3.0  | 0.200          | <3.0  | -0.300         | <3.0  | 0.200          | <3.0  |
| Barium     | 200   | .6  | 0.400          | <200  | 0.500          | <200  | 0.400          | <200  | 0.400          | <200  |
| Beryllium  | 1.0   | .2  | anr            |       |                |       |                |       |                |       |
| Bismuth    | 20    | 3.2 |                |       |                |       |                |       |                |       |
| Boron      | 100   | 1.5 |                |       |                |       |                |       |                |       |
| Cadmium    | 3.0   | .4  | 0.100          | <3.0  | 0.200          | <3.0  | 0.200          | <3.0  | 0.00           | <3.0  |
| Calcium    | 5000  | 5.5 | -4.30          | <5000 | 4.50           | <5000 | -2.50          | <5000 | -1.40          | <5000 |
| Chromium   | 10    | .7  | -0.300         | <10   | 0.100          | <10   | 0.500          | <10   | 0.200          | <10   |
| Cobalt     | 50    | .4  | anr            |       |                |       |                |       |                |       |
| Copper     | 10    | 1.1 | anr            |       |                |       |                |       |                |       |
| Iron       | 100   | 3.5 | anr            |       |                |       |                |       |                |       |
| Lead       | 3.0   | 2.2 | 0.900          | <3.0  | 0.500          | <3.0  | 1.30           | <3.0  | 1.10           | <3.0  |
| Lithium    | 50    | 3.4 |                |       |                |       |                |       |                |       |
| Magnesium  | 5000  | 25  | anr            |       |                |       |                |       |                |       |
| Manganese  | 15    | .14 | anr            |       |                |       |                |       |                |       |
| Molybdenum | 20    | .4  | anr            |       |                |       |                |       |                |       |
| Nickel     | 10    | .5  | anr            |       |                |       |                |       |                |       |
| Phosphorus | 50    | 2   |                |       |                |       |                |       |                |       |
| Potassium  | 10000 | 60  | anr            |       |                |       |                |       |                |       |
| Selenium   | 10    | 3.7 | -3.00          | <10   | -2.70          | <10   | -3.00          | <10   | -0.300         | <10   |
| Silicon    | 200   | 1.8 |                |       |                |       |                |       |                |       |
| Silver     | 10    | .7  | -0.300         | <10   | 0.100          | <10   | -0.400         | <10   | -0.200         | <10   |
| Sodium     | 10000 | 35  | anr            |       |                |       |                |       |                |       |
| Strontium  | 10    | .2  |                |       |                |       |                |       |                |       |
| Sulfur     | 50    | 3.1 |                |       |                |       |                |       |                |       |
| Thallium   | 2.0   | 1.8 | 1.30           | <2.0  | 1.50           | <2.0  | 0.800          | <2.0  | 1.50           | <2.0  |
| Tin        | 10    | .9  | anr            |       |                |       |                |       |                |       |
| Titanium   | 10    | .7  | anr            |       |                |       |                |       |                |       |
| Tungsten   | 50    | 2.2 |                |       |                |       |                |       |                |       |
| Vanadium   | 50    | .8  | anr            |       |                |       |                |       |                |       |
| Zinc       | 20    | .2  | anr            |       |                |       |                |       |                |       |

14.6.2  
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BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: result < RL Run ID: MA44328 Units: ug/l

| Time:      | 22:20 | 22:53 | 23:28 | 23:47 |     |       |     |       |     |       |
|------------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|
| Sample ID: | CCB12 | CCB13 | CCB14 | CCB15 |     |       |     |       |     |       |
| Metal      | RL    | IDL   | raw   | final | raw | final | raw | final | raw | final |

Zirconium 10 .3

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.2  
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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Metal      | Time:      | 16:16 |       |       | 16:22 |       |       | 16:59   |       |  |
|------------|------------|-------|-------|-------|-------|-------|-------|---------|-------|--|
|            | Sample ID: | ICV   | ICV1  | CCV   | CCV1  | CCV   | CCV2  | Results | % Rec |  |
| Aluminum   | anr        |       |       |       |       |       |       |         |       |  |
| Antimony   | anr        |       |       |       |       |       |       |         |       |  |
| Arsenic    | 2000       | 2020  | 101.0 | 2000  | 2040  | 102.0 | 2000  | 2010    | 100.5 |  |
| Barium     | 2000       | 2040  | 102.0 | 2000  | 2090  | 104.5 | 2000  | 2020    | 101.0 |  |
| Beryllium  | anr        |       |       |       |       |       |       |         |       |  |
| Bismuth    |            |       |       |       |       |       |       |         |       |  |
| Boron      |            |       |       |       |       |       |       |         |       |  |
| Cadmium    | 2000       | 2010  | 100.5 | 2000  | 2020  | 101.0 | 2000  | 2000    | 100.0 |  |
| Calcium    | 40000      | 40400 | 101.0 | 40000 | 41500 | 103.8 | 40000 | 40300   | 100.8 |  |
| Chromium   | 2000       | 2030  | 101.5 | 2000  | 2060  | 103.0 | 2000  | 2020    | 101.0 |  |
| Cobalt     | anr        |       |       |       |       |       |       |         |       |  |
| Copper     | anr        |       |       |       |       |       |       |         |       |  |
| Iron       | anr        |       |       |       |       |       |       |         |       |  |
| Lead       | 2000       | 2040  | 102.0 | 2000  | 2050  | 102.5 | 2000  | 2030    | 101.5 |  |
| Lithium    |            |       |       |       |       |       |       |         |       |  |
| Magnesium  | anr        |       |       |       |       |       |       |         |       |  |
| Manganese  | anr        |       |       |       |       |       |       |         |       |  |
| Molybdenum | anr        |       |       |       |       |       |       |         |       |  |
| Nickel     | anr        |       |       |       |       |       |       |         |       |  |
| Phosphorus |            |       |       |       |       |       |       |         |       |  |
| Potassium  | anr        |       |       |       |       |       |       |         |       |  |
| Selenium   | 2000       | 2000  | 100.0 | 2000  | 2000  | 100.0 | 2000  | 1980    | 99.0  |  |
| Silicon    |            |       |       |       |       |       |       |         |       |  |
| Silver     | 250        | 252   | 100.8 | 250   | 255   | 102.0 | 250   | 248     | 99.2  |  |
| Sodium     | anr        |       |       |       |       |       |       |         |       |  |
| Strontium  |            |       |       |       |       |       |       |         |       |  |
| Sulfur     |            |       |       |       |       |       |       |         |       |  |
| Thallium   | 2000       | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2020    | 101.0 |  |
| Tin        | anr        |       |       |       |       |       |       |         |       |  |
| Titanium   | anr        |       |       |       |       |       |       |         |       |  |
| Tungsten   |            |       |       |       |       |       |       |         |       |  |
| Vanadium   | anr        |       |       |       |       |       |       |         |       |  |
| Zinc       | anr        |       |       |       |       |       |       |         |       |  |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

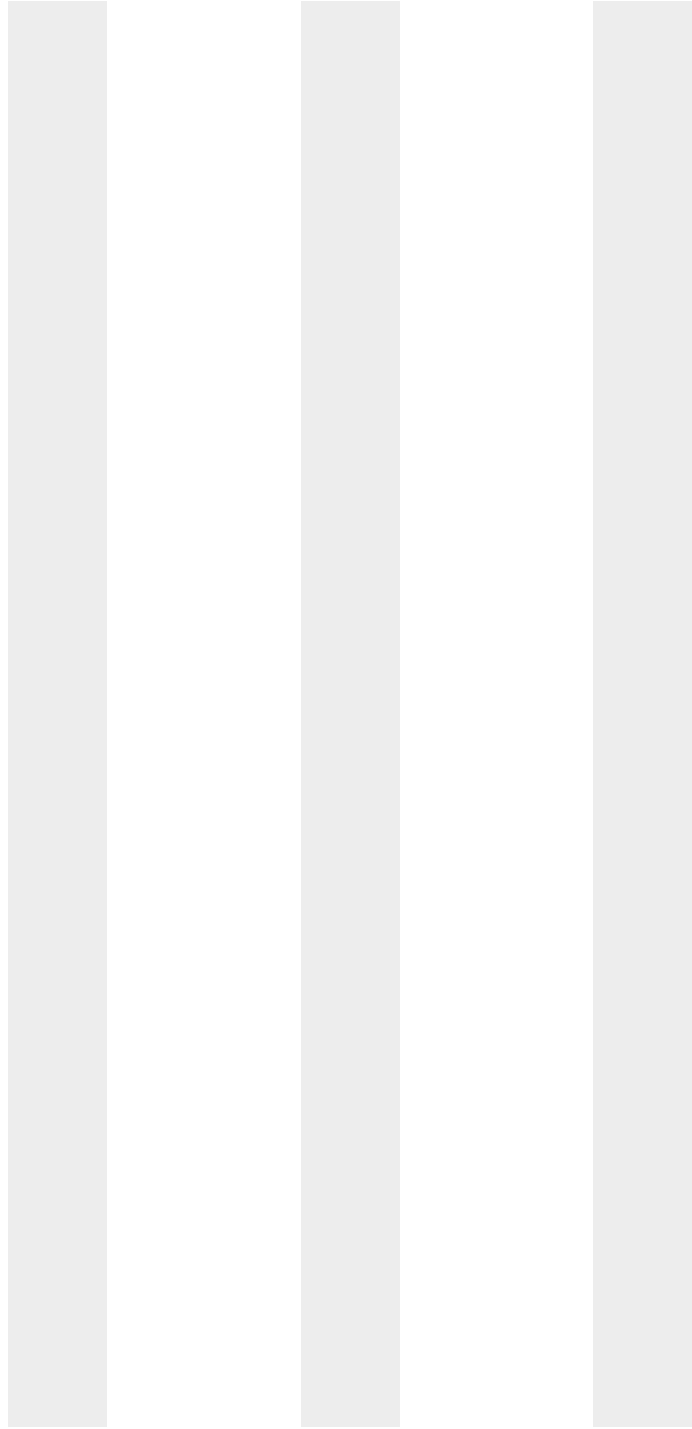
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|            | Time: |         | 16:16 |      | 16:22   |       | 16:59 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | ICV   | ICV1    | CCV   | CCV1 | CCV     | CCV2  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Metal      | Sample ID: CCV | 17:32 |                 |       | 18:05 |                 |       | 18:40 |                 |       |
|------------|----------------|-------|-----------------|-------|-------|-----------------|-------|-------|-----------------|-------|
|            |                | True  | CCV3<br>Results | % Rec | True  | CCV4<br>Results | % Rec | True  | CCV5<br>Results | % Rec |
| Aluminum   | anr            |       |                 |       |       |                 |       |       |                 |       |
| Antimony   | anr            |       |                 |       |       |                 |       |       |                 |       |
| Arsenic    | 2000           | 2040  | 102.0           | 2000  | 2040  | 102.0           | 2000  | 2040  | 102.0           |       |
| Barium     | 2000           | 2030  | 101.5           | 2000  | 2030  | 101.5           | 2000  | 2000  | 100.0           |       |
| Beryllium  | anr            |       |                 |       |       |                 |       |       |                 |       |
| Bismuth    |                |       |                 |       |       |                 |       |       |                 |       |
| Boron      |                |       |                 |       |       |                 |       |       |                 |       |
| Cadmium    | 2000           | 2020  | 101.0           | 2000  | 2020  | 101.0           | 2000  | 2020  | 101.0           |       |
| Calcium    | 40000          | 40500 | 101.3           | 40000 | 40300 | 100.8           | 40000 | 40100 | 100.3           |       |
| Chromium   | 2000           | 2040  | 102.0           | 2000  | 2040  | 102.0           | 2000  | 2030  | 101.5           |       |
| Cobalt     | anr            |       |                 |       |       |                 |       |       |                 |       |
| Copper     | anr            |       |                 |       |       |                 |       |       |                 |       |
| Iron       | anr            |       |                 |       |       |                 |       |       |                 |       |
| Lead       | 2000           | 2050  | 102.5           | 2000  | 2050  | 102.5           | 2000  | 2040  | 102.0           |       |
| Lithium    |                |       |                 |       |       |                 |       |       |                 |       |
| Magnesium  | anr            |       |                 |       |       |                 |       |       |                 |       |
| Manganese  | anr            |       |                 |       |       |                 |       |       |                 |       |
| Molybdenum | anr            |       |                 |       |       |                 |       |       |                 |       |
| Nickel     | anr            |       |                 |       |       |                 |       |       |                 |       |
| Phosphorus |                |       |                 |       |       |                 |       |       |                 |       |
| Potassium  | anr            |       |                 |       |       |                 |       |       |                 |       |
| Selenium   | 2000           | 1990  | 99.5            | 2000  | 1990  | 99.5            | 2000  | 1980  | 99.0            |       |
| Silicon    |                |       |                 |       |       |                 |       |       |                 |       |
| Silver     | 250            | 254   | 101.6           | 250   | 253   | 101.2           | 250   | 249   | 99.6            |       |
| Sodium     | anr            |       |                 |       |       |                 |       |       |                 |       |
| Strontium  |                |       |                 |       |       |                 |       |       |                 |       |
| Sulfur     |                |       |                 |       |       |                 |       |       |                 |       |
| Thallium   | 2000           | 2040  | 102.0           | 2000  | 2040  | 102.0           | 2000  | 2020  | 101.0           |       |
| Tin        | anr            |       |                 |       |       |                 |       |       |                 |       |
| Titanium   | anr            |       |                 |       |       |                 |       |       |                 |       |
| Tungsten   |                |       |                 |       |       |                 |       |       |                 |       |
| Vanadium   | anr            |       |                 |       |       |                 |       |       |                 |       |
| Zinc       | anr            |       |                 |       |       |                 |       |       |                 |       |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|            | Time: |         | 17:32 |      | 18:05   |       | 18:40 |         |       |
|------------|-------|---------|-------|------|---------|-------|-------|---------|-------|
| Sample ID: | CCV   | CCV3    | CCV   | CCV4 | CCV     | CCV5  |       |         |       |
| Metal      | True  | Results | % Rec | True | Results | % Rec | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Metal      | Sample ID | 19:17 |       |       | 19:53 |       |       | 20:25 |       |       |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |           | CCV   | CCV6  | % Rec | CCV   | CCV7  | % Rec | CCV   | CCV8  | % Rec |
| Aluminum   | anr       |       |       |       |       |       |       |       |       |       |
| Antimony   | anr       |       |       |       |       |       |       |       |       |       |
| Arsenic    | 2000      | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2010  | 100.5 |       |
| Barium     | 2000      | 2020  | 101.0 | 2000  | 2030  | 101.5 | 2000  | 2000  | 100.0 |       |
| Beryllium  | anr       |       |       |       |       |       |       |       |       |       |
| Bismuth    |           |       |       |       |       |       |       |       |       |       |
| Boron      |           |       |       |       |       |       |       |       |       |       |
| Cadmium    | 2000      | 2020  | 101.0 | 2000  | 2020  | 101.0 | 2000  | 1990  | 99.5  |       |
| Calcium    | 40000     | 40300 | 100.8 | 40000 | 40500 | 101.3 | 40000 | 39900 | 99.8  |       |
| Chromium   | 2000      | 2030  | 101.5 | 2000  | 2030  | 101.5 | 2000  | 2030  | 101.5 |       |
| Cobalt     | anr       |       |       |       |       |       |       |       |       |       |
| Copper     | anr       |       |       |       |       |       |       |       |       |       |
| Iron       | anr       |       |       |       |       |       |       |       |       |       |
| Lead       | 2000      | 2040  | 102.0 | 2000  | 2040  | 102.0 | 2000  | 2000  | 100.0 |       |
| Lithium    |           |       |       |       |       |       |       |       |       |       |
| Magnesium  | anr       |       |       |       |       |       |       |       |       |       |
| Manganese  | anr       |       |       |       |       |       |       |       |       |       |
| Molybdenum | anr       |       |       |       |       |       |       |       |       |       |
| Nickel     | anr       |       |       |       |       |       |       |       |       |       |
| Phosphorus |           |       |       |       |       |       |       |       |       |       |
| Potassium  | anr       |       |       |       |       |       |       |       |       |       |
| Selenium   | 2000      | 1990  | 99.5  | 2000  | 1980  | 99.0  | 2000  | 1950  | 97.5  |       |
| Silicon    |           |       |       |       |       |       |       |       |       |       |
| Silver     | 250       | 251   | 100.4 | 250   | 251   | 100.4 | 250   | 251   | 100.4 |       |
| Sodium     | anr       |       |       |       |       |       |       |       |       |       |
| Strontium  |           |       |       |       |       |       |       |       |       |       |
| Sulfur     |           |       |       |       |       |       |       |       |       |       |
| Thallium   | 2000      | 2020  | 101.0 | 2000  | 2020  | 101.0 | 2000  | 1990  | 99.5  |       |
| Tin        | anr       |       |       |       |       |       |       |       |       |       |
| Titanium   | anr       |       |       |       |       |       |       |       |       |       |
| Tungsten   |           |       |       |       |       |       |       |       |       |       |
| Vanadium   | anr       |       |       |       |       |       |       |       |       |       |
| Zinc       | anr       |       |       |       |       |       |       |       |       |       |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|            | Time: |               |       |      | 19:53   |       |      | 20:25   |       |
|------------|-------|---------------|-------|------|---------|-------|------|---------|-------|
| Sample ID: | CCV   | 19:17<br>CCV6 |       | CCV  | CCV7    |       | CCV  | CCV8    |       |
| Metal      | True  | Results       | % Rec | True | Results | % Rec | True | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Metal      | Sample ID: CCV | 20:35 |       |               | 21:08 |       |               | 21:41 |       |               |
|------------|----------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|
|            |                | True  | CCV9  | Results % Rec | True  | CCV10 | Results % Rec | True  | CCV11 | Results % Rec |
| Aluminum   | anr            |       |       |               |       |       |               |       |       |               |
| Antimony   | anr            |       |       |               |       |       |               |       |       |               |
| Arsenic    | 2000           | 2000  | 100.0 | 2000          | 2020  | 101.0 | 2000          | 1970  | 98.5  |               |
| Barium     | 2000           | 2020  | 101.0 | 2000          | 1980  | 99.0  | 2000          | 1950  | 97.5  |               |
| Beryllium  | anr            |       |       |               |       |       |               |       |       |               |
| Bismuth    |                |       |       |               |       |       |               |       |       |               |
| Boron      |                |       |       |               |       |       |               |       |       |               |
| Cadmium    | 2000           | 1990  | 99.5  | 2000          | 2000  | 100.0 | 2000          | 1960  | 98.0  |               |
| Calcium    | 40000          | 40100 | 100.3 | 40000         | 39500 | 98.8  | 40000         | 38800 | 97.0  |               |
| Chromium   | 2000           | 2020  | 101.0 | 2000          | 2000  | 100.0 | 2000          | 1990  | 99.5  |               |
| Cobalt     | anr            |       |       |               |       |       |               |       |       |               |
| Copper     | anr            |       |       |               |       |       |               |       |       |               |
| Iron       | anr            |       |       |               |       |       |               |       |       |               |
| Lead       | 2000           | 2010  | 100.5 | 2000          | 2010  | 100.5 | 2000          | 1980  | 99.0  |               |
| Lithium    |                |       |       |               |       |       |               |       |       |               |
| Magnesium  | anr            |       |       |               |       |       |               |       |       |               |
| Manganese  | anr            |       |       |               |       |       |               |       |       |               |
| Molybdenum | anr            |       |       |               |       |       |               |       |       |               |
| Nickel     | anr            |       |       |               |       |       |               |       |       |               |
| Phosphorus |                |       |       |               |       |       |               |       |       |               |
| Potassium  | anr            |       |       |               |       |       |               |       |       |               |
| Selenium   | 2000           | 1950  | 97.5  | 2000          | 1960  | 98.0  | 2000          | 1920  | 96.0  |               |
| Silicon    |                |       |       |               |       |       |               |       |       |               |
| Silver     | 250            | 249   | 99.6  | 250           | 247   | 98.8  | 250           | 243   | 97.2  |               |
| Sodium     | anr            |       |       |               |       |       |               |       |       |               |
| Strontium  |                |       |       |               |       |       |               |       |       |               |
| Sulfur     |                |       |       |               |       |       |               |       |       |               |
| Thallium   | 2000           | 1990  | 99.5  | 2000          | 1990  | 99.5  | 2000          | 1960  | 98.0  |               |
| Tin        | anr            |       |       |               |       |       |               |       |       |               |
| Titanium   | anr            |       |       |               |       |       |               |       |       |               |
| Tungsten   |                |       |       |               |       |       |               |       |       |               |
| Vanadium   | anr            |       |       |               |       |       |               |       |       |               |
| Zinc       | anr            |       |       |               |       |       |               |       |       |               |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|            | Time: | 20:35   |       | 21:08   |         | 21:41   |       |
|------------|-------|---------|-------|---------|---------|---------|-------|
| Sample ID: | CCV   | CCV9    | CCV   | CCV10   | CCV     | CCV11   |       |
| Metal      | True  | Results | % Rec | True    | Results | % Rec   | True  |
|            |       | Results | % Rec | Results | % Rec   | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Metal      | Sample ID: CCV | 22:15 |       |               | 22:50 |       |               | 23:22 |       |               |
|------------|----------------|-------|-------|---------------|-------|-------|---------------|-------|-------|---------------|
|            |                | True  | CCV12 | Results % Rec | True  | CCV13 | Results % Rec | True  | CCV14 | Results % Rec |
| Aluminum   | anr            |       |       |               |       |       |               |       |       |               |
| Antimony   | anr            |       |       |               |       |       |               |       |       |               |
| Arsenic    | 2000           | 1990  | 99.5  | 2000          | 1970  | 98.5  | 2000          | 2020  | 101.0 |               |
| Barium     | 2000           | 1980  | 99.0  | 2000          | 1950  | 97.5  | 2000          | 2010  | 100.5 |               |
| Beryllium  | anr            |       |       |               |       |       |               |       |       |               |
| Bismuth    |                |       |       |               |       |       |               |       |       |               |
| Boron      |                |       |       |               |       |       |               |       |       |               |
| Cadmium    | 2000           | 1970  | 98.5  | 2000          | 1950  | 97.5  | 2000          | 2000  | 100.0 |               |
| Calcium    | 40000          | 39500 | 98.8  | 40000         | 38800 | 97.0  | 40000         | 40100 | 100.3 |               |
| Chromium   | 2000           | 1980  | 99.0  | 2000          | 1960  | 98.0  | 2000          | 2030  | 101.5 |               |
| Cobalt     | anr            |       |       |               |       |       |               |       |       |               |
| Copper     | anr            |       |       |               |       |       |               |       |       |               |
| Iron       | anr            |       |       |               |       |       |               |       |       |               |
| Lead       | 2000           | 2000  | 100.0 | 2000          | 1980  | 99.0  | 2000          | 2010  | 100.5 |               |
| Lithium    |                |       |       |               |       |       |               |       |       |               |
| Magnesium  | anr            |       |       |               |       |       |               |       |       |               |
| Manganese  | anr            |       |       |               |       |       |               |       |       |               |
| Molybdenum | anr            |       |       |               |       |       |               |       |       |               |
| Nickel     | anr            |       |       |               |       |       |               |       |       |               |
| Phosphorus |                |       |       |               |       |       |               |       |       |               |
| Potassium  | anr            |       |       |               |       |       |               |       |       |               |
| Selenium   | 2000           | 1930  | 96.5  | 2000          | 1910  | 95.5  | 2000          | 1950  | 97.5  |               |
| Silicon    |                |       |       |               |       |       |               |       |       |               |
| Silver     | 250            | 244   | 97.6  | 250           | 242   | 96.8  | 250           | 248   | 99.2  |               |
| Sodium     | anr            |       |       |               |       |       |               |       |       |               |
| Strontium  |                |       |       |               |       |       |               |       |       |               |
| Sulfur     |                |       |       |               |       |       |               |       |       |               |
| Thallium   | 2000           | 1980  | 99.0  | 2000          | 1970  | 98.5  | 2000          | 2000  | 100.0 |               |
| Tin        | anr            |       |       |               |       |       |               |       |       |               |
| Titanium   | anr            |       |       |               |       |       |               |       |       |               |
| Tungsten   |                |       |       |               |       |       |               |       |       |               |
| Vanadium   | anr            |       |       |               |       |       |               |       |       |               |
| Zinc       | anr            |       |       |               |       |       |               |       |       |               |

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CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|       | Time:      |         |                |      |                |       |                |         |       |
|-------|------------|---------|----------------|------|----------------|-------|----------------|---------|-------|
|       | Sample ID: | CCV     | 22:15<br>CCV12 | CCV  | 22:50<br>CCV13 | CCV   | 23:22<br>CCV14 | CCV     | CCV14 |
| Metal | True       | Results | % Rec          | True | Results        | % Rec | True           | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

| Time:      | 23:44 |         |       |
|------------|-------|---------|-------|
| Sample ID: | CCV15 |         |       |
| Metal      | True  | Results | % Rec |
| Aluminum   | anr   |         |       |
| Antimony   | anr   |         |       |
| Arsenic    | 2000  | 2020    | 101.0 |
| Barium     | 2000  | 1980    | 99.0  |
| Beryllium  | anr   |         |       |
| Bismuth    |       |         |       |
| Boron      |       |         |       |
| Cadmium    | 2000  | 2000    | 100.0 |
| Calcium    | 40000 | 39600   | 99.0  |
| Chromium   | 2000  | 2020    | 101.0 |
| Cobalt     | anr   |         |       |
| Copper     | anr   |         |       |
| Iron       | anr   |         |       |
| Lead       | 2000  | 2020    | 101.0 |
| Lithium    |       |         |       |
| Magnesium  | anr   |         |       |
| Manganese  | anr   |         |       |
| Molybdenum | anr   |         |       |
| Nickel     | anr   |         |       |
| Phosphorus |       |         |       |
| Potassium  | anr   |         |       |
| Selenium   | 2000  | 1950    | 97.5  |
| Silicon    |       |         |       |
| Silver     | 250   | 249     | 99.6  |
| Sodium     | anr   |         |       |
| Strontium  |       |         |       |
| Sulfur     |       |         |       |
| Thallium   | 2000  | 2010    | 100.5 |
| Tin        | anr   |         |       |
| Titanium   | anr   |         |       |
| Tungsten   |       |         |       |
| Vanadium   | anr   |         |       |
| Zinc       | anr   |         |       |

14.6.3  
14

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

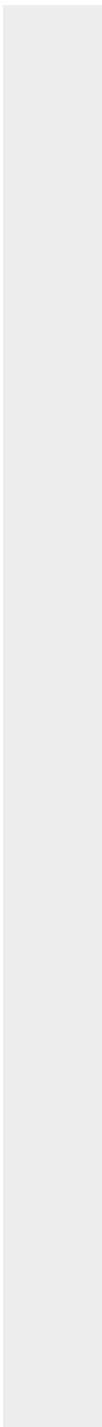
Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP      Date Analyzed: 05/02/18      Methods: SW846 6010C  
QC Limits: 90 to 110 % Recovery      Run ID: MA44328      Units: ug/l

|                |       |         |       |
|----------------|-------|---------|-------|
| Time:          | 23:44 |         |       |
| Sample ID: CCV | CCV15 |         |       |
| Metal          | True  | Results | % Rec |

Zirconium

(\*) Outside of QC limits  
(anr) Analyte not requested



14.6.3  
14

HIGH STANDARD CHECK SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44328 Units: ug/l

|            | Time: | 16:43   |       | 16:47  |         |
|------------|-------|---------|-------|--------|---------|
| Sample ID: | HSTD  | HSTD1   | % Rec | HSTD   | HSTD2   |
| Metal      | True  | Results | % Rec | True   | Results |
| Aluminum   |       |         |       |        |         |
| Antimony   | anr   |         |       |        |         |
| Arsenic    | 5000  | 5110    | 102.2 |        |         |
| Barium     | 5000  | 5250    | 105.0 |        |         |
| Beryllium  | anr   |         |       |        |         |
| Bismuth    |       |         |       |        |         |
| Boron      |       |         |       |        |         |
| Cadmium    | 5000  | 5170    | 103.4 |        |         |
| Calcium    |       |         |       | 150000 | 148000  |
| Chromium   | 5000  | 5340    | 106.8 |        | 98.7    |
| Cobalt     | anr   |         |       |        |         |
| Copper     | anr   |         |       |        |         |
| Iron       |       |         |       |        |         |
| Lead       | 5000  | 5250    | 105.0 |        |         |
| Lithium    |       |         |       |        |         |
| Magnesium  |       |         |       |        |         |
| Manganese  | anr   |         |       |        |         |
| Molybdenum | anr   |         |       |        |         |
| Nickel     | anr   |         |       |        |         |
| Phosphorus |       |         |       |        |         |
| Potassium  |       |         |       |        |         |
| Selenium   | 5000  | 5080    | 101.6 |        |         |
| Silicon    |       |         |       |        |         |
| Silver     | 625   | 679     | 108.6 |        |         |
| Sodium     |       |         |       |        |         |
| Strontium  |       |         |       |        |         |
| Sulfur     |       |         |       |        |         |
| Thallium   | 5000  | 5240    | 104.8 |        |         |
| Tin        | anr   |         |       |        |         |
| Titanium   | anr   |         |       |        |         |
| Tungsten   |       |         |       |        |         |
| Vanadium   | anr   |         |       |        |         |
| Zinc       | anr   |         |       |        |         |

14.6.4  
14

HIGH STANDARD CHECK SUMMARY

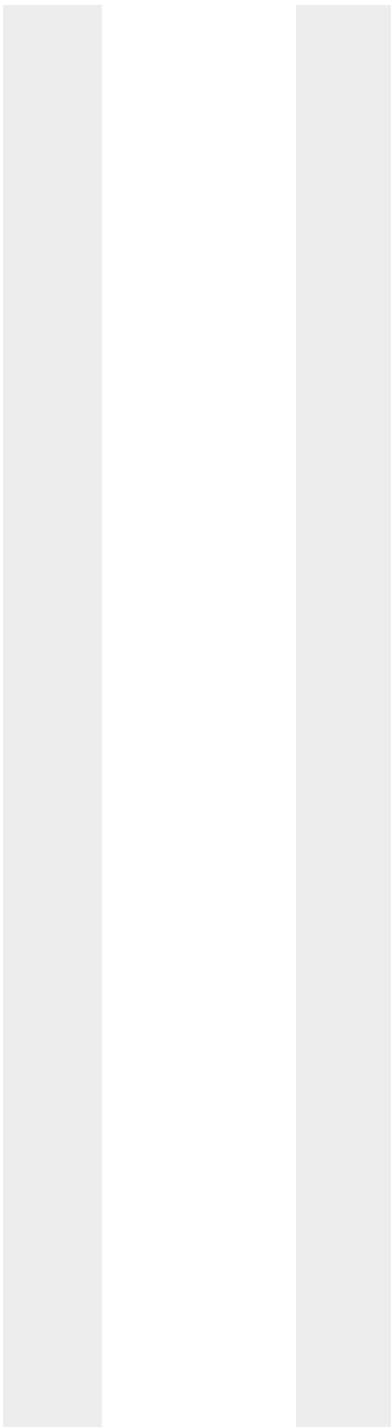
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: 90 to 110 % Recovery Run ID: MA44328 Units: ug/l

| Time:      |      | 16:43   |       | 16:47 |               |
|------------|------|---------|-------|-------|---------------|
| Sample ID: | HSTD | HSTD1   | HSTD  | HSTD2 |               |
| Metal      | True | Results | % Rec | True  | Results % Rec |

Zirconium

(\*) Outside of QC limits  
 (anr) Analyte not requested



14.6.4  
 14



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44328 Units: ug/l

| Time:      | 16:31 | 16:34 | 23:31 |         |          |         |       |         |       |
|------------|-------|-------|-------|---------|----------|---------|-------|---------|-------|
| Sample ID: | CRID1 | CRI2  | CRI3  | Results | % Rec    | Results | % Rec | Results | % Rec |
| Metal      | True  | True  | True  |         |          |         |       |         |       |
| Aluminum   | 200   | 500   | 100   | anr     |          |         |       |         |       |
| Antimony   | 6.0   | 20    | 3.0   | anr     |          |         |       |         |       |
| Arsenic    | 8.0   | 20    | 3.0   | 2.50    | 83.3     | 8.10    | 101.3 | 7.70    | 96.3  |
| Barium     | 200   |       | 4.0   | 4.50    | 112.5    | 207     | 103.5 | 200     | 100.0 |
| Beryllium  | 2.0   |       | 1.0   | anr     |          |         |       |         |       |
| Bismuth    | 20    |       |       |         |          |         |       |         |       |
| Boron      | 100   |       | 10    |         |          |         |       |         |       |
| Cadmium    | 3.0   |       | 1.0   | 1.20    | 120.0    | 3.10    | 103.3 | 3.20    | 106.7 |
| Calcium    | 5000  | 2000  | 1000  | 1080    | 108.0    | 5340    | 106.8 | 5160    | 103.2 |
| Chromium   | 10    |       | 2.0   | 2.20    | 110.0    | 10.6    | 106.0 | 10.2    | 102.0 |
| Cobalt     | 50    |       | 3.0   | anr     |          |         |       |         |       |
| Copper     | 10    |       | 2.0   | anr     |          |         |       |         |       |
| Iron       | 100   | 500   |       |         |          |         |       |         |       |
| Lead       | 3.0   | 20    | 2.5   | 0.400U  | 0.0* (a) | 3.40    | 113.3 | 3.80    | 126.7 |
| Lithium    | 50    |       |       |         |          |         |       |         |       |
| Magnesium  | 5000  | 2000  | 100   | anr     |          |         |       |         |       |
| Manganese  | 15    |       | 3.0   | anr     |          |         |       |         |       |
| Molybdenum | 20    |       |       |         |          |         |       |         |       |
| Nickel     | 10    |       | 4.0   | anr     |          |         |       |         |       |
| Phosphorus | 50    |       |       |         |          |         |       |         |       |
| Potassium  | 5000  |       | 2000  | anr     |          |         |       |         |       |
| Selenium   | 10    | 20    | 5.0   | 1.50U   | 0.0* (a) | 7.20    | 72.0  | 8.60    | 86.0  |
| Silicon    | 200   |       |       |         |          |         |       |         |       |
| Silver     | 5.0   |       | 2.0   | -0.400U | 0.0* (a) | 5.80    | 116.0 | 4.80    | 96.0  |
| Sodium     | 5000  |       | 1000  | anr     |          |         |       |         |       |
| Strontium  | 10    |       |       |         |          |         |       |         |       |
| Sulfur     | 50    |       |       |         |          |         |       |         |       |
| Thallium   | 10    |       | 2.0   | 2.60    | 130.0    | 9.50    | 95.0  | 11.3    | 113.0 |
| Tin        | 10    |       |       |         |          |         |       |         |       |
| Titanium   | 10    |       |       |         |          |         |       |         |       |
| Tungsten   | 50    |       |       |         |          |         |       |         |       |
| Vanadium   | 50    |       | 2.0   | anr     |          |         |       |         |       |
| Zinc       | 20    |       | 10    | anr     |          |         |       |         |       |

14.6.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

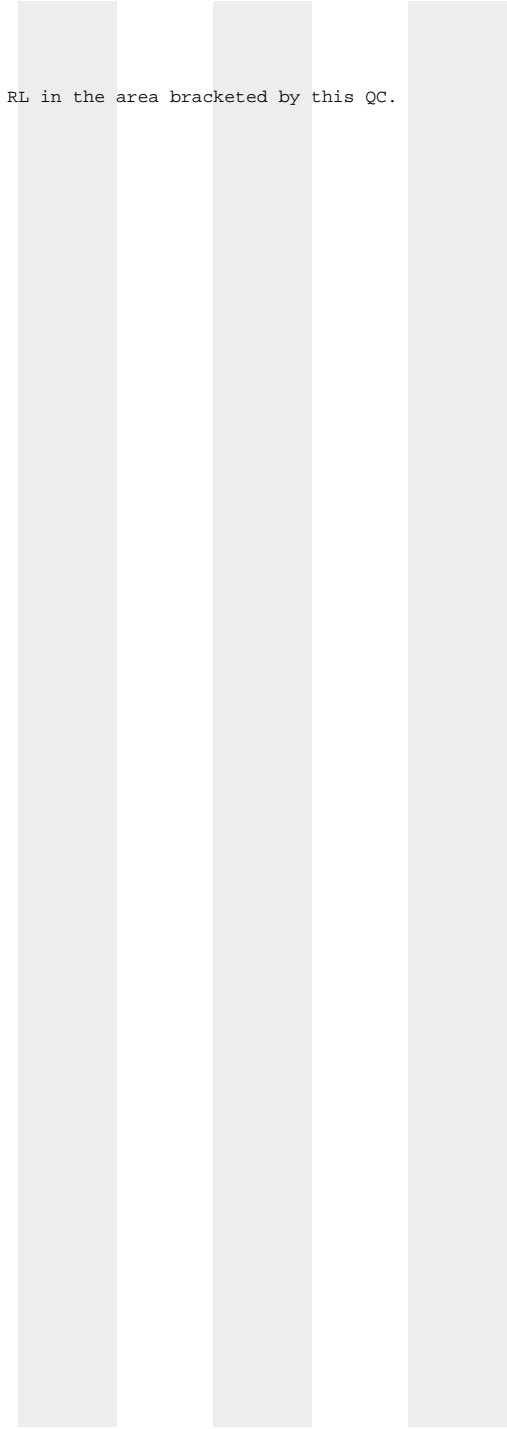
Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44328 Units: ug/l

| Time:      | 16:31         | 16:34         | 23:31         |
|------------|---------------|---------------|---------------|
| Sample ID: | CRI           | CRIA          | CRID          |
| Metal      | True          | True          | True          |
|            | CRID1         | CRI2          | CRI3          |
|            | Results % Rec | Results % Rec | Results % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.



14.6.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44328 Units: ug/l

| Time:      | Sample ID: | CRI  | CRIA | CRID    | 23:34<br>CRID2 | Results | % Rec |
|------------|------------|------|------|---------|----------------|---------|-------|
| Metal      | True       | True | True | True    | True           |         |       |
| Aluminum   | 200        | 500  | 100  | anr     |                |         |       |
| Antimony   | 6.0        | 20   | 3.0  | anr     |                |         |       |
| Arsenic    | 8.0        | 20   | 3.0  | 3.60    | 120.0          |         |       |
| Barium     | 200        |      | 4.0  | 4.70    | 117.5          |         |       |
| Beryllium  | 2.0        |      | 1.0  | anr     |                |         |       |
| Bismuth    | 20         |      |      |         |                |         |       |
| Boron      | 100        |      | 10   |         |                |         |       |
| Cadmium    | 3.0        |      | 1.0  | 1.00    | 100.0          |         |       |
| Calcium    | 5000       | 2000 | 1000 | 1040    | 104.0          |         |       |
| Chromium   | 10         |      | 2.0  | 2.50    | 125.0          |         |       |
| Cobalt     | 50         |      | 3.0  | anr     |                |         |       |
| Copper     | 10         |      | 2.0  | anr     |                |         |       |
| Iron       | 100        | 500  |      |         |                |         |       |
| Lead       | 3.0        | 20   | 2.5  | 0.400U  | 0.0* (a)       |         |       |
| Lithium    | 50         |      |      |         |                |         |       |
| Magnesium  | 5000       | 2000 | 100  | anr     |                |         |       |
| Manganese  | 15         |      | 3.0  | anr     |                |         |       |
| Molybdenum | 20         |      |      |         |                |         |       |
| Nickel     | 10         |      | 4.0  | anr     |                |         |       |
| Phosphorus | 50         |      |      |         |                |         |       |
| Potassium  | 5000       |      | 2000 | anr     |                |         |       |
| Selenium   | 10         | 20   | 5.0  | 2.60U   | 0.0* (a)       |         |       |
| Silicon    | 200        |      |      |         |                |         |       |
| Silver     | 5.0        |      | 2.0  | -0.100U | 0.0* (a)       |         |       |
| Sodium     | 5000       |      | 1000 | anr     |                |         |       |
| Strontium  | 10         |      |      |         |                |         |       |
| Sulfur     | 50         |      |      |         |                |         |       |
| Thallium   | 10         |      | 2.0  | 1.40U   | 0.0* (a)       |         |       |
| Tin        | 10         |      |      |         |                |         |       |
| Titanium   | 10         |      |      |         |                |         |       |
| Tungsten   | 50         |      |      |         |                |         |       |
| Vanadium   | 50         |      | 2.0  | anr     |                |         |       |
| Zinc       | 20         |      | 10   | anr     |                |         |       |

14.6.5  
14

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA44328 Units: ug/l

|            |      |      |      |         |       |
|------------|------|------|------|---------|-------|
| Time:      |      |      |      | 23:34   |       |
| Sample ID: | CRI  | CRIA | CRID | CRID2   |       |
| Metal      | True | True | True | Results | % Rec |

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

14.6.5  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
QC Limits: 80 to 120 % Recovery Run ID: MA44328 Units: ug/l

| Time:      |        |        | 16:37   |       |         | 16:40 |         |       | 23:38   |       |  | 23:41 |
|------------|--------|--------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA   | ICSAB  | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True   | True   | Results |       | Results |       | Results |       | Results |       |  |       |
| Aluminum   | 500000 | 500000 | 521000  | 104.2 | 513000  | 102.6 | 496000  | 99.2  | 512000  | 102.4 |  |       |
| Antimony   |        | 1000   | -0.300  |       | 1070    | 107.0 | 1.40    |       | 1040    | 104.0 |  |       |
| Arsenic    |        | 1000   | 3.20    |       | 1070    | 107.0 | 0.500   |       | 1050    | 105.0 |  |       |
| Barium     |        | 500    | 1.60    |       | 509     | 101.8 | 1.40    |       | 489     | 97.8  |  |       |
| Beryllium  |        | 500    | 0.100   |       | 503     | 100.6 | 0.00    |       | 486     | 97.2  |  |       |
| Bismuth    |        | 500    | -16.9   |       | 514     | 102.8 | -15.2   |       | 492     | 98.4  |  |       |
| Boron      |        | 500    | 0.900   |       | 518     | 103.6 | 1.30    |       | 497     | 99.4  |  |       |
| Cadmium    |        | 1000   | 0.500   |       | 1040    | 104.0 | 0.600   |       | 1010    | 101.0 |  |       |
| Calcium    | 400000 | 400000 | 403000  | 100.8 | 394000  | 98.5  | 386000  | 96.5  | 386000  | 96.5  |  |       |
| Chromium   |        | 500    | 0.200   |       | 494     | 98.8  | 0.800   |       | 481     | 96.2  |  |       |
| Cobalt     |        | 500    | -0.400  |       | 501     | 100.2 | -0.200  |       | 482     | 96.4  |  |       |
| Copper     |        | 500    | -0.300  |       | 519     | 103.8 | 0.100   |       | 491     | 98.2  |  |       |
| Iron       | 200000 | 200000 | 200000  | 100.0 | 196000  | 98.0  | 192000  | 96.0  | 193000  | 96.5  |  |       |
| Lead       |        | 1000   | 5.60    |       | 999     | 99.9  | 5.20    |       | 967     | 96.7  |  |       |
| Lithium    |        | 500    | 3.40    |       | 530     | 106.0 | 3.30    |       | 517     | 103.4 |  |       |
| Magnesium  | 500000 | 500000 | 514000  | 102.8 | 509000  | 101.8 | 489000  | 97.8  | 492000  | 98.4  |  |       |
| Manganese  |        | 500    | -0.400  |       | 514     | 102.8 | -0.900  |       | 495     | 99.0  |  |       |
| Molybdenum |        | 500    | 1.30    |       | 497     | 99.4  | 0.400   |       | 478     | 95.6  |  |       |
| Nickel     |        | 1000   | -0.900  |       | 990     | 99.0  | 0.100   |       | 960     | 96.0  |  |       |
| Phosphorus |        | 500    | 6.70    |       | 519     | 103.8 | 8.30    |       | 500     | 100.0 |  |       |
| Potassium  |        |        | -0.100  |       | 53.7    |       | 75.0    |       | 37.0    |       |  |       |
| Selenium   |        | 1000   | -3.50   |       | 994     | 99.4  | -4.60   |       | 953     | 95.3  |  |       |
| Silicon    |        | 500    | 13.1    |       | 541     | 108.2 | 13.7    |       | 522     | 104.4 |  |       |
| Silver     |        | 1000   | 0.00    |       | 998     | 99.8  | -2.20   |       | 957     | 95.7  |  |       |
| Sodium     |        |        | -22.5   |       | 0.600   |       | 31.7    |       | 59.9    |       |  |       |
| Strontium  |        | 500    | -2.80   |       | 520     | 104.0 | -2.90   |       | 500     | 100.0 |  |       |
| Sulfur     |        | 500    | 2.80    |       | 526     | 105.2 | 2.70    |       | 509     | 101.8 |  |       |
| Thallium   |        | 1000   | 2.50    |       | 1010    | 101.0 | 2.60    |       | 972     | 97.2  |  |       |
| Tin        |        | 500    | -5.20   |       | 479     | 95.8  | -4.90   |       | 464     | 92.8  |  |       |
| Titanium   |        | 500    | -2.40   |       | 499     | 99.8  | -2.80   |       | 484     | 96.8  |  |       |
| Tungsten   |        | 500    | -1.30   |       | 496     | 99.2  | -1.40   |       | 478     | 95.6  |  |       |
| Vanadium   |        | 500    | 0.800   |       | 504     | 100.8 | 1.60    |       | 486     | 97.2  |  |       |
| Zinc       |        | 1000   | 5.30    |       | 983     | 98.3  | 5.10    |       | 959     | 95.9  |  |       |

14.6.6  
14

INTERFERING ELEMENT CHECK STANDARDS SUMMARY  
 Part 1 - ICSA and ICSAB Standards

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: SC050218M2.ICP Date Analyzed: 05/02/18 Methods: SW846 6010C  
 QC Limits: 80 to 120 % Recovery Run ID: MA44328 Units: ug/l

| Time:      |      |       | 16:37   |       |         | 16:40 |         |       | 23:38   |       |  | 23:41 |
|------------|------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|-------|
| Sample ID: | ICSA | ICSAB | ICSAL   | % Rec | ICSAB1  | % Rec | ICSAB2  | % Rec | ICSAB2  | % Rec |  |       |
| Metal      | True | True  | Results |       | Results |       | Results |       | Results |       |  |       |

|           |  |     |       |  |     |      |       |  |     |      |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|
| Zirconium |  | 500 | -2.60 |  | 498 | 99.6 | -2.80 |  | 479 | 95.8 |
|-----------|--|-----|-------|--|-----|------|-------|--|-----|------|

(\*) Outside of QC limits  
 (anr) Analyte not requested

14.6.6  
 14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 05/01/18

| Metal      | RL    | IDL   | MDL   | MB<br>raw | final  |
|------------|-------|-------|-------|-----------|--------|
| Aluminum   | 1.0   | .095  | .17   |           |        |
| Antimony   | 0.50  | .012  | .022  |           |        |
| Arsenic    | 0.50  | .006  | .014  | 0.0064    | <0.50  |
| Barium     | 1.0   | .003  | .0063 | 0.0029    | <1.0   |
| Beryllium  | 0.025 | .001  | .002  |           |        |
| Bismuth    | 0.10  | .016  | .025  |           |        |
| Boron      | 0.50  | .0075 | .067  |           |        |
| Cadmium    | 0.025 | .002  | .0035 | 0.0014    | <0.025 |
| Calcium    | 10    | .028  | .14   |           |        |
| Chromium   | 0.050 | .0035 | .0043 | 0.0025    | <0.050 |
| Cobalt     | 0.25  | .002  | .0036 |           |        |
| Copper     | 0.050 | .0055 | .016  |           |        |
| Iron       | 0.50  | .018  | .16   |           |        |
| Lead       | 0.50  | .011  | .013  | 0.0042    | <0.50  |
| Lithium    | 0.25  | .017  | .076  |           |        |
| Magnesium  | 10    | .12   | .32   |           |        |
| Manganese  | 0.075 | .0007 | .0021 |           |        |
| Molybdenum | 0.10  | .002  | .007  |           |        |
| Nickel     | 0.050 | .0025 | .0067 |           |        |
| Potassium  | 10    | .3    | 1.2   |           |        |
| Selenium   | 0.50  | .019  | .033  | -0.015    | <0.50  |
| Silicon    | 1.0   | .009  | .22   |           |        |
| Silver     | 0.050 | .0035 | .016  | 0.00090   | <0.050 |
| Sodium     | 10    | .17   | .64   |           |        |
| Strontium  | 0.050 | .001  | .0015 |           |        |
| Sulfur     | 0.25  | .016  | .075  |           |        |
| Thallium   | 0.50  | .009  | .0082 |           |        |
| Tin        | 0.050 | .0045 | .012  |           |        |
| Titanium   | 0.050 | .0035 | .0092 |           |        |
| Tungsten   | 0.25  | .011  | .071  |           |        |
| Vanadium   | 0.25  | .004  | .0064 |           |        |
| Zinc       | 0.10  | .001  | .002  |           |        |
| Zirconium  | 0.050 | .0015 | .01   |           |        |

14.7.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 05/01/18

| Metal | RL | IDL | MDL | MB<br>raw | final |
|-------|----|-----|-----|-----------|-------|
|-------|----|-----|-----|-----------|-------|

Associated samples MP6897: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.7.1  
14



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original MS |      | SpikeLot<br>MPSPK2 | % Rec | QC<br>Limits |
|------------|---------------------------|------|--------------------|-------|--------------|
| Aluminum   |                           |      |                    |       |              |
| Antimony   |                           |      |                    |       |              |
| Arsenic    | 0.0                       | 1.9  | 2.0                | 95.0  | 75-125       |
| Barium     | 0.061                     | 2.0  | 2.0                | 97.0  | 75-125       |
| Beryllium  |                           |      |                    |       |              |
| Bismuth    |                           |      |                    |       |              |
| Boron      |                           |      |                    |       |              |
| Cadmium    | 0.0                       | 1.9  | 2.0                | 95.0  | 75-125       |
| Calcium    |                           |      |                    |       |              |
| Chromium   | 0.0057                    | 2.0  | 2.0                | 99.7  | 75-125       |
| Cobalt     |                           |      |                    |       |              |
| Copper     |                           |      |                    |       |              |
| Iron       |                           |      |                    |       |              |
| Lead       | 0.0                       | 2.0  | 2.0                | 100.0 | 75-125       |
| Lithium    |                           |      |                    |       |              |
| Magnesium  |                           |      |                    |       |              |
| Manganese  |                           |      |                    |       |              |
| Molybdenum |                           |      |                    |       |              |
| Nickel     |                           |      |                    |       |              |
| Potassium  |                           |      |                    |       |              |
| Selenium   | 0.0                       | 2.0  | 2.0                | 100.0 | 75-125       |
| Silicon    |                           |      |                    |       |              |
| Silver     | 0.0                       | 0.24 | 0.25               | 96.0  | 75-125       |
| Sodium     |                           |      |                    |       |              |
| Strontium  |                           |      |                    |       |              |
| Sulfur     |                           |      |                    |       |              |
| Thallium   |                           |      |                    |       |              |
| Tin        |                           |      |                    |       |              |
| Titanium   |                           |      |                    |       |              |
| Tungsten   |                           |      |                    |       |              |
| Vanadium   |                           |      |                    |       |              |
| Zinc       |                           |      |                    |       |              |
| Zirconium  |                           |      |                    |       |              |

14.7.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

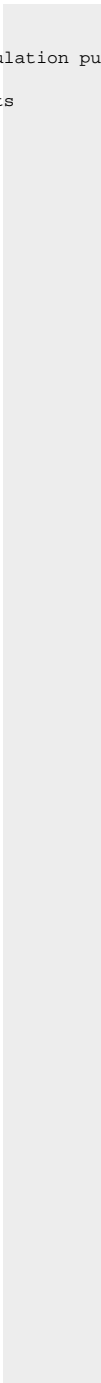
Prep Date: 04/30/18

| Metal | JC65070-1A<br>Original MS | SpikeLot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------------------|--------------------|-------|--------------|
|-------|---------------------------|--------------------|-------|--------------|

Associated samples MP6897: JC65157-12A

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested



14.7.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original MSD |      | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|------------|----------------------------|------|--------------------|-------|------------|-------------|
| Aluminum   |                            |      |                    |       |            |             |
| Antimony   |                            |      |                    |       |            |             |
| Arsenic    | 0.0                        | 1.9  | 2.0                | 95.0  | 0.0        | 20          |
| Barium     | 0.061                      | 2.1  | 2.0                | 102.0 | 4.9        | 20          |
| Beryllium  |                            |      |                    |       |            |             |
| Bismuth    |                            |      |                    |       |            |             |
| Boron      |                            |      |                    |       |            |             |
| Cadmium    | 0.0                        | 2.0  | 2.0                | 100.0 | 5.1        | 20          |
| Calcium    |                            |      |                    |       |            |             |
| Chromium   | 0.0057                     | 2.0  | 2.0                | 99.7  | 0.0        | 20          |
| Cobalt     |                            |      |                    |       |            |             |
| Copper     |                            |      |                    |       |            |             |
| Iron       |                            |      |                    |       |            |             |
| Lead       | 0.0                        | 2.0  | 2.0                | 100.0 | 0.0        | 20          |
| Lithium    |                            |      |                    |       |            |             |
| Magnesium  |                            |      |                    |       |            |             |
| Manganese  |                            |      |                    |       |            |             |
| Molybdenum |                            |      |                    |       |            |             |
| Nickel     |                            |      |                    |       |            |             |
| Potassium  |                            |      |                    |       |            |             |
| Selenium   | 0.0                        | 2.0  | 2.0                | 100.0 | 0.0        | 20          |
| Silicon    |                            |      |                    |       |            |             |
| Silver     | 0.0                        | 0.24 | 0.25               | 96.0  | 0.0        | 20          |
| Sodium     |                            |      |                    |       |            |             |
| Strontium  |                            |      |                    |       |            |             |
| Sulfur     |                            |      |                    |       |            |             |
| Thallium   |                            |      |                    |       |            |             |
| Tin        |                            |      |                    |       |            |             |
| Titanium   |                            |      |                    |       |            |             |
| Tungsten   |                            |      |                    |       |            |             |
| Vanadium   |                            |      |                    |       |            |             |
| Zinc       |                            |      |                    |       |            |             |
| Zirconium  |                            |      |                    |       |            |             |

14.7.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

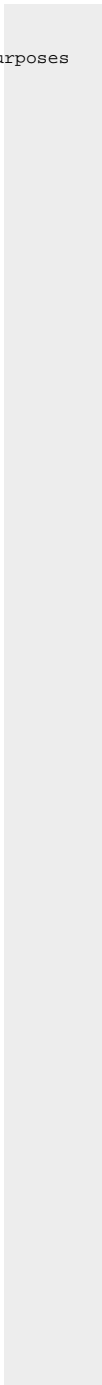
Prep Date: 04/30/18

| Metal | JC65070-1A<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|----------------------------|--------------------|-------|------------|-------------|
|-------|----------------------------|--------------------|-------|------------|-------------|

Associated samples MP6897: JC65157-12A

Results < IDL are shown as zero for calculation purposes

- (\*) Outside of QC limits
- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested



14.7.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: mg/l

Prep Date: 05/01/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   |            |                 |       |           |
| Antimony   |            |                 |       |           |
| Arsenic    | 1.9        | 2.0             | 95.0  | 80-120    |
| Barium     | 1.9        | 2.0             | 95.0  | 80-120    |
| Beryllium  |            |                 |       |           |
| Bismuth    |            |                 |       |           |
| Boron      |            |                 |       |           |
| Cadmium    | 2.0        | 2.0             | 100.0 | 80-120    |
| Calcium    |            |                 |       |           |
| Chromium   | 2.0        | 2.0             | 100.0 | 80-120    |
| Cobalt     |            |                 |       |           |
| Copper     |            |                 |       |           |
| Iron       |            |                 |       |           |
| Lead       | 2.0        | 2.0             | 100.0 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  |            |                 |       |           |
| Manganese  |            |                 |       |           |
| Molybdenum |            |                 |       |           |
| Nickel     |            |                 |       |           |
| Potassium  |            |                 |       |           |
| Selenium   | 2.0        | 2.0             | 100.0 | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 0.24       | 0.25            | 96.0  | 80-120    |
| Sodium     |            |                 |       |           |
| Strontium  |            |                 |       |           |
| Sulfur     |            |                 |       |           |
| Thallium   |            |                 |       |           |
| Tin        |            |                 |       |           |
| Titanium   |            |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   |            |                 |       |           |
| Zinc       |            |                 |       |           |
| Zirconium  |            |                 |       |           |

14.7.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: mg/l

Prep Date: 05/01/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Associated samples MP6897: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.7.3

14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
 Matrix Type: LEACHATE

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 04/30/18

| Metal      | JC65070-1A<br>Original | SDL 5:25 | %DIF     | QC<br>Limits |
|------------|------------------------|----------|----------|--------------|
| Aluminum   |                        |          |          |              |
| Antimony   |                        |          |          |              |
| Arsenic    | 0.00                   | 30.6     | NC       | 0-10         |
| Barium     | 61.0                   | 53.1     | 13.0 (a) | 0-10         |
| Beryllium  |                        |          |          |              |
| Bismuth    |                        |          |          |              |
| Boron      |                        |          |          |              |
| Cadmium    | 0.00                   | 0.00     | NC       | 0-10         |
| Calcium    |                        |          |          |              |
| Chromium   | 5.70                   | 0.00     | 100.0(a) | 0-10         |
| Cobalt     |                        |          |          |              |
| Copper     |                        |          |          |              |
| Iron       |                        |          |          |              |
| Lead       | 0.00                   | 0.00     | NC       | 0-10         |
| Lithium    |                        |          |          |              |
| Magnesium  |                        |          |          |              |
| Manganese  |                        |          |          |              |
| Molybdenum |                        |          |          |              |
| Nickel     |                        |          |          |              |
| Potassium  |                        |          |          |              |
| Selenium   | 0.00                   | 0.00     | NC       | 0-10         |
| Silicon    |                        |          |          |              |
| Silver     | 0.00                   | 0.00     | NC       | 0-10         |
| Sodium     |                        |          |          |              |
| Strontium  |                        |          |          |              |
| Sulfur     |                        |          |          |              |
| Thallium   |                        |          |          |              |
| Tin        |                        |          |          |              |
| Titanium   |                        |          |          |              |
| Tungsten   |                        |          |          |              |
| Vanadium   |                        |          |          |              |
| Zinc       |                        |          |          |              |
| Zirconium  |                        |          |          |              |

14.7.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6897  
Matrix Type: LEACHATE

Methods: SW846 6010C  
Units: ug/l

Prep Date: 04/30/18

|       |                                      |              |
|-------|--------------------------------------|--------------|
| Metal | JC65070-1A<br>Original SDL 5:25 %DIF | QC<br>Limits |
|-------|--------------------------------------|--------------|

Associated samples MP6897: JC65157-12A

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

14.7.4

14



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/01/18

| Metal      | RL   | IDL  | MDL  | MB<br>raw | final |
|------------|------|------|------|-----------|-------|
| Aluminum   | 51   | 1.9  | 5.3  | 0.19      | <51   |
| Antimony   | 2.0  | .24  | .38  | 0.11      | <2.0  |
| Arsenic    | 2.0  | .12  | .26  | -0.020    | <2.0  |
| Barium     | 20   | .061 | .18  | 0.051     | <20   |
| Beryllium  | 0.20 | .02  | .05  | 0.0       | <0.20 |
| Bismuth    | 2.0  | .33  | .5   |           |       |
| Boron      | 10   | .15  | 1.3  |           |       |
| Cadmium    | 0.51 | .041 | .058 | 0.031     | <0.51 |
| Calcium    | 510  | .56  | 43   | 8.6       | <510  |
| Chromium   | 1.0  | .071 | .18  | 0.041     | <1.0  |
| Cobalt     | 5.1  | .041 | .071 | 0.020     | <5.1  |
| Copper     | 2.6  | .11  | .4   | 0.15      | <2.6  |
| Iron       | 51   | .36  | 4.7  | 2.1       | <51   |
| Lead       | 2.0  | .22  | .35  | 0.13      | <2.0  |
| Lithium    | 5.1  | .35  | 1.2  |           |       |
| Magnesium  | 510  | 2.5  | 14   | 0.73      | <510  |
| Manganese  | 1.5  | .014 | .089 | 0.031     | <1.5  |
| Molybdenum | 2.0  | .041 | .16  |           |       |
| Nickel     | 4.1  | .051 | .25  | 0.031     | <4.1  |
| Phosphorus | 10   | .2   | 4.1  |           |       |
| Potassium  | 1000 | 6.1  | 31   | 8.2       | <1000 |
| Selenium   | 2.0  | .38  | .66  | -0.092    | <2.0  |
| Silicon    | 20   | .18  | 2.6  |           |       |
| Silver     | 0.51 | .071 | .29  | -0.031    | <0.51 |
| Sodium     | 1000 | 3.5  | 14   | 12.3      | <1000 |
| Strontium  | 5.1  | .02  | .97  |           |       |
| Sulfur     | 10   | .32  | 3    |           |       |
| Thallium   | 1.0  | .18  | .41  | -0.34     | <1.0  |
| Tin        | 10   | .092 | 2.6  |           |       |
| Titanium   | 1.0  | .071 | .27  |           |       |
| Tungsten   | 5.1  | .22  | 1.2  |           |       |
| Vanadium   | 5.1  | .082 | .09  | -0.010    | <5.1  |
| Zinc       | 5.1  | .02  | 3.9  | 0.11      | <5.1  |

14.8.1  
14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/01/18

| Metal | RL | IDL | MDL | MB  |       |
|-------|----|-----|-----|-----|-------|
|       |    |     |     | raw | final |

Zirconium 2.0 .031 .25

Associated samples MP6898: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.8.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/01/18

| Metal      | JC65119-8<br>Original MS | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits     |
|------------|--------------------------|--------------------|-------|------------------|
| Aluminum   | 4700                     | 10600              | 2750  | 214.5N(a) 75-125 |
| Antimony   | 0.0                      | 152                | 220   | 69.1N(a) 75-125  |
| Arsenic    | 1.7                      | 198                | 220   | 89.2 75-125      |
| Barium     | 50.3                     | 264                | 220   | 97.1 75-125      |
| Beryllium  | 0.42                     | 208                | 220   | 94.3 75-125      |
| Bismuth    |                          |                    |       |                  |
| Boron      |                          |                    |       |                  |
| Cadmium    | 0.0                      | 202                | 220   | 91.8 75-125      |
| Calcium    | 6690                     | 6430               | 2750  | -9.5N(a) 75-125  |
| Chromium   | 8.9                      | 215                | 220   | 93.7 75-125      |
| Cobalt     | 3.7                      | 212                | 220   | 94.7 75-125      |
| Copper     | 14.4                     | 218                | 220   | 92.5 75-125      |
| Iron       | 10100                    | 12400              | 2750  | 83.6 75-125      |
| Lead       | 6.5                      | 216                | 220   | 95.2 75-125      |
| Lithium    |                          |                    |       |                  |
| Magnesium  | 1780                     | 4610               | 2750  | 102.9 75-125     |
| Manganese  | 293                      | 429                | 220   | 61.8N(a) 75-125  |
| Molybdenum |                          |                    |       |                  |
| Nickel     | 8.0                      | 217                | 220   | 95.0 75-125      |
| Phosphorus |                          |                    |       |                  |
| Potassium  | 885                      | 4470               | 2750  | 130.4N(a) 75-125 |
| Selenium   | 0.0                      | 198                | 220   | 90.0 75-125      |
| Silicon    |                          |                    |       |                  |
| Silver     | 0.13                     | 24.4               | 27.5  | 88.2 75-125      |
| Sodium     | 110                      | 2660               | 2750  | 92.7 75-125      |
| Strontium  |                          |                    |       |                  |
| Sulfur     |                          |                    |       |                  |
| Thallium   | 0.23                     | 211                | 220   | 95.8 75-125      |
| Tin        |                          |                    |       |                  |
| Titanium   |                          |                    |       |                  |
| Tungsten   |                          |                    |       |                  |
| Vanadium   | 12.8                     | 217                | 220   | 92.8 75-125      |
| Zinc       | 21.3                     | 226                | 220   | 93.0 75-125      |

14.8.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/01/18

| Metal | JC65119-8<br>Original MS | Spike<br>lot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|--------------------------|------------------------|-------|--------------|
|-------|--------------------------|------------------------|-------|--------------|

Zirconium

Associated samples MP6898: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes

(\* ) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.8.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/01/18

| Metal      | JC65119-8<br>Original MSD | MSD   | SpikeLot<br>MPSPK2 | % Rec     | MSD<br>RPD | QC<br>Limit |
|------------|---------------------------|-------|--------------------|-----------|------------|-------------|
| Aluminum   | 4700                      | 11700 | 2780               | 252.0N(a) | 9.9        | 20          |
| Antimony   | 0.0                       | 165   | 222                | 74.3N(a)  | 8.2        | 20          |
| Arsenic    | 1.7                       | 215   | 222                | 96.0      | 8.2        | 20          |
| Barium     | 50.3                      | 287   | 222                | 106.5     | 8.3        | 20          |
| Beryllium  | 0.42                      | 225   | 222                | 101.1     | 7.9        | 20          |
| Bismuth    |                           |       |                    |           |            |             |
| Boron      |                           |       |                    |           |            |             |
| Cadmium    | 0.0                       | 220   | 222                | 99.0      | 8.5        | 20          |
| Calcium    | 6690                      | 6210  | 2780               | -17.3N(a) | 3.5        | 20          |
| Chromium   | 8.9                       | 232   | 222                | 100.4     | 7.6        | 20          |
| Cobalt     | 3.7                       | 232   | 222                | 102.7     | 9.0        | 20          |
| Copper     | 14.4                      | 232   | 222                | 97.9      | 6.2        | 20          |
| Iron       | 10100                     | 14300 | 2780               | 151.2N(a) | 14.2       | 20          |
| Lead       | 6.5                       | 235   | 222                | 102.8     | 8.4        | 20          |
| Lithium    |                           |       |                    |           |            |             |
| Magnesium  | 1780                      | 5200  | 2780               | 123.1     | 12.0       | 20          |
| Manganese  | 293                       | 437   | 222                | 64.8N(a)  | 1.8        | 20          |
| Molybdenum |                           |       |                    |           |            |             |
| Nickel     | 8.0                       | 238   | 222                | 103.5     | 9.2        | 20          |
| Phosphorus |                           |       |                    |           |            |             |
| Potassium  | 885                       | 4820  | 2780               | 141.7N(a) | 7.5        | 20          |
| Selenium   | 0.0                       | 214   | 222                | 96.3      | 7.8        | 20          |
| Silicon    |                           |       |                    |           |            |             |
| Silver     | 0.13                      | 26.3  | 27.8               | 94.2      | 7.5        | 20          |
| Sodium     | 110                       | 2880  | 2780               | 99.7      | 7.9        | 20          |
| Strontium  |                           |       |                    |           |            |             |
| Sulfur     |                           |       |                    |           |            |             |
| Thallium   | 0.23                      | 228   | 222                | 102.5     | 7.7        | 20          |
| Tin        |                           |       |                    |           |            |             |
| Titanium   |                           |       |                    |           |            |             |
| Tungsten   |                           |       |                    |           |            |             |
| Vanadium   | 12.8                      | 233   | 222                | 99.1      | 7.1        | 20          |
| Zinc       | 21.3                      | 247   | 222                | 101.6     | 8.9        | 20          |

14.8.2  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/01/18

| Metal | JC65119-8<br>Original MSD | SpikeLot<br>MPSPK2 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|--------------------|-------|------------|-------------|
|-------|---------------------------|--------------------|-------|------------|-------------|

Zirconium

Associated samples MP6898: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

14.8.2  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 05/01/18

| Metal      | BSP Result | Spikelot MPSPK2 | % Rec | QC Limits |
|------------|------------|-----------------|-------|-----------|
| Aluminum   | 2490       | 2450            | 101.6 | 80-120    |
| Antimony   | 193        | 196             | 98.4  | 80-120    |
| Arsenic    | 192        | 196             | 97.9  | 80-120    |
| Barium     | 201        | 196             | 102.5 | 80-120    |
| Beryllium  | 203        | 196             | 103.5 | 80-120    |
| Bismuth    |            |                 |       |           |
| Boron      |            |                 |       |           |
| Cadmium    | 196        | 196             | 100.0 | 80-120    |
| Calcium    | 2540       | 2450            | 103.6 | 80-120    |
| Chromium   | 201        | 196             | 102.5 | 80-120    |
| Cobalt     | 200        | 196             | 102.0 | 80-120    |
| Copper     | 195        | 196             | 99.5  | 80-120    |
| Iron       | 2540       | 2450            | 103.6 | 80-120    |
| Lead       | 202        | 196             | 103.0 | 80-120    |
| Lithium    |            |                 |       |           |
| Magnesium  | 2540       | 2450            | 103.6 | 80-120    |
| Manganese  | 208        | 196             | 106.1 | 80-120    |
| Molybdenum |            |                 |       |           |
| Nickel     | 200        | 196             | 102.0 | 80-120    |
| Phosphorus |            |                 |       |           |
| Potassium  | 2470       | 2450            | 100.8 | 80-120    |
| Selenium   | 193        | 196             | 98.4  | 80-120    |
| Silicon    |            |                 |       |           |
| Silver     | 24.0       | 24.5            | 97.9  | 80-120    |
| Sodium     | 2520       | 2450            | 102.8 | 80-120    |
| Strontium  |            |                 |       |           |
| Sulfur     |            |                 |       |           |
| Thallium   | 203        | 196             | 103.5 | 80-120    |
| Tin        |            |                 |       |           |
| Titanium   |            |                 |       |           |
| Tungsten   |            |                 |       |           |
| Vanadium   | 199        | 196             | 101.5 | 80-120    |
| Zinc       | 200        | 196             | 102.0 | 80-120    |

14.8.3  
14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 05/01/18

| Metal | BSP<br>Result | Spikelot<br>MPSPK2 | % Rec | QC<br>Limits |
|-------|---------------|--------------------|-------|--------------|
|-------|---------------|--------------------|-------|--------------|

Zirconium

Associated samples MP6898: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.8.3  
14



SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 05/01/18

| Metal      | JC65119-8<br>Original | SDL 1:5 | %DIF      | QC<br>Limits |
|------------|-----------------------|---------|-----------|--------------|
| Aluminum   | 42300                 | 42000   | 0.7       | 0-10         |
| Antimony   | 0.00                  | 0.00    | NC        | 0-10         |
| Arsenic    | 15.7                  | 16.8    | 7.0       | 0-10         |
| Barium     | 452                   | 449     | 0.6       | 0-10         |
| Beryllium  | 3.80                  | 4.30    | 13.2 (a)  | 0-10         |
| Bismuth    |                       |         |           |              |
| Boron      |                       |         |           |              |
| Cadmium    | 0.00                  | 0.00    | NC        | 0-10         |
| Calcium    | 60200                 | 59900   | 0.6       | 0-10         |
| Chromium   | 80.5                  | 80.7    | 0.2       | 0-10         |
| Cobalt     | 33.5                  | 33.9    | 1.2       | 0-10         |
| Copper     | 129                   | 130     | 0.8       | 0-10         |
| Iron       | 91000                 | 91400   | 0.4       | 0-10         |
| Lead       | 58.9                  | 59.1    | 0.3       | 0-10         |
| Lithium    |                       |         |           |              |
| Magnesium  | 16000                 | 16100   | 0.6       | 0-10         |
| Manganese  | 2640                  | 2670    | 1.3       | 0-10         |
| Molybdenum |                       |         |           |              |
| Nickel     | 72.3                  | 70.7    | 2.2       | 0-10         |
| Phosphorus |                       |         |           |              |
| Potassium  | 7970                  | 7880    | 1.1       | 0-10         |
| Selenium   | 0.00                  | 0.00    | NC        | 0-10         |
| Silicon    |                       |         |           |              |
| Silver     | 1.20                  | 0.00    | 100.0 (a) | 0-10         |
| Sodium     | 991                   | 1030    | 4.0       | 0-10         |
| Strontium  |                       |         |           |              |
| Sulfur     |                       |         |           |              |
| Thallium   | 2.10                  | 0.00    | 100.0 (a) | 0-10         |
| Tin        |                       |         |           |              |
| Titanium   |                       |         |           |              |
| Tungsten   |                       |         |           |              |
| Vanadium   | 116                   | 116     | 0.6       | 0-10         |
| Zinc       | 191                   | 226     | 17.8* (b) | 0-10         |

14.8.4  
14

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6898  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: ug/l

Prep Date: 05/01/18

| Metal | JC65119-8        | QC          |
|-------|------------------|-------------|
|       | Original SDL 1:5 | %DIF Limits |

Zirconium

Associated samples MP6898: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
Matrix Type: LEACHATE

Methods: SW846 7470A  
Units: mg/l

Prep Date: 05/02/18

| Metal   | RL      | IDL     | MDL    | MB       |          |
|---------|---------|---------|--------|----------|----------|
|         |         |         |        | raw      | final    |
| Mercury | 0.00020 | .000059 | .00013 | 0.000029 | <0.00020 |

Associated samples MP6911: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
 Matrix Type: LEACHATE

Methods: SW846 7470A  
 Units: mg/l

Prep Date: 05/01/18

| Metal   | JC65070-1A<br>Original MS | Spike<br>lot<br>HGPW3 | % Rec  | QC<br>Limits |
|---------|---------------------------|-----------------------|--------|--------------|
| Mercury | 0.0                       | 0.0021                | 0.0020 | 105.0 75-125 |

Associated samples MP6911: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.9.2  
 14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
 Matrix Type: LEACHATE

Methods: SW846 7470A  
 Units: mg/l

Prep Date: 05/01/18

| Metal | JC65070-1A<br>Original MSD | SpikeLot<br>HGPW3 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|----------------------------|-------------------|-------|------------|-------------|
|-------|----------------------------|-------------------|-------|------------|-------------|

|         |     |        |        |       |     |    |
|---------|-----|--------|--------|-------|-----|----|
| Mercury | 0.0 | 0.0021 | 0.0020 | 105.0 | 0.0 | 20 |
|---------|-----|--------|--------|-------|-----|----|

Associated samples MP6911: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6911  
Matrix Type: LEACHATE

Methods: SW846 7470A  
Units: mg/l

Prep Date: 05/02/18

| Metal | BSP<br>Result | Spikelot<br>HGPW3 | % Rec | QC<br>Limits |
|-------|---------------|-------------------|-------|--------------|
|-------|---------------|-------------------|-------|--------------|

Mercury 0.0019 0.0020 95.0 80-120

Associated samples MP6911: JC65157-12A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.9.3

14

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6935  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 05/02/18

| Metal   | RL    | IDL   | MDL  | MB<br>raw | final  |
|---------|-------|-------|------|-----------|--------|
| Mercury | 0.033 | .0042 | .015 | -0.0011   | <0.033 |

Associated samples MP6935: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

14.10.1  
14

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6935  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 05/02/18

| Metal | JC65119-8<br>Original MS | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|-------|--------------------------|--------------------|-------|--------------|
|-------|--------------------------|--------------------|-------|--------------|

Mercury 0.047 0.41 0.357 101.6 80-120

Associated samples MP6935: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.10.2  
 14



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6935  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 05/02/18

| Metal | JC65119-8<br>Original MSD | Spikelot<br>HGPWS1 | % Rec | MSD<br>RPD | QC<br>Limit |
|-------|---------------------------|--------------------|-------|------------|-------------|
|-------|---------------------------|--------------------|-------|------------|-------------|

|         |       |      |       |       |     |    |
|---------|-------|------|-------|-------|-----|----|
| Mercury | 0.047 | 0.43 | 0.355 | 107.8 | 4.8 | 20 |
|---------|-------|------|-------|-------|-----|----|

Associated samples MP6935: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

14.10.2  
 14

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC65157  
 Account: AGMNYF - Arcadis  
 Project: NYSEG - Newark Former MGP Site, Newark, NY

QC Batch ID: MP6935  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 05/02/18

| Metal   | BSP<br>Result | Spikelot<br>HGPWS1 | % Rec | QC<br>Limits |
|---------|---------------|--------------------|-------|--------------|
| Mercury | 0.36          | 0.333              | 108.1 | 80-120       |

Associated samples MP6935: JC65157-6, JC65157-7, JC65157-8, JC65157-9, JC65157-10, JC65157-11, JC65157-12

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

14.10.3  
 14

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte            | Batch ID        | RL   | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|--------------------|-----------------|------|-----------|-------|--------------|------------|------------|-----------|
| Cyanide            | GP12794/GN79547 | 0.12 | 0.043     | mg/kg | 1            | 1.21       | 121.0*(a)  | 90-110%   |
| Cyanide            | GP12794/GN79611 | 0.12 | 0.0       | mg/kg | 1            | 0.966      | 96.6       | 90-110%   |
| Cyanide Reactivity | GP12852/GN79687 | 10   | 0.0       | mg/kg | 100          | 5.65       | 5.7        | .25-27%   |
| Percent Sulfur     | GN79919         | 0.10 | 0.0       | %     | .667         | 0.63       | 93.8       | 80-120%   |
| Percent Sulfur     | GP13022/GN79919 |      |           | %     | .667         | 0.63       | 94.0       | 80-120%   |
| Sulfide Reactivity | GP12853/GN79657 | 100  | 0.0       | mg/kg | 388          | 188        | 48.5       | 42-107%   |

Associated Samples:

Batch GN79919: JC65157-6, JC65157-7, JC65157-8  
Batch GP12794: JC65157-6, JC65157-7, JC65157-8, JC65157-9  
Batch GP12852: JC65157-12A  
Batch GP12853: JC65157-12A  
Batch GP13022: JC65157-6, JC65157-7, JC65157-8, JC65157-9

(\*) Outside of QC limits

(a) Spike blank indicates possible high bias, but all associated samples < DL.

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte                   | Batch ID        | QC Sample | Units  | Original Result | DUP Result | RPD      | QC Limits |
|---------------------------|-----------------|-----------|--------|-----------------|------------|----------|-----------|
| Corrosivity as pH         | GN79703         | JC65069-1 | su     | 7.4             | 7.47       | 0.9      | 0-5%      |
| Cyanide                   | GP12794/GN79547 | JC65068-1 | mg/kg  | 0.0             | 0.0        | 0.0      | 0-49%     |
| Cyanide Reactivity        | GP12852/GN79687 | JC65071-1 | mg/kg  | 0.0             | 0.0        | 0.0      | 0-20%     |
| Heat Content, BTU         | GP13019/GN79920 | JC65157-6 | BTU/lb | 642             | 289        | 38.0*(a) | 0-32%     |
| Ignitability (Flashpoint) | GN79680         | JC65068-1 | Deg. F | >200            | >200       | 0.0      | 0-10%     |
| Percent Sulfur            | GN79919         | JC65157-6 | %      | 0.0             | 0.0        | 0.0      | 0-20%     |
| Sulfide Reactivity        | GP12853/GN79657 | JC65071-1 | mg/kg  | 0.00            | 0.00       | 0.0      | 0-20%     |

Associated Samples:

Batch GN79680: JC65157-12A  
Batch GN79703: JC65157-12A  
Batch GN79919: JC65157-6, JC65157-7, JC65157-8  
Batch GP12794: JC65157-6, JC65157-7, JC65157-8, JC65157-9  
Batch GP12852: JC65157-12A  
Batch GP12853: JC65157-12A  
Batch GP13019: JC65157-6, JC65157-7, JC65157-8, JC65157-9

(\*) Outside of QC limits

(a) High RPD due to possible sample nonhomogeneity.

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

| Analyte            | Batch ID        | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|--------------------|-----------------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Cyanide            | GP12794/GN79547 | JC65068-1 | mg/kg | 0.0             | 1.95         | 2.4       | 123.0 | 75-125%   |
| Sulfide Reactivity | GP12853/GN79657 | JC65071-1 | mg/kg | 0.00            | 433          | 174       | 40.2  | 20-82%    |

Associated Samples:

Batch GP12794: JC65157-6, JC65157-7, JC65157-8, JC65157-9

Batch GP12853: JC65157-12A

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050318W1.CN  
Analyst: BM  
Parameters: Cyanide

Date Analyzed: 05/03/18  
Run ID: GN79547

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/I

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 13:58 | GN79547-STD1       | 1               |          | STDA   |
| 13:59 | GN79547-STD2       | 1               |          | STDB   |
| 14:01 | GN79547-STD3       | 1               |          | STDC   |
| 14:02 | GN79547-STD4       | 1               |          | STDD   |
| 14:03 | GN79547-STD5       | 1               |          | STDE   |
| 14:05 | GN79547-STD6       | 1               |          | STDF   |
| 14:06 | GN79547-STD7       | 1               |          | STDG   |
| 14:08 | GN79547-ICV1       | 1               |          |  |
| 14:09 | GN79547-ICB1       | 1               |          |  |
| 14:10 | GN79547-CCV4       | 1               |          |  |
| 14:12 | GN79547-CCB4       | 1               |          |  |
| 14:13 | GP12789-MB2        | 1               |          |  |
| 14:14 | GP12789-B3         | 1               |          |  |
| 14:16 | GP12789-B4         | 1               |          |  |
| 14:17 | GP12789-S1         | 1               |          | matrix interference evident.                         |
| 14:18 | GP12805-MB1        | 1               |          |  |
| 14:20 | GP12805-B1         | 1               |          |  |
| 14:21 | GP12805-S1         | 1               |          |  |
| 14:22 | GP12805-D1         | 1               |          |  |
| 14:24 | ZZZZZZ             | 1               |          |  |
| 14:25 | JC65238-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 14:27 | GN79547-CCV5       | 1               |          |  |
| 14:28 | GN79547-CCB5       | 1               |          |  |
| 14:29 | ZZZZZZ             | 1               |          |  |
| 14:31 | ZZZZZZ             | 1               |          |  |
| 14:32 | ZZZZZZ             | 1               |          |  |
| 14:33 | ZZZZZZ             | 1               |          |  |
| 14:35 | ZZZZZZ             | 1               |          |  |
| 14:36 | ZZZZZZ             | 1               |          |  |
| 14:37 | GP12794-MB1        | 1               |          |  |
| 14:39 | GP12794-B1         | 1               |          | BSP high   |
| 14:40 | GP12794-S1         | 1               |          |  |
| 14:41 | GP12794-S2         | 1               |          |  |

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050318W1.CN  
Analyst: BM  
Parameters: Cyanide

Date Analyzed: 05/03/18  
Run ID: GN79547

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/I

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:43 | GN79547-CCV6       | 1               |          |  |
| 14:44 | GN79547-CCB6       | 1               |          |  |
| 14:46 | GP12794-D1         | 1               |          |  |
| 14:47 | ZZZZZZ             | 1               |          |  |
| 14:48 | JC65068-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 14:50 | JC65069-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 14:51 | ZZZZZZ             | 1               |          |  |
| 14:52 | ZZZZZZ             | 1               |          |  |
| 14:54 | ZZZZZZ             | 1               |          |  |
| 14:55 | ZZZZZZ             | 1               |          |  |
| 14:56 | ZZZZZZ             | 1               |          |  |
| 14:58 | ZZZZZZ             | 1               |          |  |
| 14:59 | GN79547-CCV7       | 1               |          |  |
| 15:01 | GN79547-CCB7       | 1               |          |  |
| 15:02 | ZZZZZZ             | 1               |          |  |
| 15:03 | JC65157-6          | 1               |          | back to need.  |
| 15:05 | JC65157-7          | 1               |          | back to need.  |
| 15:06 | JC65157-8          | 1               |          | back to need.  |
| 15:07 | JC65157-9          | 1               |          |  |
| 15:09 | GP12815-MB1        | 1               |          |  |
| 15:10 | GP12815-B1         | 1               |          | BSP high   |
| 15:11 | GP12815-S1         | 1               |          |  |
| 15:13 | GP12815-S2         | 1               |          |  |
| 15:14 | GP12815-D1         | 1               |          |  |
| 15:16 | GN79547-CCV8       | 1               |          |  |
| 15:17 | GN79547-CCB8       | 1               |          |  |
| 15:18 | JC65250-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 15:20 | JC65250-3          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 15:21 | ZZZZZZ             | 1               |          |  |
| 15:22 | ZZZZZZ             | 1               |          |  |
| 15:24 | ZZZZZZ             | 1               |          |  |
| 15:25 | ZZZZZZ             | 1               |          |  |
| 15:26 | ZZZZZZ             | 1               |          |  |

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050318W1.CN  
Analyst: BM  
Parameters: Cyanide

Date Analyzed: 05/03/18  
Run ID: GN79547  
Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/I

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:28 | ZZZZZZ             | 1               |          |  |
| 15:29 | ZZZZZZ             | 1               |          |  |
| 15:30 | ZZZZZZ             | 1               |          |  |
| 15:32 | GN79547-CCV9       | 1               |          |  |
| 15:33 | GN79547-CCB9       | 1               |          |  |
| 15:35 | ZZZZZZ             | 1               |          |  |
| 15:36 | ZZZZZZ             | 1               |          |  |
| 15:37 | ZZZZZZ             | 1               |          |  |
| 15:39 | ZZZZZZ             | 1               |          |  |
| 15:40 | GP12818-MB1        | 1               |          |  |
| 15:41 | GP12818-B1         | 1               |          | BSP high   |
| 15:43 | GP12818-S1         | 1               |          |  |
| 15:44 | GP12818-D1         | 1               |          |  |
| 15:45 | ZZZZZZ             | 1               |          |  |
| 15:47 | ZZZZZZ             | 1               |          |  |
| 15:48 | GN79547-CCV10      | 1               |          |  |
| 15:50 | GN79547-CCB10      | 1               |          |  |
| 15:51 | ZZZZZZ             | 1               |          |  |
| 15:52 | ZZZZZZ             | 1               |          |  |
| 15:54 | ZZZZZZ             | 1               |          |  |
| 15:55 | JC65371-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 15:56 | GP12817-MB1        | 1               |          |  |
| 15:58 | GP12817-B1         | 1               |          | BSP high   |
| 15:59 | GP12817-S1         | 1               |          |  |
| 16:00 | GP12817-S2         | 1               |          |  |
| 16:02 | GP12817-D1         | 1               |          |  |
| 16:03 | JC65269-2          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:04 | GN79547-CCV11      | 1               |          |  |
| 16:06 | GN79547-CCB11      | 1               |          |  |
| 16:07 | JC65269-4          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:09 | ZZZZZZ             | 1               |          |  |
| 16:10 | ZZZZZZ             | 1               |          |  |
| 16:11 | ZZZZZZ             | 1               |          |  |

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050318W1.CN      Date Analyzed: 05/03/18      Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/I  
Analyst: BM      Run ID: GN79547  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 16:13 | ZZZZZZ             | 1               |          |  |
| 16:14 | ZZZZZZ             | 1               |          |  |
| 16:20 | GN79547-CCV1       | 1               |          |  |
| 16:21 | GN79547-CCB1       | 1               |          |  |
| 16:23 | JC65269-4          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:24 | ZZZZZZ             | 1               |          |  |
| 16:25 | ZZZZZZ             | 1               |          |  |
| 16:27 | ZZZZZZ             | 1               |          |  |
| 16:28 | ZZZZZZ             | 1               |          |  |
| 16:30 | ZZZZZZ             | 1               |          |  |
| 16:31 | ZZZZZZ             | 1               |          |  |
| 16:32 | ZZZZZZ             | 1               |          |  |
| 16:34 | ZZZZZZ             | 1               |          |  |
| 16:35 | ZZZZZZ             | 1               |          |  |
| 16:36 | GN79547-CCV2       | 1               |          |  |
| 16:38 | GN79547-CCB2       | 1               |          |  |
| 16:39 | ZZZZZZ             | 1               |          |  |
| 16:40 | ZZZZZZ             | 1               |          |  |
| 16:42 | ZZZZZZ             | 1               |          |  |
| 16:45 | GN79547-CCV3       | 1               |          |  |
| 16:46 | GN79547-CCB3       | 1               |          |  |

Refer to raw data for calibration curve and standards.

15.4  
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Instrument QC Summary  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050318W1.CN

Date Analyzed: 05/03/18  
Run ID: GN79547

Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/I  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79547-ICV1  | Cyanide   | 0.293    | 0.010 | 0.0058  | .3         | 97.7     | 90-110    |
| GN79547-ICB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV4  | Cyanide   | 0.402    | 0.010 | 0.0058  | .4         | 100.5    | 90-110    |
| GN79547-CCB4  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV5  | Cyanide   | 0.401    | 0.010 | 0.0058  | .4         | 100.3    | 90-110    |
| GN79547-CCB5  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV6  | Cyanide   | 0.402    | 0.010 | 0.0058  | .4         | 100.5    | 90-110    |
| GN79547-CCB6  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV7  | Cyanide   | 0.401    | 0.010 | 0.0058  | .4         | 100.3    | 90-110    |
| GN79547-CCB7  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV8  | Cyanide   | 0.400    | 0.010 | 0.0058  | .4         | 100.0    | 90-110    |
| GN79547-CCB8  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV9  | Cyanide   | 0.401    | 0.010 | 0.0058  | .4         | 100.3    | 90-110    |
| GN79547-CCB9  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV10 | Cyanide   | 0.399    | 0.010 | 0.0058  | .4         | 99.8     | 90-110    |
| GN79547-CCB10 | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV11 | Cyanide   | 0.404    | 0.010 | 0.0058  | .4         | 101.0    | 90-110    |
| GN79547-CCB11 | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV1  | Cyanide   | 0.406    | 0.010 | 0.0058  | .4         | 101.5    | 90-110    |
| GN79547-CCB1  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV2  | Cyanide   | 0.404    | 0.010 | 0.0058  | .4         | 101.0    | 90-110    |
| GN79547-CCB2  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |
| GN79547-CCV3  | Cyanide   | 0.405    | 0.010 | 0.0058  | .4         | 101.3    | 90-110    |
| GN79547-CCB3  | Cyanide   | 0.0058 U | 0.010 | 0.0058  |            |          |           |

(!) Outside of QC limits

15.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050418W1.CN Date Analyzed: 05/04/18 Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Analyst: TG Run ID: GN79611  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 14:38 | GN79611-STD1       | 1               |          | STDA   |
| 14:39 | GN79611-STD2       | 1               |          | STDB   |
| 14:41 | GN79611-STD3       | 1               |          | STDC   |
| 14:42 | GN79611-STD4       | 1               |          | STDD   |
| 14:43 | GN79611-STD5       | 1               |          | STDE   |
| 14:45 | GN79611-STD6       | 1               |          | STDF   |
| 14:46 | GN79611-STD7       | 1               |          | STDG   |
| 14:47 | GN79611-ICV1       | 1               |          |  |
| 14:49 | GN79611-ICB1       | 1               |          |  |
| 14:50 | GN79611-CCV1       | 1               |          |  |
| 14:52 | GN79611-CCB1       | 1               |          |  |
| 14:53 | GP12837-MB1        | 1               |          |  |
| 14:54 | GP12837-B1         | 1               |          |  |
| 14:56 | GP12837-D1         | 1               |          |  |
| 14:57 | JC65018-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 14:58 | ZZZZZZ             | 1               |          |  |
| 15:00 | ZZZZZZ             | 1               |          |  |
| 15:01 | ZZZZZZ             | 1               |          |  |
| 15:02 | ZZZZZZ             | 1               |          |  |
| 15:04 | ZZZZZZ             | 1               |          |  |
| 15:05 | ZZZZZZ             | 1               |          |  |
| 15:07 | GN79611-CCV2       | 1               |          |  |
| 15:08 | GN79611-CCB2       | 1               |          |  |
| 15:09 | ZZZZZZ             | 1               |          |  |
| 15:11 | ZZZZZZ             | 1               |          |  |
| 15:12 | ZZZZZZ             | 1               |          |  |
| 15:13 | ZZZZZZ             | 1               |          |  |
| 15:15 | ZZZZZZ             | 1               |          |  |
| 15:16 | ZZZZZZ             | 1               |          |  |
| 15:17 | ZZZZZZ             | 1               |          |  |
| 15:19 | ZZZZZZ             | 1               |          |  |
| 15:20 | ZZZZZZ             | 1               |          |  |
| 15:21 | ZZZZZZ             | 1               |          |  |

15.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050418W1.CN      Date Analyzed: 05/04/18      Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Analyst: TG      Run ID: GN79611  
Parameters: Cyanide

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 15:23 | GN79611-CCV3       | 1               |          |          |
| 15:24 | GN79611-CCB3       | 1               |          |          |
| 15:26 | ZZZZZZ             | 1               |          |          |
| 15:27 | ZZZZZZ             | 1               |          |          |
| 15:28 | ZZZZZZ             | 1               |          |          |
| 15:30 | GP12794-MB2        | 1               |          |          |
| 15:31 | GP12794-B2         | 1               |          |          |
| 15:32 | ZZZZZZ             | 1               |          |          |
| 15:34 | ZZZZZZ             | 1               |          |          |
| 15:35 | JC65157-6          | 1               |          |          |
| 15:36 | JC65157-7          | 1               |          |          |
| 15:38 | JC65157-8          | 1               |          |          |
| 15:41 | GN79611-CCV4       | 1               |          |          |
| 15:42 | GN79611-CCB4       | 1               |          |          |

Refer to raw data for calibration curve and standards.

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Instrument QC Summary  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050418W1.CN

Date Analyzed: 05/04/18  
Run ID: GN79611

Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79611-ICV1  | Cyanide   | 0.287    | 0.010 | 0.0033  | .3         | 95.7     | 90-110    |
| GN79611-ICB1  | Cyanide   | -0.00714 | 0.010 | 0.0033  |            |          |           |
| GN79611-CCV1  | Cyanide   | 0.362    | 0.010 | 0.0033  | .4         | 90.5     | 90-110    |
| GN79611-CCB1  | Cyanide   | -0.00537 | 0.010 | 0.0033  |            |          |           |
| GN79611-CCV2  | Cyanide   | 0.361    | 0.010 | 0.0033  | .4         | 90.3     | 90-110    |
| GN79611-CCB2  | Cyanide   | -0.00451 | 0.010 | 0.0033  |            |          |           |
| GN79611-CCV3  | Cyanide   | 0.401    | 0.010 | 0.0033  | .4         | 100.3    | 90-110    |
| GN79611-CCB3  | Cyanide   | -0.00669 | 0.010 | 0.0033  |            |          |           |
| GN79611-CCV4  | Cyanide   | 0.400    | 0.010 | 0.0033  | .4         | 100.0    | 90-110    |
| GN79611-CCB4  | Cyanide   | -0.00531 | 0.010 | 0.0033  |            |          |           |

(!) Outside of QC limits

15.5  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050718W1.CN Date Analyzed: 05/07/18 Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Analyst: BM Run ID: GN79687  
Parameters: Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 15:32 | GN79687-STD1       | 1               |          | STDA   |
| 15:34 | GN79687-STD2       | 1               |          | STDB   |
| 15:35 | GN79687-STD3       | 1               |          | STDC   |
| 15:36 | GN79687-STD4       | 1               |          | STDD   |
| 15:38 | GN79687-STD5       | 1               |          | STDE   |
| 15:39 | GN79687-STD6       | 1               |          | STDF   |
| 15:40 | GN79687-STD7       | 1               |          | STDG   |
| 15:42 | GN79687-ICV1       | 1               |          | ICV failed, see rerun.                               |
| 15:46 | GN79687-ICV2       | 1               |          |  |
| 15:48 | GN79687-ICB1       | 1               |          |  |
| 15:49 | GN79687-CCV1       | 1               |          |  |
| 15:50 | GN79687-CCB1       | 1               |          |  |
| 15:52 | GP12882-MB1        | 1               |          |  |
| 15:53 | GP12882-B1         | 1               |          |  |
| 15:54 | GP12882-S1         | 1               |          |  |
| 15:56 | GP12882-S2         | 1               |          |  |
| 15:57 | GP12882-D1         | 1               |          |  |
| 15:58 | ZZZZZZ             | 1               |          |  |
| 16:00 | ZZZZZZ             | 1               |          |  |
| 16:01 | JC65498-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:03 | JC65413-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:04 | ZZZZZZ             | 1               |          |  |
| 16:05 | GN79687-CCV2       | 1               |          |  |
| 16:07 | GN79687-CCB2       | 1               |          |  |
| 16:08 | ZZZZZZ             | 1               |          |  |
| 16:09 | ZZZZZZ             | 1               |          |  |
| 16:11 | ZZZZZZ             | 1               |          |  |
| 16:12 | ZZZZZZ             | 1               |          |  |
| 16:13 | ZZZZZZ             | 1               |          |  |
| 16:15 | ZZZZZZ             | 1               |          |  |
| 16:16 | ZZZZZZ             | 1               |          |  |
| 16:18 | ZZZZZZ             | 1               |          |  |
| 16:19 | ZZZZZZ             | 1               |          |  |

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050718W1.CN Date Analyzed: 05/07/18 Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Analyst: BM Run ID: GN79687  
Parameters: Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 16:20 | ZZZZZZ             | 1               |          |  |
| 16:22 | GN79687-CCV3       | 1               |          |  |
| 16:23 | GN79687-CCB3       | 1               |          |  |
| 16:24 | ZZZZZZ             | 1               |          |  |
| 16:26 | ZZZZZZ             | 1               |          |  |
| 16:27 | ZZZZZZ             | 1               |          |  |
| 16:28 | ZZZZZZ             | 1               |          |  |
| 16:30 | ZZZZZZ             | 1               |          |  |
| 16:31 | GP12887-MB1        | 1               |          |  |
| 16:33 | GP12887-B1         | 1               |          |  |
| 16:34 | GP12887-S1         | 1               |          |  |
| 16:35 | GP12887-S2         | 1               |          |  |
| 16:37 | GP12887-D1         | 1               |          |  |
| 16:38 | GN79687-CCV4       | 1               |          |  |
| 16:39 | GN79687-CCB4       | 1               |          |  |
| 16:41 | ZZZZZZ             | 1               |          |  |
| 16:42 | ZZZZZZ             | 1               |          |  |
| 16:43 | ZZZZZZ             | 1               |          |  |
| 16:45 | ZZZZZZ             | 1               |          |  |
| 16:46 | JC65518-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:47 | JC65519-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 16:49 | ZZZZZZ             | 1               |          |  |
| 16:50 | ZZZZZZ             | 1               |          |  |
| 16:52 | ZZZZZZ             | 1               |          |  |
| 16:53 | ZZZZZZ             | 1               |          |  |
| 16:54 | GN79687-CCV5       | 1               |          |  |
| 16:56 | GN79687-CCB5       | 1               |          |  |
| 16:57 | ZZZZZZ             | 1               |          |  |
| 16:58 | ZZZZZZ             | 1               |          |  |
| 17:00 | ZZZZZZ             | 1               |          |  |
| 17:01 | ZZZZZZ             | 1               |          |  |
| 17:02 | ZZZZZZ             | 1               |          |  |
| 17:04 | ZZZZZZ             | 1               |          |  |

15.6  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050718W1.CN Date Analyzed: 05/07/18 Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Analyst: BM Run ID: GN79687  
Parameters: Cyanide Reactivity

| Time  | Sample Description | Dilution Factor | PS Recov | Comments   |
|-------|--------------------|-----------------|----------|--|
| 17:05 | ZZZZZZ             | 1               |          |  |
| 17:07 | ZZZZZZ             | 1               |          |  |
| 17:08 | ZZZZZZ             | 1               |          |  |
| 17:09 | ZZZZZZ             | 1               |          |  |
| 17:11 | GN79687-CCV6       | 1               |          |  |
| 17:12 | GN79687-CCB6       | 1               |          |  |
| 17:13 | GP12852-MB1        | 1               |          |  |
| 17:15 | GP12852-B1         | 1               |          |  |
| 17:16 | GP12852-D1         | 1               |          |  |
| 17:17 | JC65071-1          | 1               |          | (sample used for QC only; not part of login JC65157) |
| 17:19 | ZZZZZZ             | 1               |          |  |
| 17:20 | JC65157-12A        | 1               |          |  |
| 17:22 | ZZZZZZ             | 1               |          |  |
| 17:23 | ZZZZZZ             | 1               |          |  |
| 17:24 | ZZZZZZ             | 1               |          |  |
| 17:26 | ZZZZZZ             | 1               |          |  |
| 17:27 | GN79687-CCV7       | 1               |          |  |
| 17:28 | GN79687-CCB7       | 1               |          |  |
| 17:30 | ZZZZZZ             | 1               |          |  |
| 17:31 | ZZZZZZ             | 1               |          |  |
| 17:32 | ZZZZZZ             | 1               |          |  |
| 17:34 | ZZZZZZ             | 1               |          |  |
| 17:37 | GN79687-CCV8       | 1               |          |  |
| 17:38 | GN79687-CCB8       | 1               |          |  |

Refer to raw data for calibration curve and standards.

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Instrument QC Summary  
Inorganics Analyses

Login Number: JC65157  
Account: AGMNYF - Arcadis  
Project: NYSEG - Newark Former MGP Site, Newark, NY

File ID: E050718W1.CN

Date Analyzed: 05/07/18  
Run ID: GN79687

Methods: SW846 9012B/LACHAT, SW846 CHAP7/9012 B  
Units: mg/l

| Sample Number | Parameter | Result   | RL    | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-----------|----------|-------|---------|------------|----------|-----------|
| GN79687-ICV1  | Cyanide   | 0.205    | 0.010 | 0.0033  |            |          |           |
| GN79687-ICV2  | Cyanide   | 0.279    | 0.010 | 0.0033  | .3         | 93.0     | 90-110    |
| GN79687-ICB1  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV1  | Cyanide   | 0.390    | 0.010 | 0.0033  | .4         | 97.5     | 90-110    |
| GN79687-CCB1  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV2  | Cyanide   | 0.392    | 0.010 | 0.0033  | .4         | 98.0     | 90-110    |
| GN79687-CCB2  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV3  | Cyanide   | 0.392    | 0.010 | 0.0033  | .4         | 98.0     | 90-110    |
| GN79687-CCB3  | Cyanide   | -0.00382 | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV4  | Cyanide   | 0.388    | 0.010 | 0.0033  | .4         | 97.0     | 90-110    |
| GN79687-CCB4  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV5  | Cyanide   | 0.388    | 0.010 | 0.0033  | .4         | 97.0     | 90-110    |
| GN79687-CCB5  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV6  | Cyanide   | 0.388    | 0.010 | 0.0033  | .4         | 97.0     | 90-110    |
| GN79687-CCB6  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV7  | Cyanide   | 0.388    | 0.010 | 0.0033  | .4         | 97.0     | 90-110    |
| GN79687-CCB7  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |
| GN79687-CCV8  | Cyanide   | 0.387    | 0.010 | 0.0033  | .4         | 96.8     | 90-110    |
| GN79687-CCB8  | Cyanide   | 0.0033 U | 0.010 | 0.0033  |            |          |           |

(!) Outside of QC limits

15.6  
15

# Percent Solids Raw Data Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-1<br><b>ClientID:</b> SB-103 (7-9) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 27.81 g                          |                            |
| Tare Weight   | 19.48 g                          |                            |
| Dry Weight (Total)  | 26.56 g                          |                            |
| Solids, Percent   | 85 %                             |                            |

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-2<br><b>ClientID:</b> SB-109 (7-9) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 27.71 g                          |                            |
| Tare Weight   | 19.21 g                          |                            |
| Dry Weight (Total)  | 26.06 g                          |                            |
| Solids, Percent   | 80.6 %                           |                            |

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-3<br><b>ClientID:</b> SB-109 (15-17) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 35.63 g                          |                            |
| Tare Weight   | 28.4 g                           |                            |
| Dry Weight (Total)  | 34.75 g                          |                            |
| Solids, Percent   | 87.8 %                           |                            |

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-4<br><b>ClientID:</b> SB-101 (7-9) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 34.37 g                          |                            |
| Tare Weight   | 28.43 g                          |                            |
| Dry Weight (Total)  | 33.24 g                          |                            |
| Solids, Percent   | 81 %                             |                            |

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|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-6<br><b>ClientID:</b> SB-103 (9-19) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 27.03 g                          |                            |
| Tare Weight  | 19.18 g                          |                            |
| Dry Weight (Total)   | 25.85 g                          |                            |
| Solids, Percent  | 85 %                             |                            |

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-7<br><b>ClientID:</b> SB-101 (0-9) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 31.05 g                          |                            |
| Tare Weight   | 24.62 g                          |                            |
| Dry Weight (Total)  | 30.12 g                          |                            |
| Solids, Percent   | 85.5 %                           |                            |

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15.7  
15

# Percent Solids Raw Data Summary

**Job Number:** JC65157  
**Account:** AGMNYF Arcadis  
**Project:** NYSEG - Newark Former MGP Site, Newark, NY

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|   |                                  |                            |
|---|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-8<br><b>ClientID:</b> SB-100 (0-8) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)  | 25.84 g                          |                            |
| Tare Weight   | 19.04 g                          |                            |
| Dry Weight (Total)  | 24.57 g                          |                            |
| Solids, Percent   | 81.3 %                           |                            |

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|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-9<br><b>ClientID:</b> SB-100 (8-11) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 34.9 g                           |                            |
| Tare Weight  | 25.32 g                          |                            |
| Dry Weight (Total)   | 33.22 g                          |                            |
| Solids, Percent  | 82.5 %                           |                            |

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|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-10<br><b>ClientID:</b> SB-103 (0-5) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 25.47 g                          |                            |
| Tare Weight  | 17.82 g                          |                            |
| Dry Weight (Total)   | 24.74 g                          |                            |
| Solids, Percent  | 90.5 %                           |                            |

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|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-11<br><b>ClientID:</b> SB-101 (0-9) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 25.22 g                          |                            |
| Tare Weight  | 19.57 g                          |                            |
| Dry Weight (Total)   | 24.1 g                           |                            |
| Solids, Percent  | 80.2 %                           |                            |

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|  |                                  |                            |
|--|----------------------------------|----------------------------|
| <b>Sample:</b> JC65157-12<br><b>ClientID:</b> SB-100 (0-8) | <b>Analyzed:</b> 02-MAY-18 by SF | <b>Method:</b> SM2540 G-97 |
| Wet Weight (Total)   | 26.12 g                          |                            |
| Tare Weight  | 20.75 g                          |                            |
| Dry Weight (Total)   | 24.88 g                          |                            |
| Solids, Percent  | 76.9 %                           |                            |

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15.7  
15

# ATTACHMENT 5

Data Usability Summary Reports



# NYSEG – Newark Former MGP Site

## Data Usability Summary Report

### Newark, New York

Semivolatile Analysis

SDG #JC64996

Analyses Performed By:  
SGS Laboratories  
Dayton, New Jersey

Report #30510R  
Review Level: Tier III  
Project: B0013094.0006.00032



## DATA REVIEW REPORT

### SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # JC64996 for samples collected in association with the NYSEG Newark Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| SDG     | Sample ID            | Lab ID     | Matrix | Sample Collection Date | Parent Sample | Analysis |      |                     |     |      |
|---------|----------------------|------------|--------|------------------------|---------------|----------|------|---------------------|-----|------|
|         |                      |            |        |                        |               | VOC      | SVOC | HERB<br>PEST<br>PCB | MET | MISC |
| JC64996 | TP-101 (7-8)         | JC64996-1  | Soil   | 4/24/2018              |               |          | X    |                     |     |      |
|         | SB-102 (19-21)       | JC64996-2  | Soil   | 4/24/2018              |               |          | X    |                     |     |      |
|         | SB-107 (15-17)       | JC64996-3  | Soil   | 4/24/2018              |               |          | X    |                     |     |      |
|         | SB-106 (17-20)       | JC64996-4  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | SB-102 (17-21)       | JC64996-6  | Soil   | 4/24/2018              |               |          | X    |                     |     |      |
|         | SB-106 (17-21)       | JC64996-7  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | SB-102 (0-17)        | JC64996-9  | Soil   | 4/24/2018              |               |          | X    |                     |     |      |
|         | SB-106 (3-5) (11-15) | JC64996-10 | Soil   | 4/24/2018              |               |          | X    |                     |     |      |

Note: Per request by the project team, only the semivolatile organic compound analysis was reviewed in the DUSR.

## DATA REVIEW REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

| Items Reviewed  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| 1. Sample receipt condition                             |          | X   |                        | X   |              |
| 2. Requested analyses and sample results                |          | X   |                        | X   |              |
| 3. Master tracking list                                 |          | X   |                        | X   |              |
| 4. Methods of analysis                                  |          | X   |                        | X   |              |
| 5. Reporting limits                                     |          | X   |                        | X   |              |
| 6. Sample collection date                               |          | X   |                        | X   |              |
| 7. Laboratory sample received date                      |          | X   |                        | X   |              |
| 8. Sample preservation verification (as applicable)     |          | X   |                        | X   |              |
| 9. Sample preparation/extraction/analysis dates         |          | X   |                        | X   |              |
| 10. Fully executed Chain-of-Custody (COC) form          |          | X   |                        | X   |              |
| 11. Narrative summary of QA or sample problems provided |          | X   |                        | X   |              |
| 12. Data Package Completeness and Compliance            |          | X   |                        | X   |              |

Note:

QA - Quality Assurance



## DATA REVIEW REPORT

### ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Data were reviewed in accordance with USEPA Region II SOPs and USEPA National Functional Guidelines of October 1999 and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## DATA REVIEW REPORT

### SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method       | Matrix | Holding Time  | Preservation  |
|--------------|--------|---|---------------|
| SW-846 8270D | Water  | 7 days from collection to extraction and 40 days from extraction to analysis  | Cool to <6 °C |
|              | Soil   | 14 days from collection to extraction and 40 days from extraction to analysis | Cool to <6 °C |

The analyses that exceeded the holding are presented in the following table.

| Sample Locations                       | Holding Time          | Criteria |
|--|-----------------------|----------|
| SB-106 (3-5) (11-15)<br>SB-106 (17-21) | 27 days to extraction | <28 days |

Sample results associated with sample locations analyzed by analytical method SW-846 8270 were qualified, as specified in the table below. All other holding times were met.

| Criteria  | Qualification     |                     |
|---|-------------------|---------------------|
|   | Detected Analytes | Non-detect Analytes |
| Analysis completed less than two times holding time | J                 | UJ                  |

Note: the samples were extracted outside of holding time per request of the project team.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

## DATA REVIEW REPORT

### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

#### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

| Sample Locations  | Initial/Continuing | Compound                  | Criteria |
|---|--------------------|---------------------------|----------|
| SB-106 (3-5) (11-15)<br>SB-106 (17-21)  | ICAL RSD           | Caprolactam               | 24.3%    |
|   | CCV %D             | Hexachlorobutadiene       | +47.8%   |
|   |                    | Hexachlorocyclopentadiene | +33.8%   |
|   |                    | 4-Nitrophenol             | +48.9%   |
|   |                    | 2,4,6-Trichlorophenol     | +23.9%   |
|   |                    | Benzaldehyde              | -26.8%   |
| TP-101 (7-8)<br>SB-102 (19-21)<br>SB-107 (15-17)<br>SB-106 (17-20)<br>SB-102 (17-21)<br>SB-102 (0-17) | CCV %D             | Caprolactam               | +20.7%   |
|   |                    | 2-Nitroaniline            | +28.9%   |
|   |                    | 2,6-Dinitrotoluene        | +24.6%   |
|   |                    | Benzaldehyde              | -23.6%   |

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

## DATA REVIEW REPORT

| Initial/Continuing                 | Criteria                                      | Sample Result | Qualification |
|------------------------------------|---|---------------|---------------|
| Initial and Continuing Calibration | RRF <0.05                                     | Non-detect    | R             |
|                                    |   | Detect        | J             |
|                                    | RRF <0.01 <sup>1</sup>                        | Non-detect    | R             |
|                                    |   | Detect        | J             |
|                                    | RRF >0.05 or RRF >0.01 <sup>1</sup>           | Non-detect    | No Action     |
|                                    |   | Detect        |               |
| Initial Calibration                | %RSD > 15% or a correlation coefficient <0.99 | Non-detect    | UJ            |
|                                    |   | Detect        | J             |
|                                    | %RSD >90%                                     | Non-detect    | R             |
|                                    |   | Detect        | J             |
| Continuing Calibration             | %D >20% (increase in sensitivity)             | Non-detect    | No Action     |
|                                    |   | Detect        | J             |
|                                    | %D >20% (decrease in sensitivity)             | Non-detect    | UJ            |
|                                    |   | Detect        | J             |
|                                    | %D >90% (increase/decrease in sensitivity)    | Non-detect    | R             |
|                                    |   | Detect        | J             |

Note:

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

## DATA REVIEW REPORT

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not performed on a sample within this SDG.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

| Sample ID      | Compound             | Original Analysis | Diluted Analysis | Reported Analysis |
|----------------|----------------------|-------------------|------------------|-------------------|
| SB-106 (17-20) | Fluoranthene         | --                | 4970             | 4970 D            |
|                | Pyrene               | --                | 7460             | 7460 D            |
| SB-106 (17-21) | Benzo(a)anthracene   | --                | 4050             | 4050 D            |
|                | Benzo(a)pyrene       | --                | 5990             | 5990 D            |
|                | Benzo(b)fluoranthene | --                | 3810             | 3810 D            |
|                | Benzo(g,h,i)perylene | --                | 4100             | 4100 D            |
|                | Chrysene             | --                | 3630             | 3630 D            |
|                | Fluoranthene         | --                | 7930             | 7930 D            |
|                | Pyrene               | --                | 15600            | 15600 D           |
| SB-102 (0-17)  | Benzo(a)anthracene   | --                | 4420             | 4420 D            |
|                | Benzo(a)pyrene       | --                | 4510             | 4510 D            |
|                | Benzo(b)fluoranthene | --                | 5340             | 5340 D            |
|                | Benzo(k)fluoranthene | --                | 2220             | 2220 D            |

## DATA REVIEW REPORT

| Sample ID | Compound     | Original Analysis | Diluted Analysis | Reported Analysis |
|-----------|--------------|-------------------|------------------|-------------------|
|           | Chrysene     | --                | 3880             | 3880 D            |
|           | Fluoranthene | --                | 9620             | 9620 D            |
|           | Phenanthrene | --                | 5580             | 5580 D            |
|           | Pyrene       | --                | 8180             | 8180 D            |

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

| Reported Sample Results                                   | Qualification |
|---|---------------|
| Diluted sample result within calibration range            | D             |
| Diluted sample result less than the calibration range     | DJ            |
| Diluted sample result greater than the calibration range  | EDJ           |
| Original sample result greater than the calibration range | EJ            |

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

# DATA REVIEW REPORT

## DATA VALIDATION CHECKLIST FOR SVOCs

| SVOCs: SW-846 8270  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>         |          |     |                        |     |              |
| <b>Tier II Validation</b>                                   |          |     |                        |     |              |
| Holding times   |          | X   | X                      |     |              |
| Reporting limits (units)                                    |          | X   |                        | X   |              |
| Blanks  |          |     |                        |     |              |
| A. Method blanks  |          | X   |                        | X   |              |
| B. Equipment blanks   | X        |     |                        |     | X            |
| Laboratory Control Sample (LCS) %R                          |          | X   |                        | X   |              |
| Laboratory Control Sample Duplicate(LCSD) %R                | X        |     |                        |     | X            |
| LCS/LCSD Precision (RPD)                                    | X        |     |                        |     | X            |
| Matrix Spike (MS) %R  |          | X   |                        | X   |              |
| Matrix Spike Duplicate(MSD) %R                              |          | X   |                        | X   |              |
| MS/MSD Precision (RPD)                                      |          | X   |                        | X   |              |
| Field/Lab Duplicate (RPD)                                   | X        |     |                        |     | X            |
| Surrogate Spike Recoveries                                  |          | X   |                        | X   |              |
| Dilution Factor   |          | X   |                        | X   |              |
| Moisture Content  |          | X   |                        | X   |              |
| <b>Tier III Validation</b>                                  |          |     |                        |     |              |
| System performance and column resolution                    |          | X   |                        | X   |              |
| Initial calibration %RSDs                                   |          | X   | X                      |     |              |
| Continuing calibration RRFs                                 |          | X   |                        | X   |              |
| Continuing calibration %Ds                                  |          | X   | X                      |     |              |
| Instrument tune and performance check                       |          | X   |                        | X   |              |
| Ion abundance criteria for each instrument used             |          | X   |                        | X   |              |
| Internal standard   |          | X   |                        | X   |              |
| Compound identification and quantitation                    |          |     |                        |     |              |
| A. Reconstructed ion chromatograms                          |          | X   |                        | X   |              |
| B. Quantitation Reports                                     |          | X   |                        | X   |              |
| C. RT of sample compounds within the established RT windows |          | X   |                        | X   |              |

**DATA REVIEW REPORT**

| SVOCs: SW-846 8270                                       | Reported |     | Performance Acceptable |     | Not Required |
|--|----------|-----|------------------------|-----|--------------|
|  | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>      |          |     |                        |     |              |
| D. Quantitation transcriptions/calculations              |          | X   |                        | X   |              |
| E. Reporting limits adjusted to reflect sample dilutions |          | X   |                        | X   |              |

Notes:

- %RSD Relative standard deviation
- %R Percent recovery
- RPD Relative percent difference
- %D Percent difference



**DATA USABILITY SUMMARY REPORT**

**SAMPLE COMPLIANCE REPORT**

| Sample Delivery Group (SDG) | Sampling Date | Protocol    | Sample ID            | Matrix | Compliance <sup>1</sup> |      |     |     |      | Noncompliance                         |
|-----------------------------|---------------|-------------|----------------------|--------|-------------------------|------|-----|-----|------|---------------------------------------|
|                             |               |             |                      |        | VOC                     | SVOC | PCB | MET | MISC |                                       |
| JC64996                     | 4/24/2018     | USEPA/SW846 | TP-101 (7-8)         | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/24/2018     | USEPA/SW846 | SB-102 (19-21)       | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/24/2018     | USEPA/SW846 | SB-107 (15-17)       | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/25/2018     | USEPA/SW846 | SB-106 (17-20)       | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/24/2018     | USEPA/SW846 | SB-102 (17-21)       | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/25/2018     | USEPA/SW846 | SB-106 (17-21)       | Soil   | --                      | No   | --  | --  | --   | SVOC – Holding time, ICAL RSD, CCV %D |
|                             | 4/24/2018     | USEPA/SW846 | SB-102 (0-17)        | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                         |
|                             | 4/24/2018     | USEPA/SW846 | SB-106 (3-5) (11-15) | Soil   | --                      | No   | --  | --  | --   | SVOC – Holding time, ICAL RSD, CCV %D |

Note:

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

## DATA USABILITY SUMMARY REPORT

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE:



DATE: August 29, 2018

PEER REVIEW: Dennis Capria

DATE: September 4, 2018

**CHAIN OF CUSTODY  
CORRECTED SAMPLE ANALYSIS DATA  
SHEETS**





SO  
SUL  
SME

### CHAIN OF CUSTODY

SGS North America Inc. - Dayton  
2235 Route 130, Dayton, NJ 08810  
TEL. 732-329-0200 FAX 732-329-3499  
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FED-EX Tracking #  
Bottle Order Protocol # NJ-041318-147  
SGS Quote #  
SGS Job # JC64996

| Client / Reporting Information  |                                | Project Information   |            |   |            | Requested Analysis (see TEST CODE sheet)   |              |                             |      |                          |       |                          |          |                          |        | Matrix Codes   |  |              |  |  |      |
|---|--------------------------------|---|------------|---|------------|--|--------------|-----------------------------|------|--------------------------|-------|--------------------------|----------|--------------------------|--------|--|--|--------------|--|--|------|
| Company Name<br><b>Arcadis</b>  |                                | Project Name<br><b>NYS EG - Newark Former MGP Site</b>      |            |   |            | Total SVOC's (TCL): 82700<br>X<br>X<br>X<br>X  |              |                             |      |                          |       |                          |          |                          |        | DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED - Sediment<br>OI - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WP - Wipe<br>FB - Field Blank<br>EB - Equipment Blank<br>RB - Rinse Blank<br>TB - Trip Blank |  |              |  |  |      |
| Street Address<br><b>29 S Woodcliff Dr, Suite 301</b>   |                                | Street<br><b>125 N. Main St.</b>                            |            | Billing Information (if different from Report to) |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| City State Zip<br><b>Fairport NY 14950</b>  |                                | City State<br><b>Newark NY</b>                              |            | Company Name                                      |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| Project Contact<br><b>Jason Golubski</b>  |                                | Project #<br><b>80013094.0006</b>                           |            | Street Address                                    |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| Phone #<br><b>315-671-9437</b>  |                                | Client Purchase Order #                                     |            | City State Zip                                    |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| Sampler(s) Name(s)<br><b>Ryan Clark &amp; Jesse Jones</b>   |                                | Project Manager<br><b>Jason Golubski</b>                    |            | Attention:  |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| Lab Sample #  | Field ID / Point of Collection | MEOH/DI Vial #  | Collection |   | Sampled by | Matrix   | # of bottles | Number of preserved bottles |      |                          |       |                          |          |                          |        |  |  | LAB USE ONLY |  |  |      |
|   |                                |   | Date       | Time  |            |  |              | HCl                         | NaOH | HNO3                     | H2SO4 | NONE                     | DI Water | MEOH                     | ENCORE |  |  |              |  |  |      |
| 1   | TR-101 (7-8)                   | -   | 4/24/18    | 1500  | RDC        | SO   | 1            |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  | C14  |
| 2   | SB-102 (19-21)                 | -   | 4/24/18    | 1635  | RDC        | SO   | 1            |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  | H273 |
| 3   | SB-107 (15-17)                 | -   | 4/24/18    | 1705  | RDC        | SO   | 1            |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  | 1415 |
| 4   | SB-106 (17-20)                 | -   | 4/25/18    | 1215  | JGJ        | SO   | 1            |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  | 4973 |
| Turnaround Time (Business days)   |                                | Approved by (SGS Project Manager)/Date:                     |            |   |            | Data Deliverable Information   |              |                             |      |                          |       |                          |          |                          |        | Comments / Special Instructions  |  |              |  |  |      |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other |                                |   |            |   |            | <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms<br><input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format<br><input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other<br><input type="checkbox"/> NJ Data of Known Quality Protocol Reporting<br><small>Commercial "A" = Results Only; Commercial "B" = Results + QC Summary<br/>         NJ Reduced = Results + QC Summary + Partial Raw data</small> |              |                             |      |                          |       |                          |          |                          |        | INITIAL ASSESSMENT <u>JGJ</u><br>LABEL VERIFICATION _____  |  |              |  |  |      |
| Emergency & Rush T/A data available via LabLink   |                                | Sample inventory is verified upon receipt in the laboratory |            |   |            |  |              |                             |      |                          |       |                          |          |                          |        |  |  |              |  |  |      |
| Relinquished by Sampler   |                                | Date Time: 4/25/18 13:50                                    |            | Received By: [Signature]                          |            | Relinquished By: [Signature]   |              | Date Time: 4/25/18 13:13    |      | Received By: [Signature] |       | Date Time: 4/25/18 13:20 |          | Received By: [Signature] |        |  |  |              |  |  |      |
| Relinquished by Sampler   |                                | Date Time: 4/25/18 13:13                                    |            | Received By: [Signature]                          |            | Relinquished By: [Signature]   |              | Date Time: 4/25/18 13:13    |      | Received By: [Signature] |       | Date Time: 4/25/18 13:20 |          | Received By: [Signature] |        |  |  |              |  |  |      |
| Relinquished by:  |                                | Date Time:  |            | Received By:                                      |            | Relinquished By:   |              | Date Time:                  |      | Received By:             |       | Date Time:               |          | Received By:             |        | <input type="checkbox"/> Intact    Preserved where applicable <input type="checkbox"/> On Ice    Cooler Temp.<br><input type="checkbox"/> Not intact <input type="checkbox"/>  |  |              |  |  |      |

5.2  
5

03.6 SPD



SGS North America Inc. - Dayton  
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|                   |                          |
|-------------------|--------------------------|
| FED-EX Tracking # | Bottle Order Control #   |
| SGS Quote #       | SGS Job # <b>JC64996</b> |

| Client / Reporting Information                        |  | Project Information                                   |                |             |            | Requested Analysis (see TEST CODE sheet)   |              |     |      |      |       |      |          |      |        | Matrix Codes   |  |
|---|--|---|----------------|-------------|------------|--|--------------|-----|------|------|-------|------|----------|------|--------|--|--|
| Company Name<br><b>Arcadis</b>                        |  | Project Name<br><b>NYSEG - Newark Former MUP Site</b> |                |             |            | <p><i>Handwritten:</i> <b>TPH (GEO + DRG)</b><br/> <b>Total VOC's (TCL) 8260 B</b><br/> <b>Total SVOC's (TCL) 3270 C</b><br/> <b>Total PCB's - 8080</b><br/> <b>KCRA 8 Metals + 6 - 6010 B</b><br/> <b>9010</b><br/> <b>% Sulfur D129-64</b><br/> <b>BTU D240-87</b></p> |              |     |      |      |       |      |          |      |        | DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED - Sediment<br>OI - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WP - Wipe<br>FB - Field Blank<br>RB - Rinse Blank<br>EB - Equipment Blank<br>TB - Trip Blank |  |
| Street Address<br><b>295 Woodcliff Dr, Ste 301</b>    |  | Street<br><b>125 N. Main St.</b>                      |                |             |            |  |              |     |      |      |       |      |          |      |        |  |  |
| City State Zip<br><b>Fairport NY 14450</b>            |  | City State<br><b>Newark NY</b>                        |                |             |            |  |              |     |      |      |       |      |          |      |        |  |  |
| Project Contact<br><b>Jason Golubski</b>              |  | Project #<br><b>130013094.0006</b>                    |                |             |            |  |              |     |      |      |       |      |          |      |        |  |  |
| Phone # Fax #<br><b>315-671-9437</b>                  |  | Client Purchase Order #                               |                |             |            |  |              |     |      |      |       |      |          |      |        |  |  |
| Sampler(s) Name(s)<br><b>Ryan Clave + Jesse Gowos</b> |  | Project Manager<br><b>Jason Golubski</b>              |                |             |            |  |              |     |      |      |       |      |          |      |        |  |  |
| Lab Sample #  |  | Collection  |                |             |            | Number of preserved bottles  |              |     |      |      |       |      |          |      |        | LAB USE ONLY   |  |
| Field ID / Point of Collection                        |  | MEO/HDI Vial #  | Date           | Time        | Sampled by | Matrix   | # of bottles | HCl | NO3N | HNO3 | H2SO4 | H2O2 | DI Water | MESH | ENCORE |  |  |
| <b>5 TP-101 (4-6)</b>                                 |  | -   | <b>4/24/18</b> | <b>1515</b> | <b>RDC</b> | <b>SO</b>  | <b>3</b>     |     |      |      |       |      |          |      |        |  |  |
| <b>6 SB-102 (17-21)</b>                               |  | -   | <b>4/24/18</b> | <b>1645</b> | <b>RDC</b> | <b>SO</b>  | <b>3</b>     |     |      |      |       |      |          |      |        |  |  |
| <b>7 SB-106 (17-21)</b>                               |  | -   | <b>4/25/18</b> | <b>1220</b> | <b>JKS</b> | <b>SO</b>  | <b>3</b>     |     |      |      |       |      |          |      |        |  |  |

|   |  |  |  |  |  |   |  |  |  |  |   |   |  |  |  |             |
|---|--|--|--|--|--|---|--|--|--|--|---|---|--|--|--|-------------|
| Turnaround Time (Business days)   |  | Data Deliverable Information   |  |  |  |   |  |  |  |  |   | Comments / Special Instructions                             |  |  |  |             |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other |  | Approved by (SGS Project Manager)/Date:  |  |  |  | <input type="checkbox"/> Commercial "A" (Level 1)<br><input type="checkbox"/> Commercial "B" (Level 2)<br><input type="checkbox"/> FULLT1 (Level 3+4)<br><input type="checkbox"/> NJ Reduced<br><input type="checkbox"/> Commercial "C"<br><input type="checkbox"/> NJ Data of Known Quality Protocol Reporting |  |  |  |  | <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> State Forms<br><input type="checkbox"/> EDD Format<br><input type="checkbox"/> Other |   |  |  |  | <b>ESMI</b> |
| Emergency & Rush T/A data available via LabLink   |  | Commercial "A" = Results Only; Commercial "B" = Results + QC Summary<br>NJ Reduced = Results + QC Summary + Partial Raw data |  |  |  |   |  |  |  |  |   | Sample inventory is verified upon receipt in the Laboratory |  |  |  |             |

| Sample Custody must be documented below each time samples change possession, including courier delivery. |                      |                    |                      |                    |                      |                    |                      |
|--|----------------------|--------------------|----------------------|--------------------|----------------------|--------------------|----------------------|
| Relinquished By Sampler:   | Date/Time:           | Received By:       | Date/Time:           | Relinquished By:   | Date/Time:           | Received By:       | Date/Time:           |
| <i>[Signature]</i>   | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> |
| Relinquished By:   | Date/Time:           | Received By:       | Date/Time:           | Relinquished By:   | Date/Time:           | Received By:       | Date/Time:           |
| <i>[Signature]</i>   | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> | <i>[Signature]</i> | <b>4/25/18 13:50</b> |

|  |  |  |  |
|--|--|--|--|
| <input type="checkbox"/> Intact<br><input type="checkbox"/> Not intact |  | <input type="checkbox"/> Preserved where applicable<br><input type="checkbox"/> Cooler Temp. |  |
|--|--|--|--|

*Handwritten:* **03.6 SD**

5.2 5



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## Report of Analysis

Page 1 of 3

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (7-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC64996-1                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 87.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M145999.D | 1  | 05/09/18 07:51 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q  |
|-----------|----------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 66  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |    |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |    |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol              | ND     | 180 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 98  | ug/kg |    |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |    |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 28  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.9 | ug/kg |    |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene         | 34.8   | 37  | 10  | ug/kg | J  |
| 50-32-8   | Benzo(a)pyrene             | 30.1   | 37  | 17  | ug/kg | J  |
| 205-99-2  | Benzo(b)fluoranthene       | 37.4   | 37  | 16  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene       | 18.5   | 37  | 18  | ug/kg | J  |
| 207-08-9  | Benzo(k)fluoranthene       | 18.8   | 37  | 17  | ug/kg | J  |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.0 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 180 | 9.1 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.3 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-101 (7-8)                      |                                |
| <b>Lab Sample ID:</b> JC64996-1                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 64%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 83%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 71%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 71%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (19-21)                    |  |                                |
| <b>Lab Sample ID:</b> JC64996-2                            |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146000.D | 1  | 05/09/18 08:21 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q  |
|-----------|----------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 66  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |    |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |    |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 99  | ug/kg |    |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |    |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 24  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.0 | ug/kg |    |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene         | ND     | 37  | 10  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene             | ND     | 37  | 17  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 37  | 16  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 37  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 37  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.1 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.2 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.4 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-102 (19-21)                             | <b>Date Sampled:</b>   | 04/24/18 |
| <b>Lab Sample ID:</b>    | JC64996-2                                  | <b>Date Received:</b>  | 04/26/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | ND     | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 51.9   | 74  | 6.0 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 74  | 7.9 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND     | 74  | 8.7 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | ND     | 37  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                        | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 74  | 9.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 190 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 37  | 8.4 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 190 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 190 | 9.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 190 | 9.6 | ug/kg |   |
| 91-20-3   | Naphthalene                     | ND     | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | ND     | 37  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                          | ND     | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 190 | 9.4 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 59%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (19-21)                    |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-2                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 88.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 62%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 75%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 68%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 68%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 72%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-107 (15-17)                    |                                |
| <b>Lab Sample ID:</b> JC64996-3                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 83.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146003.D | 1  | 05/09/18 09:49 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q  |
|-----------|----------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol             | ND     | 79  | 20  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 200 | 24  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 200 | 34  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 200 | 71  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 200 | 150 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 200 | 42  | ug/kg |    |
| 95-48-7   | 2-Methylphenol             | ND     | 79  | 25  | ug/kg |    |
|           | 3&4-Methylphenol           | ND     | 79  | 33  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol              | ND     | 200 | 26  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol              | ND     | 400 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol          | ND     | 160 | 37  | ug/kg |    |
| 108-95-2  | Phenol                     | ND     | 79  | 21  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 200 | 26  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 200 | 30  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 200 | 24  | ug/kg |    |
| 83-32-9   | Acenaphthene               | 1230   | 40  | 14  | ug/kg |    |
| 208-96-8  | Acenaphthylene             | 121    | 40  | 20  | ug/kg |    |
| 98-86-2   | Acetophenone               | ND     | 200 | 8.5 | ug/kg |    |
| 120-12-7  | Anthracene                 | 320    | 40  | 24  | ug/kg |    |
| 1912-24-9 | Atrazine                   | ND     | 79  | 17  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene         | 393    | 40  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene             | 437    | 40  | 18  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene       | 427    | 40  | 18  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene       | 334    | 40  | 20  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene       | 155    | 40  | 19  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 79  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 79  | 9.7 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 79  | 5.4 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 200 | 9.8 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 79  | 9.4 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline            | ND     | 200 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                  | 29.6   | 79  | 5.7 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-107 (15-17)<br><b>Lab Sample ID:</b> JC64996-3<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/24/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 83.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 71%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 91%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 91%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-20)                    |                                |
| <b>Lab Sample ID:</b> JC64996-4                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146004.D | 1  | 05/09/18 10:19 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 | M146028.D | 5  | 05/09/18 22:17 | JB | 04/27/18 23:15 | OP11642    | EM6204           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 | 30.4 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q  |
|-----------|----------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol             | ND     | 75  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 67  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |    |
| 95-48-7   | 2-Methylphenol             | ND     | 75  | 24  | ug/kg |    |
|           | 3&4-Methylphenol           | ND     | 75  | 31  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |    |
| 108-95-2  | Phenol                     | ND     | 75  | 20  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene               | 357    | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene             | 545    | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.1 | ug/kg |    |
| 120-12-7  | Anthracene                 | 420    | 37  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                   | ND     | 75  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene         | 2540   | 37  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene             | 3700   | 37  | 17  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene       | 2470   | 37  | 17  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene       | 2440   | 37  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene       | 791    | 37  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 75  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 75  | 9.1 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl              | 68.5   | 75  | 5.1 | ug/kg | J  |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.3 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 75  | 8.9 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                  | ND     | 75  | 5.4 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-20)                    |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-4                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                        | Result            | RL  | MDL | Units | Q |
|-----------|---------------------------------|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND                | 75  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | 2310              | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND                | 75  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND                | 75  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND                | 75  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND                | 75  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND                | 37  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND                | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND                | 75  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND                | 37  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | 307               | 37  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | 31.5              | 75  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate            | ND                | 75  | 6.1 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate            | ND                | 75  | 9.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND                | 75  | 8.0 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND                | 75  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND                | 75  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 4970 <sup>c</sup> | 190 | 84  | ug/kg | D |
| 86-73-7   | Fluorene                        | 276               | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND                | 75  | 9.5 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND                | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND                | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND                | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 2010              | 37  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND                | 75  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | 15.9              | 37  | 8.5 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND                | 190 | 8.8 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND                | 190 | 9.4 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND                | 190 | 9.7 | ug/kg |   |
| 91-20-3   | Naphthalene                     | 35.5              | 37  | 11  | ug/kg | J |
| 98-95-3   | Nitrobenzene                    | ND                | 75  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND                | 75  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND                | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 1190              | 37  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                          | 7460 <sup>c</sup> | 190 | 60  | ug/kg | D |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND                | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 49%    | 47%    | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
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## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-106 (17-20)<br><b>Lab Sample ID:</b> JC64996-4<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 87.8 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 50%    | 52%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 66%    | 63%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 60%    | 54%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 58%    | 56%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 66%    | 60%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

4.4  
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SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M145998.D | 1  | 05/09/18 07:22 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q  |
|-----------|----------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 66  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |    |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |    |
|           | 3&4-Methylphenol           | ND     | 74  | 31  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 99  | ug/kg |    |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |    |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene               | ND     | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene             | ND     | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone               | ND     | 190 | 8.0 | ug/kg |    |
| 120-12-7  | Anthracene                 | ND     | 37  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene         | ND     | 37  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene             | ND     | 37  | 17  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene       | ND     | 37  | 16  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene       | ND     | 37  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene       | ND     | 37  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.1 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 74  | 5.1 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>a</sup>  | ND     | 190 | 9.2 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.9 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                  | ND     | 74  | 5.4 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-6                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                        | Result | RL  | MDL | Units | Q |
|-----------|---------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>b</sup>        | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | ND     | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND     | 74  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND     | 37  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>b</sup> | ND     | 37  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND     | 37  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | ND     | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | ND     | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 18.5   | 74  | 6.1 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND     | 74  | 9.3 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND     | 74  | 7.9 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND     | 74  | 8.7 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | ND     | 37  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                        | ND     | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND     | 74  | 9.4 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND     | 190 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | ND     | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND     | 74  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | ND     | 37  | 8.4 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>b</sup>     | ND     | 190 | 8.8 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND     | 190 | 9.3 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND     | 190 | 9.6 | ug/kg |   |
| 91-20-3   | Naphthalene                     | ND     | 37  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | ND     | 37  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                          | ND     | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND     | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 56%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
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## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-102 (17-21)<br><b>Lab Sample ID:</b> JC64996-6<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/24/18<br><b>Date Received:</b> 04/26/18<br><b>Percent Solids:</b> 88.6 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 59%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 72%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 64%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 70%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

4.6  
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SGS North America Inc.

### Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    |                                |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 2P79773.D | 1  | 05/22/18 04:14 | SA | 05/21/18 07:05 | OP12122    | E2P3514          |
| Run #2 <sup>a</sup> | 2P79789.D | 5  | 05/22/18 14:12 | JB | 05/21/18 07:05 | OP12122    | E2P3515          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.0 g         | 1.0 ml       |
| Run #2 | 31.0 g         | 1.0 ml       |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                           | Result            | RL  | MDL | Units | Q  |
|-----------|------------------------------------|-------------------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                     | ND                | 80  | 20  | ug/kg | UJ |
| 59-50-7   | 4-Chloro-3-methyl phenol           | ND                | 200 | 25  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                 | ND                | 200 | 34  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                 | ND                | 200 | 71  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol                  | ND                | 200 | 150 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol               | ND                | 200 | 43  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                     | ND                | 80  | 26  | ug/kg |    |
|           | 3&4-Methylphenol                   | ND                | 80  | 33  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                      | ND                | 200 | 26  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol <sup>b</sup>         | ND                | 400 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                  | ND                | 160 | 38  | ug/kg |    |
| 108-95-2  | Phenol                             | ND                | 80  | 21  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol          | ND                | 200 | 26  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol              | ND                | 200 | 30  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol <sup>b</sup> | ND                | 200 | 24  | ug/kg |    |
| 83-32-9   | Acenaphthene                       | 1130              | 40  | 14  | ug/kg | J  |
| 208-96-8  | Acenaphthylene                     | 1260              | 40  | 20  | ug/kg | J  |
| 98-86-2   | Acetophenone                       | ND                | 200 | 8.6 | ug/kg | UJ |
| 120-12-7  | Anthracene                         | 742               | 40  | 25  | ug/kg | J  |
| 1912-24-9 | Atrazine                           | ND                | 80  | 17  | ug/kg | UJ |
| 56-55-3   | Benzo(a)anthracene                 | 4050 <sup>c</sup> | 200 | 57  | ug/kg | DJ |
| 50-32-8   | Benzo(a)pyrene                     | 5990 <sup>c</sup> | 200 | 91  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene               | 3810 <sup>c</sup> | 200 | 88  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene               | 4100 <sup>c</sup> | 200 | 100 | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene               | 1450              | 40  | 19  | ug/kg | J  |
| 101-55-3  | 4-Bromophenyl phenyl ether         | ND                | 80  | 15  | ug/kg | UJ |
| 85-68-7   | Butyl benzyl phthalate             | ND                | 80  | 9.8 | ug/kg | UJ |
| 92-52-4   | 1,1'-Biphenyl                      | 46.1              | 80  | 5.5 | ug/kg | J  |
| 100-52-7  | Benzaldehyde <sup>d</sup>          | ND                | 200 | 9.9 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene                | ND                | 80  | 9.5 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                    | ND                | 200 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                          | ND                | 80  | 5.8 | ug/kg |    |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (17-21)                    | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC64996-7                            | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 80.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 60%    | 51%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 116%   | 81%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 91%    | 74%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 88%    | 68%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 80%    | 70%    | 36-134% |

- (a) Sample extracted outside the holding time per client's request.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2
- (d) Associated CCV outside of control limits low.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4



SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |                                |
| <b>Lab Sample ID:</b> JC64996-9                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | M146010.D | 1  | 05/09/18 13:17 | CS | 04/27/18 23:15 | OP11642    | EM6203           |
| Run #2 | M146026.D | 5  | 05/09/18 21:17 | JB | 04/27/18 23:15 | OP11642    | EM6204           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 | 30.5 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                    | Result            | RL  | MDL | Units | Q  |
|-----------|-----------------------------|-------------------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol              | ND                | 77  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol    | ND                | 190 | 24  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol          | ND                | 190 | 33  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol          | ND                | 190 | 69  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol           | ND                | 190 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol        | ND                | 190 | 41  | ug/kg |    |
| 95-48-7   | 2-Methylphenol              | ND                | 77  | 25  | ug/kg |    |
|           | 3&4-Methylphenol            | 74.8              | 77  | 32  | ug/kg | J  |
| 88-75-5   | 2-Nitrophenol               | ND                | 190 | 25  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol               | ND                | 390 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol           | ND                | 150 | 36  | ug/kg |    |
| 108-95-2  | Phenol                      | 44.0              | 77  | 20  | ug/kg | J  |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol   | ND                | 190 | 26  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol       | ND                | 190 | 29  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol       | ND                | 190 | 23  | ug/kg |    |
| 83-32-9   | Acenaphthene                | 165               | 39  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene              | 1140              | 39  | 20  | ug/kg |    |
| 98-86-2   | Acetophenone                | 23.3              | 190 | 8.3 | ug/kg | J  |
| 120-12-7  | Anthracene                  | 1900              | 39  | 24  | ug/kg |    |
| 1912-24-9 | Atrazine                    | ND                | 77  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene          | 4420 <sup>a</sup> | 190 | 55  | ug/kg | D  |
| 50-32-8   | Benzo(a)pyrene <sup>b</sup> | 4510 <sup>a</sup> | 190 | 88  | ug/kg | D  |
| 205-99-2  | Benzo(b)fluoranthene        | 5340 <sup>a</sup> | 190 | 85  | ug/kg | D  |
| 191-24-2  | Benzo(g,h,i)perylene        | 3310              | 39  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene        | 2220 <sup>a</sup> | 190 | 90  | ug/kg | D  |
| 101-55-3  | 4-Bromophenyl phenyl ether  | ND                | 77  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate      | 65.2              | 77  | 9.4 | ug/kg | J  |
| 92-52-4   | 1,1'-Biphenyl               | 81.6              | 77  | 5.3 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>c</sup>   | ND                | 190 | 9.6 | ug/kg | UJ |
| 91-58-7   | 2-Chloronaphthalene         | ND                | 77  | 9.2 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline             | ND                | 190 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                   | 252               | 77  | 5.6 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |                                |
| <b>Lab Sample ID:</b> JC64996-9                            | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 85.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                        | Result            | RL  | MDL | Units | Q |
|-----------|---------------------------------|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>d</sup>        | ND                | 77  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                        | 3880 <sup>a</sup> | 190 | 61  | ug/kg | D |
| 111-91-1  | bis(2-Chloroethoxy)methane      | ND                | 77  | 8.2 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether         | ND                | 77  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)    | ND                | 77  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether     | ND                | 77  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene              | ND                | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>d</sup> | ND                | 39  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine          | ND                | 77  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                     | ND                | 39  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene          | 681               | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                    | 406               | 77  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate            | 19.2              | 77  | 6.3 | ug/kg | J |
| 117-84-0  | Di-n-octyl phthalate            | ND                | 77  | 9.6 | ug/kg |   |
| 84-66-2   | Diethyl phthalate               | ND                | 77  | 8.2 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate              | ND                | 77  | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate      | ND                | 77  | 9.0 | ug/kg |   |
| 206-44-0  | Fluoranthene                    | 9620 <sup>a</sup> | 190 | 86  | ug/kg | D |
| 86-73-7   | Fluorene                        | 565               | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene               | ND                | 77  | 9.7 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene             | ND                | 39  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene       | ND                | 390 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                | ND                | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene          | 3680              | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                      | ND                | 77  | 8.2 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene             | 193               | 39  | 8.7 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>d</sup>     | ND                | 190 | 9.1 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                  | ND                | 190 | 9.6 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                  | ND                | 190 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                     | 758               | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                    | ND                | 77  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine      | ND                | 77  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine          | ND                | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                    | 5580 <sup>a</sup> | 190 | 65  | ug/kg | D |
| 129-00-0  | Pyrene                          | 8180 <sup>a</sup> | 190 | 62  | ug/kg | D |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene      | ND                | 190 | 9.8 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 57%    | 53%    | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-102 (0-17)                     |  | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-9                            |  | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 61%    | 59%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 73%    | 69%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 68%    | 64%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 70%    | 66%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    | 67%    | 36-134% |

- (a) Result is from Run# 2
- (b) Associated CCV outside of control limits high.
- (c) Associated CCV outside of control limits low.
- (d) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              |                                |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Sampled:</b> 04/24/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/26/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 89.7    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 <sup>a</sup> | 2P79759.D | 1  | 05/21/18 23:10 | SA | 05/21/18 07:05 | OP12122    | E2P3514          |
| Run #2              |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                           | Result | RL  | MDL | Units | Q  |
|-----------|------------------------------------|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                     | ND     | 73  | 18  | ug/kg | UJ |
| 59-50-7   | 4-Chloro-3-methyl phenol           | ND     | 180 | 22  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                 | ND     | 180 | 31  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                 | ND     | 180 | 65  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol                  | ND     | 180 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol               | ND     | 180 | 39  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                     | ND     | 73  | 23  | ug/kg |    |
|           | 3&4-Methylphenol                   | ND     | 73  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                      | ND     | 180 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol <sup>b</sup>         | ND     | 370 | 98  | ug/kg |    |
| 87-86-5   | Pentachlorophenol                  | ND     | 150 | 34  | ug/kg |    |
| 108-95-2  | Phenol                             | ND     | 73  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol          | ND     | 180 | 24  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol              | ND     | 180 | 27  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol <sup>b</sup> | ND     | 180 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene                       | ND     | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene                     | ND     | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone                       | ND     | 180 | 7.9 | ug/kg |    |
| 120-12-7  | Anthracene                         | ND     | 37  | 22  | ug/kg |    |
| 1912-24-9 | Atrazine                           | ND     | 73  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                 | 14.9   | 37  | 10  | ug/kg | J  |
| 50-32-8   | Benzo(a)pyrene                     | ND     | 37  | 17  | ug/kg | UJ |
| 205-99-2  | Benzo(b)fluoranthene               | 18.1   | 37  | 16  | ug/kg | J  |
| 191-24-2  | Benzo(g,h,i)perylene               | ND     | 37  | 18  | ug/kg | UJ |
| 207-08-9  | Benzo(k)fluoranthene               | ND     | 37  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether         | ND     | 73  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate             | ND     | 73  | 8.9 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                      | ND     | 73  | 5.0 | ug/kg |    |
| 100-52-7  | Benzaldehyde <sup>c</sup>          | ND     | 180 | 9.1 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                | ND     | 73  | 8.7 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                    | ND     | 180 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                          | ND     | 73  | 5.3 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                 | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                              | ND     | 73  | 14  | ug/kg | UJ |
| 218-01-9  | Chrysene                                 | 14.6   | 37  | 12  | ug/kg | J  |
| 111-91-1  | bis(2-Chloroethoxy)methane               | ND     | 73  | 7.8 | ug/kg | UJ |
| 111-44-4  | bis(2-Chloroethyl)ether                  | ND     | 73  | 16  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)             | ND     | 73  | 13  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether <sup>b</sup> | ND     | 73  | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                       | ND     | 37  | 11  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                       | ND     | 37  | 18  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                   | ND     | 73  | 31  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane <sup>b</sup>                 | ND     | 37  | 24  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                   | ND     | 37  | 16  | ug/kg |    |
| 132-64-9  | Dibenzofuran                             | ND     | 73  | 15  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                     | ND     | 73  | 6.0 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate                     | ND     | 73  | 9.1 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                        | ND     | 73  | 7.8 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                       | ND     | 73  | 6.5 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate               | ND     | 73  | 8.6 | ug/kg |    |
| 206-44-0  | Fluoranthene                             | 34.8   | 37  | 16  | ug/kg | J  |
| 86-73-7   | Fluorene                                 | ND     | 37  | 17  | ug/kg | UJ |
| 118-74-1  | Hexachlorobenzene                        | ND     | 73  | 9.3 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>b</sup>         | ND     | 37  | 15  | ug/kg |    |
| 77-47-4   | Hexachlorocyclopentadiene <sup>b</sup>   | ND     | 370 | 15  | ug/kg |    |
| 67-72-1   | Hexachloroethane                         | ND     | 180 | 18  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                   | ND     | 37  | 17  | ug/kg |    |
| 78-59-1   | Isophorone                               | ND     | 73  | 7.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                      | ND     | 37  | 8.3 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                           | ND     | 180 | 8.7 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                           | ND     | 180 | 9.2 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline                           | ND     | 180 | 9.5 | ug/kg |    |
| 91-20-3   | Naphthalene                              | ND     | 37  | 10  | ug/kg |    |
| 98-95-3   | Nitrobenzene                             | ND     | 73  | 14  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine               | ND     | 73  | 11  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                   | ND     | 180 | 13  | ug/kg |    |
| 85-01-8   | Phenanthrene                             | 13.0   | 37  | 12  | ug/kg | J  |
| 129-00-0  | Pyrene                                   | 37.2   | 37  | 12  | ug/kg | J  |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene               | ND     | 180 | 9.3 | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 68%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-106 (3-5) (11-15)              | <b>Date Sampled:</b> 04/24/18  |
| <b>Lab Sample ID:</b> JC64996-10                           | <b>Date Received:</b> 04/26/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 89.7    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 69%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 111%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 84%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 97%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 101%   |        | 36-134% |

- (a) Sample extracted outside the holding time per client's request.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# NYSEG – Newark Former MGP Site

## Data Usability Summary Report

### Newark, New York

Semivolatile Analysis

SDG #JC65058

Analyses Performed By:  
SGS Laboratories  
Dayton, New Jersey

Report #30511R  
Review Level: Tier III  
Project: B0013094.0006.00032



## DATA REVIEW REPORT

### SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # JC65058 for samples collected in association with the NYSEG Newark Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| SDG     | Sample ID           | Lab ID     | Matrix | Sample Collection Date | Parent Sample | Analysis |      |                     |     |      |
|---------|---------------------|------------|--------|------------------------|---------------|----------|------|---------------------|-----|------|
|         |                     |            |        |                        |               | VOC      | SVOC | HERB<br>PEST<br>PCB | MET | MISC |
| JC65058 | TP-100 (8-10)       | JC65058-1  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | DUP-042518          | JC65058-2  | Soil   | 4/25/2018              | TP-100 (8-10) |          | X    |                     |     |      |
|         | SB-108 (15-17)      | JC65058-3  | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-105 (13-15)      | JC65058-4  | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-104 (13-17)      | JC65058-5  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | SB-104 (5-9)        | JC65058-6  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | TP-100 (6-8)        | JC65058-7  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | TP-100 (8-10)       | JC65058-8  | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | TP-100 (2-6)        | JC65058-10 | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-105 (8-15)       | JC65058-11 | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-104 (2-5) (9-13) | JC65058-12 | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | TP-100 (2-6)        | JC65058-13 | Soil   | 4/25/2018              |               |          | X    |                     |     |      |
|         | SB-105 (0-5)        | JC65058-15 | Soil   | 4/26/2018              |               |          | X    |                     |     |      |

Note: Per request by the project team, only the semivolatile organic compound analysis was reviewed in the DUSR.



## DATA REVIEW REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

| Items Reviewed  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| 1. Sample receipt condition                             |          | X   |                        | X   |              |
| 2. Requested analyses and sample results                |          | X   |                        | X   |              |
| 3. Master tracking list                                 |          | X   |                        | X   |              |
| 4. Methods of analysis                                  |          | X   |                        | X   |              |
| 5. Reporting limits                                     |          | X   |                        | X   |              |
| 6. Sample collection date                               |          | X   |                        | X   |              |
| 7. Laboratory sample received date                      |          | X   |                        | X   |              |
| 8. Sample preservation verification (as applicable)     |          | X   |                        | X   |              |
| 9. Sample preparation/extraction/analysis dates         |          | X   |                        | X   |              |
| 10. Fully executed Chain-of-Custody (COC) form          |          | X   |                        | X   |              |
| 11. Narrative summary of QA or sample problems provided |          | X   |                        | X   |              |
| 12. Data Package Completeness and Compliance            |          | X   |                        | X   |              |

Note:

QA - Quality Assurance

## DATA REVIEW REPORT

### ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Data were reviewed in accordance with USEPA Region II SOPs and USEPA National Functional Guidelines of October 1999 and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## DATA REVIEW REPORT

### SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method       | Matrix | Holding Time  | Preservation  |
|--------------|--------|---|---------------|
| SW-846 8270D | Water  | 7 days from collection to extraction and 40 days from extraction to analysis  | Cool to <6 °C |
|              | Soil   | 14 days from collection to extraction and 40 days from extraction to analysis | Cool to <6 °C |

All samples were analyzed within the specified holding time criteria.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

## DATA REVIEW REPORT

### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

| Sample Locations   | Initial/Continuing | Compound                  | Criteria |
|--|--------------------|---------------------------|----------|
| TP-100 (8-10) (JC65058-1)<br>DUP-042518<br>SB-108 (15-17)<br>SB-105 (13-15)<br>SB-104 (13-17)<br>TP-100 (8-10) (JC65058-8) | CCV %D             | Hexachlorocyclopentadiene | +36.9%   |
|  |                    | 4-Nitrophenol             | +20.2%   |
|  |                    | 2,3,4,6-Tetrachlorophenol | +25.3%   |
|  |                    | Pentachlorophenol         | +39.7%   |
|  |                    |                           |          |
| DUP-042518   | CCV %D             | Benzo[b]fluoranthene      | +23.8%   |
|  |                    | Benzo[a]pyrene            | +22.1%   |
|  |                    | Indeno[1,2,3-cd]pyrene    | +24.0%   |
| TP-100 (6-8)<br>SB-104 (5-9)   | CCV %D             | Caprolactam               | +30.2%   |
|  |                    | Hexachlorocyclopentadiene | +48.9%   |
|  |                    | 2-Nitroaniline            | +21.0%   |
|  |                    | 4-Nitrophenol             | +25.2%   |
|  |                    | Pentachlorophenol         | +32.2%   |
|  |                    | Benzo[a]pyrene            | +20.4%   |
| TP-100 (2-6)<br>SB-105 (8-15)<br>TP-100 (2-6)  | CCV %D             | 2-Nitrophenol             | +21.6%   |
|  |                    | 2,4-Dinitrotoluene        | +25.7%   |
|  |                    | Di-n-octylphthalate       | +22.8%   |
| SB-104 (2-5) (9-13)<br>SB-105 (0-5)  | CCV %D             | Caprolactam               | +22.5%   |
|  |                    | 2-Nitroaniline            | +21.0%   |
|  |                    | 2,4-Dinitrotoluene        | +20.7%   |
|  |                    | Di-n-butylphthalate       | +21.1%   |
|  |                    | Di-n-octylphthalate       | +29.6%   |

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

| Initial/Continuing                 | Criteria               | Sample Result | Qualification |
|------------------------------------|------------------------|---------------|---------------|
| Initial and Continuing Calibration | RRF <0.05              | Non-detect    | R             |
|                                    |                        | Detect        | J             |
|                                    | RRF <0.01 <sup>1</sup> | Non-detect    | R             |

## DATA REVIEW REPORT

| Initial/Continuing     | Criteria                                      | Sample Result | Qualification |
|------------------------|---|---------------|---------------|
|                        |   | Detect        | J             |
|                        | RRF >0.05 or RRF >0.01 <sup>1</sup>           | Non-detect    | No Action     |
|                        |   | Detect        |               |
| Initial Calibration    | %RSD > 15% or a correlation coefficient <0.99 | Non-detect    | UJ            |
|                        |   | Detect        | J             |
|                        | %RSD >90%                                     | Non-detect    | R             |
|                        |   | Detect        | J             |
| Continuing Calibration | %D >20% (increase in sensitivity)             | Non-detect    | No Action     |
|                        |   | Detect        | J             |
|                        | %D >20% (decrease in sensitivity)             | Non-detect    | UJ            |
|                        |   | Detect        | J             |
|                        | %D >90% (increase/decrease in sensitivity)    | Non-detect    | R             |
|                        |   | Detect        | J             |

Note:

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

## DATA REVIEW REPORT

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

| Sample ID/Duplicate ID    | Compound               | Sample Result | Duplicate Result | RPD    |
|---------------------------|------------------------|---------------|------------------|--------|
| TP-100 (8-10)/ DUP-042518 | Acenaphthene           | 296           | 1620             | 138.2% |
|                           | Acenaphthylene         | 93.0          | 37.0             | AC     |
|                           | Anthracene             | 908           | 3290             | 113.5% |
|                           | Benzo(a)anthracene     | 2530          | 7330             | 97.4%  |
|                           | Benzo(a)pyrene         | 2450          | 6740             | 93.4%  |
|                           | Benzo(b)fluoranthene   | 2830          | 8070             | 96.1%  |
|                           | Benzo(g,h,i)perylene   | 1260          | 3260             | 88.5%  |
|                           | Benzo(k)fluoranthene   | 979           | 2520             | 88.1%  |
|                           | 1,1'-Biphenyl          | 21.8 J        | 96.0             | AC     |
|                           | Carbazole              | 269           | 1660             | 144.2% |
|                           | Chrysene               | 2070          | 6250             | 100.5% |
|                           | Dibenzo(a,h)anthracene | 285           | 793              | 94.2%  |
|                           | Dibenzofuran           | 147           | 713              | 131.6% |
|                           | Fluoranthene           | 5250          | 18000            | 109.7% |
|                           | Fluorene               | 330           | 1520             | 128.6% |
|                           | Indeno(1,2,3-cd)pyrene | 1510          | 3840             | 87.1%  |
|                           | 2-Methylnaphthalene    | 51.3          | 279              | NC     |
|                           | Naphthalene            | 66.4          | 907              | NC     |
|                           | Phenanthrene           | 3160          | 13000            | 121.8% |
|                           | Pyrene                 | 3850          | 12500            | 105.8% |

## DATA REVIEW REPORT

### Notes:

AC                    Acceptable  
 NC                    Not compliant

All of the detected compounds except Acenaphthylene and 1,1'-Biphenyl associated with sample locations TP-100 (8-10) and DUP-042518 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

| Sample ID                 | Compound               | Original Analysis  | Diluted Analysis | Reported Analysis |
|---------------------------|------------------------|--------------------|------------------|-------------------|
| TP-100 (8-10) (JC65058-1) | Fluoranthene           | --                 | 5250             | 5250 D            |
|                           | Pyrene                 | --                 | 3850             | 3850 D            |
| DUP-042518                | Benzo(a)anthracene     | --                 | 7330             | 7330 D            |
|                           | Benzo(a)pyrene         | --                 | 6740             | 6740 D            |
|                           | Benzo(b)fluoranthene   | --                 | 8070             | 8070 D            |
|                           | Chrysene               | --                 | 6250             | 6250 D            |
|                           | Fluoranthene           | --                 | 18000            | 18000 D           |
|                           | Indeno(1,2,3-cd)pyrene | --                 | 3840             | 3840 D            |
|                           | Phenanthrene           | --                 | 13000            | 13000 D           |
|                           | Pyrene                 | --                 | 12500            | 12500 D           |
|                           | SB-104 (5-9)           | Benzo(a)anthracene | --               | 15700             |
| Benzo(a)pyrene            |                        | --                 | 19100            | 19100 D           |
| Benzo(b)fluoranthene      |                        | --                 | 23700            | 23700 D           |
| Benzo(g,h,i)perylene      |                        | --                 | 11600            | 11600 D           |
| Benzo(k)fluoranthene      |                        | --                 | 7490             | 7490 D            |
| Chrysene                  |                        | --                 | 12900            | 12900 D           |
| Fluoranthene              |                        | --                 | 29400            | 29400 D           |
| Indeno(1,2,3-cd)pyrene    |                        | --                 | 15300            | 15300 D           |
| Phenanthrene              |                        | --                 | 7070             | 7070 D            |
| Pyrene                    |                        | --                 | 24500            | 24500 D           |
| TP-100 (8-10) (JC65058-8) | Fluoranthene           | --                 | 5050             | 5050 D            |

## DATA REVIEW REPORT

| Sample ID | Compound | Original Analysis | Diluted Analysis | Reported Analysis |
|-----------|----------|-------------------|------------------|-------------------|
|           | Pyrene   | --                | 3720             | 3720 D            |

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

| Reported Sample Results                                   | Qualification |
|---|---------------|
| Diluted sample result within calibration range            | D             |
| Diluted sample result less than the calibration range     | DJ            |
| Diluted sample result greater than the calibration range  | EDJ           |
| Original sample result greater than the calibration range | EJ            |

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.



# DATA REVIEW REPORT

## DATA VALIDATION CHECKLIST FOR SVOCs

| SVOCs: SW-846 8270  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>         |          |     |                        |     |              |
| <b>Tier II Validation</b>                                   |          |     |                        |     |              |
| Holding times   |          | X   |                        | X   |              |
| Reporting limits (units)                                    |          | X   |                        | X   |              |
| Blanks  |          |     |                        |     |              |
| A. Method blanks  |          | X   |                        | X   |              |
| B. Equipment blanks   | X        |     |                        |     | X            |
| Laboratory Control Sample (LCS) %R                          |          | X   |                        | X   |              |
| Laboratory Control Sample Duplicate(LCSD) %R                | X        |     |                        |     | X            |
| LCS/LCSD Precision (RPD)                                    | X        |     |                        |     | X            |
| Matrix Spike (MS) %R  |          | X   |                        | X   |              |
| Matrix Spike Duplicate(MSD) %R                              |          | X   |                        | X   |              |
| MS/MSD Precision (RPD)                                      |          | X   |                        | X   |              |
| Field/Lab Duplicate (RPD)                                   |          | X   | X                      |     |              |
| Surrogate Spike Recoveries                                  |          | X   |                        | X   |              |
| Dilution Factor   |          | X   |                        | X   |              |
| Moisture Content  |          | X   |                        | X   |              |
| <b>Tier III Validation</b>                                  |          |     |                        |     |              |
| System performance and column resolution                    |          | X   |                        | X   |              |
| Initial calibration %RSDs                                   |          | X   |                        | X   |              |
| Continuing calibration RRFs                                 |          | X   |                        | X   |              |
| Continuing calibration %Ds                                  |          | X   | X                      |     |              |
| Instrument tune and performance check                       |          | X   |                        | X   |              |
| Ion abundance criteria for each instrument used             |          | X   |                        | X   |              |
| Internal standard   |          | X   |                        | X   |              |
| Compound identification and quantitation                    |          |     |                        |     |              |
| A. Reconstructed ion chromatograms                          |          | X   |                        | X   |              |
| B. Quantitation Reports                                     |          | X   |                        | X   |              |
| C. RT of sample compounds within the established RT windows |          | X   |                        | X   |              |

**DATA REVIEW REPORT**

| SVOCs: SW-846 8270                                       | Reported |     | Performance Acceptable |     | Not Required |
|--|----------|-----|------------------------|-----|--------------|
|  | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>      |          |     |                        |     |              |
| D. Quantitation transcriptions/calculations              |          | X   |                        | X   |              |
| E. Reporting limits adjusted to reflect sample dilutions |          | X   |                        | X   |              |

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

**DATA USABILITY SUMMARY REPORT**

**SAMPLE COMPLIANCE REPORT**

| Sample Delivery Group (SDG) | Sampling Date | Protocol    | Sample ID           | Matrix | Compliance <sup>1</sup> |      |     |     |      | Noncompliance        |
|-----------------------------|---------------|-------------|---------------------|--------|-------------------------|------|-----|-----|------|----------------------|
|                             |               |             |                     |        | VOC                     | SVOC | PCB | MET | MISC |                      |
| JC65058                     | 4/25/2018     | USEPA/SW846 | TP-100 (8-10)       | Soil   | --                      | No   | --  | --  | --   | SVOC – Field Dup RPD |
|                             | 4/25/2018     | USEPA/SW846 | DUP-042518          | Soil   | --                      | No   | --  | --  | --   | SVOC – Field Dup RPD |
|                             | 4/26/2018     | USEPA/SW846 | SB-108 (15-17)      | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/26/2018     | USEPA/SW846 | SB-105 (13-15)      | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | SB-104 (13-17)      | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | SB-104 (5-9)        | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | TP-100 (6-8)        | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | TP-100 (8-10)       | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/26/2018     | USEPA/SW846 | TP-100 (2-6)        | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/26/2018     | USEPA/SW846 | SB-105 (8-15)       | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | SB-104 (2-5) (9-13) | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/25/2018     | USEPA/SW846 | TP-100 (2-6)        | Soil   | --                      | Yes  | --  | --  | --   |                      |
|                             | 4/26/2018     | USEPA/SW846 | SB-105 (0-5)        | Soil   | --                      | Yes  | --  | --  | --   |                      |

Note:  
 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

## DATA USABILITY SUMMARY REPORT

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE:



DATE: August 30, 2018

PEER REVIEW: Dennis Capria

DATE: September 4, 2018

**CHAIN OF CUSTODY  
CORRECTED SAMPLE ANALYSIS DATA  
SHEETS**







CHAIN OF CUSTODY

SGS North America Inc. - Dayton
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FED. Estimating # 43357 63411 7783
Both Client Control # 041818-67
SGS Quote #
SGS Job # JC65058

Client / Reporting information, Project Information, Requested Analysis, Matrix Codes, Lab Sample #, Field ID / Point of Collection, MEQ/IDI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NiOH, NiOH2, HNO3, H2SO4, NONE, DI Water, MEQ/IDI, ENCORE, Turnaround Time, Data Deliverable Information, Comments / Special Instructions, Sample Custody must be documented below each time samples change possession including courier delivery.

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5







SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-1                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 91.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176297.D | 1  | 05/07/18 21:52 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176322.D | 2  | 05/08/18 19:40 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 | 30.1 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 73  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 65  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 73  | 23  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 73  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 34  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 73  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 296    | 36  | 13  | ug/kg | J |
| 208-96-8  | Acenaphthylene                         | 93.0   | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                             | 908    | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine                               | ND     | 73  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2530   | 36  | 10  | ug/kg | J |
| 50-32-8   | Benzo(a)pyrene                         | 2450   | 36  | 17  | ug/kg | J |
| 205-99-2  | Benzo(b)fluoranthene                   | 2830   | 36  | 16  | ug/kg | J |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1260   | 36  | 18  | ug/kg | J |
| 207-08-9  | Benzo(k)fluoranthene                   | 979    | 36  | 17  | ug/kg | J |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 73  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 73  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 21.8   | 73  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 73  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 269    | 73  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-1                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.6     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q  |
|-----------|--|-------------------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                            | ND                | 73  | 14  | ug/kg |    |
| 218-01-9  | Chrysene                               | 2070              | 36  | 11  | ug/kg | J  |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                | 73  | 7.8 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                | 73  | 16  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                | 73  | 13  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                | 73  | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                | 36  | 11  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                | 36  | 18  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                | 73  | 30  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                            | ND                | 36  | 24  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 285               | 36  | 16  | ug/kg | J  |
| 132-64-9  | Dibenzofuran                           | 147               | 73  | 15  | ug/kg | J  |
| 84-74-2   | Di-n-butyl phthalate                   | ND                | 73  | 5.9 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate                   | ND                | 73  | 9.0 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                      | ND                | 73  | 7.7 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                     | ND                | 73  | 6.5 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                | 73  | 8.5 | ug/kg |    |
| 206-44-0  | Fluoranthene                           | 5250 <sup>b</sup> | 73  | 32  | ug/kg | DJ |
| 86-73-7   | Fluorene                               | 330               | 36  | 17  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                      | ND                | 73  | 9.2 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene                    | ND                | 36  | 15  | ug/kg |    |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                | 360 | 14  | ug/kg |    |
| 67-72-1   | Hexachloroethane                       | ND                | 180 | 18  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 1510              | 36  | 17  | ug/kg | J  |
| 78-59-1   | Isophorone                             | ND                | 73  | 7.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                    | 51.3              | 36  | 8.2 | ug/kg | J  |
| 88-74-4   | 2-Nitroaniline                         | ND                | 180 | 8.6 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                         | ND                | 180 | 9.1 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline                         | ND                | 180 | 9.4 | ug/kg |    |
| 91-20-3   | Naphthalene                            | 66.4              | 36  | 10  | ug/kg | J  |
| 98-95-3   | Nitrobenzene                           | ND                | 73  | 14  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                | 73  | 10  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                | 180 | 13  | ug/kg |    |
| 85-01-8   | Phenanthrene                           | 3160              | 36  | 12  | ug/kg | J  |
| 129-00-0  | Pyrene                                 | 3850 <sup>b</sup> | 73  | 23  | ug/kg | DJ |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                | 180 | 9.2 | ug/kg |    |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 88%    | 83%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |                                |
| <b>Lab Sample ID:</b> JC65058-1                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 91.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 79%    | 74%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 100%   | 95%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 74%    | 70%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    | 73%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 77%    | 72%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-042518                                 | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-2                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176300.D | 1  | 05/07/18 23:30 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176320.D | 10 | 05/08/18 18:30 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 | 30.3 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q  |
|-----------|--|-------------------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND                | 72  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                | 180 | 22  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                | 180 | 31  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND                | 180 | 64  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol                      | ND                | 180 | 140 | ug/kg |    |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                | 180 | 38  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND                | 72  | 23  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND                | 72  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND                | 180 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND                | 360 | 96  | ug/kg |    |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND                | 140 | 34  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND                | 72  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                | 180 | 24  | ug/kg |    |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                | 180 | 27  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                | 180 | 21  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 1620              | 36  | 12  | ug/kg | J  |
| 208-96-8  | Acenaphthylene                         | 37.0              | 36  | 18  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND                | 180 | 7.7 | ug/kg |    |
| 120-12-7  | Anthracene                             | 3290              | 36  | 22  | ug/kg | J  |
| 1912-24-9 | Atrazine                               | ND                | 72  | 15  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 7330 <sup>b</sup> | 360 | 100 | ug/kg | DJ |
| 50-32-8   | Benzo(a)pyrene <sup>c</sup>            | 6740 <sup>b</sup> | 360 | 160 | ug/kg | DJ |
| 205-99-2  | Benzo(b)fluoranthene <sup>c</sup>      | 8070 <sup>b</sup> | 360 | 160 | ug/kg | DJ |
| 191-24-2  | Benzo(g,h,i)perylene                   | 3260              | 36  | 18  | ug/kg | J  |
| 207-08-9  | Benzo(k)fluoranthene                   | 2520              | 36  | 17  | ug/kg | J  |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                | 72  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate                 | ND                | 72  | 8.8 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 96.0              | 72  | 4.9 | ug/kg | J  |
| 100-52-7  | Benzaldehyde                           | ND                | 180 | 8.9 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND                | 72  | 8.6 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND                | 180 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                              | 1660              | 72  | 5.2 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-042518                                 | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-2                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 91.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q  |
|-----------|--|--------------------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                            | ND                 | 72  | 14  | ug/kg |    |
| 218-01-9  | Chrysene                               | 6250 <sup>b</sup>  | 360 | 110 | ug/kg | DJ |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                 | 72  | 7.7 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                 | 72  | 15  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                 | 72  | 13  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                 | 72  | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                 | 36  | 11  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                 | 36  | 18  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                 | 72  | 30  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                            | ND                 | 36  | 24  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 793                | 36  | 16  | ug/kg | J  |
| 132-64-9  | Dibenzofuran                           | 713                | 72  | 15  | ug/kg | J  |
| 84-74-2   | Di-n-butyl phthalate                   | ND                 | 72  | 5.9 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate                   | ND                 | 72  | 9.0 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                      | ND                 | 72  | 7.7 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                     | ND                 | 72  | 6.4 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                 | 72  | 8.4 | ug/kg |    |
| 206-44-0  | Fluoranthene                           | 18000 <sup>b</sup> | 360 | 160 | ug/kg | DJ |
| 86-73-7   | Fluorene                               | 1520               | 36  | 17  | ug/kg | J  |
| 118-74-1  | Hexachlorobenzene                      | ND                 | 72  | 9.1 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene                    | ND                 | 36  | 14  | ug/kg |    |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                 | 360 | 14  | ug/kg |    |
| 67-72-1   | Hexachloroethane                       | ND                 | 180 | 18  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene <sup>c</sup>    | 3840 <sup>b</sup>  | 360 | 170 | ug/kg | DJ |
| 78-59-1   | Isophorone                             | ND                 | 72  | 7.7 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                    | 279                | 36  | 8.1 | ug/kg | J  |
| 88-74-4   | 2-Nitroaniline                         | ND                 | 180 | 8.5 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                         | ND                 | 180 | 9.0 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline                         | ND                 | 180 | 9.3 | ug/kg |    |
| 91-20-3   | Naphthalene                            | 907                | 36  | 10  | ug/kg | J  |
| 98-95-3   | Nitrobenzene                           | ND                 | 72  | 14  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                 | 72  | 10  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                 | 180 | 13  | ug/kg |    |
| 85-01-8   | Phenanthrene                           | 13000 <sup>b</sup> | 360 | 120 | ug/kg | DJ |
| 129-00-0  | Pyrene                                 | 12500 <sup>b</sup> | 360 | 120 | ug/kg | DJ |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                 | 180 | 9.1 | ug/kg |    |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 83%    | 75%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> DUP-042518                        | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-2                            | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 91.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 75%    | 75%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 99%    | 90%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 70%    | 66%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    | 74%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 75%    | 78%    | 36-134% |

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-17)                    |  |                                |
| <b>Lab Sample ID:</b> JC65058-3                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 84.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176295.D | 1  | 05/07/18 20:45 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 79  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 34  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 70  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 200 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 42  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 79  | 25  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 79  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 390 | 110 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 160 | 37  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 79  | 21  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 30  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 39  | 14  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.5 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 79  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 67.7   | 39  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 103    | 39  | 18  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 105    | 39  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 80.0   | 39  | 20  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 31.0   | 39  | 18  | ug/kg | J |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 79  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 79  | 9.6 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 79  | 5.4 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 9.8 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 79  | 9.4 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 79  | 5.7 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-108 (15-17)                             | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-3                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 84.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND     | 79  | 16  | ug/kg |   |
| 218-01-9  | Chrysene                               | 69.7   | 39  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 79  | 8.4 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 79  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 79  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 79  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 39  | 20  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 79  | 33  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | ND     | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | ND     | 79  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 79  | 6.4 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 79  | 9.8 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 79  | 8.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 79  | 7.0 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 79  | 9.2 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 140    | 39  | 18  | ug/kg |   |
| 86-73-7   | Fluorene                               | ND     | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 79  | 10  | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 390 | 16  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 200 | 20  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 78.5   | 39  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND     | 79  | 8.4 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | ND     | 39  | 8.9 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND     | 200 | 9.3 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 200 | 9.9 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 200 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                            | ND     | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND     | 79  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 79  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 200 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 60.2   | 39  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 158    | 39  | 13  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 200 | 10  | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 95%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-108 (15-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-3                            | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 84.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 86%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 107%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 82%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 83%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (13-15)                    |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-4                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176296.D | 1  | 05/07/18 21:18 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 76  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 68  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 76  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 76  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 76  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 38  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 36.5   | 38  | 19  | ug/kg | J |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.2 | ug/kg |   |
| 120-12-7  | Anthracene                             | 51.9   | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 76  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 216    | 38  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 278    | 38  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 358    | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 232    | 38  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 115    | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 76  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 76  | 9.3 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 76  | 5.2 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.5 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 76  | 9.1 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | 18.9   | 76  | 5.5 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (13-15)                    |                                |
| <b>Lab Sample ID:</b> JC65058-4                            | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 88%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 110%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 81%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 85%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 84%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-5                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 88.1    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176293.D | 1  | 05/07/18 19:36 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 75  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 67  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 75  | 24  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 75  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 75  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | ND     | 38  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | ND     | 38  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.1 | ug/kg |   |
| 120-12-7  | Anthracene                             | ND     | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 75  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 30.7   | 38  | 11  | ug/kg | J |
| 50-32-8   | Benzo(a)pyrene                         | 36.3   | 38  | 17  | ug/kg | J |
| 205-99-2  | Benzo(b)fluoranthene                   | 43.5   | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 28.5   | 38  | 19  | ug/kg | J |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 75  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 75  | 9.2 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 75  | 5.1 | ug/kg |   |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.3 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 75  | 8.9 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                              | ND     | 75  | 5.4 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND     | 75  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                               | 31.0   | 38  | 12  | ug/kg | J |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 75  | 8.0 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 75  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 75  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 75  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 75  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | ND     | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | ND     | 75  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 75  | 6.1 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 75  | 9.4 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 75  | 8.0 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 75  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 75  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 82.6   | 38  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                               | ND     | 38  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 75  | 9.5 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 31.9   | 38  | 18  | ug/kg | J |
| 78-59-1   | Isophorone                             | ND     | 75  | 8.0 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 20.9   | 38  | 8.5 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                         | ND     | 190 | 8.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 190 | 9.4 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 190 | 9.7 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 93.3   | 38  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND     | 75  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 75  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 34.8   | 38  | 13  | ug/kg | J |
| 129-00-0  | Pyrene                                 | 80.5   | 38  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 190 | 9.5 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 96%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (13-17)                    |                                |
| <b>Lab Sample ID:</b> JC65058-5                            | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 88.1    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 84%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 102%   |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 82%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 83%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 82%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (5-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-6                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 82.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176340.D | 1  | 05/09/18 03:44 | CS | 04/30/18 16:00 | OP11647    | EF7512           |
| Run #2 | F176410.D | 10 | 05/11/18 04:33 | CS | 04/30/18 16:00 | OP11647    | EF7515           |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 31.4 g         | 1.0 ml       |
| Run #2 | 31.4 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                       | Result             | RL  | MDL | Units | Q |
|-----------|--------------------------------|--------------------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                 | ND                 | 77  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol       | ND                 | 190 | 24  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol             | ND                 | 190 | 33  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol             | ND                 | 190 | 69  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol              | ND                 | 190 | 150 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol           | ND                 | 190 | 41  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                 | 37.5               | 77  | 25  | ug/kg | J |
|           | 3&4-Methylphenol               | 138                | 77  | 32  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                  | ND                 | 190 | 26  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>     | ND                 | 390 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup> | ND                 | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                         | ND                 | 77  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol      | ND                 | 190 | 26  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol          | ND                 | 190 | 29  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol          | ND                 | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene                   | 132                | 39  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene                 | 1520               | 39  | 20  | ug/kg |   |
| 98-86-2   | Acetophenone                   | 41.2               | 190 | 8.3 | ug/kg | J |
| 120-12-7  | Anthracene                     | 3390               | 39  | 24  | ug/kg |   |
| 1912-24-9 | Atrazine                       | ND                 | 77  | 17  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene             | 15700 <sup>b</sup> | 390 | 110 | ug/kg | D |
| 50-32-8   | Benzo(a)pyrene                 | 19100 <sup>b</sup> | 390 | 180 | ug/kg | D |
| 205-99-2  | Benzo(b)fluoranthene           | 23700 <sup>b</sup> | 390 | 170 | ug/kg | D |
| 191-24-2  | Benzo(g,h,i)perylene           | 11600 <sup>b</sup> | 390 | 190 | ug/kg | D |
| 207-08-9  | Benzo(k)fluoranthene           | 7490 <sup>b</sup>  | 390 | 180 | ug/kg | D |
| 101-55-3  | 4-Bromophenyl phenyl ether     | ND                 | 77  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate         | ND                 | 77  | 9.4 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                  | 58.9               | 77  | 5.3 | ug/kg | J |
| 100-52-7  | Benzaldehyde                   | ND                 | 190 | 9.6 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene            | ND                 | 77  | 9.2 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                | ND                 | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                      | 427                | 77  | 5.6 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (5-9)                               | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-6                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 82.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q |
|-----------|--|--------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>               | ND                 | 77  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                               | 12900 <sup>b</sup> | 390 | 120 | ug/kg | D |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                 | 77  | 8.3 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                 | 77  | 17  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                 | 77  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                 | 77  | 13  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                 | 39  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                 | 39  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                 | 77  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                 | 39  | 26  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 2700               | 39  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 326                | 77  | 16  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                 | 77  | 6.3 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                 | 77  | 9.6 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                 | 77  | 8.2 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                 | 77  | 6.9 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                 | 77  | 9.1 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 29400 <sup>b</sup> | 390 | 170 | ug/kg | D |
| 86-73-7   | Fluorene                               | 468                | 39  | 18  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                 | 77  | 9.8 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                 | 39  | 16  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                 | 390 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                 | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 15300 <sup>b</sup> | 390 | 180 | ug/kg | D |
| 78-59-1   | Isophorone                             | ND                 | 77  | 8.3 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 158                | 39  | 8.7 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>            | ND                 | 190 | 9.1 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                 | 190 | 9.7 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                 | 190 | 10  | ug/kg |   |
| 91-20-3   | Naphthalene                            | 754                | 39  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                 | 77  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                 | 77  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                 | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 7070 <sup>b</sup>  | 390 | 130 | ug/kg | D |
| 129-00-0  | Pyrene                                 | 24500 <sup>b</sup> | 390 | 120 | ug/kg | D |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                 | 190 | 9.8 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 83%    | 69%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-104 (5-9)<br><b>Lab Sample ID:</b> JC65058-6<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 82.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 76%    | 64%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 89%    | 76%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 72%    | 65%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 72%    | 66%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 62%    | 64%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 92.4    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176339.D | 1  | 05/09/18 03:11 | CS | 04/30/18 16:00 | OP11647    | EF7512           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.1 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                       | Result | RL  | MDL | Units | Q |
|-----------|--------------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                 | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol       | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol             | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol             | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol              | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol           | ND     | 180 | 38  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                 | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol               | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                  | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>     | ND     | 360 | 96  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup> | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                         | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol      | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol          | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol          | ND     | 180 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene                   | ND     | 36  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene                 | 52.5   | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone                   | ND     | 180 | 7.7 | ug/kg |   |
| 120-12-7  | Anthracene                     | 96.5   | 36  | 22  | ug/kg |   |
| 1912-24-9 | Atrazine                       | ND     | 72  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene             | 322    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene <sup>b</sup>    | 352    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene           | 441    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene           | 325    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene           | 150    | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether     | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate         | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                  | ND     | 72  | 4.9 | ug/kg |   |
| 100-52-7  | Benzaldehyde                   | ND     | 180 | 8.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene            | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                      | 14.6   | 72  | 5.2 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>               | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 287    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND     | 72  | 7.7 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND     | 72  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 45.9   | 36  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 36.4   | 72  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate                   | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND     | 72  | 8.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 568    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                               | 45.4   | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND     | 72  | 9.1 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND     | 36  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 330    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND     | 72  | 7.7 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 17.1   | 36  | 8.1 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>            | ND     | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND     | 180 | 9.0 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND     | 180 | 9.3 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 19.7   | 36  | 10  | ug/kg | J |
| 98-95-3   | Nitrobenzene                           | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 356    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 601    | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND     | 180 | 9.1 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 97%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (6-8)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-7                            |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.4    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 87%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 98%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 79%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 81%    |        | 36-134% |

- (a) Associated CCV outside of control limits high, sample was ND.
- (b) Associated CCV outside of control limits high.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (8-10)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-8                            |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 92.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | F176298.D | 1  | 05/07/18 22:24 | CC | 04/30/18 16:00 | OP11647    | EF7510           |
| Run #2 | F176323.D | 2  | 05/08/18 20:14 | CC | 04/30/18 16:00 | OP11647    | EF7511           |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.8 g         | 1.0 ml       |
| Run #2 | 30.8 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q |
|-----------|--|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol                         | ND     | 70  | 17  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 170 | 21  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 170 | 30  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 170 | 62  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol                      | ND     | 170 | 130 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 170 | 37  | ug/kg |   |
| 95-48-7   | 2-Methylphenol                         | ND     | 70  | 22  | ug/kg |   |
|           | 3&4-Methylphenol                       | ND     | 70  | 29  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol                          | ND     | 170 | 23  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol <sup>a</sup>             | ND     | 350 | 93  | ug/kg |   |
| 87-86-5   | Pentachlorophenol <sup>a</sup>         | ND     | 140 | 33  | ug/kg |   |
| 108-95-2  | Phenol                                 | ND     | 70  | 18  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 170 | 23  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 170 | 26  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 170 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene                           | 437    | 35  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene                         | 29.4   | 35  | 18  | ug/kg | J |
| 98-86-2   | Acetophenone                           | ND     | 170 | 7.5 | ug/kg |   |
| 120-12-7  | Anthracene                             | 926    | 35  | 21  | ug/kg |   |
| 1912-24-9 | Atrazine                               | ND     | 70  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene                     | 2310   | 35  | 9.9 | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene                         | 2270   | 35  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene                   | 2650   | 35  | 15  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1240   | 35  | 17  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene                   | 877    | 35  | 16  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 70  | 13  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate                 | ND     | 70  | 8.5 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl                          | 31.2   | 70  | 4.8 | ug/kg | J |
| 100-52-7  | Benzaldehyde                           | ND     | 170 | 8.7 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 70  | 8.3 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline                        | ND     | 170 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                              | 449    | 70  | 5.1 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (8-10)                              | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-8                                  | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.9     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result            | RL  | MDL | Units | Q |
|-----------|--|-------------------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                            | ND                | 70  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                               | 2000              | 35  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane             | ND                | 70  | 7.5 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                | ND                | 70  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)           | ND                | 70  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether            | ND                | 70  | 11  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene                     | ND                | 35  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                     | ND                | 35  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                 | ND                | 70  | 29  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                            | ND                | 35  | 23  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                 | 281               | 35  | 15  | ug/kg |   |
| 132-64-9  | Dibenzofuran                           | 184               | 70  | 14  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate                   | ND                | 70  | 5.7 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate                   | ND                | 70  | 8.7 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                      | ND                | 70  | 7.4 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                     | ND                | 70  | 6.2 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate             | ND                | 70  | 8.2 | ug/kg |   |
| 206-44-0  | Fluoranthene                           | 5050 <sup>b</sup> | 70  | 31  | ug/kg | D |
| 86-73-7   | Fluorene                               | 389               | 35  | 16  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                      | ND                | 70  | 8.8 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                    | ND                | 35  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup> | ND                | 350 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                       | ND                | 170 | 17  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                 | 1440              | 35  | 16  | ug/kg |   |
| 78-59-1   | Isophorone                             | ND                | 70  | 7.5 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                    | 77.8              | 35  | 7.9 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                         | ND                | 170 | 8.2 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                         | ND                | 170 | 8.7 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                         | ND                | 170 | 9.1 | ug/kg |   |
| 91-20-3   | Naphthalene                            | 124               | 35  | 9.9 | ug/kg |   |
| 98-95-3   | Nitrobenzene                           | ND                | 70  | 13  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine             | ND                | 70  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                 | ND                | 170 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                           | 3370              | 35  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                 | 3720 <sup>b</sup> | 70  | 22  | ug/kg | D |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene             | ND                | 170 | 8.9 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 89%    | 85%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> TP-100 (8-10)<br><b>Lab Sample ID:</b> JC65058-8<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 92.9 |
|--|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 76%    | 78%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 96%    | 91%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 73%    | 70%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 76%    | 75%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 76%    | 72%    | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130529.D | 1  | 05/10/18 22:50 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                 | 31.6   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 115    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 119    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 156    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 107    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 57.1   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 5.8    | 72  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 16.2   | 72  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | TP-100 (2-6)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-10                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 92.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                          | Result | RL  | MDL | Units | Q |
|-----------|-----------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                       | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                          | 124    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane        | ND     | 72  | 7.8 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether           | ND     | 72  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)      | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether       | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine            | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                       | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene            | 25.4   | 36  | 16  | ug/kg | J |
| 132-64-9  | Dibenzofuran                      | 16.8   | 72  | 15  | ug/kg | J |
| 84-74-2   | Di-n-butyl phthalate              | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup> | ND     | 72  | 9.0 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                 | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate        | ND     | 72  | 8.5 | ug/kg |   |
| 206-44-0  | Fluoranthene                      | 262    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                          | ND     | 36  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                 | ND     | 72  | 9.2 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene               | ND     | 36  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene         | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                  | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene            | 115    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                        | ND     | 72  | 7.8 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene               | 8.7    | 36  | 8.2 | ug/kg | J |
| 88-74-4   | 2-Nitroaniline                    | ND     | 180 | 8.6 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                    | ND     | 180 | 9.1 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                    | ND     | 180 | 9.4 | ug/kg |   |
| 91-20-3   | Naphthalene                       | 12.9   | 36  | 10  | ug/kg | J |
| 98-95-3   | Nitrobenzene                      | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine        | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine            | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                      | 136    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                            | 251    | 36  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene        | ND     | 180 | 9.2 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 78%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65058-10                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 78%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 94%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 80%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 79%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |  |                                |
| <b>Lab Sample ID:</b> JC65058-11                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130525.D | 1  | 05/10/18 21:02 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.7 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 97  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 24.6   | 36  | 18  | ug/kg | J |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.8 | ug/kg |   |
| 120-12-7  | Anthracene                 | 32.8   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 147    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 162    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 195    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 159    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 91.3   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 6.7    | 72  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 9.0 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.6 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 12.8   | 72  | 5.3 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (8-15)                     |                                |
| <b>Lab Sample ID:</b> JC65058-11                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 89.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

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### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 69%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 75%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 70%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 72%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 66%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)               |                                |
| <b>Lab Sample ID:</b> JC65058-12                           | <b>Date Sampled:</b> 04/25/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130569.D | 1  | 05/11/18 19:24 | CC | 04/30/18 16:00 | OP11648    | EZ6441           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.4 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 76  | 19  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 190 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 190 | 32  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 190 | 67  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 190 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 190 | 40  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 76  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 76  | 31  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 190 | 25  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 380 | 100 | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 36  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 76  | 20  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 190 | 25  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 190 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 190 | 23  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 33.2   | 38  | 13  | ug/kg | J |
| 208-96-8  | Acenaphthylene             | 235    | 38  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | 45.9   | 190 | 8.1 | ug/kg | J |
| 120-12-7  | Anthracene                 | 494    | 38  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 76  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 2070   | 38  | 11  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 1870   | 38  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 2250   | 38  | 17  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 1490   | 38  | 19  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 828    | 38  | 18  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 76  | 15  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | 14.9   | 76  | 9.2 | ug/kg | J |
| 92-52-4   | 1,1'-Biphenyl              | 18.8   | 76  | 5.2 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | 17.4   | 190 | 9.4 | ug/kg | J |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 76  | 9.0 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 190 | 14  | ug/kg |   |
| 86-74-8   | Carbazole                  | 85.6   | 76  | 5.5 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-104 (2-5) (9-13)                        | <b>Date Sampled:</b>   | 04/25/18 |
| <b>Lab Sample ID:</b>    | JC65058-12                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 87.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>                | ND     | 76  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1690   | 38  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 76  | 8.1 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 76  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 76  | 14  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 76  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>         | ND     | 38  | 12  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 38  | 19  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 76  | 32  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 38  | 25  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 380    | 38  | 17  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 97.7   | 76  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate <sup>a</sup>       | ND     | 76  | 6.2 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup>       | ND     | 76  | 9.4 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 76  | 8.1 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 76  | 6.7 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate              | ND     | 76  | 8.8 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 3280   | 38  | 17  | ug/kg |   |
| 86-73-7   | Fluorene                                | 148    | 38  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 76  | 9.6 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                     | ND     | 38  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene               | ND     | 380 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 190 | 19  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1770   | 38  | 18  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 76  | 8.1 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 95.5   | 38  | 8.5 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>             | ND     | 190 | 8.9 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 190 | 9.5 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                          | ND     | 190 | 9.8 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 499    | 38  | 11  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 76  | 15  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 76  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 190 | 14  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 1500   | 38  | 13  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 3510   | 38  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>b</sup> | ND     | 190 | 9.6 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 81%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-104 (2-5) (9-13)<br><b>Lab Sample ID:</b> JC65058-12<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/25/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 87.0 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 83%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 89%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 83%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 87%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 88%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130526.D | 1  | 05/10/18 21:29 | CC | 04/30/18 16:00 | OP11648    | EZ6439           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 72  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 22  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 64  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 38  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 72  | 23  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 72  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 360 | 96  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 140 | 34  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 72  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 27  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 21  | ug/kg |   |
| 83-32-9   | Acenaphthene               | ND     | 36  | 12  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | ND     | 36  | 18  | ug/kg |   |
| 98-86-2   | Acetophenone               | ND     | 180 | 7.7 | ug/kg |   |
| 120-12-7  | Anthracene                 | 23.0   | 36  | 22  | ug/kg | J |
| 1912-24-9 | Atrazine <sup>a</sup>      | ND     | 72  | 15  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 127    | 36  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 146    | 36  | 16  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 192    | 36  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 138    | 36  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 71.8   | 36  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 72  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 72  | 8.8 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | ND     | 72  | 4.9 | ug/kg |   |
| 100-52-7  | Benzaldehyde               | ND     | 180 | 8.9 | ug/kg |   |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 72  | 8.5 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 20.0   | 72  | 5.2 | ug/kg | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                          | Result | RL  | MDL | Units | Q |
|-----------|-----------------------------------|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam                       | ND     | 72  | 14  | ug/kg |   |
| 218-01-9  | Chrysene                          | 131    | 36  | 11  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane        | ND     | 72  | 7.7 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether           | ND     | 72  | 15  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)      | ND     | 72  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether       | ND     | 72  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene <sup>a</sup>   | ND     | 36  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine            | ND     | 72  | 30  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                       | ND     | 36  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene            | 31.5   | 36  | 16  | ug/kg | J |
| 132-64-9  | Dibenzofuran                      | ND     | 72  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate              | ND     | 72  | 5.9 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup> | ND     | 72  | 8.9 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                 | ND     | 72  | 7.7 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                | ND     | 72  | 6.4 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate        | ND     | 72  | 8.4 | ug/kg |   |
| 206-44-0  | Fluoranthene                      | 249    | 36  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                          | ND     | 36  | 16  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                 | ND     | 72  | 9.1 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene               | ND     | 36  | 14  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene         | ND     | 360 | 14  | ug/kg |   |
| 67-72-1   | Hexachloroethane                  | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene            | 131    | 36  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                        | ND     | 72  | 7.7 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene               | ND     | 36  | 8.1 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline                    | ND     | 180 | 8.5 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                    | ND     | 180 | 9.0 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                    | ND     | 180 | 9.3 | ug/kg |   |
| 91-20-3   | Naphthalene                       | ND     | 36  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                      | ND     | 72  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine        | ND     | 72  | 10  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine            | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                      | 100    | 36  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                            | 241    | 36  | 11  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene        | ND     | 180 | 9.1 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 79%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> TP-100 (2-6)                      |  | <b>Date Sampled:</b> 04/25/18  |
| <b>Lab Sample ID:</b> JC65058-13                           |  | <b>Date Received:</b> 04/27/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 92.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 82%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 88%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 79%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 81%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-105 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65058-15                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/27/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 88.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|----------------|------------|------------------|
| Run #1 | Z130570.D | 1  | 05/11/18 19:50 | CC | 04/30/18 16:00 | OP11648    | EZ6441           |
| Run #2 |           |    |                |    |                |            |                  |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.6 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                   | Result | RL  | MDL | Units | Q |
|-----------|----------------------------|--------|-----|-----|-------|---|
| 95-57-8   | 2-Chlorophenol             | ND     | 74  | 18  | ug/kg |   |
| 59-50-7   | 4-Chloro-3-methyl phenol   | ND     | 180 | 23  | ug/kg |   |
| 120-83-2  | 2,4-Dichlorophenol         | ND     | 180 | 31  | ug/kg |   |
| 105-67-9  | 2,4-Dimethylphenol         | ND     | 180 | 66  | ug/kg |   |
| 51-28-5   | 2,4-Dinitrophenol          | ND     | 180 | 140 | ug/kg |   |
| 534-52-1  | 4,6-Dinitro-o-cresol       | ND     | 180 | 39  | ug/kg |   |
| 95-48-7   | 2-Methylphenol             | ND     | 74  | 24  | ug/kg |   |
|           | 3&4-Methylphenol           | ND     | 74  | 30  | ug/kg |   |
| 88-75-5   | 2-Nitrophenol              | ND     | 180 | 24  | ug/kg |   |
| 100-02-7  | 4-Nitrophenol              | ND     | 370 | 98  | ug/kg |   |
| 87-86-5   | Pentachlorophenol          | ND     | 150 | 35  | ug/kg |   |
| 108-95-2  | Phenol                     | ND     | 74  | 19  | ug/kg |   |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol  | ND     | 180 | 24  | ug/kg |   |
| 95-95-4   | 2,4,5-Trichlorophenol      | ND     | 180 | 28  | ug/kg |   |
| 88-06-2   | 2,4,6-Trichlorophenol      | ND     | 180 | 22  | ug/kg |   |
| 83-32-9   | Acenaphthene               | 55.9   | 37  | 13  | ug/kg |   |
| 208-96-8  | Acenaphthylene             | 223    | 37  | 19  | ug/kg |   |
| 98-86-2   | Acetophenone               | 19.6   | 180 | 7.9 | ug/kg | J |
| 120-12-7  | Anthracene                 | 344    | 37  | 23  | ug/kg |   |
| 1912-24-9 | Atrazine                   | ND     | 74  | 16  | ug/kg |   |
| 56-55-3   | Benzo(a)anthracene         | 1410   | 37  | 10  | ug/kg |   |
| 50-32-8   | Benzo(a)pyrene             | 1360   | 37  | 17  | ug/kg |   |
| 205-99-2  | Benzo(b)fluoranthene       | 1800   | 37  | 16  | ug/kg |   |
| 191-24-2  | Benzo(g,h,i)perylene       | 1320   | 37  | 18  | ug/kg |   |
| 207-08-9  | Benzo(k)fluoranthene       | 556    | 37  | 17  | ug/kg |   |
| 101-55-3  | 4-Bromophenyl phenyl ether | ND     | 74  | 14  | ug/kg |   |
| 85-68-7   | Butyl benzyl phthalate     | ND     | 74  | 9.0 | ug/kg |   |
| 92-52-4   | 1,1'-Biphenyl              | 24.7   | 74  | 5.0 | ug/kg | J |
| 100-52-7  | Benzaldehyde               | 28.4   | 180 | 9.1 | ug/kg | J |
| 91-58-7   | 2-Chloronaphthalene        | ND     | 74  | 8.8 | ug/kg |   |
| 106-47-8  | 4-Chloroaniline            | ND     | 180 | 13  | ug/kg |   |
| 86-74-8   | Carbazole                  | 112    | 74  | 5.3 | ug/kg |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-105 (0-5)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65058-15                                 | <b>Date Received:</b>  | 04/27/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 88.8     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q |
|-----------|---|--------|-----|-----|-------|---|
| 105-60-2  | Caprolactam <sup>a</sup>                | ND     | 74  | 15  | ug/kg |   |
| 218-01-9  | Chrysene                                | 1330   | 37  | 12  | ug/kg |   |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 74  | 7.9 | ug/kg |   |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 74  | 16  | ug/kg |   |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 74  | 13  | ug/kg |   |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 74  | 12  | ug/kg |   |
| 121-14-2  | 2,4-Dinitrotoluene <sup>a</sup>         | ND     | 37  | 11  | ug/kg |   |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 37  | 18  | ug/kg |   |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 74  | 31  | ug/kg |   |
| 123-91-1  | 1,4-Dioxane                             | ND     | 37  | 24  | ug/kg |   |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 285    | 37  | 16  | ug/kg |   |
| 132-64-9  | Dibenzofuran                            | 106    | 74  | 15  | ug/kg |   |
| 84-74-2   | Di-n-butyl phthalate <sup>a</sup>       | ND     | 74  | 6.0 | ug/kg |   |
| 117-84-0  | Di-n-octyl phthalate <sup>a</sup>       | ND     | 74  | 9.2 | ug/kg |   |
| 84-66-2   | Diethyl phthalate                       | ND     | 74  | 7.8 | ug/kg |   |
| 131-11-3  | Dimethyl phthalate                      | ND     | 74  | 6.6 | ug/kg |   |
| 117-81-7  | bis(2-Ethylhexyl)phthalate              | ND     | 74  | 8.6 | ug/kg |   |
| 206-44-0  | Fluoranthene                            | 2290   | 37  | 16  | ug/kg |   |
| 86-73-7   | Fluorene                                | 97.1   | 37  | 17  | ug/kg |   |
| 118-74-1  | Hexachlorobenzene                       | ND     | 74  | 9.3 | ug/kg |   |
| 87-68-3   | Hexachlorobutadiene                     | ND     | 37  | 15  | ug/kg |   |
| 77-47-4   | Hexachlorocyclopentadiene               | ND     | 370 | 15  | ug/kg |   |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |   |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1420   | 37  | 17  | ug/kg |   |
| 78-59-1   | Isophorone                              | ND     | 74  | 7.9 | ug/kg |   |
| 91-57-6   | 2-Methylnaphthalene                     | 56.2   | 37  | 8.3 | ug/kg |   |
| 88-74-4   | 2-Nitroaniline <sup>a</sup>             | ND     | 180 | 8.7 | ug/kg |   |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.2 | ug/kg |   |
| 100-01-6  | 4-Nitroaniline                          | ND     | 180 | 9.5 | ug/kg |   |
| 91-20-3   | Naphthalene                             | 199    | 37  | 10  | ug/kg |   |
| 98-95-3   | Nitrobenzene                            | ND     | 74  | 14  | ug/kg |   |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 74  | 11  | ug/kg |   |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |   |
| 85-01-8   | Phenanthrene                            | 1140   | 37  | 12  | ug/kg |   |
| 129-00-0  | Pyrene                                  | 2490   | 37  | 12  | ug/kg |   |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>b</sup> | ND     | 180 | 9.3 | ug/kg |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 78%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-105 (0-5)<br><b>Lab Sample ID:</b> JC65058-15<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/26/18<br><b>Date Received:</b> 04/27/18<br><b>Percent Solids:</b> 88.8 |
|--|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 81%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 81%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 77%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 80%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 78%    |        | 36-134% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits low.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# NYSEG – Newark Former MGP Site

## Data Usability Summary Report

### Newark, New York

Semivolatile Analysis

SDG # JC65157

Analyses Performed By:  
SGS Laboratories  
Dayton, New Jersey

Report #30512R  
Review Level: Tier III  
Project: B0013094.0006.00032





## DATA REVIEW REPORT

### SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # JC65157 for samples collected in association with the NYSEG Newark Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

| SDG     | Sample ID      | Lab ID     | Matrix | Sample Collection Date | Parent Sample | Analysis |      |                     |     |      |
|---------|----------------|------------|--------|------------------------|---------------|----------|------|---------------------|-----|------|
|         |                |            |        |                        |               | VOC      | SVOC | HERB<br>PEST<br>PCB | MET | MISC |
| JC65157 | SB-103 (7-9)   | JC65157-1  | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-109 (7-9)   | JC65157-2  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-109 (15-17) | JC65157-3  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-101 (7-9)   | JC65157-4  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-103 (9-19)  | JC65157-6  | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-101 (0-9)   | JC65157-7  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-100 (0-8)   | JC65157-8  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-100 (8-11)  | JC65157-9  | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-103 (0-5)   | JC65157-10 | Soil   | 4/26/2018              |               |          | X    |                     |     |      |
|         | SB-101 (0-9)   | JC65157-11 | Soil   | 4/27/2018              |               |          | X    |                     |     |      |
|         | SB-100 (0-8)   | JC65157-12 | Soil   | 4/27/2018              |               |          | X    |                     |     |      |

Note: Per request by the project team, only the semivolatile organic compound analysis was reviewed in the DUSR.

## DATA REVIEW REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

| Items Reviewed  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| 1. Sample receipt condition                             |          | X   |                        | X   |              |
| 2. Requested analyses and sample results                |          | X   |                        | X   |              |
| 3. Master tracking list                                 |          | X   |                        | X   |              |
| 4. Methods of analysis                                  |          | X   |                        | X   |              |
| 5. Reporting limits                                     |          | X   |                        | X   |              |
| 6. Sample collection date                               |          | X   |                        | X   |              |
| 7. Laboratory sample received date                      |          | X   |                        | X   |              |
| 8. Sample preservation verification (as applicable)     |          | X   |                        | X   |              |
| 9. Sample preparation/extraction/analysis dates         |          | X   |                        | X   |              |
| 10. Fully executed Chain-of-Custody (COC) form          |          | X   |                        | X   |              |
| 11. Narrative summary of QA or sample problems provided |          | X   |                        | X   |              |
| 12. Data Package Completeness and Compliance            |          | X   |                        | X   |              |

Note:

QA - Quality Assurance

## DATA REVIEW REPORT

### ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8270D. Data were reviewed in accordance with USEPA Region II SOPs and USEPA National Functional Guidelines of October 1999 and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## DATA REVIEW REPORT

### SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method       | Matrix | Holding Time  | Preservation  |
|--------------|--------|---|---------------|
| SW-846 8270D | Water  | 7 days from collection to extraction and 40 days from extraction to analysis  | Cool to <6 °C |
|              | Soil   | 14 days from collection to extraction and 40 days from extraction to analysis | Cool to <6 °C |

All samples were analyzed within the specified holding time criteria.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

## DATA REVIEW REPORT

### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

| Sample Locations   | Initial/Continuing | Compound                   | Criteria |
|--|--------------------|----------------------------|----------|
| E6P2189-CC2164<br>SB-103 (7-9)<br>SB-109 (7-9)<br>SB-109 (15-17)<br>SB-101 (7-9)<br>SB-103 (9-19)<br>SB-101 (0-9)<br>SB-100 (0-8)<br>SB-100 (8-11)<br>SB-103 (0-5)<br>SB-101 (0-9)<br>SB-100 (0-8) | CCV %D             | Hexachlorobutadiene        | -22.3%   |
|  |                    | Hexachlorocyclopentadiene  | -24.9%   |
|  |                    | 2,4-Dinitrophenol          | -20.6%   |
|  |                    | 2,3,4,6-Tetrachlorophenol  | -26.7%   |
|  |                    | 4-Nitroaniline             | -26.8%   |
|  |                    | 1,2,4,5-Tetrachlorobenzene | -27.0%   |
|  |                    | Butylbenzylphthalate       | +24.2%   |
|  |                    | bis(2-Ethylhexyl)phthalate | +21.8%   |
|  |                    | Di-n-octylphthalate        | +30.0%   |

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

| Initial/Continuing                 | Criteria                                      | Sample Result | Qualification |
|------------------------------------|---|---------------|---------------|
| Initial and Continuing Calibration | RRF <0.05                                     | Non-detect    | R             |
|                                    |   | Detect        | J             |
|                                    | RRF <0.01 <sup>1</sup>                        | Non-detect    | R             |
|                                    |   | Detect        | J             |
|                                    | RRF >0.05 or RRF >0.01 <sup>1</sup>           | Non-detect    | No Action     |
|                                    |   | Detect        |               |
| Initial Calibration                | %RSD > 15% or a correlation coefficient <0.99 | Non-detect    | UJ            |
|                                    |   | Detect        | J             |
|                                    | %RSD >90%                                     | Non-detect    | R             |
|                                    |   | Detect        | J             |
| Continuing Calibration             | %D >20% (increase in sensitivity)             | Non-detect    | No Action     |
|                                    |   | Detect        | J             |
|                                    | %D >20% (decrease in sensitivity)             | Non-detect    | UJ            |
|                                    |   | Detect        | J             |
|                                    | %D >90% (increase/decrease in sensitivity)    | Non-detect    | R             |
|                                    |   | Detect        | J             |

Note:

## DATA REVIEW REPORT

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

| Sample Locations | Compound               | MS Recovery | MSD Recovery |
|------------------|------------------------|-------------|--------------|
| SB-101 (7-9)     | 2,4-Dinitrophenol      | AC          | <10%         |
|                  | Acenaphthene           | AC          | >UL          |
|                  | Acenaphthylene         | AC          | >UL          |
|                  | Anthracene             | AC          | >UL          |
|                  | Benzo(a)anthracene     | AC          | >UL          |
|                  | Benzo(a)pyrene         | AC          | >UL          |
|                  | Benzo(b)fluoranthene   | AC          | >UL          |
|                  | Benzo(g,h,i)perylene   | AC          | >UL          |
|                  | Benzo(k)fluoranthene   | AC          | >UL          |
|                  | Chrysene               | AC          | >UL          |
|                  | 3,3'-Dichlorobenzidine | AC          | <10%         |

## DATA REVIEW REPORT

| Sample Locations | Compound                  | MS Recovery | MSD Recovery |
|------------------|---------------------------|-------------|--------------|
|                  | Dibenzo(a,h)anthracene    | AC          | >UL          |
|                  | Dibenzofuran              | AC          | >UL          |
|                  | Fluoranthene              | AC          | >UL          |
|                  | Fluorene                  | AC          | >UL          |
|                  | Hexachlorocyclopentadiene | AC          | <10%         |
|                  | Indeno(1,2,3-cd)pyrene    | AC          | >UL          |
|                  | 2-Methylnaphthalene       | AC          | >UL          |
|                  | Naphthalene               | AC          | >UL          |
|                  | Phenanthrene              | AC          | >UL          |
|                  | Pyrene                    | AC          | >UL          |

**Note:**

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

| Control Limit   | Sample Result | Qualification |
|---|---------------|---------------|
| > the upper control limit (UL)  | Non-detect    | No Action     |
|   | Detect        | J             |
| < the lower control limit (LL) but > 10%  | Non-detect    | UJ            |
|   | Detect        | J             |
| < 10%   | Non-detect    | R             |
|   | Detect        | J             |
| Parent sample concentration > four times the MS/MSD spiking solution concentration. | Detect        | No Action     |
|   | Non-detect    |               |

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

| Sample Locations | Compound             |
|------------------|----------------------|
| SB-101 (7-9)     | 2,4-Dimethylphenol   |
|                  | 4,6-Dinitro-o-cresol |
|                  | 3&4-Methylphenol     |
|                  | 4-Nitrophenol        |
|                  | Phenol               |

## DATA REVIEW REPORT

| Sample Locations | Compound               |
|------------------|------------------------|
|                  | Acenaphthene           |
|                  | Acenaphthylene         |
|                  | Anthracene             |
|                  | Benzo(a)anthracene     |
|                  | Benzo(a)pyrene         |
|                  | Benzo(b)fluoranthene   |
|                  | Benzo(g,h,i)perylene   |
|                  | Benzo(k)fluoranthene   |
|                  | 1,1'-Biphenyl          |
|                  | Carbazole              |
|                  | Chrysene               |
|                  | 2,4-Dinitrotoluene     |
|                  | Dibenzo(a,h)anthracene |
|                  | Dibenzofuran           |
|                  | Fluoranthene           |
|                  | Fluorene               |
|                  | Indeno(1,2,3-cd)pyrene |
|                  | 2-Methylnaphthalene    |
|                  | 4-Nitroaniline         |
|                  | Naphthalene            |
|                  | Phenanthrene           |
|                  | Pyrene                 |

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

| Control Limit | Sample Result | Qualification |
|---------------|---------------|---------------|
| > UL          | Non-detect    | UJ            |
|               | Detect        | J             |

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.



## DATA REVIEW REPORT

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not performed on a sample within this SDG.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

| Sample ID     | Compound               | Original Analysis | Diluted Analysis | Reported Analysis |
|---------------|------------------------|-------------------|------------------|-------------------|
| SB-103 (7-9)  | Anthracene             | --                | 12100            | 12100 D           |
|               | Benzo(a)anthracene     | --                | 9910             | 9910 D            |
|               | Benzo(a)pyrene         | --                | 7970             | 7970 D            |
|               | Benzo(b)fluoranthene   | --                | 10200            | 10200 D           |
|               | Benzo(g,h,i)perylene   | --                | 5680             | 5680 D            |
|               | Benzo(k)fluoranthene   | --                | 3970             | 3970 D            |
|               | Carbazole              | --                | 4030             | 4030 D            |
|               | Chrysene               | --                | 9650             | 9650 D            |
|               | Dibenzofuran           | --                | 9650             | 9650 D            |
|               | Fluoranthene           | --                | 30000            | 30000 D           |
|               | Fluorene               | --                | 4330             | 4330 D            |
|               | Indeno(1,2,3-cd)pyrene | --                | 5180             | 5180 D            |
|               | 2-Methylnaphthalene    | --                | 9440             | 9440 D            |
|               | Naphthalene            | --                | 52600            | 52600 D           |
|               | Phenanthrene           | --                | 42700            | 42700 D           |
|               | Pyrene                 | --                | 24500            | 24500 D           |
| SB-103 (9-19) | Fluoranthene           | --                | 7470             | 7470 D            |
|               | Naphthalene            | --                | 14100            | 14100 D           |
|               | Phenanthrene           | --                | 10400            | 10400 D           |
|               | Pyrene                 | --                | 6290             | 6290 D            |

## DATA REVIEW REPORT

| Sample ID                 | Compound               | Original Analysis | Diluted Analysis | Reported Analysis |
|---------------------------|------------------------|-------------------|------------------|-------------------|
| SB-100 (0-8) (JC65157-8)  | Anthracene             | --                | 6490             | 6490 D            |
|                           | Benzo(a)anthracene     | --                | 12500            | 12500 D           |
|                           | Benzo(a)pyrene         | --                | 11800            | 11800 D           |
|                           | Benzo(b)fluoranthene   | --                | 13700            | 13700 D           |
|                           | Benzo(g,h,i)perylene   | --                | 7850             | 7850 D            |
|                           | Benzo(k)fluoranthene   | --                | 4800             | 4800 D            |
|                           | Chrysene               | --                | 11600            | 11600 D           |
|                           | Fluoranthene           | --                | 35700            | 35700 D           |
|                           | Indeno(1,2,3-cd)pyrene | --                | 6510             | 6510 D            |
|                           | Phenanthrene           | --                | 26600            | 26600 D           |
| SB-100 (0-8) (JC65157-12) | Fluoranthene           | --                | 4630             | 4630 D            |
|                           | Pyrene                 | --                | 4510             | 4510 D            |

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

| Reported Sample Results                                   | Qualification |
|---|---------------|
| Diluted sample result within calibration range            | D             |
| Diluted sample result less than the calibration range     | DJ            |
| Diluted sample result greater than the calibration range  | EDJ           |
| Original sample result greater than the calibration range | EJ            |

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

# DATA REVIEW REPORT

## DATA VALIDATION CHECKLIST FOR SVOCs

| SVOCs: SW-846 8270  | Reported |     | Performance Acceptable |     | Not Required |
|---|----------|-----|------------------------|-----|--------------|
|   | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>         |          |     |                        |     |              |
| <b>Tier II Validation</b>                                   |          |     |                        |     |              |
| Holding times   |          | X   |                        | X   |              |
| Reporting limits (units)                                    |          | X   |                        | X   |              |
| Blanks  |          |     |                        |     |              |
| A. Method blanks  |          | X   |                        | X   |              |
| B. Equipment blanks   | X        |     |                        |     | X            |
| Laboratory Control Sample (LCS) %R                          |          | X   |                        | X   |              |
| Laboratory Control Sample Duplicate(LCSD) %R                | X        |     |                        |     | X            |
| LCS/LCSD Precision (RPD)                                    | X        |     |                        |     | X            |
| Matrix Spike (MS) %R  |          | X   | X                      |     |              |
| Matrix Spike Duplicate(MSD) %R                              |          | X   | X                      |     |              |
| MS/MSD Precision (RPD)                                      |          | X   | X                      |     |              |
| Field/Lab Duplicate (RPD)                                   | X        |     |                        |     | X            |
| Surrogate Spike Recoveries                                  |          | X   |                        | X   |              |
| Dilution Factor   |          | X   |                        | X   |              |
| Moisture Content  |          | X   |                        | X   |              |
| <b>Tier III Validation</b>                                  |          |     |                        |     |              |
| System performance and column resolution                    |          | X   |                        | X   |              |
| Initial calibration %RSDs                                   |          | X   |                        | X   |              |
| Continuing calibration RRFs                                 |          | X   |                        | X   |              |
| Continuing calibration %Ds                                  |          | X   | X                      |     |              |
| Instrument tune and performance check                       |          | X   |                        | X   |              |
| Ion abundance criteria for each instrument used             |          | X   |                        | X   |              |
| Internal standard   |          | X   |                        | X   |              |
| Compound identification and quantitation                    |          |     |                        |     |              |
| A. Reconstructed ion chromatograms                          |          | X   |                        | X   |              |
| B. Quantitation Reports                                     |          | X   |                        | X   |              |
| C. RT of sample compounds within the established RT windows |          | X   |                        | X   |              |

**DATA REVIEW REPORT**

| SVOCs: SW-846 8270                                       | Reported |     | Performance Acceptable |     | Not Required |
|--|----------|-----|------------------------|-----|--------------|
|  | No       | Yes | No                     | Yes |              |
| <b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>      |          |     |                        |     |              |
| D. Quantitation transcriptions/calculations              |          | X   |                        | X   |              |
| E. Reporting limits adjusted to reflect sample dilutions |          | X   |                        | X   |              |

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

**DATA USABILITY SUMMARY REPORT**

**SAMPLE COMPLIANCE REPORT**

| Sample Delivery Group (SDG) | Sampling Date | Protocol    | Sample ID      | Matrix | Compliance <sup>1</sup> |      |     |     |      | Noncompliance                 |
|-----------------------------|---------------|-------------|----------------|--------|-------------------------|------|-----|-----|------|-------------------------------|
|                             |               |             |                |        | VOC                     | SVOC | PCB | MET | MISC |                               |
| JC65157                     | 4/26/2018     | USEPA/SW846 | SB-103 (7-9)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-109 (7-9)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-109 (15-17) | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-101 (7-9)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D, MS/MSD %R, RPD |
|                             | 4/26/2018     | USEPA/SW846 | SB-103 (9-19)  | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-101 (0-9)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-100 (0-8)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-100 (8-11)  | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/26/2018     | USEPA/SW846 | SB-103 (0-5)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-101 (0-9)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |
|                             | 4/27/2018     | USEPA/SW846 | SB-100 (0-8)   | Soil   | --                      | No   | --  | --  | --   | SVOC – CCV %D                 |

Note:  
 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

# DATA USABILITY SUMMARY REPORT

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE:



DATE: August 31, 2018

PEER REVIEW: Dennis Capria

DATE: September 4, 2018

**CHAIN OF CUSTODY  
CORRECTED SAMPLE ANALYSIS DATA  
SHEETS**





ACCUTEST

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

MJ-041318-147

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730728873315 Bottle Order Control # DE-041318-07060
SGS Accutest Quote # JCG5157

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Collection table, Turnaround Time, Data Deliverable Information, Sample Custody, Relinquished/Received by, Date Time, etc.

5.2 5

Form:SM088-01CRev.Date:9/13/16





CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

FED-EX Tracking #
Bottle Order Control #
SGS Quote #
SGS Job # JC65157

Client / Reporting Information
Project Information
Requested Analysis (see TEST CODE sheet)
Matrix Codes
Company Name: Arcadis
Project Name: NYSEG - Newark Fwr. MGP Site
Street Address: 295 Woodcliff Dr. Suite 301
Street: 125 N. Main St
City: Fairport NY 14450
City: Newark NY
Project Contact: Jason Golubski
Project #: B0813094.0006
Phone #: 315-671-9437
Client Purchase Order #:
Project Manager: Jason Golubski
Attention:
Lab Sample #, Field ID / Point of Collection, MECH/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NH3, H2SO4, NONE, DI Water, MEQ, ENCORE, Requested Analysis (TPH, VOCs, Total VOCs, Total PCBs, RCAA Metals, Total CN, % Solids, STU), Matrix Codes (DW, GW, SW, SO, S, SED, OI, LIQ, AIR, SOL, WP, FB, RB, TB)

Turnaround Time (Business days)
Data Deliverable Information
Comments / Special Instructions
E S M I
Approved by (SGS Project Manager) / Date:
Commercial "A" (Level 1)
Commercial "B" (Level 2)
FULLT1 (Level 3+4)
NJ Reduced
Commercial "C"
NJ Date of Known Quality Protocol Reporting
Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by: [Signature] Date Time: 4/27/18 16:00
Received By: [Signature] Date Time: 4/27/18 19:30
Relinquished by: [Signature] Date Time: 4/28/18 10:10
Received By: [Signature] Date Time: 4/27/18 19:30
Relinquished by: [Signature] Date Time:
Received By: [Signature] Date Time:
Custody Seal #
Intact
Not intact
Preserved where applicable
On Ice
Cooler Temp.



5.2
5

SGS Accutest - Dayton  
 2235 Route 130, Dayton, NJ 08810  
 TEL: 732-329-0200 FAX: 732-329-3499/3480  
 www.accutest.com

FED-EX Tracking # \_\_\_\_\_ Bottle Order Control # \_\_\_\_\_  
 SGS Accutest Quote # \_\_\_\_\_ SGS Accutest Job # **JC65157**

| Client / Reporting Information  |                | Project Information   |      |                                      |        | Requested Analysis ( see TEST CODE sheet)   |     |                              |      |                                      |     |   |      |                                   |  | Matrix Codes   |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
|---|----------------|---|------|--------------------------------------|--------|---|-----|------------------------------|------|--------------------------------------|-----|---|------|-----------------------------------|--|--|----------------|--|------|------------------------------|--------|--------------------------------------|-----|-----|------|-------|-----|----------|------|--------|----------------|---|---------|------|-----|----|---|--|--|--|--|--|--|--|--|----------------|---|---------|------|-----|----|---|--|--|--|--|--|--|--|--|----------------|---|---------|------|-----|----|---|--|--|--|--|--|--|--|--|--|
| Company Name<br><b>Arcadis</b>  |                | Project Name:<br><b>NYSEG - Newark Former MGP Site</b>  |      |                                      |        | Requested Analysis (see TEST CODE sheet):<br>TC L P FULL (VOC's SVOC's) (Post/Pre-Remediation)<br>RCRA ALAS (CIVIL REMEDIATION)<br>PESTICIDES SW-846<br>PESTICIDES SW-846<br>PESTICIDES SW-846<br>PESTICIDES SW-846<br>TOTAL PCB's 8080<br>TOTAL VOC's (TCL) 8260B<br>TOTAL SVOC's (TCL) 8270C<br>TOTAL METALS 51017  |     |                              |      |                                      |     |   |      |                                   |  | Matrix Codes:<br>DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>SED - Sediment<br>OI - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid<br>WIP - Wipe<br>FB - Field Blank<br>EB - Equipment Blank<br>RB - Rinse Blank<br>TB - Trip Blank |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Street Address<br><b>295 Woodcliff Dr. Suite 301</b>  |                | Street<br><b>125 N. Main St</b>   |      |                                      |        |   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| City State Zip<br><b>Fairport NY 1450</b>   |                | City State<br><b>Newark NY</b>  |      |                                      |        |   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Project Contact<br><b>Jason Golubski</b>  |                | Project #<br><b>80013094.0006</b>   |      |                                      |        |   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Phone #<br><b>315-671-9437</b>  |                | Client Purchase Order #   |      |                                      |        | Number of preserved Bottles   |     |                              |      |                                      |     |   |      |                                   |  | LAB USE ONLY   |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Sampler(s) Name(s)<br><b>Ryan Clare 585 880-7247</b>  |                | Project Manager<br><b>Jason Golubski</b>  |      |                                      |        | <table border="1"> <thead> <tr> <th>Field ID / Point of Collection</th> <th>MEOH/DI Vial #</th> <th>Date</th> <th>Time</th> <th>Sampled by</th> <th>Matrix</th> <th># of bottles</th> <th>PCB</th> <th>NH3</th> <th>HNO3</th> <th>H2SO4</th> <th>HCN</th> <th>DI Water</th> <th>MEOH</th> <th>ENCORE</th> </tr> </thead> <tbody> <tr> <td>10 SB-103(0-5)</td> <td>-</td> <td>4/26/18</td> <td>1610</td> <td>RDC</td> <td>SO</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11 SB-101(0-9)</td> <td>-</td> <td>4/27/18</td> <td>1510</td> <td>RDC</td> <td>SO</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12 SB-100(0-8)</td> <td>-</td> <td>4/27/18</td> <td>1530</td> <td>RDC</td> <td>SO</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |     |                              |      |                                      |     |   |      |                                   |  | Field ID / Point of Collection   | MEOH/DI Vial # | Date                                     | Time | Sampled by                   | Matrix | # of bottles                         | PCB | NH3 | HNO3 | H2SO4 | HCN | DI Water | MEOH | ENCORE | 10 SB-103(0-5) | - | 4/26/18 | 1610 | RDC | SO | 2 |  |  |  |  |  |  |  |  | 11 SB-101(0-9) | - | 4/27/18 | 1510 | RDC | SO | 2 |  |  |  |  |  |  |  |  | 12 SB-100(0-8) | - | 4/27/18 | 1530 | RDC | SO | 2 |  |  |  |  |  |  |  |  |  |
| Field ID / Point of Collection  | MEOH/DI Vial # | Date  | Time | Sampled by                           | Matrix | # of bottles  | PCB | NH3                          | HNO3 | H2SO4                                | HCN | DI Water                                  | MEOH | ENCORE                            |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| 10 SB-103(0-5)  | -              | 4/26/18   | 1610 | RDC                                  | SO     | 2   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| 11 SB-101(0-9)  | -              | 4/27/18   | 1510 | RDC                                  | SO     | 2   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| 12 SB-100(0-8)  | -              | 4/27/18   | 1530 | RDC                                  | SO     | 2   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Turnaround Time ( Business days)  |                | Approved By (SGS Accutest PM): / Date:  |      |                                      |        | Data Deliverable Information  |     |                              |      |                                      |     |   |      |                                   |  | Comments / Special Instructions  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Std. 10 Business Days<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> other _____ |                | <input type="checkbox"/> Commercial "A" (Level 1)<br><input type="checkbox"/> Commercial "B" (Level 2)<br><input type="checkbox"/> FULLT1 (Level 3+4)<br><input type="checkbox"/> NJ Reduced<br><input type="checkbox"/> Commercial "C"<br><input type="checkbox"/> NJ Data of Known Quality Protocol Reporting<br>Commercial "A" = Results Only, Commercial "B" = Results + QC Summary<br>NJ Reduced = Results + QC Summary + Partial Raw data |      |                                      |        | <input type="checkbox"/> NYASP Category A<br><input type="checkbox"/> NYASP Category B<br><input type="checkbox"/> State Forms<br><input type="checkbox"/> EDD Format<br><input type="checkbox"/> Other _____   |     |                              |      |                                      |     |   |      |                                   |  | <b>Seneca Meadows</b><br><br>Sample inventory is verified upon receipt in the Laboratory   |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Emergency & Rush T/A data available VIA Lablink   |                | Sample Custody must be documented below each time samples change possession, including courier delivery.  |      |                                      |        |   |     |                              |      |                                      |     |   |      |                                   |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Relinquished by Sampler:<br><b>1 Kyle</b>   |                | Date/Time:<br><b>4/27/18 6:00</b>   |      | Received By:<br><b>1 [Signature]</b> |        | Relinquished By:<br><b>2 [Signature]</b>  |     | Date/Time:<br><b>4/27/18</b> |      | Received By:<br><b>2 [Signature]</b> |     | Relinquished by Sampler:<br><b>3 Kyle</b> |      | Date/Time:<br><b>4/28/18 1010</b> |  | Received By:<br><b>3 [Signature]</b>   |                | Relinquished By:<br><b>4 [Signature]</b> |      | Date/Time:<br><b>4/28/18</b> |        | Received By:<br><b>4 [Signature]</b> |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |
| Custody Seal #  |                | <input type="checkbox"/> Intact   |      | <input type="checkbox"/> Not Intact  |        | Preserved where applicable  |     | <input type="checkbox"/>     |      | On Ice                               |     | <input type="checkbox"/>                  |      | Cooler Temp.                      |  |  |                |  |      |                              |        |                                      |     |     |      |       |     |          |      |        |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |                |   |         |      |     |    |   |  |  |  |  |  |  |  |  |  |

Form SM088-01C Rev. Date: 9/13/16

SGS North America Inc.

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (7-9)                      |                                |
| <b>Lab Sample ID:</b> JC65157-1                            | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472436.D | 1  | 05/02/18 10:57 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472785.D | 10 | 05/10/18 07:54 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |
| Run #3 | 6P472783.D | 50 | 05/10/18 07:05 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 | 30.5 g         | 1.0 ml       |
| Run #3 | 30.5 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q  |
|-----------|--|--------------------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND                 | 77  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                 | 190 | 24  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                 | 190 | 33  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND                 | 190 | 69  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND                 | 190 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                 | 190 | 41  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND                 | 77  | 25  | ug/kg |    |
|           | 3&4-Methylphenol                       | 176                | 77  | 32  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND                 | 190 | 25  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND                 | 390 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND                 | 150 | 36  | ug/kg |    |
| 108-95-2  | Phenol                                 | 107                | 77  | 20  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                 | 190 | 26  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                 | 190 | 29  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                 | 190 | 23  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 1220               | 39  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | 2490               | 39  | 20  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND                 | 190 | 8.3 | ug/kg |    |
| 120-12-7  | Anthracene                             | 12100 <sup>b</sup> | 390 | 240 | ug/kg | D  |
| 1912-24-9 | Atrazine                               | ND                 | 77  | 17  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 9910 <sup>b</sup>  | 390 | 110 | ug/kg | D  |
| 50-32-8   | Benzo(a)pyrene                         | 7970 <sup>b</sup>  | 390 | 180 | ug/kg | D  |
| 205-99-2  | Benzo(b)fluoranthene                   | 10200 <sup>b</sup> | 390 | 170 | ug/kg | D  |
| 191-24-2  | Benzo(g,h,i)perylene                   | 5680 <sup>b</sup>  | 390 | 190 | ug/kg | D  |
| 207-08-9  | Benzo(k)fluoranthene                   | 3970 <sup>b</sup>  | 390 | 180 | ug/kg | D  |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                 | 77  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>c</sup>    | ND                 | 77  | 9.4 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 2240               | 77  | 5.3 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND                 | 190 | 9.6 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND                 | 77  | 9.2 | ug/kg |    |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-103 (7-9)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65157-1                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 85.0     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result             | RL   | MDL | Units | Q  |
|-----------|---|--------------------|------|-----|-------|----|
| 106-47-8  | 4-Chloroaniline                         | ND                 | 190  | 14  | ug/kg |    |
| 86-74-8   | Carbazole                               | 4030 <sup>b</sup>  | 770  | 56  | ug/kg | D  |
| 105-60-2  | Caprolactam                             | ND                 | 77   | 15  | ug/kg |    |
| 218-01-9  | Chrysene                                | 9650 <sup>b</sup>  | 390  | 120 | ug/kg | D  |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                 | 77   | 8.3 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                 | 77   | 17  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                 | 77   | 14  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                 | 77   | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                 | 39   | 12  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                 | 39   | 19  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                 | 77   | 32  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND                 | 39   | 25  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 1570               | 39   | 17  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 9650 <sup>b</sup>  | 770  | 160 | ug/kg | D  |
| 84-74-2   | Di-n-butyl phthalate                    | ND                 | 77   | 6.3 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                 | 77   | 9.6 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND                 | 77   | 8.2 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND                 | 77   | 6.9 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                 | 77   | 9.0 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 30000 <sup>b</sup> | 390  | 170 | ug/kg | D  |
| 86-73-7   | Fluorene                                | 4330 <sup>b</sup>  | 390  | 180 | ug/kg | D  |
| 118-74-1  | Hexachlorobenzene                       | ND                 | 77   | 9.8 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                 | 39   | 16  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                 | 390  | 15  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND                 | 190  | 19  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 5180 <sup>b</sup>  | 390  | 180 | ug/kg | D  |
| 78-59-1   | Isophorone                              | ND                 | 77   | 8.3 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 9440 <sup>b</sup>  | 390  | 87  | ug/kg | D  |
| 88-74-4   | 2-Nitroaniline                          | ND                 | 190  | 9.1 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND                 | 190  | 9.6 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                 | 190  | 10  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | 52600 <sup>d</sup> | 1900 | 540 | ug/kg | D  |
| 98-95-3   | Nitrobenzene                            | ND                 | 77   | 15  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                 | 77   | 11  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                 | 190  | 14  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 42700 <sup>d</sup> | 1900 | 650 | ug/kg | D  |
| 129-00-0  | Pyrene                                  | 24500 <sup>b</sup> | 390  | 120 | ug/kg | D  |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                 | 190  | 9.8 | ug/kg | UJ |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (7-9)                      | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-1                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits  |
|-----------|----------------------|--------|--------|--------|---------|
| 367-12-4  | 2-Fluorophenol       | 59%    | 55%    | 47%    | 23-115% |
| 4165-62-2 | Phenol-d5            | 56%    | 50%    | 48%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 44%    | 45%    | 35%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 58%    | 53%    | 38%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 56%    | 61%    | 57%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 45%    | 55%    | 58%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high, sample was ND.
- (d) Result is from Run# 3

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
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SGS North America Inc.

## Report of Analysis

Page 1 of 3

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (7-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-2                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 80.6    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472424.D | 1  | 05/02/18 06:00 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.2 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 82  | 20  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 25  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 35  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 73  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 44  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 82  | 26  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 82  | 34  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 27  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 410 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 39  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 82  | 21  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 27  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 31  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 24  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | ND     | 41  | 14  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | ND     | 41  | 21  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 210 | 8.8 | ug/kg |    |
| 120-12-7  | Anthracene                             | 39.4   | 41  | 25  | ug/kg | J  |
| 1912-24-9 | Atrazine                               | ND     | 82  | 18  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 148    | 41  | 12  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 147    | 41  | 19  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 178    | 41  | 18  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 99.3   | 41  | 21  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 77.6   | 41  | 19  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 82  | 16  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 82  | 10  | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 82  | 5.6 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 82  | 9.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |    |
| 86-74-8   | Carbazole                              | ND     | 82  | 6.0 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (7-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-2                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 80.6    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 82  | 16  | ug/kg |    |
| 218-01-9  | Chrysene                                | 149    | 41  | 13  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 82  | 8.8 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 82  | 18  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 82  | 15  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 82  | 13  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 41  | 13  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 41  | 21  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 82  | 34  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 41  | 27  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 18.1   | 41  | 18  | ug/kg | J  |
| 132-64-9  | Dibenzofuran                            | ND     | 82  | 17  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 82  | 6.7 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 82  | 10  | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 82  | 8.8 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 82  | 7.3 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 82  | 9.6 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 285    | 41  | 18  | ug/kg |    |
| 86-73-7   | Fluorene                                | ND     | 41  | 19  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND     | 82  | 10  | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 41  | 17  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 410 | 16  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 210 | 20  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 86.7   | 41  | 19  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 82  | 8.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 41  | 9.3 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND     | 210 | 9.7 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 210 | 10  | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 210 | 11  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | ND     | 41  | 12  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 82  | 16  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 82  | 12  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 210 | 15  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 111    | 41  | 14  | ug/kg |    |
| 129-00-0  | Pyrene                                  | 273    | 41  | 13  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 210 | 10  | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 72%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-109 (7-9)<br><b>Lab Sample ID:</b> JC65157-2<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 80.6 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 70%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 57%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 72%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 69%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.2  
4



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (15-17)                    |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-3                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 87.8    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472425.D | 1  | 05/02/18 06:24 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 74  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 66  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 180 | 140 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 74  | 24  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 74  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 370 | 98  | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 150 | 35  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 74  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 28  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | ND     | 37  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | ND     | 37  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.9 | ug/kg |    |
| 120-12-7  | Anthracene                             | ND     | 37  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 74  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | ND     | 37  | 10  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | ND     | 37  | 17  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | ND     | 37  | 16  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | ND     | 37  | 18  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 37  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 74  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 74  | 9.0 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 74  | 5.0 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.1 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 74  | 8.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                              | ND     | 74  | 5.3 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-109 (15-17)                    |                                |
| <b>Lab Sample ID:</b> JC65157-3                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 87.8    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 74  | 15  | ug/kg |    |
| 218-01-9  | Chrysene                                | ND     | 37  | 12  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 74  | 7.9 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 74  | 16  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 74  | 13  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 74  | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 37  | 11  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 37  | 19  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 74  | 31  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 37  | 24  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | ND     | 37  | 16  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | ND     | 74  | 15  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 74  | 6.0 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 74  | 9.2 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 74  | 7.9 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 74  | 6.6 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 74  | 8.6 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | ND     | 37  | 16  | ug/kg |    |
| 86-73-7   | Fluorene                                | ND     | 37  | 17  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND     | 74  | 9.3 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 37  | 15  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 370 | 15  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | ND     | 37  | 17  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 74  | 7.9 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 37  | 8.3 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND     | 180 | 8.7 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.2 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 180 | 9.5 | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | ND     | 37  | 10  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 74  | 14  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 74  | 11  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | ND     | 37  | 12  | ug/kg |    |
| 129-00-0  | Pyrene                                  | ND     | 37  | 12  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 180 | 9.4 | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 74%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
 4

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-109 (15-17)<br><b>Lab Sample ID:</b> JC65157-3<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 87.8 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 74%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 58%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 78%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 73%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 70%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
4

SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (7-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-4                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 81.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472429.D | 1  | 05/02/18 08:03 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.6 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 81  | 20  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 25  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 34  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 72  | ug/kg | UJ |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 200 | 150 | ug/kg | R  |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 43  | ug/kg | UJ |
| 95-48-7   | 2-Methylphenol                         | ND     | 81  | 26  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 81  | 33  | ug/kg | UJ |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 27  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 400 | 110 | ug/kg | UJ |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 38  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 81  | 21  | ug/kg | UJ |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 27  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 30  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 24  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 112    | 40  | 14  | ug/kg | J  |
| 208-96-8  | Acenaphthylene                         | 501    | 40  | 20  | ug/kg | J  |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.7 | ug/kg |    |
| 120-12-7  | Anthracene                             | 647    | 40  | 25  | ug/kg | J  |
| 1912-24-9 | Atrazine                               | ND     | 81  | 17  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 986    | 40  | 11  | ug/kg | J  |
| 50-32-8   | Benzo(a)pyrene                         | 1020   | 40  | 18  | ug/kg | J  |
| 205-99-2  | Benzo(b)fluoranthene                   | 1170   | 40  | 18  | ug/kg | J  |
| 191-24-2  | Benzo(g,h,i)perylene                   | 763    | 40  | 20  | ug/kg | J  |
| 207-08-9  | Benzo(k)fluoranthene                   | 474    | 40  | 19  | ug/kg | J  |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 81  | 16  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 81  | 9.8 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 69.4   | 81  | 5.5 | ug/kg | J  |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 10  | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 81  | 9.6 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 15  | ug/kg |    |
| 86-74-8   | Carbazole                              | 171    | 81  | 5.9 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (7-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-4                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 81.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result        | RL             | MDL           | Units            | Q            |
|-----------|---|---------------|----------------|---------------|------------------|--------------|
| 105-60-2  | Caprolactam                             | ND            | 81             | 16            | ug/kg            |              |
| 218-01-9  | Chrysene                                | 964           | 40             | 13            | ug/kg            | J            |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND            | 81             | 8.6           | ug/kg            |              |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND            | 81             | 17            | ug/kg            |              |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND            | 81             | 14            | ug/kg            |              |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND            | 81             | 13            | ug/kg            |              |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND            | 40             | 13            | ug/kg            | UJ           |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND            | 40             | 20            | ug/kg            |              |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | <del>ND</del> | <del>81</del>  | <del>34</del> | <del>ug/kg</del> | <del>R</del> |
| 123-91-1  | 1,4-Dioxane                             | ND            | 40             | 27            | ug/kg            |              |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 131           | 40             | 18            | ug/kg            | J            |
| 132-64-9  | Dibenzofuran                            | 376           | 81             | 16            | ug/kg            | J            |
| 84-74-2   | Di-n-butyl phthalate                    | ND            | 81             | 6.6           | ug/kg            |              |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND            | 81             | 10            | ug/kg            |              |
| 84-66-2   | Diethyl phthalate                       | ND            | 81             | 8.6           | ug/kg            |              |
| 131-11-3  | Dimethyl phthalate                      | ND            | 81             | 7.2           | ug/kg            |              |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND            | 81             | 9.4           | ug/kg            |              |
| 206-44-0  | Fluoranthene                            | 2530          | 40             | 18            | ug/kg            | J            |
| 86-73-7   | Fluorene                                | 364           | 40             | 19            | ug/kg            | J            |
| 118-74-1  | Hexachlorobenzene                       | ND            | 81             | 10            | ug/kg            |              |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND            | 40             | 16            | ug/kg            | UJ           |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | <del>ND</del> | <del>400</del> | <del>16</del> | <del>ug/kg</del> | <del>R</del> |
| 67-72-1   | Hexachloroethane                        | ND            | 200            | 20            | ug/kg            |              |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 613           | 40             | 19            | ug/kg            | J            |
| 78-59-1   | Isophorone                              | ND            | 81             | 8.6           | ug/kg            |              |
| 91-57-6   | 2-Methylnaphthalene                     | 308           | 40             | 9.1           | ug/kg            | J            |
| 88-74-4   | 2-Nitroaniline                          | ND            | 200            | 9.5           | ug/kg            |              |
| 99-09-2   | 3-Nitroaniline                          | ND            | 200            | 10            | ug/kg            |              |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND            | 200            | 10            | ug/kg            | UJ           |
| 91-20-3   | Naphthalene                             | 589           | 40             | 11            | ug/kg            | J            |
| 98-95-3   | Nitrobenzene                            | ND            | 81             | 16            | ug/kg            |              |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND            | 81             | 12            | ug/kg            |              |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND            | 200            | 15            | ug/kg            |              |
| 85-01-8   | Phenanthrene                            | 2570          | 40             | 14            | ug/kg            | J            |
| 129-00-0  | Pyrene                                  | 2320          | 40             | 13            | ug/kg            | J            |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND            | 200            | 10            | ug/kg            | UJ           |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 43%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-101 (7-9)<br><b>Lab Sample ID:</b> JC65157-4<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 81.0 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 44%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 34%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 46%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 46%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 37%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

4.4  
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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 85.0    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472430.D | 1  | 05/02/18 08:27 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472786.D | 5  | 05/10/18 08:19 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 | 30.9 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 76  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 23  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 32  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 68  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 190 | 140 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 41  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 76  | 24  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 76  | 31  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 25  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 380 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 150 | 36  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 76  | 20  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 25  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 329    | 38  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | 588    | 38  | 19  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 190 | 8.2 | ug/kg |    |
| 120-12-7  | Anthracene                             | 2270   | 38  | 23  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 76  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 2360   | 38  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 2090   | 38  | 17  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 2690   | 38  | 17  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1600   | 38  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 1020   | 38  | 18  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 76  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 76  | 9.3 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 600    | 76  | 5.2 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.4 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 76  | 9.1 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                              | 1130   | 76  | 5.5 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (9-19)                     |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Lab Sample ID:</b> JC65157-6                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.0    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 58%    | 57%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 48%    | 54%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 62%    | 57%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 61%    | 65%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 54%    | 61%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 85.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472431.D | 1  | 05/02/18 08:52 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 78  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 190 | 24  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 190 | 33  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 190 | 69  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 190 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 190 | 42  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 78  | 25  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 78  | 32  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 190 | 26  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 390 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 37  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 78  | 20  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 190 | 26  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 190 | 29  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 190 | 23  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 39.0   | 39  | 13  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | 170    | 39  | 20  | ug/kg |    |
| 98-86-2   | Acetophenone                           | 42.4   | 190 | 8.4 | ug/kg | J  |
| 120-12-7  | Anthracene                             | 384    | 39  | 24  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 78  | 17  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 1220   | 39  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 1310   | 39  | 18  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 1640   | 39  | 17  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 771    | 39  | 19  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 651    | 39  | 18  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 78  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 78  | 9.5 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 57.3   | 78  | 5.3 | ug/kg | J  |
| 100-52-7  | Benzaldehyde                           | ND     | 190 | 9.7 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 78  | 9.3 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 190 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                              | 60.9   | 78  | 5.7 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 85.5    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 78  | 15  | ug/kg |    |
| 218-01-9  | Chrysene                                | 1410   | 39  | 12  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 78  | 8.3 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 78  | 17  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 78  | 14  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 78  | 13  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 39  | 12  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 39  | 20  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 78  | 33  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 39  | 26  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 192    | 39  | 17  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 205    | 78  | 16  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 78  | 6.4 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 78  | 9.7 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 78  | 8.3 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 78  | 6.9 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 78  | 9.1 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 2120   | 39  | 17  | ug/kg |    |
| 86-73-7   | Fluorene                                | 88.5   | 39  | 18  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND     | 78  | 9.9 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 39  | 16  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 390 | 16  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 190 | 19  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 712    | 39  | 18  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 78  | 8.3 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 261    | 39  | 8.8 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND     | 190 | 9.2 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 190 | 9.7 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 190 | 10  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | 322    | 39  | 11  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 78  | 15  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 78  | 11  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 190 | 14  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 1240   | 39  | 13  | ug/kg |    |
| 129-00-0  | Pyrene                                  | 2080   | 39  | 12  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 190 | 9.9 | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 48%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-7                            | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   | <b>Percent Solids:</b> 85.5    |
| <b>Method:</b> SW846 8270D SW846 3546                      |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 51%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 44%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 56%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 55%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 48%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
4

SGS North America Inc.

## Report of Analysis

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|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |                                |
| <b>Lab Sample ID:</b> JC65157-8                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 81.3    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472432.D | 1  | 05/02/18 09:17 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P472784.D | 10 | 05/10/18 07:30 | CS | 05/01/18 18:15 | OP11665    | E6P2202          |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.0 g         | 1.0 ml       |
| Run #2 | 30.0 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result             | RL  | MDL | Units | Q  |
|-----------|--|--------------------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND                 | 82  | 20  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND                 | 210 | 25  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND                 | 210 | 35  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | 88.2               | 210 | 73  | ug/kg | J  |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND                 | 210 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND                 | 210 | 44  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND                 | 82  | 26  | ug/kg |    |
|           | 3&4-Methylphenol                       | 143                | 82  | 34  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND                 | 210 | 27  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND                 | 410 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND                 | 160 | 38  | ug/kg |    |
| 108-95-2  | Phenol                                 | 87.9               | 82  | 21  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND                 | 210 | 27  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND                 | 210 | 31  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND                 | 210 | 24  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 814                | 41  | 14  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | 950                | 41  | 21  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND                 | 210 | 8.8 | ug/kg |    |
| 120-12-7  | Anthracene                             | 6490 <sup>b</sup>  | 410 | 250 | ug/kg | D  |
| 1912-24-9 | Atrazine                               | ND                 | 82  | 18  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 12500 <sup>b</sup> | 410 | 120 | ug/kg | D  |
| 50-32-8   | Benzo(a)pyrene                         | 11800 <sup>b</sup> | 410 | 190 | ug/kg | D  |
| 205-99-2  | Benzo(b)fluoranthene                   | 13700 <sup>b</sup> | 410 | 180 | ug/kg | D  |
| 191-24-2  | Benzo(g,h,i)perylene                   | 7850 <sup>b</sup>  | 410 | 210 | ug/kg | D  |
| 207-08-9  | Benzo(k)fluoranthene                   | 4800 <sup>b</sup>  | 410 | 190 | ug/kg | D  |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND                 | 82  | 16  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>c</sup>    | ND                 | 82  | 10  | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 220                | 82  | 5.6 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | 36.5               | 210 | 10  | ug/kg | J  |
| 91-58-7   | 2-Chloronaphthalene                    | ND                 | 82  | 9.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND                 | 210 | 15  | ug/kg |    |
| 86-74-8   | Carbazole                              | 2520               | 82  | 5.9 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-8                                  | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 81.3     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result             | RL  | MDL | Units | Q  |
|-----------|---|--------------------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND                 | 82  | 16  | ug/kg |    |
| 218-01-9  | Chrysene                                | 11600 <sup>b</sup> | 410 | 130 | ug/kg | D  |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                 | 82  | 8.8 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                 | 82  | 18  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                 | 82  | 15  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                 | 82  | 13  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                 | 41  | 13  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                 | 41  | 21  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                 | 82  | 34  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND                 | 41  | 27  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 1760               | 41  | 18  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 1610               | 82  | 17  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND                 | 82  | 6.7 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                 | 82  | 10  | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND                 | 82  | 8.7 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND                 | 82  | 7.3 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                 | 82  | 9.6 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 35700 <sup>b</sup> | 410 | 180 | ug/kg | D  |
| 86-73-7   | Fluorene                                | 1570               | 41  | 19  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND                 | 82  | 10  | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                 | 41  | 16  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                 | 410 | 16  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND                 | 210 | 20  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 6510 <sup>b</sup>  | 410 | 190 | ug/kg | D  |
| 78-59-1   | Isophorone                              | ND                 | 82  | 8.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 642                | 41  | 9.3 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND                 | 210 | 9.7 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND                 | 210 | 10  | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                 | 210 | 11  | ug/kg |    |
| 91-20-3   | Naphthalene                             | 2640               | 41  | 12  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND                 | 82  | 16  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                 | 82  | 12  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                 | 210 | 15  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 26600 <sup>b</sup> | 410 | 140 | ug/kg | D  |
| 129-00-0  | Pyrene                                  | 470                | 41  | 13  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                 | 210 | 10  | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 58%    | 49%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |
|---|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-8<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 81.3 |
|---|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 57%    | 55%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 46%    | 47%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 61%    | 51%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 61%    | 59%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 48%    | 57%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Result is from Run# 2
- (c) Associated CCV outside of control limits high, sample was ND.

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  |                                |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472426.D | 1  | 05/02/18 06:49 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 78  | 19  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 200 | 24  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 200 | 33  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 200 | 70  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 200 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 200 | 42  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 78  | 25  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 78  | 32  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 200 | 26  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 390 | 100 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 37  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 78  | 20  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 200 | 26  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 200 | 29  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 200 | 23  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | ND     | 39  | 14  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | ND     | 39  | 20  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 200 | 8.4 | ug/kg |    |
| 120-12-7  | Anthracene                             | ND     | 39  | 24  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 78  | 17  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | ND     | 39  | 11  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | ND     | 39  | 18  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | ND     | 39  | 17  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | ND     | 39  | 20  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | ND     | 39  | 18  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 78  | 15  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 78  | 9.6 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 78  | 5.4 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND     | 200 | 9.7 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 78  | 9.3 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 200 | 14  | ug/kg |    |
| 86-74-8   | Carbazole                              | ND     | 78  | 5.7 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-9                            |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 82.5    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 78  | 15  | ug/kg |    |
| 218-01-9  | Chrysene                                | ND     | 39  | 12  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 78  | 8.4 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 78  | 17  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 78  | 14  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 78  | 13  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 39  | 12  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 39  | 20  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 78  | 33  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 39  | 26  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | ND     | 39  | 17  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | ND     | 78  | 16  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 78  | 6.4 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 78  | 9.8 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 78  | 8.4 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 78  | 7.0 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 78  | 9.2 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | ND     | 39  | 17  | ug/kg |    |
| 86-73-7   | Fluorene                                | ND     | 39  | 18  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND     | 78  | 9.9 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 39  | 16  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 390 | 16  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 200 | 19  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | ND     | 39  | 18  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 78  | 8.4 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | ND     | 39  | 8.9 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND     | 200 | 9.3 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 200 | 9.8 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 200 | 10  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | ND     | 39  | 11  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 78  | 15  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 78  | 11  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 200 | 14  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | ND     | 39  | 13  | ug/kg |    |
| 129-00-0  | Pyrene                                  | ND     | 39  | 13  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 200 | 10  | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 64%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (8-11)                     |                                |
| <b>Lab Sample ID:</b> JC65157-9                            | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 82.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 64%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 47%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 65%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 64%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 60%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-10                           |  | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472433.D | 1  | 05/02/18 09:42 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.5 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 72  | 18  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 180 | 22  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 180 | 31  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 180 | 64  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 180 | 140 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 180 | 39  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 72  | 23  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 72  | 30  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 180 | 24  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 360 | 97  | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 140 | 34  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 72  | 19  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 180 | 24  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 180 | 27  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 180 | 22  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 28.9   | 36  | 12  | ug/kg | J  |
| 208-96-8  | Acenaphthylene                         | 231    | 36  | 18  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 180 | 7.8 | ug/kg |    |
| 120-12-7  | Anthracene                             | 213    | 36  | 22  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 72  | 16  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 1250   | 36  | 10  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 1400   | 36  | 16  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 1650   | 36  | 16  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 1150   | 36  | 18  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 752    | 36  | 17  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 72  | 14  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 72  | 8.8 | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | ND     | 72  | 5.0 | ug/kg |    |
| 100-52-7  | Benzaldehyde                           | ND     | 180 | 9.0 | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 72  | 8.6 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 180 | 13  | ug/kg |    |
| 86-74-8   | Carbazole                              | 64.4   | 72  | 5.3 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-103 (0-5)                               | <b>Date Sampled:</b>   | 04/26/18 |
| <b>Lab Sample ID:</b>    | JC65157-10                                 | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 90.5     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 72  | 14  | ug/kg |    |
| 218-01-9  | Chrysene                                | 1120   | 36  | 11  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 72  | 7.8 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 72  | 16  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 72  | 13  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 72  | 12  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 36  | 11  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 36  | 18  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 72  | 30  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 36  | 24  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 221    | 36  | 16  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 41.3   | 72  | 15  | ug/kg | J  |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 72  | 5.9 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 72  | 9.0 | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 72  | 7.7 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 72  | 6.4 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 72  | 8.5 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 1900   | 36  | 16  | ug/kg |    |
| 86-73-7   | Fluorene                                | 42.0   | 36  | 17  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND     | 72  | 9.2 | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 36  | 15  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 360 | 14  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 180 | 18  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 1040   | 36  | 17  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 72  | 7.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 34.6   | 36  | 8.2 | ug/kg | J  |
| 88-74-4   | 2-Nitroaniline                          | ND     | 180 | 8.5 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 180 | 9.1 | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 180 | 9.4 | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | 123    | 36  | 10  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 72  | 14  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 72  | 10  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 180 | 13  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 538    | 36  | 12  | ug/kg |    |
| 129-00-0  | Pyrene                                  | 1950   | 36  | 12  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 180 | 9.2 | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 62%    |        | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |                                |
|--|--------------------------------|
| <b>Client Sample ID:</b> SB-103 (0-5)                      |                                |
| <b>Lab Sample ID:</b> JC65157-10                           | <b>Date Sampled:</b> 04/26/18  |
| <b>Matrix:</b> SO - Soil                                   | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      | <b>Percent Solids:</b> 90.5    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |                                |

### ABN TCL List (SOM0 2.0)

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 60%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 51%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 65%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 62%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 56%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 80.2    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #1 | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472434.D | 1  | 05/02/18 10:07 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 |            |    |                |    |                |            |                  |

| Run #1 | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.3 g         | 1.0 ml       |
| Run #2 |                |              |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 82  | 20  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 25  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 35  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 73  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 150 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 44  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 82  | 26  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 82  | 34  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 27  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 410 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 160 | 39  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 82  | 21  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 27  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 31  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 25  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 17.8   | 41  | 14  | ug/kg | J  |
| 208-96-8  | Acenaphthylene                         | 140    | 41  | 21  | ug/kg |    |
| 98-86-2   | Acetophenone                           | ND     | 210 | 8.8 | ug/kg |    |
| 120-12-7  | Anthracene                             | 161    | 41  | 25  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 82  | 18  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 629    | 41  | 12  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 674    | 41  | 19  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 926    | 41  | 18  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 446    | 41  | 21  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 289    | 41  | 19  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 82  | 16  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | ND     | 82  | 10  | ug/kg |    |
| 92-52-4   | 1,1'-Biphenyl                          | 44.3   | 82  | 5.6 | ug/kg | J  |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 82  | 9.8 | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |    |
| 86-74-8   | Carbazole                              | 35.5   | 82  | 6.0 | ug/kg | J  |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-101 (0-9)                      |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Lab Sample ID:</b> JC65157-11                           |  | <b>Date Received:</b> 04/28/18 |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Percent Solids:</b> 80.2    |
| <b>Method:</b> SW846 8270D SW846 3546                      |  |                                |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Compound                                | Result | RL  | MDL | Units | Q  |
|-----------|---|--------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND     | 82  | 16  | ug/kg |    |
| 218-01-9  | Chrysene                                | 714    | 41  | 13  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND     | 82  | 8.8 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND     | 82  | 18  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND     | 82  | 15  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND     | 82  | 13  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND     | 41  | 13  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND     | 41  | 21  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND     | 82  | 34  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND     | 41  | 27  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 105    | 41  | 18  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 134    | 82  | 17  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND     | 82  | 6.7 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>b</sup>       | ND     | 82  | 10  | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND     | 82  | 8.8 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND     | 82  | 7.3 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>b</sup> | ND     | 82  | 9.6 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 1020   | 41  | 18  | ug/kg |    |
| 86-73-7   | Fluorene                                | 26.4   | 41  | 19  | ug/kg | J  |
| 118-74-1  | Hexachlorobenzene                       | ND     | 82  | 10  | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND     | 41  | 17  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND     | 410 | 16  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND     | 210 | 20  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 411    | 41  | 19  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND     | 82  | 8.8 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 194    | 41  | 9.3 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND     | 210 | 9.7 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND     | 210 | 10  | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND     | 210 | 11  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | 246    | 41  | 12  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND     | 82  | 16  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND     | 82  | 12  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND     | 210 | 15  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 538    | 41  | 14  | ug/kg |    |
| 129-00-0  | Pyrene                                  | 1050   | 41  | 13  | ug/kg |    |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND     | 210 | 10  | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 43%    |        | 23-115% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-101 (0-9)<br><b>Lab Sample ID:</b> JC65157-11<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 80.2 |
|--|--|

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**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 43%    |        | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 37%    |        | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 46%    |        | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 45%    |        | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 41%    |        | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high, sample was ND.

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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|  |  |                                |
|--|--|--------------------------------|
| <b>Client Sample ID:</b> SB-100 (0-8)                      |  |                                |
| <b>Lab Sample ID:</b> JC65157-12                           |  | <b>Date Sampled:</b> 04/27/18  |
| <b>Matrix:</b> SO - Soil                                   |  | <b>Date Received:</b> 04/28/18 |
| <b>Method:</b> SW846 8270D SW846 3546                      |  | <b>Percent Solids:</b> 76.9    |
| <b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY |  |                                |

| Run #  | File ID    | DF | Analyzed       | By | Prep Date      | Prep Batch | Analytical Batch |
|--------|------------|----|----------------|----|----------------|------------|------------------|
| Run #1 | 6P472435.D | 1  | 05/02/18 10:32 | SA | 05/01/18 18:15 | OP11665    | E6P2189          |
| Run #2 | 6P473005.D | 2  | 05/16/18 15:21 | CC | 05/01/18 18:15 | OP11665    | E6P2211          |

| Run #  | Initial Weight | Final Volume |
|--------|----------------|--------------|
| Run #1 | 30.9 g         | 1.0 ml       |
| Run #2 | 30.9 g         | 1.0 ml       |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                               | Result | RL  | MDL | Units | Q  |
|-----------|--|--------|-----|-----|-------|----|
| 95-57-8   | 2-Chlorophenol                         | ND     | 84  | 21  | ug/kg |    |
| 59-50-7   | 4-Chloro-3-methyl phenol               | ND     | 210 | 26  | ug/kg |    |
| 120-83-2  | 2,4-Dichlorophenol                     | ND     | 210 | 36  | ug/kg |    |
| 105-67-9  | 2,4-Dimethylphenol                     | ND     | 210 | 75  | ug/kg |    |
| 51-28-5   | 2,4-Dinitrophenol <sup>a</sup>         | ND     | 210 | 160 | ug/kg | UJ |
| 534-52-1  | 4,6-Dinitro-o-cresol                   | ND     | 210 | 45  | ug/kg |    |
| 95-48-7   | 2-Methylphenol                         | ND     | 84  | 27  | ug/kg |    |
|           | 3&4-Methylphenol                       | ND     | 84  | 35  | ug/kg |    |
| 88-75-5   | 2-Nitrophenol                          | ND     | 210 | 28  | ug/kg |    |
| 100-02-7  | 4-Nitrophenol                          | ND     | 420 | 110 | ug/kg |    |
| 87-86-5   | Pentachlorophenol                      | ND     | 170 | 40  | ug/kg |    |
| 108-95-2  | Phenol                                 | ND     | 84  | 22  | ug/kg |    |
| 58-90-2   | 2,3,4,6-Tetrachlorophenol <sup>a</sup> | ND     | 210 | 28  | ug/kg | UJ |
| 95-95-4   | 2,4,5-Trichlorophenol                  | ND     | 210 | 32  | ug/kg |    |
| 88-06-2   | 2,4,6-Trichlorophenol                  | ND     | 210 | 25  | ug/kg |    |
| 83-32-9   | Acenaphthene                           | 160    | 42  | 15  | ug/kg |    |
| 208-96-8  | Acenaphthylene                         | 585    | 42  | 21  | ug/kg |    |
| 98-86-2   | Acetophenone                           | 17.0   | 210 | 9.0 | ug/kg | J  |
| 120-12-7  | Anthracene                             | 880    | 42  | 26  | ug/kg |    |
| 1912-24-9 | Atrazine                               | ND     | 84  | 18  | ug/kg |    |
| 56-55-3   | Benzo(a)anthracene                     | 2120   | 42  | 12  | ug/kg |    |
| 50-32-8   | Benzo(a)pyrene                         | 3110   | 42  | 19  | ug/kg |    |
| 205-99-2  | Benzo(b)fluoranthene                   | 3400   | 42  | 19  | ug/kg |    |
| 191-24-2  | Benzo(g,h,i)perylene                   | 2560   | 42  | 21  | ug/kg |    |
| 207-08-9  | Benzo(k)fluoranthene                   | 1040   | 42  | 20  | ug/kg |    |
| 101-55-3  | 4-Bromophenyl phenyl ether             | ND     | 84  | 16  | ug/kg |    |
| 85-68-7   | Butyl benzyl phthalate <sup>b</sup>    | 43.3   | 84  | 10  | ug/kg | J  |
| 92-52-4   | 1,1'-Biphenyl                          | 47.0   | 84  | 5.8 | ug/kg | J  |
| 100-52-7  | Benzaldehyde                           | ND     | 210 | 10  | ug/kg |    |
| 91-58-7   | 2-Chloronaphthalene                    | ND     | 84  | 10  | ug/kg |    |
| 106-47-8  | 4-Chloroaniline                        | ND     | 210 | 15  | ug/kg |    |
| 86-74-8   | Carbazole                              | 289    | 84  | 6.1 | ug/kg |    |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |  |                        |          |
|--------------------------|--|------------------------|----------|
| <b>Client Sample ID:</b> | SB-100 (0-8)                               | <b>Date Sampled:</b>   | 04/27/18 |
| <b>Lab Sample ID:</b>    | JC65157-12                                 | <b>Date Received:</b>  | 04/28/18 |
| <b>Matrix:</b>           | SO - Soil                                  | <b>Percent Solids:</b> | 76.9     |
| <b>Method:</b>           | SW846 8270D SW846 3546                     |                        |          |
| <b>Project:</b>          | NYSEG - Newark Former MGP Site, Newark, NY |                        |          |

## ABN TCL List (SOM0 2.0)

| CAS No.   | Compound                                | Result            | RL  | MDL | Units | Q  |
|-----------|---|-------------------|-----|-----|-------|----|
| 105-60-2  | Caprolactam                             | ND                | 84  | 17  | ug/kg |    |
| 218-01-9  | Chrysene                                | 2060              | 42  | 13  | ug/kg |    |
| 111-91-1  | bis(2-Chloroethoxy)methane              | ND                | 84  | 9.0 | ug/kg |    |
| 111-44-4  | bis(2-Chloroethyl)ether                 | ND                | 84  | 18  | ug/kg |    |
| 108-60-1  | 2,2'-Oxybis(1-chloropropane)            | ND                | 84  | 15  | ug/kg |    |
| 7005-72-3 | 4-Chlorophenyl phenyl ether             | ND                | 84  | 14  | ug/kg |    |
| 121-14-2  | 2,4-Dinitrotoluene                      | ND                | 42  | 13  | ug/kg |    |
| 606-20-2  | 2,6-Dinitrotoluene                      | ND                | 42  | 21  | ug/kg |    |
| 91-94-1   | 3,3'-Dichlorobenzidine                  | ND                | 84  | 35  | ug/kg |    |
| 123-91-1  | 1,4-Dioxane                             | ND                | 42  | 28  | ug/kg |    |
| 53-70-3   | Dibenzo(a,h)anthracene                  | 478               | 42  | 19  | ug/kg |    |
| 132-64-9  | Dibenzofuran                            | 275               | 84  | 17  | ug/kg |    |
| 84-74-2   | Di-n-butyl phthalate                    | ND                | 84  | 6.9 | ug/kg |    |
| 117-84-0  | Di-n-octyl phthalate <sup>c</sup>       | ND                | 84  | 10  | ug/kg |    |
| 84-66-2   | Diethyl phthalate                       | ND                | 84  | 9.0 | ug/kg |    |
| 131-11-3  | Dimethyl phthalate                      | ND                | 84  | 7.5 | ug/kg |    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate <sup>c</sup> | ND                | 84  | 9.8 | ug/kg |    |
| 206-44-0  | Fluoranthene                            | 4630 <sup>d</sup> | 84  | 38  | ug/kg | D  |
| 86-73-7   | Fluorene                                | 372               | 42  | 19  | ug/kg |    |
| 118-74-1  | Hexachlorobenzene                       | ND                | 84  | 11  | ug/kg |    |
| 87-68-3   | Hexachlorobutadiene <sup>a</sup>        | ND                | 42  | 17  | ug/kg | UJ |
| 77-47-4   | Hexachlorocyclopentadiene <sup>a</sup>  | ND                | 420 | 17  | ug/kg | UJ |
| 67-72-1   | Hexachloroethane                        | ND                | 210 | 21  | ug/kg |    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene                  | 2220              | 42  | 20  | ug/kg |    |
| 78-59-1   | Isophorone                              | ND                | 84  | 9.0 | ug/kg |    |
| 91-57-6   | 2-Methylnaphthalene                     | 165               | 42  | 9.5 | ug/kg |    |
| 88-74-4   | 2-Nitroaniline                          | ND                | 210 | 9.9 | ug/kg |    |
| 99-09-2   | 3-Nitroaniline                          | ND                | 210 | 11  | ug/kg |    |
| 100-01-6  | 4-Nitroaniline <sup>a</sup>             | ND                | 210 | 11  | ug/kg | UJ |
| 91-20-3   | Naphthalene                             | 267               | 42  | 12  | ug/kg |    |
| 98-95-3   | Nitrobenzene                            | ND                | 84  | 16  | ug/kg |    |
| 621-64-7  | N-Nitroso-di-n-propylamine              | ND                | 84  | 12  | ug/kg |    |
| 86-30-6   | N-Nitrosodiphenylamine                  | ND                | 210 | 15  | ug/kg |    |
| 85-01-8   | Phenanthrene                            | 3670              | 42  | 14  | ug/kg |    |
| 129-00-0  | Pyrene                                  | 4510 <sup>d</sup> | 84  | 27  | ug/kg | D  |
| 95-94-3   | 1,2,4,5-Tetrachlorobenzene <sup>a</sup> | ND                | 210 | 11  | ug/kg | UJ |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 367-12-4 | 2-Fluorophenol       | 56%    | 53%    | 23-115% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|  |  |
|--|--|
| <b>Client Sample ID:</b> SB-100 (0-8)<br><b>Lab Sample ID:</b> JC65157-12<br><b>Matrix:</b> SO - Soil<br><b>Method:</b> SW846 8270D SW846 3546<br><b>Project:</b> NYSEG - Newark Former MGP Site, Newark, NY | <b>Date Sampled:</b> 04/27/18<br><b>Date Received:</b> 04/28/18<br><b>Percent Solids:</b> 76.9 |
|--|--|

**ABN TCL List (SOM0 2.0)**

| CAS No.   | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|-----------|----------------------|--------|--------|---------|
| 4165-62-2 | Phenol-d5            | 54%    | 51%    | 27-114% |
| 118-79-6  | 2,4,6-Tribromophenol | 46%    | 50%    | 19-152% |
| 4165-60-0 | Nitrobenzene-d5      | 58%    | 50%    | 26-134% |
| 321-60-8  | 2-Fluorobiphenyl     | 60%    | 59%    | 39-124% |
| 1718-51-0 | Terphenyl-d14        | 53%    | 55%    | 36-134% |

- (a) Associated CCV outside of control limits low.
- (b) Associated CCV outside of control limits high.
- (c) Associated CCV outside of control limits high, sample was ND.
- (d) Result is from Run# 2

---

|   |                              |  |
|---|------------------------------|--|
| ND = Not detected                             | MDL = Method Detection Limit | J = Indicates an estimated value                       |
| RL = Reporting Limit                          |                              | B = Indicates analyte found in associated method blank |
| E = Indicates value exceeds calibration range |                              | N = Indicates presumptive evidence of a compound       |

4.11  
4

# ATTACHMENT 6

Geotechnical Laboratory Report





May 14, 2018

Project No. 2018-275-001

Mr. Jason Golubski  
ARCADIS  
One Lincoln Center  
110 W. Fayette Street, Suite 300  
Syracuse, NY 13202

**Transmittal**  
**Laboratory Test Results**  
**NYSEG-NEWARK FORMER MGP SITE**

Please find attached the laboratory test results for the above referenced project. The tests were outlined on the Project Verification Form that was transmitted to your firm prior to the testing. The testing was performed in general accordance with the methods listed on the enclosed data sheets. The test results are believed to be representative of the samples that were submitted for testing and are indicative only of the specimens that were evaluated. We have no direct knowledge of the origin of the samples and imply no position with regard to the nature of the test results, i.e. pass/fail and no claims as to the suitability of the material for its intended use.

The test data and all associated project information provided shall be held in strict confidence and disclosed to other parties only with authorization by our Client. The test data submitted herein is considered integral with this report and is not to be reproduced except in whole and only with the authorization of the Client and Geotechnics. The remaining sample materials for this project will be retained for a minimum of 90 days as directed by the Geotechnics' Quality Program.

We are pleased to provide these testing services. Should you have any questions or if we may be of further assistance, please contact our office.

Respectfully submitted,  
**Geotechnics, Inc.**

David R. Backstrom  
Laboratory Director

***We understand that you have a choice in your laboratory services  
and we thank you for choosing Geotechnics.***

## MOISTURE CONTENT

ASTM D 2216-10

Client: ARCADIS  
 Client Reference: NYSEG-Newark Former MGP Site  
 Project No.: 2018-275-001

|                              |               |               |              |
|------------------------------|---------------|---------------|--------------|
| Lab ID:                      | 001           | 002           | 003          |
| Boring No.:                  | SB-100        | SB-101        | SB-105       |
| Depth (ft):                  | 8-11          | 9-11          | 0-5          |
| Sample No.:                  | SB-100 (8-11) | SB-101 (9-11) | SB-105 (0-5) |
| <br>                         |               |               |              |
| Tare Number                  | 3128          | 3103          | 2914         |
| Wt. of Tare & Wet Sample (g) | 132.74        | 103.68        | 160.95       |
| Wt. of Tare & Dry Sample (g) | 110.11        | 90.86         | 147.65       |
| Weight of Tare (g)           | 8.10          | 8.13          | 8.14         |
| Weight of Water (g)          | 22.63         | 12.82         | 13.30        |
| Weight of Dry Sample (g)     | 102.01        | 82.73         | 139.51       |
| <br>                         |               |               |              |
| <b>Water Content (%)</b>     | <b>22.2</b>   | <b>15.5</b>   | <b>9.5</b>   |

|                              |                |              |               |
|------------------------------|----------------|--------------|---------------|
| Lab ID                       | 004            | 005          | 006           |
| Boring No.                   | SB-107         | TP-100       | TP-101        |
| Depth (ft)                   | 11-15          | 4-8          | 8-10          |
| Sample No.                   | SB-107 (11-15) | TP-100 (4-8) | TP-101 (8-10) |
| <br>                         |                |              |               |
| Tare Number                  | 2972           | 3082         | 3243          |
| Wt. of Tare & Wet Sample (g) | 90.98          | 100.26       | 131.61        |
| Wt. of Tare & Dry Sample (g) | 83.73          | 95.31        | 116.31        |
| Weight of Tare (g)           | 8.11           | 8.13         | 8.12          |
| Weight of Water (g)          | 7.25           | 4.95         | 15.30         |
| Weight of Dry Sample (g)     | 75.62          | 87.18        | 108.19        |
| <br>                         |                |              |               |
| <b>Water Content (%)</b>     | <b>9.6</b>     | <b>5.7</b>   | <b>14.1</b>   |

Notes :

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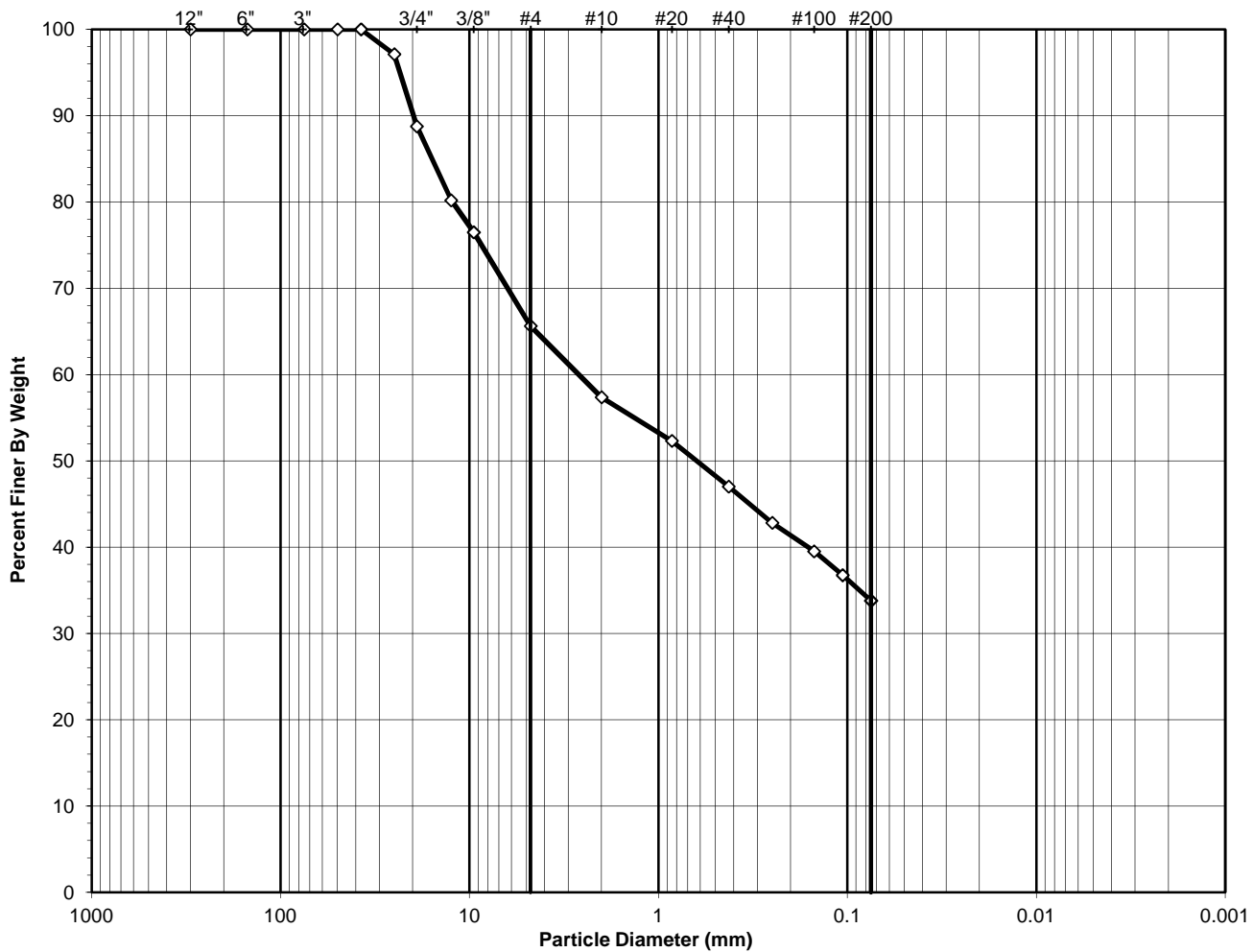
*Tested By*    *PC*                      *Date*            *5/7/18*      *Checked By*    *TMP*                      *Date*            *5/8/18*

## SIEVE AND HYDROMETER ANALYSIS

ASTM D6913 / D7928

|  |                           |
|--|---------------------------|
| Client: ARCADIS                                | Boring No.: SB-100        |
| Client Reference: NYSEG-NEWARK FORMER MGP SITE | Depth (ft): 8-11          |
| Project No.: 2018-275-001                      | Sample No.: SB-100 (8-11) |
| Lab ID: 2018-275-001-001                       | Soil Color: Dark Brown    |

| USCS | SIEVE ANALYSIS |      | HYDROMETER    |
|------|----------------|------|---------------|
|      | gravel         | sand | silt and clay |



**USCS Symbol:**  
**GC, TESTED**

**USCS Classification:**  
**CLAYEY GRAVEL WITH SAND**

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

### WASH SIEVE ANALYSIS

ASTM D6913-17

Client: ARCADIS  
 Client Reference: NYSEG-NEWARK FORMER MGP SITE  
 Project No.: 2018-275-001  
 Lab ID: 2018-275-001-001

Boring No.: SB-100  
 Depth (ft): 8-11  
 Sample No.: SB-100 (8-11)  
 Soil Color: Dark Brown

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 36                 | Tare No.:                          | 32                   |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 80.32              | Weight of Tare & Wet Sample (g):   | 134.16               |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 68.59              | Weight of Tare & Dry Sample (g):   | 125.02               |  |                   |                               |  |
| Weight of Tare (g):                       | 8.26               | Weight of Tare (g):                | 6.91                 |  |                   |                               |  |
| Weight of Water (g):                      | 11.73              | Weight of Water (g):               | 9.14                 |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 60.33              | Weight of Dry Soil (g):            | 118.11               |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>19.4</b>        | <b>Moisture Content (%):</b>       | <b>7.7</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 1115               | Total Dry Weight of Sample (g):    | 1051.6               |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1484               | Wet Weight of +3/4" Sample (g):    | 127.25               |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 929.90             | Dry Weight of + 3/4" Sample (g):   | 118.11               |  |                   |                               |  |
| Weight of Tare (g):                       | 149.55             | Dry Weight of - 3/4" Sample (g):   | 933.5                |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 780.35             | Dry Weight -3/4" +3/8" Sample (g): | 129.10               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 804.40               |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.8877               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | (*)                  | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 1"  | 25                 | 32.53                              | 2.87                 | 2.87                                       | 97.13             | 97.1                          |  |
| 3/4"                                      | 19                 | 94.72                              | 8.36                 | 11.23                                      | 88.77             | 88.8                          |  |
| 1/2"                                      | 12.5               | 63.04                              | (**)                 | 9.65                                       | 90.35             | 80.2                          |  |
| 3/8"                                      | 9.5                | 27.31                              | 4.18                 | 13.83                                      | 86.17             | 76.5                          |  |
| #4  | 4.75               | 79.97                              | 12.24                | 26.07                                      | 73.93             | 65.6                          |  |
| #10                                       | 2                  | 60.70                              | 9.29                 | 35.36                                      | 64.64             | 57.4                          |  |
| #20                                       | 0.85               | 37.22                              | (**)                 | 5.70                                       | 58.94             | 52.3                          |  |
| #40                                       | 0.425              | 38.91                              | 5.96                 | 47.01                                      | 52.99             | 47.0                          |  |
| #60                                       | 0.25               | 31.03                              | 4.75                 | 51.76                                      | 48.24             | 42.8                          |  |
| #100                                      | 0.15               | 24.30                              | 3.72                 | 55.48                                      | 44.52             | 39.5                          |  |
| #140                                      | 0.106              | 20.34                              | 3.11                 | 58.60                                      | 41.40             | 36.8                          |  |
| #200                                      | 0.075              | 21.71                              | 3.32                 | 61.92                                      | 38.08             | 33.8                          |  |
| Pan                                       | -                  | 248.79                             | 38.08                | 100.00                                     | -                 | -                             |  |

**Notes :** (\*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
 (\*\*) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18



## ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS  
 Client Reference: NYSEG-Newark Former MGP Site  
 Project No.: 2018-275-001  
 Lab ID: 2018-275-001-001

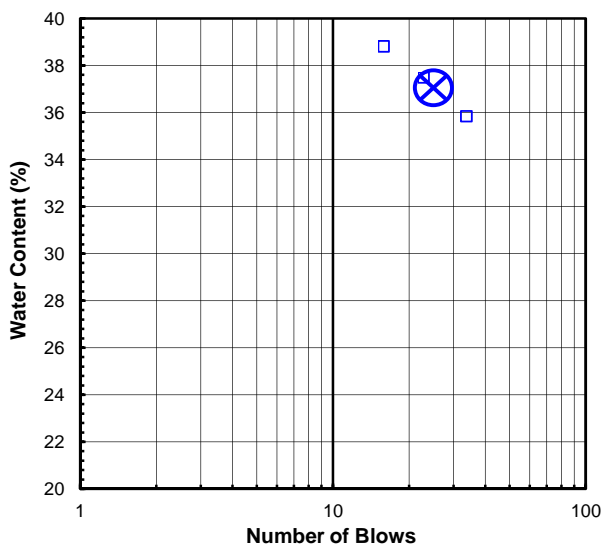
Boring No.: SB-100  
 Depth (ft): 8-11  
 Sample No.: SB-100 (8-11)  
 Soil Description: DARK BROWN LEAN CLAY

**Note: The USCS symbol used with this test refers only to the minus No. 40** (Minus No. 40 sieve material, Air dried)  
**sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

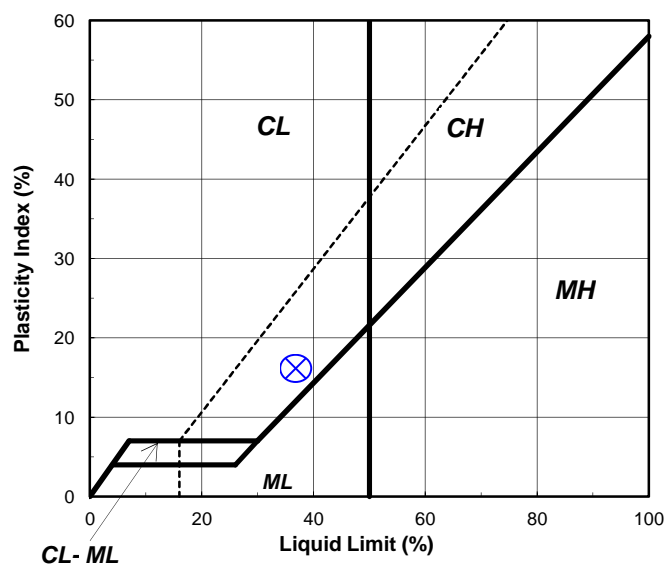
| As Received Moisture Content  |             | Liquid Limit Test |             |             |          |
|-------------------------------|-------------|-------------------|-------------|-------------|----------|
| ASTM D2216-10                 |             | 1                 | 2           | 3           | M        |
| Tare Number:                  | 3128        | 287               | 285         | 283         | U        |
| Wt. of Tare & Wet Sample (g): | 132.74      | 32.41             | 41.34       | 35.21       | L        |
| Wt. of Tare & Dry Sample (g): | 110.11      | 26.57             | 35.30       | 28.94       | T        |
| Weight of Tare (g):           | 8.10        | 10.26             | 19.17       | 12.77       | I        |
| Weight of Water (g):          | 22.6        | 5.8               | 6.0         | 6.3         | P        |
| Weight of Dry Sample (g):     | 102.0       | 16.3              | 16.1        | 16.2        | O        |
| Was As Received MC Preserved: | <b>Yes</b>  |                   |             |             | I        |
| <b>Moisture Content (%):</b>  | <b>22.2</b> | <b>35.8</b>       | <b>37.4</b> | <b>38.8</b> | <b>N</b> |
| <b>Number of Blows:</b>       |             | <b>34</b>         | <b>23</b>   | <b>16</b>   | <b>T</b> |

| Plastic Limit Test  | 1           | 2           | Range      | Test Results                 |           |
|---|-------------|-------------|------------|------------------------------|-----------|
| Tare Number:  | 1277        | 278         |            | <b>Liquid Limit (%):</b>     | <b>37</b> |
| Wt. of Tare & Wet Sample (g):   | 23.35       | 23.84       |            | <b>Plastic Limit (%):</b>    | <b>21</b> |
| Wt. of Tare & Dry Sample (g):   | 22.27       | 22.73       |            | <b>Plasticity Index (%):</b> | <b>16</b> |
| Weight of Tare (g):   | 17.02       | 17.34       |            | <b>USCS Symbol:</b>          | <b>CL</b> |
| Weight of Water (g):  | 1.1         | 1.1         |            |                              |           |
| Weight of Dry Sample (g):   | 5.3         | 5.4         |            |                              |           |
| <b>Moisture Content (%):</b>  | <b>20.6</b> | <b>20.6</b> | <b>0.0</b> |                              |           |
| <i>Note: The acceptable range of the two Moisture Contents is <math>\pm</math> 1.12</i> |             |             |            |                              |           |

**Flow Curve**



**Plasticity Chart**



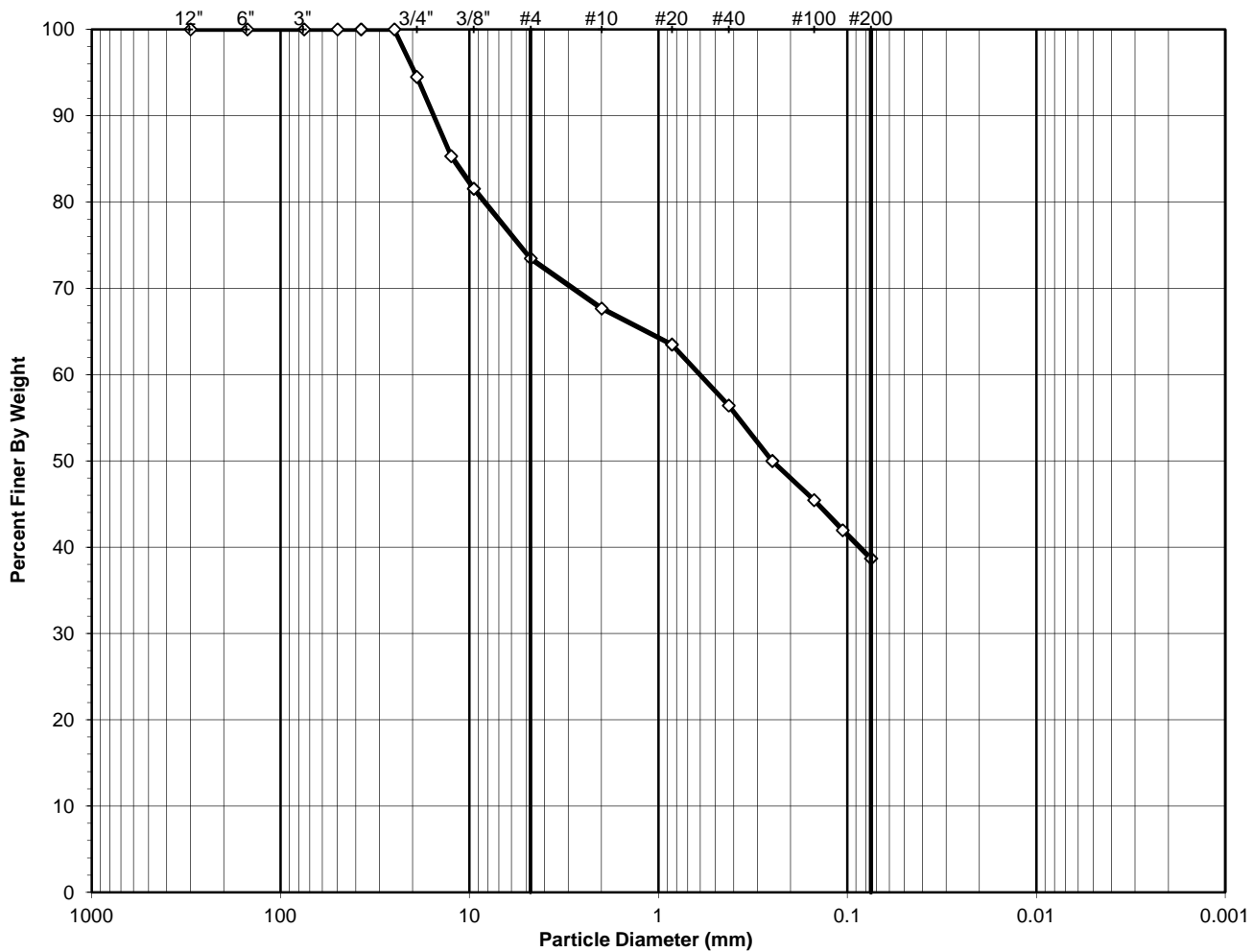
Tested By TO Date 5/9/18 Checked By TMP Date 5/10/18

## SIEVE AND HYDROMETER ANALYSIS

ASTM D6913 / D7928

|  |                           |
|--|---------------------------|
| Client: ARCADIS                                | Boring No.: SB-101        |
| Client Reference: NYSEG-NEWARK FORMER MGP SITE | Depth (ft): 9-11          |
| Project No.: 2018-275-001                      | Sample No.: SB-101 (9-11) |
| Lab ID: 2018-275-001-002                       | Soil Color: Brown         |

| USCS | SIEVE ANALYSIS |      | HYDROMETER    |
|------|----------------|------|---------------|
|      | gravel         | sand | silt and clay |



**USCS Symbol:**  
**SC, TESTED**

**USCS Classification:**  
**CLAYEY SAND WITH GRAVEL**

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## WASH SIEVE ANALYSIS

ASTM D6913-17

|                   |                              |             |               |
|-------------------|------------------------------|-------------|---------------|
| Client:           | ARCADIS                      | Boring No.: | SB-101        |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 9-11          |
| Project No.:      | 2018-275-001                 | Sample No.: | SB-101 (9-11) |
| Lab ID:           | 2018-275-001-002             | Soil Color: | Brown         |

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 44                 | Tare No.:                          | 47                   |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 79.17              | Weight of Tare & Wet Sample (g):   | 65.12                |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 68.51              | Weight of Tare & Dry Sample (g):   | 62.10                |  |                   |                               |  |
| Weight of Tare (g):                       | 7.1                | Weight of Tare (g):                | 6.67                 |  |                   |                               |  |
| Weight of Water (g):                      | 10.66              | Weight of Water (g):               | 3.02                 |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 61.41              | Weight of Dry Soil (g):            | 55.43                |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>17.4</b>        | <b>Moisture Content (%):</b>       | <b>5.4</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 1117               | Total Dry Weight of Sample (g):    | 1007.2               |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1503               | Wet Weight of +3/4" Sample (g):    | 58.45                |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 889.40             | Dry Weight of + 3/4" Sample (g):   | 55.43                |  |                   |                               |  |
| Weight of Tare (g):                       | 147.27             | Dry Weight of - 3/4" Sample (g):   | 951.8                |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 742.13             | Dry Weight -3/4" +3/8" Sample (g): | 130.37               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 821.41               |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.9450               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | (*)                  | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 1"  | 25                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3/4"                                      | 19                 | 58.45                              | 5.50                 | 5.50                                       | 94.50             | 94.5                          |  |
| 1/2"                                      | 12.5               | 61.50                              | (**)                 | 9.73                                       | 90.27             | 85.3                          |  |
| 3/8"                                      | 9.5                | 25.12                              | 3.97                 | 13.70                                      | 86.30             | 81.6                          |  |
| #4  | 4.75               | 54.20                              | 8.57                 | 22.27                                      | 77.73             | 73.5                          |  |
| #10                                       | 2                  | 38.70                              | 6.12                 | 28.39                                      | 71.61             | 67.7                          |  |
| #20                                       | 0.85               | 28.01                              | (**)                 | 4.43                                       | 67.18             | 63.5                          |  |
| #40                                       | 0.425              | 47.27                              | 7.48                 | 40.29                                      | 59.71             | 56.4                          |  |
| #60                                       | 0.25               | 43.00                              | 6.80                 | 47.09                                      | 52.91             | 50.0                          |  |
| #100                                      | 0.15               | 30.41                              | 4.81                 | 51.90                                      | 48.10             | 45.5                          |  |
| #140                                      | 0.106              | 23.25                              | 3.68                 | 55.58                                      | 44.42             | 42.0                          |  |
| #200                                      | 0.075              | 21.96                              | 3.47                 | 59.05                                      | 40.95             | 38.7                          |  |
| Pan                                       | -                  | 258.94                             | 40.95                | 100.00                                     | -                 | -                             |  |

**Notes :** (\*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
(\*\*) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS  
 Client Reference: NYSEG-Newark Former MGP Site  
 Project No.: 2018-275-001  
 Lab ID: 2018-275-001-002

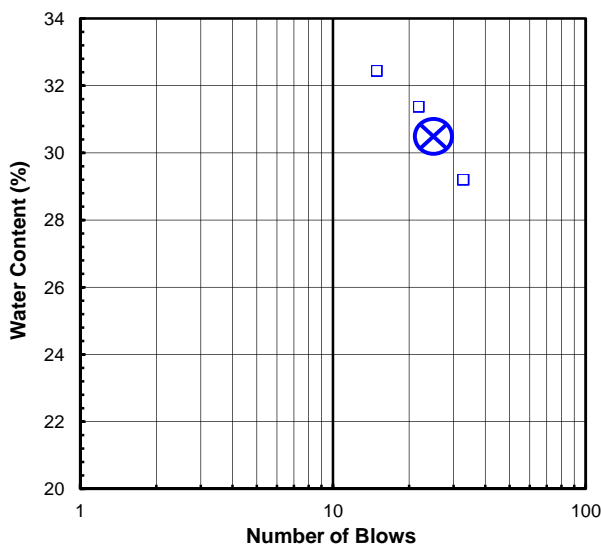
Boring No.: SB-101  
 Depth (ft): 9-11  
 Sample No.: SB-101 (9-11)  
 Soil Description: BROWN LEAN CLAY

**Note: The USCS symbol used with this test refers only to the minus No. 40** (Minus No. 40 sieve material, Air dried)  
**sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

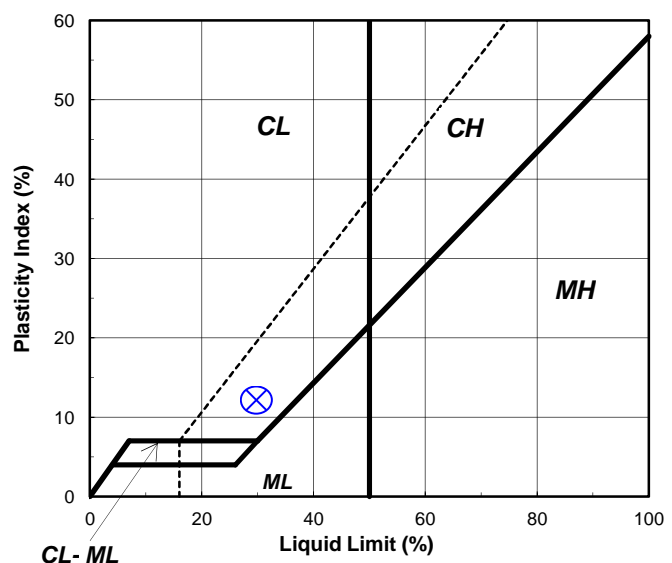
| As Received Moisture Content  |             | Liquid Limit Test |             |             |          |
|-------------------------------|-------------|-------------------|-------------|-------------|----------|
| ASTM D2216-10                 |             | 1                 | 2           | 3           | M        |
| Tare Number:                  | 3103        | 306               | 333         | 309         | U        |
| Wt. of Tare & Wet Sample (g): | 103.68      | 39.71             | 39.58       | 40.12       | L        |
| Wt. of Tare & Dry Sample (g): | 90.86       | 34.75             | 34.78       | 35.46       | T        |
| Weight of Tare (g):           | 8.13        | 19.45             | 19.47       | 19.49       | I        |
| Weight of Water (g):          | 12.8        | 5.0               | 4.8         | 4.7         | P        |
| Weight of Dry Sample (g):     | 82.7        | 15.3              | 15.3        | 16.0        | O        |
| Was As Received MC Preserved: | <b>Yes</b>  |                   |             |             | I        |
| <b>Moisture Content (%):</b>  | <b>15.5</b> | <b>32.4</b>       | <b>31.4</b> | <b>29.2</b> | <b>N</b> |
| <b>Number of Blows:</b>       |             | <b>15</b>         | <b>22</b>   | <b>33</b>   | <b>T</b> |

| Plastic Limit Test  | 1           | 2           | Range      | Test Results                 |           |
|---|-------------|-------------|------------|------------------------------|-----------|
| Tare Number:  | 315         | 317         |            | <b>Liquid Limit (%):</b>     | <b>30</b> |
| Wt. of Tare & Wet Sample (g):   | 26.63       | 26.67       |            | <b>Plastic Limit (%):</b>    | <b>18</b> |
| Wt. of Tare & Dry Sample (g):   | 25.66       | 25.69       |            | <b>Plasticity Index (%):</b> | <b>12</b> |
| Weight of Tare (g):   | 20.34       | 20.31       |            | <b>USCS Symbol:</b>          | <b>CL</b> |
| Weight of Water (g):  | 1.0         | 1.0         |            |                              |           |
| Weight of Dry Sample (g):   | 5.3         | 5.4         |            |                              |           |
| <b>Moisture Content (%):</b>  | <b>18.2</b> | <b>18.2</b> | <b>0.0</b> |                              |           |
| <i>Note: The acceptable range of the two Moisture Contents is <math>\pm</math> 1.12</i> |             |             |            |                              |           |

**Flow Curve**



**Plasticity Chart**

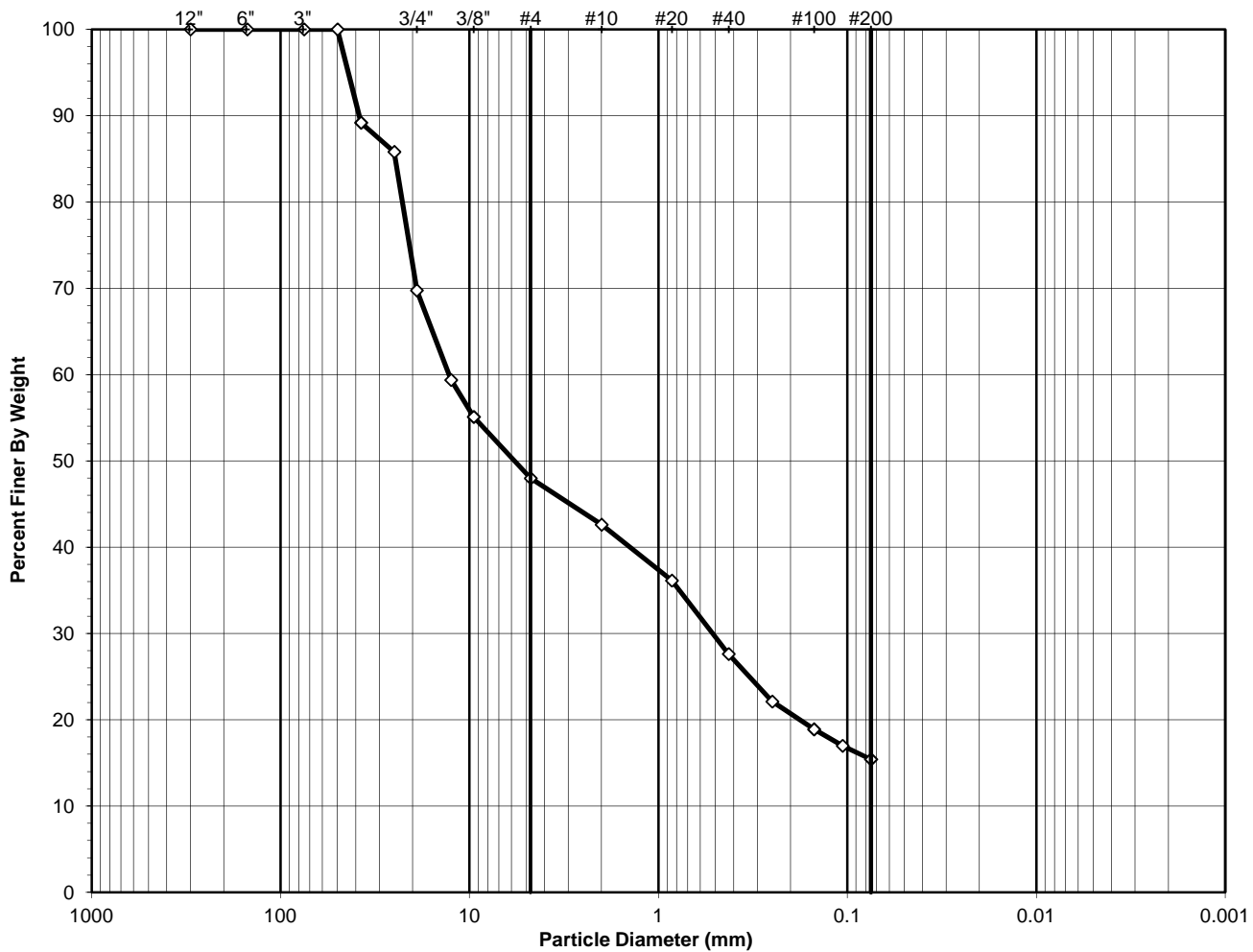


Tested By RAL Date 5/9/18 Checked By TMP Date 5/10/18

**SIEVE AND HYDROMETER ANALYSIS**  
ASTM D6913 / D7928

|                   |                              |             |              |
|-------------------|------------------------------|-------------|--------------|
| Client:           | ARCADIS                      | Boring No.: | SB-105       |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 0-5          |
| Project No.:      | 2018-275-001                 | Sample No.: | SB-105 (0-5) |
| Lab ID:           | 2018-275-001-003             | Soil Color: | Dark Brown   |

|             |                       |      |                   |
|-------------|-----------------------|------|-------------------|
| <b>USCS</b> | <b>SIEVE ANALYSIS</b> |      | <b>HYDROMETER</b> |
|             | gravel                | sand | silt and clay     |



**USCS Symbol:**  
**GM, TESTED**

**USCS Classification:**  
**SILTY GRAVEL WITH SAND**

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## WASH SIEVE ANALYSIS

ASTM D6913-17

|                   |                              |             |              |
|-------------------|------------------------------|-------------|--------------|
| Client:           | ARCADIS                      | Boring No.: | SB-105       |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 0-5          |
| Project No.:      | 2018-275-001                 | Sample No.: | SB-105 (0-5) |
| Lab ID:           | 2018-275-001-003             | Soil Color: | Dark Brown   |

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 3071               | Tare No.:                          | 3109                 |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 117.2              | Weight of Tare & Wet Sample (g):   | 376.06               |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 106.45             | Weight of Tare & Dry Sample (g):   | 363.48               |  |                   |                               |  |
| Weight of Tare (g):                       | 8.09               | Weight of Tare (g):                | 8.09                 |  |                   |                               |  |
| Weight of Water (g):                      | 10.75              | Weight of Water (g):               | 12.58                |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 98.36              | Weight of Dry Soil (g):            | 355.39               |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>10.9</b>        | <b>Moisture Content (%):</b>       | <b>3.5</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 910                | Total Dry Weight of Sample (g):    | 1175.7               |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1473               | Wet Weight of +3/4" Sample (g):    | 367.97               |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 654.30             | Dry Weight of + 3/4" Sample (g):   | 355.39               |  |                   |                               |  |
| Weight of Tare (g):                       | 145.95             | Dry Weight of - 3/4" Sample (g):   | 820.3                |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 508.35             | Dry Weight -3/4" +3/8" Sample (g): | 172.51               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 647.83               |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.6977               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | (*)                  | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 131.71                             | 10.82                | 10.82                                      | 89.18             | 89.2                          |  |
| 1"  | 25                 | 41.12                              | 3.38                 | 14.20                                      | 85.80             | 85.8                          |  |
| 3/4"                                      | 19                 | 195.14                             | 16.03                | 30.23                                      | 69.77             | 69.8                          |  |
| 1/2"                                      | 12.5               | 68.35                              | (**)                 | 14.91                                      | 85.09             | 59.4                          |  |
| 3/8"                                      | 9.5                | 28.02                              |                      | 6.11                                       | 78.97             | 55.1                          |  |
| #4  | 4.75               | 46.73                              |                      | 10.20                                      | 68.77             | 48.0                          |  |
| #10                                       | 2                  | 35.29                              |                      | 7.70                                       | 61.07             | 42.6                          |  |
| #20                                       | 0.85               | 42.47                              | (**)                 | 9.27                                       | 51.81             | 36.1                          |  |
| #40                                       | 0.425              | 56.02                              |                      | 12.22                                      | 39.58             | 27.6                          |  |
| #60                                       | 0.25               | 36.06                              |                      | 7.87                                       | 31.71             | 22.1                          |  |
| #100                                      | 0.15               | 21.21                              |                      | 4.63                                       | 27.08             | 18.9                          |  |
| #140                                      | 0.106              | 12.61                              |                      | 2.75                                       | 24.33             | 17.0                          |  |
| #200                                      | 0.075              | 10.24                              |                      | 2.23                                       | 22.10             | 15.4                          |  |
| Pan                                       | -                  | 101.27                             |                      | 22.10                                      | 100.00            | -                             |  |

**Notes :** (\*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
(\*\*) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## ATTERBERG LIMITS

ASTM D 4318-17

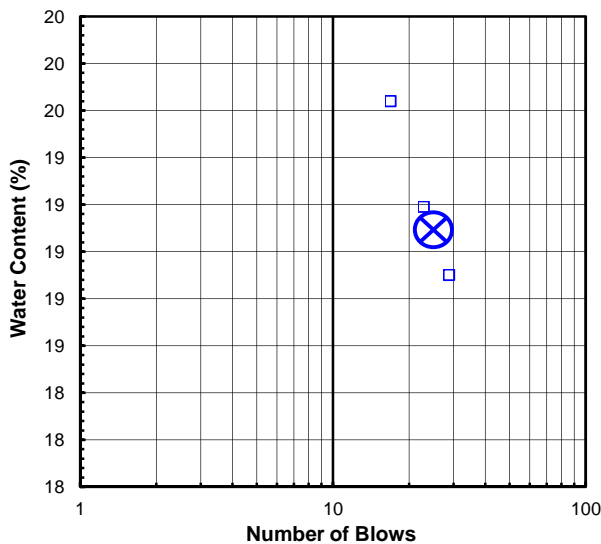
|  |                                   |
|--|-----------------------------------|
| Client: ARCADIS                                | Boring No.: SB-105                |
| Client Reference: NYSEG-Newark Former MGP Site | Depth (ft): 0-5                   |
| Project No.: 2018-275-001                      | Sample No.: SB-105 (0-5)          |
| Lab ID: 2018-275-001-003                       | Soil Description: DARK BROWN SILT |

**Note: The USCS symbol used with this test refers only to the minus No. 40** (Minus No. 40 sieve material, Air dried)  
**sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

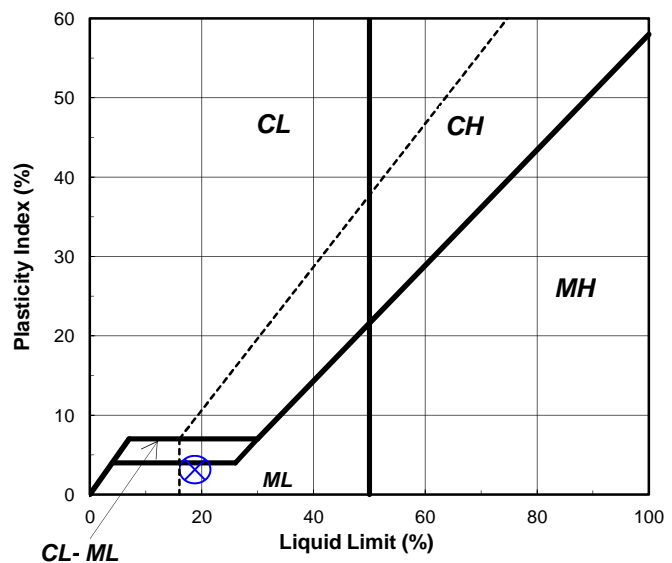
| As Received Moisture Content  |            | Liquid Limit Test |             |             |          |
|-------------------------------|------------|-------------------|-------------|-------------|----------|
| ASTM D2216-10                 |            | 1                 | 2           | 3           | M        |
| Tare Number:                  | 2914       | 1251              | 1289        | 355         | U        |
| Wt. of Tare & Wet Sample (g): | 160.95     | 33.08             | 36.92       | 33.95       | L        |
| Wt. of Tare & Dry Sample (g): | 147.65     | 30.20             | 34.37       | 31.36       | T        |
| Weight of Tare (g):           | 8.14       | 14.96             | 21.08       | 18.17       | I        |
| Weight of Water (g):          | 13.3       | 2.9               | 2.6         | 2.6         | P        |
| Weight of Dry Sample (g):     | 139.5      | 15.2              | 13.3        | 13.2        | O        |
| Was As Received MC Preserved: | <b>Yes</b> |                   |             |             | I        |
| <b>Moisture Content (%):</b>  | <b>9.5</b> | <b>18.9</b>       | <b>19.2</b> | <b>19.6</b> | <b>N</b> |
| <b>Number of Blows:</b>       |            | <b>29</b>         | <b>23</b>   | <b>17</b>   | <b>T</b> |

| Plastic Limit Test  | 1           | 2           | Range      | Test Results                 |           |
|---|-------------|-------------|------------|------------------------------|-----------|
| Tare Number:  | 2289        | 167         |            | <b>Liquid Limit (%):</b>     | <b>19</b> |
| Wt. of Tare & Wet Sample (g):   | 27.10       | 24.15       |            | <b>Plastic Limit (%):</b>    | <b>16</b> |
| Wt. of Tare & Dry Sample (g):   | 26.18       | 23.31       |            | <b>Plasticity Index (%):</b> | <b>3</b>  |
| Weight of Tare (g):   | 20.43       | 18.07       |            | <b>USCS Symbol:</b>          | <b>ML</b> |
| Weight of Water (g):  | 0.9         | 0.8         |            |                              |           |
| Weight of Dry Sample (g):   | 5.8         | 5.2         |            |                              |           |
| <b>Moisture Content (%):</b>  | <b>16.0</b> | <b>16.0</b> | <b>0.0</b> |                              |           |
| <i>Note: The acceptable range of the two Moisture Contents is <math>\pm</math> 0.84</i> |             |             |            |                              |           |

**Flow Curve**



**Plasticity Chart**



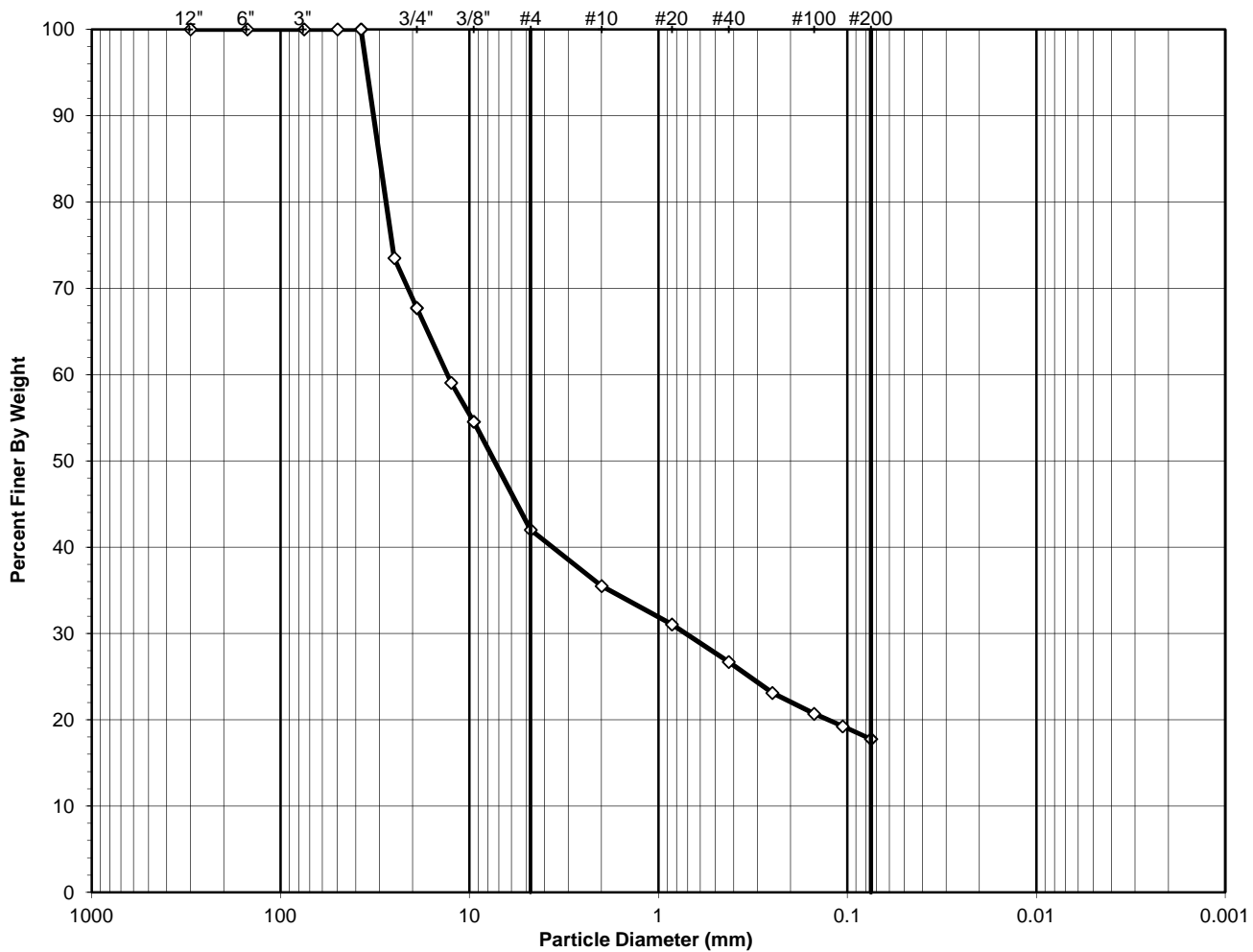
Tested By **TO** Date **5/9/18** Checked By **TMP** Date **5/10/18**

## SIEVE AND HYDROMETER ANALYSIS

ASTM D6913 / D7928

|  |                            |
|--|----------------------------|
| Client: ARCADIS                                | Boring No.: SB-107         |
| Client Reference: NYSEG-NEWARK FORMER MGP SITE | Depth (ft): 11-15          |
| Project No.: 2018-275-001                      | Sample No.: SB-107 (11-15) |
| Lab ID: 2018-275-001-004                       | Soil Color: Brown          |

| USCS | SIEVE ANALYSIS |      | HYDROMETER    |
|------|----------------|------|---------------|
|      | gravel         | sand | silt and clay |



**USCS Symbol:**  
**GM, TESTED**

**USCS Classification:**  
**SILTY GRAVEL WITH SAND**  
**(NON-PLASTIC FINES)**

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18



## WASH SIEVE ANALYSIS

ASTM D6913-17

|                   |                              |             |                |
|-------------------|------------------------------|-------------|----------------|
| Client:           | ARCADIS                      | Boring No.: | SB-107         |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 11-15          |
| Project No.:      | 2018-275-001                 | Sample No.: | SB-107 (11-15) |
| Lab ID:           | 2018-275-001-004             | Soil Color: | Brown          |

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 37                 | Tare No.:                          | 3238                 |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 66.49              | Weight of Tare & Wet Sample (g):   | 294.69               |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 61.35              | Weight of Tare & Dry Sample (g):   | 281.65               |  |                   |                               |  |
| Weight of Tare (g):                       | 6.97               | Weight of Tare (g):                | 8.11                 |  |                   |                               |  |
| Weight of Water (g):                      | 5.14               | Weight of Water (g):               | 13.04                |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 54.38              | Weight of Dry Soil (g):            | 273.54               |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>9.5</b>         | <b>Moisture Content (%):</b>       | <b>4.8</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 628                | Total Dry Weight of Sample (g):    | 847.3                |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1450               | Wet Weight of +3/4" Sample (g):    | 286.58               |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 484.00             | Dry Weight of + 3/4" Sample (g):   | 273.54               |  |                   |                               |  |
| Weight of Tare (g):                       | 144.95             | Dry Weight of - 3/4" Sample (g):   | 573.8                |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 339.05             | Dry Weight -3/4" +3/8" Sample (g): | 111.62               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 462.15               |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.6772               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | ( *)                 | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 0.00                               |                      | 0.00                                       | 100.00            | 100.0                         |  |
| 1"  | 25                 | 235.21                             |                      | 26.50                                      | 73.50             | 73.5                          |  |
| 3/4"                                      | 19                 | 51.37                              |                      | 5.79                                       | 67.72             | 67.7                          |  |
| 1/2"                                      | 12.5               | 39.65                              | ( ** )               | 12.80                                      | 87.20             | 59.0                          |  |
| 3/8"                                      | 9.5                | 20.61                              |                      | 6.65                                       | 80.55             | 54.5                          |  |
| #4  | 4.75               | 57.33                              |                      | 18.51                                      | 62.04             | 42.0                          |  |
| #10                                       | 2                  | 29.80                              |                      | 9.62                                       | 52.42             | 35.5                          |  |
| #20                                       | 0.85               | 20.31                              | ( ** )               | 6.56                                       | 45.86             | 31.1                          |  |
| #40                                       | 0.425              | 19.88                              |                      | 6.42                                       | 39.45             | 26.7                          |  |
| #60                                       | 0.25               | 16.47                              |                      | 5.32                                       | 34.13             | 23.1                          |  |
| #100                                      | 0.15               | 11.04                              |                      | 3.56                                       | 30.56             | 20.7                          |  |
| #140                                      | 0.106              | 6.66                               |                      | 2.15                                       | 28.41             | 19.2                          |  |
| #200                                      | 0.075              | 6.75                               |                      | 2.18                                       | 26.24             | 17.8                          |  |
| Pan                                       | -                  | 81.27                              |                      | 26.24                                      | 100.00            | -                             |  |

**Notes :** ( \* ) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
 ( \*\* ) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS  
Client Reference: NYSEG-Newark Former MGP Site  
Project No.: 2018-275-001  
Lab ID: 2018-275-001-004

Boring No.: SB-107  
Depth (ft): 11-15  
Sample No.: SB-107 (11-15)  
Color: Brown  
( Minus No. 40 sieve material)

### As Received Water Content

|                              |       |
|------------------------------|-------|
| Tare Number                  | 2972  |
| Wt. of Tare & Wet Sample (g) | 90.98 |
| Wt. of Tare & Dry Sample (g) | 83.73 |
| Weight of Tare (g)           | 8.11  |
| Weight of Water (g)          | 7.25  |
| Weight of Dry Sample (g)     | 75.62 |

**Water Content (%)**                      **9.6**

# NON - PLASTIC MATERIAL

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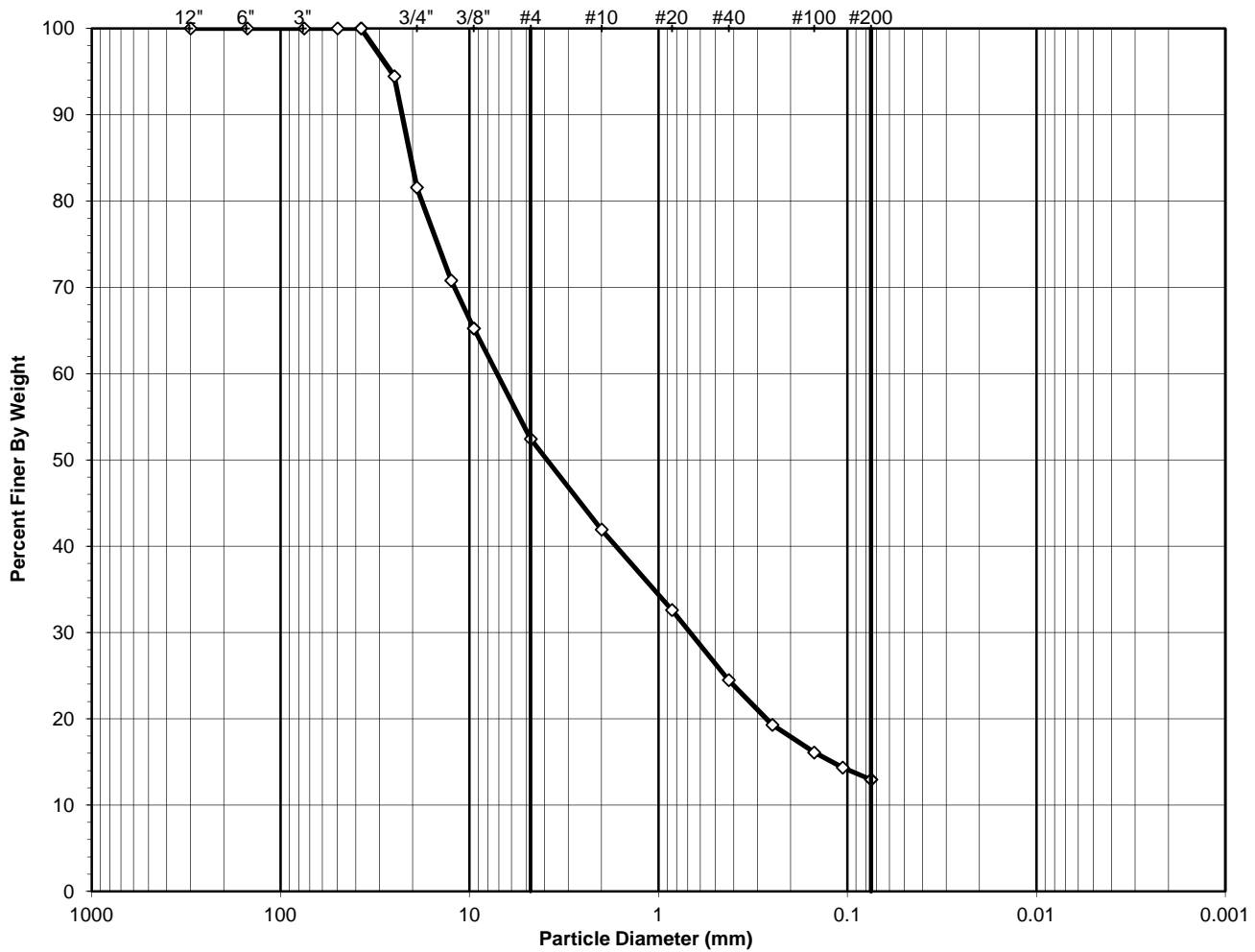
*Tested By*    *TO*            *Date*    *5/10/18*            *Checked By*            *TMP*            *Date*    *5/11/18*

## SIEVE AND HYDROMETER ANALYSIS

ASTM D6913 / D7928

|                   |                              |             |              |
|-------------------|------------------------------|-------------|--------------|
| Client:           | ARCADIS                      | Boring No.: | TP-100       |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 4-8          |
| Project No.:      | 2018-275-001                 | Sample No.: | TP-100 (4-8) |
| Lab ID:           | 2018-275-001-005             | Soil Color: | Brown        |

| USCS | SIEVE ANALYSIS |      | HYDROMETER    |
|------|----------------|------|---------------|
|      | gravel         | sand | silt and clay |



**USCS Symbol:**  
**GM, TESTED**

**USCS Classification:**  
**SILTY GRAVEL WITH SAND**

|           |    |      |        |            |    |      |         |
|-----------|----|------|--------|------------|----|------|---------|
| Tested By | TV | Date | 5/9/18 | Checked By | KC | Date | 5/14/18 |
|-----------|----|------|--------|------------|----|------|---------|

## WASH SIEVE ANALYSIS

ASTM D6913-17

|                   |                              |             |              |
|-------------------|------------------------------|-------------|--------------|
| Client:           | ARCADIS                      | Boring No.: | TP-100       |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 4-8          |
| Project No.:      | 2018-275-001                 | Sample No.: | TP-100 (4-8) |
| Lab ID:           | 2018-275-001-005             | Soil Color: | Brown        |

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 22                 | Tare No.:                          | 3172                 |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 109.72             | Weight of Tare & Wet Sample (g):   | 270.85               |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 103.16             | Weight of Tare & Dry Sample (g):   | 264.57               |  |                   |                               |  |
| Weight of Tare (g):                       | 7.03               | Weight of Tare (g):                | 8.09                 |  |                   |                               |  |
| Weight of Water (g):                      | 6.56               | Weight of Water (g):               | 6.28                 |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 96.13              | Weight of Dry Soil (g):            | 256.48               |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>6.8</b>         | <b>Moisture Content (%):</b>       | <b>2.4</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 1213               | Total Dry Weight of Sample (g):    | 1392.0               |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1531               | Wet Weight of +3/4" Sample (g):    | 262.76               |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 883.80             | Dry Weight of + 3/4" Sample (g):   | 256.48               |  |                   |                               |  |
| Weight of Tare (g):                       | 147.67             | Dry Weight of - 3/4" Sample (g):   | 1135.5               |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 736.13             | Dry Weight -3/4" +3/8" Sample (g): | 227.23               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 908.28               |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.8157               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | (*)                  | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 0.00                               |                      | 0.00                                       | 100.00            | 100.0                         |  |
| 1"  | 25                 | 78.89                              |                      | 5.53                                       | 94.47             | 94.5                          |  |
| 3/4"                                      | 19                 | 183.87                             |                      | 12.89                                      | 81.57             | 81.6                          |  |
| 1/2"                                      | 12.5               | 91.01                              | (**)                 | 13.21                                      | 86.79             | 70.8                          |  |
| 3/8"                                      | 9.5                | 46.89                              |                      | 6.80                                       | 79.99             | 65.3                          |  |
| #4  | 4.75               | 108.25                             |                      | 15.71                                      | 64.28             | 52.4                          |  |
| #10                                       | 2                  | 88.71                              |                      | 12.87                                      | 51.41             | 41.9                          |  |
| #20                                       | 0.85               | 78.74                              | (**)                 | 11.43                                      | 39.98             | 32.6                          |  |
| #40                                       | 0.425              | 68.67                              |                      | 9.97                                       | 30.02             | 24.5                          |  |
| #60                                       | 0.25               | 43.69                              |                      | 6.34                                       | 23.67             | 19.3                          |  |
| #100                                      | 0.15               | 27.10                              |                      | 3.93                                       | 19.74             | 16.1                          |  |
| #140                                      | 0.106              | 14.80                              |                      | 2.15                                       | 17.59             | 14.4                          |  |
| #200                                      | 0.075              | 11.73                              |                      | 1.70                                       | 15.89             | 13.0                          |  |
| Pan                                       | -                  | 109.51                             |                      | 15.89                                      | 100.00            | -                             |  |

**Notes :** (\*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
(\*\*) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS  
 Client Reference: NYSEG-Newark Former MGP Site  
 Project No.: 2018-275-001  
 Lab ID: 2018-275-001-005

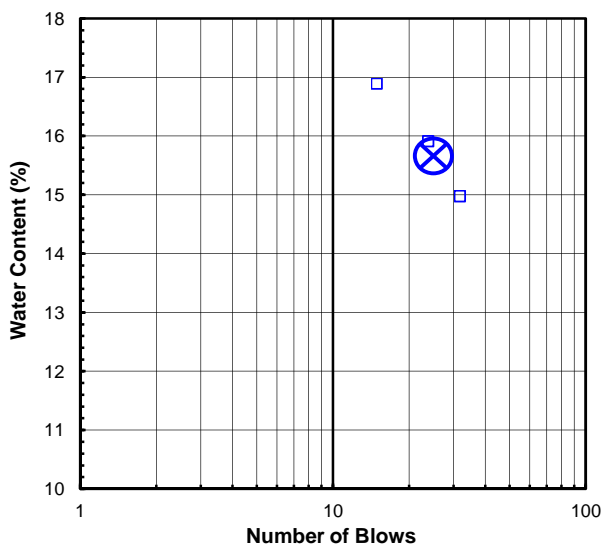
Boring No.: TP-100  
 Depth (ft): 4-8  
 Sample No.: TP-100 (4-8)  
 Soil Description: BROWN SILT

**Note: The USCS symbol used with this test refers only to the minus No. 40** (Minus No. 40 sieve material, Air dried)  
**sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

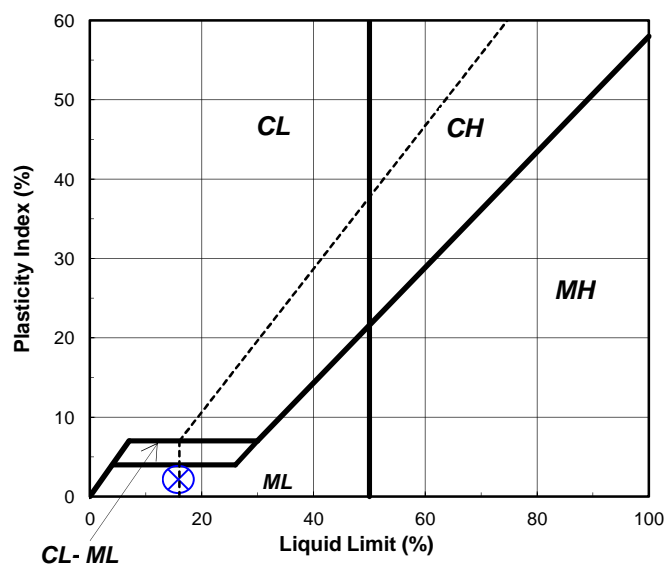
| As Received Moisture Content  |            | Liquid Limit Test |             |             |          |
|-------------------------------|------------|-------------------|-------------|-------------|----------|
| ASTM D2216-10                 |            | 1                 | 2           | 3           | M        |
| Tare Number:                  | 3082       | 326               | 329         | 305         | U        |
| Wt. of Tare & Wet Sample (g): | 100.26     | 39.61             | 39.85       | 39.20       | L        |
| Wt. of Tare & Dry Sample (g): | 95.31      | 36.65             | 36.99       | 36.58       | T        |
| Weight of Tare (g):           | 8.13       | 19.11             | 19.00       | 19.07       | I        |
| Weight of Water (g):          | 5.0        | 3.0               | 2.9         | 2.6         | P        |
| Weight of Dry Sample (g):     | 87.2       | 17.5              | 18.0        | 17.5        | O        |
| Was As Received MC Preserved: | <b>Yes</b> |                   |             |             | I        |
| <b>Moisture Content (%):</b>  | <b>5.7</b> | <b>16.9</b>       | <b>15.9</b> | <b>15.0</b> | <b>N</b> |
| <b>Number of Blows:</b>       |            | <b>15</b>         | <b>24</b>   | <b>32</b>   | <b>T</b> |

| Plastic Limit Test   | 1           | 2           | Range      | Test Results                 |           |
|--|-------------|-------------|------------|------------------------------|-----------|
| Tare Number:   | 323         | 336         |            | <b>Liquid Limit (%):</b>     | <b>16</b> |
| Wt. of Tare & Wet Sample (g):  | 26.70       | 26.97       |            | <b>Plastic Limit (%):</b>    | <b>14</b> |
| Wt. of Tare & Dry Sample (g):  | 25.92       | 26.17       |            | <b>Plasticity Index (%):</b> | <b>2</b>  |
| Weight of Tare (g):  | 20.45       | 20.55       |            | <b>USCS Symbol:</b>          | <b>ML</b> |
| Weight of Water (g):   | 0.8         | 0.8         |            |                              |           |
| Weight of Dry Sample (g):  | 5.5         | 5.6         |            |                              |           |
| <b>Moisture Content (%):</b>   | <b>14.3</b> | <b>14.2</b> | <b>0.0</b> |                              |           |
| <i>Note: The acceptable range of the two Moisture Contents is <math>\pm</math></i> |             |             |            | <i>0.84</i>                  |           |

**Flow Curve**



**Plasticity Chart**



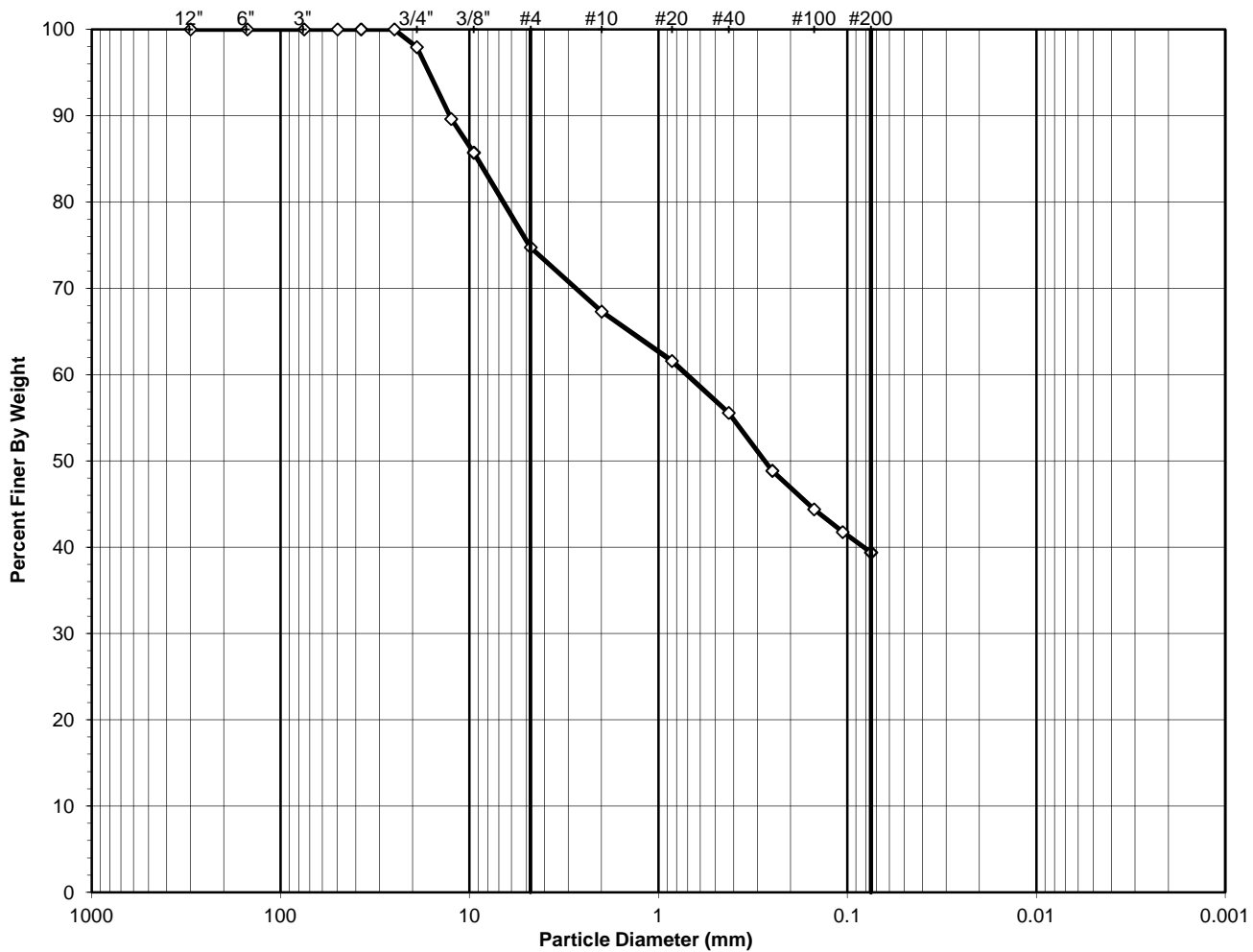
Tested By RAL Date 5/10/18 Checked By TMP Date 5/11/18

## SIEVE AND HYDROMETER ANALYSIS

ASTM D6913 / D7928

|  |                           |
|--|---------------------------|
| Client: ARCADIS                                | Boring No.: TP-101        |
| Client Reference: NYSEG-NEWARK FORMER MGP SITE | Depth (ft): 8-10          |
| Project No.: 2018-275-001                      | Sample No.: TP-101 (8-10) |
| Lab ID: 2018-275-001-006                       | Soil Color: Brown         |

| USCS | SIEVE ANALYSIS |      | HYDROMETER    |
|------|----------------|------|---------------|
|      | gravel         | sand | silt and clay |



**USCS Symbol:**  
**SC, TESTED**

**USCS Classification:**  
**CLAYEY SAND WITH GRAVEL**

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## WASH SIEVE ANALYSIS

ASTM D6913-17

|                   |                              |             |               |
|-------------------|------------------------------|-------------|---------------|
| Client:           | ARCADIS                      | Boring No.: | TP-101        |
| Client Reference: | NYSEG-NEWARK FORMER MGP SITE | Depth (ft): | 8-10          |
| Project No.:      | 2018-275-001                 | Sample No.: | TP-101 (8-10) |
| Lab ID:           | 2018-275-001-006             | Soil Color: | Brown         |

| Moisture Content of Passing 3/4" Material |                    |                                    |                      | Moisture Content of Retained 3/4" Material |                   |                               |  |
|---|--------------------|------------------------------------|----------------------|--|-------------------|-------------------------------|--|
| Tare No.:                                 | 46                 | Tare No.:                          | 14                   |  |                   |                               |  |
| Wt. of Tare & Wet Sample (g):             | 114.37             | Weight of Tare & Wet Sample (g):   | 36.30                |  |                   |                               |  |
| Wt. of Tare & Dry Sample (g):             | 99.98              | Weight of Tare & Dry Sample (g):   | 35.50                |  |                   |                               |  |
| Weight of Tare (g):                       | 7.02               | Weight of Tare (g):                | 8.20                 |  |                   |                               |  |
| Weight of Water (g):                      | 14.39              | Weight of Water (g):               | 0.80                 |  |                   |                               |  |
| Weight of Dry Soil (g):                   | 92.96              | Weight of Dry Soil (g):            | 27.30                |  |                   |                               |  |
| <b>Moisture Content (%):</b>              | <b>15.5</b>        | <b>Moisture Content (%):</b>       | <b>2.9</b>           |  |                   |                               |  |
| Wet Weight of -3/4" Sample (g):           | 1505               | Total Dry Weight of Sample (g):    | 1330.6               |  |                   |                               |  |
| Tare No. (-3/4" Sub-Specimen):            | 1437               | Wet Weight of +3/4" Sample (g):    | 28.10                |  |                   |                               |  |
| Wt. of Tare & Wet -3/4" Sub-Specimen (g): | 1076.00            | Dry Weight of + 3/4" Sample (g):   | 27.30                |  |                   |                               |  |
| Weight of Tare (g):                       | 143.98             | Dry Weight of - 3/4" Sample (g):   | 1303.3               |  |                   |                               |  |
| Sub-Specimen -3/4" Wet Weight (g):        | 932.02             | Dry Weight -3/4" +3/8" Sample (g): | 162.69               |  |                   |                               |  |
| Tare No. (-3/8" Sub-Specimen):            | NA                 | Dry Weight of -3/8" Sample (g):    | 1140.57              |  |                   |                               |  |
| Wt. of Tare & Wet -3/8" Sub-Specimen (g): | NA                 | J - Factor (% Finer than 3/4"):    | 0.9795               |  |                   |                               |  |
| Weight of Tare (g):                       | NA                 | J - Factor (% Finer than 3/8"):    | NA                   |  |                   |                               |  |
| Sub-Specimen -3/8" Wet Weight (g):        | NA                 |                                    |                      |  |                   |                               |  |
| Sieve Size                                | Sieve Opening (mm) | Weight of Soil Retained (g)        | Percent Retained (%) | Accumulated Percent Retained (%)           | Percent Finer (%) | Accumulated Percent Finer (%) |  |
| 12"                                       | 300                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 6"  | 150                | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 3"  | 75                 | 0.00                               | 0.00                 | 0.00                                       | 100.00            | 100.0                         |  |
| 2"  | 50                 | 0.00                               | (*)                  | 0.00                                       | 100.00            | 100.0                         |  |
| 1 1/2"                                    | 37.5               | 0.00                               |                      | 0.00                                       | 100.00            | 100.0                         |  |
| 1"  | 25                 | 0.00                               |                      | 0.00                                       | 100.00            | 100.0                         |  |
| 3/4"                                      | 19                 | 28.10                              |                      | 2.05                                       | 97.95             | 97.9                          |  |
| 1/2"                                      | 12.5               | 68.52                              | (**)                 | 8.49                                       | 91.51             | 89.6                          |  |
| 3/8"                                      | 9.5                | 32.23                              |                      | 3.99                                       | 87.52             | 85.7                          |  |
| #4  | 4.75               | 90.50                              |                      | 11.21                                      | 76.30             | 74.7                          |  |
| #10                                       | 2                  | 61.21                              |                      | 7.58                                       | 68.72             | 67.3                          |  |
| #20                                       | 0.85               | 47.21                              | (**)                 | 5.85                                       | 62.87             | 61.6                          |  |
| #40                                       | 0.425              | 49.48                              |                      | 6.13                                       | 56.74             | 55.6                          |  |
| #60                                       | 0.25               | 55.36                              |                      | 6.86                                       | 49.88             | 48.9                          |  |
| #100                                      | 0.15               | 36.82                              |                      | 4.56                                       | 45.32             | 44.4                          |  |
| #140                                      | 0.106              | 21.62                              |                      | 2.68                                       | 42.64             | 41.8                          |  |
| #200                                      | 0.075              | 19.58                              |                      | 2.43                                       | 40.21             | 39.4                          |  |
| Pan                                       | -                  | 324.56                             |                      | 40.21                                      | 100.00            | -                             |  |

**Notes :** (\*) The + 3/4" sieve analysis is based on the Total Dry Weight of the Sample  
(\*\*) The - 3/4" and - 3/8" sieve analysis is based on the Weight of the Dry Specimen

Tested By TV Date 5/9/18 Checked By KC Date 5/14/18

## ATTERBERG LIMITS

ASTM D 4318-17

Client: ARCADIS  
 Client Reference: NYSEG-Newark Former MGP Site  
 Project No.: 2018-275-001  
 Lab ID: 2018-275-001-006

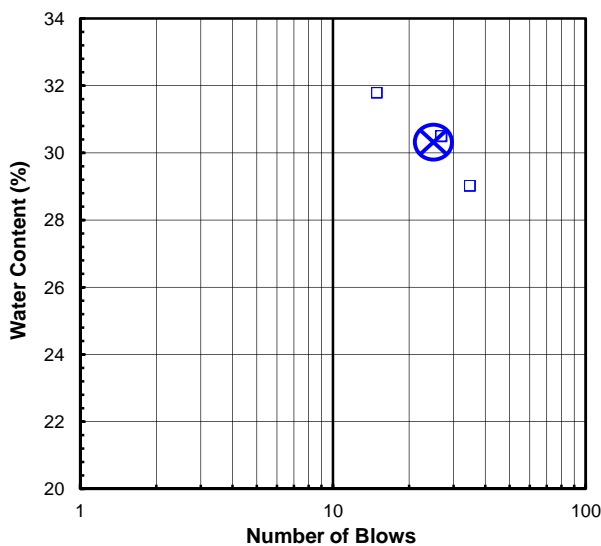
Boring No.: TP-101  
 Depth (ft): 8-10  
 Sample No.: TP-101 (8-10)  
 Soil Description: BROWN LEAN CLAY

**Note: The USCS symbol used with this test refers only to the minus No. 40** (Minus No. 40 sieve material, Air dried)  
**sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description.**

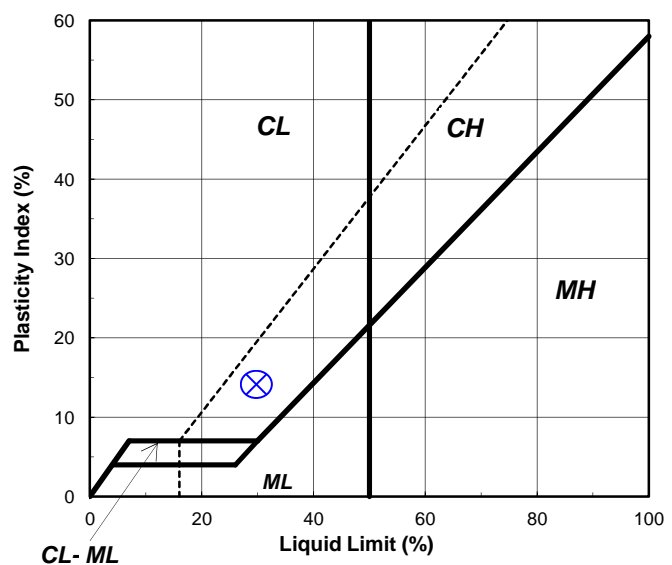
| As Received Moisture Content  |             | Liquid Limit Test |             |             |          |
|-------------------------------|-------------|-------------------|-------------|-------------|----------|
| ASTM D2216-10                 |             | 1                 | 2           | 3           | M        |
| Tare Number:                  | 3243        | 332               | 330         | 328         | U        |
| Wt. of Tare & Wet Sample (g): | 131.61      | 39.90             | 39.52       | 39.54       | L        |
| Wt. of Tare & Dry Sample (g): | 116.31      | 34.97             | 34.83       | 35.01       | T        |
| Weight of Tare (g):           | 8.12        | 19.45             | 19.44       | 19.39       | I        |
| Weight of Water (g):          | 15.3        | 4.9               | 4.7         | 4.5         | P        |
| Weight of Dry Sample (g):     | 108.2       | 15.5              | 15.4        | 15.6        | O        |
| Was As Received MC Preserved: | <b>Yes</b>  |                   |             |             | I        |
| <b>Moisture Content (%):</b>  | <b>14.1</b> | <b>31.8</b>       | <b>30.5</b> | <b>29.0</b> | <b>N</b> |
| <b>Number of Blows:</b>       |             | <b>15</b>         | <b>27</b>   | <b>35</b>   | <b>T</b> |

| Plastic Limit Test   | 1           | 2           | Range       | Test Results                 |           |
|--|-------------|-------------|-------------|------------------------------|-----------|
| Tare Number:   | 338         | 322         |             | <b>Liquid Limit (%):</b>     | <b>30</b> |
| Wt. of Tare & Wet Sample (g):  | 27.04       | 26.87       |             | <b>Plastic Limit (%):</b>    | <b>16</b> |
| Wt. of Tare & Dry Sample (g):  | 26.17       | 26.02       |             | <b>Plasticity Index (%):</b> | <b>14</b> |
| Weight of Tare (g):  | 20.62       | 20.65       |             | <b>USCS Symbol:</b>          | <b>CL</b> |
| Weight of Water (g):   | 0.9         | 0.9         |             |                              |           |
| Weight of Dry Sample (g):  | 5.6         | 5.4         |             |                              |           |
| <b>Moisture Content (%):</b>   | <b>15.7</b> | <b>15.8</b> | <b>-0.2</b> |                              |           |
| <i>Note: The acceptable range of the two Moisture Contents is <math>\pm</math></i> |             |             |             | 1.12                         |           |

**Flow Curve**



**Plasticity Chart**



Tested By RAL Date 5/9/18 Checked By TMP Date 5/10/18



# ATTACHMENT 7

Structural Review Photos



**Existing Building – 125 North Main Street  
NYSEG Newark  
Newark, New York**

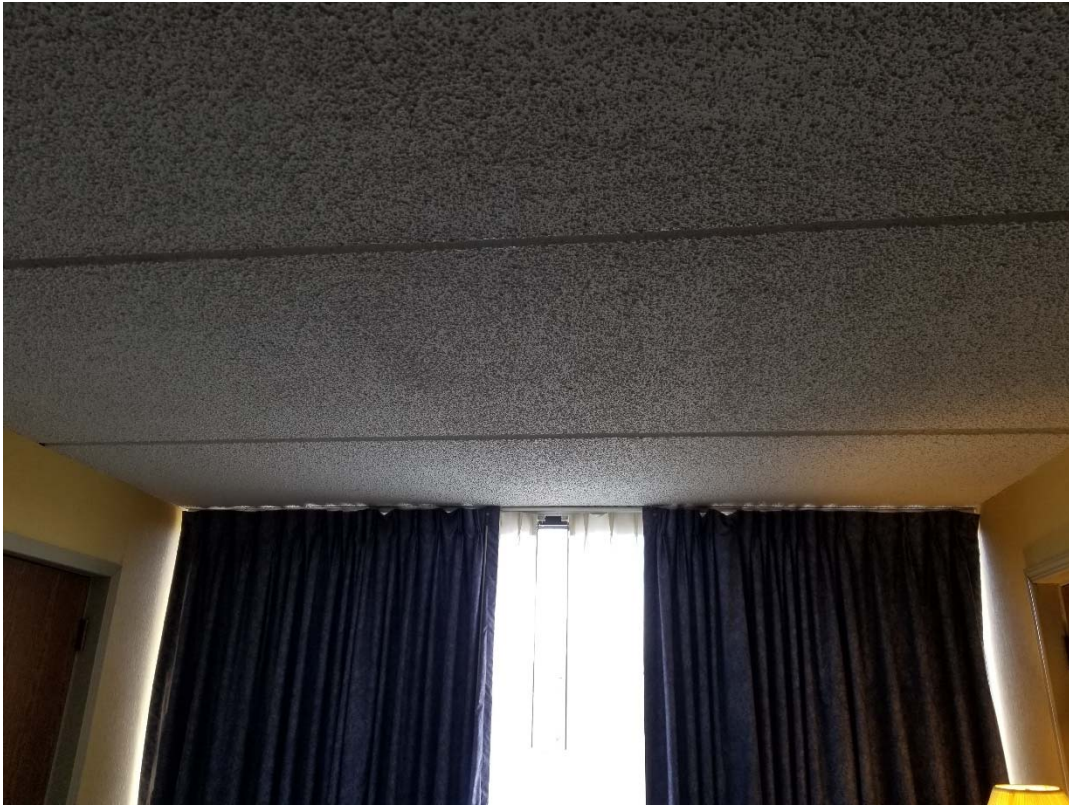


Photograph No. 1 – General view of building façade (north facing).



Photograph No. 2 – General view of hotel room's exterior wall (windows and metal paneling) and interior sidewall (stucco finish).

**Existing Building – 125 North Main Street  
NYSEG Newark  
Newark, New York**



Photograph No. 3 – View of hotel room's ceiling.



Photograph No. 4 – Photo of hotel room ceiling showing crack in joint between panels.

**Existing Building – 125 North Main Street  
NYSEG Newark  
Newark, New York**



Planter area

Concrete curb

Footer and cobbles below footer

Photograph No. 5 – TP-100 (north side of hotel).



Cast in place concrete wall (hotel)

Footer (4" thick)

Photograph No. 6 – TP-100 (north side of hotel).

**Existing Building – 125 North Main Street  
NYSEG Newark  
Newark, New York**



Cast in place concrete wall (hotel )

Mortared concrete/stone footing  
(12" thick)

Photograph No. 7 – TP-101 (west side of hotel).

**Existing Building – 101 West Shore Boulevard  
NYSEG Newark  
Newark, New York**



Photograph No. 1 – General view of building façade (south facing).



Photograph No. 2 – General view of building's western exterior wall.

**Existing Building – 101 West Shore Boulevard  
NYSEG Newark  
Newark, New York**



Photograph No. 3 – Interior view of hair salon.



Photograph No. 4 – Interior view of dry wall company space.

# ATTACHMENT 8

Groundwater Sampling Logs





# GROUNDWATER SAMPLING LOG

Site Former Newark MGP Site

NYSEG Newark, NY

Event: PDI - April 2018  
Treatability Sampling

Sampling Personnel: Jesse Jones

Well ID: MW-11-06

Client / Job Number: NYSEG / B0013094.0006

Date: 4-23-18

Weather: 65°F Sun

Time In: 1445 Time Out: 1600

**Well Information**

Depth to Water: 13.8 (feet TIC)  
 Total Depth: 19.75 (feet TIC)  
 Length of Water Column: 5.93 (feet)  
 Volume of Water in Well: .97 x 3 = 2.89 (gal)  
 Screen Interval: (feet)  
 Depth to pump Intake: N/A (feet TIC)

Well Type: Flushmount Stick-Up  
 Well Material: Stainless Steel PVC  
 Well Locked: Yes No  
 Measuring Point Marked: Yes No  
 Well Diameter: 1" 2" Other:

**Purging Information**

Purging Method: Bailer Peristaltic Grundfos Other:  
 Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:  
 Sampling Method: Bailer Peristaltic Grundfos Other:  
 Duration of Pumping: NA (min)  
 Avg. Pumping Rate: NA (ml/min) Water-Quality Meter Type: NA  
 Total Volume Removed: (gal) Did well go dry: Yes No

| Conversion Factors                            |       |       |       |       |
|---|-------|-------|-------|-------|
| gal / ft. of water                            | 1" ID | 2" ID | 4" ID | 6" ID |
|   | 0.041 | 0.163 | 0.653 | 1.469 |
| 1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet |       |       |       |       |

| Unit Stability |       |        |         |
|----------------|-------|--------|---------|
| pH             | DO    | Cond.  | ORP     |
| ±0.1           | ± 10% | ± 3.0% | ± 10 mV |

| Parameter:           | Initial   | 1 Volume              | 2 Volumes            | 3 Volumes            |
|----------------------|-----------|-----------------------|----------------------|----------------------|
| Volume Purged (gal)  | .2        | 1 Gal                 | 2                    | 3                    |
| Rate (ml/min)        | NA        | NA                    | NA                   | NA                   |
| Depth to Water (ft.) | 13.8      | 14.70                 | 15.40                | 15.90                |
| Notes:               | Brown-Tan | Red-Brown<br>No smell | Grey-Tan<br>No smell | Grey-Red<br>No smell |

**Sampling Information**

| Analyses                           | # Bottles         | Laboratory |
|------------------------------------|-------------------|------------|
| TTO                                | 7                 | SGS        |
| TAL inorganics and CN (filtered)   | 1                 | SGS        |
| TAL inorganics and CN (unfiltered) | 2                 | SGS        |
| Oil & Grease                       | 2                 | SGS        |
| TSS                                | 2                 | SGS        |
| TDS & pH                           | 1                 | SGS        |
| BOD5                               | 1                 | SGS        |
| COD                                | 1                 | SGS        |
| Hardness                           | 1                 | SGS        |
| Sample ID: MW 11-06                | Sample Time: 1530 |            |

**Problems / Observations**

**Initial Purge:**

Brown-Tan color  
No smell

**Final Purge:**

Grey → Red / No smells

# GROUNDWATER SAMPLING LOG

Site Former Newark MGP Site

NYSEG Newark, NY

Event: PDI - April 2018  
Treatability Sampling

Sampling Personnel: Jesse Jones  
Client / Job Number: NYSEG / B0013094.0006  
Weather: Sunny; 70°

Well ID: MW-3A  
Date: 4-23-18  
Time In: 1611 Time Out: 1700

**Well Information**

Depth to Water: 10.95 (feet TIC)  
Total Depth: 20.85 (feet TIC)  
Length of Water Column: 9.9 (feet)  
Volume of Water in Well: 1.61 x 3 (gal) = 4.8  
Screen Interval: (feet)  
Depth to pump Intake: NA (feet TIC)

Well Type: Flushmount Stick-Up  
Well Material: Stainless Steel PVC  
Well Locked: Yes No  
Measuring Point Marked: Yes No  
Well Diameter: 1" 2" Other:

**Purging Information**

Purging Method: Bailer Peristaltic Grundfos Other:  
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:  
Sampling Method: Bailer Peristaltic Grundfos Other:  
Duration of Pumping: NA (min)  
Avg. Pumping Rate: NA (ml/min) Water-Quality Meter Type: NA  
Total Volume Removed: 4.8 (gal) Did well go dry: Yes No

| Conversion Factors                            |       |       |       |       |
|---|-------|-------|-------|-------|
| gal / ft. of water                            | 1" ID | 2" ID | 4" ID | 6" ID |
|   | 0.041 | 0.163 | 0.653 | 1.469 |
| 1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet |       |       |       |       |

| Unit Stability |       |        |         |
|----------------|-------|--------|---------|
| pH             | DO    | Cond.  | ORP     |
| ±0.1           | ± 10% | ± 3.0% | ± 10 mV |

| Parameter:           | Initial | 1 Volume | 2 Volumes | 3 Volumes |
|----------------------|---------|----------|-----------|-----------|
| Volume Purged (gal)  | NA      | 1.6      | 3.2       | 4.8       |
| Rate (mL/min)        | NA      | NA       | NA        | NA        |
| Depth to Water (ft.) | 10.95   | -        | -         | -         |
| Notes:               | -       | -        | -         | -         |

**Sampling Information**

| Analyses                           | # Bottles | Laboratory |
|------------------------------------|-----------|------------|
| TTO                                | 7         | SGS        |
| TAL inorganics and CN (filtered)   | 1         | SGS        |
| TAL inorganics and CN (unfiltered) | 2         | SGS        |
| Oil & Grease                       | 2         | SGS        |
| TSS                                | 2         | SGS        |
| TDS & pH                           | 1         | SGS        |
| BOD5                               | 1         | SGS        |
| COD                                | 1         | SGS        |
| Hardness                           | 1         | SGS        |
| Sample ID: MW-3A @ 1630            |           |            |

**Problems / Observations**

Initial Purge: clear to cloudy yellow

Final Purge: light cloudy orange/yellow

# GROUNDWATER SAMPLING LOG

Site Former Newark MGP Site

NYSEG Newark, NY

Event: PDI - April 2018  
Treatability Sampling

Sampling Personnel: Jesse Jones

Well ID: MW 10-02

Client / Job Number: NYSEG / B0013094.0006

Date: 4-23-18

Weather: 70° Sun

Time In: 4:16:20 Time Out:

**Well Information**

Depth to Water: 14.44 (feet TIC)  
 Total Depth: 20.80 (feet TIC)  
 Length of Water Column: 6.36 (feet)  
 Volume of Water in Well: 1.03 x 3 = 3.11 (gal)  
 Screen Interval: (feet)  
 Depth to pump Intake: NA (feet TIC)

Well Type: Flushmount Stick-Up  
 Well Material: Stainless Steel PVC  
 Well Locked: Yes No  
 Measuring Point Marked: Yes No  
 Well Diameter: 1" 2" Other:

**Purging Information**

Purging Method: Bailer Peristaltic Grundfos Other:  
 Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:  
 Sampling Method: Bailer Peristaltic Grundfos Other:  
 Duration of Pumping: NA (min)  
 Avg. Pumping Rate: NA (ml/min) Water-Quality Meter Type: NA  
 Total Volume Removed: (gal) Did well go dry: Yes No

| Conversion Factors                            |       |       |       |       |
|---|-------|-------|-------|-------|
| gal / ft. of water                            | 1" ID | 2" ID | 4" ID | 6" ID |
|   | 0.041 | 0.163 | 0.653 | 1.469 |
| 1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet |       |       |       |       |

| Unit Stability |       |        |         |
|----------------|-------|--------|---------|
| pH             | DO    | Cond.  | ORP     |
| ±0.1           | ± 10% | ± 3.0% | ± 10 mV |

| Parameter:           | Initial           | 1 Volume          | 2 Volumes         | 3 Volumes         |
|----------------------|-------------------|-------------------|-------------------|-------------------|
| Volume Purged (gal)  | .2                | 1                 | 2.1               | 3.2               |
| Rate (ml/min)        | N/A               | N/A               | N/A               | NA                |
| Depth to Water (ft.) | 14.44             | 14.45             | 14.46             | 14.46             |
| Notes:               | Clear<br>No Smell | Brown<br>No smell | Brown<br>No smell | Brown<br>No Smell |

**Sampling Information**

| Analyses                           | # Bottles | Laboratory |
|------------------------------------|-----------|------------|
| TTO                                | 7         | SGS        |
| TAL inorganics and CN (filtered)   | 1         | SGS        |
| TAL inorganics and CN (unfiltered) | 2         | SGS        |
| Oil & Grease                       | 2         | SGS        |
| TSS                                | 2         | SGS        |
| TDS + pH                           | 1         | SGS        |
| BOD5                               | 1         | SGS        |
| COD                                | 1         | SGS        |
| Hardness                           | 1         | SGS        |
| <del>...</del>                     |           | SGS        |
| Sample ID: MW 10-02 @ 1650         |           |            |

**Problems / Observations**

Initial Purge:

Clear  
No smell

Final Purge:

Dark Brown  
No smell

# ATTACHMENT 9

Fisher Site Survey



LEGEND:

- PROPERTY LINE/LEASE PARCEL LINE
- - - RIGHT-OF-WAY LINE
- - - EASEMENT LINE
- - - BUILDING LINE
- - - FENCE LINE
- - - EDGE OF WATER, STREAM OR DITCH
- - - EDGE OF WOODS OR BRUSH
- S - SANITARY SEWER LINE W/MANHOLE & C.O.
- D - CULVERTS, STORM SEWER LINE W/MH & CATCH BASIN
- W - WATER LINE W/HYDRANT, VALVE & VAULT
- UG E - ELECTRIC LINE W/PULLBOX, METER & MANHOLE
- G - NATURAL GAS LINE W/METER, VALVE & LINE MARKER
- OH, OH E, OT, OC - OVERHEAD WIRES, ELECTRIC, TELEPHONE & CABLE LINE
- UG T - UNDERGROUND TELEPHONE LINE W/MANHOLE
- UG FO - UNDERGROUND FIBER OPTIC LINE W/MANHOLE
- T S Q - SIGNAL ARM/HEAD, SIGNAL POLE, PED POLE & PULL BOX/MH
- TC - TRAFFIC CONTROL LINE
- → ○ - UTILITY POLE, GUY, LIGHT POLE, WALK LIGHT & TOP MOUNT LIGHT
- ▲ - MONITORING WELL
- △ - SOIL BORING (SB)
- ⊕ - TEST PIT (TP)

- ABBREVIATIONS:
- CONC - CONCRETE
  - WV - WATER VALVE
  - GV - GAS VALVE
  - HYD - HYDRANT
  - FND - FOUND
  - RR - RAIL ROAD
  - WD - WOOD
  - BOLS - BOLLARDS
  - FF - FINISHED FLOOR

SURVEY NOTES:

- COORDINATES AND NORTH ORIENTATION SHOWN HEREON ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, TRANSVERSE MERCATOR PROJECTION, NAD 83 (2011) EPOCH 2010.00 USING GPS PROCEDURES AND THE NEW YORK STATE DOT CORS NETWORK.
- ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID 12A) USING GPS PROCEDURES.
- UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM VISIBLE EVIDENCE LOCATED AT THE TIME OF THE FIELD SURVEY AND DESIGNATIONS BY A SUBSURFACE UTILITY MARKING COMPANY. THE LOCATIONS OF ALL UNDERGROUND UTILITIES SHOULD BE STAKED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION.

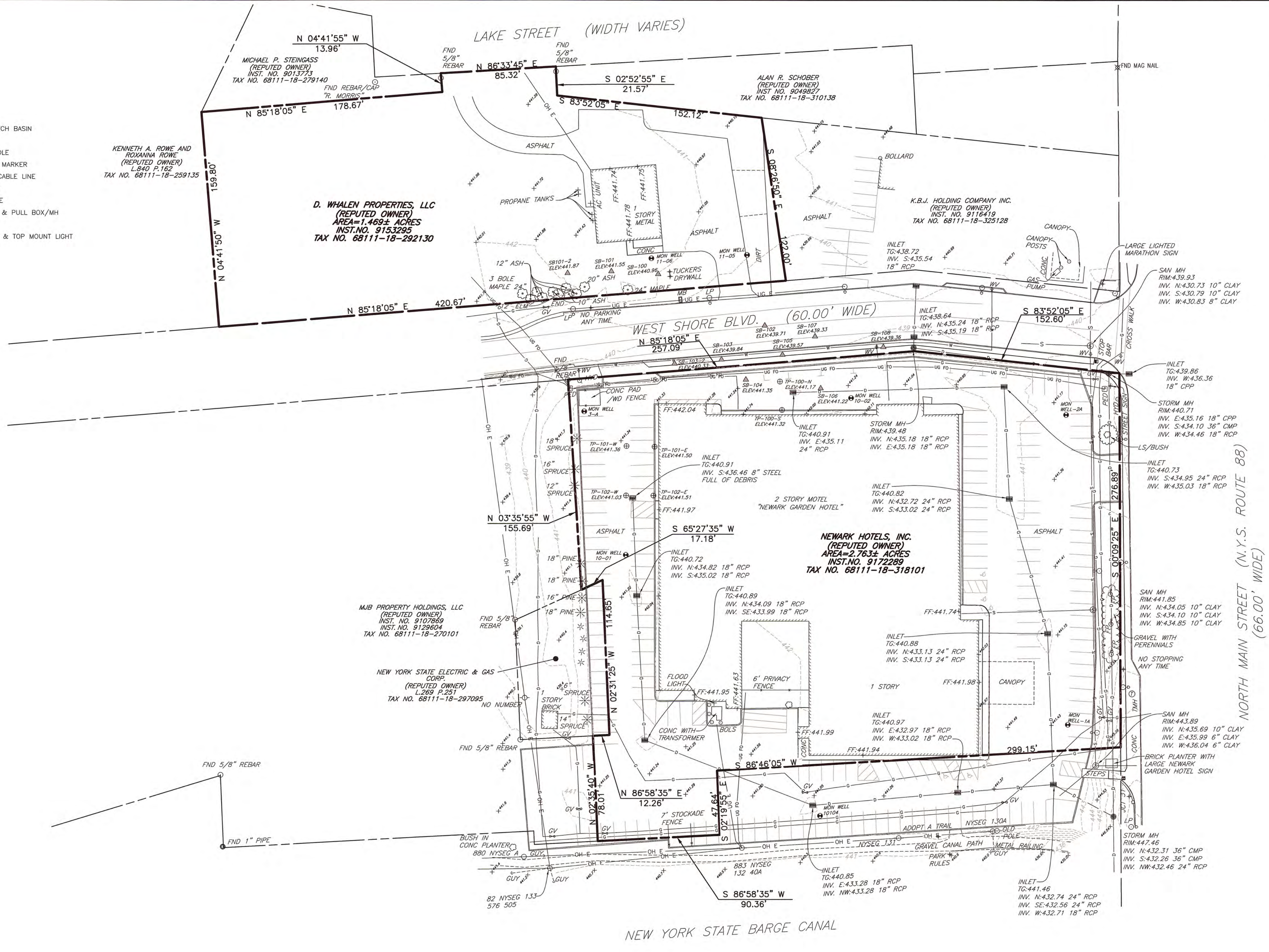
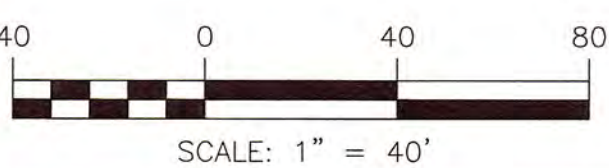
REFERENCES:

- DEEDS LISTED HEREON
- MAP ENTITLED "PLAN OF LAND SHOWING SUPERIOR ONE, INC. IN VILLAGE OF NEWARK, WAYNE COUNTY, NEW YORK," PRODUCED BY MRB GROUP, ENGINEERING, ARCHITECTURE AND SURVEYING, P.C., DATED 5-11-95.
- WAYNE COUNTY REAL PROPERTY MAP #68111-18, WAYNE COUNTY, NEW YORK.
- MAP ENTITLED "PLAN OF LAND OWNED BY NEWARK URBAN RENEWAL AGENCY," PREPARED BY MRB GROUP DATED AUGUST 7, 2000.
- MAP ENTITLED "MAP SHOWING LANDS OF L.D.D. CORPORATION," PREPARED BY CLARK SURVEYORS DATED MARCH 16, 2010.
- MAP ENTITLED "PLAN OF LAND OWNED BY WAYNE DRUG COMPANY, INC.," PREPARED BY MRB GROUP DATED MARCH 19, 1996.
- MAP ENTITLED "MONITORING WELL LOCATION MAP" FOR THE FORMER NYSEG MANUFACTURING GAS PLANT PREPARED BY FISHER ASSOCIATES HAVING PROJECT NO. 102017, DATED 9/21/10 AND REVISED ON 11/3/11.

CERTIFICATION:

WE, FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C., HEREBY CERTIFY THAT THIS MAP WAS PREPARED MAY 15, 2018 FROM THE NOTES OF AN INSTRUMENT SURVEY COMPLETED BY US ON APRIL 24, 2018 USING REFERENCES AND EVIDENCE SHOWN HEREON.

THIS MAP IS SUBJECT TO ANY EASEMENTS OR ENCUMBRANCES THAT AN ABSTRACT OF TITLE MAY SHOW.  
 BY: MARK W. ELTZ, N.Y.S. P.E. NO. 050285 DATE: May 15, 2018



FILE NAME: H:\Projects\172029-00-NYSEG\_Newark\_MGF\_Sur\CAD\_Newark\_MGF.dwg  
 DATE/TIME: 5/15/2018 8:44:56 AM  
 USER: Mike Miller



|   |          |      |    |
|---|----------|------|----|
| 7 | REVISION | DATE | BY |
| 6 |          |      |    |
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| 4 |          |      |    |
| 3 |          |      |    |
| 2 |          |      |    |
| 1 |          |      |    |

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FA PROJECT NO. 172029  
 PROJECT MANAGER: M. ELTZ  
 DRAWN BY: M. MILLER  
 SCALE: 1"=40'  
 ISSUE DATE: 5/15/18

STATE OF NEW YORK  
 MARK W. ELTZ  
 050285  
 LICENSED LAND SURVEYOR

FISHER ASSOCIATES  
 WWW.FISHERASSOC.COM

PROJECT: REMEDIATION OF THE FORMER NYSEG MGP SITE  
 SITE NO. 8-69-021  
 VILLAGE OF NEWARK, COUNTY OF WAYNE  
 STATE OF NEW YORK

TITLE OF DRAWING: TOPOGRAPHIC AND BOUNDARY SURVEY

DRAWING NO. FA-1  
 SHEET 1 OF 1

# ATTACHMENT 10

Clean Harbors Disposal Documents



Site Address: 125 North Main Street  
Newark, NY 14513

SC PPW 10/10/2017

WORK ORDER # ~~1802002187-006~~

DOCUMENT NO. 1179752

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 4353  
 EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000  
 TRANSPORTER 2 \_\_\_\_\_ VEHICLE ID # \_\_\_\_\_  
 EPA ID # \_\_\_\_\_ TRANS. 2 PHONE \_\_\_\_\_

| DESIGNATED FACILITY<br>Casella Waste Systems - Ontario County Landfill  |      |              | SHIPPER ATTN: Debbie Dunlap<br>New York State Electric & Gas |                    |             |
|---|------|--------------|--|--------------------|-------------|
| FACILITY EPA ID #<br>NYR0000926543  |      |              | SHIPPER EPA ID #<br>CESQG                                    |                    |             |
| ADDRESS<br>1879 State Routes 5 & 20   |      |              | ADDRESS<br>PO Box 5224                                       |                    |             |
| CITY<br>Stanley   |      | STATE<br>NY  | ZIP<br>14561   | CITY<br>Binghamton |             |
| STATE<br>NY   |      | ZIP<br>13902 |  |                    |             |
| CONTAINERS NO. & SIZE   | TYPE | HM           | DESCRIPTION OF MATERIALS                                     | TOTAL QUANTITY     | UNIT WT/VOL |
| 1-25 yrd  | CM   |              | ANON DOT REGULATED MATERIAL, (TPH SOIL)                      | EST<br>13          | T           |
|   |      |              | B.   |                    |             |
|   |      |              | C.   |                    |             |
|   |      |              | D.   |                    |             |
|   |      |              | E.   |                    |             |
|   |      |              | F.   |                    |             |
|   |      |              | G.   |                    |             |
|   |      |              | H.   |                    |             |
| SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 408-8718 GENERATOR: New York State Electric & Gas<br>A.2277G Roll off # CART 27182 Casella PO # W18A970838 |      |              |  |                    |             |

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

|               |   |                               |                 |
|---------------|---|-------------------------------|-----------------|
| SHIPPER       | PRINT<br>Anthony Napoli agent for NYSEG | SIGN<br><i>Anthony Napoli</i> | DATE<br>5-17-18 |
| TRANSPORTER 1 | PRINT<br>GERARD GRAVEN                  | SIGN<br><i>Gerard Graven</i>  | DATE<br>5-17-18 |
| TRANSPORTER 2 | PRINT                                   | SIGN                          | DATE            |
| RECEIVED BY   | PRINT<br><i>Lisa</i>                    | SIGN<br><i>[Signature]</i>    | DATE<br>5-17-18 |

3

Site Address: 125 North Main Street  
Newark, NY 14513

SC PPW 10/10/2017

WORK ORDER NO. ~~SY 1802002167-006~~

DOCUMENT NO. 1170754

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 4353  
 EPA ID # MAD039322250 TRANS. 1 PHONE (761) 792-5000  
 TRANSPORTER 2 \_\_\_\_\_ VEHICLE ID # \_\_\_\_\_  
 EPA ID # \_\_\_\_\_ TRANS. 2 PHONE \_\_\_\_\_

| DESIGNATED FACILITY<br>Casella Waste Systems - Ontario County Landfill  |      |              | SHIPPER ATTN:Debbie Dunlap<br>New York State Electric & Gas |                    |             |
|---|------|--------------|---|--------------------|-------------|
| FACILITY EPA ID #<br>NYR0000926543  |      |              | SHIPPER EPA ID #<br>CESQG                                   |                    |             |
| ADDRESS<br>1879 State Routes 5 & 20   |      |              | ADDRESS<br>PO Box 5224                                      |                    |             |
| CITY<br>Stanley   |      | STATE<br>NY  | ZIP<br>14561  | CITY<br>Binghamton |             |
| STATE<br>NY   |      | ZIP<br>13902 |   |                    |             |
| CONTAINERS NO. & SIZE   | TYPE | HM           | DESCRIPTION OF MATERIALS                                    | TOTAL QUANTITY     | UNIT WT/VOL |
| 1-25 yrd  | CM   |              | ANON DOT REGULATED MATERIAL, (TPH SOIL)                     | EST<br>15          | T           |
|   |      |              | B.  |                    |             |
|   |      |              | C.  |                    |             |
|   |      |              | D.  |                    |             |
|   |      |              | E.  |                    |             |
|   |      |              | F.  |                    |             |
|   |      |              | G.  |                    |             |
|   |      |              | H.  |                    |             |
| SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 488-8718 GENERATOR: New York State Electric & Gas<br>A.2277G Roll off # CHRT 25473 Casella PO # W180976886 |      |              |   |                    |             |

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

|               |   |                               |                 |
|---------------|---|-------------------------------|-----------------|
| SHIPPER       | PRINT<br>Anthony Napoli agent for NYSEG | SIGN<br><i>Anthony Napoli</i> | DATE<br>5-18-18 |
| TRANSPORTER 1 | PRINT<br>GERARD GRANEN                  | SIGN<br><i>Gerard Granen</i>  | DATE<br>5-18-18 |
| TRANSPORTER 2 | PRINT                                   | SIGN                          | DATE            |
| RECEIVED BY   | PRINT<br><i>[Signature]</i>             | SIGN<br><i>[Signature]</i>    | DATE<br>5/18/18 |

3



Site Address: 125 North Main Street  
Newark, NY 14513

SCPPW 10/10/2017

WORK ORDER ~~191802002187-006~~

DOCUMENT NO. 1179755

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc VEHICLE ID # 4353  
 EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000  
 TRANSPORTER 2 \_\_\_\_\_ VEHICLE ID # \_\_\_\_\_  
 EPA ID # \_\_\_\_\_ TRANS. 2 PHONE \_\_\_\_\_

| DESIGNATED FACILITY<br>Casella Waste Systems - Ontario County Landfill |      |             | SHIPPER<br>ATTN: Debbie Dunlap<br>New York State Electric & Gas |                    |                |
|--|------|-------------|---|--------------------|----------------|
| FACILITY EPA ID #<br>NYR0000926543                                     |      |             | SHIPPER EPA ID #<br>CESQG                                       |                    |                |
| ADDRESS<br>1879 State Routes 5 & 20                                    |      |             | ADDRESS<br>PO Box 5224  |                    |                |
| CITY<br>Stanley  |      | STATE<br>NY | ZIP<br>14561  | CITY<br>Binghamton |                |
|  |      | STATE<br>NY | ZIP<br>13902  |                    |                |
| CONTAINERS<br>NO. & SIZE   | TYPE | HM          | DESCRIPTION OF MATERIALS  | TOTAL<br>QUANTITY  | UNIT<br>WT/VOL |
| 1-25yrd  | CM   |             | A. NON DOT REGULATED MATERIAL, (TPH SOIL)                       | EST<br>15          | T              |
|  |      |             | B.  |                    |                |
|  |      |             | C.  |                    |                |
|  |      |             | D.  |                    |                |
|  |      |             | E.  |                    |                |
|  |      |             | F.  |                    |                |
|  |      |             | G.  |                    |                |
|  |      |             | H.  |                    |                |
| SPECIAL HANDLING INSTRUCTIONS A.2277G                                  |      |             |   |                    |                |
| EMERGENCY PHONE #: (800) 488-3718                                      |      |             | GENERATOR: New York State Electric & Gas                        |                    |                |
| Roll off # CHAT 25015 Casella PO # W180970887                          |      |             |   |                    |                |

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

|               |   |                               |                 |
|---------------|---|-------------------------------|-----------------|
| SHIPPER       | PRINT<br>Anthony Napoli agent for NYSEG | SIGN<br><i>Anthony Napoli</i> | DATE<br>5-18-18 |
| TRANSPORTER 1 | PRINT<br>SERAFIN CRAVEN                 | SIGN<br><i>Serafin Craven</i> | DATE<br>5-18-18 |
| TRANSPORTER 2 | PRINT                                   | SIGN                          | DATE            |
| RECEIVED BY   | PRINT<br>Lisa Co.                       | SIGN<br><i>Lisa Co.</i>       | DATE<br>5/18/18 |

3



NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems  
1879 NYS Route 5&20  
Stanley, NY 14561

BOL #

1179752

Ticket: 795111  
Date: 5/18/2018  
Time: 07:44:28 - 08:30:28

Customer: LE-00512/CLEAN HARBORS /209  
Carrier: CLE/CLEAN HARBORS  
Truck: 4353  
Truck Type: RO/ROLL OFF  
Profile: 2277/NYSELEC & GAS  
Generator: NYSEG/NYSEG - BREWSTER SERV  
Grid: PH9C/PH9C-1  
P.O.: W180970838

Comment: W180970838-1179752-2277

Gross: 74600 L In Scale 1  
Tare: 37600 L Out Scale 2  
Net: 37000 L  
Tons: 18.50

Materials & Services

-----  
Origin: CD/CORTLAND  
Material: IN/INDUSTRIAL WASTE  
Quantity: 18.50 Ton  
-----

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT  
deposit any PROHIBITED WASTES

\*\*\*\*\*  
\*\*\*\*\*



BOL #

1179754

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems  
1879 NYS Route 5&20  
Stanley, NY 14561

Ticket: 795235  
Date: 5/18/2018  
Time: 14:13:29 - 15:02:29

Customer: LE-00512/CLEAN HARBORS /209  
Carrier: CLE/CLEAN HARBORS  
Truck: 4353  
Truck Type: RO/ROLL OFF  
Profile: 2277/NYSELEC & GAS  
Generator: NYSEG/NYSEG - BREWSTER SERV  
Grid: PH9C/PH9C-1  
P.O.: W180970886

Comment: W180970886-2277-1179754

Gross: 70060 L In Scale 1  
Tare: 36880 L Out Scale 2  
Net: 33180 L  
Tons: 16.59

Materials & Services

-----  
Origin: CD/CORTLAND  
Material: IN/INDUSTRIAL WASTE  
Quantity: 16.59 Ton  
-----

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT  
deposit any PROHIBITED WASTES



NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems  
1879 NYS Route 5&20  
Stanley, NY 14561

BOH #  
1179755

Ticket: 795153  
Date: 5/18/2018  
Time: 09:54:14 - 10:26:34

Customer: LE-00512/CLEAN HARBORS /209  
Carrier: CLE/CLEAN HARBORS  
Truck: 4353  
Truck Type: RO/ROLL OFF  
Profile: 2277/NYSELEC & GAS  
Generator: NYSEG/NYSEG - BREWSTER SERV  
Grid: PH9C/PH9C-1  
P.O.: W180970887

Comment: W180970887-2277-1179755

Gross: 78440 L In Scale 1  
Tare: 37120 L Out Scale 2  
Net: 41320 L  
Tons: 20.66

Materials & Services

-----  
Origin: CD/CORTLAND  
Material: IN/INDUSTRIAL WASTE  
Quantity: 20.66 Ton  
-----

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT  
deposit any PROHIBITED WASTES

\*\*\*\*\*  
5

Site Address : 125 North Main Street  
Newark, NY 14513

SC PPW 7/12/2018

WORK ORDER NO. ~~SY 1802650482-001~~

DOCUMENT NO.                      STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID #                     

EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000

TRANSPORTER 2                      VEHICLE ID #                     

EPA ID #                      TRANS. 2 PHONE                     

| DESIGNATED FACILITY<br><b>Clean Harbors Environmental Services, Inc.</b> |           |                     | SHIPPER <b>ATTN: Debbie Dunlap</b><br><b>New York State Electric &amp; Gas</b>               |                           |   |
|--|-----------|---------------------|--|---------------------------|---|
| FACILITY EPA ID #<br><b>OHD000724153</b>                                 |           |                     | SHIPPER EPA ID #<br><b>CESQG</b>   |                           |   |
| ADDRESS<br><b>2900 Rockefeller Avenue</b>                                |           |                     | ADDRESS<br><b>PO Box 5224</b>  |                           |   |
| CITY<br><b>Cleveland</b>   |           | STATE<br><b>OH</b>  | ZIP<br><b>44115</b>  | CITY<br><b>Binghamton</b> |   |
| STATE<br><b>NY</b>   |           | ZIP<br><b>13902</b> |  |                           |   |
| CONTAINERS NO. & SIZE  | TYPE      | HM                  | DESCRIPTION OF MATERIALS   | TOTAL QUANTITY            | UNIT WT/VOL   |
| <b>2-55</b>  | <b>DM</b> |                     | <b>NON DOT REGULATED MATERIAL, (DECON WATER - SOLIDS SEDIMENT, SBT, SOIL FROM MGP SITES)</b> | <b>650</b>                | <b>P</b>  |
|  |           |                     | B.   |                           |   |
|  |           |                     | C.   |                           |   |
|  |           |                     | D.   |                           |   |
|  |           |                     | E.   |                           |   |
|  |           |                     | F.   |                           |   |
|  |           |                     | G.   |                           |   |
|  |           |                     | H.   |                           |   |
| SPECIAL HANDLING INSTRUCTIONS <b>A.CH122205 1X55, 1X85 overpack</b>      |           |                     | EMERGENCY PHONE #: <b>(800) 489-8718</b>   |                           | GENERATOR: <b>New York State Electric &amp; Gas</b> |

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

|               |  |                               |                        |
|---------------|--|-------------------------------|------------------------|
| SHIPPER       | PRINT<br><i>Anthony Napoli agent for NYSEG</i> | SIGN<br><i>Anthony Napoli</i> | DATE<br><i>7/24/18</i> |
| TRANSPORTER 1 | PRINT<br><i>Dustin Desluis</i>                 | SIGN<br><i>[Signature]</i>    | DATE<br><i>7/24/18</i> |
| TRANSPORTER 2 | PRINT  | SIGN                          | DATE                   |
| RECEIVED BY   | PRINT  | SIGN                          | DATE                   |

1